



1999

PENNSYLVANIA CRASH FACTS & STATISTICS



GOVERNOR

Tom Ridge

SECRETARY OF
TRANSPORTATION

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Introduction

The ***1999 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/bhste/datamain.htm>.

This publication is a statistical review of reportable motor vehicle crashes in the Commonwealth of Pennsylvania for calendar year 1999. 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).

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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 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 vehicle on the cover was involved in a single vehicle, young driver, alcohol-related crash. The teenage driver, driving at 90 mph, lost control on a curve, slid through an intersection, and broadsided a tree. Four of the passengers, including the driver, sustained major injuries while one of the passengers was killed.

In 1999, 43,986 crashes (31% of all crashes) involved young drivers aged 16-21, 202 people were killed in speed-related crashes, and 528 people were killed in alcohol-related crashes in Pennsylvania. For more information on young driver and alcohol-related crashes, see pages 23-25 and 26-33 respectively.

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Definitions

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.

Crash Severity (continued)

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 119,000 miles* of roads and highways; 34% (40,667 miles*) are state highways maintained by the Pennsylvania Department of Transportation (PennDOT), and the remaining 66% (78,612 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 1999, there were 144,171 reportable traffic crashes in Pennsylvania. These crashes claimed the lives of 1,549 people and injured another 133,783 people. To add some perspective, the 1999 total traffic deaths is the second highest in over five years.

Last year, there were approximately 100.4 billion vehicle-miles* of travel on Pennsylvania's roads and highways. The 1999 fatality rate of 1.54 deaths per hundred million vehicle-miles of travel* was the third lowest ever recorded in Pennsylvania (the only other lower fatality rates occurred in 1996 and 1998).

1999 Briefs

On Average in Pennsylvania:

- Each day 395 reportable traffic crashes occurred (about 16 crashes every hour).
- Each day 4 persons were killed in reportable traffic crashes (one death every 6 hours).
- Each day 367 persons were injured in reportable crashes (about 15 injuries every hour).

Based on Pennsylvania's 1999 population (11,994,016 people):

- 1 out of every 33 people was involved in a reportable traffic crash.
- 1 out of every 7,743 people was killed in a reportable traffic crash.
- 1 out of every 90 people was injured in a reportable traffic crash.

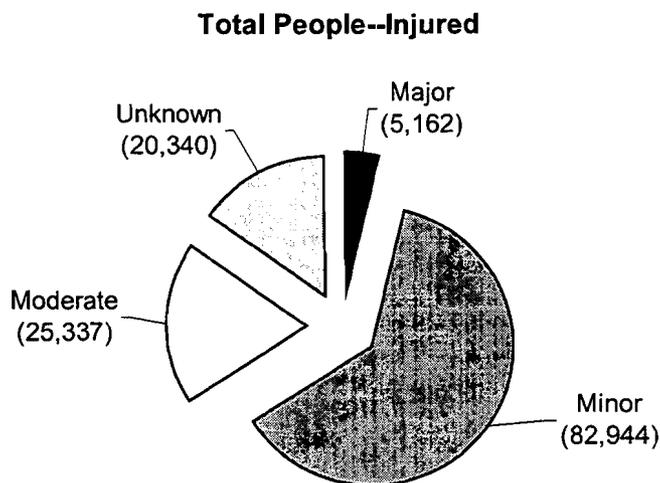
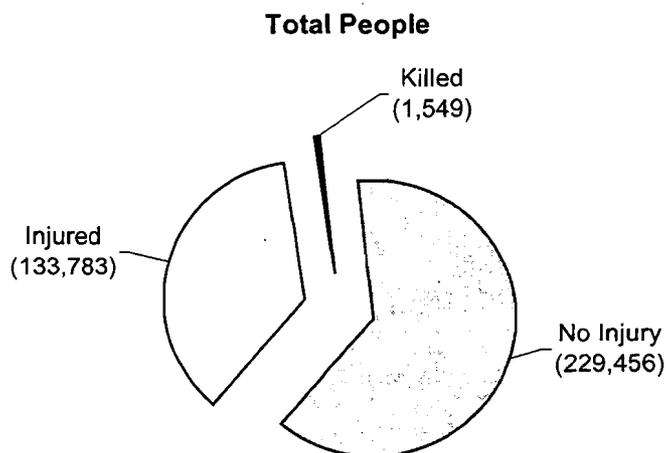
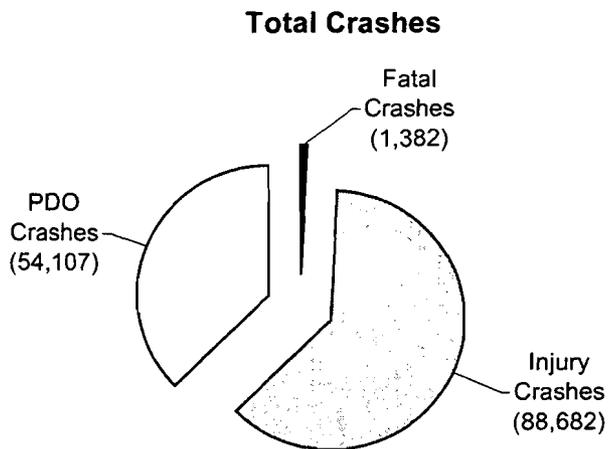
* At time of publication, 1999 roadway mileage information was not available so 1998 information was used.

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 1999, most were not injured, and the vast majority who were injured suffered only minor injuries.

All Crashes



Deaths and Injuries—Five-Year Trends

Total reported crashes in 1999 increased 2.3% compared to 1998; deaths increased by 4.2% while total injuries decreased by 0.2%. Alcohol-related deaths decreased by 1.3%.

	1995	1996	1997	1998	1999
Reported Crashes	136,804	142,867	143,981	140,972	144,171
Total Deaths	1,480	1,470	1,562	1,486	1,549
Total Injuries	133,177	136,949	138,820	134,092	133,783
Major Injury	5,474	5,250	5,373	5,081	5,162
Moderate Injury	17,073	17,493	18,837	25,139	25,337
Minor Injury	92,332	95,148	93,806	83,100	82,944
Unknown Injury	18,298	19,058	20,804	20,772	20,340
Pedestrian Deaths	198	218	175	166	187
Pedestrian Injuries	6,197	5,863	6,021	5,895	5,855
Motorcyclist Deaths	85	98	92	111	111
Motorcyclist Injuries	2,584	2,320	2,478	2,626	2,676
Bicyclist Deaths	19	26	17	23	18
Bicyclist Injuries	2,742	2,403	2,525	2,768	2,385
Heavy-Truck-Related Deaths	198	192	203	192	234
Alcohol-Related Deaths	514	503	514	535	528
Speed-Related Deaths	257	268	251	197	202
Billions of Vehicle-Miles*	94.5	96.4	98.3	100.4	100.4
Deaths per 100 Million Vehicle-Miles*	1.57	1.53	1.59	1.48	1.54

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

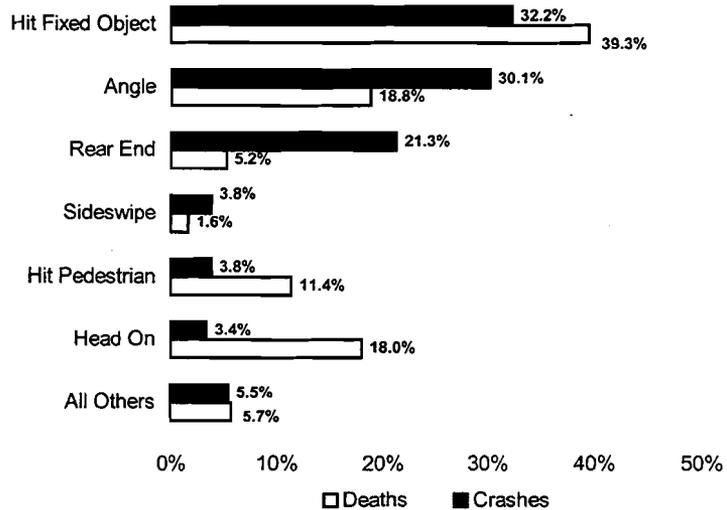
Severity	Number	Average Cost	Estimated Total Costs
Deaths (persons)	1,549	\$2,869,542	\$4,444,920,558
Major Injuries (persons)	5,162	\$1,038,323	\$5,359,823,326
Moderate Injuries (persons)	25,337	\$69,651	\$1,764,747,387
Minor Injuries (persons)	82,944	\$5,518	\$457,684,992
Property Damage Only (crashes)	54,107	\$2,207	\$119,414,149
Unknown Injuries (persons)	20,340	\$5,518	\$112,236,120
TOTAL			\$12,258,826,532

**In 1999, the economic loss due to traffic crashes was
\$1,022
to every man, woman, and child in Pennsylvania.**

Figures are based on the latest PennDOT estimates (in 1999 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.



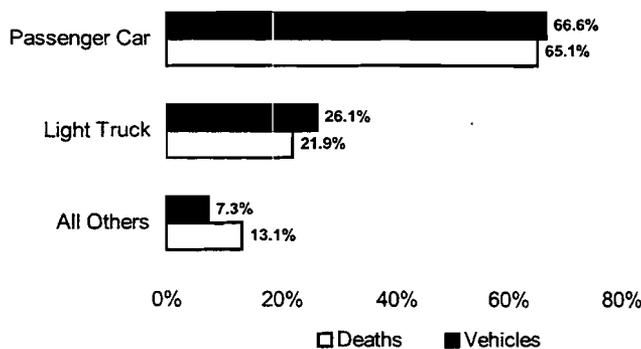
All Crashes

Crash Type	Crashes	Deaths
Angle	43,427	291
Backing Up	472	2
Head On	4,870	279
Hit Fixed Object	46,344	609
Hit Pedestrian	5,521	176
Non-Collision	4,729	82
Rear End	30,641	81
Sideswipe	5,483	25
Other	2,684	4
TOTAL	144,171	1,549

*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.

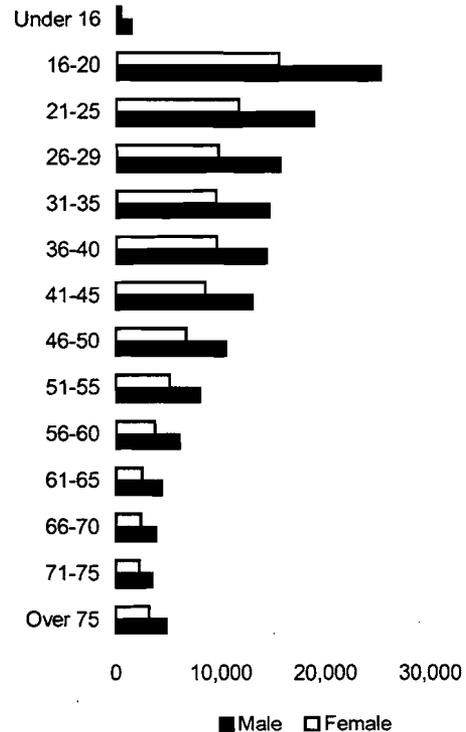


	Vehicles	Occupant Deaths
Passenger Car	162,615	886
Light Truck	63,742	298
Heavy Truck	8,360	31
Motorcycle	2,731	111
Bicycle	2,408	18
Commercial Bus	717	2
School Bus	512	1
Other	2,965	15

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).

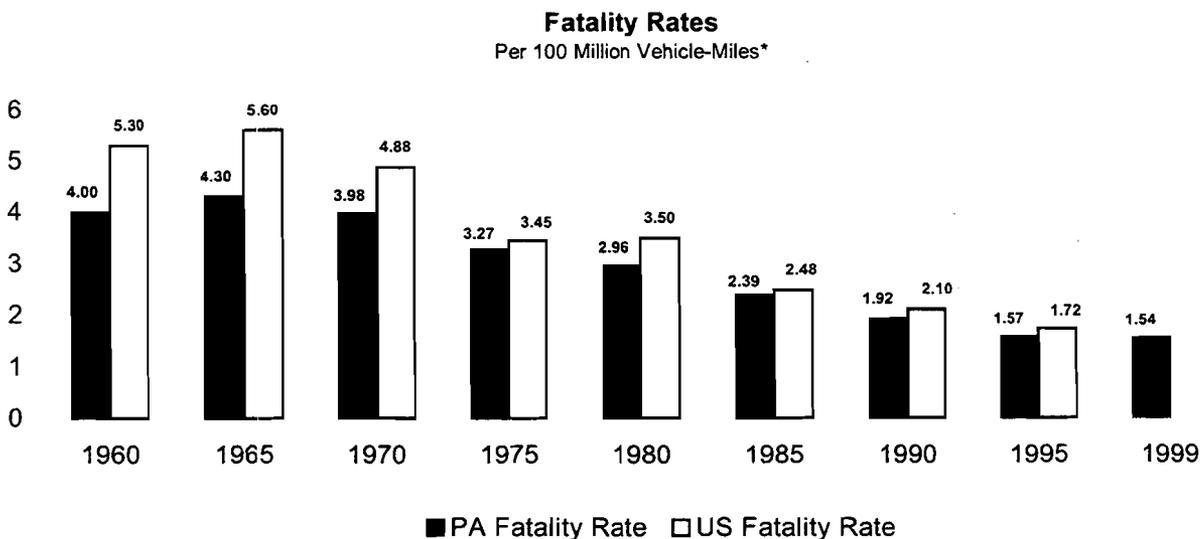
Driver	Male	Female	Total Drivers
Under 16	1,265 (0.9%)	315 (0.4%)	1,580
16-20	25,178 (17.1%)	15,482 (17.0%)	40,660
21-25	18,840 (12.8%)	11,652 (12.8%)	30,492
26-29	15,691 (10.7%)	9,717 (10.7%)	25,408
31-35	14,634 (9.9%)	9,538 (10.5%)	24,172
36-40	14,461 (9.8%)	9,530 (10.5%)	23,991
41-45	13,015 (8.8%)	8,520 (9.3%)	21,535
46-50	10,522 (7.1%)	6,677 (7.3%)	17,199
51-55	8,027 (5.5%)	5,090 (5.6%)	13,117
56-60	6,061 (4.1%)	3,642 (4.0%)	9,703
61-65	4,313 (2.9%)	2,453 (2.7%)	6,766
66-70	3,802 (2.6%)	2,293 (2.5%)	6,095
71-75	3,469 (2.4%)	2,170 (2.4%)	5,639
Over 75	4,842 (3.3%)	3,112 (3.4%)	7,954
Unknown	3,252 (2.2%)	1,041 (1.1%)	4,293
DRIVERS	147,372 (100.0%)	91,232 (100.0%)	238,604



Note: Does not include 4,325 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.



* 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**
1928	27,082	2,080	20,223	1,713,920	-	-	-
1929	43,776	2,331	35,648	1,829,685	-	-	-
1930	47,917	2,566	99,793	1,843,539	-	-	-
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	1.40
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	—

* 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)

All Crashes

—WHAT CONDITIONS WERE—

Crashes by Weather and Road Surface Conditions

Adverse weather and road surface conditions negatively affect vehicle 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.

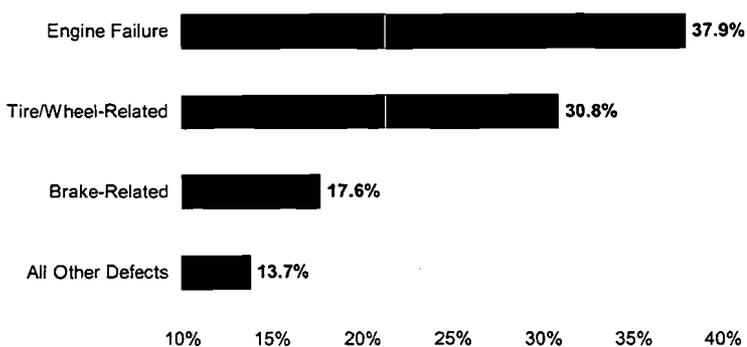
All Crashes

Weather Condition	Crashes	Deaths
No Adverse Conditions	113,595 (78.8%)	1,323 (85.4%)
Rain/Rain & Fog	19,841 (13.8%)	172 (11.1%)
Snow/Sleet/Freezing Rain	8,849 (6.1%)	34 (2.2%)
Fog/Smoke, Etc.	1,144 (0.8%)	15 (1.0%)
Other	742 (0.5%)	5 (0.3%)
TOTAL	144,171 (100.0%)	1,549 (100.0%)

Road Surface Condition	Crashes	Deaths
Dry	104,709 (72.6%)	1,246 (80.4%)
Wet	25,906 (18.0%)	235 (15.2%)
Ice/Ice Patches	6,039 (4.2%)	34 (2.2%)
Snow	4,995 (3.5%)	24 (1.6%)
Other	2,522 (1.8%)	10 (0.7%)
TOTAL	144,171 (100.0%)	1,549 (100.0%)

Crashes Involving Vehicle Defects

Improperly-maintained vehicles can lead to crashes. In 1999, engine, tire/wheel, 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.

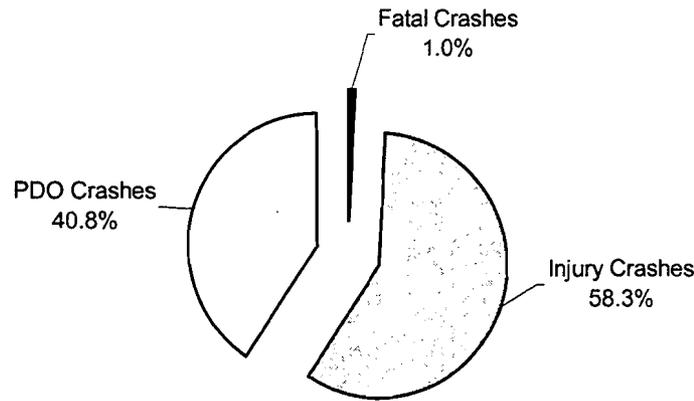


Vehicle Defect	Crashes
Engine Failure	977
Tire/Wheel-Related	794
Brake-Related	455
Total Steering System Failure	176
Dirty/Frosty Windshield	48
Transmission Problem	42
Suspension	38
Vehicle Lighting-Related	37
Defective Defrosting	8
Defective Wipers	3
Exhaust System Failure	2

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. About sixty percent of work zone crashes in 1999 contained injuries.



All Crashes

Total Crashes: **2,184**

Total Killed: **27** (Workers Killed: **1**)

Total Injured: **1,914** (Workers Injured: **31**)

Work Zone Crashes—Vehicles Involved

Vehicle Type	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road
Passenger Car	212 (49.1%)	1,716 (62.5%)	104 (40.3%)	329 (65.4%)
Light Truck	85 (19.7%)	749 (27.3%)	57 (22.1%)	128 (25.5%)
Heavy Truck/Bus	127 (29.4%)	229 (8.3%)	92 (35.7%)	30 (6.0%)
Motorcycle	3 (0.7%)	21 (0.8%)	3 (1.2%)	4 (0.8%)
Other	5 (1.2%)	31 (1.1%)	2 (0.8%)	12 (2.4%)
TOTAL	432 (100.0%)	2,746 (100.0%)	258 (100.0%)	503 (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
1995	State Hwy (Interstate)	477	23.9%	4	20.0%
	State Hwy (Other)	1,118	56.1%	9	45.0%
	Turnpike	87	4.4%	2	10.0%
	Local Road	312	15.6%	5	25.0%
	Ramp	-	-	-	-
	TOTAL	1,994	100.0%	20	100.0%
1996	State Hwy (Interstate)	448	22.1%	4	26.7%
	State Hwy (Other)	1,086	53.6%	8	53.3%
	Turnpike	130	6.4%	1	6.7%
	Local Road	273	13.5%	1	6.7%
	Ramp	89	4.4%	1	6.7%
	TOTAL	2,026	100.0%	15	100.0%
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%

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

1996 was the first year ramps were treated as a separate road type. In previous years, ramps were included within the associated road type.

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	1,054	0.7%	41	2.7%
Hit Building	1,748	1.2%	36	2.3%
Hit Culvert	858	0.6%	22	1.4%
Hit Curb	4,003	2.8%	87	5.6%
Hit Ditch	2,802	1.9%	56	3.6%
Hit Embankment	9,888	6.9%	243	15.7%
Hit Fence	2,270	1.6%	38	2.5%
Hit Fire Hydrant	458	0.3%	2	0.1%
Hit Guiderail	6,272	4.4%	175	11.3%
Hit Impact Attenuator	64	0.0%	8	0.5%
Hit Mailbox(es)	1,570	1.1%	39	2.5%
Hit Median Barrier	3,245	2.3%	53	3.4%
Hit Obstacle on Roadway	614	0.4%	5	0.3%
Hit Other Fixed Object	1,494	1.0%	39	2.5%
Hit Overhead Structure	91	0.1%	1	0.1%
Hit Parked Vehicle	6,560	4.6%	60	3.9%
Hit Rock(s)	1,145	0.8%	14	0.9%
Hit Shrubs/Hedges	3,190	2.2%	116	7.5%
Hit Signal/Sign Support	3,368	2.3%	68	4.4%
Hit Snow Bank	364	0.3%	3	0.2%
Hit Temporary Construction Barrier	95	0.1%	4	0.3%
Hit Traffic Island or Channelization	341	0.2%	6	0.4%
Hit Tree(s)	9,297	6.5%	265	17.1%
Hit Utility Pole(s)	10,443	7.2%	178	11.5%
Hit Wall	1,368	1.0%	25	1.6%
Hit Deer	2,408	1.7%	2	0.1%
Hit Other Animal	188	0.1%	2	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	7,200	89,983	2,263	42,585	2,140
Person Killed	105	1,133	36	262	13
Persons Injured	5,660	86,092	1,615	38,599	1,817
Miles of Maintained Road	1,278	38,884	505	78,612	781
100 MVM* Traveled	162.7	604.9	53.1	182.9	---
Crashes/MVM*	0.44	1.49	0.43	2.33	---
Persons Killed/100 MVM*	0.65	1.87	0.68	1.43	---
Persons Injured/MVM*	0.35	1.42	0.30	2.11	---

* 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 1998 Highway Performance Monitoring System (HPMS) package and reflects 1998 length and travel activity data. Ramp miles are not included in any category or total.

At the time of publication, 1999 roadway mileage information was not available so 1998 information was used.

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 18 deaths have occurred in this type of crash.

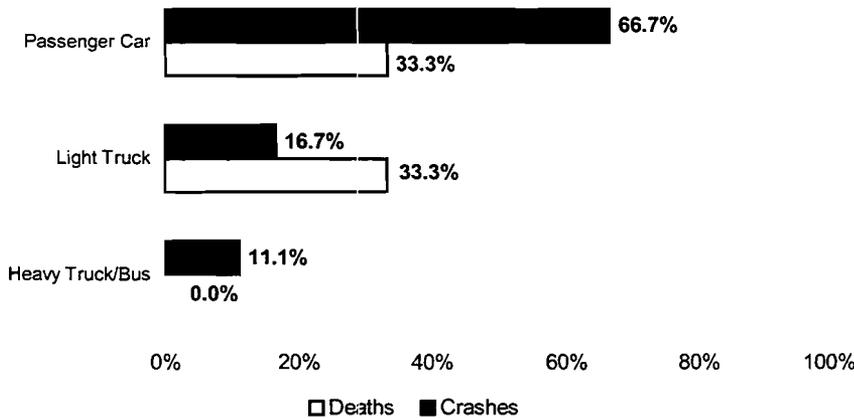


Year	Crashes	Deaths
1995	51	8
1996	41	1
1997	37	5
1998	45	1
1999	36	3

All Crashes

Train/Vehicle Crashes by Vehicle Type

Passenger cars were the predominant vehicle type involved in crashes with trains in 1999.



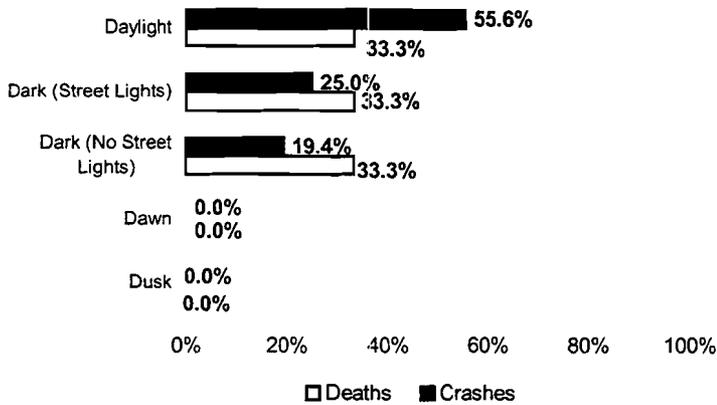
Vehicle Type	Crashes	Deaths
Passenger Car	24	1
Light Truck	6	1
Heavy Truck	4	0
Motorcycle	1	1
Bicycle	0	0
Commercial Bus	0	0
School Bus	0	0
Unknown	1	0
TOTAL	36	3

Train/Vehicle Crashes by Road Type

Road Type	Crashes	Deaths
Local Road	23	2
State Hwy (Other)	13	1
TOTAL	36	3

All Crashes

Train/Vehicle Crashes by Light Level



Light Level	Crashes	Deaths
Daylight	20	1
Dark (Street Lights)	9	1
Dark (No Street Lights)	7	1
Dawn	0	0
Dusk	0	0
TOTAL	36	3

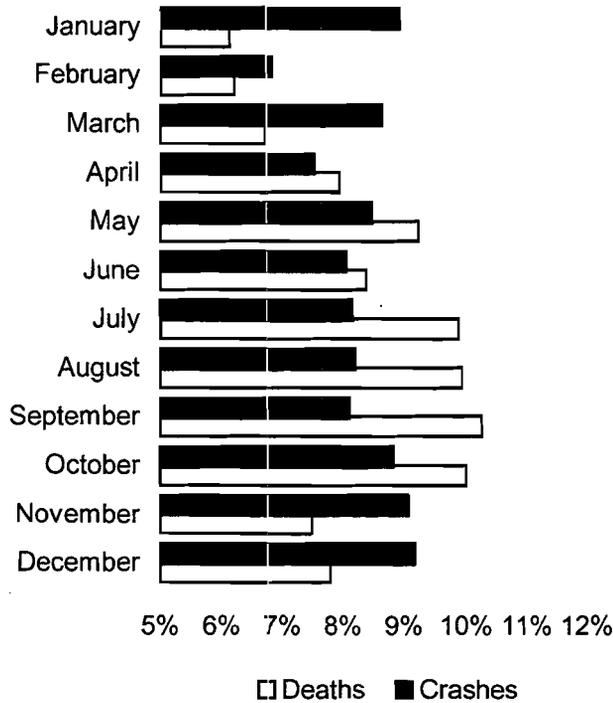
Train/Vehicle Crashes by County

County	Crashes	Deaths
Adams	1	0
Allegheny	2	0
Beaver	2	0
Berks	1	1
Butler	1	0
Cambria	1	0
Cumberland	1	0
Delaware	1	0
Elk	1	0
Erie	2	0
Franklin	2	0
Lackawanna	1	0
Lancaster	2	0
Lehigh	2	0
Luzerne	1	0

County	Crashes	Deaths
Mercer	1	0
Montour	1	1
Philadelphia	4	1
Washington	2	0
Westmoreland	2	0
Wyoming	1	0
York	4	0
TOTAL	36	3

—WHEN THEY HAPPENED—

Crashes by Month

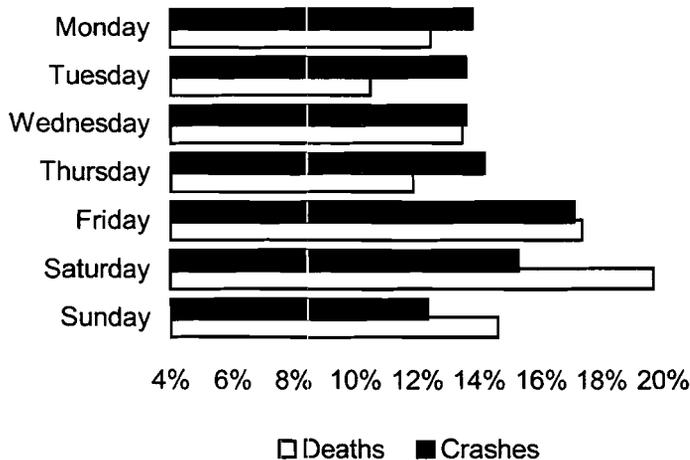


Month	Crashes	Deaths
January	12,859 (8.9%)	95 (6.1%)
February	9,847 (6.8%)	96 (6.2%)
March	12,455 (8.6%)	104 (6.7%)
April	10,850 (7.5%)	123 (7.9%)
May	12,216 (8.5%)	143 (9.2%)
June	11,618 (8.1%)	130 (8.4%)
July	11,760 (8.2%)	153 (9.9%)
August	11,826 (8.2%)	154 (9.9%)
September	11,698 (8.1%)	159 (10.3%)
October	12,735 (8.8%)	155 (10.0%)
November	13,092 (9.1%)	116 (7.5%)
December	13,215 (9.2%)	121 (7.8%)
TOTAL	144,171 (100.0%)	1,549 (100.0%)

All Crashes

Crashes by Day of Week

More crashes and deaths tend to occur on Friday and Saturdays. The number of deaths on 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).

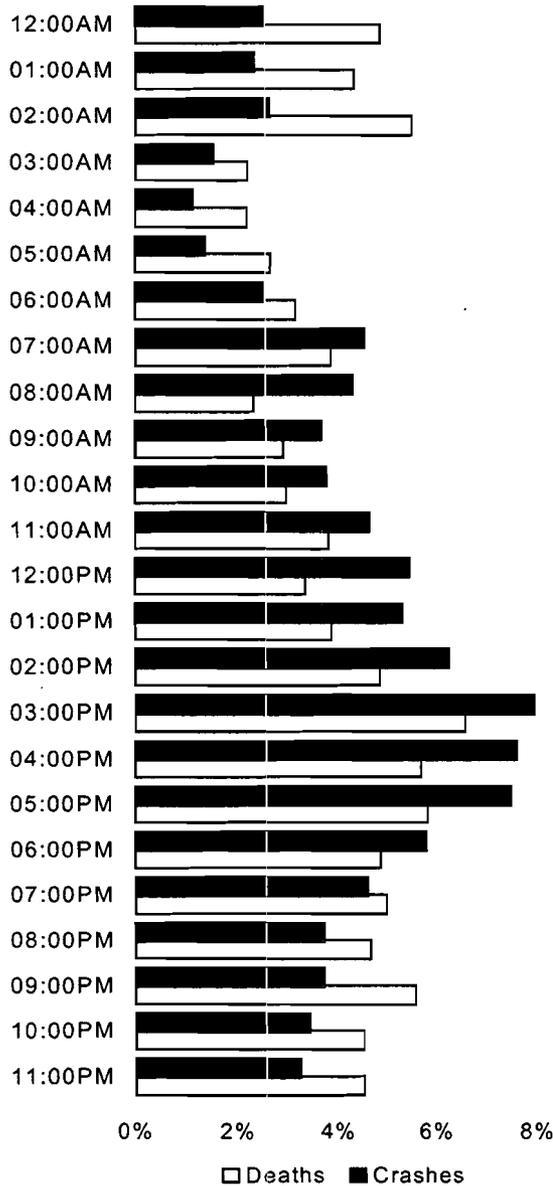


Day	Crashes	Deaths
Monday	19,957 (13.8%)	193 (12.5%)
Tuesday	19,625 (13.6%)	163 (10.5%)
Wednesday	19,599 (13.6%)	209 (13.5%)
Thursday	20,466 (14.2%)	184 (11.9%)
Friday	24,669 (17.1%)	269 (17.4%)
Saturday	22,039 (15.3%)	305 (19.7%)
Sunday	17,816 (12.4%)	226 (14.6%)
TOTAL	144,171 (100.0%)	1,549 (100.0%)

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 2.6% of all crashes in 1999 occurred in the 2:00 AM hour, but 5.5% of all deaths—the fifth highest percentage—occurred then. The higher the volume of traffic itself is a factor during peak traffic hours, particularly the rush-hours.

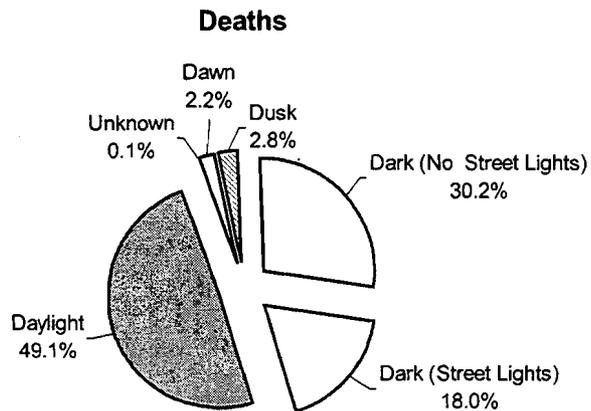
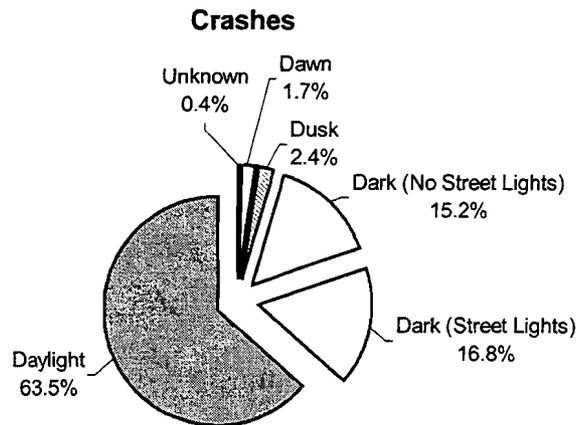
All Crashes



Hour	Crashes	Deaths
12:00AM	3,637	75
01:00AM	3,352	67
02:00AM	3,805	85
03:00AM	2,191	34
04:00AM	1,631	34
05:00AM	1,978	41
06:00AM	3,638	49
07:00AM	6,539	60
08:00AM	6,203	36
09:00AM	5,338	45
10:00AM	5,454	46
11:00AM	6,674	59
12:00PM	7,857	52
01:00PM	7,661	60
02:00PM	9,003	75
03:00PM	11,449	102
04:00PM	10,974	88
05:00PM	10,794	90
06:00PM	8,342	75
07:00PM	6,609	77
08:00PM	5,370	72
09:00PM	5,370	86
10:00PM	4,956	70
11:00PM	4,693	70

Crashes by Light Level

In 1999, 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 1999 occurred slightly more often during non-daylight hours (dark and dusk/dawn conditions). If 1999 deaths per 1000 crashes are compared (Daylight—8.3 deaths per 1000 crashes versus Non-Daylight—15.0 deaths per 1000 crashes), it is apparent that non-daylight crashes resulted in deaths more often than daylight crashes.



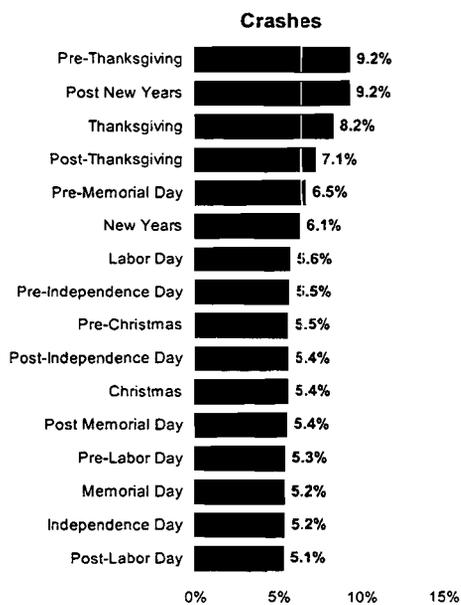
Light Level	Crashes	Deaths
Daylight	91,550	760
Dark (Street Lights)	24,269	279
Dark (No Street Lights)	21,933	431
Dusk	3,394	44
Dawn	2,473	34
Unknown	552	1
TOTAL	144,171	1,549

All Crashes

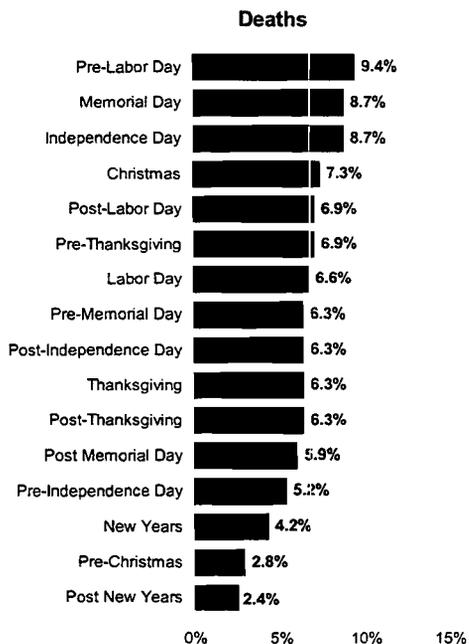
Crashes by Holiday

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 1999.

All Crashes



Period*	Crashes	Deaths
New Years	1,357	12
Post New Years	2,023	7
Pre-Memorial Day	1,447	18
Memorial Day	1,157	25
Post Memorial Day	1,195	17
Pre-Independence Day	1,221	15
Independence Day	1,155	25
Post-Independence Day	1,202	18
Pre-Labor Day	1,164	27
Labor Day	1,235	19
Post-Labor Day	1,136	20
Pre-Thanksgiving	2,033	20
Thanksgiving	1,804	18
Post-Thanksgiving	1,573	18
Pre-Christmas	1,208	8
Christmas	1,202	21
TOTAL	18,384	288



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

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.).

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 1999, only primary contributing factors in the crash are considered.

Contributing Factor	Crashes	Fatal Crashes
Drinking Driver	7,698	176
Speed-Related	18,331	168
Proceeded Without Clearance	10,292	72
Improper Turning-Related	11,805	60
Tailgating	12,498	27
Careless/illegal Passing	1,689	23
Drowsy Drivers	2,582	18
Distracted Driver	2,448	6

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	40.1% 57,739 crashes	35.1% 15,451 crashes	15.5% 1,768 crashes	16.3% 1,435 crashes
Multiple Vehicle Crash	60.0% 86,432 crashes	64.9% 28,535 crashes	84.5% 9,658 crashes	83.7% 7,373 crashes

Drivers in Crashes by Age Group

Looking at the 1999 Pennsylvania driver data, as driver age groups increase in age, the percentage of Pennsylvania licensed drivers involved in crashes within each age group decreases considerably. Also note the large population of mature Pennsylvania drivers age 70 and over.

Age Group	PA Drivers Involved in Crashes	PA Total Licensed Drivers	% Involved in Crashes
16	6,105	53,099	11.5%
17	8,848	100,885	8.8%
18	8,700	118,063	7.4%
19	7,550	128,928	5.9%
20	6,557	125,624	5.2%
21	6,382	125,797	5.1%
22-24	15,765	380,543	4.1%
25-29	22,840	702,464	3.3%
30-39	43,330	1,685,076	2.6%
40-54	49,096	2,536,137	1.9%
55-59	9,198	580,073	1.6%
60-64	6,585	468,656	1.4%
65-69	5,611	431,235	1.3%
70-74	5,410	418,453	1.3%
75 and Over	8,640	623,821	1.4%
Unknown	1,242	N/A	N/A

Comparison of Young and Mature Drivers by Crash Type

Young drivers and 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	3.3% 4,729 crashes	2.3% 1,031 crashes	1.1% 127 crashes	0.6% 55 crashes
Rear-End	21.3% 30,641 crashes	22.9% 10,080 crashes	27.6% 3,157 crashes	22.4% 1,976 crashes
Head-On	3.4% 4,870 crashes	3.9% 1,694 crashes	4.1% 464 crashes	3.0% 264 crashes
Backing Up	0.3% 472 crashes	0.2% 101 crashes	0.4% 49 crashes	0.3% 24 crashes
Angle	30.1% 43,427 crashes	33.5% 14,720 crashes	47.5% 5,430 crashes	53.9% 4,749 crashes
Sideswipe	3.8% 5,483 crashes	3.6% 1,567 crashes	4.0% 451 crashes	3.3% 291 crashes
Hit Fixed Object	32.2% 46,344 crashes	31.4% 13,804 crashes	11.9% 1,361 crashes	13.4% 1,179 crashes
Hit Pedestrian	3.8% 5,521 crashes	1.3% 580 crashes	2.4% 272 crashes	2.6% 232 crashes
Other	1.9% 2,684 crashes	0.9% 409 crashes	1.0% 115 crashes	0.4% 38 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	41.5% 59,753 crashes	42.5% 18,707 crashes	54.7% 6,251 crashes	58.4% 5,140 crashes
Non-Intersection	58.6% 84,418 crashes	57.5% 25,279 crashes	45.3% 5,175 crashes	41.6% 3,668 crashes

Alcohol-Related Crashes

Alcohol Overview

- ▶ In Pennsylvania, drinking and driving remains a top safety issue. In 1999, alcohol-related crashes, 14,079, increased from 13,835 alcohol-related crashes in 1998 while alcohol-related deaths, 528, decreased from 535 alcohol-related deaths in 1998.
- ▶ Of particular concern is the involvement of drinking drivers under the age of 21. Underage drinking drivers in 1999 went up 1% since last year (but up 22% from 1996). Also in 1999, 33% of the driver deaths in the 16-20 age group were drinking drivers, up from 22% in 1998.
- ▶ Of equal focus is the 21 to 30 age group, in which over 53% of the driver deaths were drinking drivers. The 21 to 25 age group decreased from 59% in 1998 to 53% in 1999, but the 26 to 30 age group increased from 47% in 1998 to 56% in 1999.
- ▶ In 1999, alcohol-related deaths were 34% of the total traffic deaths, down from 36% in 1998.
- ▶ 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).

Alcohol-
Related

1999 Briefs

- ▶ 528 people died in alcohol-related crashes.
- ▶ 87% of the alcohol-related occupant deaths (drivers and passengers) were in the vehicle driven by the drinking driver; 68% were the drinking drivers themselves.
- ▶ 82% of the drinking drivers in traffic crashes were male.
- ▶ 79% of the alcohol-related crashes were during the hours of darkness, usually on weekends.
- ▶ On average each day, 39 alcohol-related traffic crashes occurred.
- ▶ On average each day, 1.4 persons were killed in alcohol-related traffic crashes.
- ▶ On average each day, 37 persons were injured in alcohol-related traffic crashes.

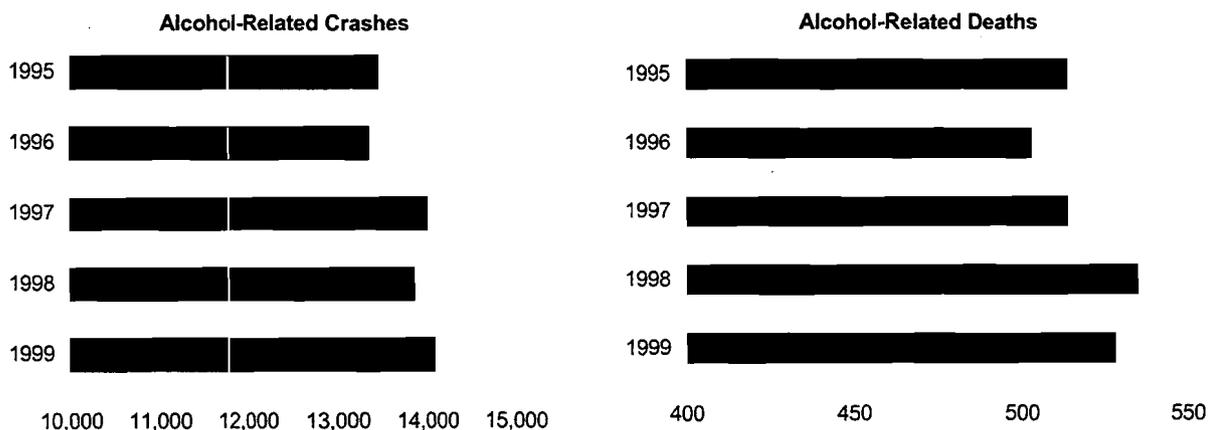
Alcohol Involvement in Crashes

Although alcohol-related crashes accounted for less than 10% of the total crashes in 1999, they resulted in 34% of all persons killed in crashes. Alcohol-related crashes were about 5 times more likely to result in death than those not related to alcohol (3.8% of the alcohol-related crashes resulted in death, compared to 0.78% 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	473 (34.2%)	528 (34.1%)	9,020 (10.2%)	13,438 (10.0%)	4,586 (8.5%)
Non-Alcohol-Related	909 (65.8%)	1,021 (65.9%)	79,662 (89.8%)	120,345 (90.0%)	49,521 (91.5%)
TOTAL	1,382 (100.0%)	1,549 (100.0%)	88,682 (100.0%)	133,783 (100.0%)	54,107 (100.0%)

Alcohol-Related Crashes—Five-Year Trends

Alcohol-related crashes increased in 1999 to its highest amount in the last five years, while alcohol-related deaths decreased. Alcohol-related injuries increased by 2%. "PDO Crashes" in the table below refers to property damage only crashes.



	1995	1996	1997	1998	1999
Crashes	13,440	13,343	13,996	13,835	14,079
Fatal Crashes	464	462	460	486	473
Injury Crashes	8,740	8,572	9,083	8,853	9,020
PDO Crashes	4,236	4,309	4,453	4,496	4,586
Deaths	514	503	514	535	528
Injuries	13,353	12,760	13,868	13,156	13,438
Fatal Crashes per 100,000 Licensed Drivers	6.0	5.7	5.7	5.5	5.6
Deaths per 100,000 Licensed Drivers	6.4	6.3	6.2	6.1	6.2

Victims of Alcohol-Related Fatal Crashes

There were 473 driver and passenger deaths in alcohol-related crashes in 1999, while 412 (87%) were the drinking drivers or their passengers.

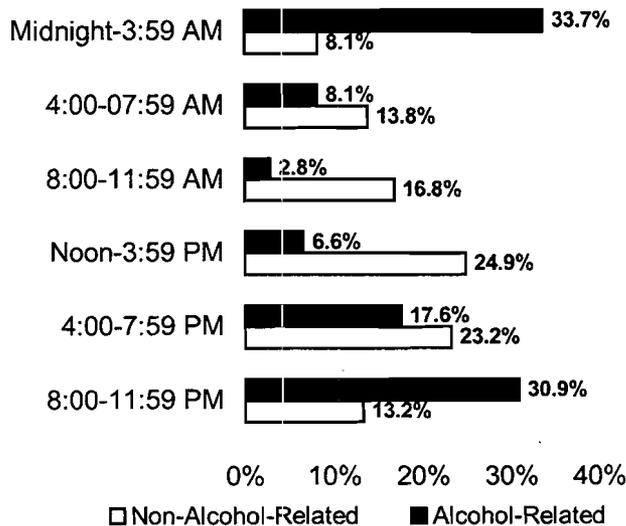
Persons Involved	Deaths
Drivers	361
<i>Drinking Drivers</i>	324 (89.8%)
<i>Non-Drinking Drivers</i>	37 (10.3%)
Passengers	112
<i>Passengers with Drinking Driver</i>	88 (78.6%)
<i>Passengers with Non-Drinking Driver</i>	24 (21.4%)
Pedestrians	49
<i>Drinking Pedestrian</i>	33 (67.4%)
<i>Non-Drinking Pedestrian</i>	16 (32.7%)
TOTAL DEATHS*	528

*Includes 6 victims, status unknown

Alcohol-Related

Victims of Fatal Crashes by Time of Day

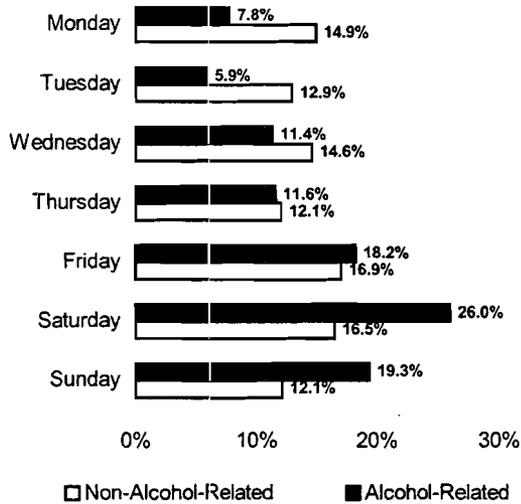
Alcohol-related crashes occurring between 8:00 PM and 4:00 AM produced the vast majority of deaths (65% of alcohol-related deaths). In contrast, nearly half the deaths from non-alcohol-related crashes resulted from crashes occurring between noon and 8:00 PM.



Time of Occurrence	Non-Alcohol-Related	Alcohol-Related
Midnight-3:59 AM	83	178
4:00-07:59 AM	141	43
8:00-11:59 AM	171	15
Noon-3:59 PM	254	35
4:00-7:59 PM	237	93
8:00-11:59 PM	135	163
Time Unknown	0	1
TOTAL DEATHS	1,021	528

Victims of Fatal Crashes by Day of Week

The majority (63%) 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 fairly evenly throughout the week.

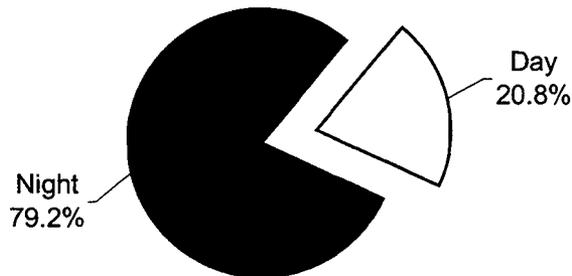


Day of Occurrence	Non-Alcohol-Related	Alcohol-Related
Monday	152	41
Tuesday	132	31
Wednesday	149	60
Thursday	123	61
Friday	173	96
Saturday	168	137
Sunday	124	102
TOTAL DEATHS	1,021	528

Alcohol-Related

Alcohol-Related Crashes—Day vs. Night

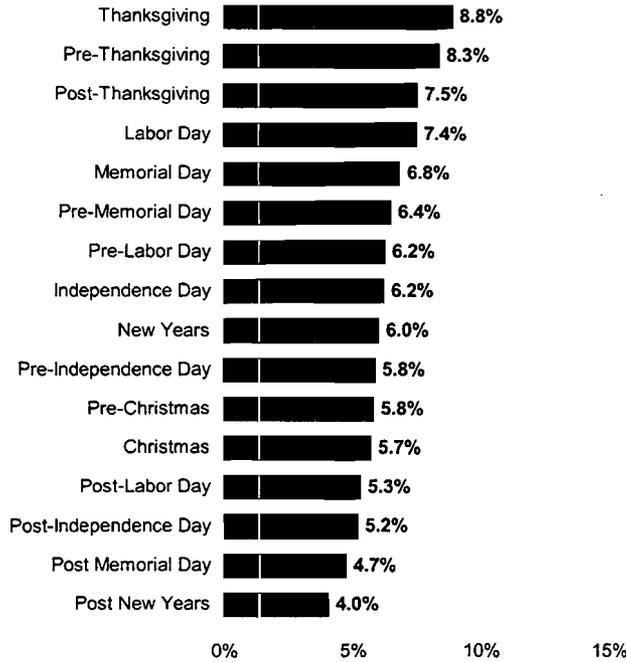
Almost 80% of alcohol-related crashes occur at night. The graph below shows the breakdown of alcohol-related crashes by day and night.



Alcohol-Related Holiday Crashes

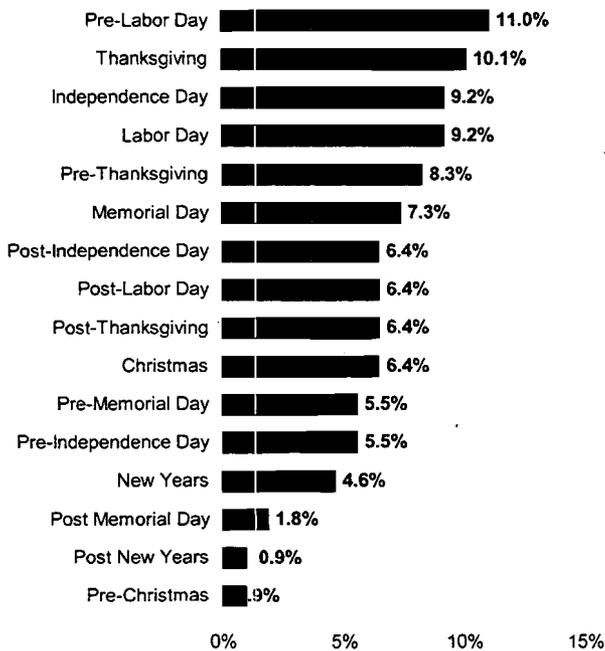
In 1999, 16% of all holiday crashes involved alcohol use; however, 38% of deaths which occurred during holiday weekends were related to alcohol use. (See *Crashes by Holiday*, page 22.)

Total Crashes



Period*	Crashes	Deaths
New Years	178	5
Post New Years	120	1
Pre-Memorial Day	192	6
Memorial Day	203	8
Post Memorial Day	140	2
Pre-Independence Day	173	6
Independence Day	184	10
Post-Independence Day	154	7
Pre-Labor Day	185	12
Labor Day	222	10
Post-Labor Day	157	7
Pre-Thanksgiving	249	9
Thanksgiving	264	11
Post-Thanksgiving	223	7
Pre-Christmas	172	1
Christmas	169	7
TOTAL	2,985	109

Deaths



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

Alcohol-Related

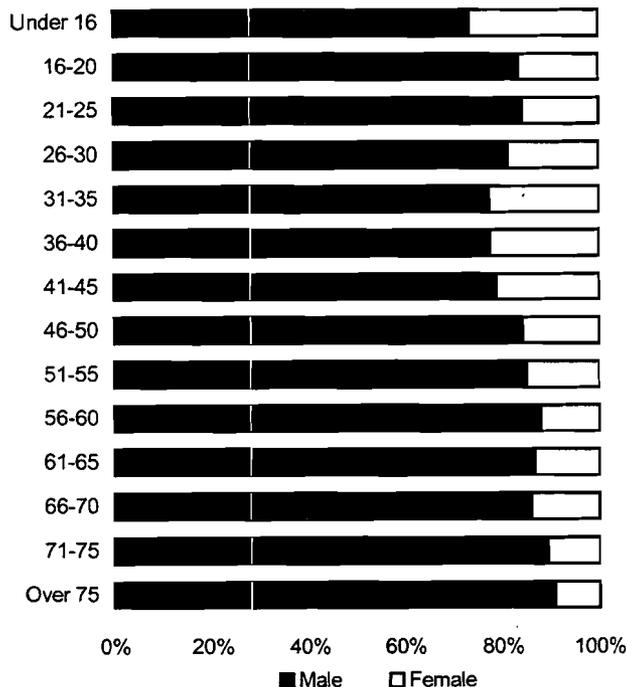
Driver Involvement in Alcohol-Related Crashes by Vehicle Type

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 242,929	Passenger Car	161,942
	Light Truck	63,465
	Heavy Truck	8,276
	Motorcycle	2,729
	Bus	1,221
	Other	5,296
Drinking Drivers in Crashes 14,109 (5.8% of total)	Passenger Car	9,296 (5.7% of total)
	Light Truck	4,371 (6.9% of total)
	Heavy Truck	37 (0.4% of total)
	Motorcycle	296 (10.8% of total)
	Bus	2 (0.2% of total)
	Other	107 (2.0% of total)

Drinking Drivers in Crashes by Age and Sex

In 1999, 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 152 drivers for whom age and/or sex were not known.

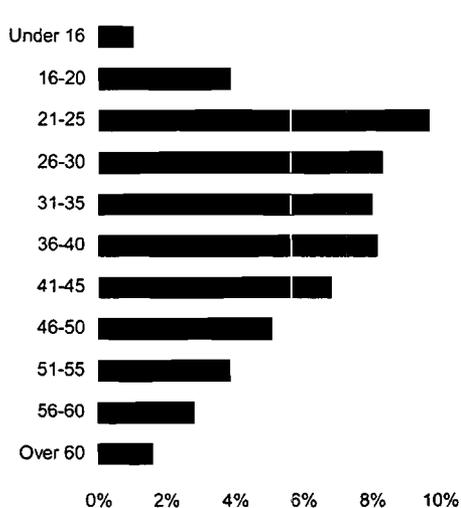


Age Group	Male	Female	Total
Under 16	11	4	15
16-20	1,292	253	1,545
21-25	2,477	458	2,935
26-30	1,705	391	2,096
31-35	1,490	435	1,925
36-40	1,509	436	1,945
41-45	1,149	306	1,455
46-50	730	135	865
51-55	424	74	498
56-60	236	32	268
61-65	131	20	151
66-70	93	15	108
71-75	76	9	85
Over 75	60	6	66
Total	11,383	2,574	13,957

Alcohol-Related

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

In 1999, 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 1,560 underage drinking drivers.

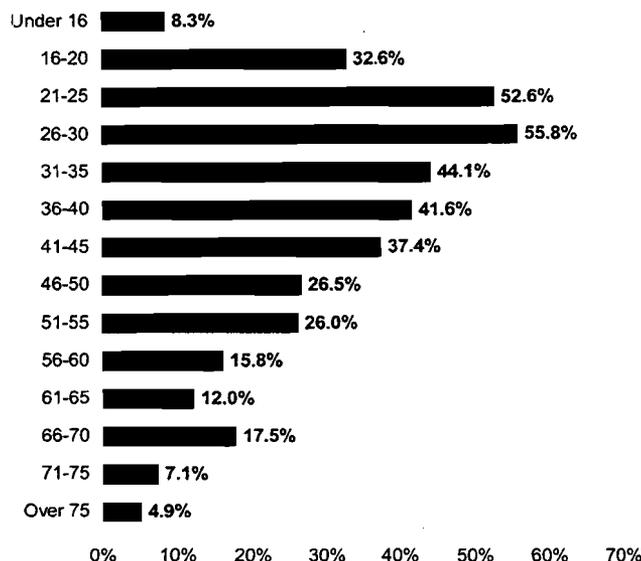


Age Group	Drinking Driver	Non-Drinking Driver
Under 16	15 (1.0%)	1,565 (99.1%)
16-20	1,545 (3.8%)	39,115 (96.2%)
21-25	2,935 (9.6%)	27,557 (90.4%)
26-30	2,096 (8.3%)	23,312 (91.8%)
31-35	1,925 (8.0%)	22,247 (92.0%)
36-40	1,945 (8.1%)	22,046 (91.9%)
41-45	1,455 (6.8%)	20,080 (93.2%)
46-50	865 (5.0%)	16,334 (95.0%)
51-55	498 (3.8%)	12,619 (96.2%)
56-60	268 (2.8%)	9,435 (97.2%)
Over 60	410 (1.6%)	26,044 (98.5%)

Alcohol-Related

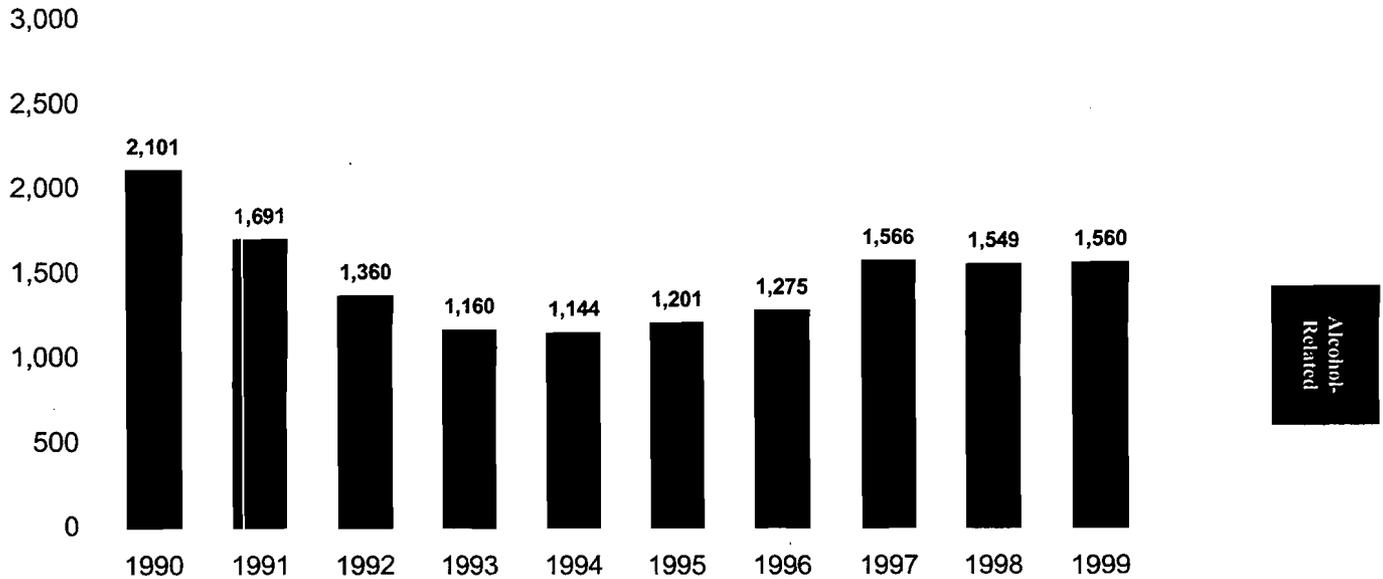
Drinking Driver Deaths as a Percentage of Total Driver Deaths, by Age Group

The graph below shows drinking driver deaths as a percentage of total driver deaths within each respective age group for 1999 crashes. The five age groups from 21 to 45 had the highest percentages, with over 37% of the driver deaths in these age groups involving a drinking driver. The 16-20 age group increased over 10% from 1998 (21.9%).



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 a increase in 1997, the number of underage drinking drivers has flattened out over the last three years.



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.
- ▶ 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, safety 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). 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.
- ▶ Research shows that child safety seats, when used correctly, are 71% effective in preventing fatalities, and 69% effective in preventing serious injury.
- ▶ 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 40 pounds. Small children should use a belt positioning booster seat from 40-60 or 80 pounds. 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.

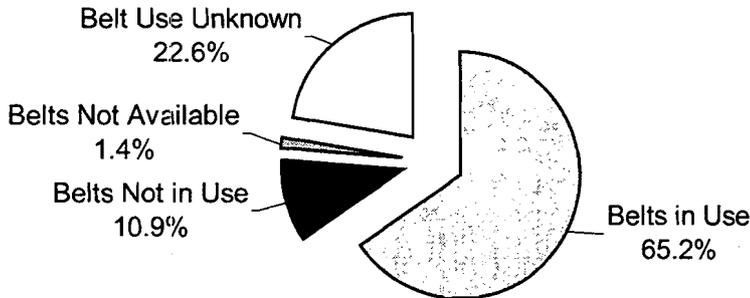
Air Bag Safety

- ▶ 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.

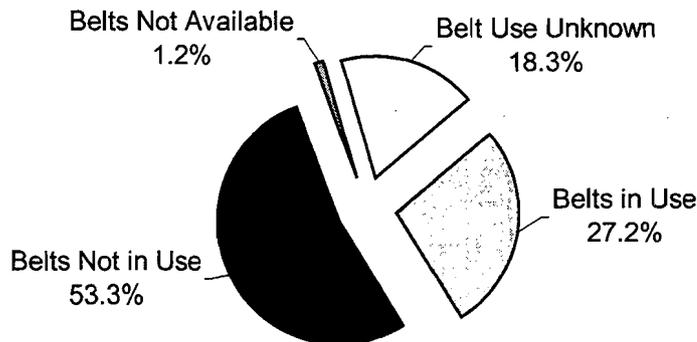
Seat Belt Use in Crashes—Total People Involved

Seat belts have proven to be effective in reducing the severity of injuries sustained in a crash. In 1999, as shown in the two pie graphs below, 65.2% 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 1999 by severity of injury and belt use.

Total People Involved in Crashes



Total Deaths



Seat Belts,
Etc.

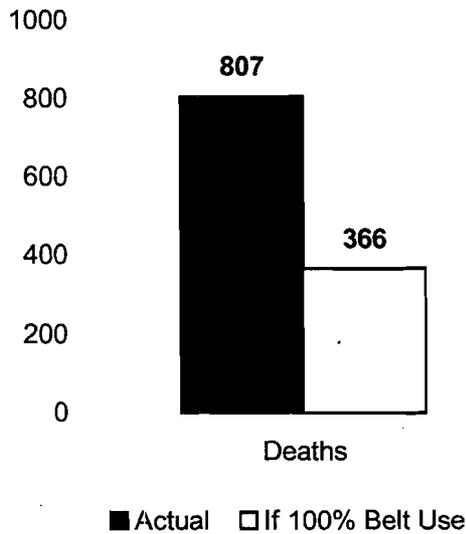
	Belts in Use	Belts Not in Use	Belts Not Available	Belt Use Unknown
Killed	331	648	14	222
Major Injury	1,497	1,583	101	990
Moderate Injury	11,249	5,656	373	4,646
Minor Injury	49,055	12,050	979	14,068
No Injury	152,380	15,478	3,065	48,975
Unknown Injury	7,869	1,816	223	8,090
TOTAL	222,381	37,231	4,755	76,991

Note: Vehicles involved include passenger cars, light trucks, and heavy trucks.

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 1999 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 1999 would have been \$2,638,848,941 or approximately \$220 for every man, woman, and child in Pennsylvania. More importantly, 441 people would have survived if they had worn their belts.

	Deaths	Injuries			
		Major	Moderate	Minor	None
No Belts	5	56	238	604	1,711
Belts Used	261	1,054	8,301	35,648	94,092
Belts Not Used	418	1,051	3,845	8,278	9,458
Use Unknown	123	421	1,852	5,230	14,699
TOTAL	807	2,582	14,236	49,760	119,960
If 100% Belt Use	366	1,465	11,322	47,837	126,355
Net Increase/(Decrease)	(441)	(1,117)	(2,914)	(1,923)	6,395



Note: PennDOT's cost estimating procedures were revised in 1999 dollars.

Seat Belts, Etc.

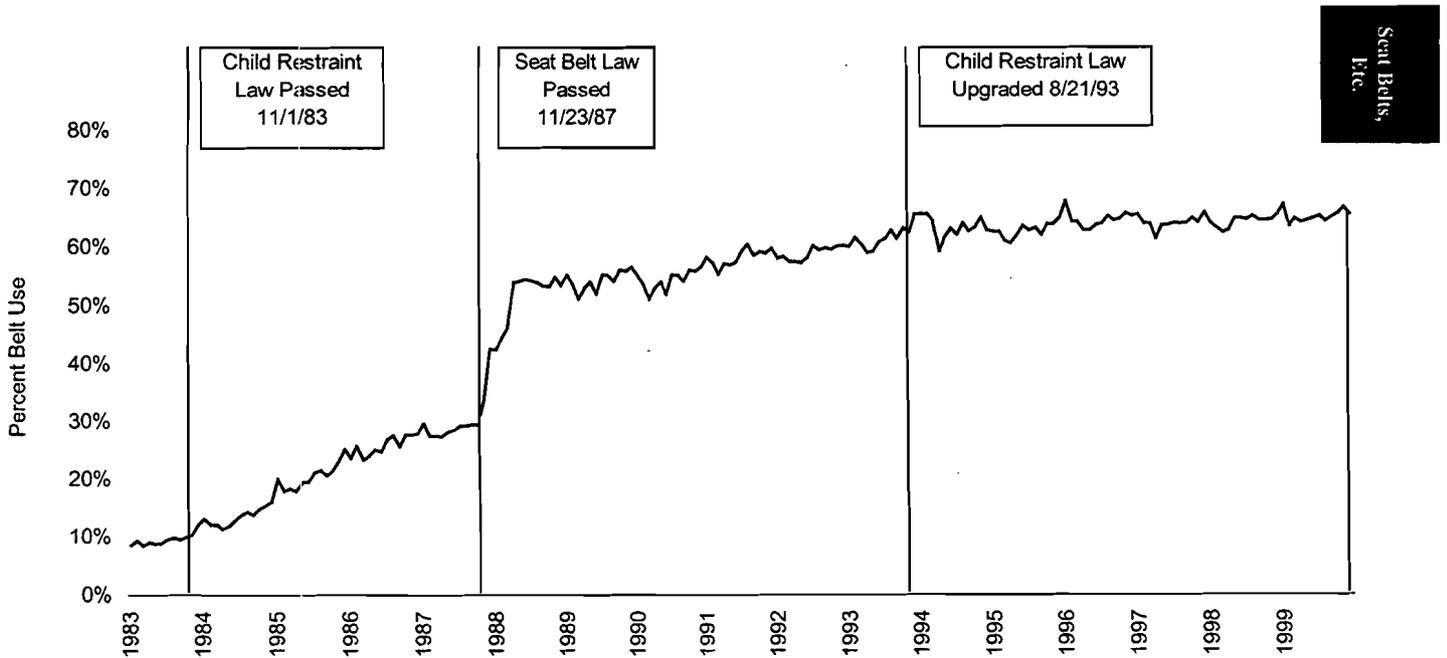
Seat Belt Use in Crashes—Historical Data

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.

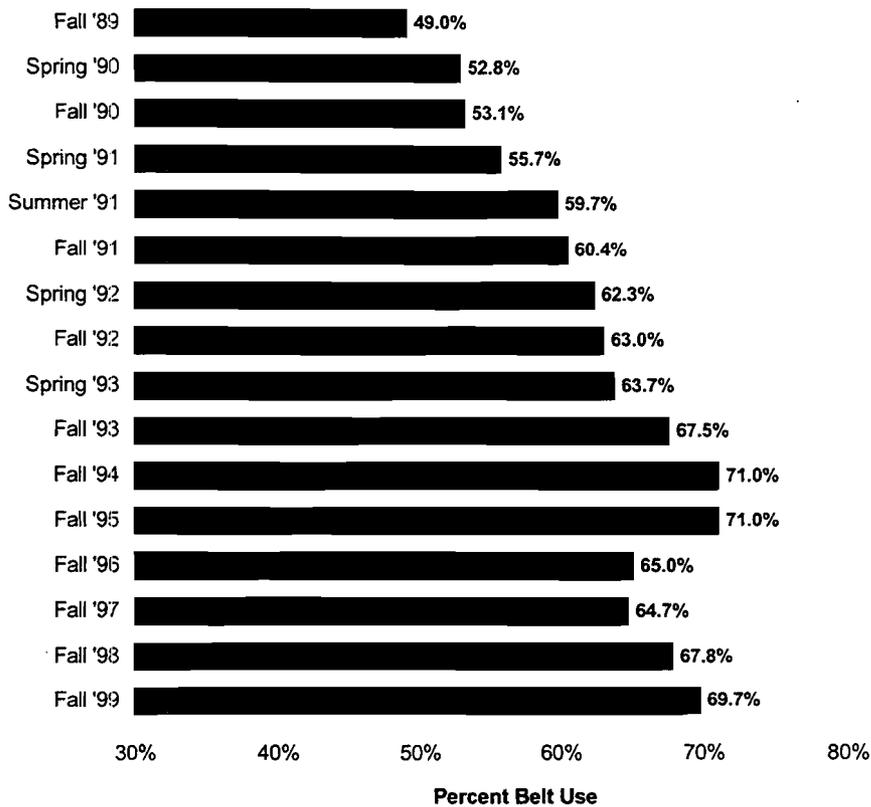
The graph below shows the percentage of seat belt users in Pennsylvania since 1983. A sharp upward trend was experienced in the year following the passage of the seat belt law. The trend slowly increased over the next several years, although it has flattened out over the past six years.



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 has increased each of the last two years.



Seat Belts, Etc.

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 1995-1999 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 1995-1999, 83.4% of the children who were involved in crashes and restrained in a child seat sustained no injury.

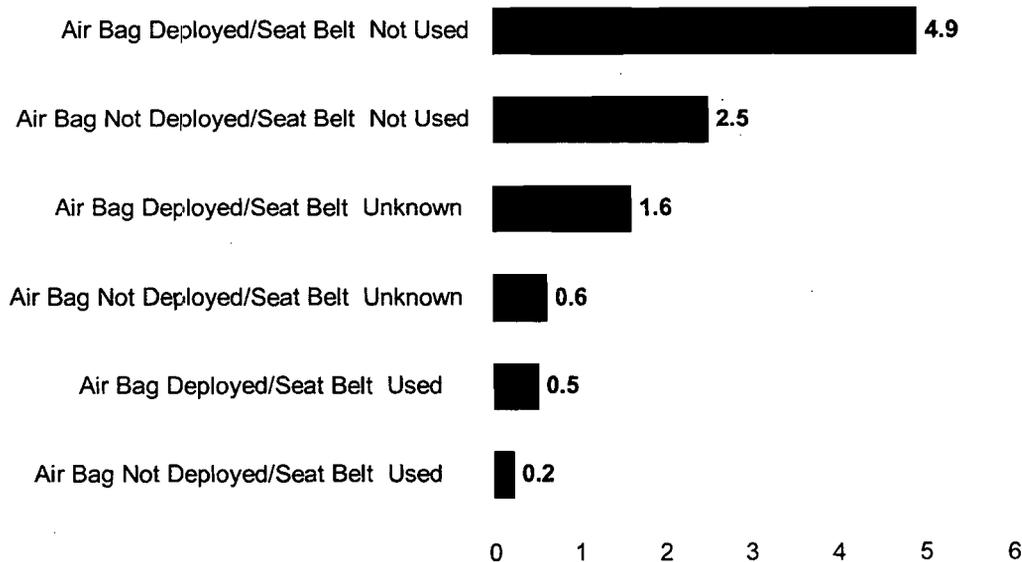
Child Restraint	Deaths	Injuries				No Injury	Total Persons
		Major	Moderate	Minor	Unknown		
Child Seat In Use	26 (0.1%)	78 (0.2%)	339 (1.1%)	3,166 (9.9%)	1,691 (5.3%)	26,680 (83.4%)	31,980
Child Seat Not In Use	5 (0.3%)	21 (1.4%)	37 (2.5%)	238 (16.1%)	179 (12.1%)	998 (67.5%)	1,478
Other Restraint In Use	9 (0.1%)	69 (0.5%)	247 (1.9%)	2,027 (15.9%)	504 (4.0%)	9,890 (77.6%)	12,746
Other Restraint Not In Use	31 (0.5%)	71 (1.1%)	267 (4.0%)	1,486 (22.5%)	810 (12.3%)	3,941 (59.7%)	6,606

Air Bag Deployment in Crashes—Injuries and Deaths

Passive restraints, most notably air bags, are becoming more and more prevalent, but the majority of vehicles on the road still do not have air bags. 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 Restraint Status	Seat Belt Status	Deaths	Injuries				No Injury	Total Persons
			Major	Moderate	Minor	Unknown		
None	n/a	965 (0.5%)	2,938 (1.6%)	13,618 (7.5%)	43,021 (23.8%)	6,948 (3.8%)	113,591 (62.7%)	181,081
Air Bag Deployed	Used	72 (0.3%)	399 (1.7%)	2,570 (11.0%)	8,688 (37.2%)	1,055 (4.5%)	10,596 (45.3%)	23,380
Air Bag Deployed	Not Used	119 (3.3%)	243 (6.7%)	758 (20.7%)	1,332 (36.4%)	212 (5.8%)	992 (27.1%)	3,656
Air Bag Deployed	Unknown	30 (1.0%)	135 (4.6%)	434 (14.7%)	890 (30.1%)	321 (10.9%)	1,145 (38.8%)	2,955
Air Bag Not Deployed	Used	38 (0.1%)	129 (0.3%)	1,683 (3.5%)	9,673 (20.3%)	1,515 (3.2%)	34,682 (72.7%)	47,720
Air Bag Not Deployed	Not Used	49 (1.3%)	90 (2.3%)	383 (9.9%)	1,226 (31.8%)	157 (4.1%)	1,956 (50.7%)	3,861
Air Bag Not Deployed	Unknown	13 (0.3%)	33 (0.8%)	207 (5.0%)	827 (20.0%)	270 (6.5%)	2,780 (67.3%)	4,130
Other	n/a	55 (0.2%)	258 (0.8%)	1,698 (5.5%)	6,196 (20.2%)	2,188 (7.1%)	20,229 (66.1%)	30,624

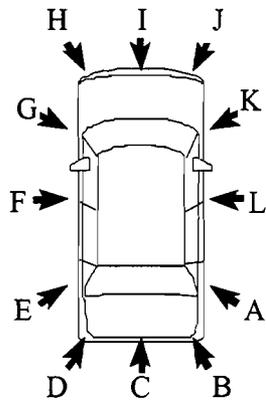
Deaths per 100 Crashes



Seat Belts, Etc.

Air Bag Deployment by Initial Vehicle Impact Point

Most air bags are designed to deploy in frontal impacts. The table below shows the initial vehicle impact points for all 1999 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 801 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)	3,164	1,502	166 (18.2%)	747 (81.8%)	749
Right Rear (B)	6,248	3,091	221 (12.0%)	1,620 (88.0%)	1,316
Center Rear (C)	34,586	15,654	801 (7.3%)	10,157 (92.7%)	7,974
Left Rear (D)	5,855	3,042	188 (11.6%)	1,434 (88.4%)	1,191
Left Side Rear (E)	3,137	1,641	113 (13.6%)	721 (86.5%)	662
Left Side Center (F)	9,383	5,009	469 (20.2%)	1,851 (79.8%)	2,054
Left Side Forward (G)	8,291	3,892	740 (28.1%)	1,890 (71.9%)	1,769
Left Front (H)	35,062	16,758	4,787 (42.1%)	6,585 (57.9%)	6,932
Center Front (I)	75,000	34,966	13,165 (54.5%)	11,008 (45.5%)	15,861
Right Front (J)	34,993	16,731	4,605 (43.6%)	5,950 (56.4%)	7,707
Right Side Forward (K)	8,042	3,811	680 (28.9%)	1,672 (71.1%)	1,879
Right Side Center (L)	8,879	4,607	571 (24.3%)	1,778 (75.7%)	1,923
Other	8,786	4,099	503 (28.4%)	1,266 (71.6%)	2,918
None	1,503	1,128	11 (8.5%)	118 (91.5%)	246
TOTAL	242,929	115,931	27,020 (36.6%)	46,797 (63.4%)	53,181

Seat Belts, Etc.

Air Bag Deployment by Age Group

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

Seat Belts Used		Injuries					Total Persons
Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	
0-4	0 (0.0%)	1 (4.6%)	3 (13.6%)	11 (50.0%)	0 (0.0%)	7 (31.8%)	22
5-8	0 (0.0%)	2 (2.1%)	8 (8.3%)	41 (42.7%)	3 (3.1%)	42 (43.8%)	96
9-12	0 (0.0%)	2 (1.1%)	19 (10.8%)	79 (44.9%)	10 (5.7%)	66 (37.5%)	176
13-64	46 (0.2%)	333 (1.6%)	2,155 (10.5%)	7,512 (36.6%)	895 (4.4%)	9,574 (46.7%)	20,515
65-74	9 (0.6%)	29 (2.1%)	217 (15.5%)	556 (39.8%)	76 (5.4%)	510 (36.5%)	1,397
75+	17 (1.5%)	32 (2.7%)	168 (14.3%)	489 (41.7%)	71 (6.1%)	397 (33.8%)	1,174
Total	72 (0.3%)	399 (1.7%)	2,570 (11.0%)	8,688 (37.2%)	1,055 (4.5%)	10,596 (45.3%)	23,380

Seat Belts Not Used		Injuries					Total Persons
Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	
0-4	0 (0.0%)	0 (0.0%)	3 (37.5%)	4 (50.0%)	1 (12.5%)	0 (0.0%)	8
5-8	1 (9.1%)	0 (0.0%)	1 (9.1%)	6 (54.6%)	1 (9.1%)	2 (18.2%)	11
9-12	1 (5.3%)	0 (0.0%)	4 (21.1%)	5 (26.3%)	3 (15.8%)	6 (31.6%)	19
13-64	96 (2.8%)	229 (6.8%)	691 (20.4%)	1,231 (36.4%)	201 (5.9%)	935 (27.6%)	3,383
65-74	10 (7.6%)	9 (6.8%)	34 (25.8%)	44 (33.3%)	3 (2.3%)	32 (24.2%)	132
75+	11 (10.7%)	5 (4.9%)	25 (24.3%)	42 (40.8%)	3 (2.9%)	17 (16.5%)	103
Total	119 (3.3%)	243 (6.7%)	758 (20.7%)	1,332 (36.4%)	212 (5.8%)	992 (27.1%)	3,656

Pedestrian and Bicycle Crashes

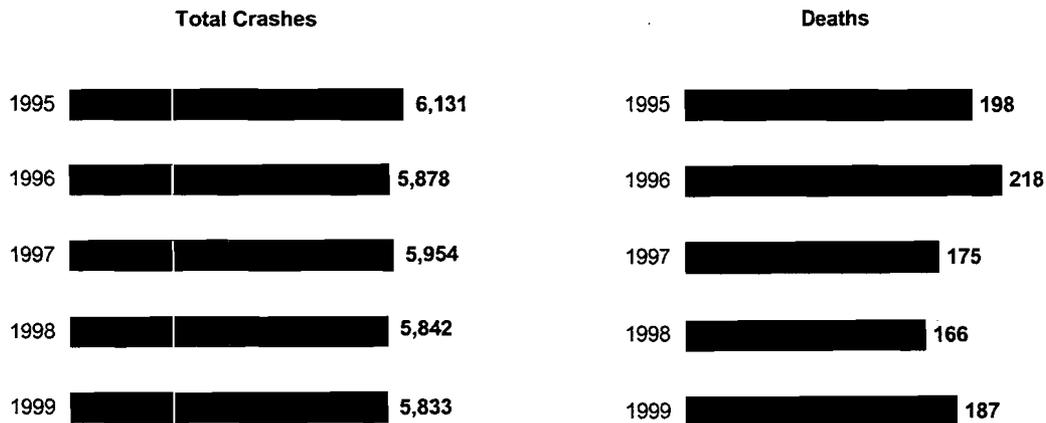
Pedestrian and Bicycles Overview

- ▶ Pedestrian-related crashes represent 4.0% of the total reported traffic crashes; however, they account for 12.1% of all traffic crash deaths. (See also *Pennsylvania County Crashes*, pages 62, 63, and 68.)

- ▶ Bicycle crashes represent 1.7% of the total reported crashes and 1.2% of all traffic deaths. Although these percentages are small, they still represent 18 bicyclist deaths and 2,385 injuries in 1999.

Pedestrian Crashes—Five-Year Trends

The percent of reported crashes involving pedestrians decreased from 4.5% in 1995 to 4.0% in 1999. Pedestrian deaths have increased this year, and in 1999 represented 12.1% of the total traffic deaths.



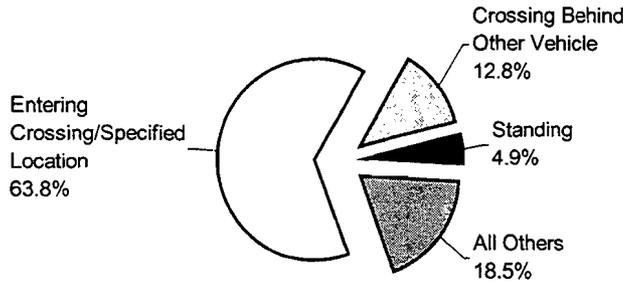
Year	Total Crashes	Deaths
1995	6,131	198
1996	5,878	218
1997	5,954	175
1998	5,842	166
1999	5,833	187



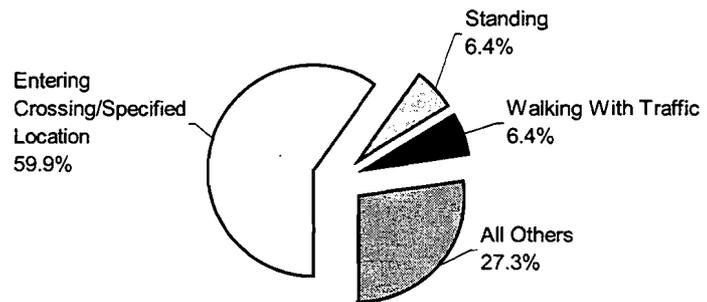
Pedestrian-Related Crashes

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 either an intersection, mid-block crossing, or driveway entrance. “Other Vehicle,” as used in the pie chart below under Top Crash-Related Pedestrian Actions, refers to a person getting struck after emerging from behind any vehicle other than a school bus.

Top Crash-Related Pedestrian Actions



Top Fatal Pedestrian Actions

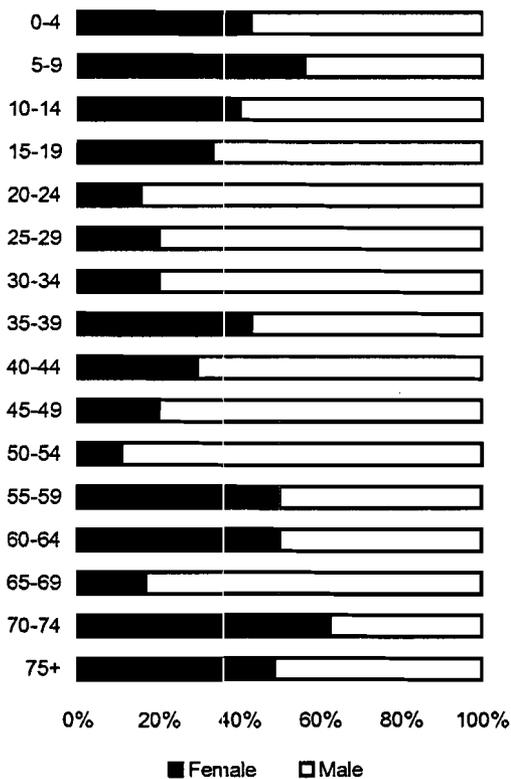


Pedestrian Action	Deaths	Total Pedestrians Involved
Entering Crossing/Specified Location	112	3,895
Crossing Behind School Bus	0	9
Crossing Behind Other Vehicle	6	781
Walking With Traffic	12	162
Walking Against Traffic	6	75
Leaving/Returning to Disabled Vehicle	1	2
Approaching/Leaving School Bus	0	6
Playing/Working on Vehicle	6	67
Other Working	3	115
Standing	12	297
Playing	2	85
Lying at Specific Location	6	15
Approaching/Leaving Other Vehicle	2	187
Other/Unknown	19	407
TOTAL	187	6,103

Peds & Bikes

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 64% of all pedestrian deaths. *Note:* Pedestrians of unknown sex are not included in the numbers below.



Age Group	Female	Male	Total
0-4	3	4	7
5-9	9	7	16
10-14	2	3	5
15-19	3	6	9
20-24	2	11	13
25-29	1	4	5
30-34	2	8	10
35-39	6	8	14
40-44	5	12	17
45-49	2	8	10
50-54	1	8	9
55-59	4	4	8
60-64	3	3	6
65-69	2	10	12
70-74	5	3	8
75 and over	18	19	37
Unknown	0	1	1
TOTAL	68	119	187

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 (31.6%)	4,042 (69.0%)	30 (49.2%)	4,131 (67.7%)
Borough/Town	41 (21.9%)	841 (14.4%)	10 (16.4%)	892 (14.6%)
Township	87 (46.5%)	968 (16.5%)	21 (34.4%)	1,076 (17.6%)
Other	0 (0.0%)	4 (0.1%)	0 (0.0%)	4 (0.1%)
TOTAL	187 (100.0%)	5,855 (100.0%)	61 (100.0%)	6,103 (100.0%)

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

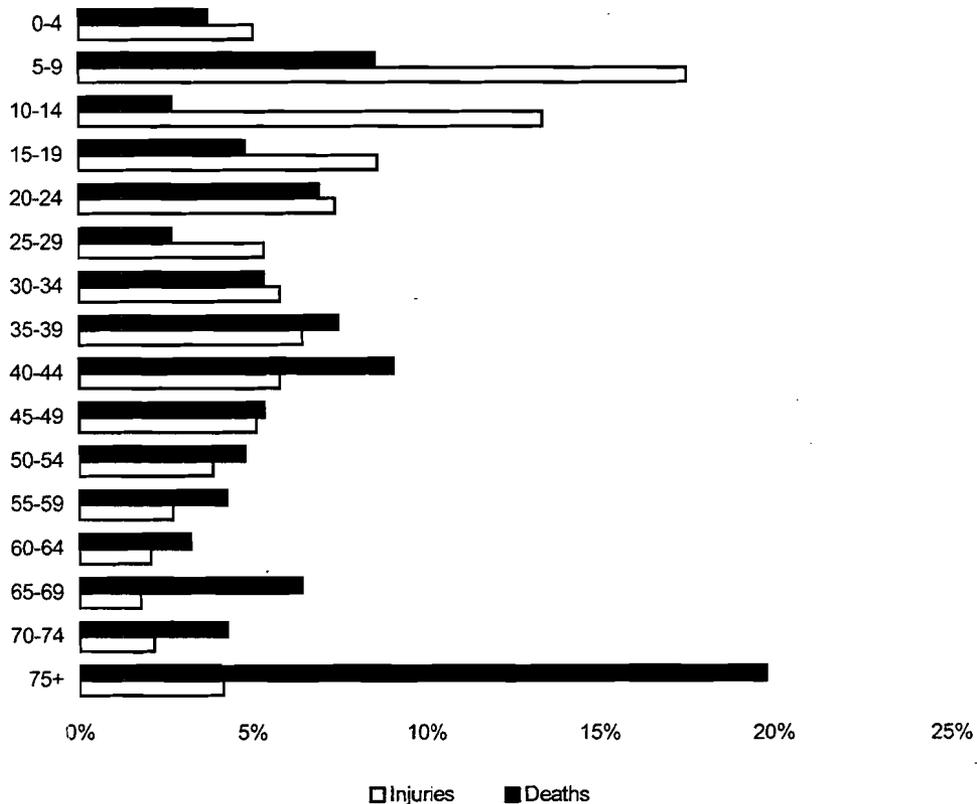


Pedestrian Deaths and Injuries by Age

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

Note: The totals in the table do not include an additional 61 pedestrians who were not killed or injured.

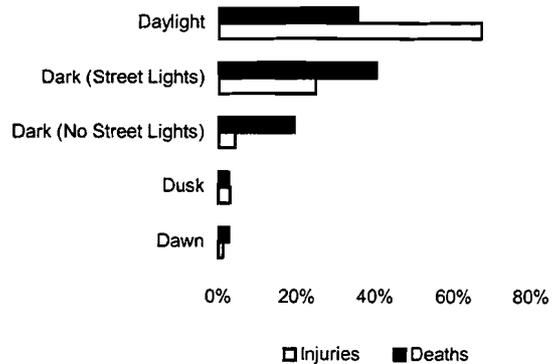
Pedestrian Age	Deaths	Injuries
0-4	7 (3.7%)	296 (5.1%)
5-9	16 (8.6%)	1,026 (17.5%)
10-14	5 (2.7%)	785 (13.4%)
15-19	9 (4.8%)	505 (8.6%)
20-24	13 (7.0%)	433 (7.4%)
25-29	5 (2.7%)	313 (5.4%)
30-34	10 (5.4%)	341 (5.8%)
35-39	14 (7.5%)	377 (6.4%)
40-44	17 (9.1%)	341 (5.8%)
45-49	10 (5.4%)	299 (5.1%)
50-54	9 (4.8%)	226 (3.9%)
55-59	8 (4.3%)	158 (2.7%)
60-64	6 (3.2%)	120 (2.1%)
65-69	12 (6.4%)	104 (1.8%)
70-74	8 (4.3%)	126 (2.2%)
75 and over	37 (19.8%)	243 (4.2%)
Unknown	1 (0.5%)	162 (2.8%)
TOTAL	187 (100.0%)	5,855 (100.0%)



Peds & Bikes

Pedestrian Deaths and Injuries by Light Level

The majority of pedestrians are injured in the daytime, but most 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.

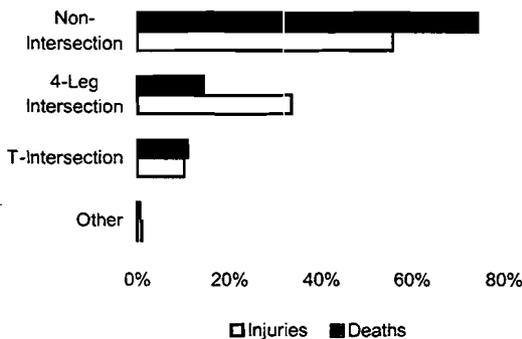


Light Level	Deaths	Injuries
Dawn	5 (2.7%)	63 (1.1%)
Daylight	66 (35.3%)	3,921 (67.0%)
Dark (Street Lights)	75 (40.1%)	1,445 (24.7%)
Dark (No Street Lights)	36 (19.3%)	235 (4.0%)
Dusk	5 (2.7%)	170 (2.9%)
Unknown	0 (0.0%)	21 (0.4%)
TOTAL	187 (100.0%)	5,855 (100.0%)

Note: The totals in the table do not include an additional 61 pedestrians who were not killed or injured.

Pedestrian Deaths and Injuries by Intersection Type

More than two-thirds 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.



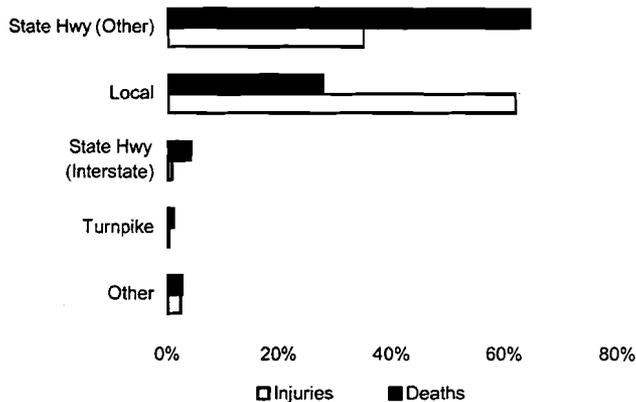
Intersection	Deaths	Injuries
Non-Intersection	139 (74.3%)	3,253 (55.6%)
4-Leg Intersection	27 (14.4%)	1,957 (33.4%)
T-Intersection	20 (10.7%)	587 (10.0%)
Other	1 (0.5%)	58 (1.0%)
TOTAL	187 (100.0%)	5,855 (100.0%)

Note: The totals in the table do not include an additional 61 pedestrians who were not killed or injured.

Pedestrians & Bicycles

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.

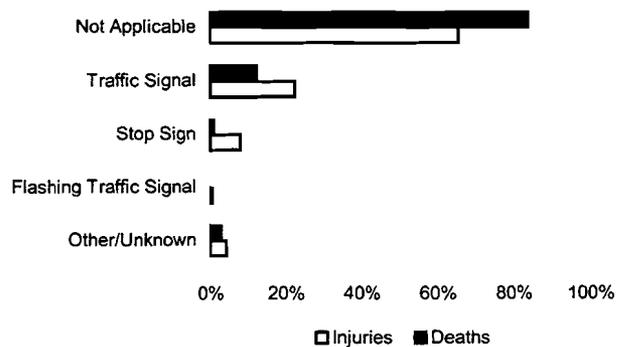


Note: "Road Type" relates to the road on which the motor vehicle was traveling immediately prior to striking the pedestrian. The totals in the table do not include an additional 61 pedestrians who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	120 (64.2%)	2,047 (35.0%)
Local	52 (27.8%)	3,618 (61.8%)
State Hwy (Interstate)	8 (4.3%)	37 (0.6%)
Turnpike	2 (1.1%)	11 (0.2%)
Other	5 (2.7%)	142 (2.4%)
TOTAL	187 (100.0%)	5,855 (100.0%)

Pedestrian Deaths and Injuries by Traffic Control Device

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 61 pedestrians who were not killed or injured.

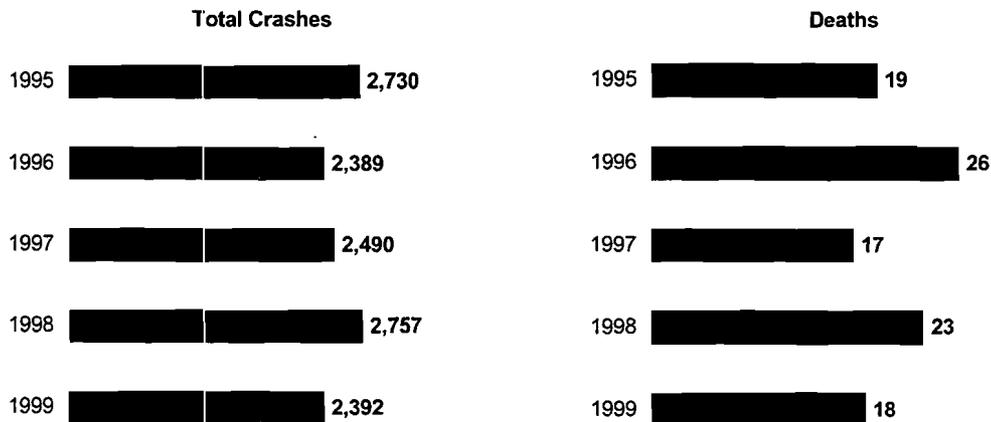
Traffic Control Device	Deaths	Injuries
Not Applicable	157 (84.0%)	3,828 (65.4%)
Traffic Signal	23 (12.3%)	1,311 (22.4%)
Stop Sign	2 (1.1%)	458 (7.8%)
Flashing Traffic Signal	0 (0.0%)	20 (0.3%)
Other/Unknown	5 (2.7%)	238 (4.1%)
TOTAL	187 (100.0%)	5,855 (100.0%)

Peds & Bikes

Bicycle Crashes—Five-Year Trends

The total number of bicycle crashes and deaths in 1999 decreased 13% and 22% respectively from 1998.

Year	Total Crashes	Deaths
1995	2,730	19
1996	2,389	26
1997	2,490	17
1998	2,757	23
1999	2,392	18



Bicycle Deaths and Injuries by Age

Children age 5 to 14 are the most vulnerable to death and injury while riding a bicycle. Over a third of the deaths and injuries involving bicycles were suffered by this age group. Another vulnerable, but larger group, was persons age 15 to 44, who also suffered over a third of the total deaths and total injuries.



Victim's Age	Deaths	Injuries
0-4	0 (0.0%)	11 (0.5%)
5-9	4 (22.2%)	417 (17.5%)
10-14	3 (16.7%)	762 (32.0%)
15-19	4 (22.2%)	389 (16.3%)
20-34	1 (5.6%)	394 (16.5%)
35-44	3 (16.7%)	215 (9.0%)
45-54	1 (5.6%)	87 (3.7%)
55-64	1 (5.6%)	49 (2.1%)
65-74	1 (5.6%)	15 (0.6%)
75+	0 (0.0%)	8 (0.3%)
Unknown	0 (0.0%)	38 (1.6%)
TOTAL	18 (100.0%)	2,385 (100.0%)

The totals in the table do not include an additional 40 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Light Level

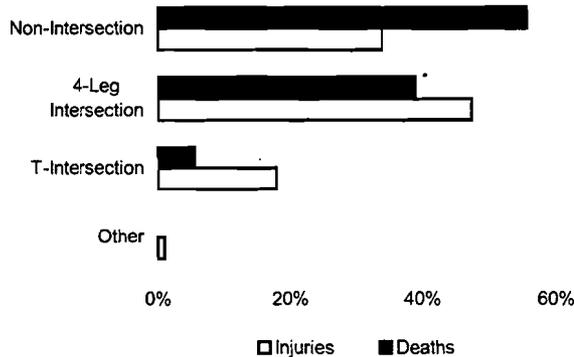
The majority of bicyclists are killed or injured during the day. The after dark deaths decreased from 9 in 1998 to 6 in 1999.

Light Level	Deaths	Injuries
Dawn	0 (0.0%)	15 (0.6%)
Daylight	11 (61.1%)	1,869 (78.4%)
Dark (Street Lights)	4 (22.2%)	342 (14.3%)
Dark (No Street Lights)	2 (11.1%)	53 (2.2%)
Dusk	1 (5.6%)	97 (4.1%)
Unknown	0 (0.0%)	9 (0.4%)
TOTAL	18 (100.0%)	2,385 (100.0%)

Note: The totals in the table do not include an additional 40 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Intersection

The majority of bicyclists are injured at intersections, while deaths occur more often in non-intersection crashes.



Peds & Bikes

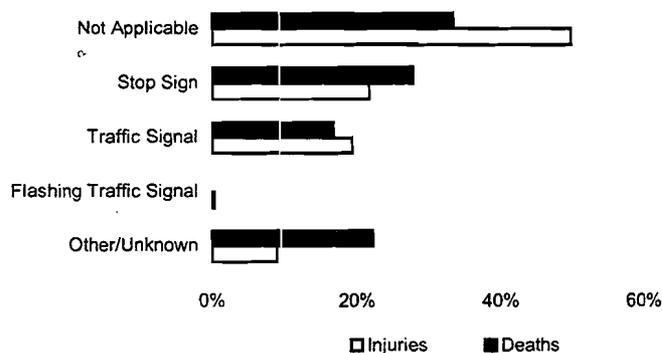
Intersection	Deaths	Injuries
Non-Intersection	10 (55.6%)	807 (33.8%)
4-Leg Intersection	7 (38.9%)	1,128 (47.3%)
T-Intersection	1 (5.6%)	427 (17.9%)
Other	0 (0.0%)	23 (1.0%)
TOTAL	18 (100.0%)	2,385 (100.0%)

Note: The totals in the table do not include an additional 40 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Traffic Control Device

Injuries were more likely to occur where there were no traffic control devices (TCD), while deaths occurred more often at TCDs.

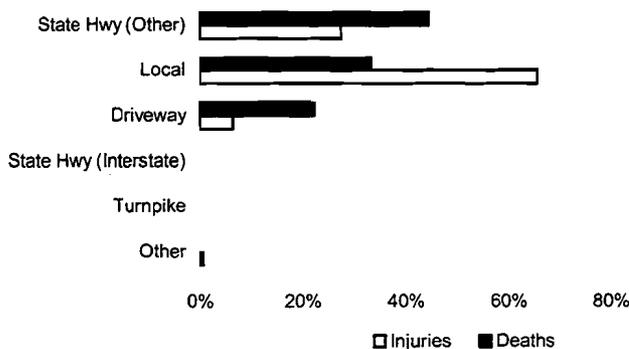
Traffic Control Device	Deaths	Injuries
Not Applicable	6 (33.3%)	1,186 (49.7%)
Stop Sign	5 (27.8%)	517 (21.7%)
Traffic Signal	3 (16.7%)	462 (19.4%)
Flashing Traffic Signal	0 (0.0%)	6 (0.3%)
Other/Unknown	4 (22.2%)	214 (9.0%)
TOTAL	18 (100.0%)	2,385 (100.0%)



Note: "Traffic Control Device" relates to the TCD that was present for the bike immediately prior to the crash. The totals in the table do not include an additional 40 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Road Type

One-third of the deaths and well over half the injuries involving bicycles occurred on local roads. Note the deaths and injuries involving driveways.



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 40 bicyclists who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	8 (44.4%)	658 (27.6%)
Local	6 (33.3%)	1,566 (65.7%)
Driveway	4 (22.2%)	150 (6.3%)
State Hwy (Interstate)	0 (0.0%)	0 (0.0%)
Turnpike	0 (0.0%)	0 (0.0%)
Other	0 (0.0%)	11 (0.5%)
TOTAL	18 (100.0%)	2,385 (100.0%)



Crashes by Motor Vehicle Type

Vehicle Crashes by Vehicle Types

	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Passenger Car	69.0%	81.4%	78.0%	80.0%
	953 crashes	72,161 crashes	42,204 crashes	115,318 crashes
Light Truck	39.1%	37.8%	39.9%	38.6%
	540 crashes	33,498 crashes	21,567 crashes	55,605 crashes
Heavy Truck	14.0%	4.8%	6.2%	5.4%
	194 crashes	4,230 crashes	3,331 crashes	7,755 crashes
Bicycle	1.3%	2.7%	0.0%	1.7%
	18 crashes	2,366 crashes	8 crashes	2,392 crashes
Motorcycle	7.9%	2.8%	0.3%	1.9%
	109 crashes	2,446 crashes	133 crashes	2,688 crashes
School Bus	0.7%	0.4%	0.3%	0.4%
	9 crashes	322 crashes	176 crashes	507 crashes
Commercial Bus	0.7%	0.6%	0.2%	0.5%
	9 crashes	567 crashes	132 crashes	708 crashes
Other	2.5%	2.6%	1.1%	2.0%
	35 crashes	2,262 crashes	600 crashes	2,897 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 69.0% of all fatal crashes). Percentage totals exceed 100% due to multiple vehicle crashes.

Vehicle Crashes—Single Vehicle Hitting Fixed Objects

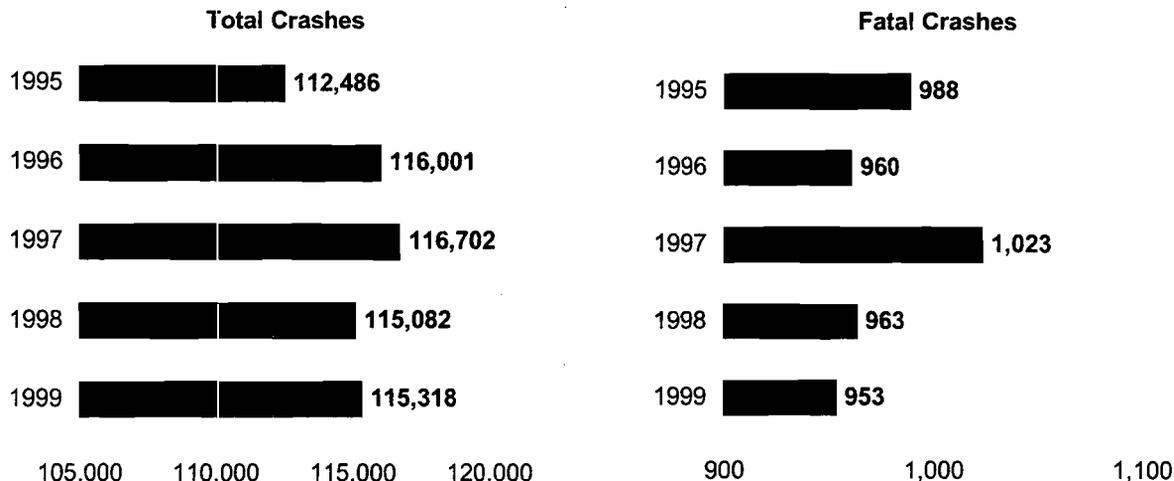
Crashes in Which a Single Vehicle Hit a Fixed Object: 45,320	Passenger Car	31,047	68.5%
	Light Truck	12,361	27.3%
	Heavy Truck	1,023	2.3%
	Motorcycle	536	1.2%
	School Bus	27	0.1%
	Commercial Bus	36	0.1%
	Other	290	0.6%

Vehicle Crashes—Two-Vehicle Collisions

Striking Vehicle	Vehicle Struck									Total
	Passenger Car	Light Truck	Heavy Truck	Motorcycle	Bicycle	School Bus	Commercial Bus	Other/Unknown		
Passenger Car	33,805	1,745	13,219	317	1,000	166	186	315	50,753	
Light Truck	11,922	712	5,093	81	329	77	66	106	18,386	
Heavy Truck	1,573	364	598	8	17	10	13	8	2,591	
Motorcycle	541	14	209	31	8	2	3	14	822	
Bicycle	594	10	209	4	0	1	9	19	846	
School Bus	91	6	42	0	2	5	0	0	146	
Commercial Bus	165	7	40	2	14	0	3	2	233	
Other/Unknown	785	14	152	23	147	1	6	26	1,154	

Passenger Car Crashes—Five-Year Trends

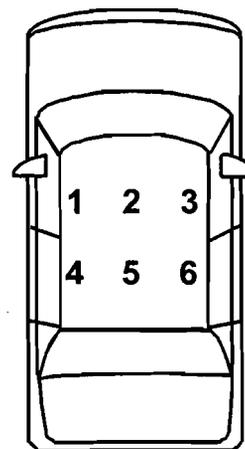
Total passenger car crashes slightly increased in 1999, but fatal crashes in 1999 were the lowest in five years.



Passenger Car Deaths by Seating Position

In 1999, 57% of crash deaths involved passenger car occupants. The table below depicts the passenger car deaths in 1999 by seating position.

	Drivers	1 →
	613 (69.2%)	
	Center Front	2 →
	3 (0.3%)	
	Right Front	3 →
	187 (21.1%)	
	Left Rear	4 →
	26 (2.9%)	
Center Rear	5 →	
10 (1.1%)		
Right Rear	6 →	
32 (3.6%)		
Others		
15 (1.7%)		
Total Deaths	Total Passengers	
886	258 (29.1%)	

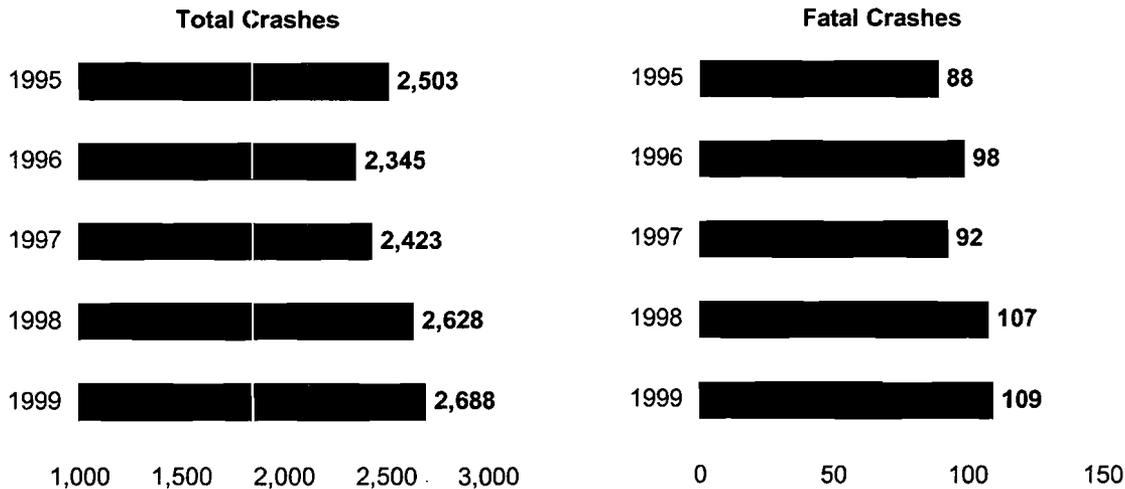


Crashes by Vehicle

“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 1999, total motorcycle crashes were the highest in five years, and fatal crashes have increased 24% since 1995.



Year	Deaths
1995	85
1996	98
1997	92
1998	111
1999	111
TOTAL	497

Motorcycle Deaths—Five-Year Trends

Of the 111 deaths in 1999 involving motorcycle drivers or passengers:

- ▶ 103 (92.8%) were drivers
- ▶ 8 (7.2%) were passengers

Crashes by Vehicle

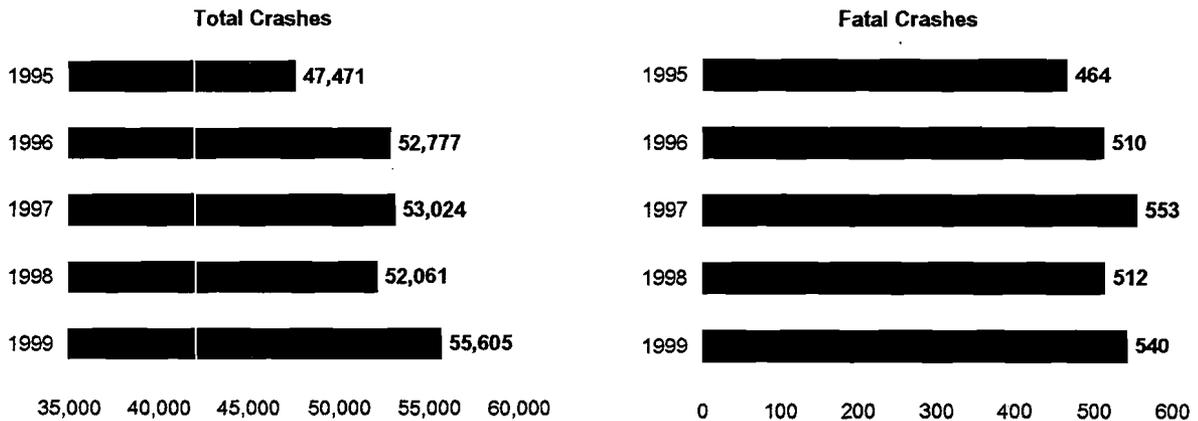
Motorcycle Helmet Use in Crashes

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

	Deaths	Injuries	Not Injured	Total Motorcyclists
Helmets	77 (69.4%)	1,739 (65.0%)	163 (56.0%)	1,979 (64.3%)
No Helmets	13 (11.7%)	461 (17.2%)	54 (18.6%)	528 (17.2%)
Unknown	21 (18.9%)	476 (17.8%)	74 (25.4%)	571 (18.6%)
TOTAL	111 (100.0%)	2,676 (100.0%)	291 (100.0%)	3,078 (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. Total crashes in 1999 were 17% higher than in 1995; fatal crashes were 16% higher than in 1995.



Light Truck Rollovers Compared to Passenger Cars

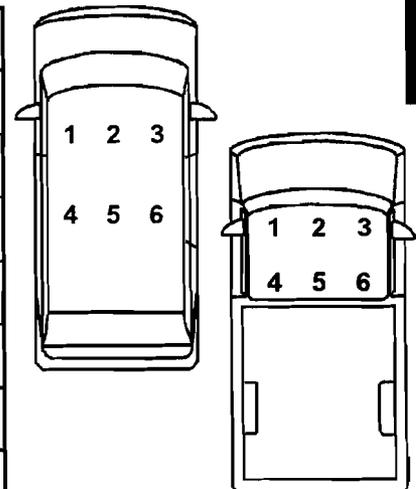
- ▶ The percentage of 1999 light truck crashes was much higher than passenger cars in crashes involving rollovers (8.3% of all light truck crashes compared to 5.1% of all passenger car crashes).
- ▶ In 1999 rollover crashes, the percentage of light truck occupant deaths was more than twice as high as passenger car occupant deaths (46.6% of deaths compared to 20.2%).

	Rollover Crashes	Rollover Deaths
Light Trucks	4,613 (8.3%)	139 (46.6%)
Passenger Cars	5,836 (5.1%)	179 (20.2%)

Light Truck Deaths by Seating Position

In 1999, 19% of crash deaths involved occupants in light trucks (jeeps, pickups, vans, sport utility vehicles, etc.). The table below depicts light truck deaths in 1999 by seating position, but includes others who were riding on the vehicles in unusual positions.

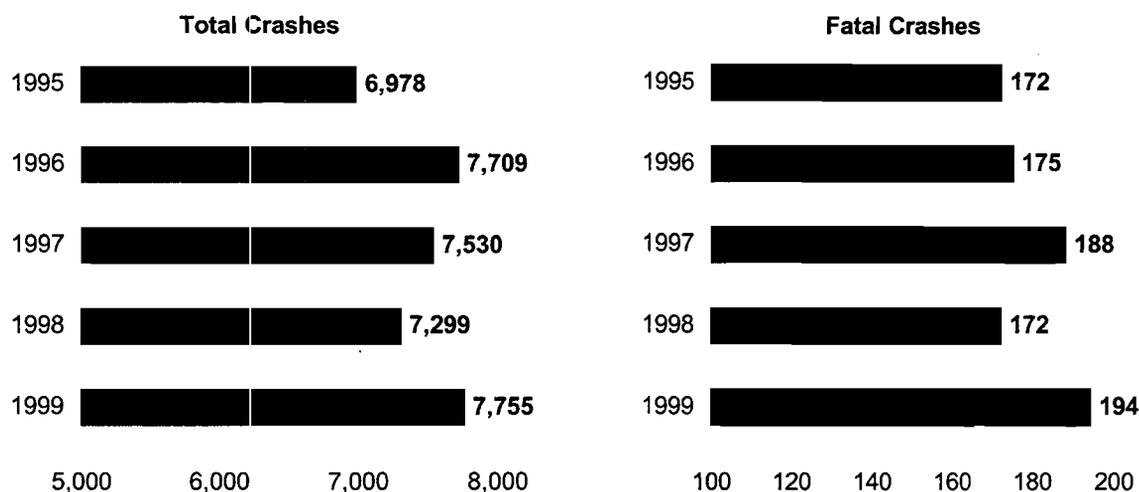
	Drivers	1 →
	214 (71.8%)	
	Center Front	2 →
	3 (1.0%)	
	Right Front	3 →
	40 (13.4%)	
	Left Rear	4 →
	11 (3.7%)	
	Center Rear	5 →
	4 (1.3%)	
Right Rear	6 →	
12 (4.0%)		
Truck Bed or Vehicle Exterior		
7 (2.4%)		
Towed Unit/Other		
7 (2.4%)		
Total Deaths	298	
Total Passengers	70 (23.5%)	



Crashes by Vehicle

Heavy Truck Crashes—Five Year Trends

Total and fatal crashes involving heavy trucks in 1999 were the highest in the last five years.



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, engine failures, and brakes. *Note:* 1999 data uses primary contributing factors.

Vehicle Defect	Crashes
Tire/Wheel-Related	78
Engine Failure	60
Brake-Related	51
Total Steering System Failure	10
Transmission Problem	6
Suspension	4
Vehicle Lighting-Related	4
Dirty/Frosty Windshield	2
Defective Defrosting	1
Defective Wipers	0
Exhaust System Failure	0

Crashes by Vehicle

Heavy Truck Crashes by Road Type

Road Type	Crashes	Occupant Deaths
State Hwy (Interstate)	1,560 (20.1%)	10 (32.3%)
State Hwy (Other)	4,341 (56.0%)	17 (54.8%)
Turnpike	517 (6.7%)	2 (6.5%)
Local Road	1,109 (14.3%)	2 (6.5%)
Ramp	228 (2.9%)	0 (0.0%)
TOTAL	7,755 (100.0%)	31 (100.0%)

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

Hazardous Material Crashes by Road Type

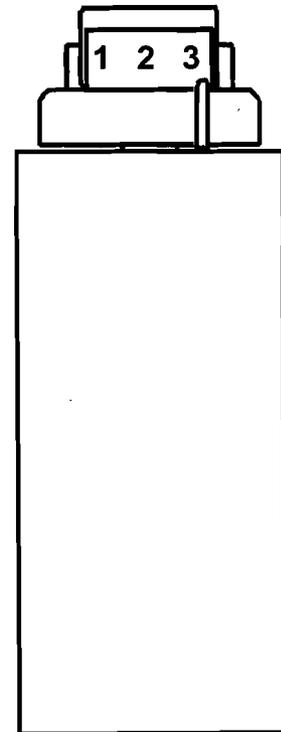
Road Type	Crashes	HazMat Released
State Hwy (Interstate)	49 (22.0%)	18 (26.9%)
State Hwy (Other)	140 (62.8%)	42 (62.7%)
Turnpike	7 (3.1%)	3 (4.5%)
Local Road	21 (9.4%)	3 (4.5%)
Ramp	6 (2.7%)	1 (1.5%)
TOTAL	223 (100.0%)	67 (100.0%)

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

Heavy Truck Deaths by Seating Position

In 1999, 2% of crash deaths involved heavy truck occupants. The table below depicts the heavy truck deaths in 1999 by seating position.

Total Deaths 31 	Drivers	1 →
	27 (87.1%)	
	Center Front	2 →
	Total Passengers	0 (0.0%)
	Right Front	3 →
	2 (6.5%)	
	Others	
	2 (6.5%)	



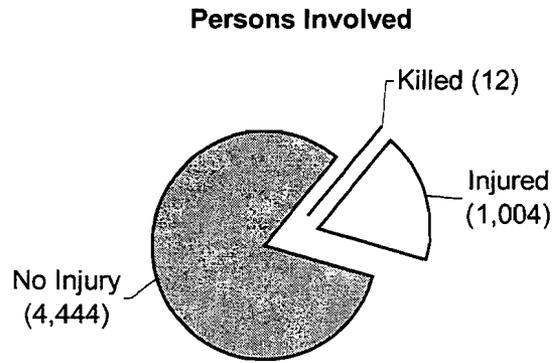
“Others” might be persons in the sleeping compartment; persons in the cargo trailer; or someone on, or attached to, the outside of the truck.

Crashes by Vehicle

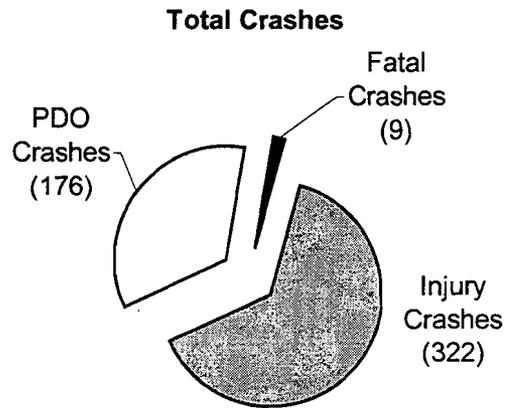
School Bus Crashes

Of the more than 5,000 persons involved in school bus crashes in 1999, only 12 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 are not the school bus passengers.

Total persons involved: **5,448**



The majority (64%) of school bus crashes in 1999 were injury crashes. However, as the pie chart above shows, most persons involved in school bus crashes suffer no injuries at all.



School Bus Crashes by Road Type

Crashes by Vehicle

Road Type	Crashes	Percentage
State Hwy (Interstate)	7	1.4%
State Hwy (Other)	312	61.5%
Turnpike	1	0.2%
Local Road	182	35.9%
Ramp	5	1.0%
TOTAL	507	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 0.8% of total fatalities in 1999. Most of the persons killed were not school bus passengers at the time of the crash.

Total Crashes		Total Deaths	
1995	529	1995	7
1996	568	1996	4
1997	572	1997	6
1998	495	1998	7
1999	507	1999	12

Year	Crash Severity				Total	Deaths	Injuries
	Fatal	Injury	PDO	Total			
1995	7	344	178	529	7	992	
1996	4	374	190	568	4	1,212	
1997	5	363	204	572	6	1,020	
1998	7	330	158	495	7	884	
1999	9	322	176	507	12	1,004	
TOTAL	32	1,733	906	2,671	36	5,112	

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
1995	0	0	1	1	5	0	7
1996	0	0	3	0	1	0	4
1997	0	0	0	1	5	0	6
1998	1	0	0	0	5	1	7
1999	1	0	0	0	11	0	12
TOTAL	2	0	4	2	27	1	36

INJURIES							
Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Driver/ Passenger of Other Vehicle	Other/ Unknown	Total Injuries
1995	58	624	8	7	289	5	991
1996	72	782	12	7	322	17	1,212
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
TOTAL	337	3,160	37	44	1,483	50	5,111

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 1999, Pennsylvania's total population was 11,994,016 people.

The ten most populated counties were:

Philadelphia (11.8%)	Allegheny (10.5%)	Montgomery (6.0%)
Bucks (5.0%)	Delaware (4.5%)	Lancaster (3.8%)
Chester (3.6%)	York (3.1%)	Westmoreland (3.1%)
Berks (3.0%)	<i>See page 59.</i>	

The ten least populated counties were:

Forest (0.04%)	Cameron (0.05%)	Sullivan (0.05%)
Fulton (0.12%)	Potter (0.14%)	Montour (0.15%)
Juniata (0.19%)	Wyoming (0.24%)	Elk (0.29%)
Clinton (0.31%)	<i>See page 59.</i>	

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

Westmoreland (2.99%)	Allegheny (2.94%)	York (2.86%)
Lancaster (2.77%)	Washington (2.73%)	Chester (2.61%)
Bucks (2.40%)	Crawford (2.27%)	Bradford (2.25%)
Berks (2.21%)		

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

Allegheny (5.97%)	Lancaster (3.54%)	Montgomery (3.47%)
York (3.32%)	Westmoreland (3.11%)	Berks (3.04%)
Bucks (3.04%)	Chester (2.97%)	Philadelphia (2.75%)
Erie (2.31%)		

The ten counties with the most reported traffic crashes were:

Philadelphia (10.5%)	Allegheny (9.6%)	Montgomery (6.8%)
Bucks (5.3%)	Lancaster (4.0%)	Delaware (3.7%)
Chester (3.6%)	Berks (3.5%)	York (3.4%)
Lehigh (3.3%)	<i>See page 59.</i>	

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

Philadelphia (8.6%)	Allegheny (4.7%)	Bucks (4.7%)
Berks (3.8%)	Chester (3.7%)	Lancaster (3.7%)
York (3.4%)	Montgomery (3.0%)	Schuykill (2.8%)
Erie (2.7%)	<i>See page 61.</i>	

*Information provided by PennDOT's Bureau of Planning and Research, Performance Monitoring Division. Note, at the time of publication, 1999 roadway mileage was not available so 1998 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	87,697 (0.7%)	20 (1.5%)	568 (0.6%)	447 (0.8%)	1,035 (0.7%)
Allegheny	1,256,806 (10.5%)	70 (5.1%)	8,346 (9.4%)	5,382 (10.0%)	13,798 (9.6%)
Armstrong	73,001 (0.6%)	16 (1.2%)	426 (0.5%)	290 (0.5%)	732 (0.5%)
Beaver	182,687 (1.5%)	18 (1.3%)	1,113 (1.3%)	729 (1.4%)	1,860 (1.3%)
Bedford	49,699 (0.4%)	21 (1.5%)	454 (0.5%)	360 (0.7%)	835 (0.6%)
Berks	358,211 (3.0%)	52 (3.8%)	2,828 (3.2%)	2,141 (4.0%)	5,021 (3.5%)
Blair	129,937 (1.1%)	19 (1.4%)	1,065 (1.2%)	687 (1.3%)	1,771 (1.2%)
Bradford	62,146 (0.5%)	12 (0.9%)	374 (0.4%)	227 (0.4%)	613 (0.4%)
Bucks	594,047 (5.0%)	63 (4.6%)	4,515 (5.1%)	3,025 (5.6%)	7,603 (5.3%)
Butler	172,522 (1.4%)	18 (1.3%)	1,133 (1.3%)	817 (1.5%)	1,968 (1.4%)
Cambria	153,766 (1.3%)	13 (0.9%)	857 (1.0%)	555 (1.0%)	1,425 (1.0%)
Cameron	5,571 (0.1%)	0 (0.0%)	39 (0.0%)	21 (0.0%)	60 (0.0%)
Carbon	58,759 (0.5%)	9 (0.7%)	483 (0.5%)	381 (0.7%)	873 (0.6%)
Centre	132,190 (1.1%)	12 (0.9%)	897 (1.0%)	648 (1.2%)	1,557 (1.1%)
Chester	430,001 (3.6%)	51 (3.7%)	2,718 (3.1%)	2,423 (4.5%)	5,192 (3.6%)
Clarion	41,651 (0.4%)	9 (0.7%)	330 (0.4%)	246 (0.5%)	585 (0.4%)
Clearfield	80,732 (0.7%)	16 (1.2%)	600 (0.7%)	455 (0.8%)	1,071 (0.7%)
Clinton	36,774 (0.3%)	6 (0.4%)	261 (0.3%)	228 (0.4%)	495 (0.3%)
Columbia	63,674 (0.5%)	12 (0.9%)	470 (0.5%)	349 (0.7%)	831 (0.6%)
Crawford	89,109 (0.7%)	21 (1.5%)	631 (0.7%)	406 (0.8%)	1,058 (0.7%)
Cumberland	210,663 (1.8%)	29 (2.1%)	1,442 (1.6%)	1,108 (2.1%)	2,579 (1.8%)
Dauphin	245,576 (2.1%)	29 (2.1%)	1,840 (2.1%)	1,372 (2.5%)	3,241 (2.3%)
Delaware	541,502 (4.5%)	26 (1.9%)	3,428 (3.9%)	1,853 (3.4%)	5,307 (3.7%)
Elk	54,344 (0.3%)	8 (0.6%)	218 (0.3%)	162 (0.3%)	388 (0.3%)
Erie	276,993 (2.3%)	38 (2.8%)	2,077 (2.3%)	1,173 (2.2%)	3,288 (2.3%)
Fayette	143,775 (1.2%)	18 (1.3%)	1,031 (1.2%)	589 (1.1%)	1,638 (1.1%)
Forest	4,938 (0.0%)	2 (0.1%)	54 (0.1%)	30 (0.1%)	86 (0.1%)
Franklin	128,812 (1.1%)	23 (1.7%)	873 (1.0%)	671 (1.2%)	1,567 (1.1%)
Fulton	14,616 (0.1%)	13 (0.9%)	196 (0.2%)	160 (0.3%)	369 (0.3%)
Greene	42,072 (0.4%)	6 (0.4%)	276 (0.3%)	211 (0.4%)	493 (0.3%)
Huntingdon	44,753 (0.4%)	4 (0.3%)	325 (0.4%)	186 (0.3%)	515 (0.4%)
Indiana	87,831 (0.7%)	18 (1.3%)	590 (0.7%)	377 (0.7%)	985 (0.7%)
Jefferson	46,086 (0.4%)	9 (0.7%)	348 (0.4%)	209 (0.4%)	566 (0.4%)
Juniata	22,204 (0.2%)	7 (0.5%)	186 (0.2%)	95 (0.2%)	268 (0.2%)
Lackawanna	206,520 (1.7%)	18 (1.3%)	1,574 (1.8%)	1,046 (1.9%)	2,638 (1.8%)
Lancaster	460,035 (3.8%)	48 (3.5%)	3,368 (3.8%)	2,283 (4.2%)	5,699 (4.0%)
Lawrence	54,508 (0.8%)	11 (0.8%)	670 (0.8%)	431 (0.8%)	1,112 (0.8%)
Lebanon	117,856 (1.0%)	16 (1.2%)	942 (1.1%)	651 (1.2%)	1,615 (1.1%)
Lehigh	259,855 (2.5%)	31 (2.2%)	2,907 (3.3%)	1,844 (3.4%)	4,782 (3.3%)
Luzerne	312,000 (2.6%)	33 (2.4%)	2,395 (2.7%)	1,377 (2.5%)	3,805 (2.6%)
Lycoming	116,709 (1.0%)	16 (1.2%)	753 (0.9%)	621 (1.2%)	1,390 (1.0%)
McKean	45,987 (0.4%)	10 (0.7%)	271 (0.3%)	180 (0.3%)	461 (0.3%)
Mercer	121,458 (1.0%)	11 (0.8%)	970 (1.1%)	597 (1.1%)	1,578 (1.1%)
Mifflin	46,793 (0.4%)	6 (0.4%)	240 (0.3%)	190 (0.4%)	436 (0.3%)
Monroe	128,541 (1.1%)	24 (1.7%)	1,239 (1.4%)	1,080 (2.0%)	2,343 (1.6%)
Montgomery	724,087 (6.0%)	45 (3.3%)	5,957 (6.7%)	3,769 (7.0%)	9,771 (6.8%)
Montour	17,571 (0.2%)	4 (0.3%)	122 (0.1%)	80 (0.2%)	206 (0.1%)
Northampton	259,736 (2.2%)	28 (2.0%)	1,851 (2.1%)	1,126 (2.1%)	3,005 (2.1%)
Northumberland	63,163 (0.8%)	20 (1.5%)	524 (0.6%)	334 (0.6%)	878 (0.6%)
Perry	44,280 (0.4%)	11 (0.8%)	337 (0.4%)	255 (0.5%)	603 (0.4%)
Philadelphia	1,417,601 (11.8%)	119 (8.6%)	12,370 (14.0%)	2,598 (4.8%)	15,087 (10.5%)
Pike	41,357 (0.3%)	7 (0.5%)	331 (0.4%)	222 (0.4%)	560 (0.4%)
Potter	17,115 (0.1%)	3 (0.2%)	97 (0.1%)	67 (0.1%)	167 (0.1%)
Schuylkill	148,788 (1.2%)	37 (2.7%)	1,036 (1.2%)	693 (1.3%)	1,766 (1.2%)
Snyder	37,875 (0.3%)	8 (0.6%)	244 (0.3%)	199 (0.4%)	451 (0.3%)
Somerset	60,028 (0.7%)	19 (1.4%)	470 (0.5%)	412 (0.8%)	901 (0.6%)
Sullivan	6,038 (0.1%)	0 (0.0%)	59 (0.1%)	36 (0.1%)	95 (0.1%)
Susquehanna	42,190 (0.4%)	11 (0.8%)	295 (0.3%)	247 (0.5%)	553 (0.4%)
Tioga	41,657 (0.4%)	8 (0.6%)	272 (0.3%)	209 (0.4%)	489 (0.3%)
Union	40,546 (0.3%)	8 (0.6%)	237 (0.3%)	203 (0.4%)	448 (0.3%)
Venango	57,562 (0.5%)	11 (0.8%)	441 (0.5%)	274 (0.5%)	726 (0.5%)
Warren	43,505 (0.4%)	9 (0.7%)	270 (0.3%)	231 (0.4%)	510 (0.4%)
Washington	204,888 (1.7%)	26 (1.9%)	1,369 (1.5%)	924 (1.7%)	2,319 (1.6%)
Wayne	46,080 (0.4%)	5 (0.4%)	389 (0.4%)	274 (0.5%)	668 (0.5%)
Westmoreland	370,658 (3.1%)	36 (2.6%)	2,504 (2.8%)	1,675 (3.1%)	4,215 (2.9%)
Wyoming	29,298 (0.2%)	6 (0.4%)	251 (0.3%)	127 (0.2%)	384 (0.3%)
York	376,586 (3.1%)	49 (3.6%)	2,955 (3.3%)	1,833 (3.4%)	4,837 (3.4%)
TOTAL	11,994,016 (100.0%)	1,382 (100.0%)	88,682 (100.0%)	54,107 (100.0%)	144,171 (100.0%)

Counties

Crashes by County—Five-Year Trends

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

County	1995 Crashes	1996 Crashes	1997 Crashes	1998 Crashes	1999 Crashes
Adams	997 (0.7%)	908 (0.6%)	977 (0.7%)	932 (0.7%)	1,035 (0.7%)
Allegheny	12,969 (9.5%)	13,818 (9.7%)	13,903 (9.7%)	13,425 (9.5%)	13,798 (9.6%)
Armstrong	731 (0.5%)	769 (0.5%)	764 (0.5%)	714 (0.5%)	732 (0.5%)
Beaver	1,948 (1.4%)	1,816 (1.3%)	1,952 (1.4%)	1,821 (1.3%)	1,860 (1.3%)
Bedford	712 (0.5%)	709 (0.5%)	747 (0.5%)	771 (0.6%)	835 (0.6%)
Berks	4,784 (3.5%)	5,051 (3.5%)	5,195 (3.6%)	4,890 (3.5%)	5,021 (3.5%)
Blair	1,612 (1.2%)	1,764 (1.2%)	1,861 (1.3%)	1,889 (1.3%)	1,771 (1.2%)
Bradford	651 (0.5%)	713 (0.5%)	681 (0.5%)	671 (0.5%)	613 (0.4%)
Bucks	7,041 (5.1%)	7,515 (5.3%)	7,446 (5.2%)	7,273 (5.2%)	7,603 (5.3%)
Butler	2,078 (1.5%)	1,923 (1.3%)	2,171 (1.5%)	1,962 (1.4%)	1,968 (1.4%)
Cambria	1,545 (1.1%)	1,481 (1.0%)	1,591 (1.1%)	1,436 (1.0%)	1,425 (1.0%)
Cameron	76 (0.1%)	75 (0.1%)	85 (0.0%)	58 (0.0%)	60 (0.0%)
Carbon	787 (0.6%)	772 (0.5%)	802 (0.6%)	780 (0.6%)	873 (0.6%)
Centre	1,393 (1.0%)	1,508 (1.1%)	1,444 (1.0%)	1,481 (1.1%)	1,557 (1.1%)
Chester	4,788 (3.5%)	5,109 (3.6%)	5,212 (3.6%)	5,194 (3.7%)	5,192 (3.6%)
Clarion	535 (0.4%)	598 (0.4%)	632 (0.4%)	546 (0.4%)	585 (0.4%)
Clearfield	1,041 (0.8%)	1,041 (0.7%)	1,089 (0.8%)	1,038 (0.7%)	1,071 (0.7%)
Clinton	437 (0.3%)	475 (0.3%)	497 (0.3%)	466 (0.3%)	495 (0.3%)
Columbia	711 (0.5%)	756 (0.5%)	769 (0.5%)	777 (0.6%)	831 (0.6%)
Crawford	1,180 (0.9%)	1,118 (0.8%)	1,123 (0.8%)	1,056 (0.8%)	1,058 (0.7%)
Cumberland	2,415 (1.8%)	2,605 (1.8%)	2,528 (1.8%)	2,527 (1.8%)	2,579 (1.8%)
Dauphin	3,118 (2.3%)	3,197 (2.2%)	3,204 (2.2%)	3,211 (2.3%)	3,241 (2.3%)
Delaware	5,267 (3.9%)	5,419 (3.8%)	5,562 (3.9%)	5,468 (3.9%)	5,307 (3.7%)
Elk	468 (0.3%)	380 (0.3%)	423 (0.3%)	388 (0.3%)	388 (0.3%)
Erie	3,414 (2.5%)	3,635 (2.5%)	3,474 (2.4%)	3,343 (2.4%)	3,288 (2.3%)
Fayette	1,496 (1.1%)	1,593 (1.1%)	1,598 (1.1%)	1,659 (1.2%)	1,638 (1.1%)
Forest	75 (0.1%)	83 (0.1%)	97 (0.1%)	99 (0.1%)	86 (0.1%)
Franklin	1,626 (1.2%)	1,654 (1.2%)	1,666 (1.2%)	1,607 (1.1%)	1,567 (1.1%)
Fulton	283 (0.2%)	303 (0.2%)	316 (0.2%)	318 (0.2%)	369 (0.3%)
Greene	444 (0.3%)	425 (0.3%)	480 (0.3%)	496 (0.4%)	493 (0.3%)
Huntingdon	463 (0.3%)	487 (0.3%)	520 (0.4%)	512 (0.4%)	515 (0.4%)
Indiana	953 (0.7%)	1,034 (0.7%)	1,072 (0.7%)	1,017 (0.7%)	985 (0.7%)
Jefferson	515 (0.4%)	600 (0.4%)	572 (0.4%)	548 (0.4%)	566 (0.4%)
Juniata	229 (0.2%)	267 (0.2%)	266 (0.2%)	246 (0.2%)	268 (0.2%)
Lackawanna	2,271 (1.7%)	2,642 (1.8%)	2,672 (1.9%)	2,511 (1.8%)	2,638 (1.8%)
Lancaster	5,242 (3.8%)	5,662 (4.0%)	5,654 (3.9%)	5,714 (4.1%)	5,699 (4.0%)
Lawrence	1,033 (0.8%)	1,113 (0.8%)	1,134 (0.8%)	1,134 (0.8%)	1,112 (0.8%)
Lebanon	1,401 (1.0%)	1,419 (1.0%)	1,541 (1.1%)	1,523 (1.1%)	1,615 (1.1%)
Lehigh	4,264 (3.1%)	4,495 (3.1%)	4,509 (3.1%)	4,816 (3.4%)	4,782 (3.3%)
Luzerne	3,832 (2.8%)	3,862 (2.7%)	3,953 (2.7%)	3,550 (2.5%)	3,805 (2.6%)
Lycoming	1,312 (1.0%)	1,398 (1.0%)	1,364 (0.9%)	1,239 (0.9%)	1,390 (1.0%)
McKean	531 (0.4%)	459 (0.3%)	468 (0.3%)	486 (0.3%)	461 (0.3%)
Mercer	1,653 (1.2%)	1,655 (1.2%)	1,670 (1.2%)	1,647 (1.2%)	1,578 (1.1%)
Mifflin	427 (0.3%)	452 (0.3%)	429 (0.3%)	434 (0.3%)	436 (0.3%)
Monroe	1,910 (1.4%)	2,161 (1.5%)	2,234 (1.6%)	2,198 (1.6%)	2,343 (1.6%)
Montgomery	9,413 (6.9%)	9,873 (6.9%)	9,751 (6.8%)	9,777 (6.9%)	9,771 (6.8%)
Montour	213 (0.2%)	214 (0.1%)	226 (0.2%)	196 (0.1%)	206 (0.1%)
Northampton	2,943 (2.2%)	3,220 (2.3%)	3,243 (2.3%)	3,086 (2.2%)	3,005 (2.1%)
Northumberland	839 (0.6%)	826 (0.6%)	878 (0.6%)	795 (0.6%)	878 (0.6%)
Perry	560 (0.4%)	581 (0.4%)	621 (0.4%)	621 (0.4%)	603 (0.4%)
Philadelphia	14,126 (10.3%)	14,120 (9.9%)	13,928 (9.7%)	14,231 (10.1%)	15,087 (10.5%)
Pike	445 (0.3%)	469 (0.3%)	535 (0.4%)	503 (0.4%)	560 (0.4%)
Potter	184 (0.1%)	151 (0.1%)	165 (0.1%)	156 (0.1%)	167 (0.1%)
Schuylkill	1,571 (1.1%)	1,783 (1.2%)	1,799 (1.2%)	1,753 (1.2%)	1,766 (1.2%)
Snyder	394 (0.3%)	398 (0.3%)	432 (0.3%)	421 (0.3%)	451 (0.3%)
Somerset	885 (0.6%)	940 (0.7%)	991 (0.7%)	886 (0.6%)	901 (0.6%)
Sullivan	82 (0.1%)	90 (0.1%)	91 (0.1%)	76 (0.1%)	95 (0.1%)
Susquehanna	459 (0.3%)	537 (0.4%)	602 (0.4%)	505 (0.4%)	553 (0.4%)
Tioga	438 (0.3%)	481 (0.3%)	474 (0.3%)	437 (0.3%)	489 (0.3%)
Union	384 (0.3%)	422 (0.3%)	381 (0.3%)	360 (0.3%)	448 (0.3%)
Venango	841 (0.6%)	815 (0.6%)	755 (0.5%)	732 (0.5%)	726 (0.5%)
Warren	560 (0.4%)	602 (0.4%)	524 (0.4%)	478 (0.3%)	510 (0.4%)
Washington	2,104 (1.5%)	2,168 (1.5%)	2,342 (1.6%)	2,276 (1.6%)	2,319 (1.6%)
Wayne	577 (0.4%)	581 (0.4%)	655 (0.5%)	601 (0.4%)	668 (0.5%)
Westmoreland	4,259 (3.1%)	4,505 (3.2%)	4,249 (3.0%)	4,011 (2.9%)	4,215 (2.9%)
Wyoming	345 (0.3%)	429 (0.3%)	365 (0.3%)	382 (0.3%)	384 (0.3%)
York	4,524 (3.3%)	4,743 (3.3%)	4,647 (3.2%)	4,818 (3.4%)	4,837 (3.4%)
TOTAL	136,804 (100.0%)	142,867 (100.0%)	143,981 (100.0%)	140,972 (100.0%)	144,171 (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	1995 Deaths	1996 Deaths	1997 Deaths	1998 Deaths	1999 Deaths
Adams	12 (0.8%)	20 (1.4%)	16 (1.0%)	17 (1.1%)	21 (1.4%)
Allegheny	82 (5.5%)	73 (5.0%)	85 (5.4%)	78 (5.3%)	73 (4.7%)
Armstrong	11 (0.7%)	10 (0.7%)	15 (1.0%)	12 (0.8%)	20 (1.3%)
Beaver	11 (0.7%)	14 (1.0%)	16 (1.0%)	16 (1.1%)	20 (1.3%)
Bedford	17 (1.1%)	15 (1.0%)	11 (0.7%)	10 (0.7%)	28 (1.8%)
Berks	45 (3.0%)	49 (3.3%)	59 (3.8%)	54 (3.6%)	59 (3.8%)
Blair	19 (1.3%)	15 (1.0%)	17 (1.1%)	18 (1.2%)	21 (1.4%)
Bradford	9 (0.6%)	12 (0.8%)	11 (0.7%)	5 (0.3%)	13 (0.8%)
Bucks	79 (5.3%)	77 (5.2%)	64 (4.1%)	54 (3.6%)	73 (4.7%)
Butler	37 (2.5%)	28 (1.9%)	27 (1.7%)	25 (1.7%)	18 (1.2%)
Cambria	15 (1.0%)	16 (1.1%)	13 (0.8%)	18 (1.2%)	14 (0.9%)
Cameron	0 (0.0%)	3 (0.2%)	2 (0.1%)	2 (0.1%)	0 (0.0%)
Carbon	9 (0.6%)	17 (1.2%)	17 (1.1%)	17 (1.1%)	10 (0.7%)
Centre	16 (1.1%)	12 (0.8%)	25 (1.6%)	18 (1.2%)	12 (0.8%)
Chester	54 (3.6%)	34 (2.3%)	51 (3.3%)	49 (3.3%)	58 (3.7%)
Clarion	8 (0.5%)	14 (1.0%)	10 (0.6%)	12 (0.8%)	9 (0.6%)
Clearfield	24 (1.6%)	18 (1.2%)	28 (1.8%)	16 (1.1%)	20 (1.3%)
Clinton	9 (0.6%)	9 (0.6%)	11 (0.7%)	10 (0.7%)	6 (0.4%)
Columbia	6 (0.4%)	18 (1.2%)	4 (0.3%)	6 (0.4%)	16 (1.0%)
Crawford	20 (1.4%)	17 (1.2%)	15 (1.0%)	16 (1.1%)	24 (1.6%)
Cumberland	19 (1.3%)	28 (1.9%)	21 (1.3%)	18 (1.2%)	32 (2.1%)
Dauphin	32 (2.2%)	25 (1.7%)	27 (1.7%)	26 (1.8%)	36 (2.3%)
Delaware	48 (3.2%)	32 (2.2%)	41 (2.6%)	40 (2.7%)	31 (2.0%)
Elk	5 (0.3%)	13 (0.9%)	10 (0.6%)	10 (0.7%)	8 (0.5%)
Erie	33 (2.2%)	34 (2.3%)	39 (2.5%)	40 (2.7%)	42 (2.7%)
Fayette	23 (1.6%)	25 (1.7%)	28 (1.8%)	40 (2.7%)	19 (1.2%)
Forest	3 (0.2%)	0 (0.0%)	2 (0.1%)	2 (0.1%)	2 (0.1%)
Franklin	24 (1.6%)	20 (1.4%)	22 (1.4%)	28 (1.9%)	26 (1.7%)
Fulton	10 (0.7%)	7 (0.5%)	10 (0.6%)	10 (0.7%)	14 (0.9%)
Greene	7 (0.5%)	6 (0.4%)	5 (0.3%)	5 (0.3%)	6 (0.4%)
Huntingdon	17 (1.1%)	8 (0.5%)	8 (0.5%)	23 (1.6%)	4 (0.3%)
Indiana	21 (1.4%)	16 (1.1%)	21 (1.3%)	21 (1.4%)	21 (1.4%)
Jefferson	5 (0.3%)	11 (0.7%)	6 (0.4%)	6 (0.4%)	10 (0.7%)
Juniata	3 (0.2%)	4 (0.3%)	7 (0.4%)	3 (0.2%)	7 (0.5%)
Lackawanna	24 (1.6%)	13 (0.9%)	18 (1.2%)	32 (2.2%)	19 (1.2%)
Lancaster	60 (4.1%)	49 (3.3%)	66 (4.2%)	55 (3.7%)	57 (3.7%)
Lawrence	9 (0.6%)	11 (0.7%)	15 (1.0%)	22 (1.5%)	13 (0.8%)
Lebanon	19 (1.3%)	19 (1.3%)	17 (1.1%)	22 (1.5%)	16 (1.0%)
Lehigh	41 (2.8%)	28 (1.9%)	37 (2.4%)	42 (2.8%)	34 (2.2%)
Luzerne	35 (2.4%)	42 (2.9%)	46 (2.9%)	30 (2.0%)	37 (2.4%)
Lycoming	15 (1.0%)	26 (1.8%)	17 (1.1%)	14 (0.9%)	17 (1.1%)
McKean	6 (0.4%)	9 (0.6%)	7 (0.4%)	11 (0.7%)	10 (0.7%)
Mercer	32 (2.2%)	23 (1.6%)	24 (1.5%)	19 (1.3%)	12 (0.8%)
Mifflin	4 (0.3%)	8 (0.5%)	8 (0.5%)	3 (0.2%)	6 (0.4%)
Monroe	26 (1.8%)	14 (1.0%)	28 (1.8%)	28 (1.9%)	26 (1.7%)
Montgomery	56 (3.8%)	72 (4.9%)	65 (4.2%)	69 (4.6%)	47 (3.0%)
Montour	3 (0.2%)	3 (0.2%)	2 (0.1%)	4 (0.3%)	4 (0.3%)
Northampton	20 (1.4%)	28 (1.9%)	28 (1.8%)	26 (1.8%)	34 (2.2%)
Northumberland	18 (1.2%)	15 (1.0%)	16 (1.0%)	21 (1.4%)	21 (1.4%)
Perry	9 (0.6%)	12 (0.8%)	10 (0.6%)	7 (0.5%)	12 (0.8%)
Philadelphia	147 (9.9%)	140 (9.5%)	150 (9.6%)	104 (7.0%)	133 (8.6%)
Pike	10 (0.7%)	6 (0.4%)	8 (0.5%)	14 (0.9%)	7 (0.5%)
Potter	3 (0.2%)	2 (0.1%)	5 (0.3%)	3 (0.2%)	6 (0.4%)
Schuylkill	23 (1.6%)	21 (1.4%)	37 (2.4%)	32 (2.2%)	44 (2.8%)
Snyder	5 (0.3%)	13 (0.9%)	7 (0.4%)	6 (0.4%)	9 (0.6%)
Somerset	14 (0.9%)	12 (0.8%)	13 (0.8%)	27 (1.8%)	20 (1.3%)
Sullivan	0 (0.0%)	4 (0.3%)	2 (0.1%)	0 (0.0%)	0 (0.0%)
Susquehanna	8 (0.5%)	10 (0.7%)	11 (0.7%)	11 (0.7%)	14 (0.9%)
Tioga	9 (0.6%)	5 (0.3%)	10 (0.6%)	5 (0.3%)	11 (0.7%)
Union	3 (0.2%)	5 (0.3%)	9 (0.6%)	5 (0.3%)	9 (0.6%)
Venango	12 (0.8%)	16 (1.1%)	15 (1.0%)	10 (0.7%)	15 (1.0%)
Warren	13 (0.9%)	19 (1.3%)	7 (0.4%)	9 (0.6%)	11 (0.7%)
Washington	25 (1.7%)	28 (1.9%)	30 (1.9%)	16 (1.1%)	29 (1.9%)
Wayne	15 (1.0%)	12 (0.8%)	10 (0.6%)	14 (0.9%)	5 (0.3%)
Westmoreland	48 (3.2%)	58 (3.9%)	51 (3.3%)	45 (3.0%)	40 (2.6%)
Wyoming	7 (0.5%)	8 (0.5%)	6 (0.4%)	9 (0.6%)	6 (0.4%)
York	28 (1.9%)	39 (2.7%)	43 (2.8%)	46 (3.1%)	52 (3.4%)
TOTAL	1,480 (100.0%)	1,470 (100.0%)	1,562 (100.0%)	1,486 (100.0%)	1,549 (100.0%)

Counties

Pedestrian Deaths by County—Five-Year Trends

County	1995	1996	1997	1998	1999
Adams	1	0	2	3	1
Allegheny	11	15	21	13	16
Armstrong	1	0	0	0	1
Beaver	1	2	0	2	1
Bedford	2	1	2	1	0
Berks	7	4	4	7	3
Blair	3	3	5	1	4
Bradford	0	1	0	0	0
Bucks	10	13	6	9	14
Butler	5	2	4	3	1
Cambria	1	1	1	2	0
Cameron	0	0	0	0	0
Carbon	2	2	1	0	0
Centre	1	2	4	0	2
Chester	3	6	4	5	5
Clarion	1	3	0	1	0
Clearfield	3	0	2	1	0
Clinton	0	0	2	1	1
Columbia	1	1	2	1	2
Crawford	4	3	0	1	2
Cumberland	0	1	3	0	5
Dauphin	5	3	5	4	3
Delaware	12	7	5	12	8
Elk	0	0	1	0	2
Erie	8	8	4	4	6
Fayette	2	7	1	2	2
Forest	0	0	0	0	0
Franklin	2	3	3	1	3
Fulton	1	0	0	0	1
Greene	2	0	1	0	1
Huntingdon	1	0	0	1	0
Indiana	0	1	2	1	2
Jefferson	0	0	0	2	1
Juniata	0	0	1	0	2
Lackawanna	3	0	0	5	2
Lancaster	6	5	5	5	7
Lawrence	1	4	1	3	1
Lebanon	3	4	1	2	3
Lehigh	5	2	4	5	8
Luzerne	2	9	5	5	6
Lycoming	2	4	1	3	1
McKean	1	1	0	1	0
Mercer	4	0	3	1	0
Mifflin	0	0	0	0	0
Monroe	2	2	2	3	2
Montgomery	10	15	7	5	6
Montour	0	0	0	0	0
Northampton	0	4	4	5	2
Northumberland	1	1	3	2	3
Perry	0	1	0	0	1
Philadelphia	49	56	36	27	34
Pike	1	0	0	1	0
Potter	0	0	0	0	2
Schuylkill	2	4	5	2	3
Snyder	1	1	0	0	1
Somerset	0	0	0	1	3
Sullivan	0	0	0	0	0
Susquehanna	0	0	1	1	1
Tioga	0	0	0	1	2
Union	0	1	0	0	1
Venango	0	0	0	0	0
Warren	2	1	0	1	0
Washington	5	2	1	1	6
Wayne	2	1	1	0	0
Westmoreland	4	4	5	4	1
Wyoming	0	2	3	0	0
York	2	5	1	4	2
TOTAL	198	218	175	166	187

Counties

Pedestrian Deaths and Injuries by Age Group by County

County	Age 0-4		Age 5-9		Age 10-14		Age 15-59		Age 60+		Total	
	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury
Adams	0	1	0	1	0	3	1	9	0	2	1	16
Allegheny	0	16	0	84	0	56	8	325	7	76	15	557
Armstrong	0	0	0	1	0	0	1	4	0	3	1	8
Beaver	0	3	0	1	0	1	0	11	1	4	1	20
Bedford	0	0	0	1	0	1	0	4	0	1	0	7
Berks	0	14	1	59	0	31	2	80	0	14	3	198
Blair	0	0	1	6	0	7	1	19	2	3	4	35
Bradford	0	0	0	0	0	2	0	6	0	2	0	10
Bucks	0	1	1	16	0	19	11	69	2	15	14	120
Butler	0	0	0	3	0	2	0	17	1	1	1	23
Cambria	0	0	0	3	0	1	0	8	0	4	0	16
Cameron	0	0	0	1	0	0	0	2	0	1	0	4
Carbon	0	0	0	2	0	1	0	1	0	2	0	6
Centre	0	0	0	0	0	2	2	46	0	3	2	51
Chester	0	3	1	17	0	4	3	50	1	7	5	81
Clanton	0	0	0	0	0	0	0	4	0	2	0	6
Clearfield	0	1	0	3	0	3	0	9	0	3	0	19
Clinton	0	1	0	1	0	2	1	3	0	1	1	8
Columbia	0	0	0	1	0	1	0	11	2	0	2	13
Crawford	1	0	0	1	0	3	1	13	0	1	2	18
Cumberland	1	4	0	6	0	4	4	22	0	6	5	42
Dauphin	0	6	0	27	0	11	3	48	0	8	3	100
Delaware	0	13	0	38	0	53	3	105	5	21	8	230
Elk	0	0	0	1	0	1	0	5	2	2	2	9
Erie	0	6	0	14	0	11	5	55	1	8	6	94
Fayette	0	1	0	3	0	4	1	13	1	2	2	23
Forest	0	0	0	0	0	0	0	0	0	0	0	0
Franklin	0	3	0	5	1	5	1	8	1	1	3	22
Fulton	0	0	0	0	0	0	1	0	0	1	1	1
Greene	0	0	1	1	0	1	0	6	0	1	1	9
Huntingdon	0	0	0	0	0	2	0	2	0	0	0	4
Indiana	0	0	0	0	0	0	2	11	0	1	2	12
Jefferson	0	0	0	0	0	1	1	3	0	1	1	5
Juniata	0	1	1	0	0	0	0	4	1	0	2	5
Lackawanna	0	3	0	9	0	8	1	39	1	25	2	84
Lancaster	0	5	1	37	0	29	3	61	3	14	7	146
Lawrence	0	0	0	6	0	2	1	5	0	3	1	16
Lebanon	0	1	0	6	0	4	2	15	1	5	3	31
Lehigh	2	8	1	41	1	36	2	76	2	13	8	174
Luzerne	0	1	0	12	0	11	2	45	4	20	6	89
Lycoming	0	2	0	6	0	9	1	11	0	4	1	32
McKean	0	1	0	0	0	1	0	1	0	0	0	3
Mercer	0	1	0	4	0	2	0	13	0	2	0	22
Mifflin	0	0	0	3	0	1	0	6	0	1	0	11
Monroe	0	0	1	6	0	2	1	17	0	3	2	28
Montgomery	0	7	0	19	1	27	3	160	2	39	6	252
Montour	0	0	0	0	0	1	0	1	0	0	0	2
Northampton	0	2	0	12	0	16	2	35	0	10	2	75
Northumberland	1	0	1	1	0	2	1	8	0	3	3	14
Perry	0	0	0	1	0	0	0	3	1	1	1	5
Philadelphia	2	177	2	497	0	343	17	1,369	13	211	34	2,597
Pike	0	0	0	0	0	0	0	3	0	0	0	3
Potter	0	0	1	0	1	2	0	1	0	0	2	3
Schuylkill	0	0	1	9	0	8	1	24	1	8	3	49
Snyder	0	0	1	1	0	1	0	2	0	1	1	5
Somerset	0	0	0	4	0	4	1	1	2	4	3	13
Sullivan	0	0	0	0	0	0	0	0	0	0	0	0
Susquehanna	0	0	0	1	0	0	0	2	1	1	1	4
Tioga	0	1	0	2	0	1	1	5	1	5	2	14
Union	0	0	0	1	0	2	1	5	0	3	1	11
Venango	0	1	0	4	0	3	0	6	0	2	0	16
Warren	0	0	0	1	0	2	0	3	0	2	0	8
Washington	0	1	0	4	1	8	2	18	3	3	6	34
Wayne	0	0	0	2	0	1	0	0	0	0	0	3
Westmoreland	0	3	1	6	0	13	0	33	0	3	1	58
Wyoming	0	0	0	1	0	0	0	4	0	0	0	5
York	0	8	0	34	0	14	1	48	1	10	2	114
TOTAL	7	296	16	1,026	5	785	95	2,993	63	593	186	5,693

Counties

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	1995 Belt Use	1996 Belt Use	1997 Belt Use	1998 Belt Use	1999 Belt Use
Adams	73	70	72	71	74
Allegheny	59	60	60	61	62
Armstrong	73	71	69	67	72
Beaver	49	52	49	50	55
Bedford	79	78	80	81	82
Berks	65	64	63	64	65
Blair	76	74	75	78	77
Bradford	71	72	75	74	73
Bucks	66	69	67	68	69
Butler	69	71	69	72	75
Cambria	67	66	67	64	63
Cameron	71	60	72	70	71
Carbon	65	68	61	62	63
Centre	73	74	78	77	76
Chester	72	74	74	73	74
Clarion	73	76	74	70	80
Clearfield	73	73	74	75	72
Clinton	74	74	72	73	75
Columbia	72	67	67	65	72
Crawford	75	71	70	74	74
Cumberland	76	77	76	74	77
Dauphin	70	70	70	72	73
Delaware	54	57	55	57	57
Elk	66	69	69	73	73
Erie	70	69	68	69	69
Fayette	71	72	69	69	70
Forest	69	68	78	70	71
Franklin	70	73	72	72	76
Fulton	76	73	74	75	82
Greene	82	79	79	77	74
Huntingdon	73	74	73	70	72
Indiana	78	79	79	79	80
Jefferson	73	71	70	65	72
Juniata	69	69	73	74	68
Lackawanna	56	59	55	57	59
Lancaster	75	74	74	76	78
Lawrence	60	60	60	60	65
Lebanon	71	67	71	71	74
Lehigh	77	78	75	75	76
Luzerne	65	66	67	66	67
Lycoming	72	69	72	70	74
McKean	65	62	63	63	63
Mercer	63	65	64	65	65
Mifflin	71	69	69	69	68
Monroe	75	78	77	75	79
Montgomery	70	73	73	73	74
Montour	81	82	82	81	79
Northampton	71	68	69	72	69
Northumberland	66	62	64	65	65
Perry	73	75	79	79	78
Philadelphia	22	21	20	19	21
Pike	74	80	77	78	78
Potter	71	74	74	77	73
Schuylkill	69	70	69	65	66
Snyder	77	72	76	81	80
Somerset	70	72	75	72	74
Sullivan	71	67	79	70	75
Susquehanna	74	74	74	73	75
Tioga	77	74	76	76	76
Union	76	75	74	78	72
Venango	75	72	71	73	74
Warren	75	75	76	78	82
Washington	68	69	69	64	67
Wayne	78	76	75	77	78
Westmoreland	71	73	72	73	73
Wyoming	71	70	77	77	74
York	72	73	72	71	72
STATEWIDE	64	65	64	64	65

Counties

Alcohol-Related Deaths by County—Five-Year Trends

County	1995 Deaths	1996 Deaths	1997 Deaths	1998 Deaths	1999 Deaths
Adams	2	12	5	4	9
Allegheny	29	34	40	28	29
Armstrong	4	4	4	4	11
Beaver	3	7	9	11	4
Bedford	5	7	4	7	9
Berks	14	11	13	17	9
Blair	4	6	6	7	9
Bradford	2	3	3	2	7
Bucks	24	27	19	20	30
Butler	15	10	8	7	6
Cambria	3	4	4	6	6
Cameron	0	1	1	1	0
Carbon	3	8	5	10	4
Centre	1	2	5	4	4
Chester	19	14	11	12	13
Clarion	3	6	3	5	2
Clearfield	8	9	13	7	7
Clinton	3	3	2	2	1
Columbia	2	8	1	1	7
Crawford	9	7	7	8	3
Cumberland	5	8	3	3	11
Dauphin	11	12	5	7	15
Delaware	22	8	16	14	16
Elk	1	5	6	8	5
Erie	15	13	10	16	14
Fayette	8	8	16	22	6
Forest	0	0	0	0	1
Franklin	10	3	10	10	8
Fulton	3	2	5	7	5
Greene	5	4	2	1	2
Huntingdon	4	2	2	16	3
Indiana	9	12	7	14	5
Jefferson	1	3	1	0	1
Juniata	1	0	3	2	4
Lackawanna	11	3	8	13	7
Lancaster	19	18	20	11	11
Lawrence	3	1	3	10	6
Lebanon	5	4	3	8	8
Lehigh	13	5	9	13	7
Luzerne	13	16	12	10	7
Lycoming	8	8	5	5	7
McKean	2	5	2	4	8
Mercer	11	6	11	11	5
Mifflin	2	4	3	0	2
Monroe	21	5	13	13	10
Montgomery	22	27	25	23	17
Montour	0	1	0	1	1
Northampton	7	10	11	9	4
Northumberland	5	3	6	4	8
Perry	4	3	2	3	3
Philadelphia	37	20	22	15	27
Pike	3	5	1	1	3
Potter	2	2	3	1	4
Schuylkill	9	7	12	14	18
Snyder	1	2	2	4	2
Somerset	6	2	8	15	10
Sullivan	0	2	1	0	0
Susquehanna	3	8	4	4	8
Tioga	4	3	5	4	3
Union	0	1	2	0	4
Venango	2	3	8	3	5
Warren	9	8	4	1	5
Washington	11	9	9	7	14
Wayne	4	5	3	5	4
Westmoreland	13	26	18	23	22
Wyoming	1	3	2	3	1
York	15	15	28	14	21
TOTAL	514	503	514	535	528

Pennsylvania Counties

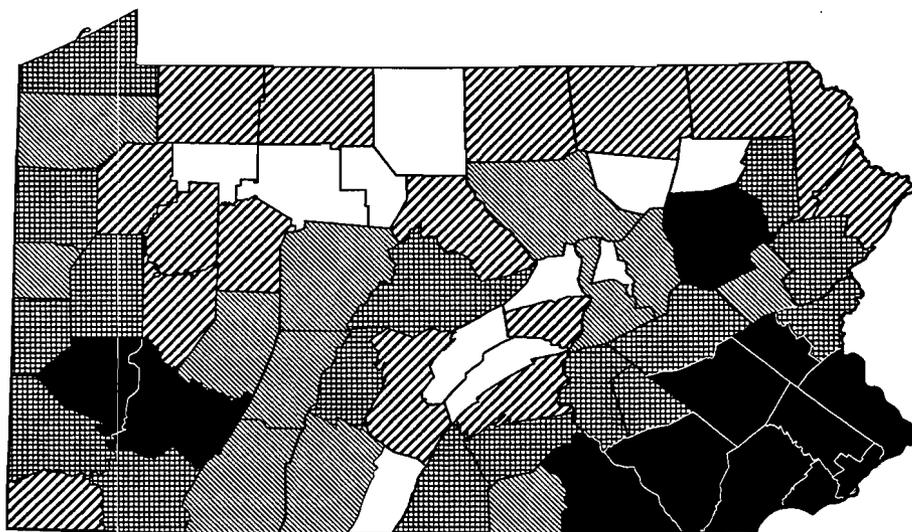
Use the map below as a key to county names for other maps.



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, 59% of the total traffic crashes occurred in only 12 of Pennsylvania's 67 counties. These 12 counties appear in black on the map.

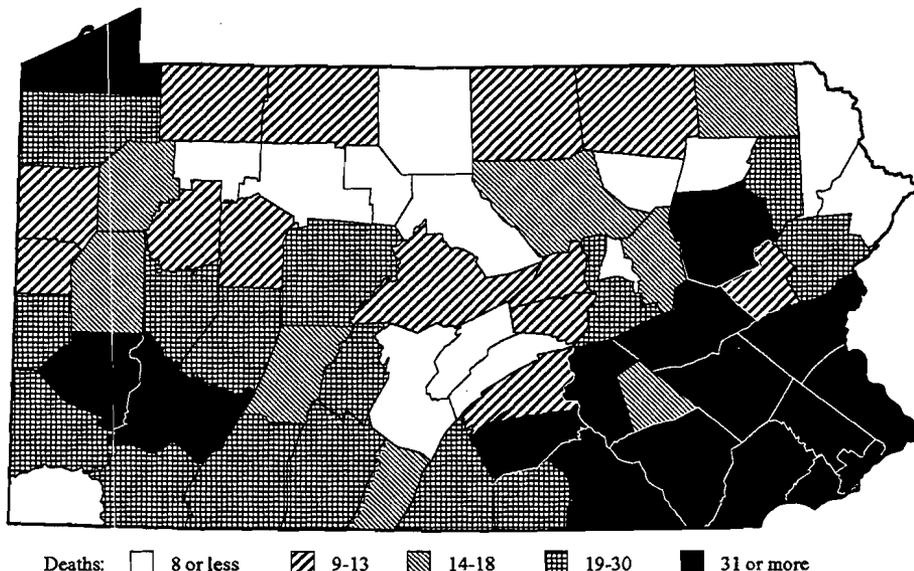


Total Crashes:
 □ 450 or less ▨ 451-750 ▩ 751-1,500
 ▧ 1,501-3,600 ■ 3,601 or more

Counties

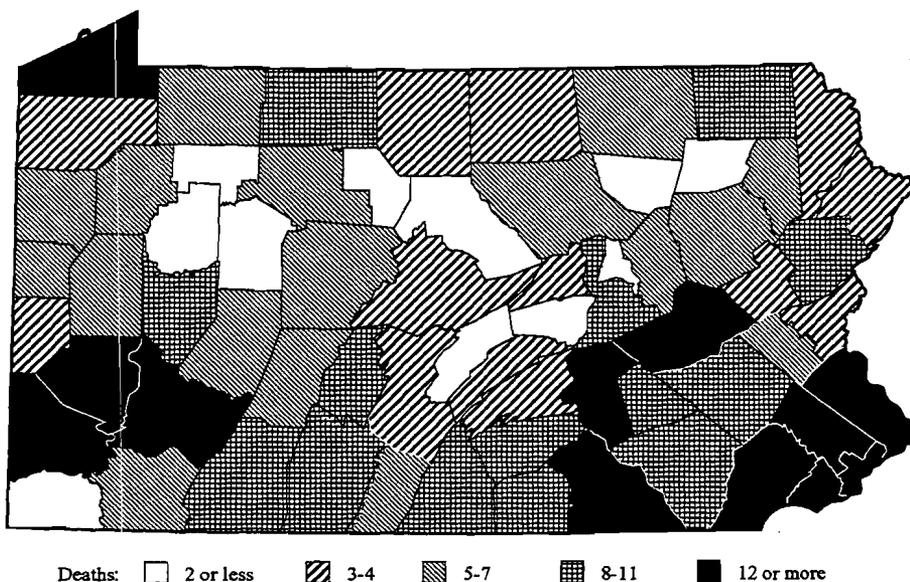
Traffic Deaths by County

Referring to the map below, 55% of the total traffic deaths occurred in only 16 of Pennsylvania's 67 counties. These 16 counties appear in black on the map.



Alcohol-Related Deaths by County

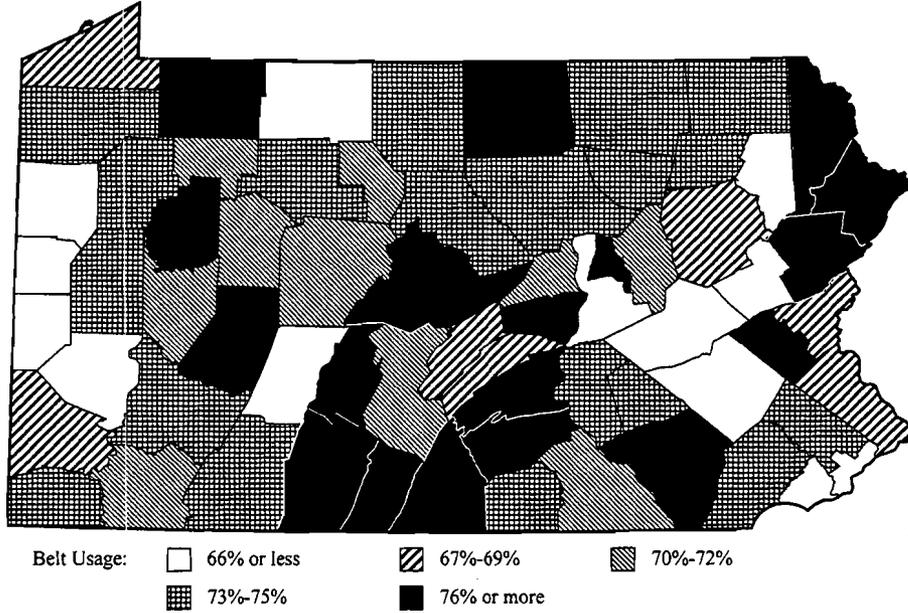
Referring to the map below, 45% of the total alcohol-related deaths occurred in only 13 of Pennsylvania's 67 counties. These 13 counties appear in black on the map.



Counties

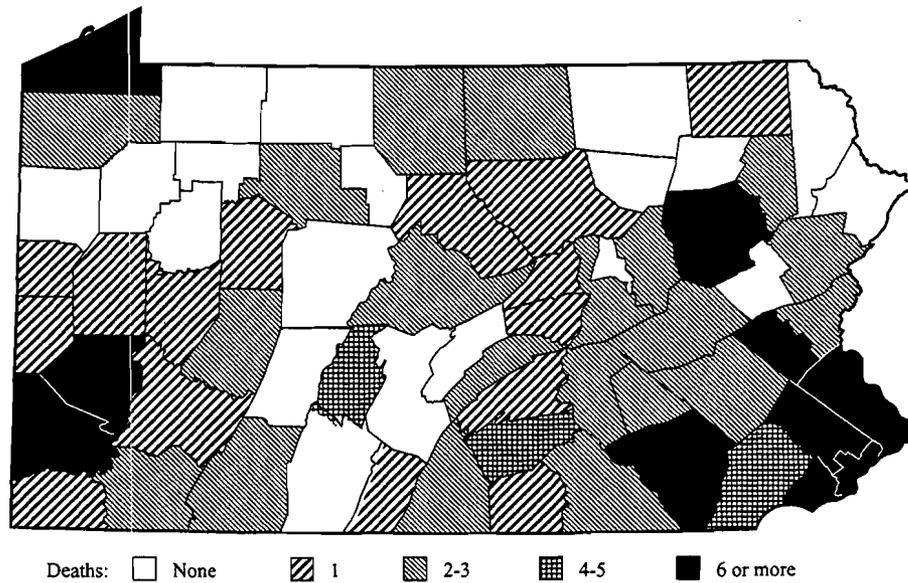
Percent Seat Belt Use in Crashes by County

The percent seat belt use in crashes tended to be lower in counties with major urban areas with 14 counties having 66% or less seat belt usage in crashes. These 14 counties appear in white on the map.



Pedestrian Deaths by County

Referring to the map below, 59% of the total pedestrian deaths occurred in only 10 of Pennsylvania's 67 counties. These 10 counties appear in black on the map.

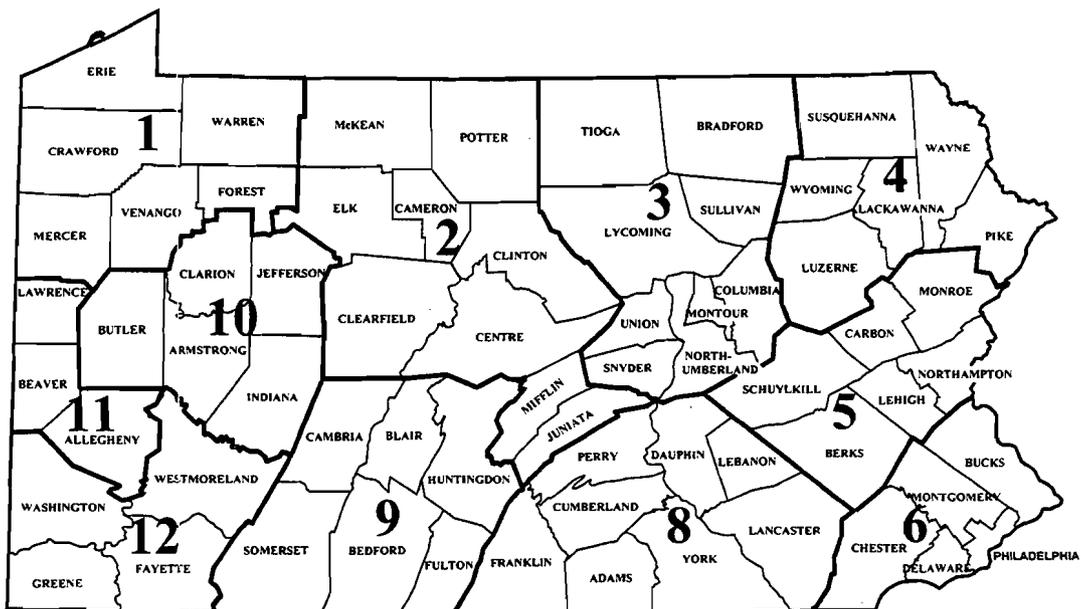


Counties

Crashes by Engineering District

The map below illustrates the eleven PennDOT engineering districts in Pennsylvania. The table below lists a breakdown of the number of crashes, deaths, and injuries in 1999 by engineering district.

District	Crashes	Deaths	Injuries
01	7,246	106	6,856
02	4,903	75	4,085
03	5,401	100	4,541
04	8,608	88	7,804
05	17,790	207	15,447
06	42,960	342	44,508
08	21,176	252	18,440
09	5,816	101	5,167
10	4,836	78	4,204
11	16,770	106	14,974
12	8,665	94	7,757
Total	144,171	1,549	133,783



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by Month.....	19
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1999 Pennsylvania Crash Facts & Statistics Feedback Survey

The 1999 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Definitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All Crashes and Deaths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alcohol-Related Crashes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seat Belt, Child Safety Seats, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pedestrians and Bicycle Crashes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crashes by Motor Vehicle Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pennsylvania County Crashes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Index	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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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.

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

1999 Pennsylvania Crash Facts & Statistics Survey Form

Dedication

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

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

