# 2001

PENNSYLVANIA CRASH FACTS & STATISTICS

GOVERNOR

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SECRETARY OF TRANSPORTATION

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Introduction

The *2001 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**. Under *Find by Organization*, click on the *Bureau of Highway Safety* link, page down and click on *recent version*.

This publication is a statistical review of reportable motor vehicle crashes in the Commonwealth of Pennsylvania for calendar year 2001. 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

In 2001 Pennsylvania began using a new crash form and reporting system. Some data fields have changed, been combined, and others eliminated. There are no dramatic changes to this book, but you may notice some subtle changes. Our analysts have worked very hard at making this transition as smooth as possible and we appreciate their hard work along with the many police officers who have provided us with accurate crash information. Without these quality people, 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 is the data you want.

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 have been added 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.

About the Cover

The picture on the front cover shows a speed-related, rollover crash involving a passenger car striking a utility pole. The driver of the passenger car passed numerous cars before losing control on a slight curve, rolling over the vehicle, and hitting a utility pole. The driver, the sole occupant of the passenger car, was pronounced dead at the scene (he was wearing his seat belt).

In 2001, 256 people were killed in speed-related crashes, up 32% from 2000. Rollover crashes for passenger cars increased 5% while rollover fatalities of passenger cars decreased 17% from 2000. For more information on speed-related fatalities in crashes, hit utility pole (roadside objects) crashes, or passenger car rollover crashes/fatalities, see pages 8, 15, and 53 respectively.

Table of Contents

Definitions

Crash: A reportable crash is one in which an injury or a fatality occurs or if at least one of the vehicles involved required 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 to the vehicle required 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: Single vehicle designed for carrying a load of property on or in the vehicle. Includes: pickup truck, sport utility vehicle, van (excluding moving horse), 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.

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 120,000 miles* of roads and highways; 34% (40,798 miles*) are state highways maintained by the Pennsylvania Department of Transportation (PENNDOT), and the remaining 66% (80,051 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 2001, there were 131,292 reportable traffic crashes in Pennsylvania. These crashes claimed the lives of 1,532 people and injured another 117,860 people. To add some perspective, the 2001 total reportable traffic crashes is the lowest in ten years.

Last year, there were approximately 103.5 billion vehicle-miles* of travel on Pennsylvania's roads and highways. The 2001 fatality rate of 1.48 deaths per hundred million vehicle-miles of travel* was the lowest ever recorded in Pennsylvania (tied with 1998 and 2000).

2001 Briefs

On Average in Pennsylvania:
- Each day 360 reportable traffic crashes occurred (about 15 crashes every hour).
- Each day 4 persons were killed in reportable traffic crashes (one death every 6 hours).
- Each day 323 persons were injured in reportable crashes (about 13 injuries every hour).

Based on Pennsylvania's 2001 population (12,287,150 people):
- 1 out of every 37 people was involved in a reportable traffic crash.
- 1 out of every 8,020 people was killed in a reportable traffic crash.
- 1 out of every 104 people was injured in a reportable traffic crash.

* 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, 2000 information was used.

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 2001, most were not injured, and the vast majority who were injured suffered only minor injuries.

Total Crashes

Fatal Crashes (1,378)

PDO Crashes (51,391)

Injury Crashes (78,523)

All Crashes

Total People

Killed (1,532)

Injured (117,860)

No Injury (208,529)

Total People--Injured

Unknown (12,733)

Major (5,039)

Moderate (23,292)

Minor (76,796)
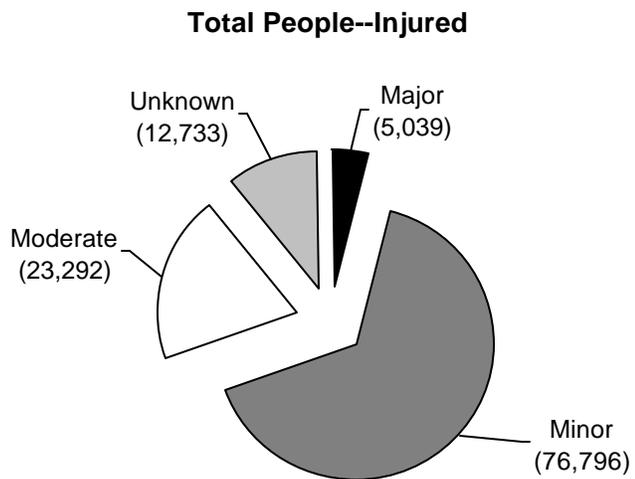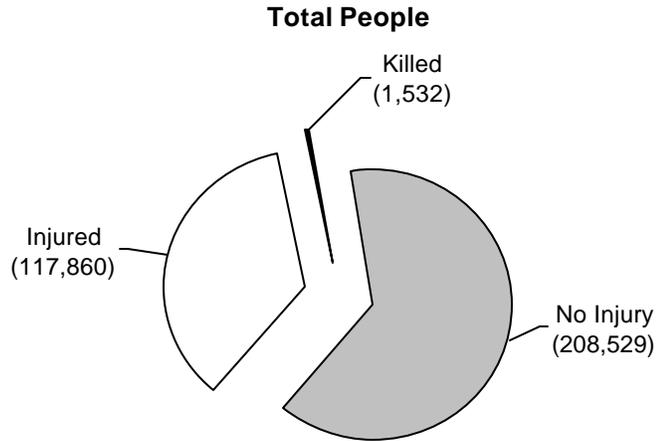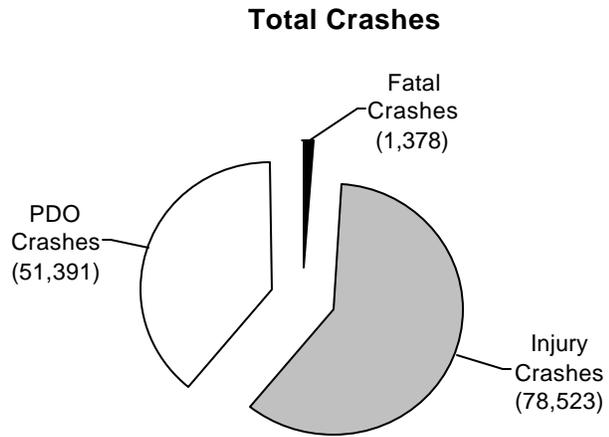
Deaths and Injuries—Five-Year Trends

Total reported crashes in 2001 decreased 10.8% compared to 2000; deaths increased by 0.8% while total injuries decreased by 10.4%. Alcohol-related deaths increased by 3.7%.

	1997	1998	1999	2000	2001
Reported Crashes	143,981	140,972	144,171	147,253	131,292
Total Deaths	1,562	1,486	1,549	1,520	1,532
Total Injuries	138,820	134,092	133,783	131,471	117,860
Major Injury	*5,373*	*5,081*	*5,162*	*5,136*	*5,039*
Moderate Injury	*18,837*	*25,139*	*25,337*	*24,785*	*23,292*
Minor Injury	*93,806*	*83,100*	*82,944*	*82,968*	*76,796*
Unknown Injury	*20,804*	*20,772*	*20,340*	*18,582*	*12,733*
Pedestrian Deaths	175	166	187	172	195
Pedestrian Injuries	6,021	5,895	5,855	5,531	5,190
Motorcyclist Deaths	92	111	111	150	127
Motorcyclist Injuries	2,478	2,626	2,676	2,763	2,896
Bicyclist Deaths	17	23	18	15	13
Bicyclist Injuries	2,525	2,768	2,385	2,342	1,799
Heavy-Truck-Related Deaths	203	192	234	182	179
Alcohol-Related Deaths	514	535	528	510	529
Speed-Related Deaths	251	197	202	194	256
Billions of Vehicle-Miles*	98.3	100.4	100.4	102.5	103.5
Deaths per 100 Million Vehicle-Miles*	1.59	1.48	1.54	1.48	1.48

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

* 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).

Economic Loss Due to Reportable Traffic Crashes

Severity	Number	Average Cost	Estimated Total Costs
Deaths (persons)	1,532	$2,984,280	$4,571,916,960
Major Injuries (persons)	5,039	$1,093,535	$5,510,322,865
Moderate Injuries (persons)	23,292	$73,142	$1,703,623,464
Minor Injuries (persons)	76,796	$5,739	$440,732,244
Property Damage Only (crashes)	51,391	$2,296	$117,993,736
Unknown Injuries (persons)	12,733	$5,739	$73,074,687
		TOTAL	**$12,417,663,956**

In 2001, the economic loss due to traffic crashes was
$1,011
to every man, woman, and child in Pennsylvania.

Figures are based on the latest PENNDOT estimates (in 2001 dollars). The economic loss per Pennsylvania citizen is based on the ratio of estimated total cost to the estimated total population of Pennsylvania.

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.

Hit Fixed Object — Crashes 33.1%, Deaths 40.1%
Angle — Crashes 28.7%, Deaths 18.2%
Rear End — Crashes 20.7%, Deaths 4.8%
Sideswipe — Crashes 4.3%, Deaths 3.5%
Hit Pedestrian — Crashes 3.7%, Deaths 12.1%
Head On — Crashes 3.8%, Deaths 16.6%
All Others — Crashes 5.8%, Deaths 4.8%
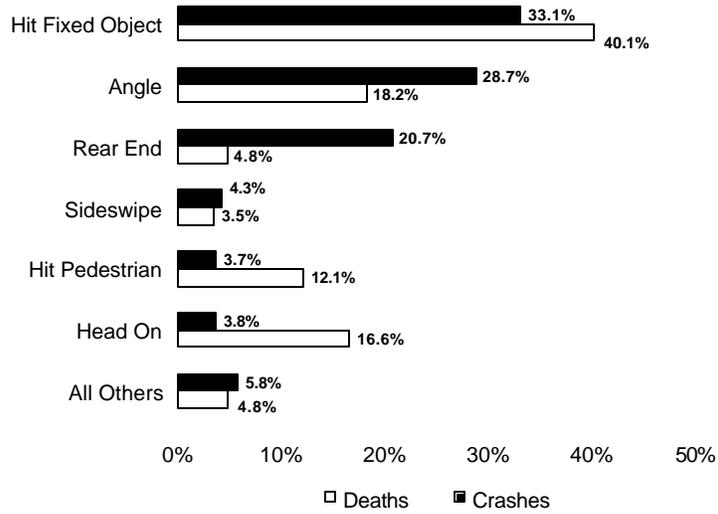
☐ Deaths   ■ Crashes

Crash Type	Crashes	Deaths
Angle	37,729	279
Backing Up	359	0
Head On	4,928	254
Hit Fixed Object	43,487	614
Hit Pedestrian	4,807	185
Non-Collision	4,169	66
Rear End	27,122	73
Sideswipe	5,617	53
Other	3,074	8
TOTAL	**131,292**	**1,532**

*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, they accounted for the vast majority of crashes and occupant deaths.

Passenger Car — Vehicles 71.3%, Deaths 65.3%
Light Truck — Vehicles 21.9%, Deaths 20.9%
All Others — Vehicles 6.8%, Deaths 13.8%
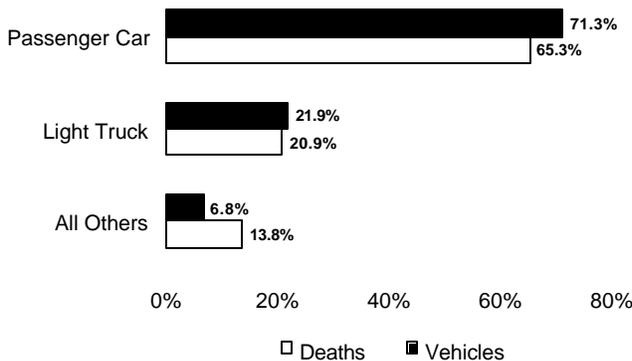
☐ Deaths   ■ Vehicles

	Vehicles	Occupant Deaths
Passenger Car	157,470	873
Light Truck	48,346	280
Heavy Truck	7,052	26
Motorcycle	3,039	127
Bicycle	1,796	13
Commercial Bus	689	0
School Bus	432	0
Other	2,074	18

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 16-20 are involved in more crashes than drivers in any other age group (male or female).

Driver	Male	Female	Total Drivers
Under 16	1,019 (0.8%)	265 (0.3%)	**1,284**
16-20	22,442 (16.9%)	13,622 (16.3%)	**36,064**
21-25	17,464 (13.2%)	10,873 (13.1%)	**28,337**
26-30	12,979 (9.8%)	8,343 (10.0%)	**21,322**
31-35	12,549 (9.5%)	8,100 (9.7%)	**20,649**
36-40	12,765 (9.6%)	8,566 (10.3%)	**21,331**
41-45	11,897 (9.0%)	8,005 (9.6%)	**19,902**
46-50	9,886 (7.5%)	6,364 (7.6%)	**16,250**
51-55	7,859 (5.9%)	5,162 (6.2%)	**13,021**
56-60	5,713 (4.3%)	3,513 (4.2%)	**9,226**
61-65	4,036 (3.0%)	2,402 (2.9%)	**6,438**
66-70	3,185 (2.4%)	1,938 (2.3%)	**5,123**
71-75	2,947 (2.2%)	1,971 (2.4%)	**4,918**
Over 75	4,783 (3.6%)	3,079 (3.7%)	**7,862**
Unknown	3,151 (2.4%)	1,142 (1.4%)	**4,293**
DRIVERS	**132,675 (100.0%)**	**83,345 (100.0%)**	**216,020**
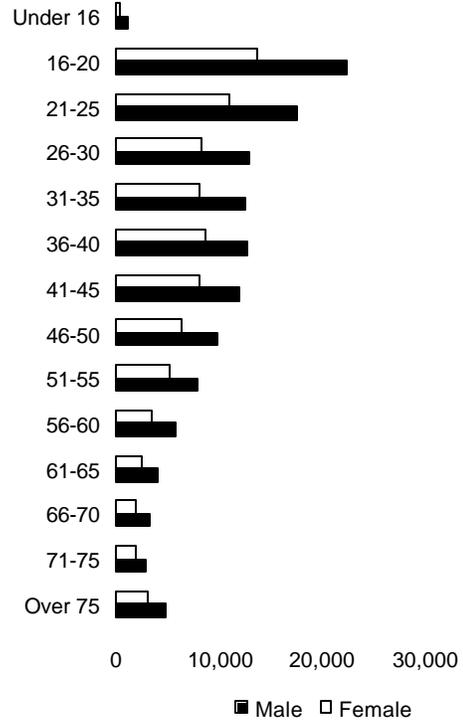
Note: Does not include 4,142 drivers of unknown sex.

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. The chart below shows periodic fatality rates since 1960.
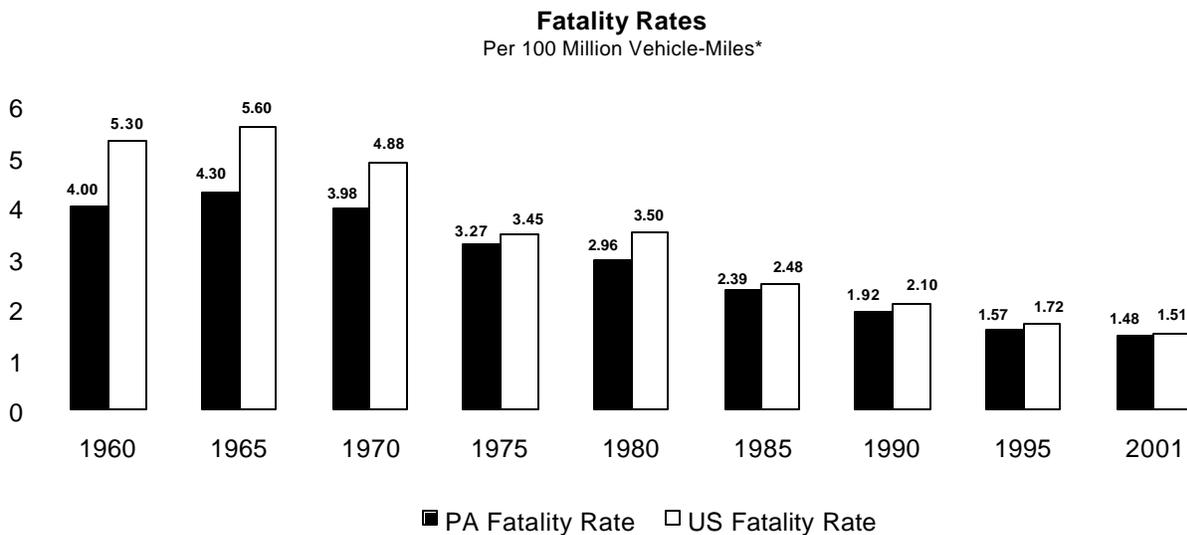
Fatality Rates
Per 100 Million Vehicle-Miles*

Year	PA Fatality Rate	US Fatality Rate
1960	4.00	5.30
1965	4.30	5.60
1970	3.98	4.88
1975	3.27	3.45
1980	2.96	3.50
1985	2.39	2.48
1990	1.92	2.10
1995	1.57	1.72
2001	1.48	1.51

■ PA Fatality Rate   □ US Fatality Rate

*   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).

Year	Total Crashes	Total Killed	Total Injured	Registered Vehicles	Motor Vehicle Mileage*	PA Fatality Rate**	US Fatality Rate**
1931	46,588	2,503	40,800	1,826,736	-	-	-
1932	41,004	2,131	41,836	1,750,664	-	-	-
1933	45,374	2,279	47,908	1,716,104	-	-	-
1934	52,157	2,535	51,847	1,791,870	-	-	-
1935	50,436	2,361	48,398	1,851,945	11.1	21.30	15.90
1936	55,727	2,426	50,854	1,989,507	12.6	19.20	15.10
1937	73,534	2,564	61,445	2,124,525	17.6	14.60	14.70
1938	93,153	1,892	50,598	2,101,299	16.3	11.60	12.00
1939	69,950	1,871	55,821	2,237,960	18.5	10.10	11.30
1940	78,625	2,074	58,664	2,307,723	19.8	10.50	11.40
1941	83,507	2,298	60,499	2,432,319	21.3	10.80	12.00
1942	59,280	1,745	41,122	2,267,301	17.6	9.90	10.60
1943	37,419	1,374	27,312	2,084,332	13.9	9.90	11.50
1944	42,699	1,328	29,928	2,010,163	14.4	9.20	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	161,080	1,698	84,755	4,250,576	37.7	4.50	5.80
1958	156,825	1,654	86,733	4,355,813	38.5	4.30	5.40
1959	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	301,374	2,299	127,318	6,079,000	60.9	3.78	4.57
1972†	277,556	2,352	135,938	6,244,000	67.0	3.51	4.43
1973	307,648	2,444	145,452	7,007,192	66.5	3.67	4.24
1974	277,271	2,155	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	139,914	1,752	134,714	7,724,686	74.1	2.36	2.68
1985	143,244	1,809	140,067	7,860,497	75.6	2.39	2.48
1986	150,683	1,928	148,044	7,793,921	77.2	2.50	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	142,867	1,470	136,949	9,411,261	96.4	1.53	1.69
1997	143,981	1,562	138,820	9,692,499	98.3	1.59	1.64
1998	140,972	1,486	134,092	9,842,427	100.4	1.48	1.58
1999+	144,171	1,549	133,783	9,901,148	100.4	1.54	1.55
2000	147,253	1,520	131,471	10,085,392	102.5	1.48	1.53
2001	131,358	1,532	117,915	10,629,896	103.5	1.48	1.51

* In billions

** Per 100 million vehicle-miles

† From 1972 to 1978, reportable crashes defined as over $200 in damage

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

+ 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 affect vehic le handling and driver sight. Interestingly, the vast majority of crashes occur under no adverse conditions. This can be attributable 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	105,304 (80.2%)	1,309 (85.4%)
Rain/Rain & Fog	15,376 (11.7%)	130 (8.5%)
Snow/Sleet/Freezing Rain	8,480 (6.5%)	52 (3.4%)
Fog/Smoke, Etc.	1,158 (0.9%)	28 (1.8%)
Other	974 (0.7%)	13 (0.9%)
TOTAL	**131,292 (100.0%)**	**1,532 (100.0%)**

Road Surface Condition	Crashes	Deaths
Dry	96,580 (73.6%)	1,245 (81.3%)
Wet	23,029 (17.5%)	207 (13.5%)
Snow	6,123 (4.7%)	39 (2.6%)
Ice/Ice Patches	3,597 (2.7%)	27 (1.8%)
Other	1,963 (1.5%)	14 (0.9%)
TOTAL	**131,292 (100.0%)**	**1,532 (100.0%)**

Crashes Involving Vehicle Defects

Improperly- maintained vehicles can lead to crashes. In 2001, tire/wheel, engine and brake-related failures contributed to the majority of vehicle defect related crashes. The percentages in the graph below refer to the number of crashes involving vehicle defects.

Tire/Wheel-Related	31.7%
Engine Failure	27.0%
Brake-Related	25.3%
All Other Defects	16.0%
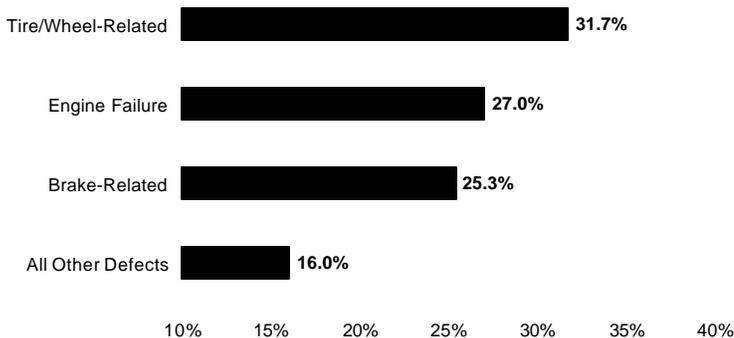
Vehicle Defect	Crashes
Tire/Wheel-Related	771
Engine Failure	657
Brake-Related	617
Total Steering System Failure	221
Suspension	62
Vehicle Lighting-Related	44
Dirty/Frosty Windshield	38
Exhaust System Failure	21
Defective Wipers	4

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, and drivers do not always anticipate these changes and exercise the appropriate level of caution. Almost sixty percent of work zone crashes in 2001 contained injuries.
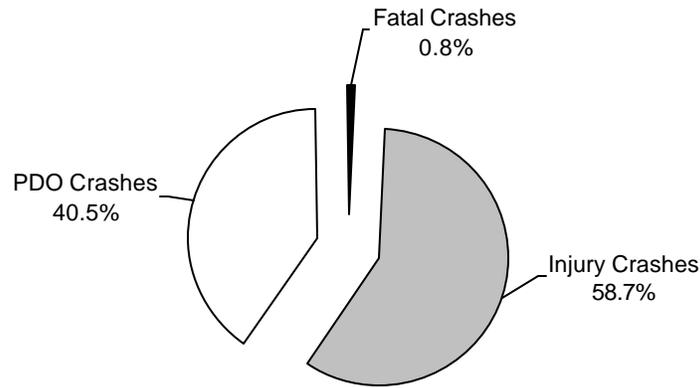
Total Crashes: **1,984**

Total Killed: **20** (Workers Killed: **9**)

Total Injured: **1,717** (Workers Injured: **44)**

Work Zone Crashes—Vehicles Involved

Vehicle Type	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road
Passenger Car	393 (56.8%)	1,555 (68.1%)	130 (52.6%)	244 (70.5%)
Light Truck	132 (19.1%)	532 (23.3%)	37 (15.0%)	54 (15.6%)
Heavy Truck/Bus	158 (22.8%)	144 (6.3%)	80 (32.4%)	18 (5.2%)
Motorcycle	3 (0.4%)	27 (1.2%)	0 (0.0%)	6 (1.7%)
Other	6 (0.9%)	24 (1.1%)	0 (0.0%)	24 (6.9%)
TOTAL	**692 (100.0%)**	**2,282 (100.0%)**	**247 (100.0%)**	**346 (100.0%)**

Note: State highway (other) includes state-maintained roads that are not designated as interstates.

Work Zone Crashes by Road Type—Five-Year Trends

Year	Road Type	Crashes		Deaths	
		Number	*% Total*	*Number*	*% Total*
1997	State Hwy (Interstate)	387	20.1%	3	18.8%
	State Hwy (Other)	1,096	56.8%	11	68.8%
	Turnpike	68	3.5%	0	0.0%
	Local Road	270	14.0%	2	12.5%
	Ramp	109	5.6%	0	0.0%
	TOTAL	**1,930**	**100.0%**	**16**	**100.0%**
1998	State Hwy (Interstate)	313	15.5%	4	21.1%
	State Hwy (Other)	1,312	65.1%	14	73.7%
	Turnpike	58	2.9%	0	0.0%
	Local Road	249	12.4%	0	0.0%
	Ramp	84	4.2%	1	5.3%
	TOTAL	**2,016**	**100.0%**	**19**	**100.0%**
1999	State Hwy (Interstate)	243	11.1%	6	22.2%
	State Hwy (Other)	1,441	66.0%	16	59.3%
	Turnpike	142	6.5%	5	18.5%
	Local Road	248	11.4%	0	0.0%
	Ramp	110	5.0%	0	0.0%
	TOTAL	**2,184**	**100.0%**	**27**	**100.0%**
2000	State Hwy (Interstate)	215	10.8%	3	13.0%
	State Hwy (Other)	1,282	64.5%	19	82.6%
	Turnpike	179	9.0%	0	0.0%
	Local Road	220	11.1%	1	4.4%
	Ramp	92	4.6%	0	0.0%
	TOTAL	**1,988**	**100.0%**	**23**	**100.0%**
2001	State Hwy (Interstate)	350	17.6%	3	15.0%
	State Hwy (Other)	1,172	59.1%	16	80.0%
	Turnpike	143	7.2%	0	0.0%
	Local Road	206	10.4%	1	5.0%
	Ramp	113	5.7%	0	0.0%
	TOTAL	**1,984**	**100.0%**	**20**	**100.0%**

All Crashes

Note: State highway (other) includes state-maintained roads that are not designated as interstates.

Crashes with Roadside Objects and Animals

Unfortunately, roadside objects are 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 whether or not they were the first object struck.

Roadside Object	Crashes	% Total	Deaths	% Total
Hit Bridge	849	0.7%	20	1.3%
Hit Building	1,567	1.2%	42	2.7%
Hit Culvert	820	0.6%	22	1.4%
Hit Curb	4,299	3.3%	69	4.5%
Hit Ditch	2,828	2.2%	31	2.0%
Hit Embankment	9,139	7.0%	200	13.1%
Hit Fence/Wall	3,264	2.5%	63	4.1%
Hit Fire Hydrant	447	0.3%	3	0.2%
Hit Guiderail	6,102	4.7%	137	8.9%
Hit Impact Attenuator	64	0.1%	6	0.4%
Hit Mailbox(es)	1,519	1.2%	30	2.0%
Hit Median Barrier	3,096	2.4%	25	1.6%
Hit Other Fixed Object	2,520	1.9%	36	2.4%
Hit Parked Vehicle	6,065	4.6%	59	3.9%
Hit Rock(s)/Obstacle on Roadway	1,192	0.9%	22	1.4%
Hit Signal/Sign Support	2,907	2.2%	69	4.5%
Hit Snow Bank	236	0.2%	2	0.1%
Hit Temporary Construction Barrier	95	0.1%	8	0.5%
Hit Traffic Island or Channelization	333	0.3%	11	0.7%
Hit Tree(s)/Shrub(s)/Hedge(s)	10,625	8.1%	316	20.6%
Hit Utility Pole(s)	9,418	7.2%	181	11.8%
Hit Deer	2,533	1.9%	9	0.6%
Hit Other Animal	198	0.2%	1	0.1%

Note: "% Total" lists the percentage compared to *all* crashes or deaths, not only the ones listed in this table.

—*WHERE THEY HAPPENED*—

Crashes by Road Type

	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road	Ramp
Crashes	6,631	81,381	2,120	39,126	2,015
Person Killed	114	1,083	18	304	13
Persons Injured	5,235	75,368	1,437	34,136	1,671
Miles of Maintained Road	1,289	38,646	505	79,546	863
100 MVM* Traveled	175.9	623.0	55.7	180.9	---
Crashes/MVM*	0.38	1.31	0.38	2.16	---
Persons Killed/100 MVM*	0.65	1.74	0.32	1.68	---
Persons Injured/MVM*	0.30	1.21	0.26	1.89	---

* 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 2000 Highway Performance Monitoring System (HPMS) package and reflects 2000 length and travel activity data. Ramp miles are not included in any category or total.

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 15 deaths have occurred in this type of crash.
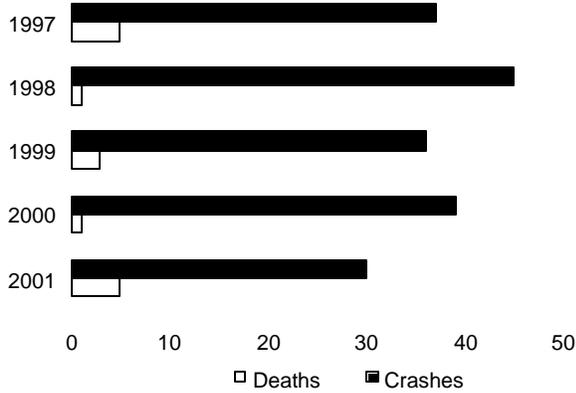
Year	Crashes	Deaths
1997	37	5
1998	45	1
1999	36	3
2000	39	1
2001	30	5

All Crashes

□ Deaths   ■ Crashes

Train/Vehicle Crashes by Vehicle Type

Light trucks and passenger cars were the predominant vehicles type involved in crashes with trains in 2001.
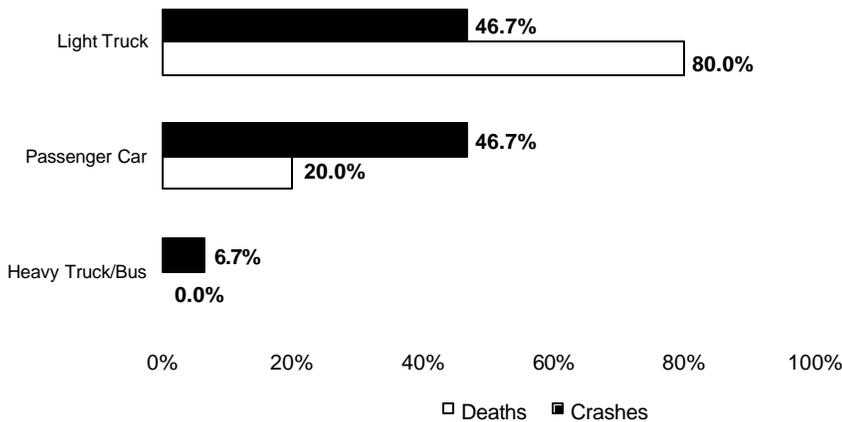
Vehicle Type	Crashes	Deaths
Light Truck	14	4
Passenger Car	14	1
Heavy Truck	2	0
Bicycle	0	0
Commercial Bus	0	0
Motorcycle	0	0
School Bus	0	0
Unknown	0	0
TOTAL	**30**	**5**

□ Deaths   ■ Crashes

Train/Vehicle Crashes by Road Type

Road Type	Crashes	Deaths
Local Road	18	3
State Hwy (Other)	12	2
TOTAL	**30**	**5**

All Crashes

Train/Vehicle Crashes by Light Level

Daylight **76.7%** **80.0%**

Dark (No Street Lights) **16.7%** **0.0%**

Dark (Street Lights) **6.7%** **20.0%**

Dawn **0.0%** **0.0%**

Dusk **0.0%** **0.0%**

0% 20% 40% 60% 80% 100%
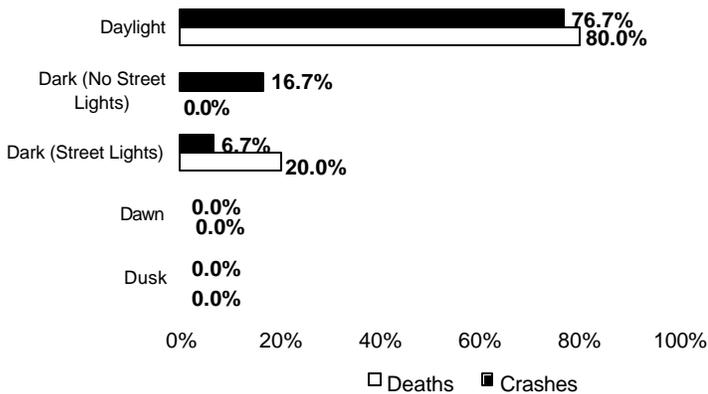
□ Deaths ■ Crashes

Light Level	Crashes	Deaths
Daylight	23	4
Dark (No Street Lights)	5	0
Dark (Street Lights)	2	1
Dawn	0	0
Dusk	0	0
TOTAL	**30**	**5**

Train/Vehicle Crashes by County

County	Crashes	Deaths
Allegheny	1	0
Butler	1	0
Cambria	1	0
Centre	2	0
Cumberland	1	0
Erie	4	1
Fayette	1	0
Franklin	1	0
Lancaster	1	0
Lawrence	1	1
Lebanon	2	0
Luzerne	1	2
Lycoming	2	0
Mckean	1	0
Mercer	1	0

County	Crashes	Deaths
Mifflin	1	0
Northampton	1	0
Northumberland	1	0
Schuylkill	1	0
Somerset	2	1
Venango	1	0
Westmoreland	1	0
York	1	0
TOTAL	**30**	**5**

—*WHEN THEY HAPPENED*—

Crashes by Month
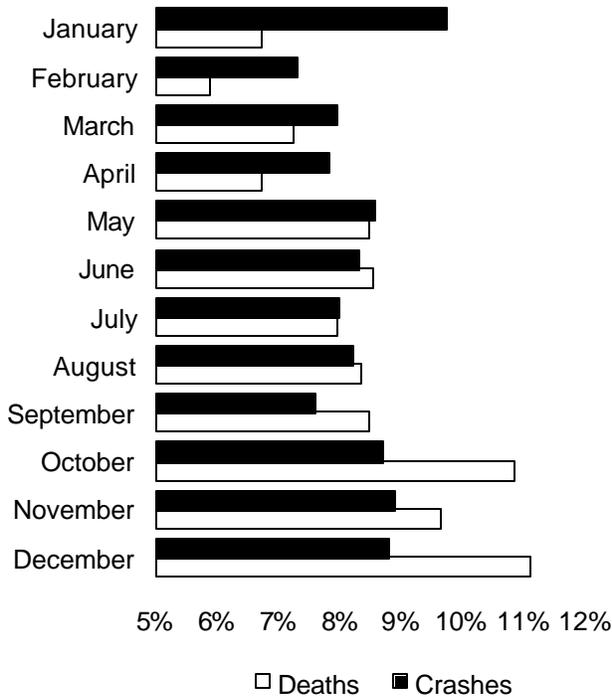
Month	Crashes	Deaths
January	12,799 (9.8%)	103 (6.7%)
February	9,598 (7.3%)	90 (5.9%)
March	10,434 (8.0%)	111 (7.3%)
April	10,292 (7.8%)	103 (6.7%)
May	11,261 (8.6%)	130 (8.5%)
June	10,904 (8.3%)	131 (8.6%)
July	10,496 (8.0%)	122 (8.0%)
August	10,811 (8.2%)	128 (8.4%)
September	10,007 (7.6%)	130 (8.5%)
October	11,427 (8.7%)	166 (10.8%)
November	11,683 (8.9%)	148 (9.7%)
December	11,580 (8.8%)	170 (11.1%)
TOTAL	**131,292 (100.0%)**	**1,532 (100.0%)**

All Crashes

☐ Deaths   ■ Crashes

Crashes by Day of Week

More crashes and deaths tend to occur on Friday and Saturdays. The number of deaths on weekends (Saturday and Sunday) is proportionally greater than the number of crashes, which could be attributed to alcohol use. (See *Victims of Fatal Crashes by Day of Week*, page 29).
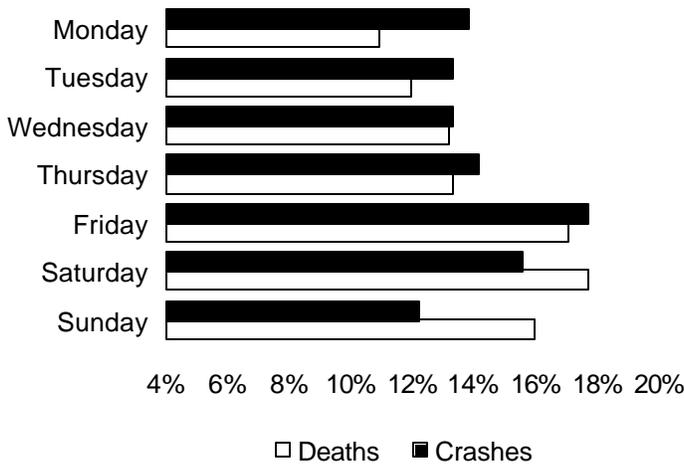
Day	Crashes	Deaths
Monday	18,153 (13.8%)	167 (10.9%)
Tuesday	17,463 (13.3%)	183 (12.0%)
Wednesday	17,441 (13.3%)	202 (13.2%)
Thursday	18,585 (14.2%)	204 (13.3%)
Friday	23,191 (17.7%)	261 (17.0%)
Saturday	20,405 (15.5%)	271 (17.7%)
Sunday	16,054 (12.2%)	244 (15.9%)
TOTAL	**131,292 (100.0%)**	**1,532 (100.0%)**

☐ Deaths   ■ Crashes

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 time. Some hours of the day experience a low percentage of crashes, but they are much more deadly. For example, only 2.8% of all crashes in 2001 occurred in the 2:00 AM hour, but 5.5% of all deaths—the third highest percentage—occurred then. The higher the volume of traffic itself is a factor during peak traffic hours, particularly the rush-hours.

All Crashes
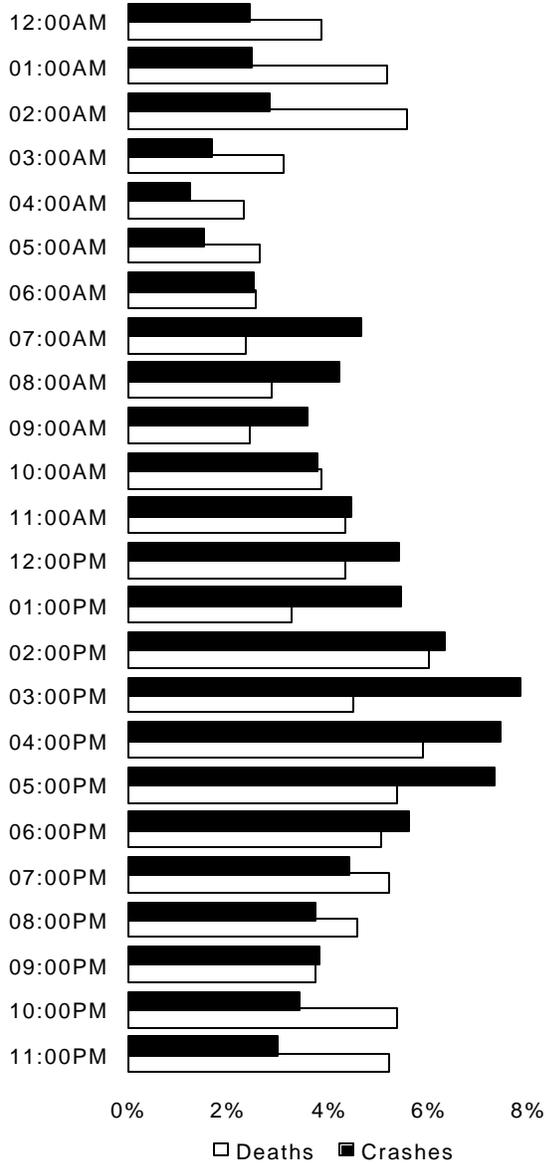
Hour	Crashes	Deaths
12:00AM	3,193	59
01:00AM	3,243	79
02:00AM	3,686	85
03:00AM	2,206	47
04:00AM	1,593	35
05:00AM	1,993	40
06:00AM	3,277	39
07:00AM	6,083	36
08:00AM	5,538	44
09:00AM	4,696	37
10:00AM	4,924	59
11:00AM	5,858	66
12:00PM	7,114	66
01:00PM	7,140	50
02:00PM	8,279	92
03:00PM	10,302	69
04:00PM	9,777	90
05:00PM	9,582	82
06:00PM	7,383	77
07:00PM	5,795	80
08:00PM	4,897	70
09:00PM	5,004	57
10:00PM	4,494	82
11:00PM	3,905	80

□ Deaths ■ Crashes

Crashes by Light Level

In 2001, 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 2001 occurred slightly more often during non-daylight hours (dark and dusk/dawn conditions). If 2001 deaths per 1000 crashes are compared (Daylight—8.8 deaths per 1000 crashes versus Non-Daylight—16.6 deaths per 1000 crashes), it is apparent that non-daylight crashes resulted in deaths more often than daylight crashes.

Crashes

Unknown 0.6%
Dawn 1.5%
Dusk 2.1%
Dark (Street Lights) 16.1%
Dark (No Street Lights) 16.2%
Daylight 63.5%

Deaths

Dawn 2.2%
Unknown 0.5%
Dusk 3.6%
Dark (No Street Lights) 30.2%
Daylight 48.0%
Dark (No Street Lights) 29.0%
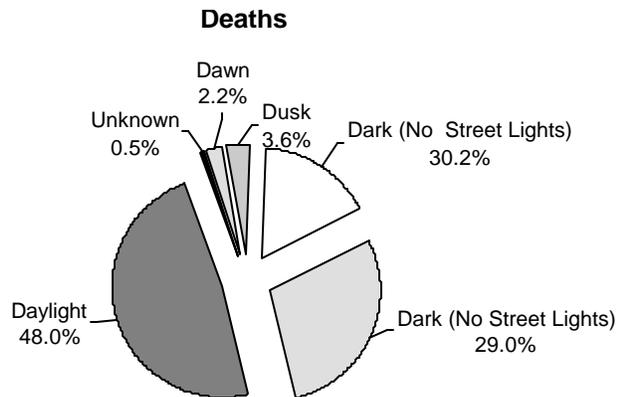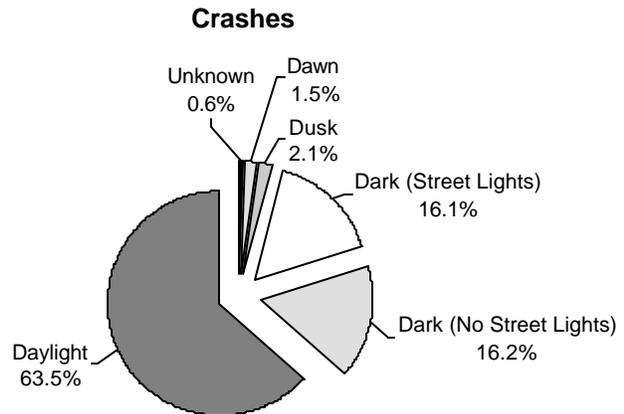
All Crashes

Light Level	Crashes	Deaths
Daylight	83,305	736
Dark (No Street Lights)	21,272	444
Dark (Street Lights)	21,167	255
Dusk	2,782	55
Dawn	1,940	34
Unknown	826	8
TOTAL	**131,292**	**1,532**

Crashes by Holiday

With few exceptions, most crashes occurred in the weekends directly before or after a holiday. Most deaths, however, averaged about the same before, during, and after the holiday. 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 2001.

All Crashes

Crashes

Post-Thanksgiving	11.3%
Thanksgiving	10.5%
Pre-Thanksgiving	9.0%
Pre-Memorial Day	8.4%
Post New Years	8.3%
New Years	7.5%
Memorial Day	7.1%
Post Memorial Day	6.9%
Pre-Labor Day	6.7%
Post-Labor Day	6.5%
Labor Day	6.1%
Pre-Christmas **	2.8%
Post-Independence Day **	2.7%
Pre-Independence Day **	2.5%
Independence Day **	2.3%
Christmas **	1.6%

0%   5%   10%   15%
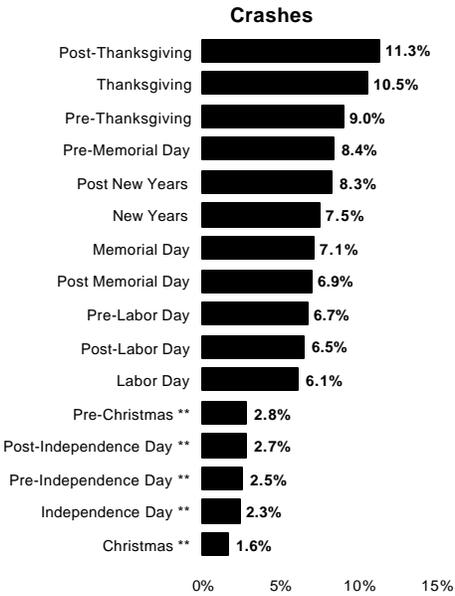
Period*	Crashes	Deaths
New Years	1,225	9
Post New Years	1,357	11
Pre-Memorial Day	1,381	17
Memorial Day	1,163	15
Post Memorial Day	1,138	12
Pre-Independence Day **	409	3
Independence Day **	379	6
Post-Independence Day **	450	7
Pre-Labor Day	1,096	20
Labor Day	1,000	13
Post-Labor Day	1,070	15
Pre-Thanksgiving	1,472	19
Thanksgiving	1,731	21
Post-Thanksgiving	1,856	24
Pre-Christmas **	453	1
Christmas **	269	4
TOTAL	**16,449**	**197**
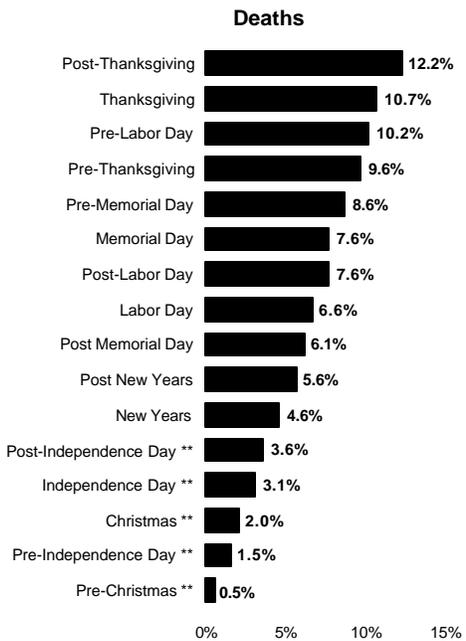
Deaths

Post-Thanksgiving	12.2%
Thanksgiving	10.7%
Pre-Labor Day	10.2%
Pre-Thanksgiving	9.6%
Pre-Memorial Day	8.6%
Memorial Day	7.6%
Post-Labor Day	7.6%
Labor Day	6.6%
Post Memorial Day	6.1%
Post New Years	5.6%
New Years	4.6%
Post-Independence Day **	3.6%
Independence Day **	3.1%
Christmas **	2.0%
Pre-Independence Day **	1.5%
Pre-Christmas **	0.5%

0%   5%   10%   15%

*   See *Holidays* under **Definitions** for explanation of pre- and post-holiday weekends.

** Not part of a holiday weekend in 2001.

Drivers

Drivers Overview

Every traffic crash involves 3 elements: the driver, highway, 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.).

Drivers

Crashes Involving Driver Error

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

Note that in 2001, only primary contributing factors in the crash are considered.

Contributing Factor	Crashes	Fatal Crashes
Drinking Driver	6,368	230
Speed-Related	20,597	224
Proceeded Without Clearance	8,764	59
Improper Turning-Related	11,773	50
Drowsy Drivers	1,879	20
Tailgating	7,549	17
Careless/illegal Passing	272	7
Distracted Driver	6,447	7

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.

Number of Vehicles	All Drivers	Young Drivers (16-21)	Mature Drivers (65-74)	Mature Drivers (75+)
Single Vehicle Crash	41.1% 53,922 crashes	36.8% 14,552 crashes	15.7% 1,560 crashes	15.9% 1,351 crashes
Multiple Vehicle Crash	58.9% 77,351 crashes	63.2% 24,991 crashes	84.3% 8,372 crashes	84.2% 7,175 crashes

Drivers

Drivers in Crashes by Age Group

Looking at the 2001 Pennsylvania driver data, as driver age groups increase in age, the percentage of Pennsylvania total drivers involved in crashes within each age group decreases 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 requires a mandatory six month waiting period between obtaining a Learner's Permit and testing for licensure.

Age Group	PA Drivers Involved in Crashes	*PA Total Drivers	% Involved in Crashes
16	3,648	77,681	4.7%
17	7,975	96,971	8.2%
18	7,869	118,761	6.6%
19	7,227	131,755	5.5%
20	6,673	131,367	5.1%
21	6,116	131,810	4.6%
22-24	14,811	388,053	3.8%
25-29	19,023	619,258	3.1%
30-39	37,755	1,571,051	2.4%
40-54	46,366	2,585,116	1.8%
55-59	8,788	617,828	1.4%
60-64	6,216	482,393	1.3%
65-69	4,876	409,087	1.2%
70-74	4,660	391,115	1.2%
75 and Over	8,399	628,195	1.3%
Unknown	1,333	N/A	N/A

* PA Total Licensed Drivers has been changed to reflect PA Total Drivers in 2001. PA Total Drivers includes total PA Licensed Drivers and PA Drivers who have their Learner's Permit only (no driver's license).

Comparison of Young and Mature Drivers by Crash Type

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

Crash Type	All Drivers	Young Drivers (16-21)	Mature Drivers (65-74)	Mature Drivers (75+)
Non-Collision	3.2%	2.3%	1.3%	0.8%
	4,169 crashes	896 crashes	133 crashes	71 crashes
Rear-End	20.7%	22.2%	27.6%	23.7%
	27,122 crashes	8,768 crashes	2,741 crashes	2,021 crashes
Head-On	3.8%	4.3%	4.8%	4.1%
	4,928 crashes	1,686 crashes	473 crashes	345 crashes
Backing Up	0.3%	0.2%	0.4%	0.3%
	359 crashes	70 crashes	41 crashes	28 crashes
Angle	28.7%	31.6%	45.4%	50.8%
	37,728 crashes	12,476 crashes	4,507 crashes	4,329 crashes
Sideswipe	4.3%	3.9%	4.6%	4.2%
	5,617 crashes	1,539 crashes	458 crashes	358 crashes
Hit Fixed Object	33.1%	33.2%	12.3%	13.3%
	43,469 crashes	13,107 crashes	1,221 crashes	1,131 crashes
Hit Pedestrian	3.7%	1.4%	2.4%	2.1%
	4,807 crashes	542 crashes	237 crashes	182 crashes
Other	2.3%	1.2%	1.2%	0.7%
	3,074 crashes	459 crashes	121 crashes	61 crashes

Drivers

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	41.3%	41.6%	54.6%	58.2%
	54,167 crashes	16,448 crashes	5,422 crashes	4,958 crashes
Non-Intersection	58.7%	58.4%	45.4%	41.9%
	77,106 crashes	23,095 crashes	4,510 crashes	3,568 crashes

Alcohol-Related Crashes

Alcohol Overview

- In Pennsylvania, drinking and driving remains a top safety issue. In 2001, alcohol-related crashes, 13,840, decreased from 14,564 alcohol-related crashes in 2000 while alcohol-related deaths, 529, increased from 510 alcohol-related deaths in 2000.

- Of particular concern is the involvement of drinking drivers under the age of 21. 37% of the driver deaths in the 16-20 age group were drinking drivers, up from 30% last year. On a more positive note, however, underage drinking drivers in 2001 decreased 3% from 2000.

- Of equal focus is the 21 to 30 age group, in which over 43% of the driver deaths were drinking drivers. The 21 to 25 age group increased from 46% in 2000 to 50% in 2001, but the 26 to 30 age group decreased from 45% in 2000 to 43% in 2001.

- In 2001, alcohol-related deaths were 35% of the total traffic deaths, up just 1% from 2000.

- 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).

2001 Briefs

- 529 people died in alcohol-related crashes.

- 90% of the alcohol-related occupant deaths (drivers and passengers) were in the vehicle driven by the drinking driver; 67% were the drinking drivers themselves.

- 81% of the drinking drivers in traffic crashes were male.

- 78% of the alcohol-related crashes were during the hours of darkness, usually on weekends.

- On average each day, 38 alcohol-related traffic crashes occurred.

- On average each day, 1.4 persons were killed in alcohol-related traffic crashes.

- On average each day, 35 persons were injured in alcohol-related traffic crashes.

Alcohol Involvement in Crashes

Although alcohol-related crashes accounted for approximately 11% of the total crashes in 2001, they resulted in 35% of all persons killed in crashes. Alcohol-related crashes were about 4 times more likely to result in death than those not related to alcohol (3.4% of the alcohol-related crashes resulted in death, compared to 0.77% 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	PDO Crashes
Alcohol-Related	469 (34.0%)	529 (34.5%)	8,523 (10.9%)	12,694 (10.8%)	4,848 (9.4%)
Non-Alcohol-Related	909 (66.0%)	1,003 (65.5%)	70,000 (89.2%)	105,166 (89.2%)	46,543 (90.6%)
TOTAL	**1,378 (100.0%)**	**1,532 (100.0%)**	**78,523 (100.0%)**	**117,860 (100.0%)**	**51,391 (100.0%)**

Alcohol-Related Crashes—Five-Year Trends

Alcohol-related crashes decreased in 2001, while alcohol-related deaths increased. "PDO Crashes" in the table below refers to property damage only crashes.

Alcohol-Related Crashes

Year	
1997	
1998	
1999	
2000	
2001	

10,000 11,000 12,000 13,000 14,000 15,000

Alcohol-Related Deaths

Year	
1997	
1998	
1999	
2000	
2001	

400   450   500   550
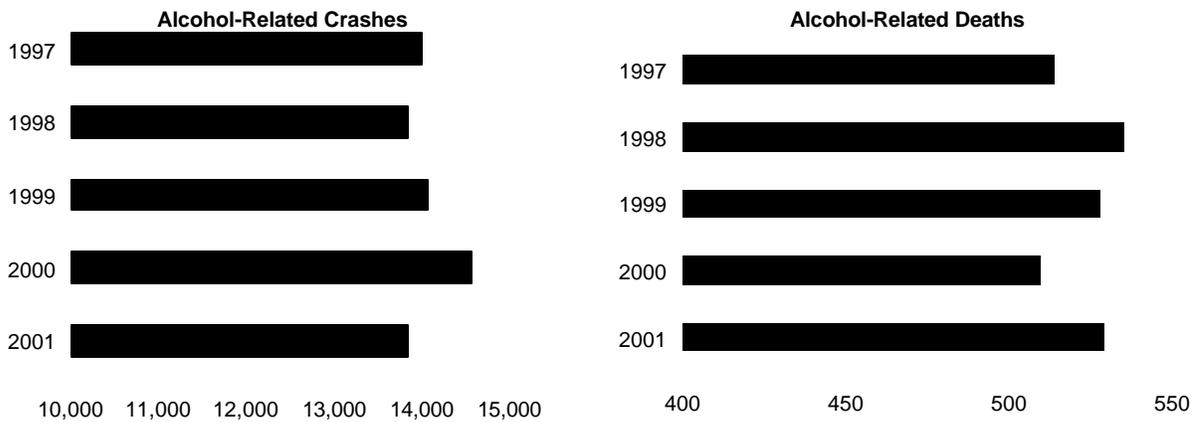
	1997	1998	1999	2000	2001
Crashes	13,996	13,835	14,079	14,564	13,840
Fatal Crashes	460	486	473	470	469
Injury Crashes	9,083	8,853	9,020	9,078	8,523
PDO Crashes	4,453	4,496	4,586	5,016	4,848
Deaths	514	535	528	510	529
Injuries	13,868	13,156	13,438	13,454	12,694
Fatal Crashes per 100,000 Licensed Drivers	5.7	5.5	5.6	5.7	5.6
Deaths per 100,000 Licensed Drivers	6.2	6.1	6.2	6.2	6.3

Alcohol-Related

Victims of Alcohol-Related Fatal Crashes

There were 473 driver and passenger deaths in alcohol-related crashes in 2001, while 424 (90%) were the drinking drivers or their passengers.

Persons Involved	Deaths
Drivers	**355**
Drinking Drivers	*319 (89.9%)*
Non-Drinking Drivers	*36 (10.1%)*
Passengers	**118**
Passengers with Drinking Driver	*105 (89.0%)*
Passengers with Non-Drinking Driver	*13 (11.0%)*
Pedestrians	**51**
Drinking Pedestrian	*29 (56.9%)*
Non-Drinking Pedestrian	*22 (43.1%)*
TOTAL DEATHS*	**529**

*Includes 5 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 (64% of alcohol-related deaths). In contrast, nearly half of the deaths from non-alcohol-related crashes resulted from crashes occurring between noon and 8:00 PM.

Midnight-3:59 AM — 36.7% / 7.6%
4:00-07:59 AM — 8.7% / 10.4%
8:00-11:59 AM — 2.7% / 19.1%
Noon-3:59 PM — 5.7% / 24.6%
4:00-7:59 PM — 17.8% / 23.4%
8:00-11:59 PM — 27.6% / 14.3%

0%   10%   20%   30%   40%
□ Non-Alcohol-Related   ■ Alcohol-Related
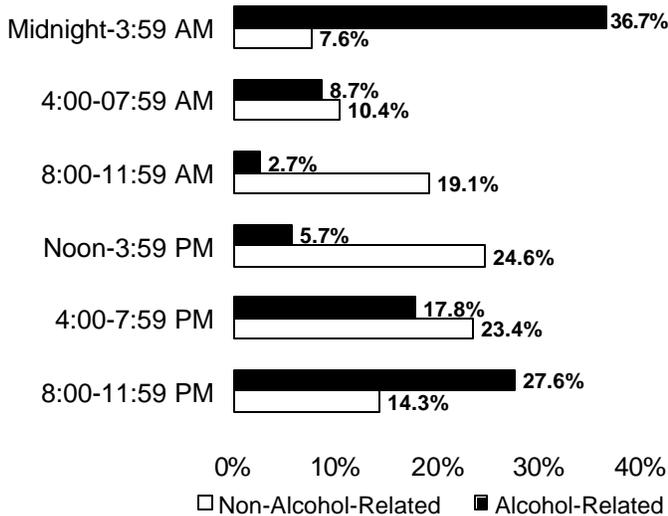
Time of Occurrence	Non-Alcohol-Related	Alcohol-Related
Midnight-3:59 AM	76	194
4:00-07:59 AM	104	46
8:00-11:59 AM	192	14
Noon-3:59 PM	247	30
4:00-7:59 PM	235	94
8:00-11:59 PM	143	146
Time Unknown	6	5
TOTAL DEATHS	**1,003**	**529**

Victims of Fatal Crashes by Day of Week

The majority (60%) of alcohol-related fatal crash victims were the result of crashes occurring on Friday, Saturday, and Sunday, while fatal crash victims of non-alcohol-related crashes tended to be distributed more evenly throughout the week.
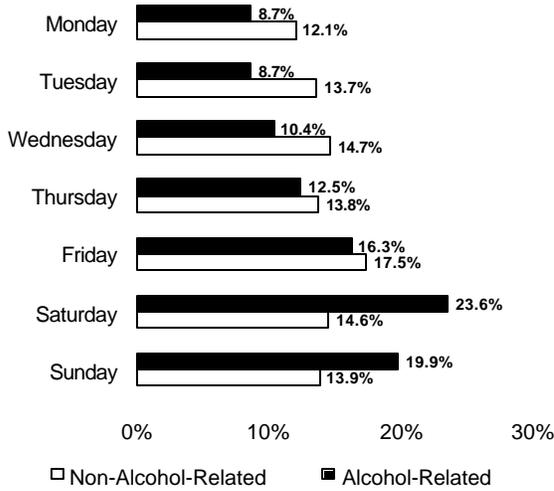
Day of Occurrence	Non-Alcohol-Related	Alcohol-Related
Monday	121	46
Tuesday	137	46
Wednesday	147	55
Thursday	138	66
Friday	175	86
Saturday	146	125
Sunday	139	105
TOTAL DEATHS	**1,003**	**529**

Monday: 8.7% / 12.1%
Tuesday: 8.7% / 13.7%
Wednesday: 10.4% / 14.7%
Thursday: 12.5% / 13.8%
Friday: 16.3% / 17.5%
Saturday: 23.6% / 14.6%
Sunday: 19.9% / 13.9%

□ Non-Alcohol-Related   ■ Alcohol-Related

Alcohol-Related Crashes—Day vs. Night

78% of alcohol-related crashes occur at night. The graph below shows the breakdown of alcohol-related crashes by day and night.

Day 22.2%

Night 77.8%
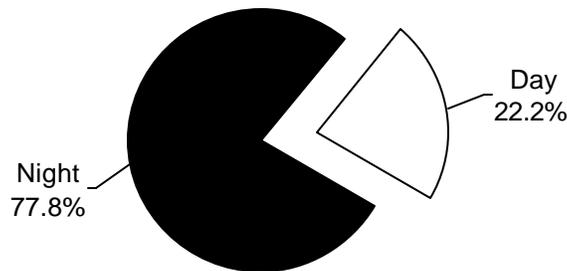
Alcohol-Related Holiday Crashes

In 2001, 14% of all holiday crashes involved alcohol use; however, 40% of deaths which occurred during holiday weekends were related to alcohol use. (See ***Crashes by Holiday***, page 22.)

Total Crashes

Holiday	Percent
Thanksgiving	10.3%
Pre-Thanksgiving	9.3%
Post-Thanksgiving	9.0%
Pre-Memorial Day	8.7%
Memorial Day	8.2%
New Years	8.0%
Labor Day	7.6%
Pre-Labor Day	7.6%
Post Memorial Day	7.3%
Post New Years	6.7%
Post-Labor Day	6.6%
Independence Day **	3.5%
Christmas **	2.5%
Post-Independence Day **	1.7%
Pre-Independence Day **	1.5%
Pre-Christmas **	1.5%
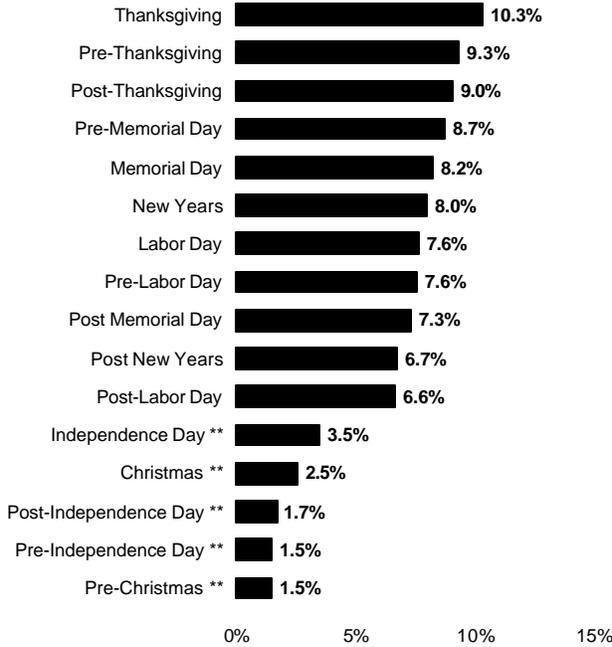
Period*	Crashes	Deaths
New Years	180	2
Post New Years	152	6
Pre-Memorial Day	197	8
Memorial Day	186	5
Post Memorial Day	165	5
Pre-Independence Day **	34	1
Independence Day **	79	5
Post-Independence Day **	38	4
Pre-Labor Day	171	3
Labor Day	172	5
Post-Labor Day	150	8
Pre-Thanksgiving	210	5
Thanksgiving	233	8
Post-Thanksgiving	204	10
Pre-Christmas **	34	0
Christmas **	57	3
TOTAL	**2,262**	**78**

Deaths
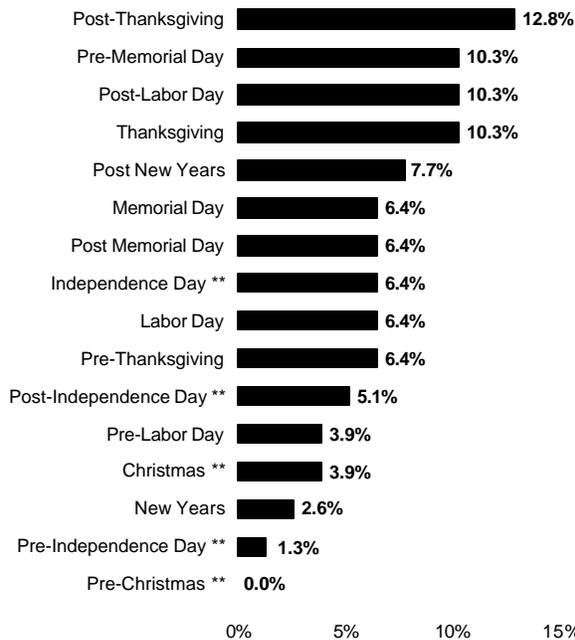
Holiday	Percent
Post-Thanksgiving	12.8%
Pre-Memorial Day	10.3%
Post-Labor Day	10.3%
Thanksgiving	10.3%
Post New Years	7.7%
Memorial Day	6.4%
Post Memorial Day	6.4%
Independence Day **	6.4%
Labor Day	6.4%
Pre-Thanksgiving	6.4%
Post-Independence Day **	5.1%
Pre-Labor Day	3.9%
Christmas **	3.9%
New Years	2.6%
Pre-Independence Day **	1.3%
Pre-Christmas **	0.0%

*   See *Holidays* under **Definitions** for explanation of pre- and post-holiday weekends.

** Not part of a holiday weekend in 2001.

Driver Involvement in Alcohol-Related Crashes by Vehicle Type

Motorcycle crashes involved a large number of drinking drivers; almost twice the average for all vehicles. Drinking drivers of light trucks (which include pickups, vans, sport utility vehicles, etc.) were also above the average for drivers of all vehicle types.

Total Drivers in Crashes 220,162	Passenger Car		156,894
	Light Truck		48,106
	Heavy Truck		6,985
	Motorcycle		3,038
	Bus		1,116
	Other		4,023
Drinking Drivers in Crashes 13,838 (6.3% of total)	Passenger Car	9,715	(6.2% of total)
	Light Truck	3,634	(7.6% of total)
	Heavy Truck	60	(0.9% of total)
	Motorcycle	339	(11.2% of total)
	Bus	2	(0.2% of total)
	Other	88	(2.2% of total)

Drinking Drivers in Crashes by Age and Sex

In 2001, roughly four out of five 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 191 drivers for whom age and/or sex were not known.
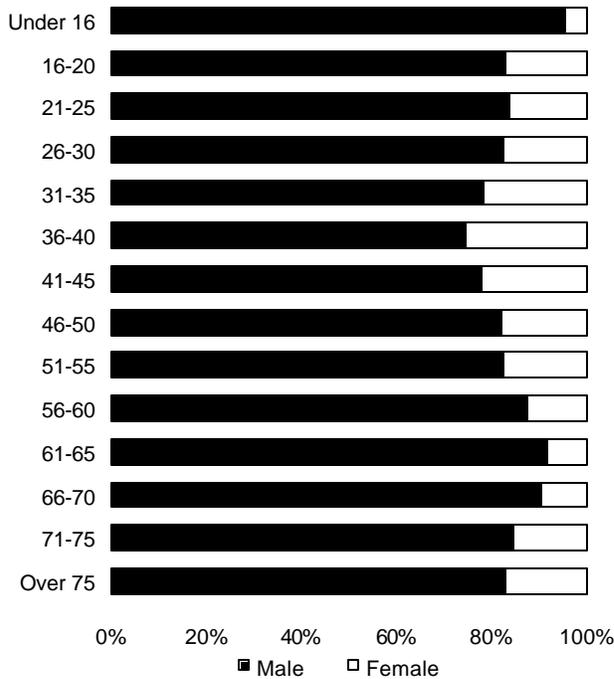
Age Group	Male	Female	Total
Under 16	21	1	22
16-20	1,290	270	1,560
21-25	2,499	486	2,985
26-30	1,482	318	1,800
31-35	1,348	373	1,721
36-40	1,434	487	1,921
41-45	1,163	332	1,495
46-50	736	160	896
51-55	432	93	525
56-60	246	36	282
61-65	165	15	180
66-70	96	10	106
71-75	61	11	72
Over 75	68	14	82
Total	**11,041**	**2,606**	**13,647**

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

In 2001, as the table and graph below show, the four age groups from 21 to 40 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 21 age groups had smaller percentages, but still involved 1,582 underage drinking drivers.
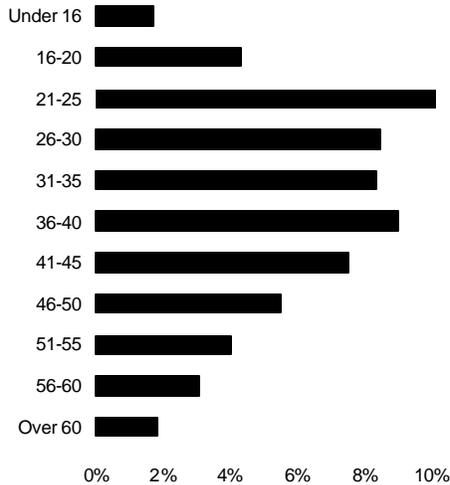
Age Group	Drinking Driver	Non-Drinking Driver
Under 16	22 (1.7%)	1,262 (98.3%)
16-20	1,560 (4.3%)	34,504 (95.7%)
21-25	2,985 (10.5%)	25,352 (89.5%)
26-30	1,800 (8.4%)	19,522 (91.6%)
31-35	1,721 (8.3%)	18,928 (91.7%)
36-40	1,921 (9.0%)	19,410 (91.0%)
41-45	1,495 (7.5%)	18,407 (92.5%)
46-50	896 (5.5%)	15,354 (94.5%)
51-55	525 (4.0%)	12,496 (96.0%)
56-60	282 (3.1%)	8,944 (96.9%)
Over 60	440 (1.8%)	23,901 (98.2%)

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 2001 crashes. The six age groups from 16 to 45 had the highest percentages, with over 36% of the driver deaths in these age groups involving a drinking driver. The 16-20 age group increased 7% from 2000 (29.8%), making this age group higher than the 31-35 age group.

Age Group	Percentage
Under 16	0.0%
16-20	36.9%
21-25	49.6%
26-30	42.9%
31-35	36.3%
36-40	48.4%
41-45	39.1%
46-50	34.0%
51-55	30.4%
56-60	15.4%
61-65	16.1%
66-70	25.0%
71-75	0.0%
Over 75	1.9%
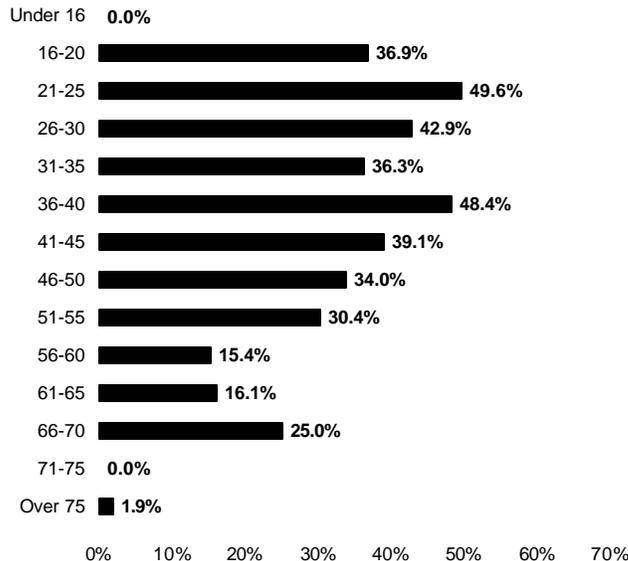
Underage Drinking Drivers in Pennsylvania Crashes—Historical Data

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. Following an increase in 1997, the number of underage drinking drivers has flattened out over the last five years.

Year	Value
1992	1,360
1993	1,160
1994	1,144
1995	1,201
1996	1,275
1997	1,566
1998	1,549
1999	1,560
2000	1,638
2001	1,582

Alcohol-Related
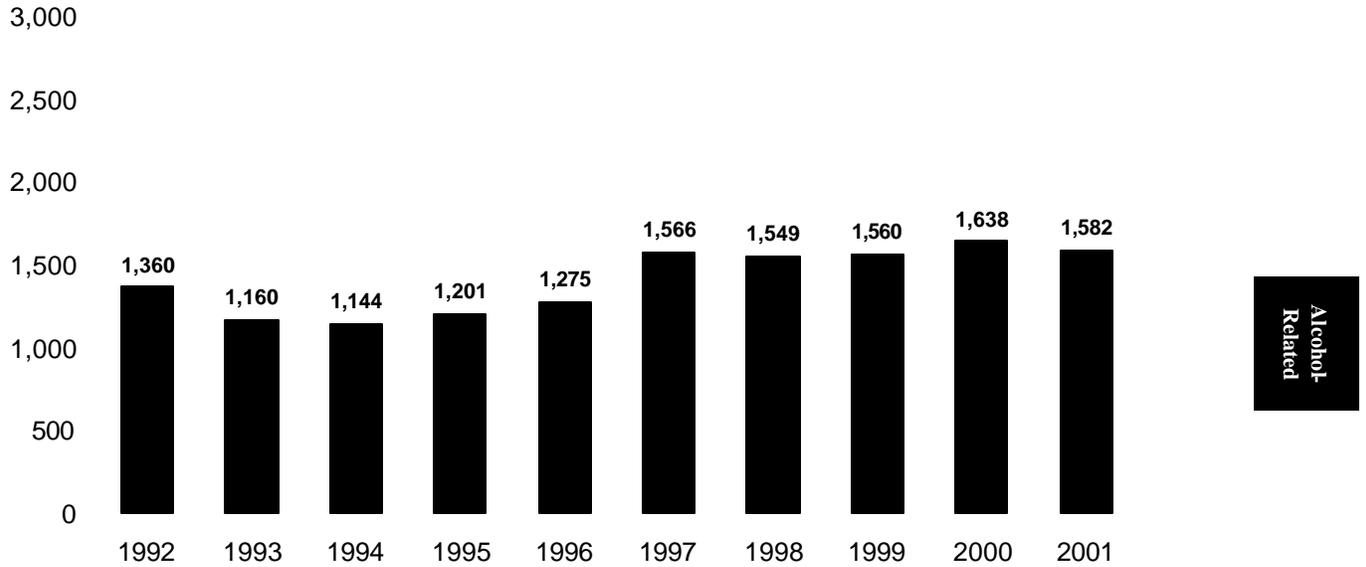
Seat Belts, Child Safety Seats, and Air Bags

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. Effective, February 21, 2003, children age 8 and older, but under age 18, are required to be secured in a seat belt system anywhere in the vehicle.

- 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. Effective February 21, 2003, 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.

- 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

- 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.
  - 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.
  - 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 2001, as shown in the two pie graphs below, 67.1% of all people involved in crashes were wearing seat belts. Nearly twice as many people not wearing seat belts died in crashes as those who did. The table at the bottom shows the total number of people involved in crashes in 2001 by severity of injury and belt use.

Total People Involved in Crashes

Belts Not in Use
12.5%

Belts in Use
67.1%

Belt Use Unknown
20.4%
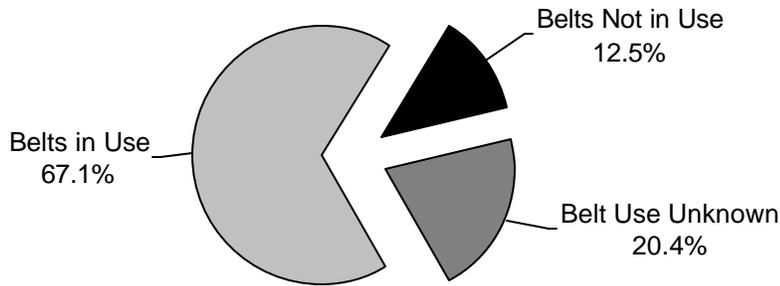
Total Deaths

Belts in Use
27.7%

Belts Not in Use
53.2%

Belt Use Unknown
19.1%

Seat Belts, Etc.
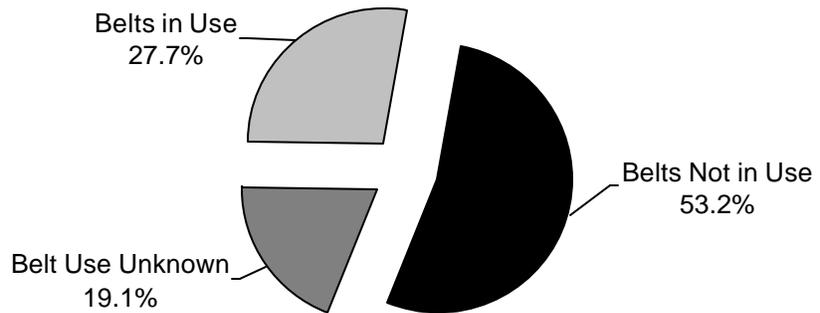
	Belts in Use	Belts Not in Use	Belt Use Unknown
Killed	327	627	225
Major Injury	1,531	1,651	805
Moderate Injury	10,733	5,558	3,837
Minor Injury	46,408	11,514	12,123
No Injury	142,484	17,773	39,713
Unknown Injury	4,467	1,141	5,803
TOTAL	**205,950**	**38,264**	**62,506**

Note: Vehicles involved include passenger cars, light trucks, and heavy trucks. Beginning in 2001, "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 2001 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 in 2001 would have been **$2,892,276,234** or approximately **$235** for every man, woman, and child in Pennsylvania. More importantly, 457 people would have survived if they had worn their belts.

	Deaths	Injuries			
	Deaths	*Major*	*Moderate*	*Minor*	*None*
Belts Used	249	1,170	8,309	35,745	95,127
Belts Not Used	436	1,199	4,137	8,654	12,068
Use Unknown	162	624	3,120	9,850	28,540
TOTAL	**847**	**2,993**	**15,566**	**54,249**	**135,735**
If 100% Belt Use	**390**	**1,803**	**12,568**	**52,877**	**141,752**
Net Increase/(Decrease)	**(457)**	**(1,190)**	**(2,998)**	**(1,372)**	**6,017**

Deaths

■ Actual   □ If 100% Belt Use
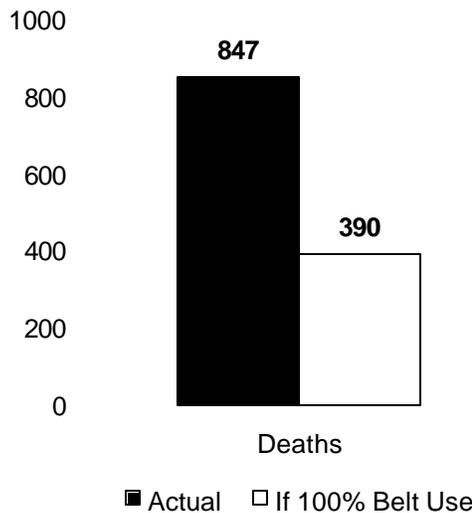
Note: PENNDOT's cost estimating procedures were revised in 2001 dollars. Beginning in 2001, "No Belts" is included in "Belts Not Used".

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.

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 trend slowly increased over the next several years, although it has flattened out over the past eight years.
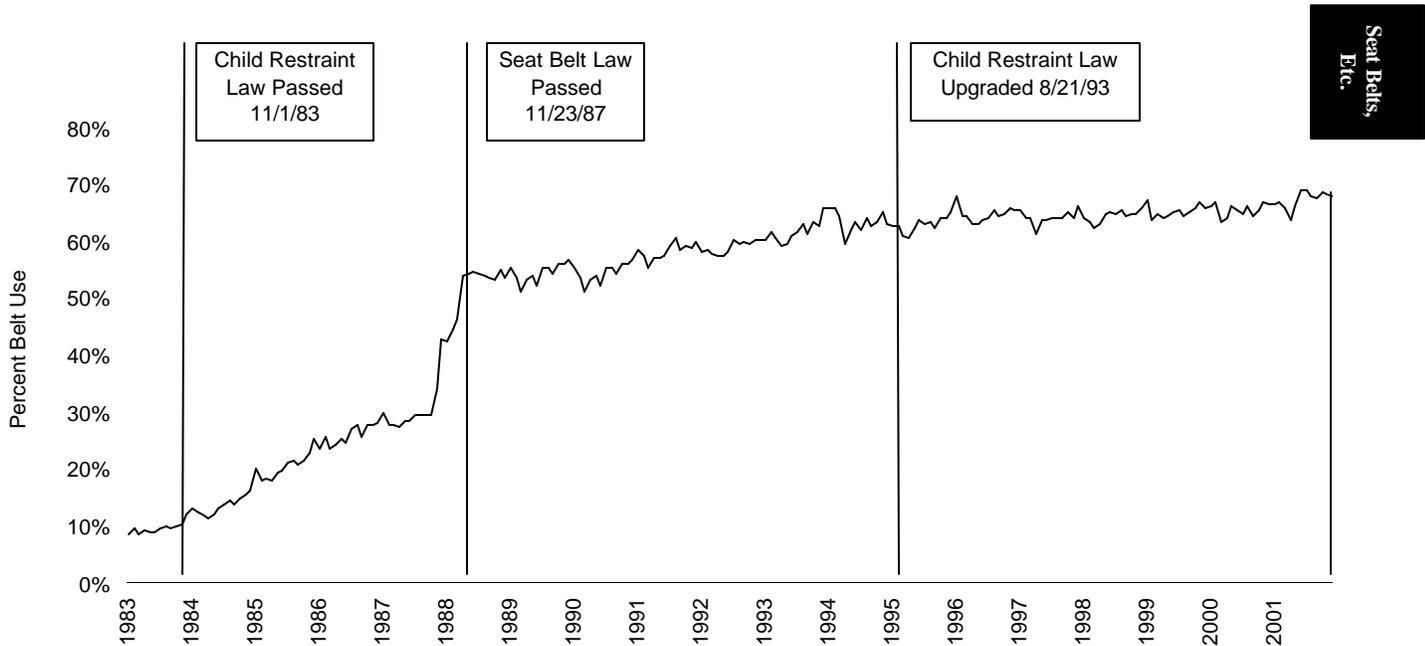
Note: Data shown for passenger cars only.

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 is near its highest levels ever.

Period	Percent Belt Use
Fall '89	49.0%
Spring '90	52.8%
Fall '90	53.1%
Spring '91	55.7%
Summer '91	59.7%
Fall '91	60.4%
Spring '92	62.3%
Fall '92	63.0%
Spring '93	63.7%
Fall '93	67.5%
Fall '94	71.0%
Fall '95	71.0%
Fall '96	65.0%
Fall '97	64.7%
Fall '98	67.8%
Fall '99	69.7%
Fall '00	70.7%
Fall '01	70.5%

Percent Belt Use
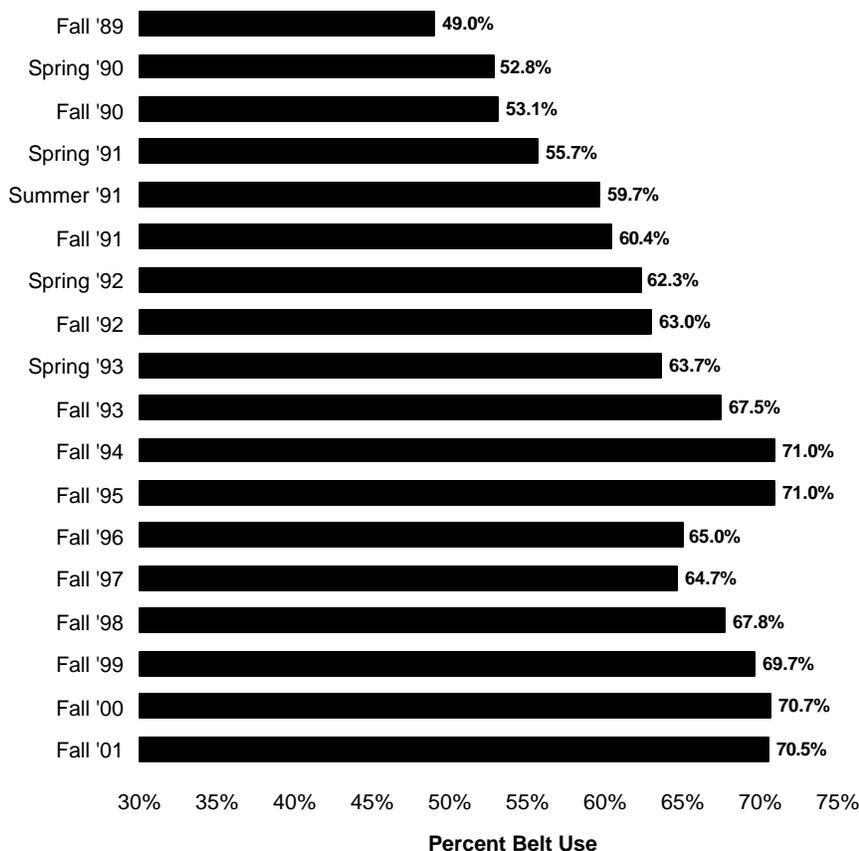
Child Passenger Restraints in Crashes—Five Year Data

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 1997-2001 crashes involving children up to age four), the percentages of deaths and injuries (within restraint type by row) were lower when restraints were used. In 1997-2001, 84% of the children who were involved in crashes and restrained in a child seat sustained no injury.

Child Restraint	Deaths	Injuries					Total Persons
		Major	*Moderate*	*Minor*	*Unknown*	*No Injury*	
Child Seat In Use	23 (0.1%)	84 (0.3%)	352 (1.1%)	3,121 (9.6%)	1,599 (4.9%)	27,285 (84.1%)	**32,464**
Other Restraint In Use	6 (0.1%)	58 (0.6%)	224 (2.2%)	1,526 (14.9%)	392 (3.8%)	8,007 (78.4%)	**10,213**
Other Restraint Not In Use	36 (0.5%)	75 (1.0%)	276 (3.7%)	1,386 (18.6%)	841 (11.3%)	4,837 (64.9%)	**7,451**

Note: Beginning in 2001, "Child Seat Not In Use" and "Other Restraint Not In Use" have been combined into "Restraints Not In Use".

Air Bag Deployment in Crashes—Injuries and Deaths

Passive restraints, most notably air bags, are becoming more and more prevalent, but a majority of vehicles in crashes still do not have airbags. 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 Status	Seat Belt Status	Deaths	Injuries					Total Persons
			Major	*Moderate*	*Minor*	*Unknown*	*No Injury*	
None	n/a	860 (0.6%)	2,648 (1.8%)	11,283 (7.7%)	34,906 (23.9%)	3,335 (2.3%)	93,221 (63.7%)	**146,253**
Air Bag Deployed	Used	113 (0.4%)	482 (1.7%)	3,124 (11.2%)	10,223 (36.6%)	751 (2.7%)	13,229 (47.4%)	**27,922**
Air Bag Deployed	Not Used	160 (3.3%)	325 (6.7%)	1,006 (20.6%)	1,830 (37.5%)	154 (3.2%)	1,401 (28.7%)	**4,876**
Air Bag Deployed	Unknown	51 (1.0%)	206 (4.1%)	769 (15.4%)	1,682 (33.7%)	353 (7.1%)	1,935 (38.7%)	**4,996**
Air Bag Not Deployed	Used	32 (0.1%)	223 (0.4%)	2,086 (3.6%)	11,714 (20.0%)	1,169 (2.0%)	43,378 (74.0%)	**58,602**
Air Bag Not Deployed	Not Used	49 (1.0%)	142 (2.9%)	520 (10.6%)	1,576 (32.1%)	155 (3.2%)	2,473 (50.3%)	**4,915**
Air Bag Not Deployed	Unknown	11 (0.2%)	56 (1.0%)	287 (5.2%)	1,100 (19.9%)	269 (4.9%)	3,797 (68.8%)	**5,520**
Other	n/a	128 (0.3%)	420 (0.9%)	2,554 (5.6%)	9,402 (20.5%)	3,017 (6.6%)	30,377 (66.2%)	**45,898**

Deaths per 100 Crashes

Category	Value
Air Bag Deployed/Seat Belt Not Used	5.1
Air Bag Not Deployed/Seat Belt Not Used	1.9
Air Bag Deployed/Seat Belt Unknown	1.6
Air Bag Deployed/Seat Belt Used	0.7
Air Bag Not Deployed/Seat Belt Unknown	0.4
Air Bag Not Deployed/Seat Belt Used	0.1
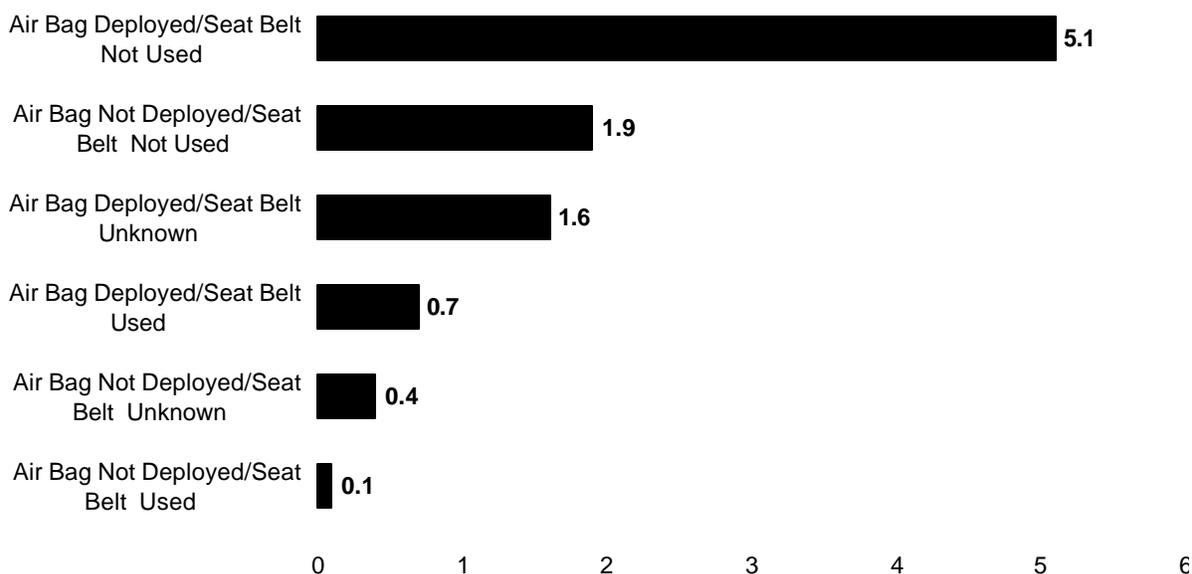
Seat Belts, Etc.

Air Bag Deployment by Initial Vehicle Impact Point

Most air bags are designed to deploy in frontal impacts, but side impact air bags are becoming more common. The table below shows the initial vehicle impact points for all 2001 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 810 occasions in which air bags deployed in center rear impacts).
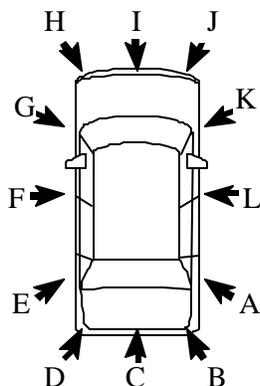
Impact Point	Vehicles	Air Bag Not Present	Air Bag Present Deployed	Air Bag Present, Not Deployed	Unknown/ Other
Right Side Rear (A)	3,506	1,560	216 (17.4%)	1,027 (82.6%)	703
Right Rear (B)	5,412	2,442	221 (11.0%)	1,793 (89.0%)	956
Center Rear (C)	30,425	12,037	810 (6.4%)	11,817 (93.6%)	5,761
Left Rear (D)	5,162	2,275	229 (11.8%)	1,705 (88.2%)	953
Left Side Rear (E)	3,387	1,557	204 (16.6%)	1,023 (83.4%)	603
Left Side Center (F)	7,910	3,743	566 (21.5%)	2,070 (78.5%)	1,531
Left Side Forward (G)	7,826	3,207	896 (28.0%)	2,303 (72.0%)	1,420
Left Front (H)	31,573	13,055	5,539 (41.5%)	7,803 (58.5%)	5,176
Center Front (I)	67,868	26,996	15,127 (52.6%)	13,650 (47.4%)	12,095
Right Front (J)	31,111	12,685	5,613 (44.2%)	7,079 (55.8%)	5,734
Right Side Forward (K)	8,110	3,357	995 (31.2%)	2,197 (68.8%)	1,561
Right Side Center (L)	7,804	3,559	671 (24.8%)	2,032 (75.2%)	1,542
Other	7,407	2,992	676 (31.7%)	1,457 (68.3%)	2,282
None	2,428	1,513	64 (14.6%)	376 (85.5%)	475
TOTAL	**219,929**	**90,978**	**31,827 (36.1%)**	**56,332 (63.9%)**	**40,792**

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

Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	Total Persons
0-4	0 (0.0%)	0 (0.0%)	1 (2.6%)	13 (33.3%)	2 (5.1%)	23 (59.0%)	39
5-8	0 (0.0%)	3 (2.5%)	9 (7.6%)	52 (43.7%)	4 (3.4%)	51 (42.9%)	119
9-12	0 (0.0%)	1 (0.4%)	24 (10.5%)	112 (49.1%)	9 (4.0%)	82 (36.0%)	228
13-64	74 (0.3%)	396 (1.6%)	2,647 (10.7%)	8,888 (36.1%)	632 (2.6%)	12,011 (48.7%)	24,648
65-74	12 (0.8%)	39 (2.6%)	218 (14.3%)	616 (40.5%)	52 (3.4%)	584 (38.4%)	1,521
75+	27 (2.0%)	43 (3.2%)	225 (16.5%)	542 (39.7%)	52 (3.8%)	478 (35.0%)	1,367
Total	**113 (0.4%)**	**482 (1.7%)**	**3,124 (11.2%)**	**10,223 (36.6%)**	**751 (2.7%)**	**13,229 (47.4%)**	**27,922**

The "Injuries" columns are: Major, Moderate, Minor, Unknown, No Injury.

Seat Belts Not Used

Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	Total Persons
0-4	0 (0.0%)	0 (0.0%)	1 (33.3%)	1 (33.3%)	0 (0.0%)	1 (33.3%)	3
5-8	0 (0.0%)	0 (0.0%)	1 (9.1%)	8 (72.7%)	0 (0.0%)	2 (18.2%)	11
9-12	0 (0.0%)	0 (0.0%)	5 (23.8%)	10 (47.6%)	1 (4.8%)	5 (23.8%)	21
13-64	130 (2.9%)	308 (6.8%)	907 (20.1%)	1,700 (37.7%)	142 (3.2%)	1,327 (29.4%)	4,514
65-74	11 (7.2%)	4 (2.6%)	41 (26.8%)	63 (41.2%)	5 (3.3%)	29 (19.0%)	153
75+	19 (11.6%)	13 (7.9%)	50 (30.5%)	43 (26.2%)	6 (3.7%)	33 (20.1%)	164
Total	**160 (3.3%)**	**325 (6.7%)**	**1,005 (20.7%)**	**1,825 (37.5%)**	**154 (3.2%)**	**1,397 (28.7%)**	**4,866**

Seat Belts, Etc.

Pedestrian and Bicycle Crashes

Pedestrian and Bicycles Overview

- Pedestrian-related crashes represent 4.0% of the total reported traffic crashes; however, they account for 12.7% of all traffic crash deaths. (See also *Pennsylvania County Crashes*, pages 62, 63, and 68.)

- Bicycle crashes represent 1.4% of the total reported crashes and 0.8% of all traffic deaths. Although these percentages are small, they still represent 13 bicyclist deaths and 1,799 injuries in 2001.

Pedestrian Crashes—Five-Year Trends

Reported crashes involving pedestrians has decreased in each of the last five years. Pedestrian deaths, however, increased 13.4% from 2000.

Total Crashes

Year	
1997	5,954
1998	5,842
1999	5,833
2000	5,501
2001	5,202

Deaths

Year	
1997	175
1998	166
1999	187
2000	172
2001	195

Peds & Bikes
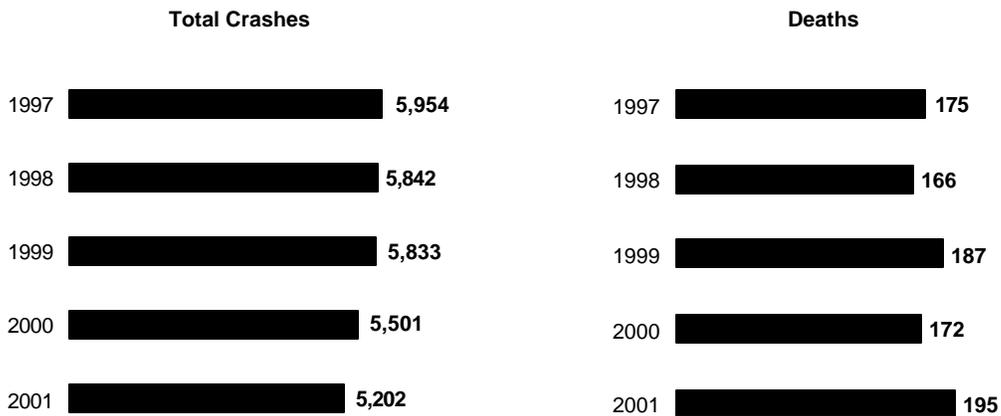
Year	Total Crashes	Deaths
1997	5,954	175
1998	5,842	166
1999	5,833	187
2000	5,501	172
2001	5,202	195

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 Crash-Related Pedestrian Actions

Walking With Traffic
22.1%

Standing
5.9%

Entering
Crossing/Specified
Location
53.5%

All Others
18.5%
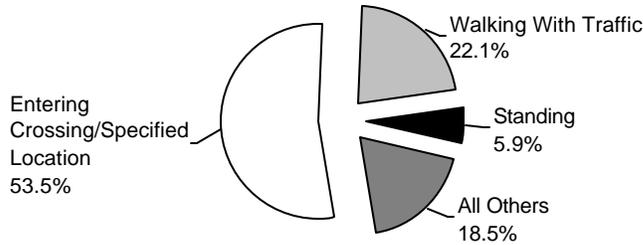
Top Fatal Pedestrian Actions

Standing
6.7%

Entering
Crossing/Specified
Location
70.8%

Walking With Traffic
5.6%

All Others
16.9%

Peds & Bikes
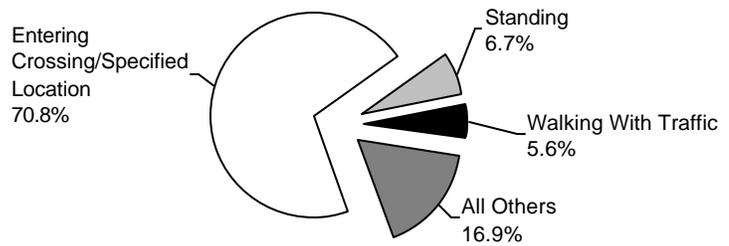
Pedestrian Action	Deaths	Total Pedestrians Involved
Entering Crossing/Specified Location	138	2,921
Walking With Traffic	11	1,205
Playing/Working on Vehicle	1	42
Other Working	11	125
Standing	13	324
Approaching/Leaving Other Vehicle	3	214
Other/Unknown	18	632
TOTAL	**195**	**5,463**

Pedestrian Deaths by Age and Sex

Pedestrians aged 75 and over represent a large portion of pedestrian deaths as seen in the chart below. Overall, male pedestrian deaths were 62% of all pedestrian deaths. *Note:* Pedestrians of unknown sex are not included in the numbers below.
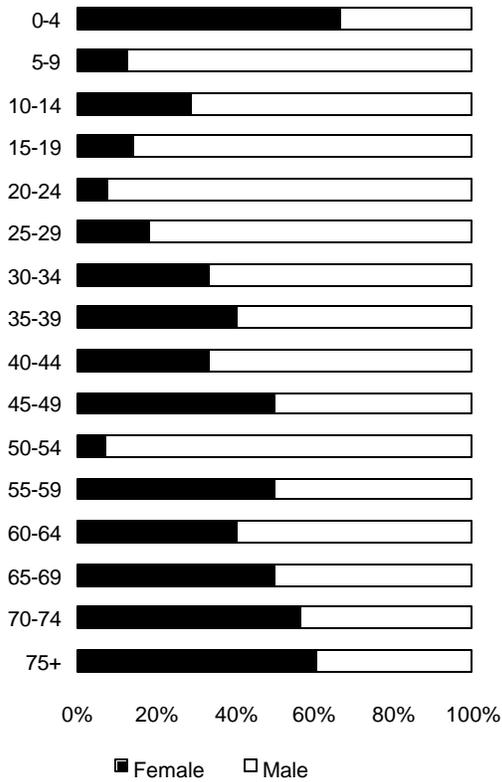
Age Group	Female	Male	Total
0-4	2	1	3
5-9	1	7	8
10-14	2	5	7
15-19	1	6	7
20-24	1	12	13
25-29	2	9	11
30-34	4	8	12
35-39	6	9	15
40-44	4	8	12
45-49	6	6	12
50-54	1	13	14
55-59	3	3	6
60-64	2	3	5
65-69	7	7	14
70-74	9	7	16
75 and over	23	15	38
Unknown	0	2	2
TOTAL	**74**	**121**	**195**

Pedestrian Injury Severity by Municipality Type

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

Municipality Type	Deaths	Injuries	Non-Injury	Total
City	59 (30.3%)	3,584 (69.1%)	47 (60.3%)	**3,690 (67.6%)**
Borough/Town	35 (18.0%)	685 (13.2%)	16 (20.5%)	**736 (13.5%)**
Township	101 (51.8%)	916 (17.7%)	15 (19.2%)	**1,032 (18.9%)**
Other	0 (0.0%)	5 (0.1%)	0 (0.0%)	**5 (0.1%)**
TOTAL	**195 (100.0%)**	**5,190 (100.0%)**	**78 (100.0%)**	**5,463 (100.0%)**

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

Peds & Bikes

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 43% of the pedestrian injuries.

Note: The totals in the table do not include an additional 78 pedestrians who were not killed or injured.

Pedestrian Age	Deaths	Injuries
0-4	3 (1.5%)	201 (3.9%)
5-9	8 (4.1%)	828 (16.0%)
10-14	7 (3.6%)	712 (13.7%)
15-19	7 (3.6%)	487 (9.4%)
20-24	13 (6.7%)	379 (7.3%)
25-29	11 (5.6%)	265 (5.1%)
30-34	12 (6.2%)	303 (5.8%)
35-39	15 (7.7%)	325 (6.3%)
40-44	12 (6.2%)	288 (5.6%)
45-49	12 (6.2%)	256 (4.9%)
50-54	14 (7.2%)	200 (3.9%)
55-59	6 (3.1%)	162 (3.1%)
60-64	5 (2.6%)	125 (2.4%)
65-69	14 (7.2%)	108 (2.1%)
70-74	16 (8.2%)	121 (2.3%)
75 and over	38 (19.5%)	205 (4.0%)
Unknown	2 (1.0%)	225 (4.3%)
TOTAL	**195 (100.0%)**	**5,190 (100.0%)**
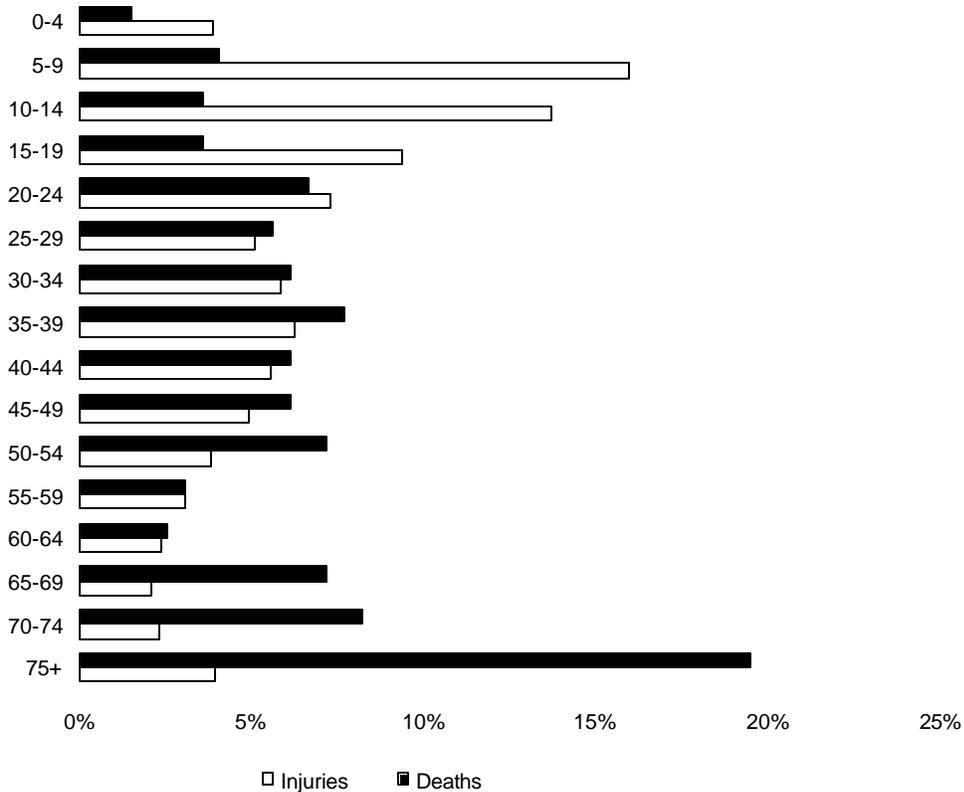
Peds & Bikes

□ Injuries   ■ Deaths

Pedestrian Deaths and Injuries by Light Level

The majority of pedestrians are injured in the daytime, but more pedestrian deaths occur during non-daylight hours. As shown in the bar chart, pedestrians are more likely to be killed if struck in a non-daylight crash as compared to a day crash.
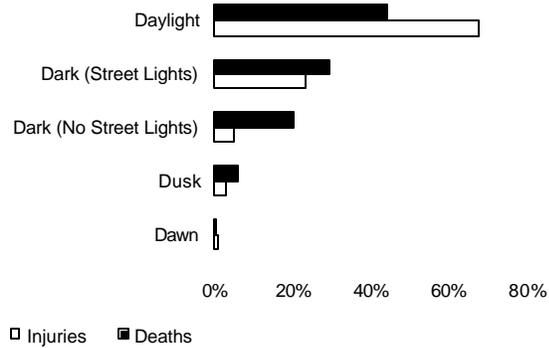
Light Level	Deaths	Injuries
Dawn	1 (0.5%)	40 (0.8%)
Daylight	86 (44.1%)	3,507 (67.6%)
Dark (Street Lights)	57 (29.2%)	1,203 (23.2%)
Dark (No Street Lights)	39 (20.0%)	247 (4.8%)
Dusk	11 (5.6%)	152 (2.9%)
Unknown	1 (0.5%)	41 (0.8%)
TOTAL	**195 (100.0%)**	**5,190 (100.0%)**

Note: The totals in the table do not include an additional 78 pedestrians who were not killed or injured.

Pedestrian Deaths and Injuries by Intersection Type

Nearly three-quarters of pedestrian deaths and over half of pedestrian injuries occurred in areas other than intersections. "Non-intersections" as used below includes mid-block crossings, driveway crossings, etc.

Peds & Bikes
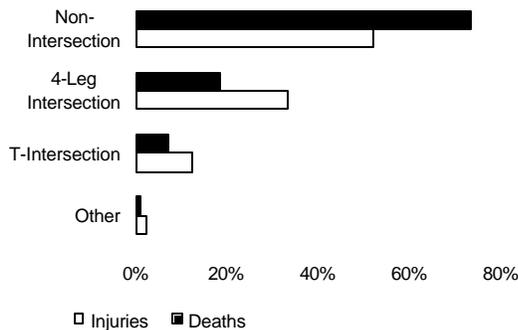
Intersection	Deaths	Injuries
Non-Intersection	143 (73.3%)	2,698 (52.0%)
4-Leg Intersection	36 (18.5%)	1,730 (33.3%)
T-Intersection	14 (7.2%)	634 (12.2%)
Other	2 (1.0%)	128 (2.5%)
TOTAL	**195 (100.0%)**	**5,190 (100.0%)**

Note: The totals in the table do not include an additional 78 pedestrians who were not killed or injured.

Pedestrian Deaths and Injuries by Road Type

As the graph shows, the majority of pedestrians are injured on local roads, whereas the majority of pedestrian deaths occur on state highways.
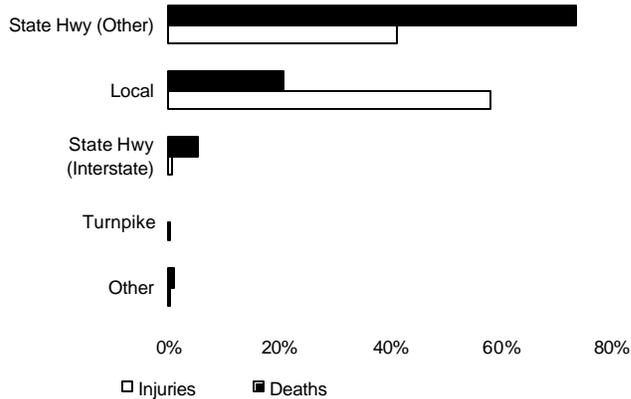
Note: "Road Type" relates to the road on which the motor vehicle was traveling immediately prior to striking the pedestrian. The totals in the table do not include an additional 78 pedestrians who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	143 (73.3%)	2,140 (41.2%)
Local	40 (20.5%)	3,002 (57.8%)
State Hwy (Interstate)	10 (5.1%)	24 (0.5%)
Turnpike	0 (0.0%)	18 (0.4%)
Other	2 (1.0%)	6 (0.1%)
TOTAL	195 (100.0%)	5,190 (100.0%)

Pedestrian Deaths and Injuries

As the graph shows, most pedestrian deaths and injuries occurred in areas without traffic control devices (TCDs). However, notice the number of pedestrians injured at traffic signal intersections.
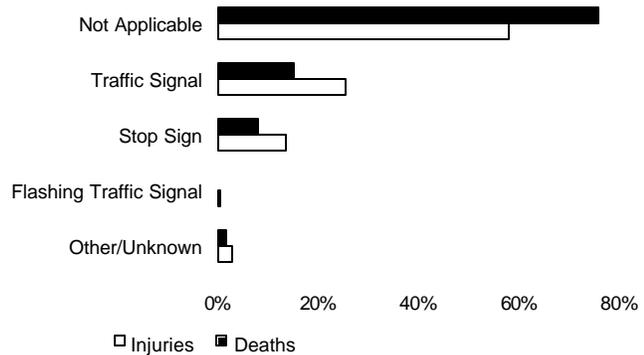
Note: "Traffic Control Device" relates to the TCD which was present for the motor vehicle immediately prior to striking the pedestrian. The totals in the table do not include an additional 78 pedestrians who were not killed or injured.

Traffic Control Device	Deaths	Injuries
Not Applicable	147 (75.7%)	2,998 (57.8%)
Traffic Signal	30 (15.0%)	1,310 (25.2%)
Stop Sign	15 (7.8%)	702 (13.5%)
Flashing Traffic Signal	0 (0.0%)	29 (0.6%)
Other/Unknown	3 (1.6%)	151 (2.9%)
TOTAL	195 (100.0%)	5,190 (100.0%)

Peds & Bikes

Bicycle Crashes—Five-Year Trends

The total number of bicycle crashes and deaths in 2001 decreased 24% and 13% respectively from 2000.

Year	Total Crashes	Deaths
1997	2,490	17
1998	2,757	23
1999	2,392	18
2000	2,332	15
2001	1,782	13

Total Crashes

Year	
1997	2,490
1998	2,757
1999	2,392
2000	2,332
2001	1,782

Deaths

Year	
1997	17
1998	23
1999	18
2000	15
2001	13
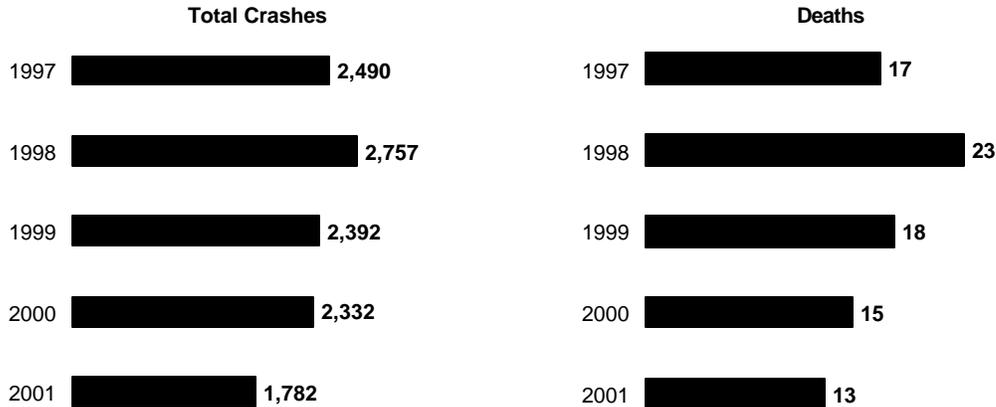
Bicycle Deaths and Injuries by Age

Children ages 5 to 14 are the most vulnerable to death and injury while riding a bicycle. About one-third the deaths and half the injuries involving bicycles were suffered by this age group. Another vulnerable, but larger group, are persons ages 15 to 34, who also suffered over 30% of the total deaths and total injuries.

Victim's Age	Deaths	Injuries
0-4	0 (0.0%)	12 (0.7%)
5-9	2 (15.4%)	312 (17.3%)
10-14	2 (15.4%)	526 (29.2%)
15-19	1 (7.7%)	269 (15.0%)
20-34	3 (23.1%)	303 (16.8%)
35-44	1 (7.7%)	173 (9.6%)
45-54	3 (23.1%)	91 (5.1%)
55-64	1 (7.7%)	24 (1.3%)
65-74	0 (0.0%)	14 (0.8%)
75+	0 (0.0%)	3 (0.2%)
Unknown	0 (0.0%)	72 (4.0%)
TOTAL	**13 (100.0%)**	**1,799 (100.0%)**

The totals in the table do not include an additional 29 bicyclists who were not killed or injured.

Peds & Bikes

Bicycle Deaths and Injuries by Light Level

The majority of bicyclists are killed or injured during the day. The after dark deaths decreased from 6 in 2000, to 4 in 2001.

Light Level	Deaths	Injuries
Dawn	1 (7.7%)	10 (0.6%)
Daylight	7 (53.9%)	1,443 (80.2%)
Dark (Street Lights)	1 (7.7%)	233 (13.0%)
Dark (No Street Lights)	3 (23.1%)	42 (2.3%)
Dusk	1 (7.7%)	60 (3.3%)
Unknown	0 (0.0%)	11 (0.6%)
TOTAL	**13 (100.0%)**	**1,799 (100.0%)**

Note: The totals in the table do not include an additional 29 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Intersection

The majority of bicyclists are killed or injured at intersections.
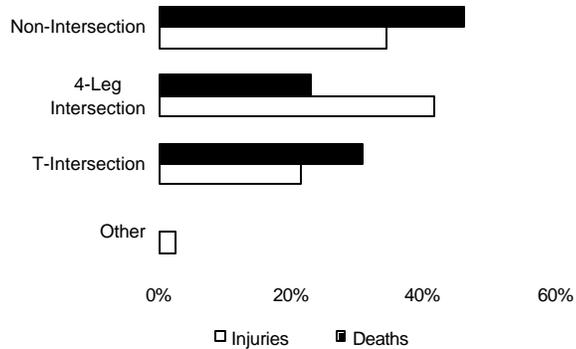
Intersection	Deaths	Injuries
Non-Intersection	6 (46.2%)	620 (34.5%)
4-Leg Intersection	3 (23.1%)	747 (41.5%)
T-Intersection	4 (30.8%)	387 (21.5%)
Other	0 (0.0%)	45 (2.5%)
TOTAL	**13 (100.0%)**	**1,799 (100.0%)**

Note: The totals in the table do not include an additional 29 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Traffic Control Device

Deaths were more likely to occur where there were not traffic control devices (TCD), while injuries occurred more often at TCDs.

Traffic Control Device	Deaths	Injuries
Not Applicable	8 (61.5%)	821 (45.6%)
Stop Sign	4 (30.8%)	552 (30.7%)
Traffic Signal	1 (7.7%)	370 (20.6%)
Flashing Traffic Signal	0 (0.0%)	7 (0.4%)
Other/Unknown	0 (0.0%)	49 (2.7%)
TOTAL	13 (100.0%)	1,799 (100.0%)
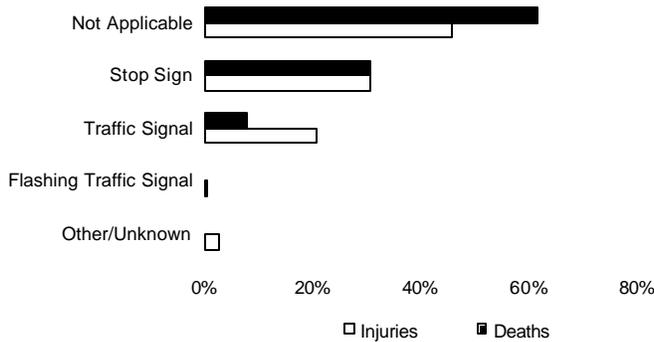
Note: "Traffic Control Device" relates to the TCD that was present at the scene of the crash. The totals in the table do not include an additional 29 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Road Type

Over half the deaths and injuries involving bicycles occurred on non-state roads.
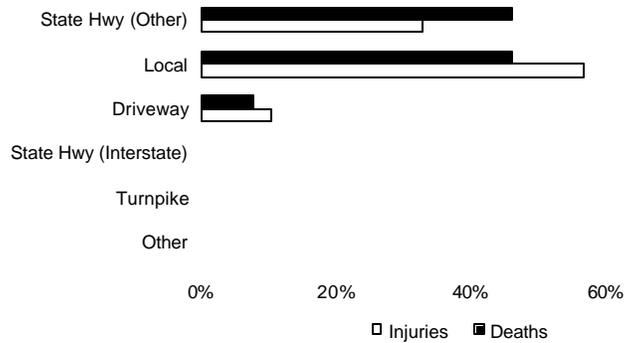
Note: "Road Type" relates to the road on which the bicyclist was traveling immediately prior to the crash. The totals in the table do not include an additional 29 bicyclists who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	6 (46.2%)	589 (32.7%)
Local	6 (46.2%)	1,022 (56.8%)
Driveway	1 (7.7%)	188 (10.5%)
State Hwy (Interstate)	0 (0.0%)	0 (0.0%)
Turnpike	0 (0.0%)	0 (0.0%)
Other	0 (0.0%)	0 (0.0%)
TOTAL	13 (100.0%)	1,799 (100.0%)

Peds & Bikes

Crashes by Motor Vehicle Type

Vehicle Crashes by Vehicle Types

	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Passenger Car	70.9%	84.1%	81.9%	83.1%
	977 crashes	66,016 crashes	42,089 crashes	109,082 crashes
Light Truck	36.9%	31.4%	33.9%	32.4%
	508 crashes	24,662 crashes	17,413 crashes	42,583 crashes
Heavy Truck	11.2%	4.5%	5.5%	5.0%
	154 crashes	3,551 crashes	2,831 crashes	6,536 crashes
Bicycle	0.9%	2.2%	0.0%	1.4%
	13 crashes	1,758 crashes	11 crashes	1,782 crashes
Motorcycle	9.1%	3.4%	0.4%	2.3%
	126 crashes	2,652 crashes	195 crashes	2,973 crashes
School Bus	0.2%	0.3%	0.3%	0.3%
	3 crashes	259 crashes	165 crashes	427 crashes
Commercial Bus	0.6%	0.7%	0.3%	0.5%
	8 crashes	548 crashes	129 crashes	685 crashes
Other	2.8%	2.0%	0.9%	1.5%
	39 crashes	1,536 crashes	440 crashes	2,015 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 70.9% of all fatal crashes). Percentage totals exceed 100% due to multiple vehicle crashes.

Vehicle Crashes—Single Vehicle Hitting Fixed Objects

Crashes in Which a Single Vehicle Hit a Fixed Object:	**42,479**	Passenger Car	30,875	72.7%
		Light Truck	9,845	23.2%
		Heavy Truck	805	1.9%
		Motorcycle	625	1.5%
		School Bus	28	0.1%
		Commercial Bus	34	0.1%
		Other	267	0.6%

Vehicle Crashes—Two-Vehicle Collisions

	Vehicle Struck								
Striking Vehicle	Passenger Car	Light Truck	Heavy Truck	Motor-cycle	Bicycle	School Bus	Commer-cial Bus	Other/ Unknown	Total
Passenger Car	35,360	1,514	10,349	338	819	155	210	262	**49,007**
Light Truck	9,164	535	3,671	88	194	54	45	80	**13,831**
Heavy Truck	1,435	323	443	4	6	13	6	6	**2,236**
Motorcycle	634	28	189	64	16	1	2	11	**945**
Bicycle	507	6	122	2	12	0	8	7	**664**
School Bus	70	3	19	0	1	7	1	1	**102**
Commercial Bus	155	7	33	0	4	0	9	2	**210**
Other/Unknown	593	9	131	13	50	3	4	31	**834**

Crashes by Vehicle

Passenger Car Crashes—Five-Year Trends

Total passenger car crashes in 2001 were the lowest in five years, but fatal crashes were the second highest in five years.

Total Crashes

Year	Crashes
1997	116,702
1998	115,082
1999	115,318
2000	116,759
2001	109,082

90,000   97,500   105,000   112,500   120,000

Fatal Crashes

Year	Crashes
1997	1,023
1998	963
1999	953
2000	950
2001	977

800   850   900   950   1,000   1,050   1,100
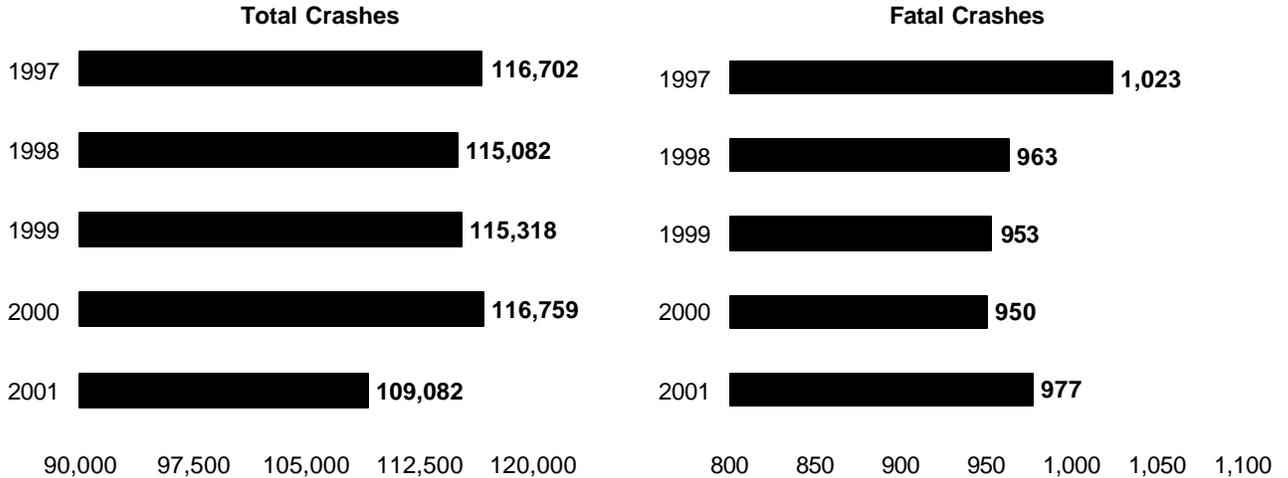
Passenger Car Deaths by Seating Position

In 2001, 57% of crash deaths involved passenger car occupants. The table below depicts the passenger car deaths in 2001 by seating position.

Total Deaths 873	Drivers **605 (69.3%)**		1 ➜
	Total Passengers **250 (28.6%)**	*Center Front* **11 (1.3%)**	2 ➜
		Right Front **178 (20.4%)**	3 ➜
		Left Rear **20 (2.3%)**	4 ➜
		Center Rear **10 (1.2%)**	5 ➜
		Right Rear **31 (3.6%)**	6 ➜
	Others **18 (2.1%)**		

"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 2001, total motorcycle crashes were the highest in five years, but fatal crashes decreased 16% since last year.

Total Crashes

1997	**2,423**
1998	**2,628**
1999	**2,688**
2000	**2,837**
2001	**2,973**

1,000 1,500 2,000 2,500 3,000 3,500

Fatal Crashes

1997	**92**
1998	**107**
1999	**109**
2000	**150**
2001	**126**

0   50   100   150   200
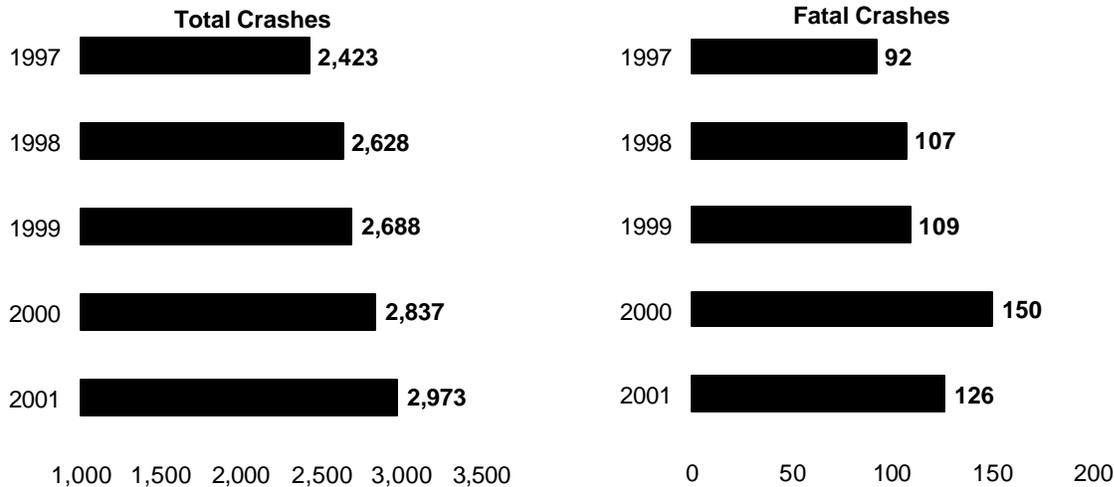
Motorcycle Deaths—Five-Year Trends

Year	Deaths
1997	92
1998	111
1999	111
2000	150
2001	127
TOTAL	**591**

Of the 127 deaths in 2001 involving motorcycle drivers or passengers:

- 120 (94.5%) were drivers
- 7 (5.5%) were passengers

Crashes by Vehicle

Motorcycle Helmet Use in Crashes

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

	Deaths	Injuries	Not Injured	Total Motorcyclists
Helmets	100 (78.7%)	2,211 (76.4%)	266 (65.8%)	2,577 (75.2%)
No Helmets	19 (15.0%)	405 (14.0%)	53 (13.1%)	477 (13.9%)
Unknown	8 (6.3%)	280 (9.7%)	85 (21.0%)	373 (10.9%)
TOTAL	**127 (100.0%)**	**2,896 (100.0%)**	**404 (100.0%)**	**3,427 (100.0%)**

Light Truck Crashes—Five-Year Trends

As pickups, minivans, and sport utility vehicles have become more popular over the last several years, crashes involving these types of vehicles have also risen. However, total crashes in 2001 were 20% lower than in 1997 while fatal crashes were 8% lower than 1997.

Total Crashes

Year	Crashes
1997	53,024
1998	52,061
1999	55,605
2000	58,502
2001	42,583

5,000   20,000   35,000   50,000   65,000

Fatal Crashes

Year	Crashes
1997	553
1998	512
1999	540
2000	537
2001	508

0   100   200   300   400   500   600
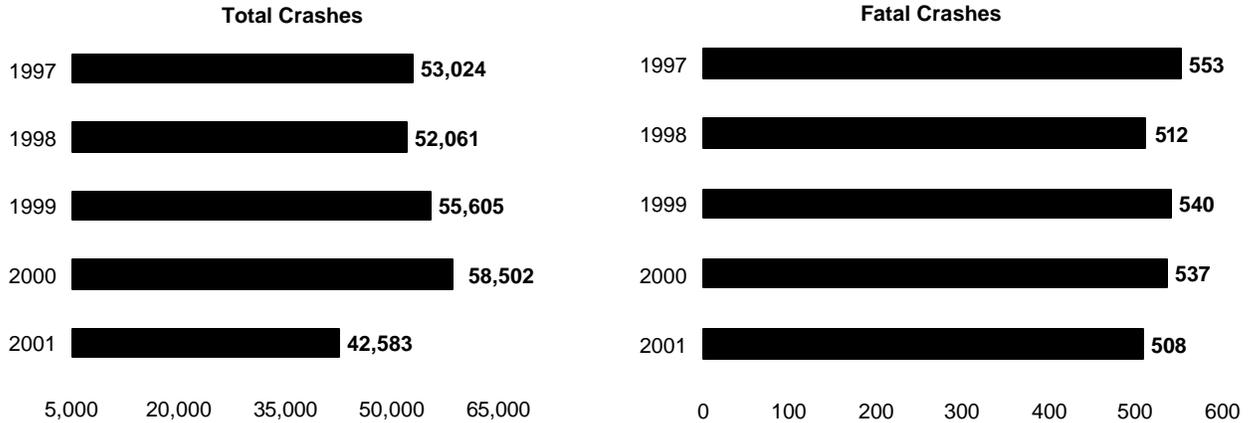
Light Truck Rollovers Compared to Passenger Cars

- The percentage of 2001 light truck crashes was much higher than passenger cars in crashes involving rollovers (7.8% of all light truck crashes compared to 5.3% of all passenger car crashes).

- In 2001 rollover crashes, the percentage of light truck occupant deaths was more than twice as high as passenger car occupant deaths (39.3% of deaths compared to 17.3%).

	Rollover Crashes	Rollover Deaths
Light Trucks	3,311 (7.8%)	110 (39.3%)
Passenger Cars	5,798 (5.3%)	151 (17.3%)

Light Truck Deaths by Seating Position

In 2001, 18% of crash deaths involved occupants in light trucks (jeeps, pickups, vans, sport utility vehicles, etc.). The table below depicts light truck deaths in 2001 by seating position, but includes others who were riding on the vehicles in unusual positions.

	Drivers **207 (73.9%)**	1
Total Deaths 280	Total Passengers **58 (20.7%)**	*Center Front* **2 (0.7%)** — 2
		Right Front **35 (12.5%)** — 3
		Left Rear **10 (3.6%)** — 4
		Center Rear **5 (1.8%)** — 5
		Right Rear **6 (2.1%)** — 6
	Truck Bed or Vehicle Exterior **10 (3.6%)**	
	Towed Unit/Other **5 (1.8%)**	
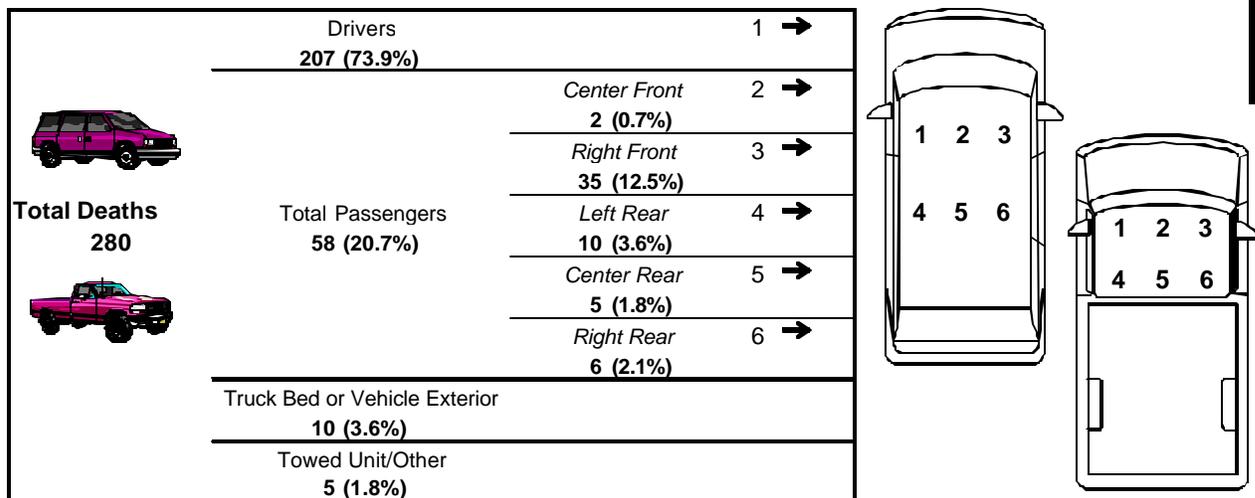
Crashes by Vehicle

Heavy Truck Crashes—Five Year Trends

Total crashes involving heavy trucks in 2001 were the lowest since 1992. The same holds true for fatal crashes in 2001.

Total Crashes

Year	Crashes
1997	7,530
1998	7,299
1999	7,755
2000	8,145
2001	6,536

1,000   3,000   5,000   7,000   9,000

Fatal Crashes

Year	Crashes
1997	188
1998	172
1999	194
2000	161
2001	154

100   120   140   160   180   200
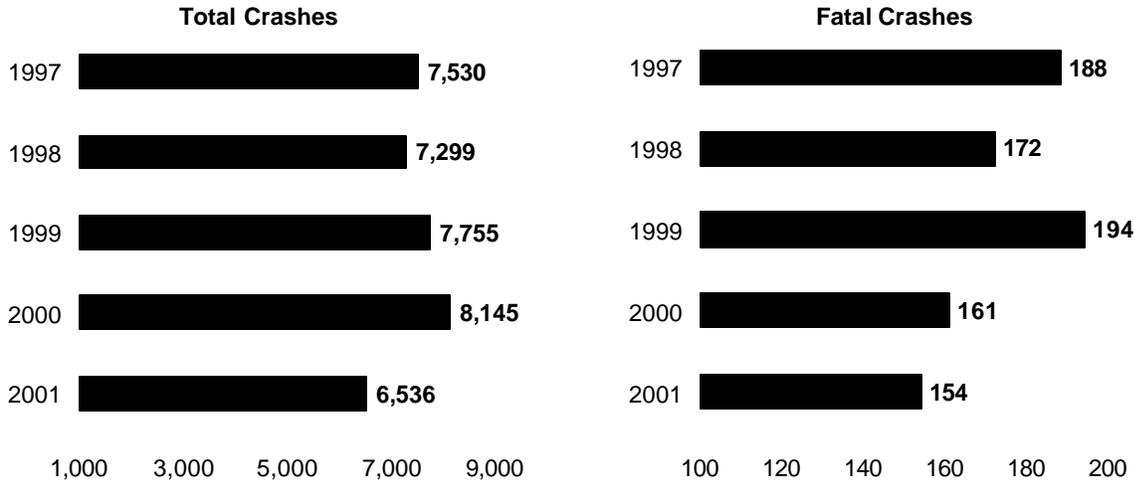
Heavy Truck Crashes Involving Vehicle Defects

The vast majority of heavy truck crashes involving vehicle defects as primary contributing factors were related to tires and wheels, brakes, and engine/transmission failures. *Note:* 2001 data uses primary contributing factors.

Vehicle Defect	Crashes
Tire/Wheel-Related	80
Brake-Related	76
Engine/Transmission Failure	52
Total Steering System Failure	13
Suspension	7
Vehicle Lighting-Related	5
Defective Wipers	1
Dirty/Frosty Windshield	1
Defective Defrosting	0
Exhaust System Failure	0

Crashes by Vehicle

Heavy Truck Crashes by Road Type

Road Type	Crashes	Occupant Deaths
State Hwy (Interstate)	1,358 (20.8%)	10 (38.5%)
State Hwy (Other)	3,704 (56.7%)	9 (34.6%)
Turnpike	451 (6.9%)	1 (3.9%)
Local Road	828 (12.7%)	4 (15.4%)
Ramp	195 (3.0%)	2 (7.7%)
TOTAL	**6,536 (100.0%)**	**26 (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)	43 (19.6%)	6 (17.1%)
State Hwy (Other)	127 (57.7%)	19 (54.3%)
Turnpike	16 (7.3%)	2 (5.7%)
Local Road	28 (12.7%)	5 (14.3%)
Ramp	6 (2.7%)	3 (8.6%)
TOTAL	**220 (100.0%)**	**35 (100.0%)**

Note: State highway (other) includes state-maintained roads that are not designated as interstates.

Heavy Truck Deaths by Seating Position

In 2001, only 2% of crash deaths involved heavy truck occupants. The table below depicts the heavy truck deaths in 2001 by seating position.

	Drivers		1 ➜
	21 (80.8%)		
		Center Front	2 ➜
Total Deaths	Total Passengers	**2 (7.7%)**	
26	**4 (15.4%)**	*Right Front*	3 ➜
		2 (7.7%)	
	Others		
	1 (3.9%)		

"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 almost 5,000 persons involved in school bus crashes in 2001, only 4 were killed. Over 80% 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 are not the school bus passengers.

Total persons involved: **4,488**

Persons Involved

Killed (4)

Injured (748)

No Injury (3,736)
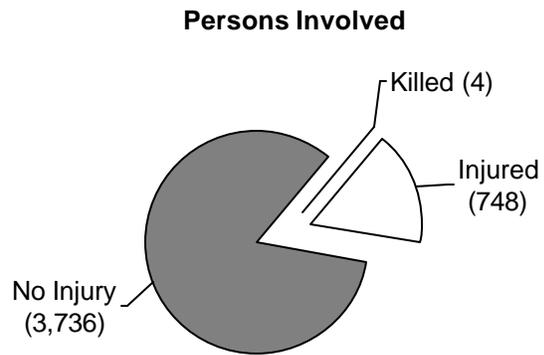
The majority (61%) of school bus crashes in 2001 were injury crashes. However, as the pie chart above shows, most persons involved in school bus crashes suffer no injuries at all.

Total Crashes

Fatal Crashes (3)

PDO Crashes (165)

Injury Crashes (259)
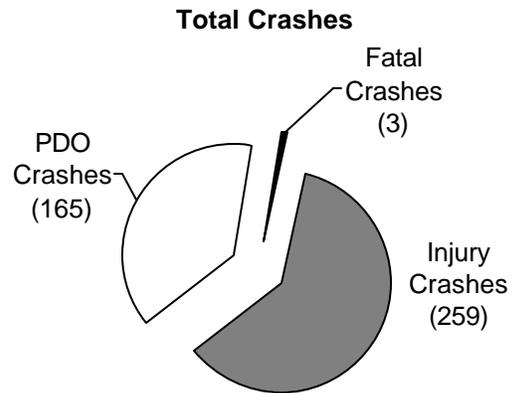
School Bus Crashes by Road Type

Road Type	Crashes	
State Hwy (Interstate)	3	0.7%
State Hwy (Other)	265	62.1%
Turnpike	0	0.0%
Local Road	156	36.5%
Ramp	3	0.7%
TOTAL	**427**	**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 has fluctuated over the past five years, as have injury and property damage only (PDO) crashes. School bus related deaths are 0.3% of total fatalities in 2001. Most of the persons killed were not school bus passengers at the time of the crash.

Total Crashes

Year	Crashes
1997	572
1998	495
1999	507
2000	604
2001	427

Total Deaths

Year	Deaths
1997	6
1998	7
1999	12
2000	5
2001	4
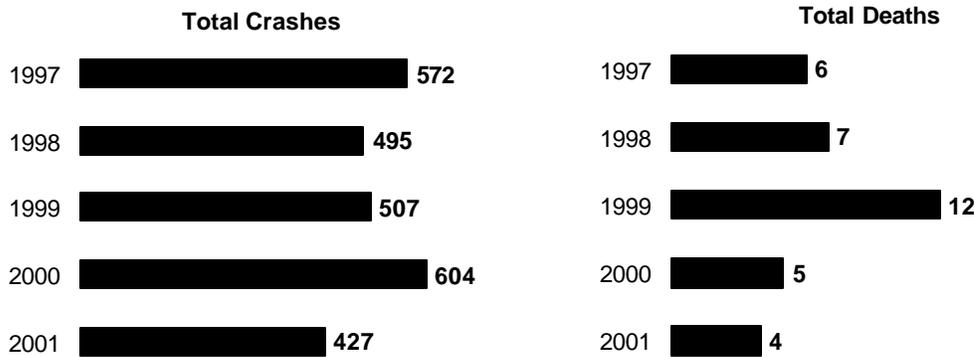
Year	Crash Severity				Deaths	Injuries
	Fatal	*Injury*	*PDO*	*Total*		
1997	5	363	204	572	6	1,020
1998	7	330	158	495	7	884
1999	9	322	176	507	12	1,004
2000	5	395	204	604	5	906
2001	3	259	165	427	4	748
TOTAL	**29**	**1,669**	**907**	**2,605**	**34**	**4,562**

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. Most of the persons who were killed or injured in these crashes were not school bus passengers.

DEATHS Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Driver/ Passenger of Other Vehicle	Other/ Unknown	Total Deaths
1997	0	0	0	1	5	0	**6**
1998	1	0	0	0	5	1	**7**
1999	1	0	0	0	11	0	**12**
2000	0	0	2	0	3	0	**5**
2001	0	0	0	1	3	0	**4**
TOTAL	**2**	**0**	**2**	**2**	**27**	**1**	**34**

INJURIES Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Driver/ Passenger of Other Vehicle	Other/ Unknown	Total Injuries
1997	80	635	4	9	287	5	**1,020**
1998	73	493	8	9	295	6	**884**
1999	54	626	5	12	290	17	**1,004**
2000	67	492	10	12	320	5	**906**
2001	38	221	7	14	462	6	**748**
TOTAL	**312**	**2,467**	**34**	**56**	**1,654**	**39**	**4,562**

Crashes by Vehicle

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 2001, Pennsylvania's total population was 12,287,150 people.

The ten most populated counties were:

Philadelphia (12.1%)	Allegheny (10.3%)	Montgomery (6.2%)
Bucks (4.9%)	Delaware (4.5%)	Lancaster (3.9%)
Chester (3.6%)	York (3.1%)	Berks (3.1%)
Westmoreland (3.0%)	*See page 59.*	

The ten least populated counties were:

Forest (0.04%)	Cameron (0.05%)	Sullivan (0.05%)
Fulton (0.12%)	Potter (0.15%)	Montour (0.15%)
Juniata (0.19%)	Wyoming (0.23%)	Elk (0.28%)
Snyder (0.31%)	*See page 59.*	

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

Westmoreland (2.99%)	Allegheny (2.95%)	York (2.86%)
Lancaster (2.76%)	Washington (2.73%)	Chester (2.58%)
Bucks (2.40%)	Crawford (2.28%)	Bradford (2.25%)
Berks (2.22%)		

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

Allegheny (5.94%)	Lancaster (3.54%)	Montgomery (3.49%)
York (3.34%)	Westmoreland (3.12%)	Bucks (3.07%)
Berks (3.07%)	Chester (3.01%)	Philadelphia (2.73%)
Erie (2.32%)		

The ten counties with the most reported traffic crashes were:

Philadelphia (10.0%)	Allegheny (9.6%)	Montgomery (6.9%)
Bucks (5.3%)	Lancaster (3.9%)	Delaware (3.7%)
Berks (3.7%)	Chester (3.6%)	York (3.5%)
Lehigh (3.3%)	*See page 59.*	

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

Philadelphia (7.8%)	Allegheny (7.2%)	Bucks (4.3%)
Montgomery (4.1%)	York (3.6%)	Lancaster (3.5%)
Luzerne (3.4%)	Chester (3.1%)	Berks (3.0%)
Westmoreland (3.0%)	*See page 61.*	

*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. 2000 information was used.

Pennsylvania Crashes by County

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

County	Population	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Adams	92,997 (0.8%)	11 (0.8%)	538 (0.7%)	442 (0.9%)	991 (0.8%)
Allegheny	1,270,612 (10.3%)	99 (7.2%)	7,256 (9.2%)	5,270 (10.3%)	12,625 (9.6%)
Armstrong	72,101 (0.6%)	8 (0.6%)	378 (0.5%)	268 (0.5%)	654 (0.5%)
Beaver	179,871 (1.5%)	16 (1.2%)	890 (1.1%)	692 (1.4%)	1,598 (1.2%)
Bedford	49,899 (0.4%)	10 (0.7%)	393 (0.5%)	348 (0.7%)	751 (0.6%)
Berks	377,679 (3.1%)	43 (3.1%)	2,709 (3.5%)	2,048 (4.0%)	4,800 (3.7%)
Blair	128,391 (1.0%)	21 (1.5%)	937 (1.2%)	695 (1.4%)	1,653 (1.3%)
Bradford	62,859 (0.5%)	7 (0.5%)	356 (0.5%)	253 (0.5%)	616 (0.5%)
Bucks	605,379 (4.9%)	60 (4.4%)	4,069 (5.2%)	2,815 (5.5%)	6,944 (5.3%)
Butler	176,593 (1.4%)	18 (1.3%)	1,099 (1.4%)	834 (1.6%)	1,951 (1.5%)
Cambria	150,726 (1.2%)	20 (1.5%)	796 (1.0%)	551 (1.1%)	1,367 (1.0%)
Cameron	5,866 (0.1%)	1 (0.1%)	44 (0.1%)	19 (0.0%)	64 (0.1%)
Carbon	59,506 (0.5%)	10 (0.7%)	429 (0.6%)	341 (0.7%)	780 (0.6%)
Centre	135,940 (1.1%)	18 (1.3%)	870 (1.1%)	633 (1.2%)	1,521 (1.2%)
Chester	443,346 (3.6%)	44 (3.2%)	2,461 (3.1%)	2,265 (4.4%)	4,770 (3.6%)
Clarion	41,478 (0.3%)	9 (0.7%)	308 (0.4%)	235 (0.5%)	552 (0.4%)
Clearfield	83,167 (0.7%)	19 (1.4%)	615 (0.8%)	409 (0.8%)	1,043 (0.8%)
Clinton	37,753 (0.3%)	9 (0.7%)	263 (0.3%)	223 (0.4%)	495 (0.4%)
Columbia	64,152 (0.5%)	9 (0.7%)	372 (0.5%)	303 (0.6%)	684 (0.5%)
Crawford	90,046 (0.7%)	21 (1.5%)	589 (0.8%)	373 (0.7%)	983 (0.8%)
Cumberland	215,695 (1.8%)	17 (1.2%)	1,287 (1.6%)	1,126 (2.2%)	2,430 (1.9%)
Dauphin	251,316 (2.1%)	30 (2.2%)	1,712 (2.2%)	1,367 (2.7%)	3,109 (2.4%)
Delaware	551,158 (4.5%)	37 (2.7%)	3,039 (3.9%)	1,767 (3.4%)	4,843 (3.7%)
Elk	34,666 (0.3%)	5 (0.4%)	211 (0.3%)	153 (0.3%)	369 (0.3%)
Erie	279,636 (2.3%)	37 (2.7%)	1,771 (2.3%)	1,143 (2.2%)	2,951 (2.3%)
Fayette	147,367 (1.2%)	19 (1.4%)	901 (1.2%)	577 (1.1%)	1,497 (1.1%)
Forest	4,910 (0.0%)	0 (0.0%)	55 (0.1%)	25 (0.1%)	80 (0.1%)
Franklin	130,506 (1.1%)	24 (1.7%)	824 (1.1%)	616 (1.2%)	1,464 (1.1%)
Fulton	14,314 (0.1%)	2 (0.2%)	152 (0.2%)	142 (0.3%)	296 (0.2%)
Greene	40,492 (0.3%)	5 (0.4%)	250 (0.3%)	202 (0.4%)	457 (0.4%)
Huntingdon	45,632 (0.4%)	5 (0.4%)	261 (0.3%)	205 (0.4%)	471 (0.4%)
Indiana	89,108 (0.7%)	21 (1.5%)	532 (0.7%)	380 (0.7%)	933 (0.7%)
Jefferson	45,712 (0.4%)	7 (0.5%)	244 (0.3%)	218 (0.4%)	469 (0.4%)
Juniata	22,877 (0.2%)	3 (0.2%)	130 (0.2%)	97 (0.2%)	230 (0.2%)
Lackawanna	211,829 (1.7%)	26 (1.9%)	1,242 (1.6%)	842 (1.6%)	2,110 (1.6%)
Lancaster	474,601 (3.9%)	51 (3.7%)	3,020 (3.9%)	2,104 (4.1%)	5,175 (3.9%)
Lawrence	94,160 (0.8%)	9 (0.7%)	541 (0.7%)	345 (0.7%)	895 (0.7%)
Lebanon	120,963 (1.0%)	19 (1.4%)	829 (1.1%)	594 (1.2%)	1,442 (1.1%)
Lehigh	314,204 (2.6%)	31 (2.3%)	2,546 (3.2%)	1,732 (3.4%)	4,309 (3.3%)
Luzerne	315,754 (2.6%)	49 (3.6%)	2,149 (2.7%)	1,270 (2.5%)	3,468 (2.6%)
Lycoming	118,977 (1.0%)	16 (1.2%)	616 (0.8%)	522 (1.0%)	1,154 (0.9%)
McKean	45,440 (0.4%)	4 (0.3%)	218 (0.3%)	155 (0.3%)	377 (0.3%)
Mercer	119,682 (1.0%)	18 (1.3%)	878 (1.1%)	512 (1.0%)	1,408 (1.1%)
Mifflin	46,554 (0.4%)	5 (0.4%)	229 (0.3%)	171 (0.3%)	405 (0.3%)
Monroe	144,676 (1.2%)	34 (2.5%)	1,276 (1.6%)	1,060 (2.1%)	2,370 (1.8%)
Montgomery	759,953 (6.2%)	60 (4.4%)	5,309 (6.8%)	3,661 (7.1%)	9,030 (6.9%)
Montour	18,281 (0.2%)	3 (0.2%)	123 (0.2%)	90 (0.2%)	216 (0.2%)
Northampton	269,779 (2.2%)	19 (1.4%)	1,518 (1.9%)	1,151 (2.2%)	2,688 (2.1%)
Northumberland	93,662 (0.8%)	11 (0.8%)	395 (0.5%)	290 (0.6%)	696 (0.5%)
Perry	43,787 (0.4%)	16 (1.2%)	289 (0.4%)	257 (0.5%)	562 (0.4%)
Philadelphia	1,491,812 (12.1%)	114 (8.3%)	10,603 (13.5%)	2,380 (4.6%)	13,097 (10.0%)
Pike	48,507 (0.4%)	9 (0.7%)	286 (0.4%)	231 (0.5%)	526 (0.4%)
Potter	18,154 (0.2%)	2 (0.2%)	101 (0.1%)	68 (0.1%)	171 (0.1%)
Schuylkill	149,176 (1.2%)	32 (2.3%)	861 (1.1%)	732 (1.4%)	1,625 (1.2%)
Snyder	37,720 (0.3%)	6 (0.4%)	249 (0.3%)	174 (0.3%)	429 (0.3%)
Somerset	79,553 (0.7%)	12 (0.9%)	517 (0.7%)	360 (0.7%)	889 (0.7%)
Sullivan	6,532 (0.1%)	3 (0.2%)	48 (0.1%)	32 (0.1%)	83 (0.1%)
Susquehanna	42,165 (0.3%)	9 (0.7%)	281 (0.4%)	214 (0.4%)	504 (0.4%)
Tioga	41,621 (0.3%)	4 (0.3%)	231 (0.3%)	170 (0.3%)	405 (0.3%)
Union	41,701 (0.3%)	5 (0.4%)	208 (0.3%)	169 (0.3%)	382 (0.3%)
Venango	57,098 (0.5%)	7 (0.5%)	382 (0.5%)	231 (0.5%)	620 (0.5%)
Warren	43,593 (0.4%)	12 (0.9%)	257 (0.3%)	191 (0.4%)	460 (0.4%)
Washington	203,737 (1.7%)	22 (1.6%)	1,082 (1.4%)	822 (1.6%)	1,926 (1.5%)
Wayne	48,392 (0.4%)	9 (0.7%)	377 (0.5%)	273 (0.5%)	659 (0.5%)
Westmoreland	368,983 (3.0%)	41 (3.0%)	2,198 (2.8%)	1,543 (3.0%)	3,782 (2.9%)
Wyoming	28,055 (0.2%)	8 (0.6%)	211 (0.3%)	163 (0.3%)	382 (0.3%)
York	386,299 (3.1%)	47 (3.4%)	2,712 (3.5%)	1,847 (3.6%)	4,606 (3.5%)
TOTAL	**12,287,150 (100.0%)**	**1,378 (100.0%)**	**78,523 (100.0%)**	**51,391 (100.0%)**	**131,292 (100.0%)**

Counties

Crashes by County—Five-Year Trends

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

County	1997 Crashes	1998 Crashes	1999 Crashes	2000 Crashes	2001 Crashes
Adams	977 (0.7%)	932 (0.7%)	1,035 (0.7%)	1,028 (0.7%)	991 (0.8%)
Allegheny	13,903 (9.7%)	13,425 (9.5%)	13,798 (9.6%)	13,850 (9.4%)	12,625 (9.6%)
Armstrong	764 (0.5%)	714 (0.5%)	732 (0.5%)	755 (0.5%)	654 (0.5%)
Beaver	1,952 (1.4%)	1,821 (1.3%)	1,860 (1.3%)	1,905 (1.3%)	1,598 (1.2%)
Bedford	747 (0.5%)	771 (0.6%)	835 (0.6%)	837 (0.6%)	751 (0.6%)
Berks	5,195 (3.6%)	4,890 (3.5%)	5,021 (3.5%)	5,418 (3.7%)	4,800 (3.7%)
Blair	1,861 (1.3%)	1,889 (1.3%)	1,771 (1.2%)	1,762 (1.2%)	1,653 (1.3%)
Bradford	681 (0.5%)	671 (0.5%)	613 (0.4%)	698 (0.5%)	616 (0.5%)
Bucks	7,446 (5.2%)	7,273 (5.2%)	7,603 (5.3%)	7,647 (5.2%)	6,944 (5.3%)
Butler	2,171 (1.5%)	1,962 (1.4%)	1,968 (1.4%)	2,113 (1.4%)	1,951 (1.5%)
Cambria	1,591 (1.1%)	1,436 (1.0%)	1,425 (1.0%)	1,508 (1.0%)	1,367 (1.0%)
Cameron	65 (0.0%)	58 (0.0%)	60 (0.0%)	67 (0.1%)	64 (0.1%)
Carbon	802 (0.6%)	780 (0.6%)	873 (0.6%)	793 (0.5%)	780 (0.6%)
Centre	1,444 (1.0%)	1,481 (1.1%)	1,557 (1.1%)	1,578 (1.1%)	1,521 (1.2%)
Chester	5,212 (3.6%)	5,194 (3.7%)	5,192 (3.6%)	5,390 (3.7%)	4,770 (3.6%)
Clarion	632 (0.4%)	546 (0.4%)	585 (0.4%)	665 (0.5%)	552 (0.4%)
Clearfield	1,089 (0.8%)	1,038 (0.7%)	1,071 (0.7%)	1,078 (0.7%)	1,043 (0.8%)
Clinton	497 (0.3%)	466 (0.3%)	495 (0.3%)	508 (0.3%)	495 (0.4%)
Columbia	769 (0.5%)	777 (0.6%)	831 (0.6%)	843 (0.6%)	684 (0.5%)
Crawford	1,123 (0.8%)	1,056 (0.8%)	1,058 (0.7%)	1,106 (0.8%)	983 (0.8%)
Cumberland	2,528 (1.8%)	2,527 (1.8%)	2,579 (1.8%)	2,529 (1.7%)	2,430 (1.9%)
Dauphin	3,204 (2.2%)	3,211 (2.3%)	3,241 (2.3%)	3,458 (2.4%)	3,109 (2.4%)
Delaware	5,562 (3.9%)	5,468 (3.9%)	5,307 (3.7%)	5,535 (3.8%)	4,843 (3.7%)
Elk	423 (0.3%)	388 (0.3%)	388 (0.3%)	415 (0.3%)	369 (0.3%)
Erie	3,474 (2.4%)	3,343 (2.4%)	3,288 (2.3%)	3,352 (2.3%)	2,951 (2.3%)
Fayette	1,598 (1.1%)	1,659 (1.2%)	1,638 (1.1%)	1,688 (1.2%)	1,497 (1.1%)
Forest	97 (0.1%)	99 (0.1%)	86 (0.1%)	91 (0.1%)	80 (0.1%)
Franklin	1,666 (1.2%)	1,607 (1.1%)	1,567 (1.1%)	1,694 (1.2%)	1,464 (1.1%)
Fulton	316 (0.2%)	318 (0.2%)	369 (0.3%)	322 (0.2%)	296 (0.2%)
Greene	480 (0.3%)	496 (0.4%)	493 (0.3%)	479 (0.3%)	457 (0.4%)
Huntingdon	520 (0.4%)	512 (0.4%)	515 (0.4%)	550 (0.4%)	471 (0.4%)
Indiana	1,072 (0.7%)	1,017 (0.7%)	985 (0.7%)	993 (0.7%)	933 (0.7%)
Jefferson	572 (0.4%)	548 (0.4%)	566 (0.4%)	580 (0.4%)	469 (0.4%)
Juniata	266 (0.2%)	246 (0.2%)	268 (0.2%)	269 (0.2%)	230 (0.2%)
Lackawanna	2,672 (1.9%)	2,511 (1.8%)	2,638 (1.8%)	2,807 (1.9%)	2,110 (1.6%)
Lancaster	5,654 (3.9%)	5,714 (4.1%)	5,699 (4.0%)	5,773 (3.9%)	5,175 (3.9%)
Lawrence	1,134 (0.8%)	1,134 (0.8%)	1,112 (0.8%)	1,111 (0.8%)	895 (0.7%)
Lebanon	1,541 (1.1%)	1,523 (1.1%)	1,615 (1.1%)	1,547 (1.1%)	1,442 (1.1%)
Lehigh	4,509 (3.1%)	4,816 (3.4%)	4,782 (3.3%)	4,781 (3.3%)	4,309 (3.3%)
Luzerne	3,953 (2.7%)	3,550 (2.5%)	3,805 (2.6%)	4,012 (2.7%)	3,468 (2.6%)
Lycoming	1,364 (0.9%)	1,239 (0.9%)	1,390 (1.0%)	1,294 (0.9%)	1,154 (0.9%)
McKean	468 (0.3%)	486 (0.3%)	461 (0.3%)	481 (0.3%)	377 (0.3%)
Mercer	1,670 (1.2%)	1,647 (1.2%)	1,578 (1.1%)	1,744 (1.2%)	1,408 (1.1%)
Mifflin	429 (0.3%)	434 (0.3%)	436 (0.3%)	502 (0.3%)	405 (0.3%)
Monroe	2,234 (1.6%)	2,198 (1.6%)	2,343 (1.6%)	2,447 (1.7%)	2,370 (1.8%)
Montgomery	9,751 (6.8%)	9,777 (6.9%)	9,771 (6.8%)	10,022 (6.8%)	9,030 (6.9%)
Montour	226 (0.2%)	196 (0.1%)	206 (0.1%)	218 (0.2%)	216 (0.2%)
Northampton	3,243 (2.3%)	3,086 (2.2%)	3,005 (2.1%)	3,037 (2.1%)	2,688 (2.1%)
Northumberland	878 (0.6%)	795 (0.6%)	878 (0.6%)	830 (0.6%)	696 (0.5%)
Perry	621 (0.4%)	621 (0.4%)	603 (0.4%)	574 (0.4%)	562 (0.4%)
Philadelphia	13,928 (9.7%)	14,231 (10.1%)	15,087 (10.5%)	15,197 (10.3%)	13,097 (10.0%)
Pike	535 (0.4%)	503 (0.4%)	560 (0.4%)	537 (0.4%)	526 (0.4%)
Potter	165 (0.1%)	156 (0.1%)	167 (0.1%)	193 (0.1%)	171 (0.1%)
Schuylkill	1,799 (1.2%)	1,753 (1.2%)	1,766 (1.2%)	1,876 (1.3%)	1,625 (1.2%)
Snyder	432 (0.3%)	421 (0.3%)	451 (0.3%)	458 (0.3%)	429 (0.3%)
Somerset	991 (0.7%)	886 (0.6%)	901 (0.6%)	976 (0.7%)	889 (0.7%)
Sullivan	91 (0.1%)	76 (0.1%)	95 (0.1%)	100 (0.1%)	83 (0.1%)
Susquehanna	602 (0.4%)	505 (0.4%)	553 (0.4%)	550 (0.4%)	504 (0.4%)
Tioga	474 (0.3%)	437 (0.3%)	489 (0.3%)	475 (0.3%)	405 (0.3%)
Union	381 (0.3%)	360 (0.3%)	448 (0.3%)	422 (0.3%)	382 (0.3%)
Venango	755 (0.5%)	732 (0.5%)	726 (0.5%)	813 (0.6%)	620 (0.5%)
Warren	524 (0.4%)	478 (0.3%)	510 (0.4%)	478 (0.3%)	460 (0.4%)
Washington	2,342 (1.6%)	2,276 (1.6%)	2,319 (1.6%)	2,315 (1.6%)	1,926 (1.5%)
Wayne	655 (0.5%)	601 (0.4%)	668 (0.5%)	683 (0.5%)	659 (0.5%)
Westmoreland	4,249 (3.0%)	4,011 (2.9%)	4,215 (2.9%)	4,336 (2.9%)	3,782 (2.9%)
Wyoming	365 (0.3%)	382 (0.3%)	384 (0.3%)	383 (0.3%)	382 (0.3%)
York	4,647 (3.2%)	4,818 (3.4%)	4,837 (3.4%)	4,777 (3.2%)	4,606 (3.5%)
TOTAL	143,981 (100.0%)	140,972 (100.0%)	144,171 (100.0%)	147,253 (100.0%)	131,292 (100.0%)

Counties

Traffic Deaths by County—Five-Year Trends

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

County	1997 Deaths	1998 Deaths	1999 Deaths	2000 Deaths	2001 Deaths
Adams	16 (1.0%)	17 (1.1%)	21 (1.4%)	13 (0.9%)	**13 (0.9%)**
Allegheny	85 (5.4%)	78 (5.3%)	73 (4.7%)	81 (5.3%)	**110 (7.2%)**
Armstrong	15 (1.0%)	12 (0.8%)	20 (1.3%)	19 (1.3%)	**9 (0.6%)**
Beaver	16 (1.0%)	16 (1.1%)	20 (1.3%)	25 (1.6%)	**20 (1.3%)**
Bedford	11 (0.7%)	10 (0.7%)	28 (1.8%)	14 (0.9%)	**12 (0.8%)**
Berks	59 (3.8%)	54 (3.6%)	59 (3.8%)	56 (3.7%)	**46 (3.0%)**
Blair	17 (1.1%)	18 (1.2%)	21 (1.4%)	21 (1.4%)	**26 (1.7%)**
Bradford	11 (0.7%)	5 (0.3%)	13 (0.8%)	7 (0.5%)	**10 (0.7%)**
Bucks	64 (4.1%)	54 (3.6%)	73 (4.7%)	61 (4.0%)	**66 (4.3%)**
Butler	27 (1.7%)	25 (1.7%)	18 (1.2%)	32 (2.1%)	**19 (1.2%)**
Cambria	13 (0.8%)	18 (1.2%)	14 (0.9%)	16 (1.1%)	**23 (1.5%)**
Cameron	2 (0.1%)	2 (0.1%)	0 (0.0%)	1 (0.1%)	**1 (0.1%)**
Carbon	17 (1.1%)	17 (1.1%)	10 (0.7%)	19 (1.3%)	**10 (0.7%)**
Centre	25 (1.6%)	18 (1.2%)	12 (0.8%)	18 (1.2%)	**22 (1.4%)**
Chester	51 (3.3%)	49 (3.3%)	58 (3.7%)	61 (4.0%)	**47 (3.1%)**
Clarion	10 (0.6%)	12 (0.8%)	9 (0.6%)	10 (0.7%)	**10 (0.7%)**
Clearfield	28 (1.8%)	16 (1.1%)	20 (1.3%)	18 (1.2%)	**21 (1.4%)**
Clinton	11 (0.7%)	10 (0.7%)	6 (0.4%)	6 (0.4%)	**14 (0.9%)**
Columbia	4 (0.3%)	6 (0.4%)	16 (1.0%)	6 (0.4%)	**11 (0.7%)**
Crawford	15 (1.0%)	16 (1.1%)	24 (1.6%)	23 (1.5%)	**23 (1.5%)**
Cumberland	21 (1.3%)	18 (1.2%)	32 (2.1%)	20 (1.3%)	**18 (1.2%)**
Dauphin	27 (1.7%)	26 (1.8%)	36 (2.3%)	29 (1.9%)	**32 (2.1%)**
Delaware	41 (2.6%)	40 (2.7%)	31 (2.0%)	29 (1.9%)	**42 (2.7%)**
Elk	10 (0.6%)	10 (0.7%)	8 (0.5%)	14 (0.9%)	**5 (0.3%)**
Erie	39 (2.5%)	40 (2.7%)	42 (2.7%)	40 (2.6%)	**44 (2.9%)**
Fayette	28 (1.8%)	40 (2.7%)	19 (1.2%)	19 (1.3%)	**20 (1.3%)**
Forest	2 (0.1%)	2 (0.1%)	2 (0.1%)	3 (0.2%)	**0 (0.0%)**
Franklin	22 (1.4%)	28 (1.9%)	26 (1.7%)	21 (1.4%)	**24 (1.6%)**
Fulton	10 (0.6%)	10 (0.7%)	14 (0.9%)	6 (0.4%)	**3 (0.2%)**
Greene	5 (0.3%)	5 (0.3%)	6 (0.4%)	8 (0.5%)	**6 (0.4%)**
Huntingdon	8 (0.5%)	23 (1.6%)	4 (0.3%)	15 (1.0%)	**7 (0.5%)**
Indiana	21 (1.3%)	21 (1.4%)	21 (1.4%)	15 (1.0%)	**23 (1.5%)**
Jefferson	6 (0.4%)	6 (0.4%)	10 (0.7%)	12 (0.8%)	**7 (0.5%)**
Juniata	7 (0.4%)	3 (0.2%)	7 (0.5%)	8 (0.5%)	**3 (0.2%)**
Lackawanna	18 (1.2%)	32 (2.2%)	19 (1.2%)	18 (1.2%)	**28 (1.8%)**
Lancaster	66 (4.2%)	55 (3.7%)	57 (3.7%)	61 (4.0%)	**54 (3.5%)**
Lawrence	15 (1.0%)	22 (1.5%)	13 (0.8%)	14 (0.9%)	**10 (0.7%)**
Lebanon	17 (1.1%)	22 (1.5%)	16 (1.0%)	7 (0.5%)	**21 (1.4%)**
Lehigh	37 (2.4%)	42 (2.8%)	34 (2.2%)	31 (2.0%)	**34 (2.2%)**
Luzerne	46 (2.9%)	30 (2.0%)	37 (2.4%)	47 (3.1%)	**52 (3.4%)**
Lycoming	17 (1.1%)	14 (0.9%)	17 (1.1%)	12 (0.8%)	**18 (1.2%)**
McKean	7 (0.4%)	11 (0.7%)	10 (0.7%)	7 (0.5%)	**5 (0.3%)**
Mercer	24 (1.5%)	19 (1.3%)	12 (0.8%)	40 (2.6%)	**18 (1.2%)**
Mifflin	8 (0.5%)	3 (0.2%)	6 (0.4%)	3 (0.2%)	**5 (0.3%)**
Monroe	28 (1.8%)	28 (1.9%)	26 (1.7%)	32 (2.1%)	**39 (2.6%)**
Montgomery	65 (4.2%)	69 (4.6%)	47 (3.0%)	62 (4.1%)	**62 (4.1%)**
Montour	2 (0.1%)	4 (0.3%)	4 (0.3%)	6 (0.4%)	**4 (0.3%)**
Northampton	28 (1.8%)	26 (1.8%)	34 (2.2%)	28 (1.8%)	**25 (1.6%)**
Northumberland	16 (1.0%)	21 (1.4%)	21 (1.4%)	11 (0.7%)	**12 (0.8%)**
Perry	10 (0.6%)	7 (0.5%)	12 (0.8%)	10 (0.7%)	**18 (1.2%)**
Philadelphia	150 (9.6%)	104 (7.0%)	133 (8.6%)	121 (8.0%)	**120 (7.8%)**
Pike	8 (0.5%)	14 (0.9%)	7 (0.5%)	11 (0.7%)	**11 (0.7%)**
Potter	5 (0.3%)	3 (0.2%)	6 (0.4%)	3 (0.2%)	**2 (0.1%)**
Schuylkill	37 (2.4%)	32 (2.2%)	44 (2.8%)	30 (2.0%)	**40 (2.6%)**
Snyder	7 (0.4%)	6 (0.4%)	9 (0.6%)	6 (0.4%)	**6 (0.4%)**
Somerset	13 (0.8%)	27 (1.8%)	20 (1.3%)	17 (1.1%)	**14 (0.9%)**
Sullivan	2 (0.1%)	0 (0.0%)	0 (0.0%)	3 (0.2%)	**4 (0.3%)**
Susquehanna	11 (0.7%)	11 (0.7%)	14 (0.9%)	8 (0.5%)	**10 (0.7%)**
Tioga	10 (0.6%)	5 (0.3%)	11 (0.7%)	7 (0.5%)	**4 (0.3%)**
Union	9 (0.6%)	5 (0.3%)	9 (0.6%)	6 (0.4%)	**5 (0.3%)**
Venango	15 (1.0%)	10 (0.7%)	15 (1.0%)	16 (1.1%)	**7 (0.5%)**
Warren	7 (0.4%)	9 (0.6%)	11 (0.7%)	7 (0.5%)	**14 (0.9%)**
Washington	30 (1.9%)	16 (1.1%)	29 (1.9%)	30 (2.0%)	**23 (1.5%)**
Wayne	10 (0.6%)	14 (0.9%)	5 (0.3%)	13 (0.9%)	**9 (0.6%)**
Westmoreland	51 (3.3%)	45 (3.0%)	40 (2.6%)	48 (3.2%)	**46 (3.0%)**
Wyoming	6 (0.4%)	9 (0.6%)	6 (0.4%)	4 (0.3%)	**10 (0.7%)**
York	43 (2.8%)	46 (3.1%)	52 (3.4%)	55 (3.6%)	**55 (3.6%)**
TOTAL	**1,562 (100.0%)**	**1,486 (100.0%)**	**1,549 (100.0%)**	**1,520 (100.0%)**	**1,532 (100.0%)**

Counties

Pedestrian Deaths by County—Five-Year Trends

County	1997	1998	1999	2000	2001
Adams	2	3	1	1	1
Allegheny	21	13	16	15	23
Armstrong	0	0	1	1	0
Beaver	0	2	1	2	7
Bedford	2	1	0	1	0
Berks	4	7	3	7	7
Blair	5	1	4	2	0
Bradford	0	0	0	0	1
Bucks	6	9	14	4	10
Butler	4	3	1	3	1
Cambria	1	2	0	2	2
Cameron	0	0	0	0	0
Carbon	1	0	0	0	0
Centre	4	0	2	3	2
Chester	4	5	5	6	3
Clarion	0	1	0	1	1
Clearfield	2	1	0	0	1
Clinton	2	1	1	0	2
Columbia	2	1	2	0	1
Crawford	0	1	2	2	2
Cumberland	3	0	5	1	3
Dauphin	5	4	3	1	5
Delaware	5	12	8	7	6
Elk	1	0	2	0	2
Erie	4	4	6	2	5
Fayette	1	2	2	0	4
Forest	0	0	0	0	0
Franklin	3	1	3	2	3
Fulton	0	0	1	0	0
Greene	1	0	1	0	0
Huntingdon	0	1	0	0	1
Indiana	2	1	2	0	1
Jefferson	0	2	1	0	2
Juniata	1	0	2	1	1
Lackawanna	0	5	2	3	1
Lancaster	5	5	7	12	5
Lawrence	1	3	1	2	1
Lebanon	1	2	3	0	1
Lehigh	4	5	8	4	10
Luzerne	5	5	6	6	3
Lycoming	1	3	1	2	2
McKean	0	1	0	0	0
Mercer	3	1	0	2	0
Mifflin	0	0	0	0	0
Monroe	2	3	2	3	3
Montgomery	7	5	6	5	11
Montour	0	0	0	1	0
Northampton	4	5	2	4	2
Northumberland	3	2	3	0	2
Perry	0	0	1	2	1
Philadelphia	36	27	34	39	32
Pike	0	1	0	0	3
Potter	0	0	2	0	0
Schuylkill	5	2	3	2	3
Snyder	0	0	1	0	0
Somerset	0	1	3	0	0
Sullivan	0	0	0	1	1
Susquehanna	1	1	1	0	0
Tioga	0	1	2	1	0
Union	0	0	1	1	0
Venango	0	0	0	0	2
Warren	0	1	0	0	2
Washington	1	1	6	3	7
Wayne	1	0	0	0	1
Westmoreland	5	4	1	10	4
Wyoming	3	0	0	0	0
York	1	4	2	5	1
TOTAL	**175**	**166**	**187**	**172**	**195**

Counties

Pedestrian Deaths and Injuries by Age Group by County

County	Age 0-4 Death	Age 0-4 Injury	Age 5-9 Death	Age 5-9 Injury	Age 10-14 Death	Age 10-14 Injury	Age 15-59 Death	Age 15-59 Injury	Age 60+ Death	Age 60+ Injury	Total Death	Total Injury
Adams	0	2	0	6	0	2	0	7	1	1	1	18
Allegheny	1	15	0	46	0	55	12	315	10	71	23	502
Armstrong	0	0	0	3	0	2	0	6	0	2	0	13
Beaver	0	0	0	2	0	7	6	8	1	2	7	19
Bedford	0	0	0	0	0	0	0	2	0	0	0	2
Berks	0	9	0	35	0	18	3	69	4	13	7	144
Blair	0	2	0	4	0	5	0	16	0	4	0	31
Bradford	0	1	0	0	0	1	1	5	0	2	1	9
Bucks	0	0	0	9	0	13	4	68	6	9	10	99
Butler	0	0	0	1	1	5	0	19	0	3	1	28
Cambria	0	0	0	9	0	4	1	6	1	2	2	21
Cameron	0	0	0	0	0	0	0	0	0	2	0	2
Carbon	0	0	0	2	0	4	0	11	0	3	0	20
Centre	0	1	0	1	0	3	2	25	0	5	2	35
Chester	0	2	0	6	1	6	1	38	1	8	3	60
Clarion	0	1	0	0	0	0	0	2	1	1	1	4
Clearfield	0	0	0	2	0	0	1	11	0	0	1	13
Clinton	0	0	0	0	0	2	1	2	1	2	2	6
Columbia	0	0	0	4	1	1	0	4	0	4	1	13
Crawford	0	0	0	3	0	0	1	11	1	0	2	14
Cumberland	0	0	0	1	0	4	3	19	0	3	3	27
Dauphin	0	4	0	28	0	10	2	49	3	10	5	101
Delaware	0	12	0	29	0	44	4	109	2	18	6	212
Elk	0	0	0	0	0	0	1	3	1	0	2	3
Erie	0	6	1	19	0	14	3	35	1	8	5	82
Fayette	0	2	1	1	0	7	3	17	0	1	4	28
Forest	0	0	0	0	0	0	0	0	0	0	0	0
Franklin	0	1	0	3	1	2	1	14	1	3	3	23
Fulton	0	0	0	0	0	0	0	1	0	0	0	1
Greene	0	0	0	0	0	3	0	4	0	0	0	7
Huntingdon	0	0	0	0	0	0	1	3	0	0	1	3
Indiana	0	0	0	1	0	2	1	8	0	2	1	13
Jefferson	0	0	0	0	0	1	2	1	0	4	2	6
Juniata	0	0	0	0	0	0	1	1	0	0	1	1
Lackawanna	0	1	0	7	0	10	0	35	1	7	1	60
Lancaster	0	8	0	25	0	22	2	47	3	10	5	112
Lawrence	0	1	0	1	0	1	1	7	0	1	1	11
Lebanon	0	0	0	5	0	3	0	15	1	11	1	34
Lehigh	0	5	3	21	0	30	3	70	4	13	10	139
Luzerne	0	1	0	14	1	18	1	47	1	16	3	96
Lycoming	0	1	0	4	0	4	1	12	1	2	2	23
McKean	0	0	0	6	0	4	0	4	0	1	0	15
Mercer	0	1	0	4	0	2	0	8	0	2	0	17
Mifflin	0	1	0	1	0	1	0	3	0	2	0	8
Monroe	0	1	0	3	0	4	3	17	0	4	3	29
Montgomery	0	4	0	27	0	27	6	113	5	31	11	202
Montour	0	0	0	1	0	2	0	0	0	0	0	3
Northampton	0	5	0	10	0	14	1	34	1	15	2	78
Northumberland	0	2	0	3	0	4	1	6	1	3	2	18
Perry	0	0	0	0	0	0	0	3	1	3	1	6
Philadelphia	2	109	3	434	1	309	13	1,203	11	216	30	2,271
Pike	0	0	0	0	0	0	3	1	0	0	3	1
Potter	0	0	0	0	0	0	0	0	0	1	0	1
Schuylkill	0	2	0	4	0	8	3	11	0	4	3	29
Snyder	0	0	0	0	0	4	0	5	0	2	0	11
Somerset	0	0	0	0	0	2	0	8	0	2	0	12
Sullivan	0	0	0	0	0	0	0	1	1	0	1	1
Susquehanna	0	0	0	1	0	1	0	1	0	2	0	5
Tioga	0	0	0	1	0	0	0	2	0	3	0	6
Union	0	0	0	0	0	2	0	4	0	0	0	6
Venango	0	0	0	2	0	2	0	8	2	4	2	16
Warren	0	0	0	1	0	0	1	3	1	2	2	6
Washington	0	0	0	6	1	4	4	16	2	2	7	28
Wayne	0	1	0	0	0	2	0	3	1	2	1	8
Westmoreland	0	0	0	9	0	4	3	32	1	9	4	54
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0
York	0	0	0	23	0	13	1	57	0	6	1	99
TOTAL	**3**	**201**	**8**	**828**	**7**	**712**	**102**	**2,665**	**73**	**559**	**193**	**4,965**

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	1997 Belt Use	1998 Belt Use	1999 Belt Use	2000 Belt Use	2001 Belt Use
Adams	72	71	74	71	73
Allegheny	60	61	62	61	63
Armstrong	69	67	72	67	69
Beaver	49	50	55	49	56
Bedford	80	81	82	80	83
Berks	63	64	65	66	66
Blair	75	78	77	78	80
Bradford	75	74	73	75	78
Bucks	67	68	69	71	69
Butler	69	72	75	72	76
Cambria	67	64	63	65	65
Cameron	72	70	71	70	79
Carbon	61	62	63	68	66
Centre	78	77	76	79	80
Chester	74	73	74	76	75
Clarion	74	70	80	79	79
Clearfield	74	75	72	72	72
Clinton	72	73	75	80	79
Columbia	67	65	72	67	72
Crawford	70	74	74	75	78
Cumberland	76	74	77	79	80
Dauphin	70	72	73	74	74
Delaware	55	57	57	58	62
Elk	69	73	73	73	76
Erie	68	69	69	70	74
Fayette	69	69	70	67	68
Forest	78	70	71	79	76
Franklin	72	72	76	75	75
Fulton	74	75	82	77	82
Greene	79	77	74	75	77
Huntingdon	73	70	72	73	73
Indiana	79	79	80	81	79
Jefferson	70	65	72	72	73
Juniata	73	74	68	70	76
Lackawanna	55	57	59	61	60
Lancaster	74	76	78	78	79
Lawrence	60	60	65	64	68
Lebanon	71	71	74	72	74
Lehigh	75	75	76	75	76
Luzerne	67	66	67	70	71
Lycoming	72	70	74	74	71
McKean	63	63	63	68	69
Mercer	64	65	65	64	68
Mifflin	69	69	68	68	69
Monroe	77	75	79	78	77
Montgomery	73	73	74	75	76
Montour	82	81	79	80	81
Northampton	69	72	69	72	73
Northumberland	64	65	65	65	65
Perry	79	79	78	81	82
Philadelphia	20	19	21	20	25
Pike	77	78	78	77	80
Potter	74	77	73	79	80
Schuylkill	69	65	66	69	69
Snyder	76	81	80	81	76
Somerset	75	72	74	72	70
Sullivan	79	70	75	76	70
Susquehanna	74	73	75	75	75
Tioga	76	76	76	77	81
Union	74	78	72	76	76
Venango	71	73	74	70	70
Warren	76	78	82	81	78
Washington	69	64	67	69	70
Wayne	75	77	78	79	76
Westmoreland	72	73	73	73	73
Wyoming	77	77	74	75	73
York	72	71	72	73	75
STATEWIDE	**64**	**64**	**65**	**65**	**67**

Counties

Alcohol-Related Deaths by County—Five-Year Trends

| County	1997 Deaths	1998 Deaths	1999 Deaths	2000 Deaths	2001 Deaths
Adams	5	4	9	10	6
Allegheny	40	28	29	22	40
Armstrong	4	4	11	5	3
Beaver	9	11	4	11	5
Bedford	4	7	9	5	7
Berks	13	17	9	12	16
Blair	6	7	9	8	8
Bradford	3	2	7	3	5
Bucks	19	20	30	14	36
Butler	8	7	6	9	8
Cambria	4	6	6	8	7
Cameron	1	1	0	0	0
Carbon	5	10	4	10	1
Centre	5	4	4	6	8
Chester	11	12	13	19	16
Clarion	3	5	2	0	6
Clearfield	13	7	7	9	6
Clinton	2	2	1	2	3
Columbia	1	1	7	4	2
Crawford	7	8	3	4	9
Cumberland	3	3	11	8	4
Dauphin	5	7	15	7	11
Delaware	16	14	16	15	13
Elk	6	8	5	5	1
Erie	10	16	14	11	16
Fayette	16	22	6	9	2
Forest	0	0	1	1	0
Franklin	10	10	8	12	5
Fulton	5	7	5	1	0
Greene	2	1	2	3	4
Huntingdon	2	16	3	2	2
Indiana	7	14	5	5	7
Jefferson	1	0	1	4	3
Juniata	3	2	4	3	1
Lackawanna	8	13	7	4	10
Lancaster	20	11	11	12	19
Lawrence	3	10	6	8	3
Lebanon	3	8	8	2	3
Lehigh	9	13	7	8	7
Luzerne	12	10	7	15	17
Lycoming	5	5	7	4	9
McKean	2	4	8	4	1
Mercer	11	11	5	17	7
Mifflin	3	0	2	1	3
Monroe	13	13	10	8	16
Montgomery	25	23	17	16	18
Montour	0	1	1	0	0
Northampton	11	9	4	11	8
Northumberland	6	4	8	6	5
Perry	2	3	3	6	5
Philadelphia	22	15	27	19	27
Pike	1	1	3	2	4
Potter	3	1	4	1	1
Schuylkill	12	14	18	13	9
Snyder	2	4	2	2	4
Somerset	8	15	10	10	4
Sullivan	1	0	0	2	1
Susquehanna	4	4	8	2	4
Tioga	5	4	3	3	2
Union	2	0	4	2	2
Venango	8	3	5	5	2
Warren	4	1	5	6	7
Washington	9	7	14	18	10
Wayne	3	5	4	3	4
Westmoreland	18	23	22	21	15
Wyoming	2	3	1	3	8
York	28	14	21	29	33
TOTAL	514	535	528	510	529

Counties

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, 56% of the total traffic crashes occurred in only 11 of Pennsylvania's 67 counties. These 11 counties appear in black on the map.

Total Crashes: □ 450 or less   ▨ 451-750   ▨ 751-1,500
                ▦ 1,501-3,600   ■ 3,601 or more
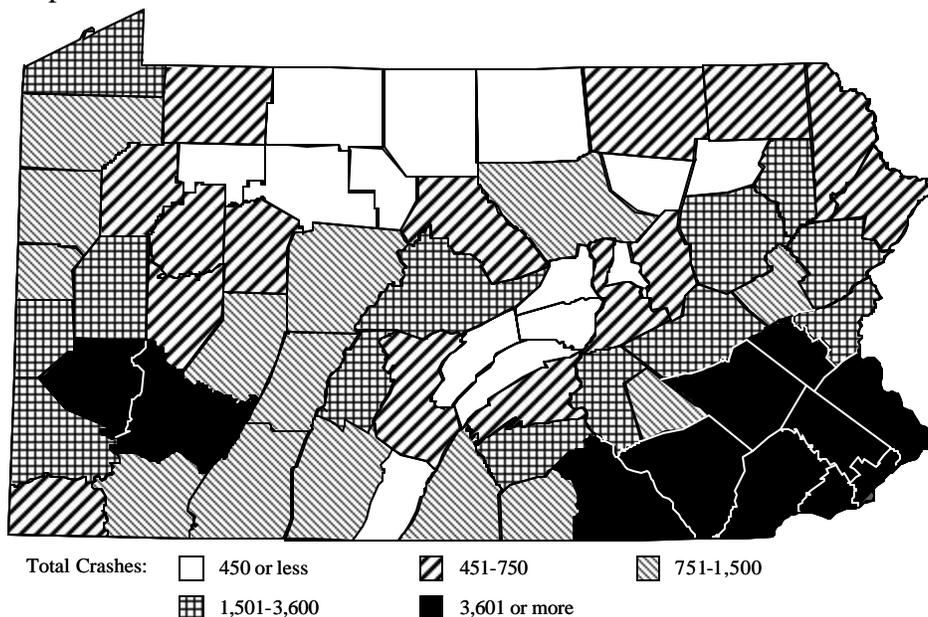
Traffic Deaths by County

Referring to the map below, 58% of the total traffic deaths occurred in only 16 of Pennsylvania's 67 counties. These 16 counties appear in black on the map.

Deaths: ☐ 8 or less   ▨ 9-13   ▨ 14-18   ▦ 19-30   ■ 31 or more
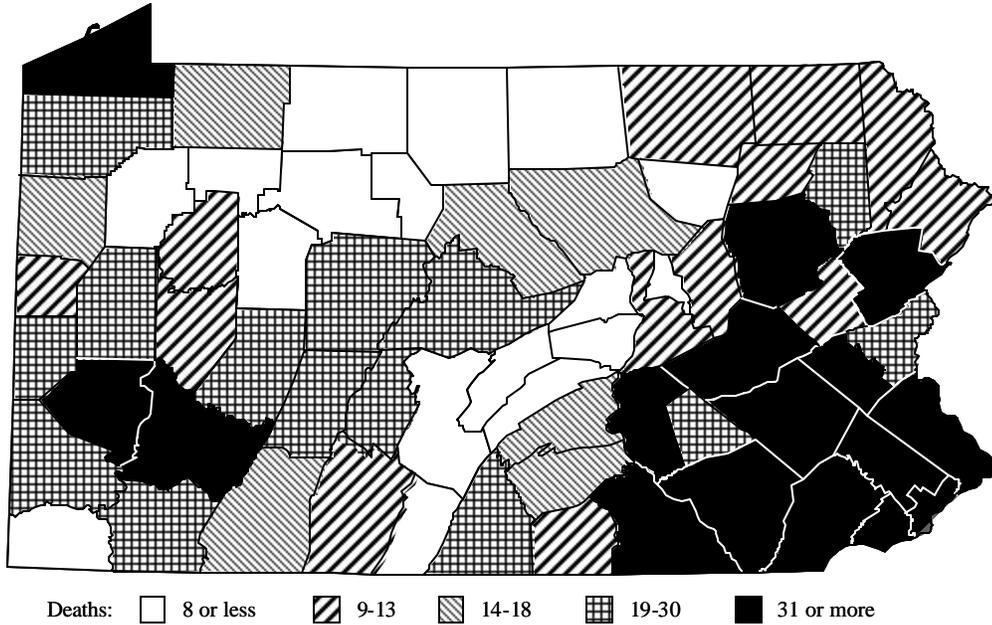
Alcohol-Related Deaths by County

Referring to the map below, 53% of the total alcohol-related deaths occurred in only 13 of Pennsylvania's 67 counties. These 13 counties appear in black on the map.

Deaths: ☐ 2 or less   ▨ 3-4   ▨ 5-7   ▦ 8-11   ■ 12 or more
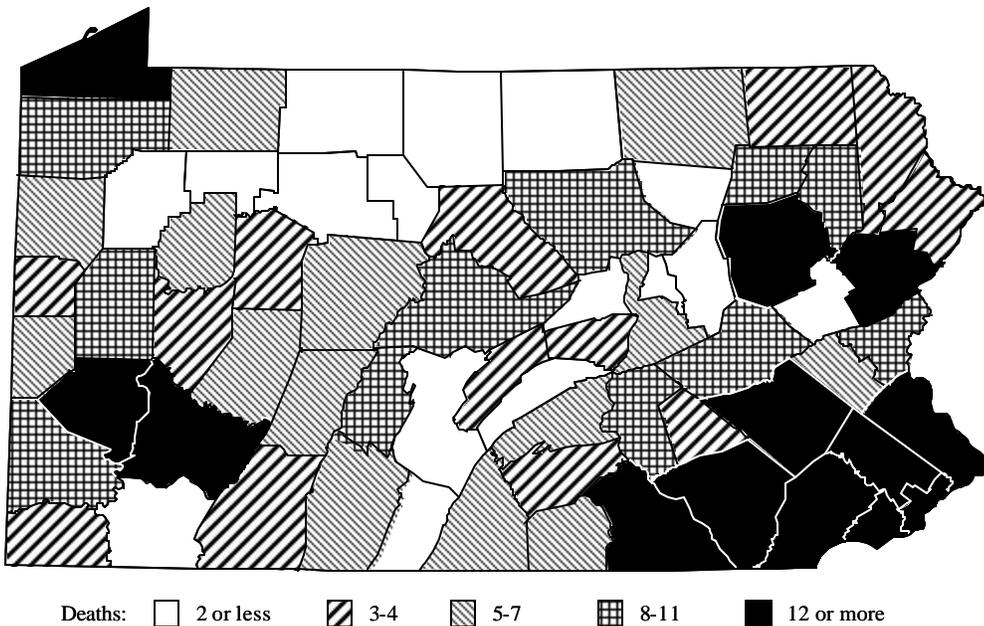
Percent Seat Belt Use in Crashes by County

The percent seat belt use in crashes tended to be lower in counties with major urban areas with 9 counties having 66% or less seat belt usage in crashes. These 9 counties appear in white on the map.

Belt Usage: □ 66% or less   ▨ 67%-69%   ▨ 70%-72%   ▦ 73%-75%   ■ 76% or more
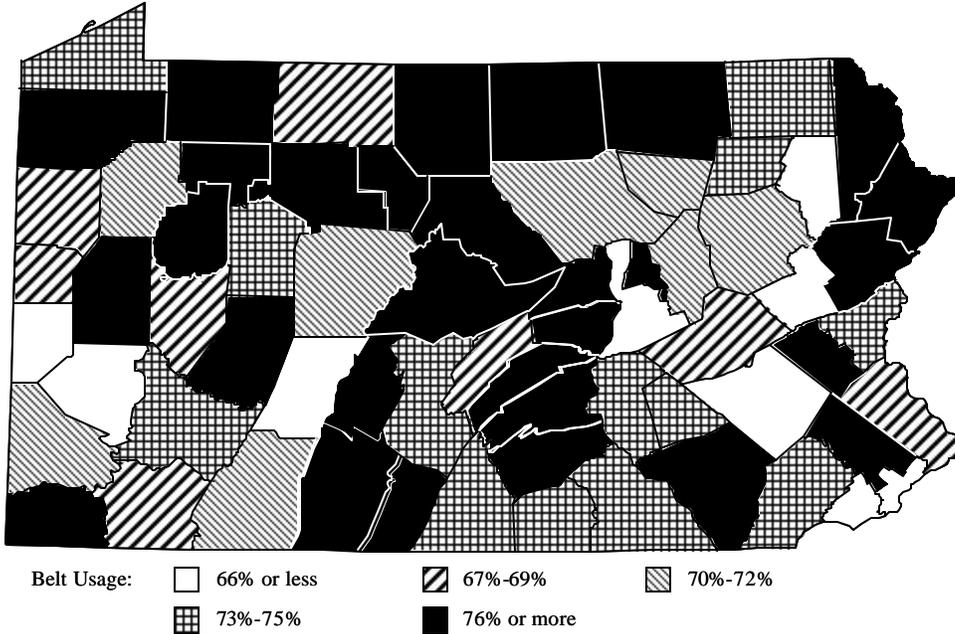
Pedestrian Deaths by County

Referring to the map below, 58% of the total pedestrian deaths occurred in only 9 of Pennsylvania's 67 counties. These 9 counties appear in black on the map.

Deaths: □ None   ▨ 1   ▨ 2-3   ▦ 4-5   ■ 6 or more
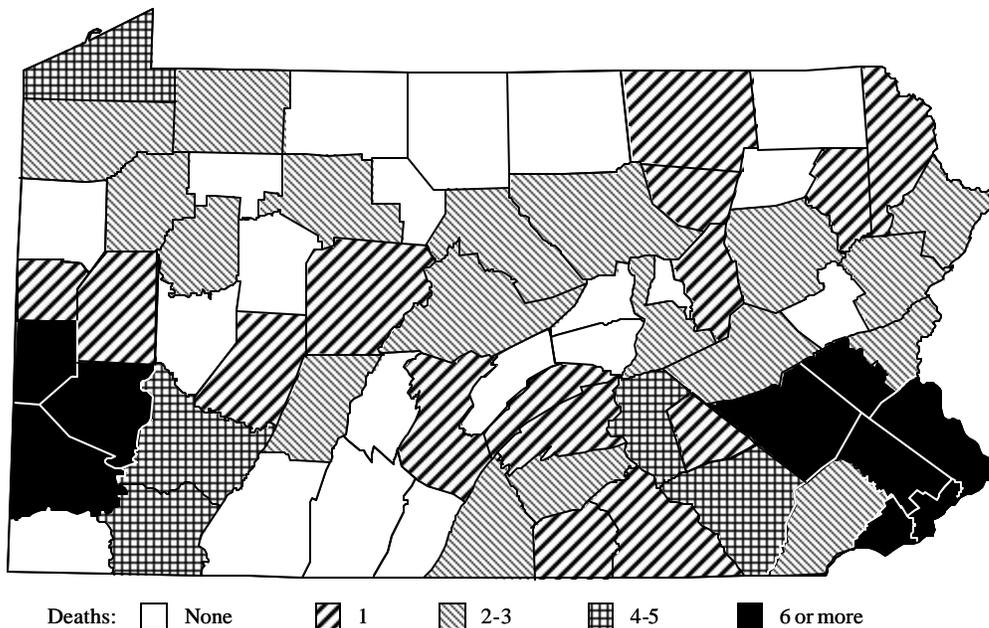
Crashes by Engineering District

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 2001 by engineering district.

District	Crashes	Deaths	Injuries
01	6,502	106	5,981
02	4,675	78	3,986
03	4,665	74	3,854
04	7,649	120	6,872
05	16,572	194	13,828
06	38,684	337	39,065
08	19,779	235	16,612
09	5,427	85	4,570
10	4,559	68	3,819
11	15,118	140	12,749
12	7,662	95	6,524
Total	**131,292**	**1,532**	**117,860**

Counties

Index

2001 Pennsylvania Crash Facts & Statistics Feedback Survey

The 2001 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 for as many people as possible, we would appreciate your taking the time to fill out this survey and return it to us. Your opinions will shape future editions.

Does this booklet provide information which is useful to you? (check one) ❑ Yes   ❑ No

If not, what information would you like to see included? _____

_____

_____

Is the format easy to follow? (check one) ❑ Yes   ❑ No   If not, what changes would make the format better and easier for you?

_____

_____

_____

Please rate the following sections of the booklet as to whether you find them Useful, Somewhat Useful, or Not Useful.

	Useful	Somewhat	Not Useful
How to Use This Booklet	❑	❑	❑
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	❑	❑	❑
Pennsylvania County Crashes	❑	❑	❑
Index	❑	❑	❑

What section(s) of the booklet do you use *most* often? _____

_____

Your name and organization (optional): _____

_____

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.
4. Drop into the nearest mailbox.

Pennsylvania Department and Transportation
Bureau of Highway Safety and Traffic Engineering
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2001 Pennsylvania Crash Facts & Statistics Survey Form