



1997

PENNSYLVANIA CRASH FACTS & STATISTICS



GOVERNOR

Tom Ridge

SECRETARY OF
TRANSPORTATION

Bradley L. Mallory

Introduction

The *1997 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 publication is a statistical review of reportable motor vehicle traffic crashes in the Commonwealth of Pennsylvania for calendar year 1997. The figures are compiled from the traffic crash reports that are submitted to the Pennsylvania Department of Transportation by state, county, municipal, and other law enforcement agencies, as specified in the Pennsylvania Vehicle Code (75 Pa. C.S., Chapter 37, Subchapter C).

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

Pennsylvania Department of Transportation
Bureau of Highway Safety and Traffic Engineering
555 Walnut Street - 7th Floor
P.O. Box 2047
Harrisburg, PA 17105-2047
Phone: (717) 787-2855 Fax: (717) 783-8012

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 the booklet to find the section you are looking for.

After you have used this booklet, please complete and return the feedback survey form on the last page.

About the cover

The picture on the front cover shows a simulated car/train collision at a railroad crossing. Although this crash was only "staged", the results of the crash show the potentially deadly consequences should a vehicle operator ignore railroad crossing warning devices.

In 1997, car/train crashes were responsible for 5 deaths in Pennsylvania. However, it is important to note that, in the U.S., a train collides with a person or vehicle approximately every 100 minutes. For more car/train collision data, see pages 17 and 18.

Table of Contents

Introduction	inside cover
How to Use This Booklet	inside cover
Table of Contents	1
Definitions	4
Overview	6
All Crashes and Deaths	7
<i>WHO Was Involved</i>	7
Crashes by Injury Severity	7
Deaths and Injuries—Five-Year Trends	8
Economic Loss Due to Reportable Traffic Crashes	8
Crashes by Crash Type	9
Vehicles Involved in Crashes	9
Driver Involvement in Crashes by Age and Sex	10
Highway Crash Historical Data	10
<i>WHAT Conditions Were</i>	12
Crashes by Weather and Road Surface Conditions	12
Crashes Involving Vehicle Defects	12
Work Zone Crashes	13
Work Zone Crashes—Vehicles Involved	13
Work Zone Crashes by Road Type—Five-Year Trends	14
Crashes with Roadside Objects and Animals	15
<i>WHERE They Happened</i>	16
Crashes by Road Type	16
Crashes Between Trains and Other Vehicles—Five-Year Trends	17
Train/Vehicle Crashes by Vehicle Type	17
Train/Vehicle Crashes by Road Type	18
Train/Vehicle Crashes by Light Level	18
Train/Vehicle Crashes by County	18
<i>WHEN They Happened</i>	19
Crashes by Month	19
Crashes by Day of Week	19
Crashes by Hour of Day	20
Crashes by Light Level	21
Crashes by Holiday	22
Drivers	23
Drivers Overview	23
Crashes Involving Driver Error	23
Single and Multiple Vehicle Crashes of Young and Mature Drivers	24
Drivers in Crashes by Age Group	24
Comparison of Young and Mature Drivers by Crash Type	25
Intersection vs. Non-Intersection Crashes of Young and Mature Drivers	25

Alcohol-Related Crashes	26
Alcohol Overview	26
Alcohol Involvement in Crashes	27
Alcohol-Related Crashes—Five-Year Trends	27
Victims of Alcohol-Related Fatal Crashes	28
Victims of Fatal Crashes by Time of Day	28
Victims of Fatal Crashes by Day of Week	29
Alcohol-Related Crashes—Day vs. Night	29
Alcohol-Related Holiday Crashes	30
Driver Involvement in Alcohol-Related Crashes by Vehicle Type	31
Drinking Drivers In Crashes by Age and Sex	31
Drinking Drivers vs. Non-Drinking Drivers Involved in Crashes, by Age Group	32
Drinking Driver Deaths as a Percentage of Total Driver Deaths, by Age Group	32
Underage Drinking Drivers in Pennsylvania Crashes—Historical Data	33
Seat Belts, Child Safety Seats, and Air Bags	34
Restraints Overview	34
Seat Belt Use in Crashes—Total People Involved	35
Seat Belt Use In Crashes—Impact on Deaths & Injuries	36
Seat Belt Use in Crashes—Historical Data	37
Seat Belt Use Observational Surveys—Historical Data	38
Child Passenger Restraints in Crashes—Five Year Data	38
Air Bag Deployment in Crashes—Injuries and Deaths	39
Air Bag Deployment by Initial Vehicle Impact Point	40
Air Bag Deployment by Age Group	40
Pedestrian and Bicycle Crashes	41
Pedestrian and Bicycles Overview	41
Pedestrian Crashes—Five-Year Trends	41
Pedestrian-Related Crashes	42
Pedestrian Deaths by Age and Sex	43
Pedestrian Injury Severity by Municipality Type	43
Pedestrian Deaths and Injuries by Age	44
Pedestrian Deaths and Injuries by Light Level	45
Pedestrian Deaths and Injuries by Intersection Type	45
Pedestrian Deaths and Injuries by Road Type	46
Pedestrian Deaths and Injuries by Traffic Control Device	46
Bicycle Crashes—Five-Year Trends	47
Bicycle Deaths and Injuries by Age	47
Bicycle Deaths and Injuries by Light Level	48
Bicycle Deaths and Injuries by Intersection	48
Bicycle Deaths and Injuries by Traffic Control Device	49
Bicycle Deaths and Injuries by Road Type	49
Crashes by Motor Vehicle Type	50
Vehicle Crashes by Vehicle Types	50
Vehicle Crashes—Single Vehicles Hitting Fixed Objects	50
Vehicle Crashes—Two-Vehicle Collisions	50
Passenger Car Crashes—Five-Year Trends	51
Passenger Car Deaths by Seating Position	51
Motorcycle Crashes—Five-Year Trends	52
Motorcycle Deaths—Five-Year Trend	52

Motorcycle Helmet Use in Crashes	52
Light Truck Crashes—Five-Year Trends	53
Light Truck Rollovers Compared to Passenger Cars	53
Light Truck Deaths by Seating Position	53
Heavy Truck Crashes—Five-Year Trends	54
Heavy Truck Crashes Involving Vehicle Defects	54
Heavy Truck Crashes by Road Type	54
Hazardous Material Crashes by Road Type	55
Heavy Truck Deaths by Seating Position	55
School Bus Crashes	56
School Bus Crashes by Road Type	56
School Bus Crashes—Five-Year Trends	57
School Bus Deaths/Injuries by Persons Involved—Five-Year Trends	57
Pennsylvania County Crashes	58
County Overview	58
Pennsylvania Crashes by County	59
Crashes by County—Five-Year Trends	60
Traffic Deaths by County—Five-Year Trends	61
Pedestrian Deaths by County—Five-Year Trends	62
Pedestrian Deaths and Injuries by Age Group by County	63
Percent Seat Belt Use in Crashes by County—Five-Year Trends	64
Alcohol-Related Deaths by County—Five-Year Trends	65
Pennsylvania Counties	66
Total Crashes by County	66
Traffic Deaths by County	67
Alcohol-Related Deaths by County	67
Percent Seat Belt Use in Crashes by County	68
Pedestrian Deaths by County	68
Crashes by Engineering District	69
Index	70
1997 Pennsylvania Crash Facts & Statistics Feedback Survey	last page

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.

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 work week 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 which 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 an road intersection, driveway, 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 the 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, passengers, and persons 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 Road: 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 a 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 eight 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.

Special Motorized Vehicle: Includes ambulance, hearse, snowmobile, farm tractor, motorized farm equipment, self-propelled campers and homes, motorized construction equipment, dune/swamp buggy (ATV).

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 almost 119,000 miles of roads and highways; 34% (40,244 miles) are state highways maintained by the Pennsylvania Department of Transportation (PennDOT), and the remaining 66% (78,378 miles) are maintained by local municipalities.

Motor-vehicle traffic crashes which occur on Pennsylvania roads and highways are investigated and reported on by both the Pennsylvania State Police and the many (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 1997, there were 143,981 reportable traffic crashes in Pennsylvania. These crashes claimed the lives of 1,562 people and injured another 138,820 people. To add some perspective, the 1997 total traffic deaths is 92 more than the 1,470 in 1996, and the highest since 1991.

In 1997, there were approximately 98.3 billion vehicle-miles of travel on Pennsylvania's roads and highways. The 1997 fatality rate of 1.59 deaths per hundred million vehicle-miles of travel was the highest since 1993.

1997 Briefs

On Average in Pennsylvania:

- ▶ Each day 394 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 380 persons were injured in reportable traffic crashes (about 16 injuries every hour).

Based on Pennsylvania's 1997 population (12,019,661 people):

- ▶ 1 out of every 33 people were involved in a reportable traffic crash.
- ▶ 1 out of every 7,695 people were killed in a reportable traffic crash.
- ▶ 1 out of every 87 people were injured in a reportable traffic crash.

All Crashes and Deaths

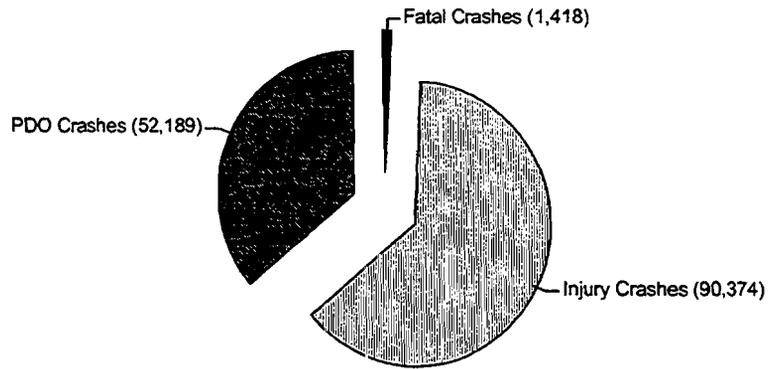
—WHO WAS INVOLVED—

Crashes by Injury Severity

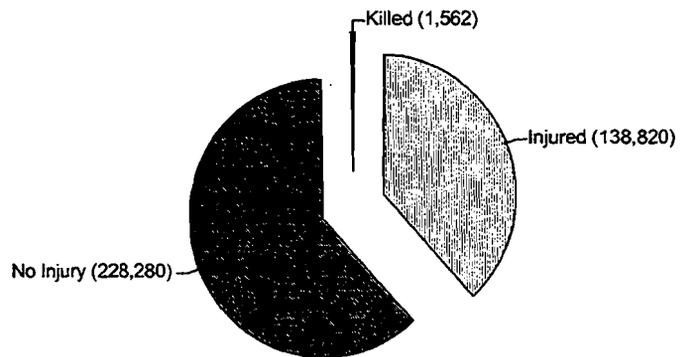
Crashes involving deaths and major injuries are always devastating to the family and friends of the victims.

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 1997, most were not injured, and the vast majority who were injured suffered only minor injuries.

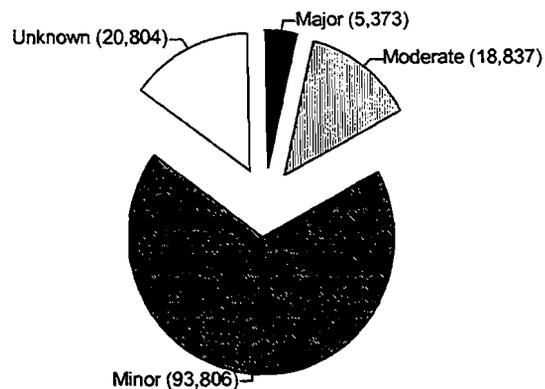
Total Crashes



Total People



Total People—Injured



Deaths and Injuries—Five-Year Trends

Total reported crashes in 1997 increased by 0.8% compared to 1996; total injuries increased by 1.4% and deaths increased by 6.3%. Alcohol-related deaths increased by 2.2%.

	1993	1994	1995	1996	1997
Reported Crashes	134,315	134,171	136,804	142,867	143,981
Total Deaths	1,530	1,440	1,480	1,470	1,562
Total Injuries	131,503	130,678	133,177	136,949	138,820
Major Injury	5,669	5,215	5,474	5,250	5,373
Moderate Injury	20,528	17,914	17,073	17,493	18,837
Minor Injury	85,825	89,087	92,332	95,148	93,806
Unknown Injury	19,481	18,462	18,298	19,058	20,804
Pedestrian Deaths	214	179	198	218	175
Pedestrian Injuries	6,154	6,269	6,197	5,863	6,021
Motorcyclist Deaths	113	112	85	98	92
Motorcyclist Injuries	2,811	2,626	2,584	2,320	2,478
Bicyclist Deaths	23	19	19	26	17
Bicyclist Injuries	2,628	2,619	2,742	2,403	2,525
Heavy-Truck-Related Deaths	200	222	198	192	203
Alcohol-Related Deaths	596	523	514	503	514
Speed-Related Deaths	283	279	257	268	251
Billions of Vehicle-Miles	90.8	92.3	94.5	96.4	98.3
Deaths per 100 Million Vehicle-Miles	1.68	1.56	1.57	1.52	1.59

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

Economic Loss Due to Reportable Traffic Crashes

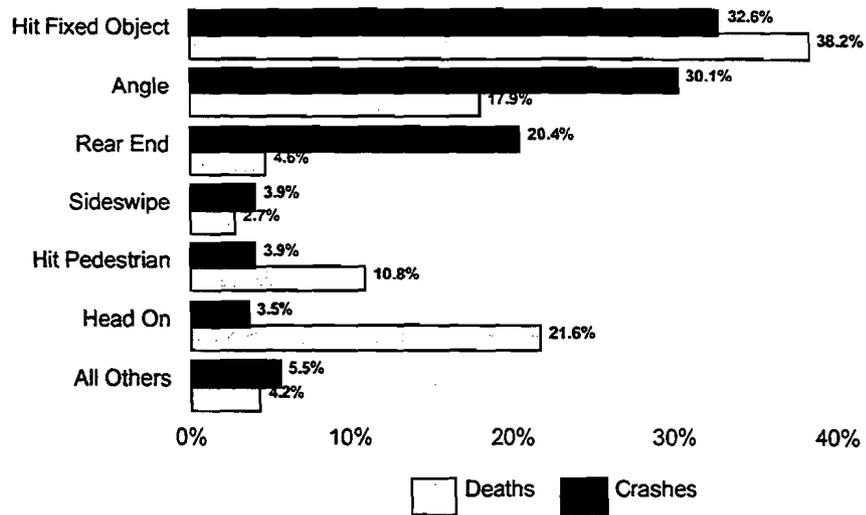
Severity	Number	Average Cost	Estimated Total Costs
Deaths (persons)	1,562	\$2,807,454	\$4,385,243,148
Major Injuries (persons)	5,373	\$1,019,116	\$5,475,710,268
Moderate Injuries (persons)	18,837	\$68,117	\$1,283,119,929
Minor Injuries (persons)	93,806	\$5,399	\$506,458,594
Property Damage Only (crashes)	52,189	\$2,160	\$112,728,240
Unknown	20,804	\$5,399	\$112,320,796
		TOTAL	\$11,875,580,975

In 1997, the economic loss due to traffic crashes was
\$988
 to every man, woman, and child in Pennsylvania.

Figures are based on the latest PennDOT estimates (in 1997 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 second highest number of deaths.



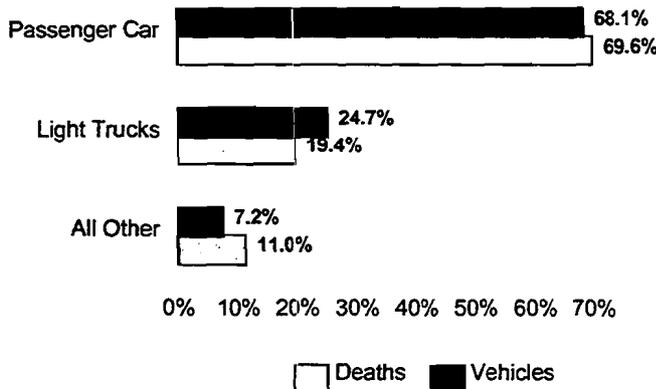
All Crashes

Crash Type	Crashes	Deaths
Angle	43,363	279
Backing Up	618	1
Head On	5,038	338
Hit Fixed Object	47,003	596
Hit Pedestrian*	5,668	169
Non-Collision	4,863	60
Rear End	29,352	72
Sideswipe	5,677	42
Other	2,399	5
TOTAL	143,981	1,562

*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.

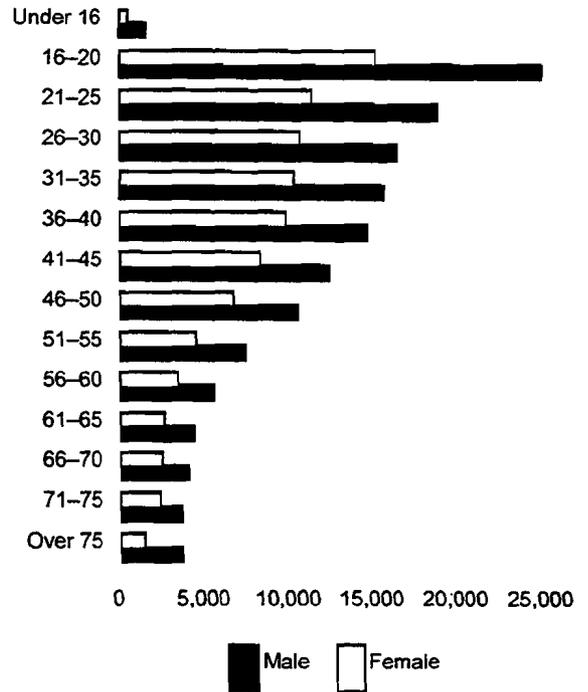


	Occupant	
	Vehicles	Deaths
Passenger Car	165,553	965
Light Truck	60,012	269
Heavy Truck	8,032	32
Bicycle	2,516	17
Motorcycle	2,478	92
School Bus	587	0
Commercial Bus	674	0
Other	3,233	12

Driver Involvement in Crashes by Age and Sex

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

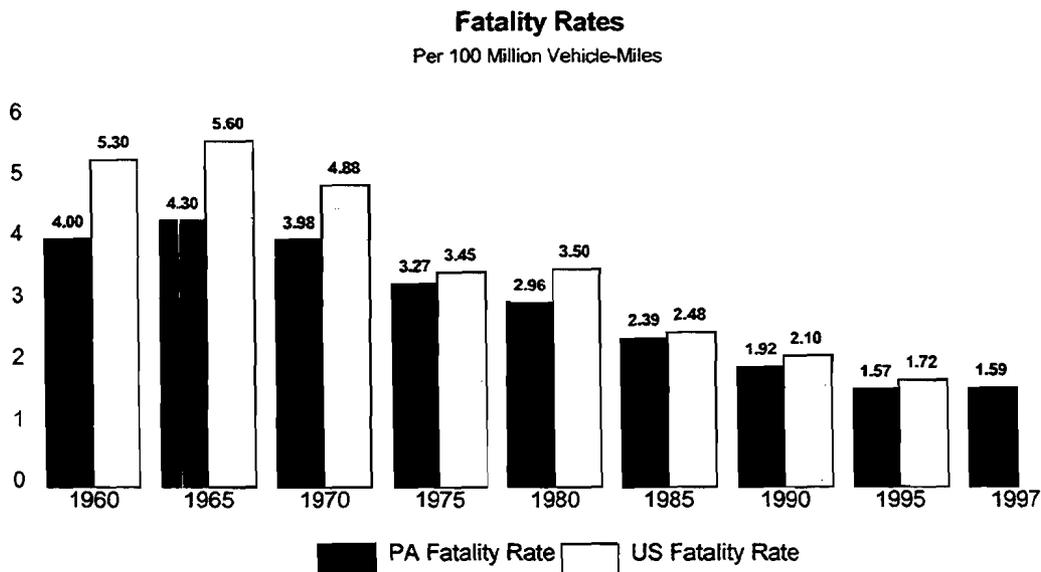
Driver	Male	Female	Total Drivers
Under 16	1,428 (1.0%)	341 (0.4%)	1,769
16-20	24,882 (16.9%)	15,119 (16.7%)	40,001
21-25	18,749 (12.7%)	11,267 (12.4%)	30,016
26-30	16,436 (11.2%)	10,526 (11.6%)	26,962
31-35	15,526 (10.6%)	10,101 (11.1%)	25,627
36-40	14,677 (10.0%)	9,732 (10.7%)	24,409
41-45	12,221 (8.3%)	8,115 (8.9%)	20,336
46-50	10,438 (7.1%)	6,607 (7.3%)	17,045
51-55	7,312 (5.0%)	4,425 (4.9%)	11,737
56-60	5,495 (3.7%)	3,277 (3.6%)	8,772
61-65	4,250 (2.9%)	2,455 (2.7%)	6,705
66-70	3,937 (2.7%)	2,368 (2.6%)	6,305
71-75	3,531 (2.4%)	2,234 (2.5%)	5,765
Over 75	4,592 (3.1%)	2,823 (3.1%)	7,415
Unknown	3,586 (2.4%)	1,330 (1.5%)	4,916
DRIVERS	147,060 (100.0%)	90,720 (100.0%)	237,780



Note: Does not include 4,601 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.



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	63,153	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	67,134	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	3,803,917	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	82,792	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	51.1	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	303,774	2,025	135,308	9,124,915	69.4	2.92	3.33
1977	243,702	2,071	148,725	8,833,745	72.3	2.87	3.35
1978‡	158,361	2,137	146,403	7,254,893	72.7	2.94	3.39
1979	156,622	2,204	144,300	7,451,021	70.3	3.14	3.50
1980	142,489	2,114	133,716	7,307,974	71.3	2.96	3.50
1981	138,764	2,049	131,301	7,252,836	71.5	2.87	3.30
1982	131,579	1,848	126,026	7,417,311	71.3	2.59	2.88
1983	131,081	1,752	126,707	7,562,726	72.3	2.42	2.69
1984	139,914	1,752	134,714	7,724,686	74.1	2.36	2.68
1985	143,244	1,809	140,067	7,860,497	75.6	2.39	2.48
1986	150,683	1,928	148,044	7,793,921	77.2	2.50	2.48
1987	152,631	2,006	151,457	8,313,799	78.9	2.54	2.40
1988	152,906	1,932	154,018	8,452,365	81.3	2.38	2.32
1989	151,461	1,878	152,589	8,605,747	84.5	2.22	2.20
1990	141,340	1,646	142,945	8,675,835	85.7	1.92	2.10
1991	130,404	1,661	130,446	8,757,129	87.3	1.90	1.90
1992	133,913	1,545	133,113	8,915,621	89.0	1.74	1.80
1993	134,315	1,530	131,503	9,044,901	90.8	1.68	1.80
1994	134,171	1,440	130,678	9,255,714	92.3	1.56	1.83
1995	136,804	1,480	133,177	9,271,517	94.5	1.57	1.72
1996	142,867	1,470	136,949	9,411,261	96.4	1.52	1.69
1997	143,981	1,562	138,820	9,692,499	98.3	1.59	-

All Crashes

* 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

—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.

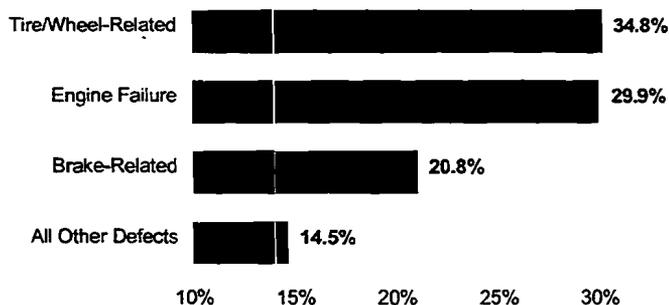
All Crashes

Weather Condition	Crashes	Deaths
No Adverse Condition	110,817 (77.0%)	1,285 (82.3%)
Rain/Rain & Fog	20,180 (14.0%)	170 (10.9%)
Snow/Sleet/Freezing Rain	11,249 (7.8%)	80 (5.1%)
Fog/Smoke, Etc.	930 (0.6%)	23 (1.5%)
Other	805 (0.6%)	4 (0.3%)
TOTAL	143,981 (100.0%)	1,562 (100.0%)

Road Surface Condition	Crashes	Deaths
Dry	101,319 (70.4%)	1,196 (76.6%)
Wet	27,271 (18.9%)	259 (16.6%)
Ice/Ice Patches	6,648 (4.6%)	49 (3.1%)
Snow	6,063 (4.2%)	31 (2.0%)
Other	2,680 (1.9%)	27 (1.7%)
TOTAL	143,981 (100.0%)	1,562 (100.0%)

Crashes Involving Vehicle Defects

Improperly-maintained vehicles can lead to crashes. In 1997, tire/wheel, engine, and brake-related failures contributed to the majority of vehicle defect related crashes. The percentages in the graph below refer to the number of crashes involving vehicle defects.

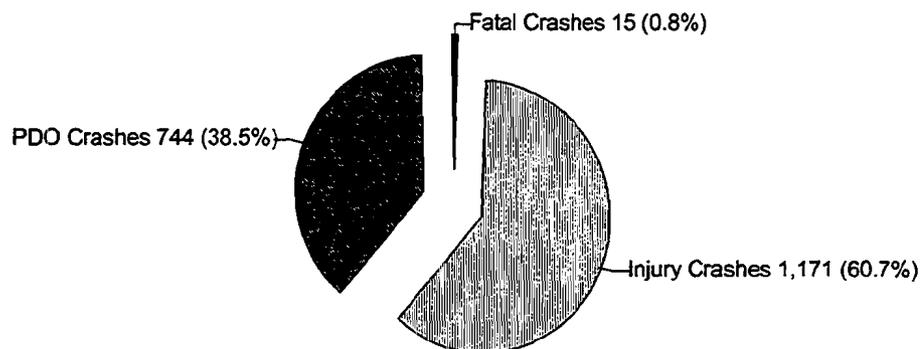


Vehicle Defect	Crashes
Tire/Wheel-Related	1,086
Engine Failure	932
Brake-Related	650
Total Steering System Failure	228
Dirty/Frosty Windshield	68
Vehicle Lighting-Related	51
Transmission Problem	49
Suspension	45
Defective Wipers	5
Defective Defrosting	3
Exhaust System Failure	2

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. Over sixty percent of work zone crashes in 1997 caused injuries.



Total Crashes: **1,930**

Total Killed: **16** (Workers Killed: **2**)

Total Injured: **1,868** (Workers Injured: **36**)

Work Zone Crashes—Vehicles Involved

Vehicle Type	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road
Passenger Car	357 (51.7%)	1,305 (63.0%)	53 (50.0%)	332 (67.5%)
Light Truck	163 (23.6%)	562 (27.1%)	25 (23.6%)	100 (20.3%)
Heavy Truck/Bus	155 (22.4%)	152 (7.3%)	25 (23.6%)	34 (6.9%)
Motorcycle	6 (0.9%)	27 (1.3%)	0 (0.0%)	0 (0.0%)
Other	10 (1.4%)	24 (1.2%)	3 (2.8%)	26 (5.3%)
TOTAL	691 (100.0%)	2,070 (100.0%)	106 (100.0%)	492 (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
1993	State Hwy (Interstate)	441	23.2%	19	51.4%
	State Hwy (Other)	1,121	59.1%	12	32.4%
	Turnpike	136	7.2%	4	10.8%
	Local Road	199	10.5%	2	5.4%
	TOTAL	1,897	100.0%	37	100.0%
1994	State Hwy (Interstate)	525	27.1%	8	42.1%
	State Hwy (Other)	1,012	52.3%	7	36.8%
	Turnpike	133	6.9%	2	10.5%
	Local Road	265	13.7%	2	10.5%
	TOTAL	1,935	100.0%	19	100.0%
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%
	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%

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	1,205	0.8%	31	2.0%
Hit Building	1,746	1.2%	31	2.0%
Hit Culvert	942	0.7%	21	1.3%
Hit Curb	3,767	2.6%	46	2.9%
Hit Ditch	2,925	2.0%	46	2.9%
Hit Embankment	10,306	7.2%	205	13.1%
Hit Fence	2,366	1.6%	38	2.4%
Hit Fire Hydrant	449	0.3%	2	0.1%
Hit Guiderail	6,989	4.9%	179	11.5%
Hit Impact Attenuator	73	0.1%	0	0.0%
Hit Mailbox(es)	1,614	1.1%	42	2.7%
Hit Median Barrier	2,905	2.0%	31	2.0%
Hit Obstacle on Roadway	580	0.4%	1	0.1%
Hit Other Fixed Object	2,174	1.5%	45	2.9%
Hit Overhead Structure	74	0.1%	3	0.2%
Hit Parked Vehicle	6,519	4.5%	58	3.7%
Hit Rock(s)	1,128	0.8%	17	1.1%
Hit Shrubs/Hedges	2,865	2.0%	37	2.4%
Hit Signal/Sign Support	3,160	2.2%	67	4.3%
Hit Snowbank	108	0.1%	2	0.1%
Hit Temporary Construction Barrier	71	0.0%	1	0.1%
Hit Traffic Island or Channelization	264	0.2%	3	0.2%
Hit Tree(s)	9,658	6.7%	270	17.3%
Hit Utility Pole(s)	10,427	7.2%	204	13.1%
Hit Wall	1,350	0.9%	24	1.5%
Hit Deer	2,072	1.4%	2	0.1%
Hit Other Animal	165	0.1%	0	0.0%

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	7,035	90,169	1,982	42,864	1,931
Persons Killed	95	1,156	24	275	12
Persons Injured	5,879	89,865	1,381	39,969	1,726
Miles of Maintained Road	1,278	38,966	505	78,379	772
100 MVM* Traveled	155.5	598.9	50.2	178.8	—
Crashes/MVM*	0.45	1.51	0.39	2.40	—
Persons Killed/100 MVM*	0.61	1.93	0.48	1.54	—
Persons Injured/MVM*	0.38	1.50	0.28	2.24	—

* 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 1997 length and travel activity data. Ramp miles are not included in any category or total.

All Crashes

Crashes Between Trains and Other Vehicles—Five-Year Trends

Motor vehicle/train crashes have been steadily declining over the last five years, but the severity of these crashes remain deadly.

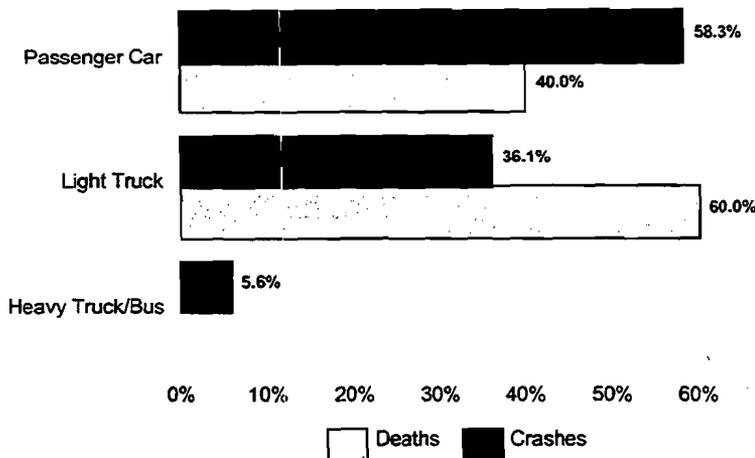


Year	Crashes	Deaths
1993	67	6
1994	54	7
1995	51	8
1996	41	1
1997	37	5

All Crashes

Train/Vehicle Crashes by Vehicle Type

Passenger cars, light trucks, and heavy trucks were the only vehicle types involved in crashes with trains in 1997.



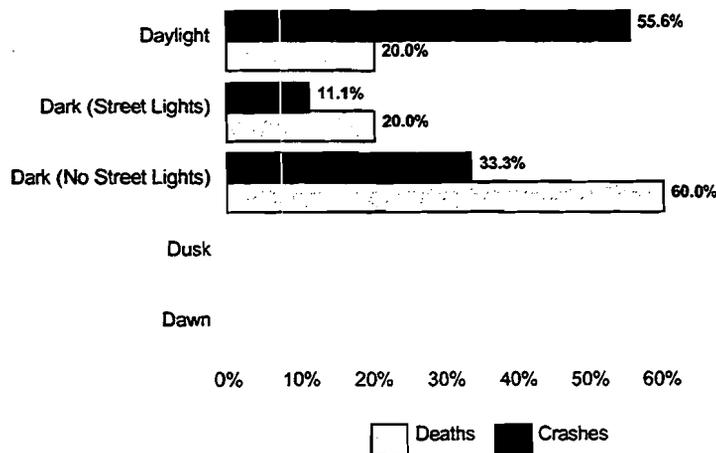
Vehicle Type	Crashes	Deaths
Passenger Car	21	2
Light Truck	13	3
Heavy Truck	2	0
School Bus	0	0
Commercial Bus	0	0
Motorcycle	0	0
Bicycle	0	0
TOTAL	36	5

Train/Vehicle Crashes by Road Type

Road Type	Crashes	Deaths
State Highway (Non-Interstate)	7	0
Local Road	29	5
TOTAL	36	5

All Crashes

Train/Vehicle Crashes by Light Level



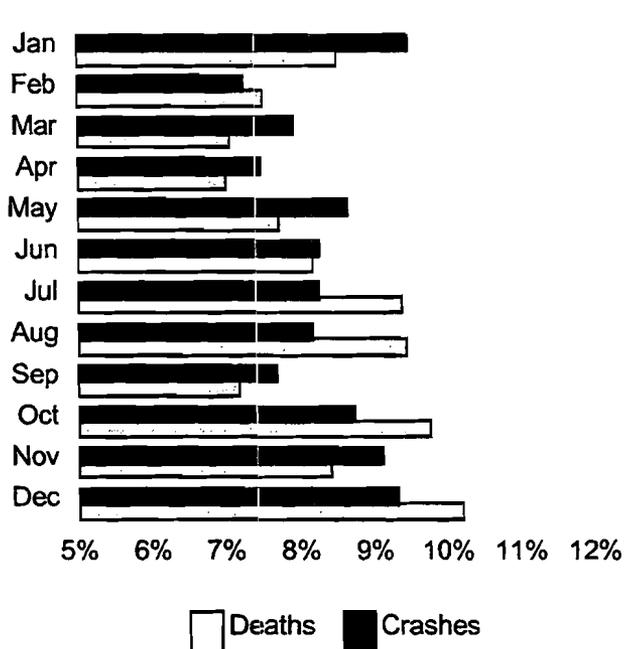
Light Level	Crashes	Deaths
Daylight	20	1
Dark (Street Lights)	4	1
Dark (No Street Lights)	12	3
Dusk	0	0
Dawn	0	0
TOTAL	36	5

Train/Vehicle Crashes by County

County	Crashes	Deaths
Allegheny	3	0
Berks	1	0
Blair	1	0
Chester	2	0
Clinton	1	0
Columbia	1	0
Crawford	1	0
Cumberland	1	0
Dauphin	1	0
Elk	1	0
Erie	5	3
Franklin	1	0
Lancaster	1	0
Lawrence	1	0
Lehigh	3	1
Mckean	1	0
Mercer	2	0
Montgomery	1	1
Somerset	1	0
Washington	3	0
Westmoreland	1	0
York	3	0
TOTAL	36	5

—WHEN THEY HAPPENED—

Crashes by Month

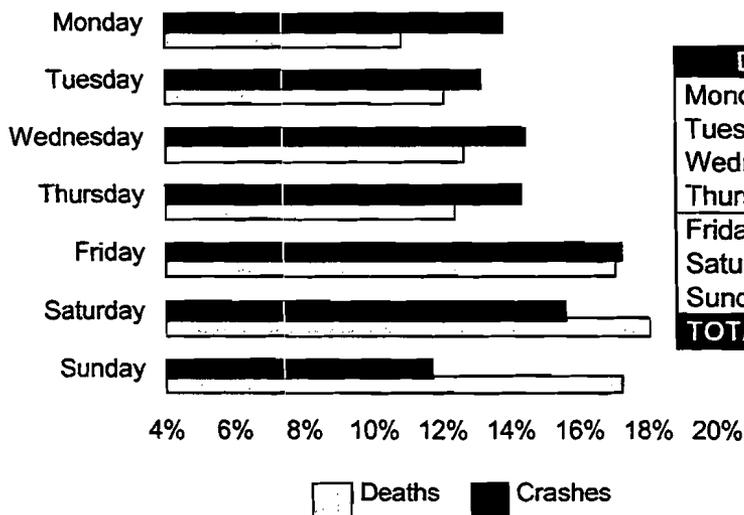


Month	Crashes	Deaths
January	13,615 (9.5%)	132 (8.5%)
February	10,409 (7.2%)	117 (7.5%)
March	11,381 (7.9%)	110 (7.0%)
April	10,746 (7.5%)	109 (7.0%)
May	12,415 (8.6%)	120 (7.7%)
June	11,839 (8.2%)	127 (8.1%)
July	11,827 (8.2%)	146 (9.3%)
August	11,711 (8.1%)	147 (9.4%)
September	11,023 (7.7%)	112 (7.2%)
October	12,515 (8.7%)	152 (9.7%)
November	13,093 (9.1%)	131 (8.4%)
December	13,407 (9.3%)	159 (10.2%)
TOTAL	143,981 (100.0%)	1,562 (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.)

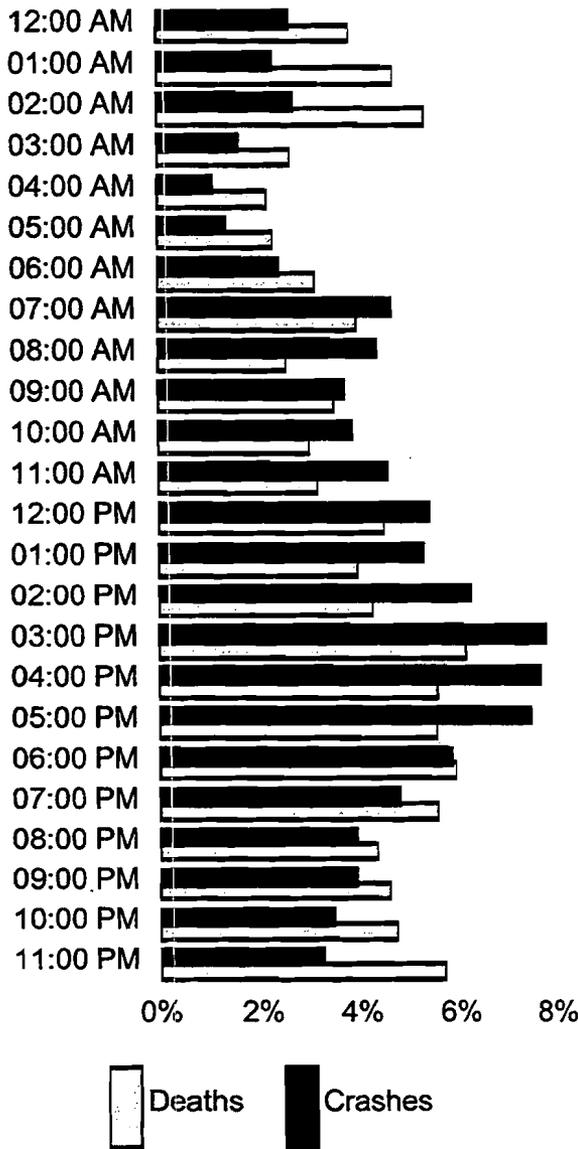


Day	Crashes	Deaths
Monday	19,869 (13.8%)	168 (10.8%)
Tuesday	18,843 (13.1%)	188 (12.0%)
Wednesday	20,808 (14.5%)	197 (12.6%)
Thursday	20,603 (14.3%)	193 (12.4%)
Friday	24,706 (17.2%)	266 (17.0%)
Saturday	22,399 (15.6%)	281 (18.0%)
Sunday	16,753 (11.6%)	269 (17.2%)
TOTAL	143,981 (100.0%)	1,562 (100.0%)

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 times. Some hours of the day experience a low percentage of crashes, but they are much more deadly. For example, only 2.7% of all crashes in 1997 occurred in the 2:00 AM hour, but 5.3% of all deaths—the fifth highest percentage—occurred then. The higher volume of traffic itself is a factor during peak traffic hours, particularly the rush-hours.

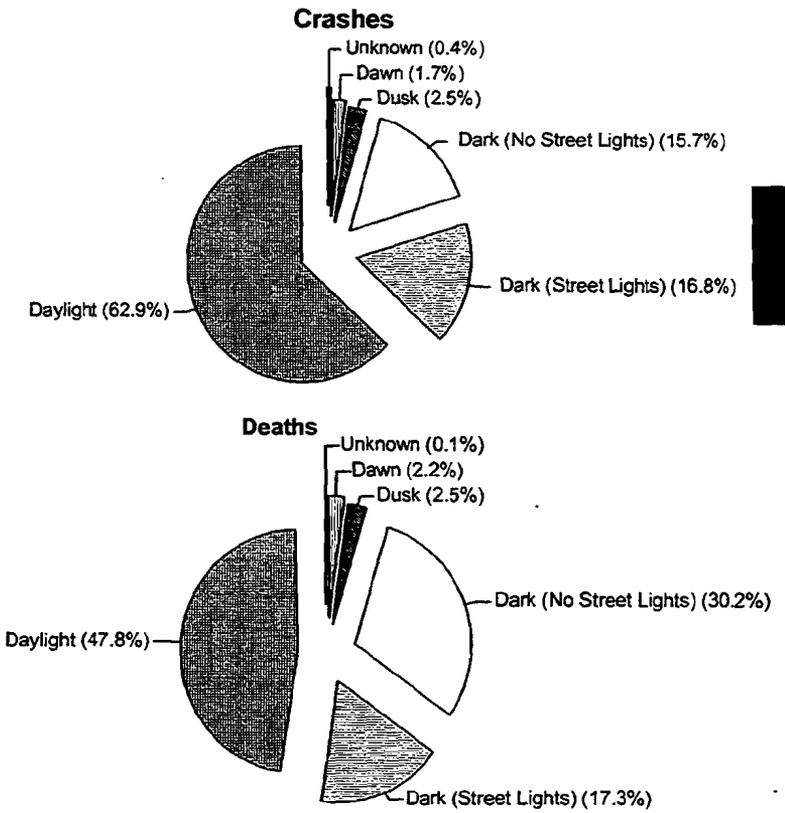
All Crashes



Hour	Crashes	Deaths
12:00 AM	3,706	59
01:00 AM	3,217	73
02:00 AM	3,831	83
03:00 AM	2,260	40
04:00 AM	1,543	33
05:00 AM	1,863	35
06:00 AM	3,429	48
07:00 AM	6,662	61
08:00 AM	6,213	39
09:00 AM	5,263	54
10:00 AM	5,496	46
11:00 AM	6,534	49
12:00 PM	7,769	70
01:00 PM	7,593	61
02:00 PM	8,935	66
03:00 PM	11,192	95
04:00 PM	10,995	86
05:00 PM	10,733	86
06:00 PM	8,345	92
07:00 PM	6,858	86
08:00 PM	5,570	67
09:00 PM	5,589	71
10:00 PM	4,934	73
11:00 PM	4,609	88

Crashes by Light Level

In 1997, 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 1997 occurred slightly more often during non-daylight hours (dark and dusk/dawn conditions). If 1997 deaths per 1000 crashes are compared (Daylight—8.2 deaths per 1000 crashes versus Non-Daylight—15.3 deaths per 1000 crashes), it is apparent that non-daylight crashes resulted in deaths more often than daylight crashes.



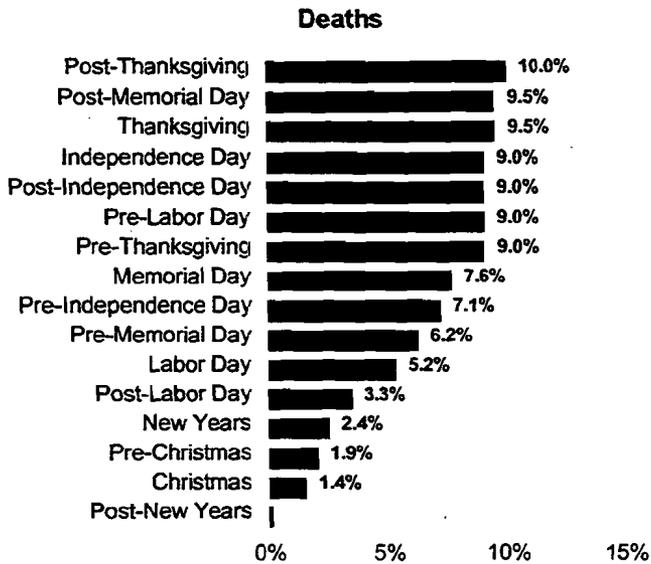
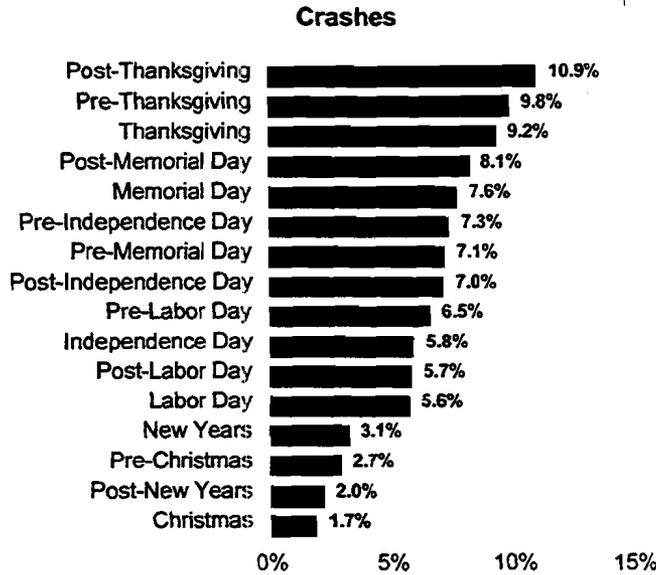
All Crashes

Light Level	Crashes	Deaths
Daylight	90,548	746
Dark (Street Lights)	24,174	270
Dark (No Street Lights)	22,605	472
Dusk	3,560	39
Dawn	2,449	34
Unknown	645	1
TOTAL	143,981	1,562

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 below shows a breakdown of crashes and deaths for each holiday period in 1997.

All Crashes



Period*	Crashes	Deaths
New Years**	562	5
Post-New Years**	371	0
Pre-Memorial Day	1,300	13
Memorial Day	1,397	16
Post-Memorial Day	1,486	20
Pre-Independence Day	1,337	15
Independence Day	1,071	19
Post-Independence Day	1,289	19
Pre-Labor Day	1,189	19
Labor Day	1,025	11
Post-Labor Day	1,043	7
Pre-Thanksgiving	1,794	19
Thanksgiving	1,693	20
Post-Thanksgiving	2,005	21
Pre-Christmas**	503	4
Christmas**	318	3
TOTAL	18,383	211

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

** Not part of a holiday weekend in 1997.

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 1997, only primary contributing factors in the crash are considered.

Contributing Factor	Crashes	Fatal Crashes
Drinking Driver	6,242	240
Speed-Related	15,385	229
Improper Turning-Related	11,863	67
Proceeded Without Clearance	10,114	43
Careless/illegal Passing	1,916	23
Drowsy Drivers	2,549	22
Distracted Driver	3,380	21
Tailgating	11,267	15

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	40.5% 58,262 crashes	35.9% 15,360 crashes	15.8% 1,858 crashes	15.4% 1,283 crashes
Multiple Vehicle Crash	59.5% 85,719 crashes	64.1% 27,475 crashes	84.2% 9,893 crashes	84.6% 7,027 crashes

Drivers

Drivers in Crashes by Age Group

Looking at the 1997 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	6,830	46,552	14.7%
17	8,468	97,788	8.7%
18	8,116	115,546	7.0%
19	7,280	123,589	5.9%
20	6,198	119,967	5.2%
21	5,776	122,265	4.7%
22-24	15,638	374,397	4.2%
25-29	24,338	730,382	3.3%
30-39	44,776	1,717,478	2.6%
40-54	46,488	2,439,982	1.9%
55-59	8,475	554,150	1.5%
60-64	6,412	459,735	1.4%
65-69	5,812	444,426	1.3%
70-74	5,577	425,303	1.3%
75 and over	8,105	591,619	1.4%
Unknown	1,820	N/A	N/A

Comparison of Young and Mature Drivers by Crash Type

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

Crash Type	All Drivers	Young Drivers (16-21)	Mature Drivers (65-74)	Mature Drivers (75+)
Non-Collision	3.4%	2.4%	1.1%	0.7%
	4,863 crashes	1,035 crashes	124 crashes	57 crashes
Rear-End	20.4%	21.8%	26.8%	22.6%
	29,352 crashes	9,357 crashes	3,154 crashes	1,878 crashes
Head-On	3.5%	3.9%	3.9%	3.4%
	5,038 crashes	1,666 crashes	453 crashes	285 crashes
Backing Up	0.4%	0.3%	0.4%	0.5%
	618 crashes	135 crashes	47 crashes	43 crashes
Angle	30.1%	33.5%	47.9%	53.5%
	43,363 crashes	14,347 crashes	5,634 crashes	4,447 crashes
Sideswipe	3.9%	3.6%	4.2%	3.6%
	5,677 crashes	1,553 crashes	492 crashes	297 crashes
Hit Fixed Object	32.6%	32.1%	12.1%	12.9%
	47,003 crashes	13,767 crashes	1,424 crashes	1,070 crashes
Hit Pedestrian	3.9%	1.5%	2.7%	2.4%
	5,668 crashes	637 crashes	322 crashes	202 crashes
Other	1.7%	0.8%	0.9%	0.4%
	2,399 crashes	338 crashes	101 crashes	31 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	41.2%	42.4%	54.5%	57.9%
	59,317 crashes	18,172 crashes	6,407 crashes	4,809 crashes
Non-Intersection	58.8%	57.6%	45.5%	42.1%
	84,664 crashes	24,663 crashes	5,344 crashes	3,501 crashes

Alcohol-Related Crashes

Alcohol Overview

- ▶ In Pennsylvania, drinking and driving remains a top safety issue. After eight years of significant reductions in alcohol-related incidents, 1997 alcohol-related crashes (13,996) and deaths (514) increased from 13,343 alcohol-related crashes and 503 deaths in 1996.
- ▶ Of particular concern is the involvement of drinking drivers under the age of 21. 1997 underage drinking drivers went up by 23% since last year and has been rising since 1994.
- ▶ Of equal focus is the 21 to 40 age group, in which over 45% of the driver deaths involved a drinking driver. The 36 to 40 age group increased from 36% in 1996 to 50% in 1997.
- ▶ In 1997, alcohol-related deaths were 32.9% of the total traffic deaths, continuing the downward trend from 1995, when the death toll due to alcohol-related crashes fell to 35% for the first time ever in Pennsylvania.
- ▶ Pennsylvania's aggressive posture to prevent and deter drinking and driving (particularly through the widespread use of sobriety checkpoints and saturation patrols) has had a significant impact on the DUI problem.

Alcohol-
Related

1997 Briefs

- ▶ 514 people died in alcohol-related crashes.
- ▶ 85% of the alcohol-related occupant deaths (drivers and passengers) were in the vehicle driven by the drinking driver; 57% were the drinking drivers themselves.
- ▶ 82% of the drinking drivers in traffic crashes were male.
- ▶ 80% of the alcohol-related crashes were during the hours of darkness, usually on weekends.
- ▶ On average each day, 38 alcohol-related traffic crashes occurred.
- ▶ On average each day, 1.4 persons were killed in alcohol-related traffic crashes.
- ▶ On average each day, 38 persons were injured in alcohol-related traffic crashes.

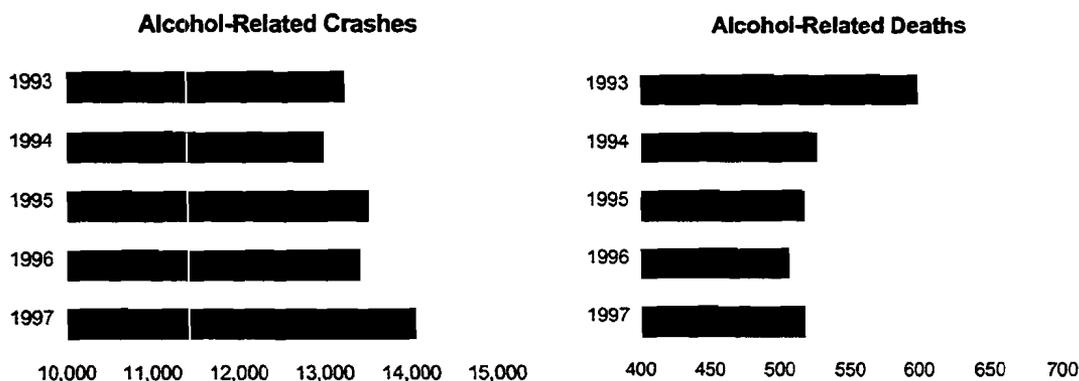
Alcohol Involvement in Crashes

Although alcohol-related crashes accounted for less than 10% of the total crashes in 1997, they resulted in 32% of all persons killed in crashes. Alcohol-related crashes were 4 ½ times more likely to result in death than those not related to alcohol (3.3% of the alcohol-related crashes resulted in death, compared to 0.74% 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	460 (32.4%)	514 (32.9%)	9,083 (10.1%)	13,868 (10.0%)	4,453 (8.5%)
Non-Alcohol-Related	958 (67.6%)	1,048 (67.1%)	81,291 (89.9%)	124,952 (90.0%)	47,736 (91.5%)
TOTAL	1,418 (100.0%)	1,562 (100.0%)	90,374 (100.0%)	138,820 (100.0%)	52,189 (100.0%)

Alcohol-Related Crashes—Five-Year Trends

Alcohol-related crashes and deaths increased in 1997 (by 5% and 2%, respectively). Alcohol-related injuries increased by 9%. “PDO Crashes” in the table below refers to property damage only crashes.



	1993	1994	1995	1996	1997
Crashes	13,183	12,944	13,440	13,343	13,996
Fatal Crashes	542	484	464	462	460
Injury Crashes	8,669	8,425	8,740	8,572	9,083
PDO Crashes	3,972	4,035	4,236	4,309	4,453
Deaths	596	523	514	503	514
Injuries	13,344	12,764	13,353	12,760	13,868
Fatal Crashes per 100,000 Licensed Drivers	6.7	6.0	5.7	5.7	5.5
Deaths per 100,000 Licensed Drivers	7.4	6.4	6.3	6.2	6.1

Alcohol-Related

Victims of Alcohol-Related Fatal Crashes

Of the 454 driver and passenger deaths in alcohol-related crashes, 388 (85%) were drinking drivers or their passengers. The percentage of deaths of non-drinking people in these crashes increased from 12% in 1996 to 17% in 1997.

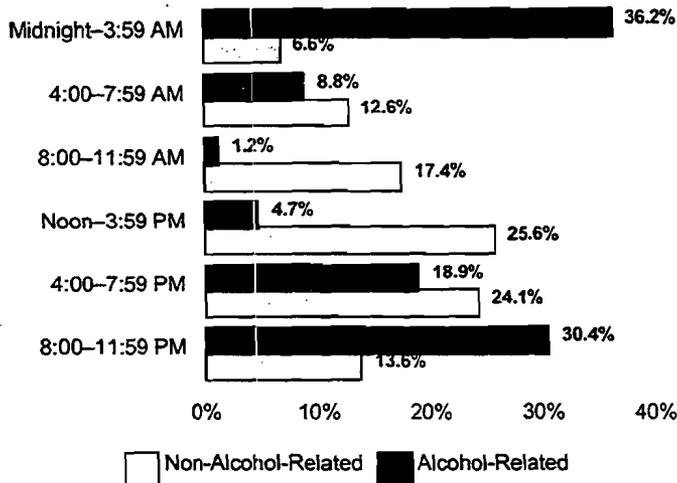
Persons Involved	Deaths
Drivers	334
<i>Drinking Drivers</i>	292 (87.4%)
<i>Non-Drinking Drivers</i>	42 (12.6%)
Passengers	120
<i>Passengers with Drinking Driver</i>	96 (80.0%)
<i>Passengers with Non-Drinking Drivers</i>	24 (20.0%)
Pedestrians	52
<i>Drinking Pedestrians</i>	32 (61.5%)
<i>Non-Drinking Pedestrians</i>	20 (38.5%)
TOTAL DEATHS*	514

*Includes 8 victim, status unknown

Alcohol-Related

Victims of Fatal Crashes by Time of Day

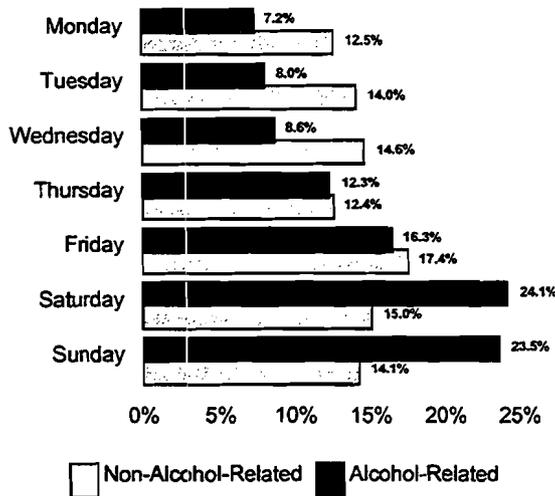
Alcohol-related crashes occurring between 8:00 PM and 4:00 AM produced the vast majority of deaths (67% of alcohol-related deaths). In contrast, half the deaths from non-alcohol-related crashes resulted from crashes occurring between noon and 8:00 PM.



Time of Occurrence	Non-Alcohol-Related	Alcohol-Related
Midnight-3:59 AM	69	186
4:00-7:59 AM	132	45
8:00-11:59 AM	182	6
Noon-3:59 PM	268	24
4:00-7:59 PM	253	97
8:00-11:59 PM	143	156
Time Unknown	1	0
TOTAL DEATHS	1,048	514

Victims of Fatal Crashes by Day of Week

The majority (64%) 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.

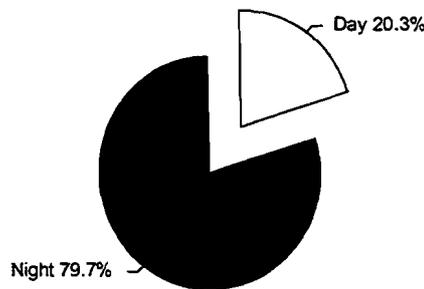


Day of Occurrence	Non-Alcohol-Related	Alcohol-Related
Monday	131	37
Tuesday	147	41
Wednesday	153	44
Thursday	130	63
Friday	182	84
Saturday	157	124
Sunday	148	121
TOTAL DEATHS	1,048	514

Alcohol-Related

Alcohol-Related Crashes—Day vs. Night

More than three-quarters of alcohol-related crashes occur at night. The graph below shows the breakdown of alcohol-related crashes by day and night.

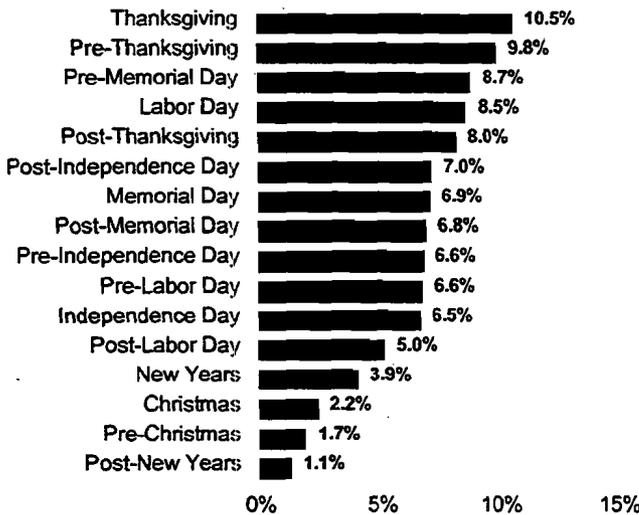


Alcohol-Related Holiday Crashes

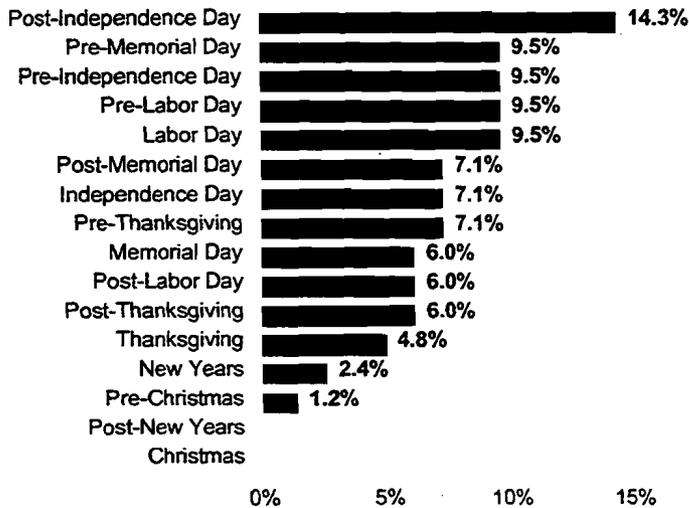
In 1997, 14% of all holiday crashes involved alcohol use; however, 40% of deaths which occurred during holiday weekends were related to alcohol use. (See *Crashes by Holiday*, page 22.)

Alcohol-Related

Total Crashes



Deaths



Period*	Crashes	Deaths
New Years**	97	2
Post-New Years**	27	0
Pre-Memorial Day	218	8
Memorial Day	173	5
Post-Memorial Day	169	6
Pre-Independence Day**	166	8
Independence Day**	162	6
Post-Independence Day**	176	12
Pre-Labor Day	165	8
Labor Day	213	8
Post-Labor Day	125	5
Pre-Thanksgiving	245	6
Thanksgiving	262	4
Post-Thanksgiving	201	5
Pre-Christmas**	43	1
Christmas**	55	0
TOTAL	2,497	84

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

** Not part of a holiday weekend in 1997.

Driver Involvement in Alcohol-Related Crashes by Vehicle Type

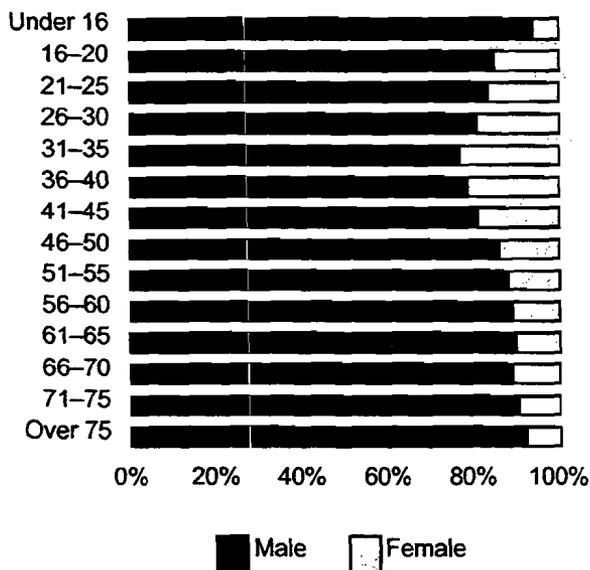
Motorcycle crashes involved a large number of drinking drivers—more than twice the average for all vehicles. Drinking drivers of light trucks (which include pickups, vans, sport utility vehicles, etc.) were also above the average for drivers of all vehicle types.

Total Drivers in Crashes 242,381	Passenger Car	165,129
	Light Trucks	59,823
	Heavy Trucks	7,969
	Motorcycle	2,477
	Bus	1,260
	Other	5,723
Drinking Drivers in Crashes 14,035 (5.8% of total)	Passenger Car	9,503 (5.8% of total)
	Light Trucks	4,108 (6.9% of total)
	Heavy Trucks	32 (0.4% of total)
	Motorcycle	299 (12.1% of total)
	Bus	1 (0.1% of total)
	Other	92 (1.6% of total)

Alcohol-Related

Drinking Drivers In Crashes by Age and Sex

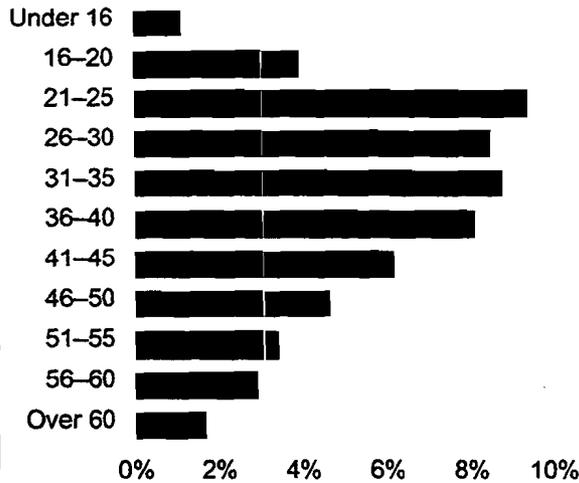
In 1997, roughly four out of five drinking drivers in crashes were male (across most age groups), with only slight variations among the age groups. The table below does not include an additional 175 drivers for whom age and/or sex were not known.



Age Group	Male	Female	Total
Under 16	17	1	18
16-20	1,320	228	1,548
21-25	2,351	450	2,801
26-30	1,844	426	2,270
31-35	1,712	503	2,215
36-40	1,546	409	1,955
41-45	1,010	228	1,238
46-50	669	105	774
51-55	341	45	386
56-60	221	26	247
61-65	158	17	175
66-70	102	12	114
71-75	59	6	65
Over 75	50	4	54
Total	11,400	2,460	13,860

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

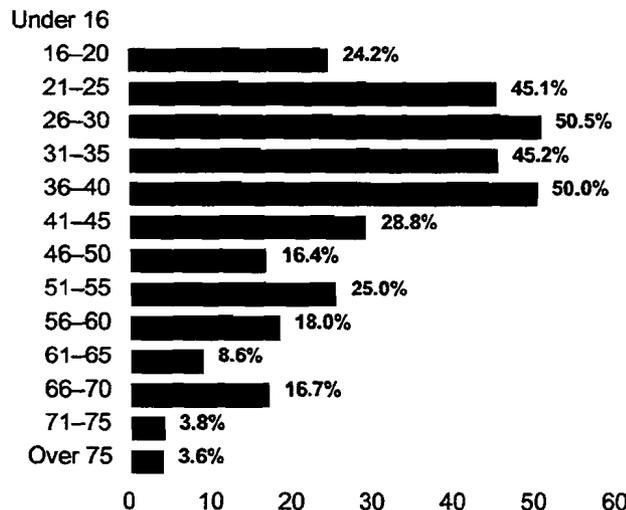
In 1997, as the table and graph below show, the four age groups from 21 to 40 had the highest percentage of drinking drivers within their respective age groups. After age 35, the percentage of drinking drivers within the succeeding age groups steadily declined. The under 21 age groups had smaller percentages, but still involved 1,566 underage drinking drivers.



Age Group	Drinking Driver	Non-Drinking Driver
Under 16	18 (1.0%)	1,751 (99.0%)
16-20	1,548 (3.9%)	38,453 (96.1%)
21-25	2,801 (9.3%)	27,215 (90.7%)
26-30	2,270 (8.4%)	24,692 (91.6%)
31-35	2,215 (8.6%)	23,412 (91.4%)
36-40	1,955 (8.0%)	22,454 (92.0%)
41-45	1,238 (6.1%)	19,098 (93.9%)
46-50	774 (4.5%)	16,271 (95.5%)
51-55	386 (3.3%)	11,351 (96.7%)
56-60	247 (2.8%)	8,525 (97.2%)
Over 60	408 (1.6%)	25,782 (98.4%)

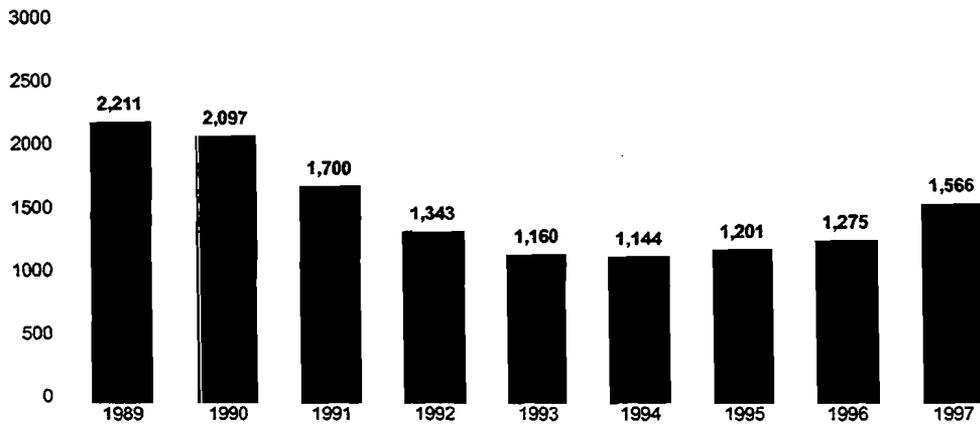
Drinking Driver Deaths as a Percentage of Total Driver Deaths, by Age Group

The graph below shows drinking driver deaths as a percentage of total driver deaths within each respective age group for 1997 crashes. The four age groups from 21 to 40 had the highest percentages, with over 45% of the driver deaths in these age groups involving a drinking driver. *Note:* The "Under 16" category is zero percent.



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 has declined each year. Since then, there has been an increase every year with 1997 increasing 23% from 1996.



Alcohol-Related

Seat Belts, Child Safety Seats, and Air Bags

Restraints Overview

Safety Belts

- ▶ Pennsylvania's seat belt law requires drivers and front seat passengers to be properly buckled up when riding in a passenger car, Class 1 and Class 2 truck, or motor home.
- ▶ 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

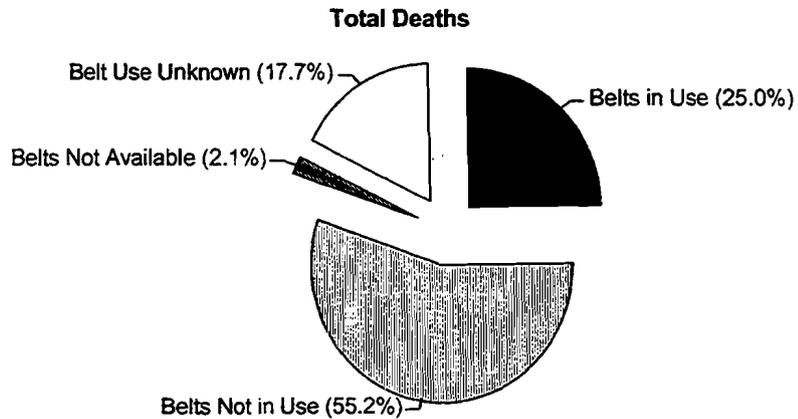
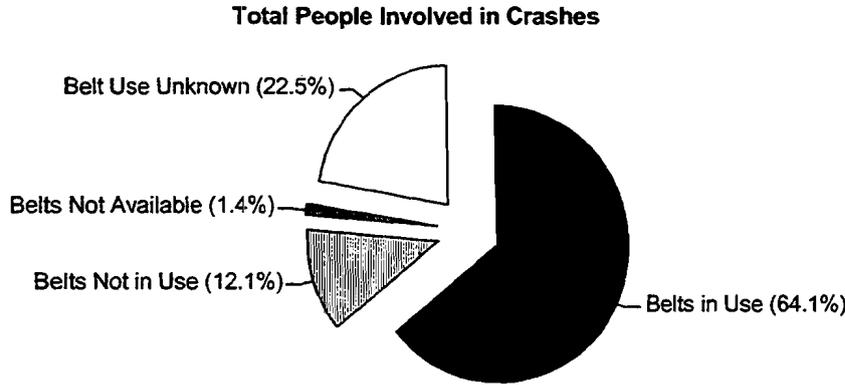
- ▶ Pennsylvania law requires children under the age of four to be properly restrained in a child passenger restraint system whenever riding anywhere in the vehicle.
- ▶ Research shows that child safety seats, when used correctly, are 71% effective in preventing fatalities, and 67% effective in preventing 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. Small children should ride in a child safety seat approved for their age and size.
- ▶ 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 collar bone away from the neck and cross over the breast bone.
 - 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 1997, as shown in the two pie graphs below, 64.1% of all people involved in crashes were wearing seat belts. Over 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 1997 by severity of injury and belt use.



	Belts in Use	Belts Not in Use	Belts Not Available	Belt Use Unknown
Killed	316	699	27	224
Major Injury	1,494	1,818	94	937
Moderate Injury	7,006	5,076	295	3,677
Minor Injury	54,533	14,533	1,097	15,999
No Injury	148,444	17,206	2,965	48,162
Unknown Injury	7,980	2,061	255	8,145
TOTAL	219,773	41,393	4,733	77,144

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

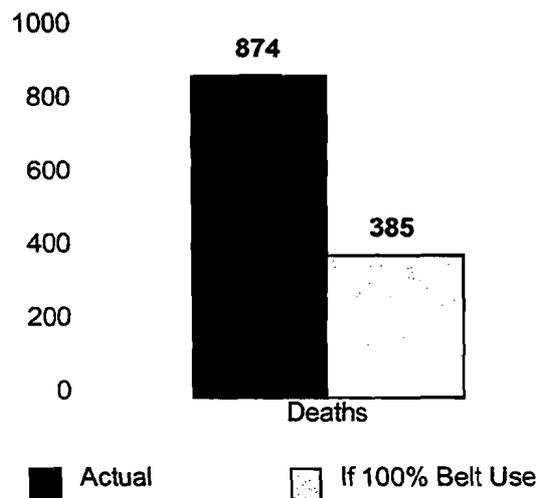
Seat Belts,
Etc.

Seat Belt Use In Crashes—Impact on Deaths & 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 1997 deaths and injuries if 100% belt use was achieved. (Note: The data below is for passenger cars only.) The estimated economic savings of 100% belt use in 1997 would have been \$2,759,258,963 or approximately \$230 for every man, woman, and child in Pennsylvania. More importantly, 489 people could have survived if they had worn their belts.

	Deaths	Injuries			
		Major	Moderate	Minor	None
No Belts	11	39	173	686	1,613
Belts Used	257	1,125	5,128	39,979	93,521
Belts Not Used	489	1,243	3,496	10,153	10,800
Use Unknown	117	446	1,466	6,333	14,569
TOTAL	874	2,853	10,263	57,151	120,503
If 100% Belt Use	385	1,687	7,518	55,087	126,967
Net Increase/(Decrease)	(489)	(1,166)	(2,745)	(2,064)	6,464

Seat Belts,
Etc.



Note: PennDOT's cost estimating procedures were revised in 1997 dollars.

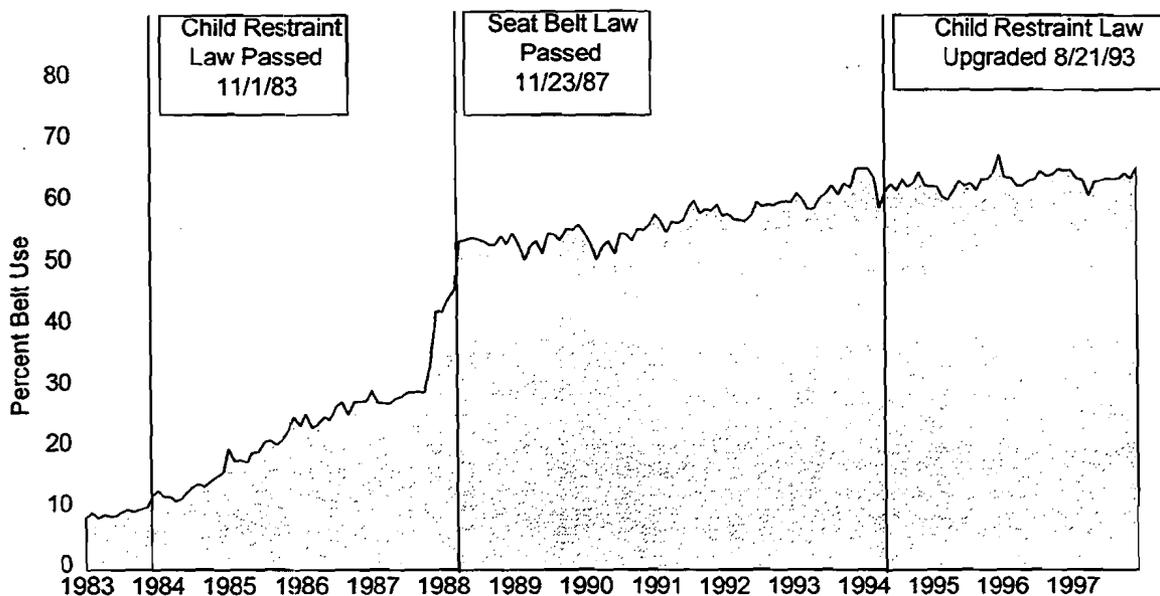
Seat Belt Use in Crashes—Historical Data

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 seat 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 four years.

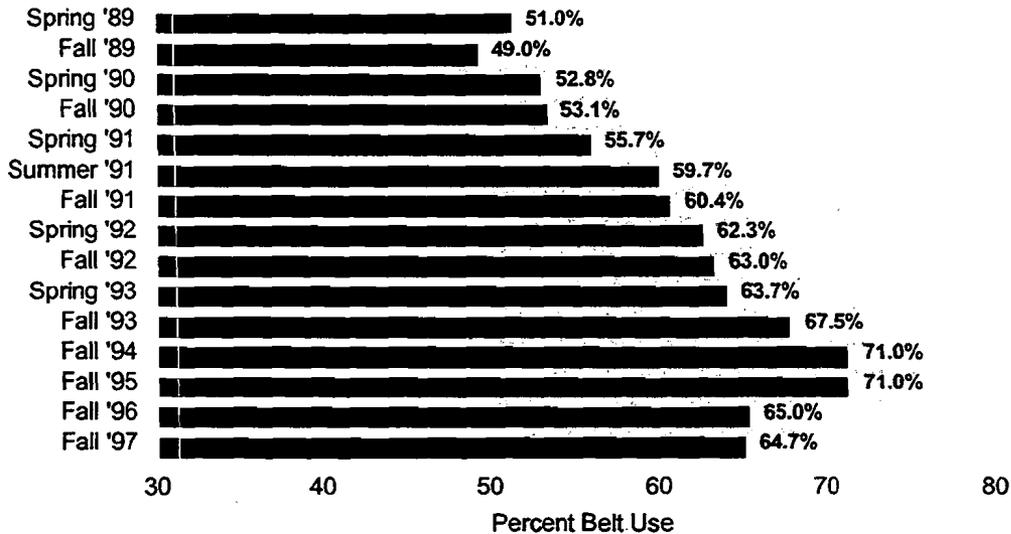


Note: Data shown for passenger cars only.

Seat Belts, Etc.

Seat Belt Use 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 improved annually until 1996, when a 6% drop occurred.



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 1993–1997 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 1993–1997, 83.3% of the children who were involved in crashes and restrained in a child seat sustained no injury.

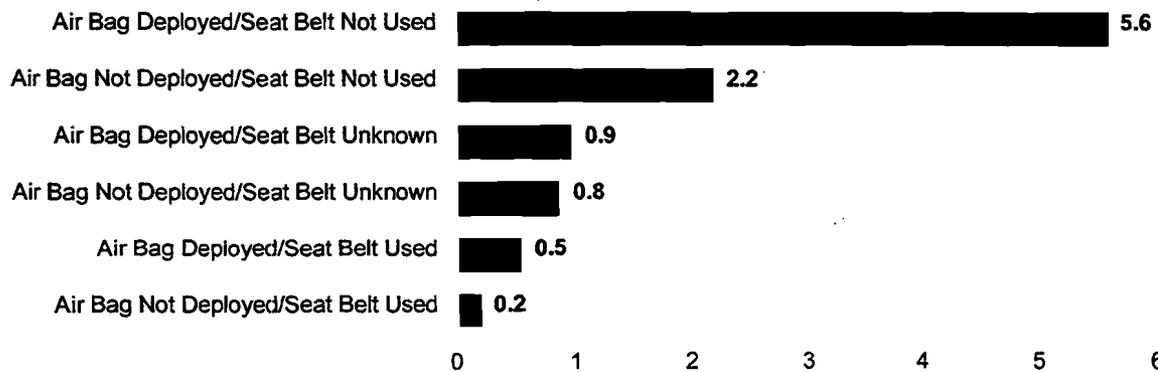
Child Restraint	Deaths	Injuries					Total Persons
		Major	Moderate	Minor	Unknown	No Injury	
Child Seat In Use	28 (0.1%)	79 (0.3%)	334 (1.1%)	3,085 (10.2%)	1,527 (5.0%)	25,232 (83.3%)	30,285
Child Seat Not In Use	6 (0.4%)	16 (1.2%)	39 (2.9%)	227 (16.8%)	159 (11.8%)	903 (66.9%)	1,350
Other Restraint In Use	12 (0.1%)	71 (0.5%)	279 (1.9%)	2,300 (16.0%)	565 (3.9%)	11,105 (77.5%)	14,332
Other Restraint Not In Use	40 (0.5%)	99 (1.4%)	305 (4.2%)	1,692 (23.2%)	847 (11.6%)	4,301 (59.0%)	7,284

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	1,091 (0.5%)	3,490 (1.7%)	11,536 (5.5%)	56,377 (26.8%)	8,170 (3.9%)	129,326 (61.6%)	209,990
Air Bag Deployed	Used	52 (0.3%)	316 (1.8%)	1,393 (7.9%)	7,258 (41.4%)	790 (4.5%)	7,723 (44.1%)	17,532
Air Bag Deployed	Not Used	94 (3.6%)	182 (6.9%)	398 (15.1%)	1,100 (41.9%)	154 (5.9%)	700 (26.6%)	2,628
Air Bag Deployed	Unknown	13 (0.6%)	76 (3.5%)	232 (10.6%)	789 (36.2%)	247 (11.3%)	823 (37.8%)	2,180
Air Bag Not Deployed	Used	22 (0.1%)	106 (0.4%)	574 (1.9%)	6,845 (22.8%)	957 (3.2%)	21,537 (71.7%)	30,041
Air Bag Not Deployed	Not Used	29 (1.2%)	67 (2.7%)	183 (7.5%)	824 (33.6%)	141 (5.8%)	1,207 (49.2%)	2,451
Air Bag Not Deployed	Unknown	11 (0.4%)	29 (1.2%)	91 (3.6%)	587 (23.4%)	181 (7.2%)	1,608 (64.1%)	2,507
Other	n/a	42 (0.1%)	252 (0.8%)	1,320 (3.9%)	7,809 (23.3%)	2,318 (6.9%)	21,731 (64.9%)	33,472

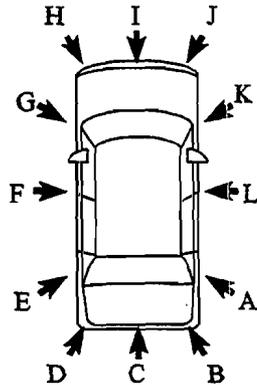
Deaths per 100 Crashes



Seat Belts, Etc.

Air Bag Deployment by Initial Vehicle Impact Point

Air bags are designed to deploy in frontal impacts. The table below shows the initial vehicle impact points for all 1997 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 566 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)	3,150	1,874	120 (22%)	434 (78%)	722
Right Rear (B)	6,393	3,755	164 (14%)	1,026 (86%)	1,448
Center Rear (C)	33,106	18,174	566 (8%)	6,371 (92%)	7,995
Left Rear (D)	6,047	3,623	155 (14%)	967 (86%)	1,302
Left Side Rear (E)	3,273	1,992	106 (18%)	475 (82%)	700
Left Side Center (F)	9,155	5,519	315 (20%)	1,257 (80%)	2,064
Left Side Forward (G)	8,075	4,531	474 (28%)	1,230 (72%)	1,840
Left Front (H)	35,753	20,738	3,743 (47%)	4,282 (53%)	6,990
Center Front (I)	74,993	41,182	9,984 (59%)	7,046 (41%)	16,781
Right Front (J)	35,651	20,382	3,486 (48%)	3,838 (52%)	7,945
Right Side Forward (K)	7,680	4,270	463 (30%)	1,082 (70%)	1,865
Right Side Center (L)	8,779	5,195	394 (25%)	1,159 (75%)	2,031
Other	8,726	4,446	402 (32%)	847 (68%)	3,031
None	1,545	1,266	5 (6%)	83 (94%)	191
TOTAL	242,326	136,947	20,377 (40%)	30,097 (60%)	54,905

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.)

Age Group	Deaths	Injuries					Total Persons
		Major	Moderate	Minor	Unknown	No Injury	
0-4	0 (0.0%)	0 (0.0%)	2 (8.0%)	7 (28.0%)	0 (0.0%)	16 (64.0%)	25
5-8	0 (0.0%)	1 (1.5%)	4 (6.1%)	30 (45.5%)	4 (6.1%)	27 (40.9%)	66
9-12	0 (0.0%)	2 (1.7%)	11 (9.4%)	57 (48.7%)	6 (5.1%)	41 (35.0%)	117
Used							
13-64	29 (0.2%)	245 (1.6%)	1,162 (7.5%)	6,342 (41.1%)	667 (4.3%)	7,000 (45.3%)	15,445
65-74	12 (1.0%)	43 (3.7%)	129 (11.2%)	494 (42.8%)	65 (5.6%)	411 (35.6%)	1,154
75+	11 (1.5%)	25 (3.4%)	85 (11.7%)	328 (45.2%)	48 (6.6%)	228 (31.4%)	725
Total	52 (0.3%)	316 (1.8%)	1,393 (7.9%)	7,258 (41.4%)	790 (4.5%)	7,723 (44.1%)	17,532
Not Used							
0-4	1 (14.3%)	0 (0.0%)	1 (14.3%)	4 (57.1%)	0 (0.0%)	1 (14.3%)	7
5-8	0 (0.0%)	1 (16.7%)	1 (16.7%)	0 (0.0%)	1 (16.7%)	3 (50.0%)	6
9-12	0 (0.0%)	0 (0.0%)	1 (16.7%)	4 (66.7%)	1 (16.7%)	0 (0.0%)	6
13-64	79 (3.3%)	167 (6.9%)	364 (15.0%)	1,014 (41.9%)	140 (5.8%)	655 (27.1%)	2,419
65-74	5 (5.3%)	6 (6.4%)	17 (18.1%)	35 (37.2%)	6 (6.4%)	25 (26.6%)	94
75+	9 (9.4%)	8 (8.3%)	14 (14.6%)	43 (44.8%)	6 (6.3%)	16 (16.7%)	96
Total	94 (3.6%)	182 (6.9%)	398 (15.1%)	1,100 (41.9%)	154 (5.9%)	700 (26.6%)	2,628

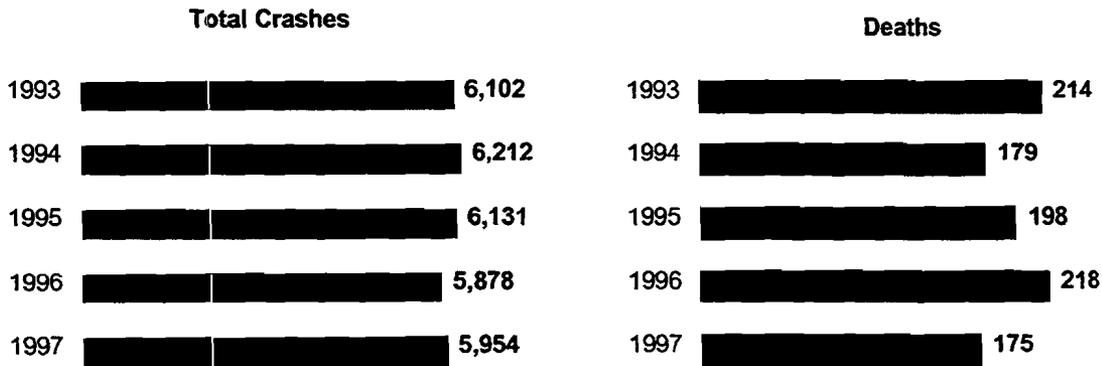
Pedestrian and Bicycle Crashes

Pedestrian and Bicycles Overview

- ▶ Pedestrian-related crashes represent 4.1% of the total reported traffic crashes; however, they account for 11.2% of all traffic crash deaths. (See also *Pennsylvania County Crashes*, pages 62, 63, and 68.)
- ▶ Bicycle crashes represent 1.7% of the total reported crashes and 1.1% of all traffic deaths. Although these percentages are small, they still represent 17 bicyclist deaths and 2,525 injuries in 1997.

Pedestrian Crashes—Five-Year Trends

The percent of reported crashes involving pedestrians decreased from 4.5% in 1992 to 4.1% in 1997. Pedestrian deaths have decreased this year, and in 1997 represented 11.2% of the total traffic deaths.



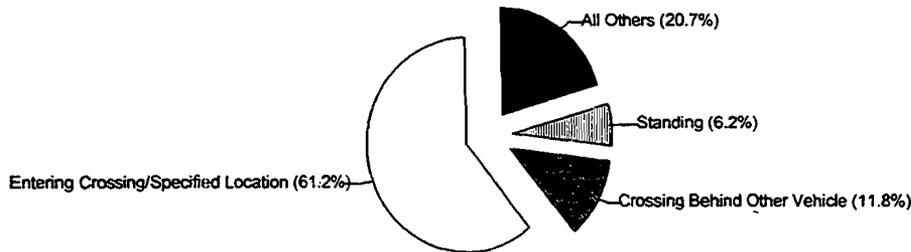
Year	Total Crashes	Deaths
1993	6,102	214
1994	6,212	179
1995	6,131	198
1996	5,878	218
1997	5,954	175

Peds & Bikes

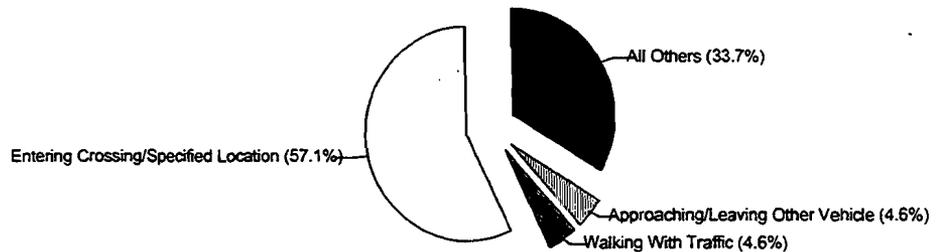
Pedestrian-Related Crashes

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 below under Pedestrian Actions, refers to vehicles other than school buses.

Top Crash-Related Pedestrian Actions



Top Fatal Pedestrian Actions

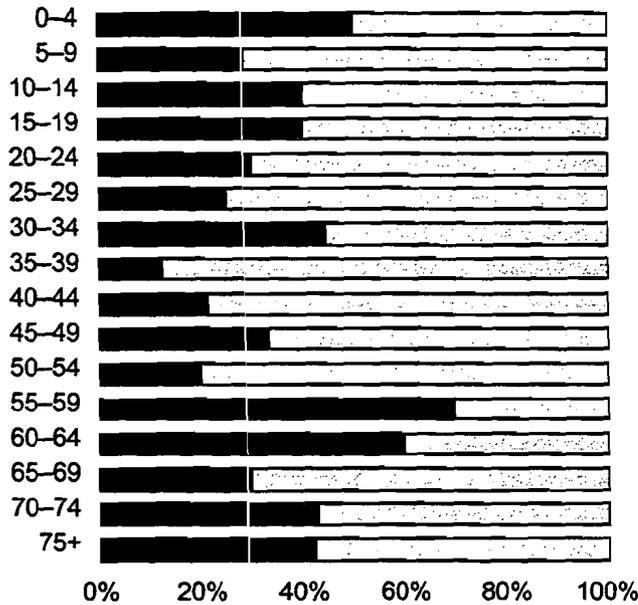


Peds & Bikes

Pedestrian Action	Deaths	Total Pedestrians Involved
Entering Crossing/Specified Location	100	3,825
Crossing Behind School Bus	0	5
Crossing Behind Other Vehicle	12	738
Walking With Traffic	8	166
Leaving/Returning to Disabled Vehicle	1	9
Walking Against Traffic	5	80
Approaching/Leaving School Bus	0	4
Approaching/Leaving Other Vehicle	8	171
Playing/Working on Vehicle	3	69
Other Working	0	111
Standing	10	389
Playing	6	116
Lying at Specific Location	5	26
Other/Unknown	17	536
TOTAL	175	6,245

Pedestrian Deaths by Age and Sex

There is a sharp increase in deaths with pedestrians aged 75 and over. Overall, male pedestrian deaths were 62% of all pedestrian deaths. *Note:* Pedestrians of unknown sex are not included in the numbers below.



Age Group	Female	Male	Total
0-4	3	3	6
5-9	4	10	14
10-14	4	6	10
15-19	2	3	5
20-24	3	7	10
25-29	2	6	8
30-34	4	5	9
35-39	1	7	8
40-44	3	11	14
45-49	3	6	9
50-54	1	4	5
55-59	7	3	10
60-64	6	4	10
65-69	3	7	10
70-74	6	8	14
75 and over	14	19	33
TOTAL	66	109	175

Female Male

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	63 (36.0%)	3,953 (65.7%)	26 (53.1%)	4,042 (64.7%)
Borough/Town	31 (17.7%)	936 (15.5%)	10 (20.4%)	977 (15.6%)
Township	80 (45.7%)	1,126 (18.7%)	13 (26.5%)	1,219 (19.5%)
Other	1 (0.6%)	6 (0.1%)	0 (0.0%)	7 (0.1%)
TOTAL	175 (100.0%)	6,021 (100.0%)	49 (100.0%)	6,245 (100.0%)

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



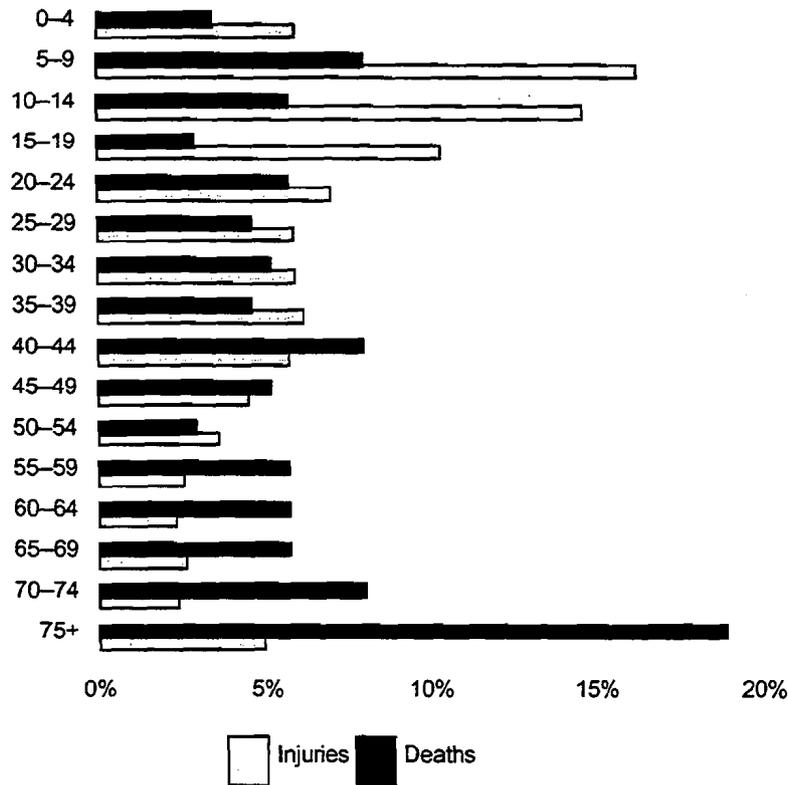
Pedestrian Deaths and Injuries by Age

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

Pedestrian Age	Deaths	Injuries
0-4	6 (3.4%)	341 (5.7%)
5-9	14 (8.0%)	948 (15.7%)
10-14	10 (5.7%)	853 (14.2%)
15-19	5 (2.9%)	600 (10.0%)
20-24	10 (5.7%)	408 (6.8%)
25-29	8 (4.6%)	340 (5.6%)
30-34	9 (5.1%)	341 (5.7%)
35-39	8 (4.6%)	358 (5.9%)
40-44	14 (8.0%)	333 (5.5%)
45-49	9 (5.1%)	257 (4.3%)
50-54	5 (2.9%)	208 (3.5%)
55-59	10 (5.7%)	146 (2.4%)
60-64	10 (5.7%)	131 (2.2%)
65-69	10 (5.7%)	148 (2.5%)
70-74	14 (8.0%)	136 (2.3%)
75 and over	33 (18.9%)	285 (4.7%)
Unknown	0 (0.0%)	188 (3.1%)
TOTAL	175 (100.0%)	6,021 (100.0%)

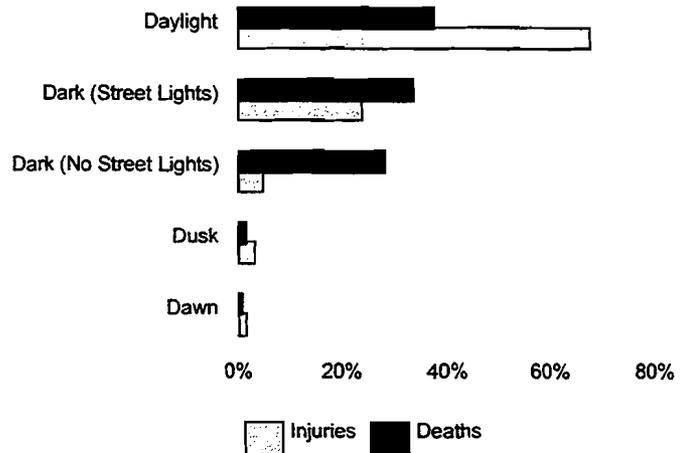
Note: The totals in the table do not include an additional 49 pedestrians who were not killed or injured.

Peds & Bikes



Pedestrian Deaths and Injuries by Light Level

The majority of pedestrians are injured in the daytime, but most pedestrian deaths occur after dark. As shown in the bar chart, pedestrians are more likely to be killed if struck in a night crash as compared to a day crash.

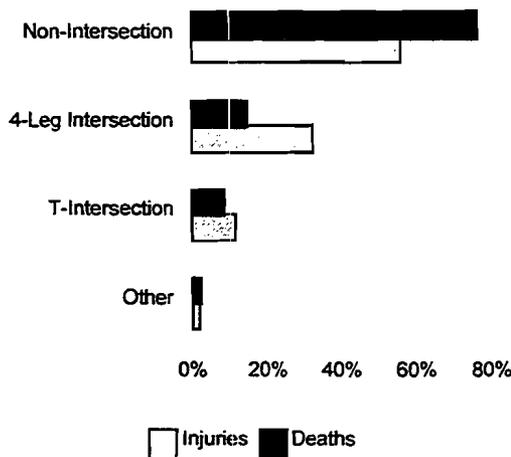


Light Level	Deaths	Injuries
Dawn	1 (0.6%)	68 (1.1%)
Daylight	65 (37.1%)	4,062 (67.5%)
Dark (Street Lights)	58 (33.1%)	1,428 (23.7%)
Dark (No Street Lights)	49 (28.0%)	269 (4.5%)
Dusk	2 (1.1%)	166 (2.8%)
Unknown	0 (0.0%)	28 (0.5%)
TOTAL	175 (100.0%)	6,021 (100.0%)

Note: The totals in the table do not include an additional 49 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-Intersection" as used below includes mid-block crossings, driveway crossings, etc.



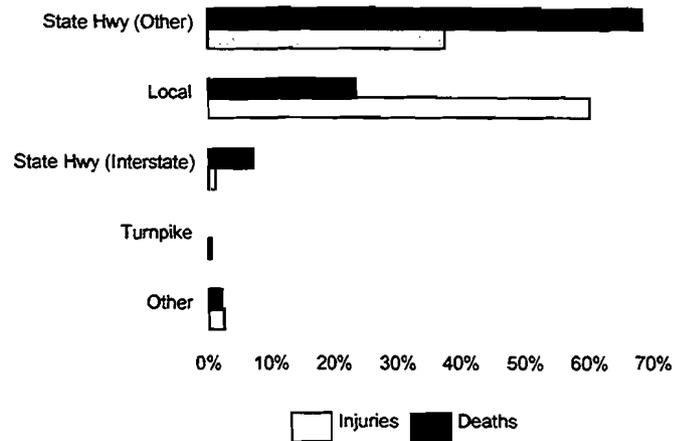
Intersection	Deaths	Injuries
Non-Intersection	133 (76.0%)	3,356 (55.7%)
4-Leg Intersection	25 (14.3%)	1,939 (32.2%)
T-Intersection	14 (8.0%)	646 (10.7%)
Other	3 (1.7%)	80 (1.3%)
TOTAL	175 (100.0%)	6,021 (100.0%)

Note: The totals in the table do not include an additional 49 pedestrians who were not killed or injured.

Peds & Bikes

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 49 pedestrians who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	119 (68.0%)	2,242 (37.2%)
Local	41 (23.4%)	3,598 (59.8%)
State Hwy (Interstate)	12 (6.9%)	53 (0.9%)
Turnpike	0 (0.0%)	14 (0.2%)
Other	3 (1.7%)	114 (1.9%)
TOTAL	175 (100.0%)	6,021 (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 large number of pedestrians injured at traffic signal intersections.

Peds & Bikes



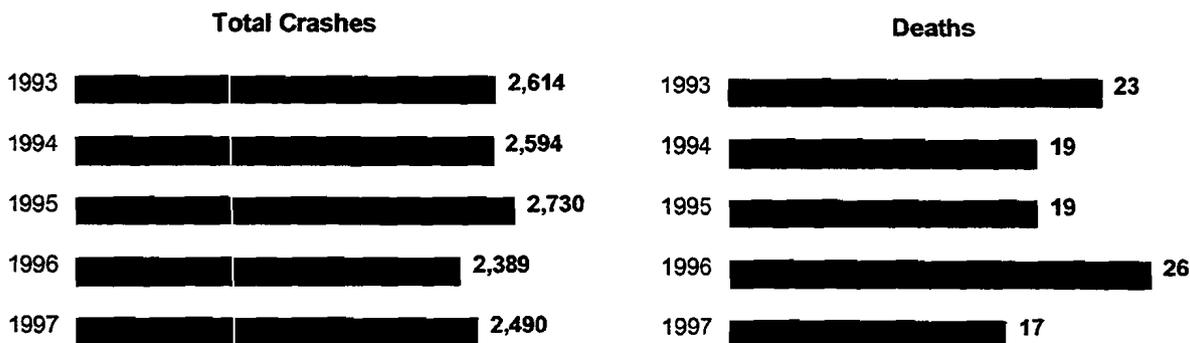
Note: "Traffic Control Device" relates to the TCD which was present for the motor vehicle immediately prior to striking the pedestrian. The totals in the table do not include an additional 49 pedestrians who were not killed or injured.

Traffic Control Device	Deaths	Injuries
Not Applicable	153 (87.4%)	4,034 (67.0%)
Flashing Traffic Signal	1 (0.6%)	17 (0.3%)
Traffic Signal	19 (10.9%)	1,316 (21.9%)
Stop Sign	1 (0.6%)	440 (7.3%)
Other/Unknown	1 (0.6%)	214 (3.6%)
TOTAL	175 (100.0%)	6,021 (100.0%)

Bicycle Crashes—Five-Year Trends

The total number of bicycle deaths in 1997 is the lowest in the last five years.

Year	Total Crashes	Deaths
1993	2,614	23
1994	2,594	19
1995	2,730	19
1996	2,389	26
1997	2,490	17



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	1 (5.9%)	17 (0.7%)
5-9	3 (17.6%)	474 (18.8%)
10-14	3 (17.6%)	805 (31.9%)
15-19	2 (11.8%)	398 (15.8%)
20-34	2 (11.8%)	438 (17.3%)
35-44	3 (17.6%)	213 (8.4%)
45-54	0 (0.0%)	77 (3.0%)
55-64	1 (5.9%)	32 (1.3%)
65-74	2 (11.8%)	11 (0.4%)
75+	0 (0.0%)	5 (0.2%)
Unknown	0 (0.0%)	55 (2.2%)
TOTAL	17 (100.0%)	2,525 (100.0%)

The totals in the table do not include an additional 35 bicyclists who were not killed or injured.



Bicycle Deaths and Injuries by Light Level

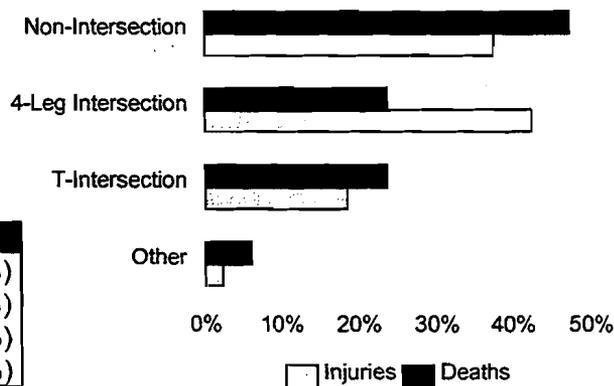
The majority of bicyclists are killed or injured during the day. The after dark deaths decreased from 10 in 1996 to 2 in 1997.

Light Level	Deaths	Injuries
Dawn	0 (0.0%)	14 (0.6%)
Daylight	15 (88.2%)	1,957 (77.5%)
Dark with Street Lights	2 (11.8%)	380 (15.0%)
Dark, No Street Lights	0 (0.0%)	52 (2.1%)
Dusk	0 (0.0%)	111 (4.4%)
Unknown	0 (0.0%)	11 (0.4%)
TOTAL	17 (100.0%)	2,525 (100.0%)

Note: The totals in the table do not include an additional 35 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Intersection

The majority of bicyclists are injured at intersections, while deaths are more evenly split between intersection and non-intersection crashes.



Intersection	Deaths	Injuries
Non-Intersection	8 (47.1%)	944 (37.4%)
4-Leg Intersection	4 (23.5%)	1,066 (42.2%)
T-Intersection	4 (23.5%)	466 (18.5%)
Other	1 (5.9%)	49 (1.9%)
TOTAL	17 (100.0%)	2,525 (100.0%)

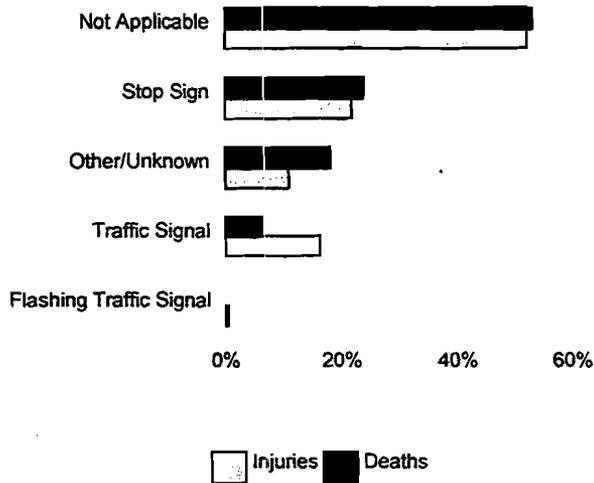
Note: The totals in the table do not include an additional 35 bicyclists who were not killed or injured.

Peds & Bikes

Bicycle Deaths and Injuries by Traffic Control Device

The proportion of deaths to injuries was roughly equal for all types of traffic control device (TCD).

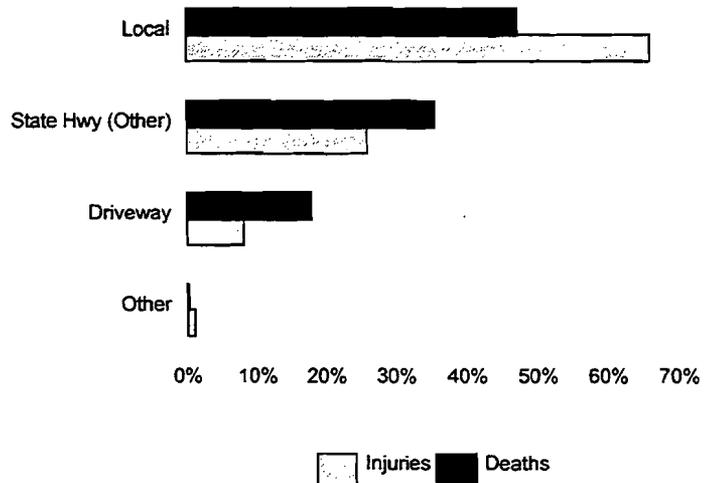
Traffic Control Device	Deaths	Injuries
Not Applicable	9 (52.9%)	1,309 (51.8%)
Stop Sign	4 (23.5%)	539 (21.3%)
Traffic Signal	1 (5.9%)	407 (16.1%)
Flashing Traffic Signal	0 (0.0%)	6 (0.2%)
Other	3 (17.6%)	221 (8.8%)
Unknown	0 (0.0%)	43 (1.7%)
TOTAL	17 (100.0%)	2,525 (100.0%)



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 35 bicyclists who were not killed or injured.

Bicycle Deaths and Injuries by Road Type

Almost half 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 35 bicyclists who were not killed or injured.

Road Type	Deaths	Injuries
State Hwy (Other)	6 (35.3%)	646 (25.6%)
Local	8 (47.1%)	1,663 (65.9%)
Driveway	3 (17.6%)	197 (7.8%)
Other	0 (0.0%)	19 (0.8%)
TOTAL	17 (100.00%)	2,525 (100.0%)

Pedestrian & Bikes

Crashes by Motor Vehicle Type

Vehicle Crashes by Vehicle Types

	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Passenger Car	72.1%	82.4%	79.0%	81.1%
	1,023 crashes	74,457 crashes	41,222 crashes	116,702 crashes
Light Truck	39.0%	36.1%	38.1%	36.8%
	553 crashes	32,587 crashes	19,884 crashes	53,024 crashes
Heavy Truck	13.3%	4.6%	6.0%	5.2%
	188 crashes	4,198 crashes	3,144 crashes	7,530 crashes
Bicycle	1.2%	2.7%	0.0%	1.7%
	17 crashes	2,467 crashes	6 crashes	2,490 crashes
Motorcycle	6.5%	2.4%	0.2%	1.7%
	92 crashes	2,208 crashes	123 crashes	2,423 crashes
School Bus	0.4%	0.4%	0.4%	0.4%
	5 crashes	363 crashes	204 crashes	572 crashes
Commercial Bus	0.6%	0.6%	0.3%	0.5%
	9 crashes	520 crashes	132 crashes	661 crashes
Other	2.5%	2.8%	1.1%	2.2%
	35 crashes	2,519 crashes	576 crashes	3,130 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 72.1% of all fatal crashes). Percentage totals exceed 100% due to multiple vehicle crashes.

Vehicle Crashes—Single Vehicles Hitting Fixed Objects

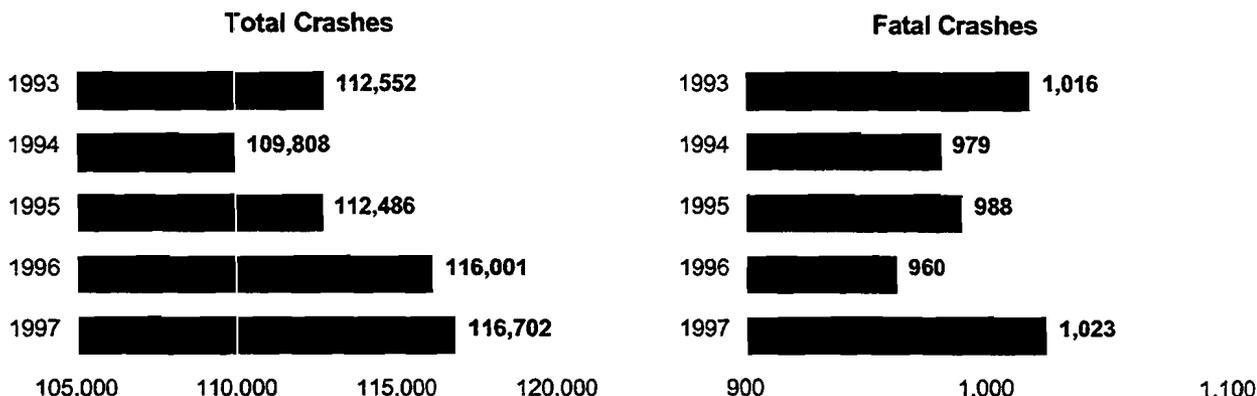
Crashes in Which a Single Vehicle Hit a Fixed Object:	45,836	Passenger Car	31,898	69.6%
		Light Truck	12,113	26.4%
		Heavy Truck	995	2.2%
		Motorcycle	484	1.1%
		School Bus	27	0.1%
		Commercial Bus	31	0.1%
		Other	288	0.6%

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	34,991	12,641	1,695	288	1,054	203	198	347	51,417	
Light Truck	11,506	4,444	689	85	293	71	69	98	17,255	
Heavy Truck	1,535	506	295	6	9	10	10	17	2,388	
Motorcycle	493	177	18	33	11	1	2	8	743	
Bicycle	645	211	12	1	0	3	6	25	903	
School Bus	100	33	6	0	2	7	2	2	152	
Commercial Bus	131	25	10	0	17	1	8	4	196	
Other/Unknown	904	176	12	16	147	3	8	35	1,301	

Passenger Car Crashes—Five-Year Trends

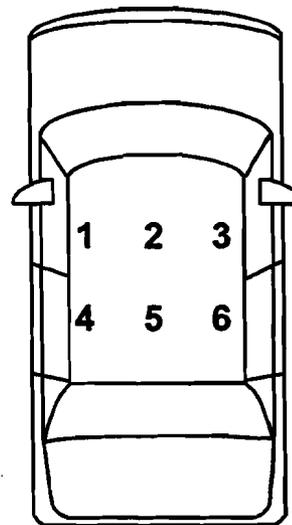
Total passenger car crashes have increased over the last three years, and fatal crashes in 1997 were the most in five years.



Passenger Car Deaths by Seating Position

In 1997, 62% of crash deaths involved passenger car occupants. The table below depicts the passenger car deaths in 1997 by seating position, excluding any pedestrians involved.

Total Deaths 965	Total Passengers 289 (29.9%)	Drivers	1 →
		660 (68.4%)	
		Center Front	2 →
		2 (0.2%)	
		Right Front	3 →
		218 (22.6%)	
		Left Rear	4 →
23 (2.4%)			
Center Rear	5 →		
12 (1.2%)			
Right Rear	6 →		
34 (3.5%)			
	Others		
	16 (1.7%)		

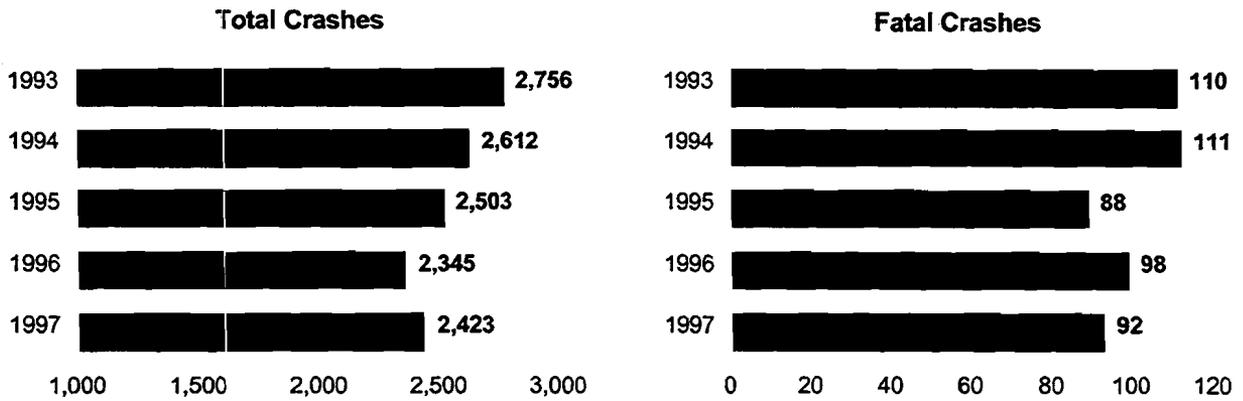


Crashes by Vehicle

“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

Total motorcycle crashes have declined steadily until 1997. Fatal crashes have been declining for the last five years with the exception of 1995.



Year	Deaths
1993	113
1994	112
1995	85
1996	98
1997	92
TOTAL	500

Motorcycle Deaths—Five-Year Trend

Of the 92 deaths in 1997 involving motorcycle drivers or passengers:

- ▶ 83 (90.2%) were drivers
- ▶ 9 (9.8%) were passengers

Motorcycle Helmet Use in Crashes

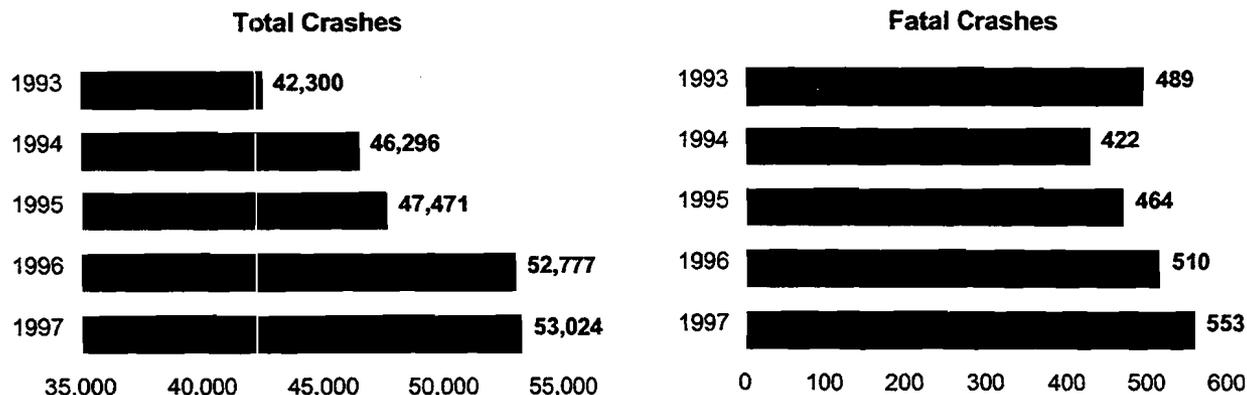
The table below shows injury severities of motorcycle riders (driver or passenger) by helmet usage.

	Deaths	Injuries	Not Injured	Total Motorcyclists
Helmets	73 (79.3%)	1,657 (66.9%)	175 (61.8%)	1,905 (66.8%)
No Helmets	8 (8.7%)	413 (16.7%)	48 (17.0%)	469 (16.4%)
Unknown	11 (12.0%)	408 (16.5%)	60 (21.2%)	479 (16.8%)
TOTAL	92 (100.0%)	2,478 (100.0%)	283 (100.0%)	2,853 (100.0%)

Crashes by Vehicle

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 1997 were 25% higher than in 1993; fatal crashes were 13% higher than in 1993.



Light Truck Rollovers Compared to Passenger Cars

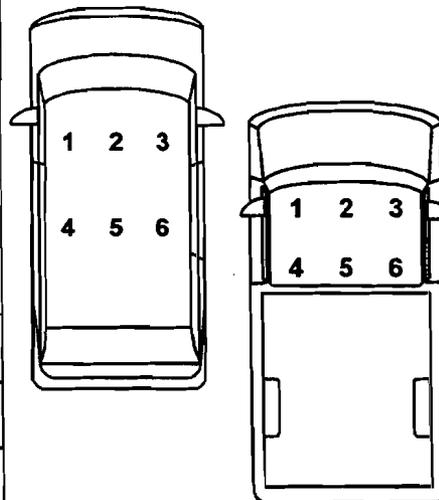
- ▶ The percentage of 1997 light truck crashes were much higher than passenger cars in crashes involving rollovers (8.3% of all light truck crashes compared to 5.2% of all passenger car crashes).
- ▶ In 1997 rollover crashes, the percentage of light truck deaths was more than twice as high as passenger car deaths (44.6% of deaths compared to 20.2%, excluding any pedestrians).

	Rollover Crashes	Rollover Deaths
Light Trucks	4,421 (8.3%)	120 (44.6%)
Passenger Cars	6,092 (5.2%)	195 (20.2%)

Light Truck Deaths by Seating Position

In 1997, 17% of crash deaths involved occupants in light trucks (jeeps, pickups, vans, sport utility vehicles, etc.). The table below depicts light truck deaths in 1997 by seating position, excluding any pedestrians involved, but including others who were riding on the vehicles in unusual positions.

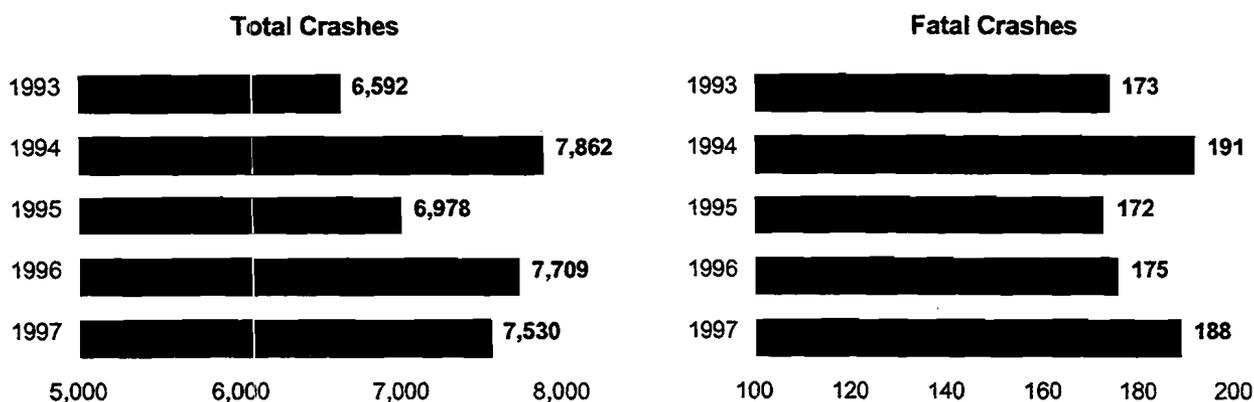
	Drivers	1 →
	194 (72.1%)	
	Center Front	2 →
	2 (0.7%)	
	Right Front	3 →
	39 (14.5%)	
	Left Rear	4 →
	9 (3.3%)	
	Center Rear	5 →
3 (1.1%)		
Right Rear	6 →	
4 (1.5%)		
Truck Bed or Vehicle Exterior		
10 (3.7%)		
Towed Unit/Other		
8 (3.0%)		
Total Deaths	269	
Total Passengers	57 (21.2%)	



Crashes by Vehicle

Heavy Truck Crashes—Five-Year Trends

Fatal crashes involving heavy trucks in 1997 were the second 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 brakes, tires and wheels, and engine failures. *Note:* 1997 data uses primary contributing factors.

Vehicle Defect	Crashes
Brake-Related	120
Tire/Wheel-Related	94
Engine Failure	64
Total Steering System Failure	19
Transmission Problem	17
Suspension	5
Vehicle Lighting-Related	4
Dirty/Frosty Windshield	2
Exhaust System Failure	0
Defective Defrosting	0
Defective Wipers	0

Crashes by
Vehicle

Heavy Truck Crashes by Road Type

Road Type	Crashes	Occupant Deaths
State Hwy (Interstate)	1,613 (21.4%)	12 (37.5%)
State Hwy (Other)	4,338 (57.6%)	13 (40.6%)
Turnpike	418 (5.6%)	5 (15.6%)
Local Road	942 (12.5%)	1 (3.1%)
Ramp	219 (2.9%)	1 (3.1%)
TOTAL	7,530 (100.0%)	32 (100.0%)

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

Hazardous Material Crashes by Road Type

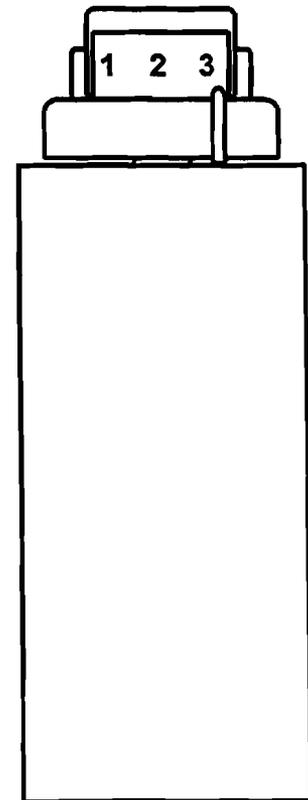
Road Type	Crashes	HazMat Released
State Hwy (Interstate)	49 (22.9%)	15 (26.8%)
State Hwy (Other)	128 (59.8%)	33 (58.9%)
Turnpike	9 (4.2%)	1 (1.8%)
Local Road	23 (10.7%)	4 (7.1%)
Ramp	5 (2.3%)	3 (5.4%)
TOTAL	214 (100.0%)	56 (100.0%)

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

Heavy Truck Deaths by Seating Position

In 1997, 2.0% of crash deaths involved heavy truck occupants. The table below depicts the heavy truck deaths in 1997 by seating position, excluding any pedestrians involved.

Total Deaths 31 	Drivers	1 →
	30 (96.8%)	
	Total Passengers	Center Front 2 →
	0 (0.0%)	Right Front 3 →
	0 (0.0%)	0 (0.0%)
	Others	1 (3.2%)



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

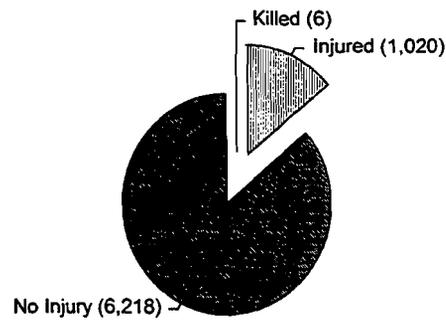
Crashes by Vehicle

School Bus Crashes

Of the more than 7,000 persons involved in school bus crashes in 1997, only 6 were killed. Over 85% 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.

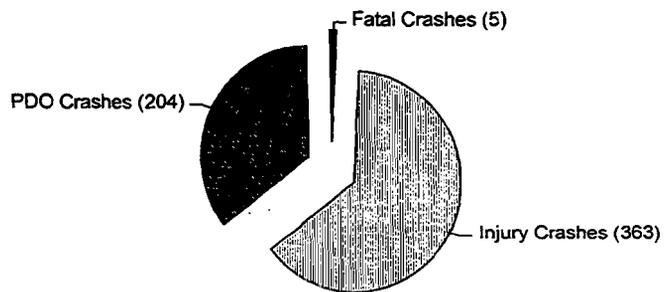
Total persons involved: 7,244

Persons Involved



The majority (63%) of school bus crashes in 1997 were injury crashes. However, as the pie chart above shows, most persons involved in school bus crashes suffer no injuries at all.

Total Crashes



School Bus Crashes by Road Type

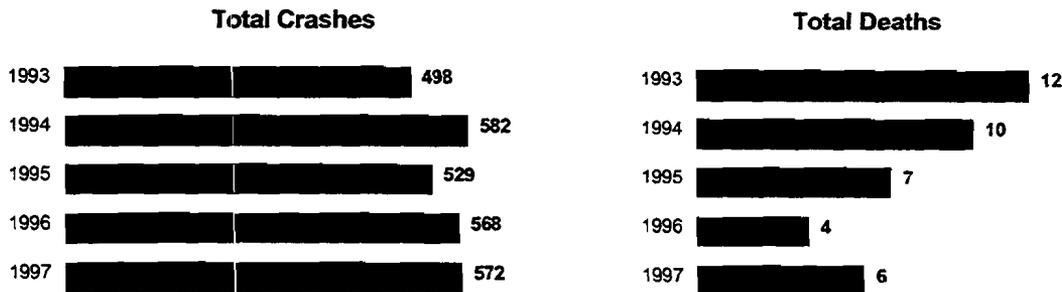
Road Type	Crashes	Percentage
State Hwy (Interstate)	13	2.3%
State Hwy (Other)	353	61.7%
Tumpike	0	0.0%
Local Road	202	35.3%
Ramp	4	0.7%
TOTAL	572	100.0%

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

Crashes by Vehicle

School Bus Crashes—Five-Year Trends

The total number of school bus crashes has fluctuated over the past five years, as have injury and property damage only (PDO) crashes. School bus related deaths are 0.3% of total fatalities in 1997. Most of the persons killed were not school bus passengers at the time of the crash.



Year	Crash Severity				Deaths	Injuries
	Fatal	Injury	PDO	Total		
1993	11	324	163	498	12	936
1994	7	383	192	582	10	1,113
1995	7	344	178	529	7	992
1996	4	374	190	568	4	1,212
1997	5	363	204	572	6	1,020
TOTAL	34	1,788	927	2,749	39	5,273

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
1993	0	1	1	1	9	0	12
1994	0	0	0	1	8	1	10
1995	0	0	1	1	5	0	7
1996	0	0	3	0	1	0	4
1997	0	0	0	1	5	0	6
TOTAL	0	1	5	4	28	1	39

INJURIES							
Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Driver/ Passenger of Other Vehicle	Other/ Unknown	Total Injuries
1993	67	561	7	11	274	14	934
1994	86	650	12	4	354	10	1,116
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
TOTAL	363	3,252	43	38	1,526	51	5,273

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 1997, Pennsylvania's total population was 12,019,661 people.

The ten most populated counties were:

Philadelphia (12.1%)	Allegheny (10.7%)	Montgomery (5.9%)
Bucks (4.8%)	Delaware (4.5%)	Lancaster (3.8%)
Chester (3.5%)	Westmoreland (3.1%)	York (3.1%)
Berks (2.9%)	<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 (0.17%)	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 (2.93%)	York (2.86%)
Lancaster (2.78%)	Washington (2.72%)	Chester (2.65%)
Bucks (2.40%)	Crawford (2.27%)	Bradford (2.25%)
Berks (2.22%)		

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

Allegheny (5.98%)	Lancaster (3.51%)	Montgomery (3.43%)
York (3.30%)	Westmoreland (3.12%)	Berks (3.02%)
Bucks (2.99%)	Chester (2.90%)	Philadelphia (2.77%)
Erie (2.32%)		

The ten counties with the most reported traffic crashes were:

Philadelphia (9.7%)	Allegheny (9.7%)	Montgomery (6.8%)
Bucks (5.2%)	Lancaster (3.9%)	Delaware (3.9%)
Chester (3.6%)	Berks (3.6%)	York (3.2%)
Lehigh (3.1%)	<i>See page 59.</i>	

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

Philadelphia (9.6%)	Allegheny (5.4%)	Lancaster (4.2%)
Montgomery (4.2%)	Bucks (4.1%)	Berks (3.8%)
Chester (3.3%)	Westmoreland (3.3%)	Luzerne (2.9%)
York (2.8%)	<i>See page 61.</i>	

Counties

*Information provided by PennDOT's Bureau of Planning and Research, Performance Monitoring Division.

Pennsylvania Crashes by County

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

County	Population	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Adams	85,754 (0.7%)	15 (1.1%)	552 (0.6%)	410 (0.8%)	977 (0.7%)
Allegheny	1,280,624 (10.7%)	79 (5.6%)	8,597 (9.5%)	5,227 (10.0%)	13,903 (9.7%)
Armstrong	73,572 (0.6%)	14 (1.0%)	475 (0.5%)	275 (0.5%)	764 (0.5%)
Beaver	185,682 (1.5%)	15 (1.1%)	1,162 (1.3%)	775 (1.5%)	1,952 (1.4%)
Bedford	49,253 (0.4%)	11 (0.8%)	422 (0.5%)	314 (0.6%)	747 (0.5%)
Berks	354,057 (2.9%)	52 (3.7%)	2,993 (3.3%)	2,150 (4.1%)	5,195 (3.6%)
Blair	130,923 (1.1%)	17 (1.2%)	1,113 (1.2%)	731 (1.4%)	1,861 (1.3%)
Bradford	62,292 (0.5%)	10 (0.7%)	424 (0.5%)	247 (0.5%)	681 (0.5%)
Bucks	582,633 (4.8%)	61 (4.3%)	4,562 (5.0%)	2,823 (5.4%)	7,446 (5.2%)
Butler	169,197 (1.4%)	22 (1.6%)	1,309 (1.4%)	840 (1.6%)	2,171 (1.5%)
Cambria	157,419 (1.3%)	13 (0.9%)	992 (1.1%)	586 (1.1%)	1,591 (1.1%)
Cameron	5,719 (0.0%)	2 (0.1%)	35 (0.0%)	28 (0.1%)	65 (0.0%)
Carbon	58,844 (0.5%)	15 (1.1%)	459 (0.5%)	328 (0.6%)	802 (0.6%)
Centre	132,993 (1.1%)	23 (1.6%)	853 (0.9%)	568 (1.1%)	1,444 (1.0%)
Chester	416,541 (3.5%)	47 (3.3%)	2,926 (3.2%)	2,239 (4.3%)	5,212 (3.6%)
Clanton	41,820 (0.3%)	9 (0.6%)	386 (0.4%)	237 (0.5%)	632 (0.4%)
Clearfield	80,656 (0.7%)	25 (1.8%)	617 (0.7%)	447 (0.9%)	1,089 (0.8%)
Clinton	36,885 (0.3%)	9 (0.6%)	287 (0.3%)	201 (0.4%)	497 (0.3%)
Columbia	64,230 (0.5%)	4 (0.3%)	464 (0.5%)	301 (0.6%)	769 (0.5%)
Crawford	89,322 (0.7%)	14 (1.0%)	695 (0.8%)	414 (0.8%)	1,123 (0.8%)
Cumberland	207,852 (1.7%)	19 (1.3%)	1,464 (1.6%)	1,045 (2.0%)	2,528 (1.8%)
Dauphin	245,793 (2.0%)	26 (1.8%)	1,858 (2.1%)	1,320 (2.5%)	3,204 (2.2%)
Delaware	543,010 (4.5%)	36 (2.5%)	3,639 (4.0%)	1,887 (3.6%)	5,562 (3.9%)
Elk	34,911 (0.3%)	9 (0.6%)	278 (0.3%)	136 (0.3%)	423 (0.3%)
Erie	279,401 (2.3%)	35 (2.5%)	2,320 (2.6%)	1,119 (2.1%)	3,474 (2.4%)
Fayette	145,036 (1.2%)	24 (1.7%)	1,031 (1.1%)	543 (1.0%)	1,598 (1.1%)
Forest	4,910 (0.0%)	2 (0.1%)	61 (0.1%)	34 (0.1%)	97 (0.1%)
Franklin	127,373 (1.1%)	21 (1.5%)	961 (1.1%)	684 (1.3%)	1,666 (1.2%)
Fulton	14,457 (0.1%)	7 (0.5%)	186 (0.2%)	123 (0.2%)	316 (0.2%)
Greene	42,210 (0.4%)	5 (0.4%)	268 (0.3%)	207 (0.4%)	480 (0.3%)
Huntingdon	45,172 (0.4%)	5 (0.4%)	312 (0.3%)	203 (0.4%)	520 (0.4%)
Indiana	89,182 (0.7%)	21 (1.5%)	661 (0.7%)	390 (0.7%)	1,072 (0.7%)
Jefferson	46,567 (0.4%)	6 (0.4%)	379 (0.4%)	187 (0.4%)	572 (0.4%)
Juniata	21,898 (0.2%)	7 (0.5%)	161 (0.2%)	98 (0.2%)	266 (0.2%)
Lackawanna	210,464 (1.8%)	17 (1.2%)	1,623 (1.8%)	1,032 (2.0%)	2,672 (1.9%)
Lancaster	454,063 (3.8%)	62 (4.4%)	3,479 (3.8%)	2,113 (4.0%)	5,654 (3.9%)
Lawrence	95,442 (0.8%)	13 (0.9%)	729 (0.8%)	392 (0.8%)	1,134 (0.8%)
Lebanon	117,216 (1.0%)	13 (0.9%)	944 (1.0%)	584 (1.1%)	1,541 (1.1%)
Lehigh	297,703 (2.5%)	36 (2.5%)	2,755 (3.0%)	1,718 (3.3%)	4,509 (3.1%)
Luzerne	317,560 (2.6%)	44 (3.1%)	2,569 (2.8%)	1,340 (2.6%)	3,953 (2.7%)
Lycoming	118,405 (1.0%)	16 (1.1%)	757 (0.8%)	591 (1.1%)	1,364 (0.9%)
McKean	46,806 (0.4%)	7 (0.5%)	275 (0.3%)	186 (0.4%)	468 (0.3%)
Mercer	122,045 (1.0%)	20 (1.4%)	972 (1.1%)	678 (1.3%)	1,670 (1.2%)
Mifflin	47,176 (0.4%)	8 (0.6%)	272 (0.3%)	149 (0.3%)	429 (0.3%)
Monroe	122,531 (1.0%)	24 (1.7%)	1,300 (1.4%)	910 (1.7%)	2,234 (1.6%)
Montgomery	712,466 (5.9%)	53 (3.7%)	6,227 (6.9%)	3,471 (6.7%)	9,751 (6.8%)
Montour	17,971 (0.1%)	2 (0.1%)	123 (0.1%)	101 (0.2%)	226 (0.2%)
Northampton	257,289 (2.1%)	24 (1.7%)	1,993 (2.2%)	1,226 (2.3%)	3,243 (2.3%)
Northumberland	95,100 (0.8%)	15 (1.1%)	526 (0.6%)	337 (0.6%)	878 (0.6%)
Perry	44,164 (0.4%)	9 (0.6%)	323 (0.4%)	289 (0.6%)	621 (0.4%)
Philadelphia	1,451,372 (12.1%)	138 (9.7%)	11,410 (12.6%)	2,380 (4.6%)	13,928 (9.7%)
Pike	39,108 (0.3%)	6 (0.4%)	309 (0.3%)	220 (0.4%)	535 (0.4%)
Potter	17,160 (0.1%)	5 (0.4%)	100 (0.1%)	60 (0.1%)	165 (0.1%)
Schuylkill	151,256 (1.3%)	33 (2.3%)	1,058 (1.2%)	708 (1.4%)	1,799 (1.2%)
Snyder	38,279 (0.3%)	7 (0.5%)	256 (0.3%)	169 (0.3%)	432 (0.3%)
Somerset	80,255 (0.7%)	12 (0.8%)	551 (0.6%)	428 (0.8%)	991 (0.7%)
Sullivan	6,103 (0.1%)	2 (0.1%)	49 (0.1%)	40 (0.1%)	91 (0.1%)
Susquehanna	42,085 (0.4%)	9 (0.6%)	354 (0.4%)	239 (0.5%)	602 (0.4%)
Tioga	41,613 (0.3%)	7 (0.5%)	275 (0.3%)	192 (0.4%)	474 (0.3%)
Union	41,774 (0.3%)	7 (0.5%)	215 (0.2%)	159 (0.3%)	381 (0.3%)
Venango	58,067 (0.5%)	13 (0.9%)	464 (0.5%)	278 (0.5%)	755 (0.5%)
Warren	44,228 (0.4%)	6 (0.4%)	298 (0.3%)	220 (0.4%)	524 (0.4%)
Washington	205,807 (1.7%)	30 (2.1%)	1,333 (1.5%)	979 (1.9%)	2,342 (1.6%)
Wayne	45,387 (0.4%)	9 (0.6%)	392 (0.4%)	254 (0.5%)	655 (0.5%)
Westmoreland	374,673 (3.1%)	48 (3.4%)	2,531 (2.8%)	1,670 (3.2%)	4,249 (3.0%)
Wyoming	29,387 (0.2%)	5 (0.4%)	217 (0.2%)	143 (0.3%)	365 (0.3%)
York	370,518 (3.1%)	38 (2.7%)	2,793 (3.1%)	1,816 (3.5%)	4,647 (3.2%)
TOTALS	12,019,661 (100.0%)	1,418 (100.0%)	90,374 (100.0%)	52,189 (100.0%)	143,981 (100.0%)

Counties

Crashes by County—Five-Year Trends

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

County	1993 Crashes	1994 Crashes	1995 Crashes	1996 Crashes	1997 Crashes
Adams	949 (0.7%)	974 (0.7%)	997 (0.7%)	908 (0.6%)	977 (0.7%)
Allegheny	13,365 (10.0%)	12,803 (9.5%)	12,969 (9.5%)	13,818 (9.7%)	13,903 (9.7%)
Armstrong	706 (0.5%)	685 (0.5%)	731 (0.5%)	769 (0.5%)	764 (0.5%)
Beaver	1,780 (1.3%)	1,853 (1.4%)	1,948 (1.4%)	1,816 (1.3%)	1,952 (1.4%)
Bedford	637 (0.5%)	682 (0.5%)	712 (0.5%)	709 (0.5%)	747 (0.5%)
Berks	4,788 (3.6%)	4,782 (3.6%)	4,784 (3.5%)	5,051 (3.5%)	5,195 (3.6%)
Blair	1,735 (1.3%)	1,733 (1.3%)	1,612 (1.2%)	1,764 (1.2%)	1,861 (1.3%)
Bradford	637 (0.5%)	619 (0.5%)	651 (0.5%)	713 (0.5%)	681 (0.5%)
Bucks	6,872 (5.1%)	7,034 (5.2%)	7,041 (5.1%)	7,515 (5.3%)	7,446 (5.2%)
Butler	1,931 (1.4%)	2,009 (1.5%)	2,078 (1.5%)	1,923 (1.3%)	2,171 (1.5%)
Cambria	1,543 (1.1%)	1,464 (1.1%)	1,545 (1.1%)	1,481 (1.0%)	1,591 (1.1%)
Cameron	63 (0.0%)	66 (0.0%)	76 (0.1%)	75 (0.1%)	65 (0.0%)
Carbon	765 (0.6%)	720 (0.5%)	787 (0.6%)	772 (0.5%)	802 (0.6%)
Centre	1,237 (0.9%)	1,333 (1.0%)	1,393 (1.0%)	1,508 (1.1%)	1,444 (1.0%)
Chester	4,775 (3.6%)	5,072 (3.8%)	4,788 (3.5%)	5,109 (3.6%)	5,212 (3.6%)
Clarion	577 (0.4%)	536 (0.4%)	535 (0.4%)	598 (0.4%)	632 (0.4%)
Clearfield	980 (0.7%)	1,023 (0.8%)	1,041 (0.8%)	1,041 (0.7%)	1,089 (0.8%)
Clinton	477 (0.4%)	470 (0.4%)	437 (0.3%)	437 (0.3%)	497 (0.3%)
Columbia	708 (0.5%)	720 (0.5%)	711 (0.5%)	756 (0.5%)	769 (0.5%)
Crawford	1,081 (0.8%)	1,073 (0.8%)	1,180 (0.9%)	1,118 (0.8%)	1,123 (0.8%)
Cumberland	2,451 (1.8%)	2,546 (1.9%)	2,415 (1.8%)	2,605 (1.8%)	2,528 (1.8%)
Dauphin	3,118 (2.3%)	3,051 (2.3%)	3,118 (2.3%)	3,197 (2.2%)	3,204 (2.2%)
Delaware	5,411 (4.0%)	5,249 (3.9%)	5,267 (3.9%)	5,419 (3.8%)	5,562 (3.9%)
Elk	430 (0.3%)	405 (0.3%)	468 (0.3%)	380 (0.3%)	423 (0.3%)
Erie	3,348 (2.5%)	3,403 (2.5%)	3,414 (2.5%)	3,635 (2.5%)	3,474 (2.4%)
Fayette	1,595 (1.2%)	1,510 (1.1%)	1,496 (1.1%)	1,593 (1.1%)	1,598 (1.1%)
Forest	87 (0.1%)	86 (0.1%)	75 (0.1%)	83 (0.1%)	97 (0.1%)
Franklin	1,635 (1.2%)	1,685 (1.3%)	1,626 (1.2%)	1,654 (1.2%)	1,666 (1.2%)
Fulton	281 (0.2%)	273 (0.2%)	283 (0.2%)	303 (0.2%)	316 (0.2%)
Greene	474 (0.4%)	470 (0.4%)	444 (0.3%)	425 (0.3%)	480 (0.3%)
Huntingdon	451 (0.3%)	439 (0.3%)	463 (0.3%)	487 (0.3%)	520 (0.4%)
Indiana	938 (0.7%)	954 (0.7%)	953 (0.7%)	1,034 (0.7%)	1,072 (0.7%)
Jefferson	547 (0.4%)	507 (0.4%)	515 (0.4%)	600 (0.4%)	572 (0.4%)
Juniata	213 (0.2%)	222 (0.2%)	229 (0.2%)	267 (0.2%)	266 (0.2%)
Lackawanna	2,088 (1.6%)	1,814 (1.4%)	2,271 (1.7%)	2,642 (1.8%)	2,672 (1.9%)
Lancaster	5,136 (3.8%)	5,360 (4.0%)	5,242 (3.8%)	5,662 (4.0%)	5,654 (3.9%)
Lawrence	1,083 (0.8%)	985 (0.7%)	1,033 (0.8%)	1,113 (0.8%)	1,134 (0.8%)
Lebanon	1,398 (1.0%)	1,398 (1.0%)	1,401 (1.0%)	1,419 (1.0%)	1,541 (1.1%)
Lehigh	4,076 (3.0%)	4,217 (3.1%)	4,264 (3.1%)	4,495 (3.1%)	4,509 (3.1%)
Luzerne	3,734 (2.8%)	3,678 (2.7%)	3,832 (2.8%)	3,862 (2.7%)	3,953 (2.7%)
Lycoming	1,356 (1.0%)	1,314 (1.0%)	1,312 (1.0%)	1,398 (1.0%)	1,364 (0.9%)
McKean	513 (0.4%)	481 (0.4%)	531 (0.4%)	459 (0.3%)	468 (0.3%)
Mercer	1,508 (1.1%)	1,557 (1.2%)	1,653 (1.2%)	1,655 (1.2%)	1,670 (1.2%)
Mifflin	473 (0.4%)	439 (0.3%)	427 (0.3%)	452 (0.3%)	429 (0.3%)
Monroe	1,917 (1.4%)	1,927 (1.4%)	1,910 (1.4%)	2,234 (1.5%)	2,234 (1.6%)
Montgomery	9,215 (6.9%)	9,330 (7.0%)	9,413 (6.9%)	9,873 (6.9%)	9,751 (6.8%)
Montour	212 (0.2%)	209 (0.2%)	213 (0.2%)	214 (0.1%)	226 (0.2%)
Northampton	2,829 (2.1%)	2,975 (2.2%)	2,943 (2.2%)	3,220 (2.3%)	3,243 (2.3%)
Northumberland	840 (0.6%)	861 (0.6%)	839 (0.6%)	826 (0.6%)	878 (0.6%)
Perry	510 (0.4%)	521 (0.4%)	560 (0.4%)	581 (0.4%)	621 (0.4%)
Philadelphia	12,638 (9.4%)	12,771 (9.5%)	14,126 (10.3%)	14,120 (9.9%)	13,928 (9.7%)
Pike	522 (0.4%)	529 (0.4%)	445 (0.3%)	469 (0.3%)	535 (0.4%)
Potter	219 (0.2%)	148 (0.1%)	184 (0.1%)	151 (0.1%)	165 (0.1%)
Schuylkill	1,648 (1.2%)	1,684 (1.3%)	1,571 (1.1%)	1,783 (1.2%)	1,799 (1.2%)
Snyder	391 (0.3%)	392 (0.3%)	394 (0.3%)	398 (0.3%)	432 (0.3%)
Somerset	849 (0.6%)	815 (0.6%)	885 (0.6%)	940 (0.7%)	991 (0.7%)
Sullivan	106 (0.1%)	83 (0.1%)	82 (0.1%)	90 (0.1%)	91 (0.1%)
Susquehanna	469 (0.3%)	445 (0.3%)	459 (0.3%)	537 (0.4%)	602 (0.4%)
Tioga	436 (0.3%)	435 (0.3%)	438 (0.3%)	481 (0.3%)	474 (0.3%)
Union	373 (0.3%)	422 (0.3%)	384 (0.3%)	422 (0.3%)	381 (0.3%)
Venango	758 (0.6%)	763 (0.6%)	841 (0.6%)	815 (0.6%)	755 (0.5%)
Warren	552 (0.4%)	509 (0.4%)	560 (0.4%)	602 (0.4%)	524 (0.4%)
Washington	2,188 (1.6%)	2,079 (1.5%)	2,104 (1.5%)	2,168 (1.5%)	2,342 (1.6%)
Wayne	522 (0.4%)	551 (0.4%)	577 (0.4%)	581 (0.4%)	655 (0.5%)
Westmoreland	4,201 (3.1%)	4,135 (3.1%)	4,259 (3.1%)	4,505 (3.2%)	4,249 (3.0%)
Wyoming	407 (0.3%)	357 (0.3%)	345 (0.3%)	429 (0.3%)	365 (0.3%)
York	4,563 (3.4%)	4,536 (3.4%)	4,524 (3.3%)	4,743 (3.3%)	4,647 (3.2%)
TOTAL	134,315 (100.0%)	134,171 (100.0%)	136,804 (100.0%)	142,867 (100.0%)	143,981 (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	1993 Deaths	1994 Deaths	1995 Deaths	1996 Deaths	1997 Deaths
Adams	20 (1.3%)	22 (1.5%)	12 (0.8%)	20 (1.4%)	16 (1.0%)
Allegheny	86 (5.6%)	84 (5.8%)	82 (5.5%)	73 (5.0%)	85 (5.4%)
Armstrong	10 (0.7%)	15 (1.0%)	11 (0.7%)	10 (0.7%)	15 (1.0%)
Beaver	18 (1.2%)	19 (1.3%)	11 (0.7%)	14 (1.0%)	16 (1.0%)
Bedford	11 (0.7%)	11 (0.8%)	17 (1.1%)	15 (1.0%)	11 (0.7%)
Berks	56 (3.7%)	47 (3.3%)	45 (3.0%)	49 (3.3%)	59 (3.8%)
Blair	16 (1.0%)	15 (1.0%)	19 (1.3%)	15 (1.0%)	17 (1.1%)
Bradford	8 (0.5%)	15 (1.0%)	9 (0.6%)	12 (0.8%)	11 (0.7%)
Bucks	67 (4.4%)	51 (3.5%)	79 (5.3%)	77 (5.2%)	64 (4.1%)
Butler	24 (1.6%)	20 (1.4%)	37 (2.5%)	28 (1.9%)	27 (1.7%)
Cambria	14 (0.9%)	23 (1.6%)	15 (1.0%)	16 (1.1%)	13 (0.8%)
Cameron	4 (0.3%)	1 (0.1%)	0 (0.0%)	3 (0.2%)	2 (0.1%)
Carbon	14 (0.9%)	10 (0.7%)	9 (0.6%)	17 (1.2%)	17 (1.1%)
Centre	13 (0.8%)	14 (1.0%)	16 (1.1%)	12 (0.8%)	25 (1.6%)
Chester	48 (3.1%)	54 (3.8%)	54 (3.6%)	34 (2.3%)	51 (3.3%)
Clarion	12 (0.8%)	7 (0.5%)	8 (0.5%)	14 (1.0%)	10 (0.6%)
Clearfield	20 (1.3%)	8 (0.6%)	24 (1.6%)	18 (1.2%)	28 (1.8%)
Clinton	5 (0.3%)	9 (0.6%)	9 (0.6%)	9 (0.6%)	11 (0.7%)
Columbia	13 (0.8%)	8 (0.6%)	6 (0.4%)	18 (1.2%)	4 (0.3%)
Crawford	10 (0.7%)	23 (1.6%)	20 (1.4%)	17 (1.2%)	15 (1.0%)
Cumberland	29 (1.9%)	17 (1.2%)	19 (1.3%)	28 (1.9%)	21 (1.3%)
Dauphin	29 (1.9%)	26 (1.8%)	32 (2.2%)	25 (1.7%)	27 (1.7%)
Delaware	38 (2.5%)	44 (3.1%)	48 (3.2%)	32 (2.2%)	41 (2.6%)
Elk	6 (0.4%)	7 (0.5%)	5 (0.3%)	13 (0.9%)	10 (0.6%)
Erie	34 (2.2%)	53 (3.7%)	33 (2.2%)	34 (2.3%)	39 (2.5%)
Fayette	33 (2.2%)	24 (1.7%)	23 (1.6%)	25 (1.7%)	28 (1.8%)
Forest	1 (0.1%)	1 (0.1%)	3 (0.2%)	0 (0.0%)	2 (0.1%)
Franklin	19 (1.2%)	39 (2.7%)	24 (1.6%)	20 (1.4%)	22 (1.4%)
Fulton	7 (0.5%)	4 (0.3%)	10 (0.7%)	7 (0.5%)	10 (0.6%)
Greene	15 (1.0%)	5 (0.3%)	7 (0.5%)	6 (0.4%)	5 (0.3%)
Huntingdon	7 (0.5%)	14 (1.0%)	17 (1.1%)	8 (0.5%)	8 (0.5%)
Indiana	23 (1.5%)	17 (1.2%)	21 (1.4%)	16 (1.1%)	21 (1.3%)
Jefferson	8 (0.5%)	13 (0.9%)	5 (0.3%)	11 (0.7%)	6 (0.4%)
Juniata	7 (0.5%)	4 (0.3%)	3 (0.2%)	4 (0.3%)	7 (0.4%)
Lackawanna	19 (1.2%)	17 (1.2%)	24 (1.6%)	13 (0.9%)	18 (1.2%)
Lancaster	65 (4.2%)	51 (3.5%)	60 (4.1%)	49 (3.3%)	66 (4.2%)
Lawrence	7 (0.5%)	9 (0.6%)	9 (0.6%)	11 (0.7%)	15 (1.0%)
Lebanon	20 (1.3%)	22 (1.5%)	19 (1.3%)	19 (1.3%)	17 (1.1%)
Lehigh	35 (2.3%)	39 (2.7%)	41 (2.8%)	28 (1.9%)	37 (2.4%)
Luzerne	47 (3.1%)	37 (2.6%)	35 (2.4%)	42 (2.9%)	46 (2.9%)
Lycoming	14 (0.9%)	23 (1.6%)	15 (1.0%)	26 (1.8%)	17 (1.1%)
McKean	13 (0.8%)	14 (1.0%)	6 (0.4%)	9 (0.6%)	7 (0.4%)
Mercer	22 (1.4%)	18 (1.3%)	32 (2.2%)	23 (1.6%)	24 (1.5%)
Mifflin	12 (0.8%)	6 (0.4%)	4 (0.3%)	8 (0.5%)	8 (0.5%)
Monroe	24 (1.6%)	13 (0.9%)	26 (1.8%)	14 (1.0%)	28 (1.8%)
Montgomery	59 (3.9%)	48 (3.3%)	56 (3.8%)	72 (4.9%)	65 (4.2%)
Montour	2 (0.1%)	3 (0.2%)	3 (0.2%)	3 (0.2%)	2 (0.1%)
Northampton	27 (1.8%)	22 (1.5%)	20 (1.4%)	28 (1.9%)	28 (1.8%)
Northumberland	20 (1.3%)	7 (0.5%)	18 (1.2%)	15 (1.0%)	16 (1.0%)
Perry	16 (1.0%)	10 (0.7%)	9 (0.6%)	12 (0.8%)	10 (0.6%)
Philadelphia	135 (8.8%)	135 (9.4%)	147 (9.9%)	140 (9.5%)	150 (9.6%)
Pike	8 (0.5%)	8 (0.6%)	10 (0.7%)	6 (0.4%)	8 (0.5%)
Potter	6 (0.4%)	6 (0.4%)	3 (0.2%)	2 (0.1%)	5 (0.3%)
Schuylkill	29 (1.9%)	24 (1.7%)	23 (1.6%)	21 (1.4%)	37 (2.4%)
Snyder	5 (0.3%)	11 (0.8%)	5 (0.3%)	13 (0.9%)	7 (0.4%)
Somerset	19 (1.2%)	18 (1.3%)	14 (0.9%)	12 (0.8%)	13 (0.8%)
Sullivan	3 (0.2%)	4 (0.3%)	0 (0.0%)	4 (0.3%)	2 (0.1%)
Susquehanna	11 (0.7%)	11 (0.8%)	8 (0.5%)	10 (0.7%)	11 (0.7%)
Tioga	16 (1.0%)	13 (0.9%)	9 (0.6%)	5 (0.3%)	10 (0.6%)
Union	7 (0.5%)	6 (0.4%)	3 (0.2%)	5 (0.3%)	9 (0.6%)
Venango	11 (0.7%)	12 (0.8%)	12 (0.8%)	16 (1.1%)	15 (1.0%)
Warren	7 (0.5%)	10 (0.7%)	13 (0.9%)	7 (0.5%)	7 (0.4%)
Washington	37 (2.4%)	18 (1.3%)	25 (1.7%)	28 (1.9%)	30 (1.9%)
Wayne	8 (0.5%)	6 (0.4%)	15 (1.0%)	12 (0.8%)	10 (0.6%)
Westmoreland	57 (3.7%)	50 (3.5%)	48 (3.2%)	58 (3.9%)	51 (3.3%)
Wyoming	6 (0.4%)	11 (0.8%)	7 (0.5%)	8 (0.5%)	6 (0.4%)
York	38 (2.5%)	34 (2.4%)	28 (1.9%)	39 (2.7%)	43 (2.8%)
TOTAL	1,530 (100.0%)	1,440 (100.0%)	1,480 (100.0%)	1,470 (100.0%)	1,562 (100.0%)

Pedestrian Deaths by County—Five-Year Trends

County	1993	1994	1995	1996	1997
Adams	0	0	1	0	2
Allegheny	15	15	11	15	21
Armstrong	0	2	1	0	0
Beaver	1	0	1	2	0
Bedford	0	0	2	1	2
Berks	3	7	7	4	4
Blair	2	1	3	3	5
Bradford	0	1	0	1	0
Bucks	13	6	10	13	6
Butler	1	4	5	2	4
Cambria	2	1	1	1	1
Cameron	0	0	0	0	0
Carbon	4	0	2	2	1
Centre	3	0	1	2	4
Chester	8	5	3	6	4
Clarion	0	2	1	3	0
Clearfield	3	0	3	0	2
Clinton	0	0	0	0	2
Columbia	0	0	1	1	2
Crawford	0	3	4	3	0
Cumberland	2	2	0	1	3
Dauphin	2	3	5	3	5
Delaware	8	9	12	7	5
Elk	0	0	0	0	1
Erie	6	7	8	8	4
Fayette	4	1	2	7	1
Forest	0	0	0	0	0
Franklin	1	1	2	3	3
Fulton	1	1	1	0	0
Greene	2	1	2	0	1
Huntingdon	0	2	1	0	0
Indiana	2	2	0	1	2
Jefferson	0	2	0	0	0
Juniata	0	0	0	0	1
Lackawanna	2	2	3	0	0
Lancaster	8	8	6	5	5
Lawrence	0	1	4	4	1
Lebanon	1	0	3	4	1
Lehigh	7	6	5	2	4
Luzerne	8	7	2	9	5
Lycoming	1	1	2	4	1
McKean	0	2	1	1	0
Mercer	3	2	4	0	3
Mifflin	2	0	0	0	0
Monroe	3	5	2	2	2
Montgomery	12	11	10	15	7
Montour	1	0	0	0	0
Northampton	2	3	0	4	4
Northumberland	3	1	1	1	3
Perry	1	1	0	1	0
Philadelphia	54	33	49	56	36
Pike	1	2	1	0	0
Potter	0	0	0	0	0
Schuylkill	3	1	2	4	5
Snyder	0	0	1	1	0
Somerset	1	3	0	0	0
Sullivan	0	0	0	0	0
Susquehanna	0	0	0	0	1
Tioga	0	0	0	0	0
Union	0	0	0	1	0
Venango	4	2	0	0	0
Warren	0	2	2	1	0
Washington	4	1	5	2	1
Wayne	1	0	2	1	1
Westmoreland	7	3	4	4	5
Wyoming	0	0	0	2	3
York	2	4	2	5	1
TOTAL	214	179	198	218	175

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	0	0	1	0	6	0	14	2	4	2	25
Allegheny	0	27	0	79	2	67	10	335	9	90	21	598
Armstrong	0	0	0	2	0	2	0	8	0	4	0	16
Beaver	0	2	0	3	0	7	0	16	0	7	0	35
Bedford	1	1	0	0	0	1	1	6	0	2	2	10
Berks	0	16	1	31	0	36	2	94	1	20	4	197
Blair	0	1	0	5	0	8	3	22	2	3	5	39
Bradford	0	0	0	0	0	1	0	9	0	2	0	12
Bucks	0	4	0	14	0	24	4	90	2	13	6	145
Butler	0	0	1	4	0	3	1	27	2	0	4	34
Cambria	0	2	1	0	0	2	0	16	0	4	1	24
Cameron	0	0	0	0	0	0	0	2	0	0	0	2
Carbon	0	3	0	3	0	1	0	5	1	3	1	15
Centre	1	1	1	2	1	5	1	21	0	1	4	30
Chester	0	3	1	11	0	4	0	60	3	11	4	89
Clarion	0	0	0	0	0	0	0	5	0	3	0	8
Clearfield	0	0	0	1	0	3	2	7	0	6	2	17
Clinton	0	0	1	4	0	2	0	2	1	1	2	9
Columbia	0	1	2	6	0	2	0	12	0	1	2	22
Crawford	0	4	0	3	0	6	0	12	0	4	0	29
Cumberland	0	0	0	7	1	8	0	24	2	7	3	46
Dauphin	0	6	0	29	0	20	4	55	1	7	5	117
Delaware	0	20	1	45	0	46	2	124	2	37	5	272
Elk	0	0	0	4	1	1	0	2	0	1	1	8
Erie	0	10	0	19	0	22	2	60	2	14	4	125
Fayette	0	0	0	3	0	2	0	13	1	6	1	24
Forest	0	0	0	0	0	0	0	0	0	0	0	0
Franklin	0	3	0	5	0	3	2	12	1	5	3	28
Fulton	0	0	0	0	0	0	0	0	0	0	0	0
Greene	0	0	0	0	0	1	0	4	1	2	1	7
Huntingdon	0	0	0	1	0	1	0	4	0	4	0	10
Indiana	0	1	0	3	0	1	1	10	1	1	2	16
Jefferson	0	0	0	1	0	1	0	3	0	3	0	8
Juniata	0	0	0	0	0	1	1	0	0	0	1	1
Lackawanna	0	4	0	9	0	9	0	40	0	21	0	83
Lancaster	0	12	2	33	0	23	2	73	1	18	5	159
Lawrence	0	3	0	3	0	3	1	10	0	6	1	25
Lebanon	0	2	0	7	0	6	1	17	0	5	1	37
Lehigh	1	7	0	50	1	43	0	73	2	23	4	196
Luzerne	1	4	0	15	1	20	3	54	0	27	5	120
Lycoming	0	3	0	8	0	6	0	13	1	2	1	32
McKean	0	0	0	1	0	1	0	4	0	1	0	7
Mercer	0	2	0	2	0	2	3	13	0	5	3	24
Mifflin	0	0	0	0	0	0	0	7	0	0	0	7
Monroe	0	0	0	2	0	5	2	24	0	3	2	34
Montgomery	0	1	0	29	1	44	4	123	2	36	7	233
Montour	0	0	0	1	0	1	0	5	0	1	0	8
Northampton	0	3	0	20	0	9	1	49	3	13	4	94
Northumberland	0	1	0	3	0	6	1	7	2	3	3	20
Perry	0	0	0	3	0	0	0	1	0	1	0	5
Philadelphia	1	174	3	411	0	327	17	1,201	15	216	36	2,329
Pike	0	0	0	0	0	0	0	1	0	2	0	3
Potter	0	0	0	3	0	0	0	2	0	0	0	5
Schuylkill	1	2	0	7	0	6	1	27	3	8	5	50
Snyder	0	0	0	0	0	1	0	3	0	2	0	6
Somerset	0	1	0	1	0	2	0	3	0	2	0	9
Sullivan	0	0	0	0	0	0	0	0	0	0	0	0
Susquehanna	0	1	0	1	0	0	1	5	0	2	1	9
Tioga	0	3	0	1	0	2	0	9	0	0	0	15
Union	0	0	0	2	0	1	0	4	0	0	0	7
Venango	0	1	0	3	0	4	0	6	0	3	0	17
Warren	0	0	0	0	0	1	0	8	0	3	0	12
Washington	0	3	0	4	0	6	1	22	0	8	1	43
Wayne	0	1	0	0	0	2	1	8	0	3	1	14
Westmoreland	0	2	0	13	2	15	0	45	3	6	5	81
Wyoming	0	0	0	2	0	1	2	2	1	2	3	7
York	0	6	0	28	0	20	1	58	0	12	1	124
TOTAL	6	341	14	948	10	853	78	2,991	67	700	175	5,833

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	1993 Belt Use	1994 Belt Use	1995 Belt Use	1996 Belt Use	1997 Belt Use
Adams	66	71	73	70	72
Allegheny	55	58	59	60	60
Armstrong	70	72	73	71	69
Beaver	48	49	49	52	49
Bedford	78	75	79	78	80
Berks	61	63	65	64	63
Blair	72	75	76	74	75
Bradford	67	72	71	72	75
Bucks	61	65	66	69	67
Butler	67	70	69	71	69
Cambria	59	63	67	66	67
Cameron	68	67	71	60	72
Carbon	65	64	65	68	61
Centre	74	73	73	74	78
Chester	71	73	72	74	74
Clarion	74	77	73	76	74
Clearfield	69	73	73	73	74
Clinton	71	74	74	74	72
Columbia	64	69	72	67	67
Crawford	69	72	75	71	70
Cumberland	72	75	76	77	76
Dauphin	69	72	70	70	70
Delaware	50	54	54	57	55
Elk	65	70	66	69	69
Erie	68	71	70	69	68
Fayette	67	68	71	72	69
Forest	69	67	69	68	78
Franklin	69	72	70	73	72
Fulton	75	75	76	73	74
Greene	76	80	82	79	79
Huntingdon	71	73	73	74	73
Indiana	71	78	78	79	79
Jefferson	73	71	73	71	70
Juniata	68	70	69	69	73
Lackawanna	53	58	56	59	55
Lancaster	74	75	75	74	74
Lawrence	60	57	60	60	60
Lebanon	67	71	71	67	71
Lehigh	77	78	77	78	75
Luzerne	62	66	65	66	67
Lycoming	65	69	72	69	72
McKean	62	63	65	62	63
Mercer	63	63	63	65	64
Mifflin	70	70	71	69	69
Monroe	76	75	75	78	77
Montgomery	69	71	70	73	73
Montour	80	74	81	82	82
Northampton	70	69	71	68	69
Northumberland	61	65	66	62	64
Perry	76	71	73	75	79
Philadelphia	22	20	22	21	20
Pike	74	71	74	80	77
Potter	71	66	71	74	74
Schuylkill	68	71	69	70	69
Snyder	74	76	77	72	76
Somerset	68	71	70	72	75
Sullivan	66	68	71	67	79
Susquehanna	69	73	74	74	74
Tioga	74	79	77	74	76
Union	75	80	76	75	74
Venango	66	73	75	72	71
Warren	74	73	75	75	76
Washington	69	69	68	69	69
Wayne	72	75	78	76	75
Westmoreland	69	72	71	73	72
Wyoming	75	71	71	70	77
York	71	72	72	73	72
STATEWIDE	62	64	64	65	64

Counties

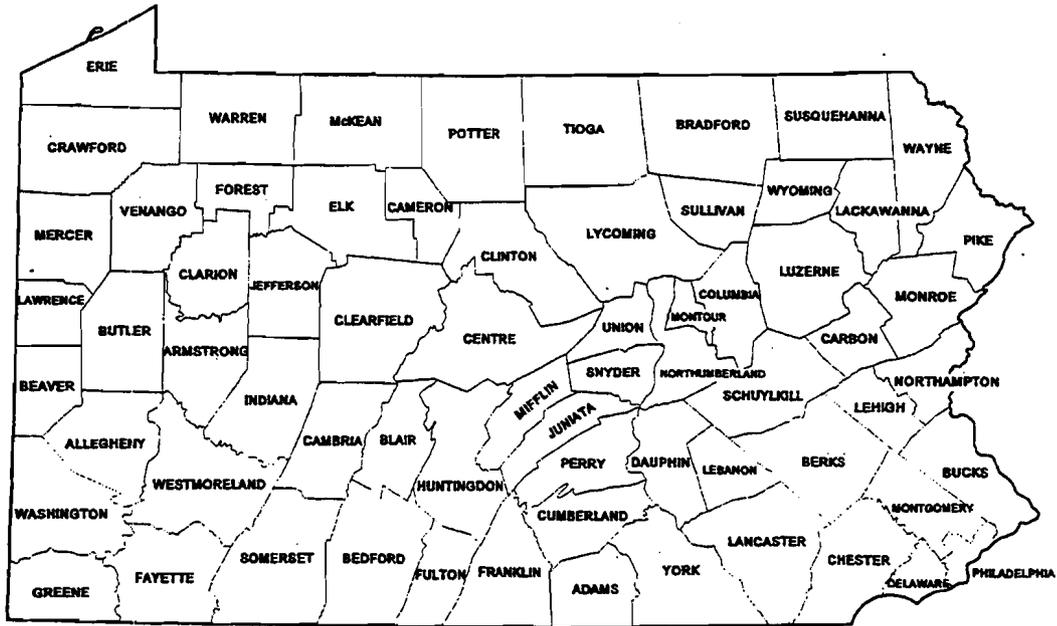
Alcohol-Related Deaths by County—Five-Year Trends

County	1993 Deaths	1994 Deaths	1995 Deaths	1996 Deaths	1997 Deaths
Adams	10	11	2	12	5
Allegheny	38	37	29	34	40
Armstrong	6	6	4	4	4
Beaver	7	8	3	7	9
Bedford	6	3	5	7	4
Berks	24	17	14	11	13
Blair	5	5	4	6	6
Bradford	2	6	2	3	3
Bucks	25	20	24	27	19
Butler	7	9	15	10	8
Cambria	7	11	3	4	4
Cameron	1	0	0	1	1
Carbon	9	6	3	8	5
Centre	1	6	1	2	5
Chester	14	20	19	14	11
Clarion	5	2	3	6	3
Clearfield	6	2	8	9	13
Clinton	2	1	3	3	2
Columbia	4	1	2	8	1
Crawford	4	11	9	7	7
Cumberland	13	8	5	8	3
Dauphin	9	11	11	12	5
Delaware	19	7	22	8	16
Elk	5	2	1	5	6
Erie	11	15	15	13	10
Fayette	17	17	8	8	16
Forest	0	0	0	0	0
Franklin	5	14	10	3	10
Fulton	3	2	3	2	5
Greene	7	4	5	4	2
Huntingdon	3	7	4	2	2
Indiana	11	5	9	12	7
Jefferson	3	3	1	3	1
Juniata	2	1	1	0	3
Lackawanna	13	6	11	3	8
Lancaster	23	11	19	18	20
Lawrence	1	4	3	1	3
Lebanon	12	3	5	4	3
Lehigh	10	11	13	5	9
Luzerne	25	18	13	16	12
Lycoming	6	5	8	8	5
McKean	9	3	2	5	2
Mercer	8	8	11	6	11
Mifflin	2	2	2	4	3
Monroe	7	7	21	5	13
Montgomery	18	15	22	27	25
Montour	0	2	0	1	0
Northampton	13	8	7	10	11
Northumberland	6	3	5	3	6
Perry	3	3	4	3	2
Philadelphia	29	47	37	20	22
Pike	4	2	3	5	1
Potter	4	1	2	2	3
Schuylkill	12	7	9	7	12
Snyder	0	3	1	2	2
Somerset	9	6	6	2	8
Sullivan	3	0	0	2	1
Susquehanna	4	5	3	8	4
Tioga	6	6	4	3	5
Union	2	2	0	1	2
Venago	3	2	2	3	8
Warren	4	4	9	8	4
Washington	17	7	11	9	9
Wayne	3	3	4	5	3
Westmoreland	24	21	13	26	18
Wyoming	3	3	1	3	2
York	20	17	15	15	28
TOTAL	594	523	514	503	514

Counties

Pennsylvania Counties

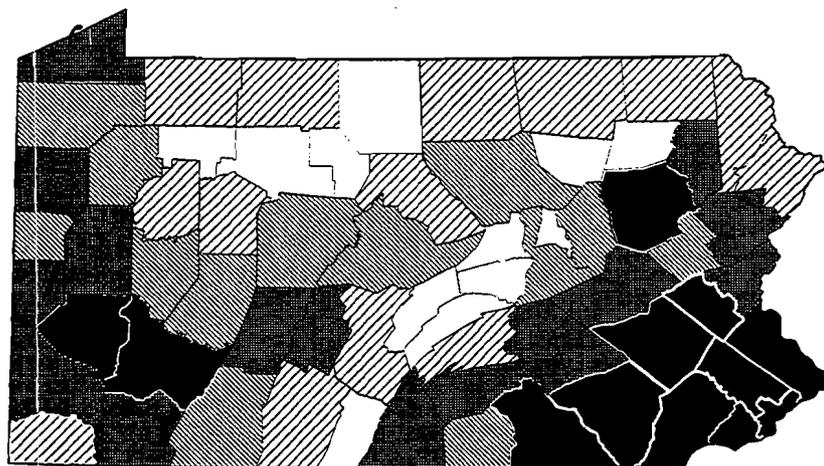
Use the map below as a key to county names for other maps.



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

Total Crashes by County

Urban counties, with their higher populations, number of vehicles, and vehicle-miles of travel, lend themselves to a higher number of crashes. Referring to the map below, 58% of the total traffic crashes occurred in only 12 of Pennsylvania's 67 counties. These 12 counties appear in black on the map.

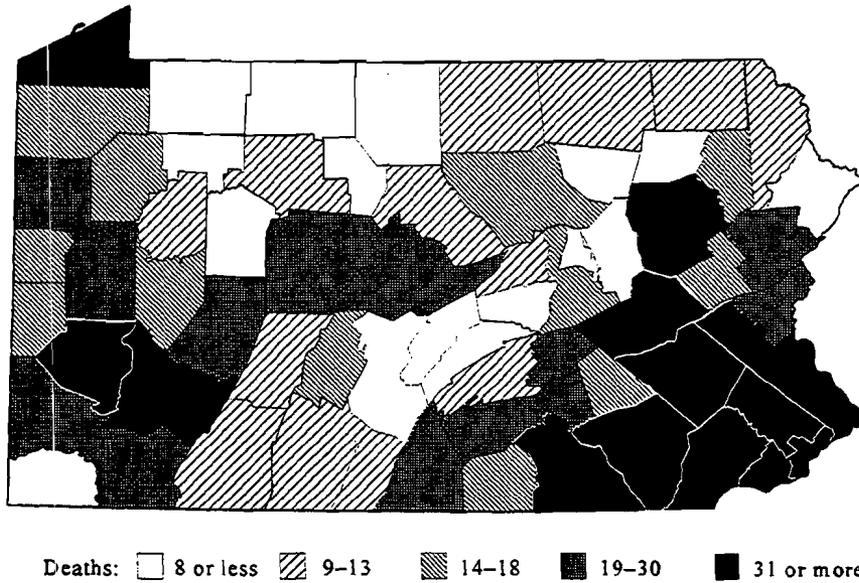


Total Crashes:
 □ 450 or less ▨ 451-750 ▩ 751-1,500
 ■ 1,501-3,600 ■ 3,601 or more

Counties

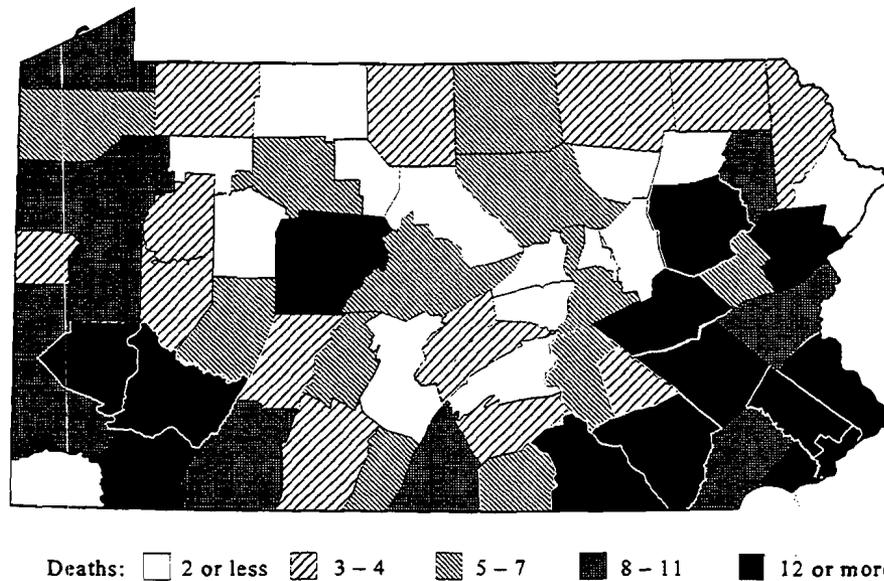
Traffic Deaths by County

Referring to the map below, 53% of the total traffic deaths occurred in only 14 of Pennsylvania's 67 counties. These 14 counties appear in black on the map.



Alcohol-Related Deaths by County

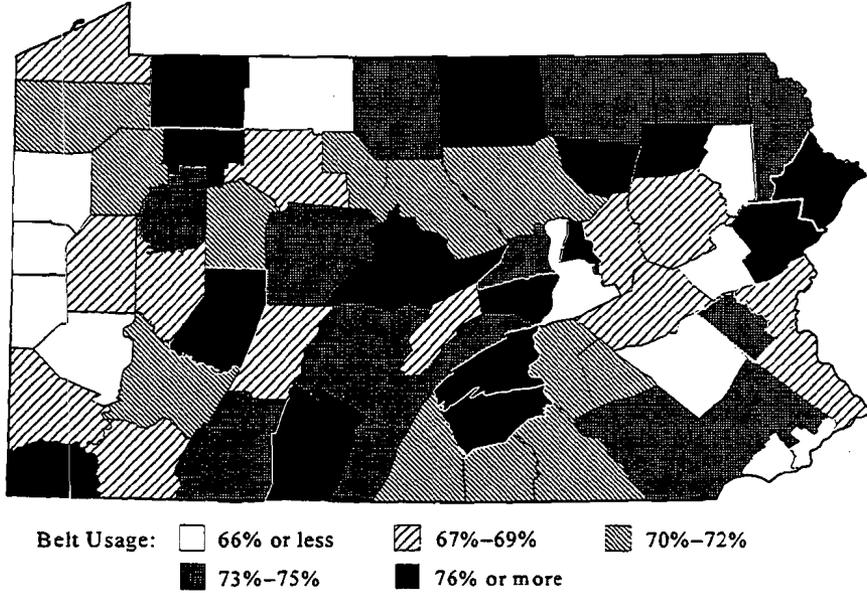
Referring to the map below, 52% of the total alcohol-related deaths occurred in only 14 of Pennsylvania's 67 counties. These 14 counties appear in black on the map.



Counties

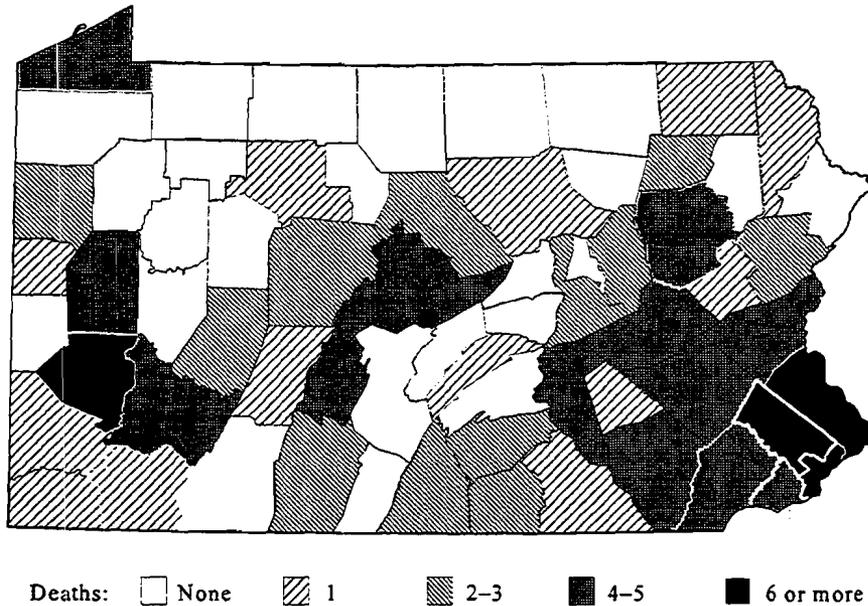
Percent Seat Belt Use in Crashes by County

The percent seat belt use in crashes tended to be lower in counties with major urban areas.



Pedestrian Deaths by County

Referring to the map below, 40% of the total pedestrian deaths occurred in only 4 of Pennsylvania's 67 counties. These 4 counties appear in black on the map.

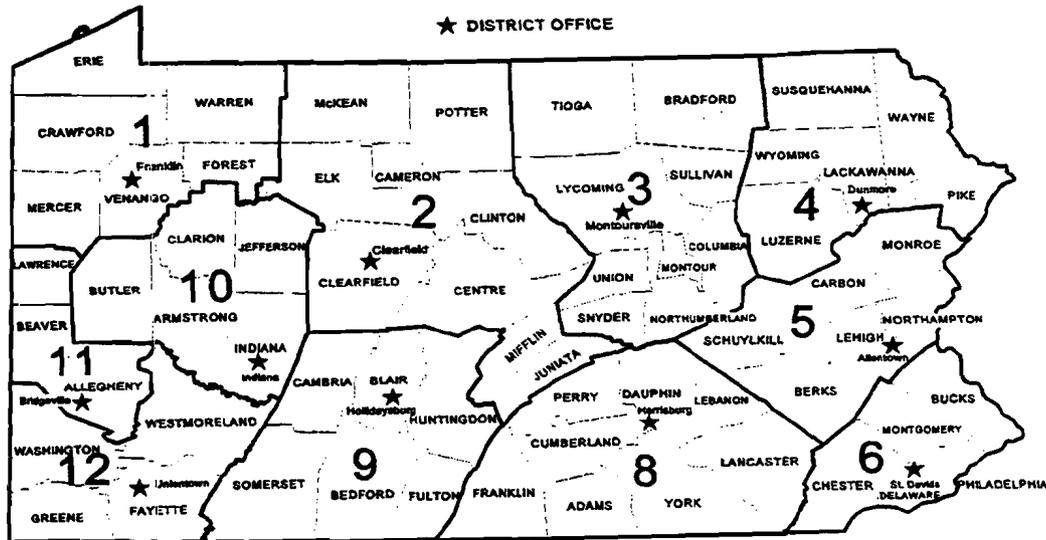


Counties

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 1997 by engineering district.

District	Crashes	Deaths	Injuries
01	7,643	102	7,473
02	4,846	103	4,357
03	5,296	78	4,749
04	8,782	99	8,242
05	17,782	206	16,140
06	41,899	371	45,228
08	20,838	222	18,567
09	6,026	72	5,435
10	5,211	79	4,882
11	16,989	116	15,838
12	8,669	114	7,909
Total	143,981	1,562	138,820



Counties

Index

Age	10, 24, 25, 31, 32, 40, 43, 44, 47, 63
Air Bags	34, 39, 40
Alcohol	4, 8, 26-33, 65, 67
Bicycles	5, 9, 17, 41, 47-50
Buses	5, 9, 13, 17, 31, 56, 57
School Buses	9, 17, 56, 57
Child Restraints	38
Counties	18, 58-68
Names	66
Crash Types	4, 9, 25
Crashes	
by Age	10, 24, 25, 31, 32, 40, 43, 44, 47, 63
by Crash Type	9, 25
by Day of Week	19
by Hour of Day	20
by Light Level	18, 21, 45, 48
by Month	19
by Road Surface Conditions	12
by Road Type	14, 16, 18, 46, 54-56
by Sex	10, 31, 43
by Vehicle Type	9, 13, 17, 31, 50
by Weather	12
Economic loss due to	8
Work Zones	13
Deaths	
Air Bags	39, 40
Alcohol-Related	8, 27-30, 32
Bicyclists	8, 47-49
by Age	40, 43-45, 47
by Crash Type	9
by Day of Week	19, 29
by Hour of Day	20, 28
by Light Level	18, 21, 45
by Month	19
by Road Type	14, 16, 18, 46, 49
by Sex	43
by Vehicle Type	9, 17
Economic loss due to	8
Motorcyclists	8, 52
Pedestrians	8, 41-46
Per 100 Million Vehicle-Miles	8
Speed-Related	8
Drinking Drivers	31-33
Drivers	5, 10, 23-25, 31-33, 52
Drinking	31-33
Mature	24, 25
Young	24, 25
Economic Loss	8
Engineering Districts	69
Five-Year Trends	
Alcohol-Related Crashes	27
Alcohol-Related Crashes by County	65
Bicycle Crashes	47
Crashes by County	60
Deaths and Injuries	8
Heavy Truck Crashes	54
Light Truck Crashes	53
Motorcycle Crashes	52
Passenger Car Crashes	51
Pedestrian Crashes	41
Pedestrian Deaths by County	62
School Bus Crashes	57
School Bus Deaths	57
Seat Belt Use by County	64
Traffic Deaths by County	61
Train/Vehicle Crashes	17
Work Zone Crashes	14
Hazardous Materials	55
Historical Data	
Highway Crashes	10
Seat Belt Use	37, 38
Underage Drinking Drivers	33
Holidays	4, 22, 30
Injuries	7, 8, 27, 35, 36, 38-40, 43-49, 63
Air Bags	39, 40
Alcohol-Related	27
Bicyclists	8, 47-49
Child Restraints	38
Motorcyclists	8
Pedestrians	8, 43-46, 63
Seat Belt Use	35, 36
Intersections	25, 41, 42, 45, 48
Light Levels	18, 21, 45, 48
Mature Drivers	24, 25
Motorcycles	5, 9, 13, 17, 31, 50, 52
Passenger Cars	5, 9, 13, 17, 31, 50, 51
Pedestrians	4, 5, 41-43, 45, 46, 63
Road Surface Conditions	12
Road Types	5, 14, 16, 18, 46, 49, 54-56
Roadside Objects	15
Seat Belts	35-38, 64, 68
Sex (of drivers and/or pedestrians)	10, 31, 43
Speed	4, 8, 23
Traffic Control Device	4, 46, 49
Trains	17, 18
Trucks	
Heavy	5, 8, 9, 13, 17, 31, 50, 54, 55
Light	5, 9, 13, 17, 31, 50, 53
Two-Vehicle Collisions	50
Vehicle Types	5, 9, 13, 17, 31, 50
Weather	12
Work Zones	4, 13, 14
Young Drivers	24, 25

Index



1997 Pennsylvania Crash Facts & Statistics Feedback Survey

The 1997 edition of the *Pennsylvania Crash Facts and Statistics* booklet has a new format and new information. 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"/>

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

Your name and organization (optional): _____

Thank you for your involvement and response.

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.

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.

PLACE
STAMP
HERE

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

1997 Pennsylvania Crash Facts & Statistics Survey Form
