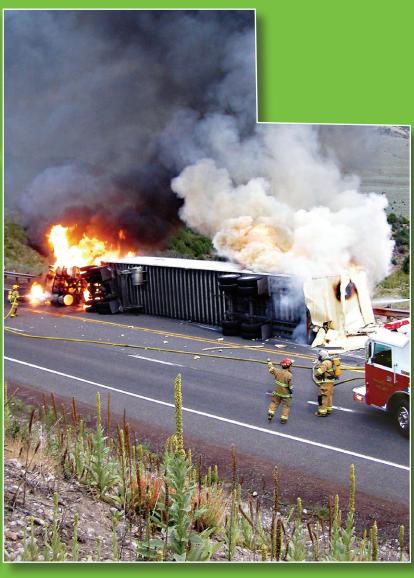
# Utah Crash Summary











**State of Utah** 

**Department of Public Safety** 

# Utah Crash Summary 2008



**D. Lance Davenport, Commissioner**Utah Department of Public Safety

David A. Beach, Director
Highway Safety Office
Utah Department of Public Safety

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### Introduction

**Purpose:** The annual Utah Crash Summary, as required by Utah Code under Section 41-6a-406, describes the trends and effects of traffic crashes in Utah. The statistics within the Utah Crash Summary describe factors that contribute to the occurrence of deaths, injuries, and crashes. This report is designed to heighten awareness about traffic safety and allows interested individuals to identify areas where safety programs may be focused in an effort to reduce traffic-related injuries and deaths.

Crash Data: Crash data comes from traffic crash reports completed by law enforcement officers throughout Utah who investigate crash scenes on public roadways. Information is collected when a crash involves injuries, deaths, or at least \$1,000 property damage. Crash reports are forwarded to the Utah Department of Public Safety for central collection.

Fatal Crashes: Additional information is collected on fatal crashes and compiled into the Fatality Analysis Reporting System (FARS). FARS is a national data system containing data on all fatal traffic crashes in the U.S. FARS was used for the reporting of fatal crashes.

**Fact Sheets:** Each section of the crash summary is accompanied by a fact sheet. The fact sheets provide an overview of the section highlighting key points and often provides most readers with the information they seek.

**Prepared By:** This report was prepared by the Utah Department of Public Safety, Highway Safety Office. For more information, please contact: Gary Mower, Research Analyst • Utah Department of Public Safety, Highway Safety Office • 3888 West 5400 South • Salt Lake City, Utah 84118 • (801) 957-8615 • gmower@utah.gov.

Available At: A limited number of printed copies of the Utah Crash Summary are available at the Utah Highway Safety Office. The summary and fact sheets are also available on the internet at www.highwaysafety.utah.gov.

**Suggested Citation:** Utah Department of Public Safety, Highway Safety Office. *Utah Crash* Summary 2008. Salt Lake City, UT: Utah Department of Public Safety, 2010.

### **Executive Summary**

Significant progress has been made to reduce motor vehicle crashes in Utah, with a steady decline in the injury and fatal crash rates over the last 40 years. If Utah had the same fatal crash rate in 2008 as 1978 there would have been 714 additional deaths in 2008. These reductions can be attributed to a variety of factors, including:

- Traffic safety programs that have increased awareness of traffic safety issues;
- · Aggressive media and enforcement programs targeting driver behavior;
- Legislation mandating seat belt and child safety seat use, graduated driver licensing, and enhanced penalties for impaired driving;
- Improved engineering of roadways;
- Improved safety of motor vehicles;
- Advancements in emergency response and treatment.

The personal and socioeconomic effect of motor vehicle crashes is a continuing concern in the State of Utah. In 2008, there were 56,367 reported traffic crashes on public roadways in Utah. These crashes involved 138,693 people with 24,673 injured and 276 people killed.

Utah made progress in the following areas in 2008 when compared to 2007:

- Traffic deaths decreased from 299 in 2007 to 276 in 2008:
- The Utah death rate per vehicle miles traveled is still below the U.S. rate;
- Traffic crashes decreased from 61,245 in 2007 to 56,367 in 2008;
- The crash rate per miles traveled decreased 5% from 2007;
- The number of unrestrained occupant deaths decreased 15%;
- The number of crashes involving a distracted driver decreased 20%;
- The number of crashes involving a teenage driver decreased 15%;
- The number of crashes involving an alcohol-impaired driver decreased 15%.

As improvements are made and progress continues, traffic safety needs to remain a top priority. Some areas of concern in Utah during 2008:

- The number of traffic crashes was the second highest year ever;
- Motorcyclist deaths increased to the highest total since 1985;
- The number of motorcyclists in crashes increased 15%;
- Speed was a factor in 43% of fatal crashes;
- Speed crashes increased for the third year in a row;
- The number of bicyclists in crashes increased 25%.

The *Utah Crash Summary 2008* contains further details regarding Utah motor vehicle crashes.

The Utah Department of Public Safety, Highway Safety Office invites users of this Crash Summary to help promote motor vehicle safety in Utah. Dr. Victor Sidel said, "Statistics are people with the tears washed away." The numbers in the Crash Summary represent lost lives, injured people, and lives changed. Utah has a goal of zero fatalities because the loss of just one life is too many. It is a goal we can all live with.

### 2008 Utah Crash Synopsis

### **All Crashes**

### **Fatal Crashes**

Category	#	% of Total*
Total Crashes	56,367	100%
Urban	42,421	75%
Property Damage Only	38,997	69%
Injury	17,125	30%
Rural	13,946	25%
Inclement Weather	13,568	24%
Teenage Driver	12,550	22%
Speed	12,039	21%
Senior (Age 65+) Driver	5,524	10%
Distracted Driving	4,810	9%
Large Truck	3,804	7%
Animal-Related	2,740	5%
Alcohol-Impaired Driver	2,330	4%
Motorcycle	1,405	2%
Drowsy Driving	1,118	2%
Bicycle-Motor Vehicle	784	1%
Pedestrian-Motor Vehicle	701	1%
Fatal	245	<1%
<b>Total Persons in Crashes</b>	138,693	100%
Drivers	99,420	72%
Teenage Driver	35,082	25%
Inclement Weather	31,275	23%
Speed	27,553	20%
Injured Persons	24,673	18%
Sonior (Ago 65 L) Driver		
Senior (Age 65+) Driver	14,817	11%
Children (Ages 0-14 Years)	14,817 13,938	11% 10%
, ,		
Children (Ages 0-14 Years)	13,938	10%
Children (Ages 0-14 Years)  Distracted Driving	13,938 12,911	10% 9%
Children (Ages 0-14 Years)  Distracted Driving  Large Truck	13,938 12,911 8,962	10% 9% 6%
Children (Ages 0-14 Years) Distracted Driving Large Truck Alcohol-Impaired Driver	13,938 12,911 8,962 4,919	10% 9% 6% 4%
Children (Ages 0-14 Years) Distracted Driving Large Truck Alcohol-Impaired Driver Animal-Related	13,938 12,911 8,962 4,919 4,078	10% 9% 6% 4% 3%
Children (Ages 0-14 Years) Distracted Driving Large Truck Alcohol-Impaired Driver Animal-Related Unrestrained Occupants	13,938 12,911 8,962 4,919 4,078 3,220	10% 9% 6% 4% 3% 2%
Children (Ages 0-14 Years) Distracted Driving Large Truck Alcohol-Impaired Driver Animal-Related Unrestrained Occupants Drowsy Driving	13,938 12,911 8,962 4,919 4,078 3,220 2,095	10% 9% 6% 4% 3% 2% 2%
Children (Ages 0-14 Years) Distracted Driving Large Truck Alcohol-Impaired Driver Animal-Related Unrestrained Occupants Drowsy Driving Motorcyclists	13,938 12,911 8,962 4,919 4,078 3,220 2,095 1,592	10% 9% 6% 4% 3% 2% 2%

Category	#	% of Total*
Fatal Crashes	245	100%
Urban	128	52%
Rural	117	48%
Speed	106	43%
Motorcycle	36	15%
Pedestrian-Motor Vehicle	33	13%
Alcohol-Impaired Driver	32	13%
Large Truck	31	13%
Senior (Age 65+) Driver	31	13%
Teenage Driver	31	13%
Inclement Weather	27	11%
Drowsy Driving	18	7%
Distracted Driving	17	7%
Red Light/Stop Sign Running	17	7%
Bicycle-Motor Vehicle	4	2%
Animal-Related	3	1%
Deaths	276	100%
Drivers	167	61%
Drivers Speed	167	46%
	-	
Speed	126	46%
Speed Unrestrained Occupants	126 78	46% 28%
Speed Unrestrained Occupants Senior (Age 65+) Driver	126 78 43	46% 28% 16%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck	126 78 43 40	46% 28% 16% 14%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists	126 78 43 40 36	46% 28% 16% 14% 13%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver	126 78 43 40 36 34	46% 28% 16% 14% 13%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians	126 78 43 40 36 34	46% 28% 16% 14% 13% 12%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians Teenage Driver	126 78 43 40 36 34 34	46% 28% 16% 14% 13% 12% 12%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians Teenage Driver Inclement Weather	126 78 43 40 36 34 34 34	46% 28% 16% 14% 13% 12% 12% 11%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians Teenage Driver Inclement Weather Drowsy Driving	126 78 43 40 36 34 34 34 30	46% 28% 16% 14% 13% 12% 12% 11%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians Teenage Driver Inclement Weather Drowsy Driving Children (Ages 0-14 Years)	126 78 43 40 36 34 34 30 29	46% 28% 16% 14% 13% 12% 12% 11% 11% 10%
Speed Unrestrained Occupants Senior (Age 65+) Driver Large Truck Motorcyclists Alcohol-Impaired Driver Pedestrians Teenage Driver Inclement Weather Drowsy Driving Children (Ages 0-14 Years) Red Light/Stop Sign Running	126 78 43 40 36 34 34 30 29 27 19	46% 28% 16% 14% 13% 12% 12% 11% 10% 7%

<sup>\*</sup> NOTE: Groups overlap and do not total 100%.

### 2008 Utah Crash Facts

- In an average day in Utah, there were 154 motor vehicle crashes involving 379 people with 67 people injured and 1 person killed.
- First motor vehicle crash occurred January 1, 2008 at 12:34 a.m. and the last crash occurred December 31, 2008 at 11:59 p.m.
- First fatal motor vehicle crash occurred January 2, 2008 at 6:18 p.m. and the last fatal crash occurred December 27, 2008 at 6:58 p.m.
- Monday, January 28, 2008 had the most crashes with 611 crashes and Sunday, November 9, 2008 had the fewest crashes with 54.
- 128 lives were estimated to be saved at current seat belt use rates. (National Highway Traffic Safety Administration)
- 43 additional lives would have been saved if everyone had been wearing seat belts.
- A motor vehicle crash occurred every 9 minutes.
- A person was injured in a crash every 21 minutes.
- A teenage-driver crash occurred every 41 minutes.
- A speed-related crash occurred every 43 minutes.
- A driver age 65 years or older was in a crash every 95 minutes.
- A distracted driver crash occurred every 109 minutes.
- A semi/large truck was in a crash every 2 hours.
- An animal-motor vehicle crash occurred every 3 hours.
- An alcohol-impaired driver crash occurred every 3 hours.
- A motorcyclist was in a crash every 5 hours.
- A bicyclist was hit by a motor vehicle every 10 hours.
- A pedestrian was hit by a motor vehicle every 11 hours.
- A person died in a crash every 31 hours.
- The youngest person in a motor vehicle crash was less than one week-old and the oldest person was over 100 years-old.
- The youngest person killed in a motor vehicle crash was two years-old and the oldest person killed was 94 years-old.
- The estimated statewide economic loss due to motor vehicle crashes in Utah was \$1.53 billion. (National Highway Traffic Safety Administration)
- Hospital and emergency department charges for the treatment of Utah residents in motor vehicle crashes were \$110 million. (Utah Department of Health)
- 5.7% of licensed drivers were in a crash.
- 5.0% of registered vehicles were in a crash.
- 5.0% of Utah residents were in a crash.
- 2.1% of deaths in Utah involved a motor vehicle crash.
- 0.2% of people in a crash died.
- A person was in a crash every 186,000 miles driven in Utah.



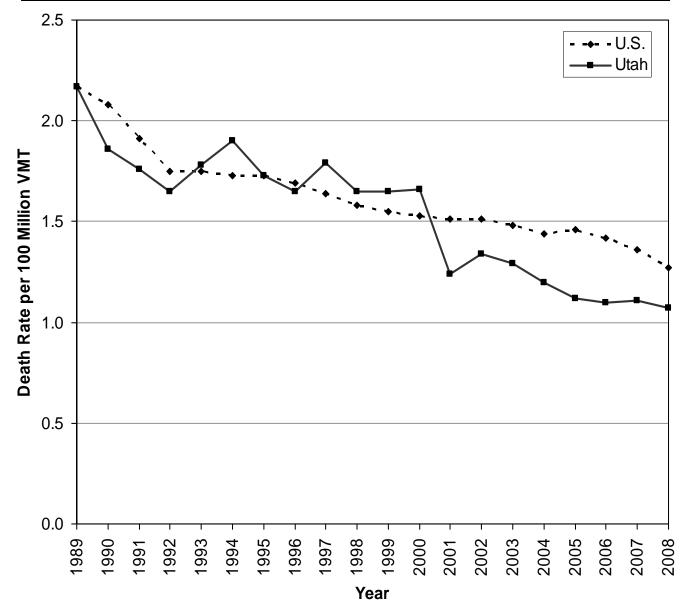


# Overview

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Utah vs. U.S. Death Rate per 100 Million Vehicle Miles Traveled, 1989-2008

	Death Rate per Miles Traveled																			
	Year																			
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
U.S.	2.17	2.08	1.91	1.75	1.75	1.73	1.73	1.69	1.64	1.58	1.55	1.53	1.51	1.51	1.48	1.44	1.46	1.42	1.36	1.27
Utah	2.17	1.86	1.76	1.65	1.78	1.90	1.73	1.65	1.79	1.65	1.65	1.66	1.24	1.34	1.29	1.20	1.12	1.10	1.11	1.07



U.S. SOURCE: National Highway Traffic Safety Administration

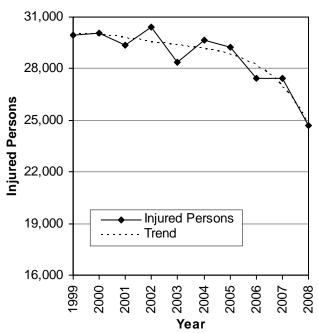
- In 2008, the Utah death rate per 100 million vehicle miles traveled was 1.07 which was lower than the U.S. rate of 1.27.
- The Utah death rate per 100 million vehicle miles traveled has been lower than the U.S. rate since 2001. This somewhat dispels the myth that drivers in Utah are worse than other drivers in the U.S.

### Persons Involved (Utah 1999-2008)

	Persons												
	Non-l	njured	In	jured		Killed	Total						
		Rate per		Rate per		Rate per		Rate per					
		100 Million		100 Million		100 Million		100 Million					
Year	#	VMT	#	VMT	#	VMT	#	VMT					
1999	109,354	500.1	29,959	137.0	360	1.65	139,673	638.7					
2000	110,318	489.9	30,086	133.6	373	1.66	140,777	625.2					
2001	108,427	463.4	29,375	125.5	291	1.24	138,093	590.2					
2002	109,878	449.6	30,433	124.5	328	1.34	140,639	575.5					
2003	104,660	436.8	28,352	118.3	309	1.29	133,321	556.4					
2004	111,225	451.4	29,638	120.3	296	1.20	141,159	572.8					
2005	115,546	459.8	29,221	116.3	282	1.12	145,049	577.2					
2006	116,187	444.0	27,433	104.8	287	1.10	143,907	550.0					
2007	127,330	474.7	27,420	102.2	299	1.11	155,049	578.0					
2008	113,744	439.4	24,673	95.3	276	1.07	138,693	535.8					
Total	1,126,669	460.2	286,590	117.1	3,101	1.27	1,416,360	578.5					

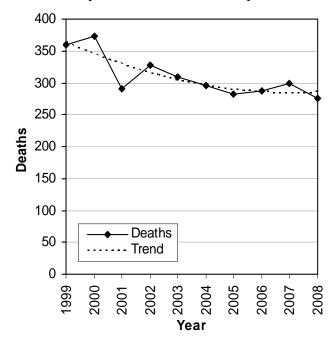
- During the last 10 years, over 1.4 million people have been in a crash. Approximately 28,700 people are injured and 310 people are killed in motor vehicle crashes a year.
- Utah experienced a 7.7% decrease in the number of crash deaths in 2008 from 2007.
- The injury rate per miles traveled decreased for the fourth year in a row.
- 16,356 less people were in a crash in Utah in 2008; a 10.5% decrease from 2007,

## Injured Persons by Year (Utah 1999-2008)



 There has been a 17.6% decrease in the number of people injured over the last 10 years.

## **Deaths by Year** (Utah 1999-2008)



 Deaths decreased in 2008 to the lowest total in Utah since 1992.

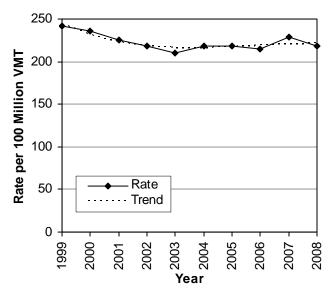
### **Crashes (Utah 1999-2008)**

				Crashes					
	Property Da	mage Only	Ir	njury		Fatal	Total		
		Rate per		Rate per		Rate per		Rate per	
		100 Million		100 Million		100 Million		100 Million	
Year	#	VMT	#	VMT	#	VMT	#	VMT	
1999	32,971	150.8	19,513	89.2	318	1.45	52,802	241.5	
2000	33,269	147.7	19,564	86.9	318	1.41	53,151	236.0	
2001	33,113	141.5	19,332	82.6	258	1.10	52,703	225.2	
2002	33,542	137.2	19,552	80.0	274	1.12	53,368	218.4	
2003	31,842	132.9	18,285	76.3	262	1.09	50,389	210.3	
2004	34,222	138.9	19,423	78.8	260	1.06	53,905	218.8	
2005	35,158	139.9	19,545	77.8	235	0.94	54,938	218.6	
2006	37,674	144.0	18,264	69.8	249	0.95	56,187	214.7	
2007	42,368	157.9	18,619	69.4	258	0.96	61,245	228.3	
2008	38,997	150.7	17,125	66.2	245	0.95	56,367	217.8	
Total	353,156	144.2	189,222	77.3	2,677	1.09	545,055	222.6	

NOTE: A crash may result in multiple injuries and/or deaths. See previous page for persons.

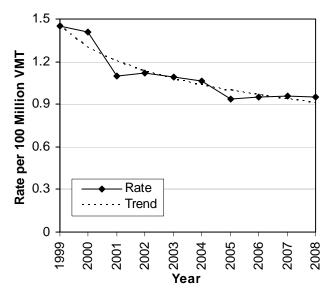
- During the last 10 years, 545,055 motor vehicle crashes occurred in Utah. On average, there are 54,500 crashes a year of which 18,900 involve injuries and 267 involve deaths.
- In 2008, total crashes decreased 8.0% from 2007.
- The 2008 total crash rate in Utah was 217.8, a 4.6% decrease from 2007.

### Crash Rates Per 100 Million Vehicle Miles Traveled (Utah 1999-2008)



- The total crash rate has been fairly level the last eight years.
- There has been a 9.8% decrease in the total crash rate since 1999.

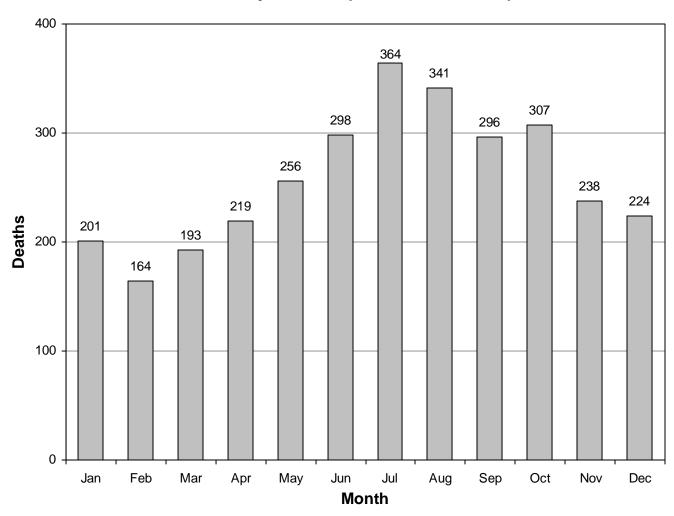
# Fatal Crash Rates Per 100 Million Vehicle Miles Traveled (Utah 1999-2008)



- There has been a decreasing trend in fatal crash rates over the last 10 years.
- There has been a 34% decrease in the fatal crash rate since 1999.

Utah Crash Summary 2008

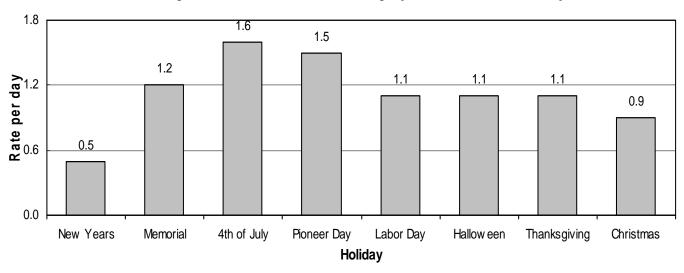
### Deaths by Month (Utah 1999-2008)



	Deaths												
							Month	)					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999	19	16	25	34	37	35	46	29	32	39	25	23	360
2000	30	23	21	27	29	38	50	36	30	33	23	33	373
2001	22	19	12	14	30	24	40	33	21	29	27	20	291
2002	22	17	18	20	28	19	44	36	36	38	27	23	328
2003	22	15	16	22	20	39	38	39	31	25	17	25	309
2004	9	15	28	20	25	31	28	40	31	26	25	18	296
2005	16	22	14	18	18	25	25	37	31	30	25	21	282
2006	22	15	23	17	14	26	29	33	31	33	23	21	287
2007	16	13	24	35	24	31	35	26	30	26	21	18	299
2008	23	9	12	12	31	30	29	32	23	28	25	22	276
Total	201	164	193	219	256	298	364	341	296	307	238	224	3,101

- Over one-half (51.8%) of deaths occurred June-October.
- In the last 10 years, July (364) had the highest total number of motor vehicle crash deaths while February (164) had the fewest.
- In 2008, August (32) and May (31) had the highest number of deaths while February (9) had the fewest.

### Holiday Death Rate Per Day (Utah 1999-2008)



								De	eath	ıs								
	N	ew	Men	norial	4tl	h of	241	h of	La	bor	Hal	low-	Tha	nks-	Ch	rist-		
	Years		Day		July		July		Day		een		giv	/ing	mas		Total	
		Rate		Rate		Rate		Rate		Rate		Rate		Rate		Rate		Rate
		per		per		per		per		per		per		per		per		per
Year	#	Day	#	Day	#	Day	#	Day	#	Day	#	Day	#	Day	#	Day	#	Day
1999	1	0.3	11	2.8	10	3.3	5	1.7	4	1.0	6	2.0	8	1.6	1	0.3	46	1.6
2000	2	0.7	3	0.8	2	0.7	5	1.3	3	0.8	2	0.7	2	0.4	5	1.3	24	0.8
2001	3	0.8	5	1.3	2	0.7	8	2.7	4	1.0	1	0.3	7	1.4	3	1.0	33	1.1
2002	2	0.7	9	2.3	8	1.6	9	3.0	3	0.8	6	1.2	7	1.4	0	0.0	44	1.4
2003	3	1.0	2	0.5	4	1.0	7	1.4	7	1.8	4	1.0	2	0.4	8	1.6	37	1.1
2004	1	0.2	3	0.8	5	1.7	0	0.0	4	1.0	1	0.3	7	1.4	2	0.7	23	0.8
2005	5	1.7	7	1.8	9	2.3	4	1.3	3	0.8	11	2.8	4	0.8	2	0.7	45	1.5
2006	0	0.0	2	0.5	1	0.3	7	1.8	6	1.5	1	0.3	7	1.4	10	2.5	34	1.1
2007	0	0.0	2	0.5	3	1.0	4	1.3	6	1.5	5	1.7	6	1.2	1	0.3	27	1.0
2008	2	0.7	5	1.3	12	3.0	4	0.8	2	0.5	0	0.0	3	0.6	1	0.2	29	0.9
Total	19	0.5	49	1.2	56	1.6	53	1.5	42	1.1	37	1.1	53	1.1	33	0.9	342	1.1

- Holiday deaths are a concern because of the increased death rate due to risk factors such as fatigue, impaired driving, long distance traveling, speeding, and traveling on unfamiliar roadways.
- Over the past 10 years, the Independence Day Holiday (1.6) and the Pioneer Day Holiday (1.5) had the highest rates of deaths while the New Years Holiday (0.5) had the lowest rate.
- In 2008, the 4th of July had the highest death rate per day (3.0) while Halloween had the lowest rate (0.0).
- The 2008 holiday death rate per day was 0.9 which was higher than the rate per day for all 2008 days (0.8).

Note: Because of the differing lengths of holidays, the rate per day is provided and should be used for comparisons.

The following criteria was used to determine the number of days in the holiday period:

- If a holiday occurred on Sunday, Tuesday, Wednesday, or Saturday, then it was considered a three day holiday (the day prior to the holiday, the holiday, and the day after the holiday).
- If a holiday occurred on Monday, then it was considered a four day holiday (Friday, Saturday, Sunday, and Monday).
- If a holiday occurred on Friday, then it was considered a four day holiday (Thursday, Friday, Saturday, and Sunday).
- If a holiday occurred on Thursday, then it was considered a five day holiday (Wednesday, Thursday, Friday, Saturday, and Sunday).

### Persons in Crashes by County (Utah 2008)

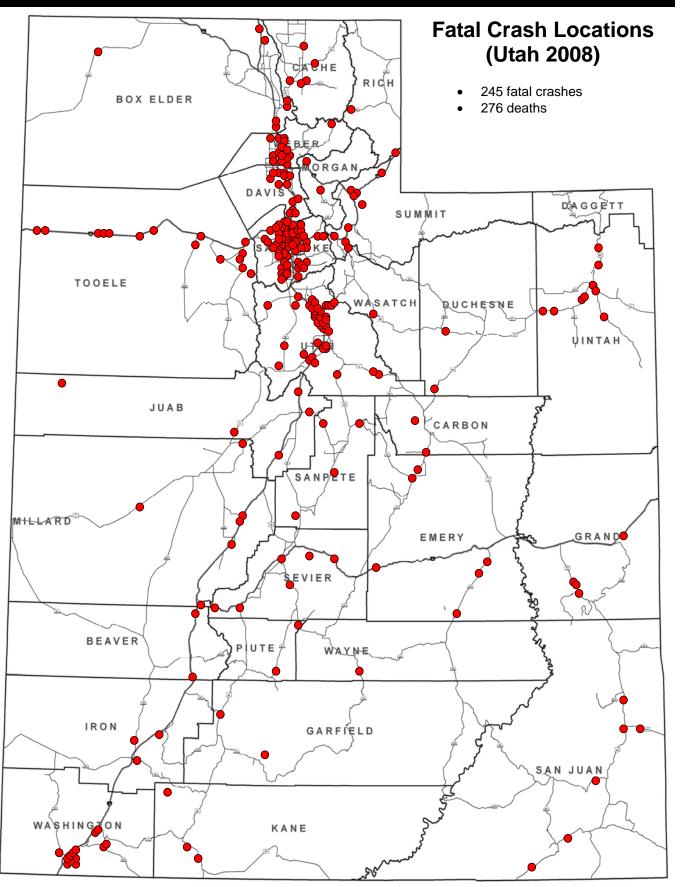
					Per	sons						
	No	on-Injure	d		Injured			Killed			Total	
		Rate	Rate		Rate	Rate		Rate	Rate		Rate	Rate
		per 100	per		per 100	per		per 100	per		per 100	per
		Million	10,000		Million	10,000		Million	10,000		Million	10,000
County	#	VMT	Pop.	#	VMT	Pop.	#	VMT	Pop.	#	VMT	Pop.
Salt Lake	51,566	604.5	495.1	10,417	122.1	100.0	64	0.8	0.6	62,047	727.4	595.7
Weber	9,006	570.4	400.4	1,882	119.2	83.7	15	1.0	0.7	10,903	690.6	484.8
Utah	17,265	480.0	329.6	4,224	117.4	80.6	42	1.2	0.8	21,531	598.6	411.1
Cache	4,201	450.0	374.6	897	96.1	80.0	5	0.5	0.4	5,103	546.6	455.1
Davis	10,770	429.4	352.1	2,241	89.3	73.3	14	0.6	0.5	13,025	519.3	425.9
Uintah	1,427	400.5	481.8	306	85.9	103.3	10	2.8	3.4	1,743	489.2	588.4
Duchesne	909	385.9	548.4	177	75.1	106.8	2	0.8	1.2	1,088	461.8	656.4
Wayne	137	344.5	512.7	38	95.6	142.2	1	2.5	3.7	176	442.6	658.7
Washington	4,540	341.6	302.5	1,119	84.2	74.6	18	1.4	1.2	5,677	427.2	378.3
Wasatch	1,086	358.4	473.1	206	68.0	89.7	1	0.3	0.4	1,293	426.7	563.3
Garfield	319	283.1	642.2	117	103.8	235.6	2	1.8	4.0	438	388.6	881.8
Summit	2,181	296.9	550.5	321	43.7	81.0	12	1.6	3.0	2,514	342.3	634.6
Carbon	846	283.1	427.7	139	46.5	70.3	2	0.7	1.0	987	330.2	499.0
Sevier	746	225.6	359.3	223	67.4	107.4	7	2.1	3.4	976	295.2	470.0
Iron	1,589	234.0	338.1	400	58.9	85.1	3	0.4	0.6	1,992	293.4	423.9
Kane	326	233.7	495.3	78	55.9	118.5	3	2.2	4.6	407	291.8	618.4
Rich	102	207.9	465.1	33	67.3	150.5	1	2.0	4.6	136	277.2	620.2
Sanpete	424	195.0	157.4	165	75.9	61.3	5	2.3	1.9	594	273.2	220.5
Morgan	314	229.2	325.6	44	32.1	45.6	2	1.5	2.1	360	262.8	373.3
Box Elder	1,803	203.0	372.2	444	50.0	91.7	9	1.0	1.9	2,256	254.0	465.7
Daggett	62	195.2	623.1	16	50.4	160.8	0	0.0	0.0	78	245.6	783.9
San Juan	438	162.0	292.6	158	58.4	105.6	15	5.5	10.0	611	226.0	408.2
Tooele	1,340	160.2	228.0	345	41.2	58.7	15	1.8	2.6	1,700	203.2	289.3
Millard	666	153.9	493.2	194	44.8	143.7	7	1.6	5.2	867	200.4	642.0
Beaver	358	149.7	549.1	110	46.0	168.7	2	0.8	3.1	470	196.6	720.9
Juab	546	138.6	550.1	143	36.3	144.1	5	1.3	5.0	694	176.2	699.2
Grand	365	114.3	391.5	128	40.1	137.3	4	1.3	4.3	497	155.7	533.1
Emery	392	117.8	375.2	101	30.4	96.7	8	2.4	7.7	501	150.6	479.5
Piute	20	66.7	143.2	7	23.4	50.1	2	6.7	14.3	29	96.8	207.6
Statewide	113,744	439.4	408.9	24,673	95.3	88.7	276	1.1	1.0	138,693	535.8	498.5

- Two different rates are given in the above table. One rate is based on vehicle miles traveled in the county and the other based on the county population.
- Rate per 100 million vehicle miles traveled:
  - Salt Lake (727.4), Weber (690.6), and Utah (598.6) counties had the highest rates of total persons in crashes per 100 million vehicle miles traveled.
  - Piute (6.7), San Juan (5.5), and Uintah (2.8) counties had the highest rates of persons killed per 100 million vehicle miles traveled.
- Rate per 10,000 population:
  - Garfield (881.8), Daggett (783.9), and Beaver (720.9) counties had the highest rates of total persons in crashes per 10,000 population.
  - Piute (14.3), San Juan (10.0), and Emery (7.7) counties had the highest rates of persons killed per 10,000 population.

### **Crashes by County (Utah 2008)**

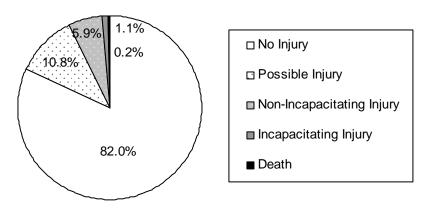
			Cr	ashes				
	PDO C	crashes	Injury	Crashes	Fatal (	Crashes	To	otal
		Rate		Rate		Rate		Rate
		per 100		per 100		per 100		per 100
		Million		Million		Million		Million
County	#	VMT	#	VMT	#	VMT	#	VMT
Salt Lake	17,276	202.5	7,465	87.5	62	0.7	24,803	290.8
Weber	2,979	188.7	1,339	84.8	15	1.0	4,333	274.4
Wayne	74	186.1	29	72.9	1	2.5	104	261.6
Duchesne	440	186.8	122	51.8	2	0.8	564	239.4
Utah	5,528	153.7	2,865	79.7	38	1.1	8,431	234.4
Uintah	610	171.2	197	55.3	9	2.5	816	229.0
Cache	1,421	152.2	592	63.4	5	0.5	2,018	216.2
Wasatch	485	160.1	151	49.8	1	0.3	637	210.2
Rich	68	138.6	26	53.0	1	2.0	95	193.6
Davis	3,295	131.4	1,546	61.6	13	0.5	4,854	193.5
Daggett	40	126.0	15	47.2	0	0.0	55	173.2
Kane	188	134.8	49	35.1	3	2.2	240	172.1
Garfield	143	126.9	44	39.0	2	1.8	189	167.7
Carbon	385	128.8	107	35.8	2	0.7	494	165.3
Summit	935	127.3	220	30.0	10	1.4	1,165	158.6
Washington	1,331	100.2	760	57.2	13	1.0	2,104	158.3
Morgan	179	130.7	33	24.1	2	1.5	214	156.2
Sevier	332	100.4	145	43.9	6	1.8	483	146.1
Sanpete	188	86.5	108	49.7	4	1.8	300	138.0
Iron	561	82.6	255	37.6	3	0.4	819	120.6
Box Elder	763	85.9	296	33.3	7	0.8	1,066	120.0
San Juan	226	83.6	71	26.3	6	2.2	303	112.1
Beaver	169	70.7	69	28.9	2	0.8	240	100.4
Tooele	543	64.9	244	29.2	15	1.8	802	95.9
Millard	276	63.8	119	27.5	6	1.4	401	92.7
Juab	237	60.2	95	24.1	5	1.3	337	85.5
Piute	16	53.4	6	20.0	2	6.7	24	80.1
Emery	181	54.4	64	19.2	6	1.8	251	75.5
Grand	128	40.1	93	29.1	4	1.3	225	70.5
Statewide	38,997	150.7	17,125	66.2	245	0.9	56,367	217.8

- Salt Lake (290.8), Weber (274.4), and Wayne (261.6) counties had the highest total crash rates per miles traveled.
- Piute (6.7), Uintah (2.5), and Wayne (2.5) counties had the highest fatal crash rates per miles traveled.
- Grand (70.5), Emery (75.5), and Piute (80.1) counties had the lowest total crash rates per miles traveled.



### **Persons Involved**

### Injury Severity (Utah 2008)



- Although many people were injured and killed in motor vehicle crashes, the majority (82.0%) of persons in crashes did not sustain an injury. See Glossary in the Appendix for injury definitions.
- Persons in the same crash sustain different levels of injury. Many factors influence injury patterns including seatbelt use, seating position, and vehicle safety equipment.

### Person Placement (Utah 2008)

	Persons												
Person	Non-Injured		Inju	red	Kill	led	Total						
Placement	#	%	#	%	#	%	#	%					
Driver	82,862	72.8%	16,390	66.4%	167	60.5%	99,419	71.7%					
Passenger	30,695	27.0%	6,937	28.1%	71	25.7%	37,703	27.2%					
Bicyclist	90	0.1%	708	2.9%	4	1.4%	802	0.6%					
Pedestrian	97	0.1%	638	2.6%	34	12.3%	769	0.6%					
Total	113,744	100.0%	24,673	100.0%	276	100.0%	138,693	100.0%					

 Pedestrians in a crash had the greatest risk of being killed. In fact, pedestrian crashes were 12.9 times more likely to be fatal than other crashes.

### **Gender of Persons in Crashes (Utah 2008)**

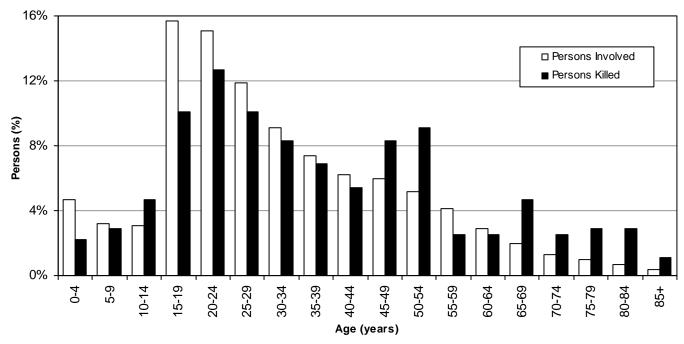
			Р	ersons	;				
	Non-Ir	njured	Inju	ıred	Kil	led	Total		
Gender	#	%	#	%	#	%	#	%	
Male	63,197	55.6%	11,754	47.6%	193	69.9%	75,144	54.2%	
Female	46,892	41.2%	12,726	51.6%	83	30.1%	59,701	43.0%	
Unknown	3,655	3.2%	193	0.8%	0	0.0%	3,848	2.8%	
Total	113,744	100.0%	24,673	100.0%	276	100.0%	138,693	100.0%	

- Males comprised over half (54.2%) of all persons in crashes and over two-thirds (69.9%) of deaths, while females sustained more injuries (51.6%) than males.
- Males were 1.8 times more likely to die than females in a crash.

### **Persons Involved**

### Age of Persons in Crashes (Utah 2008)

			P	ersons	;			
	Non-Ir	njured	Inju	red	Kill	ed	То	tal
Age	#	%	#	%	#	%	#	%
0-4	5,025	4.4%	616	2.5%	6	2.2%	5,647	4.1%
5-9	3,498	3.1%	702	2.8%	8	2.9%	4,208	3.0%
10-14	3,200	2.8%	867	3.5%	13	4.7%	4,080	2.9%
15-19	17,082	15.0%	3,697	15.0%	28	10.1%	20,807	15.0%
20-24	16,197	14.2%	3,799	15.4%	35	12.7%	20,031	14.4%
25-29	12,872	11.3%	2,888	11.7%	28	10.1%	15,788	11.4%
30-34	9,931	8.7%	2,091	8.5%	23	8.3%	12,045	8.7%
35-39	8,003	7.0%	1,790	7.3%	19	6.9%	9,812	7.1%
40-44	6,739	5.9%	1,500	6.1%	15	5.4%	8,254	6.0%
45-49	6,462	5.7%	1,491	6.0%	23	8.3%	7,976	5.8%
50-54	5,633	5.0%	1,272	5.2%	25	9.1%	6,930	5.0%
55-59	4,357	3.8%	1,045	4.2%	7	2.5%	5,409	3.9%
60-64	3,107	2.7%	778	3.2%	7	2.5%	3,892	2.8%
65-69	2,079	1.8%	502	2.0%	13	4.7%	2,594	1.9%
70-74	1,433	1.3%	346	1.4%	7	2.5%	1,786	1.3%
75-79	1,072	0.9%	248	1.0%	8	2.9%	1,328	1.0%
80-84	740	0.7%	211	0.9%	8	2.9%	959	0.7%
85+	429	0.4%	136	0.6%	3	1.1%	568	0.4%
Unknown	5,885	5.2%	694	2.8%	0	0.0%	6,579	4.7%
Total	113,744	100.0%	24,673	100.0%	276	100.0%	138,693	100.0%



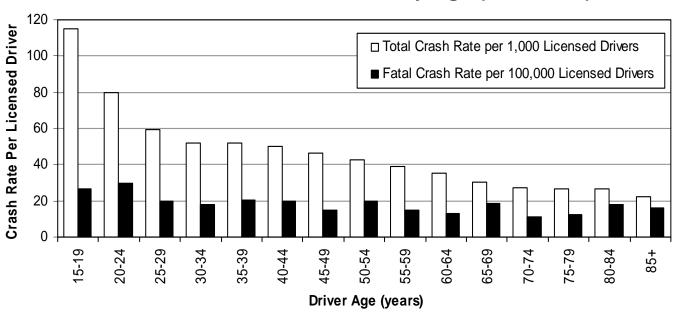
- The largest proportion of persons in crashes were aged 15-19 years (15.0%).
- The largest proportion of persons killed were aged 20-24 years (12.7%).
- The average age of a person in a crash was 32 years. The average age of a person killed was 38 years.
- While persons aged 65 years and older represented a small proportion of the persons in crashes (5.5%), they were 2.8 times more likely than all other age groups to die.

### **Drivers**

### Driver Age (Utah 2008)

	Drivers											
	PI	OO Cras	hes	lnj	ury Cras	shes	F	atal Cra	ashes		Total	
			Rate per			Rate per			Rate per			Rate per
			1,000			1,000			1,000			1,000
Age	#	%	Drivers	#	%	Drivers	#	%	Drivers	#	%	Drivers
<15	52	0.1%	n/a	56	0.2%	n/a	2	0.6%	n/a	110	0.1%	n/a
15-19	9,386	13.9%	78.2	4,374	13.9%	36.4	32	9.1%	0.27	13,792	13.9%	114.9
20-24	10,698	15.8%	53.8	5,061	16.1%	25.5	59	16.8%	0.30	15,818	15.9%	
25-29	8,947	13.2%	40.6	4,151	13.2%	18.8	43	12.3%	0.20	13,141	13.2%	59.6
30-34	6,979	10.3%	35.3	3,308	10.5%	16.7	36	10.3%	0.18	10,323	10.4%	52.2
35-39	5,753	8.5%	35.0	2,729	8.7%	16.6	34	9.7%	0.21	8,516	8.6%	51.8
40-44	4,853	7.2%	34.3	2,213	7.0%	15.6	28	8.0%	0.20	7,094	7.1%	50.1
45-49	4,606	6.8%	31.0	2,221	7.1%	15.0	22	6.3%	0.15	6,849	6.9%	46.2
50-54	4,027	6.0%	28.6	1,917	6.1%	13.6	28	8.0%	0.20	5,972	6.0%	42.4
55-59	3,134	4.6%	26.1	1,487	4.7%	12.4	18	5.1%	0.15	4,639	4.7%	38.7
60-64	2,201	3.3%	23.4	1,129	3.6%	12.0	12	3.4%	0.13	3,342	3.4%	35.5
65-69	1,418	2.1%	20.2	692	2.2%	9.8	13	3.7%	0.18	2,123	2.1%	30.2
70-74	940	1.4%	17.9	488	1.6%	9.3	6	1.7%	0.11	1,434	1.4%	27.3
75-79	698	1.0%	17.5	353	1.1%	8.8	5	1.4%	0.13	1,056	1.1%	26.5
80-84	458	0.7%	16.4	276	0.9%	9.9	5	1.4%	0.18	739	0.7%	26.5
85+	265	0.4%	14.2	152	0.5%	8.1	3	0.9%	0.16	420	0.4%	22.5
Unknown	3,171	4.7%	n/a	875	2.8%	n/a	5	1.4%	n/a	4,051	4.1%	n/a
Total	67,586	100.0%	38.5	31,482	100.0%	17.9	351	100.0%	0.20	99,419	100.0%	56.6

### **Crash Rate of Licensed Drivers by Age (Utah 2008)**



- Drivers aged 15-19 years had the highest rates per licensed driver of total crashes, injury crashes, and property damage only crashes. Drivers aged 20-24 years had the highest rates of fatal crashes.
- Drivers aged 85+ years had the lowest rate per licensed driver of total crashes (22.5).
- Drivers aged 70-74 years had the lowest rate per licensed driver of fatal crashes (0.11).
- The average age of a driver was 36 years. The average age of a driver in a fatal crash was 38 years.

### **Drivers**

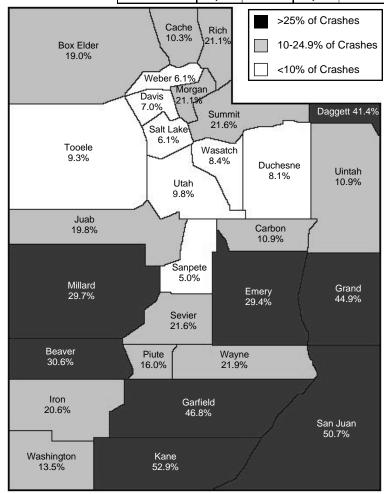
### **Driver Gender (Utah 2008)**

	Drivers														
	Р	DO Cras	shes	Injury Crashes				Fatal Cr	ashes		Total				
			Rate per			Rate per			Rate per			Rate per			
			1,000			1,000			1,000			1,000			
Gender	#	%	Drivers	#	%	Drivers	#	%	Drivers	#	%	Drivers			
Male	39,085	57.8%	43.9	17,285	54.9%	19.4	259	73.8%	0.29	56,629	57.0%	63.6			
Female	25,805	38.2%	29.8	13,575	43.1%	15.7	89	25.4%	0.10	39,469	39.7%	45.6			
Unknown	2,696	4.0%	n/a	622	2.0%	n/a	3	0.9%	n/a	3,321	3.3%	n/a			
Total	67,586	100.0%	38.5	31,482	100.0%	17.9	351	100.0%	0.20	99,419	100.0%	56.6			

- Males represented 57.0% of all drivers in a crash and 73.8% of drivers in fatal crashes.
- Statistically speaking, females are better drivers than males. Male drivers had higher rates of total crashes and fatal crashes. Male drivers were 2.0 times more likely to be in a fatal crash than female drivers.

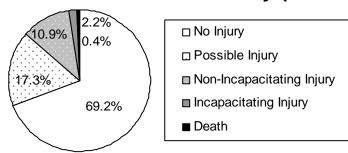
### **Out-of-State Drivers (Utah 2008)**

			Dr	ivers				
License	PDO C	rashes	Injury (	Crashes	Fatal	Crashes	To	tal
State	#	%	#	%	#	%	#	%
Utah	60,326	89.3%	28,351	90.1%	301	85.8%	88,978	89.5%
Out-Of-State	6,004	8.9%	2,763	8.8%	46	13.1%	8,813	8.9%
Unknown	1,256	1.9%	368	1.2%	4	1.1%	1,628	1.6%
Total	67,586	100.0%	31,482	100.0%	351	100.0%	99,419	100.0%



- Although out-of-state licensed drivers represented 8.9% of all drivers in crashes, they represented 13.1% of drivers in fatal crashes.
- There were several counties that had a disproportionate amount of out-ofstate drivers in crashes. Most notably in Kane (52.9%), San Juan (50.7%), Garfield (46.8%), Grand (44.9%), and Daggett (41.4%) where half of the drivers in crashes were out-of-state drivers. These drivers may place an extra burden on the residents and medical services in these counties.

### Crash Severity (Utah 2008)



For crashes that occurred in Utah during 2008, 69.2% resulted in property damage only, 30.4% resulted in some level of injury, and 0.4% involved a death.

### Month (Utah 2008)

				Crashes	6				
		PDO Cra	shes	Injury Cr	ashes	Fatal Cra	ashes	Tot	al
	Days in		Rate		Rate		Rate		Rate
	Month		per		per		per		per
Month	#	#	Day	#	Day	#	Day	#	Day
January	31	4,797	154.7	1,516	48.9	14	0.45	6,327	204.1
February	29	3,710	127.9	1,238	42.7	9	0.31	4,957	170.9
March	31	3,000	96.8	1,333	43.0	12	0.39	4,345	140.2
April	30	2,578	85.9	1,347	44.9	12	0.40	3,937	131.2
May	31	2,848	91.9	1,463	47.2	28	0.90	4,339	140.0
June	30	2,643	88.1	1,472	49.1	29	0.97	4,144	138.1
July	31	2,719	87.7	1,367	44.1	24	0.77	4,110	132.6
August	31	2,783	89.8	1,511	48.7	27	0.87	4,321	139.4
September	30	2,779	92.6	1,462	48.7	22	0.73	4,263	142.1
October	31	3,066	98.9	1,485	47.9	27	0.87	4,578	147.7
November	30	3,012	100.4	1,353	45.1	22	0.73	4,387	146.2
December	31	5,062	163.3	1,578	50.9	19	0.61	6,659	214.8
Total	366	38,997	106.5	17,125	46.8	245	0.67	56,367	154.0

- Total crash rates per day were highest in December and January.
- The highest rates per day for fatal crashes occurred during June, May, August, and October.

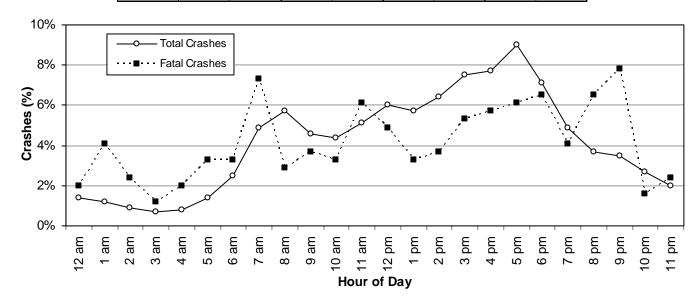
### Day of Week (Utah 2008)

			Cr	ashes					
Day of	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total		
Week	#	%	#	%	#	%	#	%	
Sunday	3,199	8.2%	1,500	8.8%	35	14.3%	4,734	8.4%	
Monday	6,427	16.5%	2,742	16.0%	28	11.4%	9,197	16.3%	
Tuesday	6,054	15.5%	2,622	15.3%	39	15.9%	8,715	15.5%	
Wednesday	6,066	15.6%	2,579	15.1%	28	11.4%	8,673	15.4%	
Thursday	5,786	14.8%	2,475	14.5%	29	11.8%	8,290	14.7%	
Friday	6,535	16.8%	2,817	16.4%	39	15.9%	9,391	16.7%	
Saturday	4,930	12.6%	2,390	14.0%	47	19.2%	7,367	13.1%	
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%	

- The highest percentage of total crashes occurred on Friday (16.7%).
- The highest percentage of fatal crashes occurred on Saturday (19.2%).
- Crashes on the weekend were 1.8 times more likely to be fatal than weekday crashes.

### Hour (Utah 2008)

			С	rashes				
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	То	tal
Hour	#	%	#	%	#	%	#	%
Midnight	521	1.3%	261	1.5%	5	2.0%	787	1.4%
1 a.m.	452	1.2%	204	1.2%	10	4.1%	666	1.2%
2 a.m.	346	0.9%	179	1.0%	6	2.4%	531	0.9%
3 a.m.	273	0.7%	131	0.8%	3	1.2%	407	0.7%
4 a.m.	329	0.8%	141	0.8%	5	2.0%	475	0.8%
5 a.m.	537	1.4%	223	1.3%	8	3.3%	768	1.4%
6 a.m.	1,017	2.6%	376	2.2%	8	3.3%	1,401	2.5%
7 a.m.	1,993	5.1%	756	4.4%	18	7.3%	2,767	4.9%
8 a.m.	2,325	6.0%	867	5.1%	7	2.9%	3,199	5.7%
9 a.m.	1,878	4.8%	714	4.2%	9	3.7%	2,601	4.6%
10 a.m.	1,771	4.5%	717	4.2%	8	3.3%	2,496	4.4%
11 a.m.	2,059	5.3%	826	4.8%	15	6.1%	2,900	5.1%
Noon	2,382	6.1%	1,007	5.9%	12	4.9%	3,401	6.0%
1 p.m.	2,193	5.6%	1,003	5.9%	8	3.3%	3,204	5.7%
2 p.m.	2,480	6.4%	1,096	6.4%	9	3.7%	3,585	6.4%
3 p.m.	2,893	7.4%	1,342	7.8%	13	5.3%	4,248	7.5%
4 p.m.	2,953	7.6%	1,385	8.1%	14	5.7%	4,352	7.7%
5 p.m.	3,437	8.8%	1,600	9.3%	15	6.1%	5,052	9.0%
6 p.m.	2,714	7.0%	1,272	7.4%	16	6.5%	4,002	7.1%
7 p.m.	1,837	4.7%	891	5.2%	10	4.1%	2,738	4.9%
8 p.m.	1,405	3.6%	643	3.8%	16	6.5%	2,064	3.7%
9 p.m.	1,318	3.4%	624	3.6%	19	7.8%	1,961	3.5%
10 p.m.	1,042	2.7%	504	2.9%	4	1.6%	1,550	2.7%
11 p.m.	794	2.0%	344	2.0%	6	2.4%	1,144	2.0%
Unknown	48	0.1%	19	0.1%	1	0.4%	68	0.1%
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%



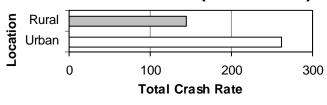
- Total crashes were more likely to occur between 3:00 p.m. and 6:59 p.m., with a peak at 5:00 p.m.
- Fatal crashes were highest during the hours of 7:00 a.m., 11:00 a.m., 4:00 p.m.-6:59 p.m., and 8:00-9:59 p.m.

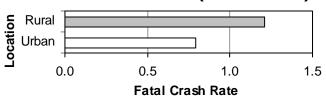
### **Urban/Rural Location (Utah 2008)**

	Crashes													
	PDO	Crashes	Injur	y Crashes	Fat	al Crashes		Total						
		Rate per		Rate per		Rate per		Rate per						
		100 Million		100 Million		100 Million		100 Million						
Location	#	VMT	#	VMT	#	VMT	#	VMT						
Urban	29,078	179.3	13,215	81.5	128	0.79	42,421	261.6						
Rural	9,919	102.6	3,910	40.4	117	1.21	13,946	144.2						
Total	38,997	150.7	17,125	66.2	245	0.05	56,367	217.8						

### **Total Crash Rates (Utah 2008)**

### Fatal Crash Rates (Utah 2008)





- While urban areas had a higher rate of total crashes per vehicle mile traveled, rural areas had a higher rate of fatal crashes per vehicle mile traveled.
- Crashes occurring in rural areas were 2.8 times more likely to result in a death than crashes in urban areas.

### **Road Surface Condition (Utah 2008)**

			Cra	shes				
Road Surface	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	То	tal
Condition	#	%	#	%	#	%	#	%
Dry	27,934	71.6%	13,618	79.5%	217	88.6%	41,769	74.1%
Snow/Slush	4,888	12.5%	1,118	6.5%	10	4.1%	6,016	10.7%
Wet	3,383	8.7%	1,479	8.6%	11	4.5%	4,873	8.6%
Ice	2,004	5.1%	524	3.1%	5	2.0%	2,533	4.5%
Other	215	0.6%	194	1.1%	1	0.4%	410	0.7%
Unknown	573	1.5%	192	1.1%	1	0.4%	766	1.4%
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%

- Most (74.1%) crashes occur when roads are dry.
- Crashes on dry roads were 2.7 times more likely to be fatal compared to all other road surface conditions.

### **Light Condition (Utah 2008)**

			Cr	ashes					
Light	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total		
Condition	#	%	#	%	#	%	#	%	
Daylight	26,872	68.9%	11,958	69.8%	144	58.8%	38,974	69.1%	
Dark	9,808	25.2%	4,207	24.6%	86	35.1%	14,101	25.0%	
Dawn/Dusk	2,317	5.9%	960	5.6%	13	5.3%	3,290	5.8%	
Unknown	0	0.0%	0	0.0%	2	0.8%	2	0.0%	
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%	

- The majority (69.1%) of crashes occur during daylight.
- Over one-third (35.1%) of fatal crashes occur during dark conditions.

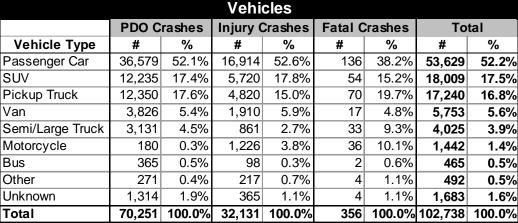
### **Vehicle Type (Utah 2008)**





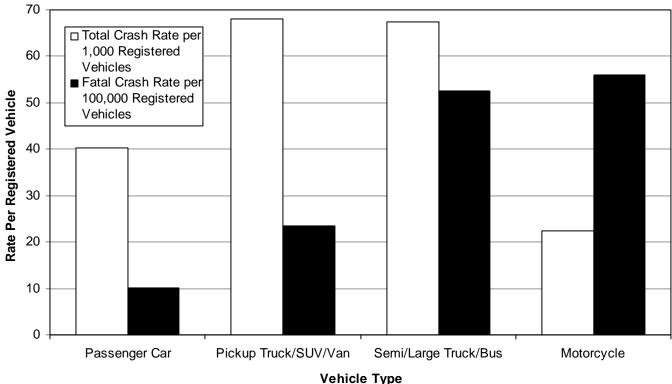








### Crash Rates by Vehicle Type (Utah 2008)



- When comparing vehicle types it is important to keep in mind that different vehicle types may have different usage patterns and thus different exposure. For example, semi/large truck may travel more miles per vehicle.
- Passenger car represented 64.6% of registered vehicles in Utah, pickup truck/SUV/van 29.1%, semi/large truck/bus 3.2%, and motorcycle 3.1%.
- For total crashes, passenger car (52.2%) and SUV (17.5%) were the leading vehicle types.
- Pickup truck/SUV/van and semi/large truck/bus had the highest total crash rates per registered vehicle.
- For fatal crashes, passenger car (38.2%) and pickup truck (19.7%) were the leading vehicle types.
- Motorcycle and semi/large truck/bus had the highest fatal crash rates per registered vehicle.
- While motorcycles represented 1.4% of vehicles in total crashes, they represented 10.1% of vehicles in fatal crashes. Crashes involving a motorcycle were 8 times more likely to be fatal than crashes of other vehicles.

### **Vehicle Maneuver Prior to Crash (Utah 2008)**

			Vehicle	es				
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	To	tal
Vehicle Maneuver	#	%	#	%	#	%	#	%
Straight Ahead	38188	54.4%	18424	57.3%	295	82.9%	56,907	55.4%
Stopped in Traffic Lane	7398	10.5%	4168	13.0%	7	2.0%	11,573	11.3%
Turning Left	6207	8.8%	3613	11.2%	18	5.1%	9,838	9.6%
Slowing in Traffic Lane	5180	7.4%	2281	7.1%	1	0.3%	7,462	7.3%
Turning Right	3282	4.7%	1100	3.4%	3	0.8%	4,385	4.3%
Parked	2996	4.3%	735	2.3%	0	0.0%	3,731	3.6%
Changing Lanes	2367	3.4%	574	1.8%	11	3.1%	2,952	2.9%
Backing	1721	2.4%	146	0.5%	0	0.0%	1,867	1.8%
Making U-turn	642	0.9%	263	0.8%	8	2.2%	913	0.9%
Entering Traffic Lane	643	0.9%	208	0.6%	0	0.0%	851	0.8%
Overtaking/Passing	478	0.7%	189	0.6%	7	2.0%	674	0.7%
Leaving Traffic Lane	168	0.2%	82	0.3%	0	0.0%	250	0.2%
Parking Maneuvers	161	0.2%	15	0.0%	1	0.3%	177	0.2%
Other	319	0.5%	142	0.4%	0	0.0%	461	0.4%
Unknown	501	0.7%	191	0.6%	5	1.4%	697	0.7%
Total	70,251	100.0%	32,131	100.0%	356	100.0%	102,738	100.0%

- For total crashes, straight ahead (55.4%), stopped in traffic lane (11.3%), and turning left (9.6%) were the leading vehicle maneuvers prior to the crash.
- For fatal crashes, straight ahead (82.9%), turning left (5.1%), and changing lanes (3.1%) were the leading vehicle maneuvers prior to the crash.
- Overtaking/passing was one of the deadliest maneuvers to make as crashes were 3 times more likely to be fatal compared to other vehicle maneuvers.

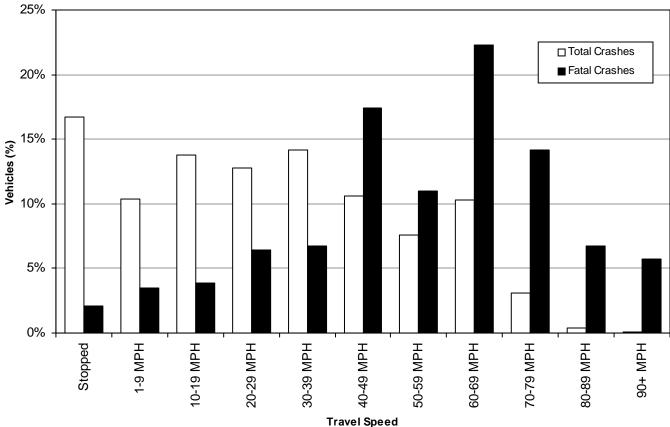
### Speed Limit (Utah 2008)

			Ve	hicles				
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	To	tal
<b>Speed Limit</b>	#	%	#	%	#	%	#	%
5-15 MPH	374	0.5%	126	0.4%	2	0.6%	502	0.5%
20-25 MPH	7,665	10.9%	2,900	9.0%	17	4.8%	10,582	10.3%
30-35 MPH	14,141	20.1%	7,582	23.6%	47	13.2%	21,770	21.2%
40-45 MPH	13,145	18.7%	7,586	23.6%	79	22.2%	20,810	20.3%
50-55 MPH	5,280	7.5%	2,474	7.7%	53	14.9%	7,807	7.6%
60-65 MPH	12,963	18.5%	4,536	14.1%	104	29.2%	17,603	17.1%
70+ MPH	1,980	2.8%	917	2.9%	48	13.5%	2,945	2.9%
Unknown	14,703	20.9%	6,010	18.7%	6	1.7%	20,719	20.2%
Total	70,251	100.0%	32,131	100.0%	356	100.0%	102,738	100.0%

- The speed limit on the roadway was 30-45 MPH for over half (51.9% where speed limit was known) of the total vehicles in crashes.
- Fatal crashes were more likely to occur with higher speed limits. The speed limit was 60 MPH or higher for nearly one-half (43.4% of known) of the vehicles in fatal crashes.
- Crashes where the speed limit was 50 MPH or higher were 2.7 times more likely to be fatal.
- Studies show that a 5% increase in average speed leads to a 10% increase in injury crashes and a 20% increase in fatal crashes. A 5% decrease in speed leads to a 10% decrease in injury crashes and a 20% decrease in fatal crashes.

### **Travel Speed (Utah 2008)**

	Vehicles												
Travel	PDO C	rashes	Injury Crashes		Fatal C	rashes	Total						
Speed	#	%	#	%	#	%	#	%					
Stopped	7,868	11.2%	4,375	13.6%	6	1.7%	12,249	11.9%					
1-9 MPH	5,590	8.0%	2,049	6.4%	10	2.8%	7,649	7.4%					
10-19 MPH	7,163	10.2%	2,965	9.2%	11	3.1%	10,139	9.9%					
20-29 MPH	6,421	9.1%	2,939	9.1%	18	5.1%	9,378	9.1%					
30-39 MPH	6,662	9.5%	3,712	11.6%	19	5.3%	10,393	10.1%					
40-49 MPH	4,949	7.0%	2,739	8.5%	50	14.0%	7,738	7.5%					
50-59 MPH	3,957	5.6%	1,599	5.0%	31	8.7%	5,587	5.4%					
60-69 MPH	5,504	7.8%	1,969	6.1%	63	17.7%	7,536	7.3%					
70-79 MPH	1,505	2.1%	754	2.3%	41	11.5%	2,300	2.2%					
80-89 MPH	123	0.2%	118	0.4%	20	5.6%	261	0.3%					
90+ MPH	28	0.0%	60	0.2%	15	4.2%	103	0.1%					
Unknown	20,481	29.2%	8,852	27.5%	72	20.2%	29,405	28.6%					
Total	70,251	100.0%	32,131	100.0%	356	100.0%	102,738	100.0%					



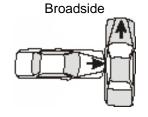
- Over half (51.2% where travel speed was known) of vehicles in total crashes were traveling 1-39 MPH.
- Vehicles in fatal crashes were more likely to be traveling at higher speeds. 59.9% (of known) of vehicles in fatal crashes were traveling 50 MPH or higher.
- Crashes involving vehicles traveling 50 MPH or higher were 5.5 times more likely to be fatal.
- The higher the speed the greater the amount of energy that must be absorbed in a crash, hence there is more likelihood of serious injury.
- Drivers become increased risks to themselves and other people on the highway due to higher speeds.

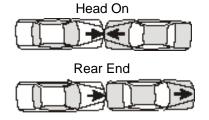
### First Harmful Event (Utah 2008)

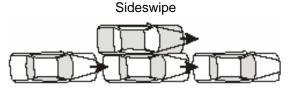
	C	crashe	s					
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	То	tal
First Harmful Event	#	%	#	%	#	%	#	%
Collision with Another Motor Vehicle	25,616	65.7%	11,084	64.7%	91	37.1%	36,791	65.3%
Collision with Animal	2,448	6.3%	178	1.0%	3	1.2%	2,629	4.7%
Collision with Concrete/Cable Barrier	1,481	3.8%	499	2.9%	13	5.3%	1,993	3.5%
Collision with Parked Vehicle	1,017	2.6%	227	1.3%	3	1.2%	1,247	2.2%
Collision with Post, Pole, or Support	881	2.3%	282	1.6%	22	9.0%	1,185	2.1%
Collision with Other Fixed Object	827	2.1%	297	1.7%	2	0.8%	1,126	2.0%
Overturn/Rollover	442	1.1%	632	3.7%	50	20.4%	1,124	2.0%
Collision with Other Non-Fixed Object	808	2.1%	213	1.2%	1	0.4%	1,022	1.8%
Collision with Bicyclist	79	0.2%	692	4.0%	4	1.6%	775	1.4%
Collision with Pedestrian	50	0.1%	574	3.4%	33	13.5%	657	1.2%
Collision with Fence	446	1.1%	106	0.6%	2	0.8%	554	1.0%
Collision with Embankment	254	0.7%	129	0.8%	9	3.7%	392	0.7%
Collision with Guardrail	274	0.7%	103	0.6%	6	2.4%	383	0.7%
Other Non-Collision	202	0.5%	136	0.8%	1	0.4%	339	0.6%
Collision with Tree/Shrubbery	201	0.5%	133	0.8%	2	0.8%	336	0.6%
Collision with Ditch	158	0.4%	94	0.5%	0	0.0%	252	0.4%
Collision with Thrown or Fallen Object	217	0.6%	22	0.1%	0	0.0%	239	0.4%
Collision with Mailbox/Fire Hydrant	183	0.5%	39	0.2%	0	0.0%	222	0.4%
Cargo/Equipment Loss or Shift	143	0.4%	12	0.1%	0	0.0%	155	0.3%
Fire/Explosion	145	0.4%	9	0.1%	0	0.0%	154	0.3%
Collision with Crash Cushion	76	0.2%	49	0.3%	0	0.0%	125	0.2%
Fell/Jumped from Vehicle	13	0.0%	62	0.4%	2	0.8%	77	0.1%
Jackknife	51	0.1%	15	0.1%	0	0.0%	66	0.1%
Collision with Work Zone/Equipment	39	0.1%	8	0.0%	0	0.0%	47	0.1%
Collision with Bridge	34	0.1%	11	0.1%	1	0.4%	46	0.1%
Collision with Culvert	21	0.1%	9	0.1%	0	0.0%	30	0.1%
Collision with Train	19	0.0%	10	0.1%	0	0.0%	29	0.1%
Immersion	9	0.0%	5	0.0%	0	0.0%	14	0.0%
Unknown	2,863	7.3%	1,495	8.7%	0	0.0%	4,358	7.7%
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%

- For all crashes, the leading first harmful event was collision with another motor vehicle.
- For total crashes, collision with animal (4.7%) and collision with concrete/cable barrier (3.5%) were the next highest first harmful events. See page 28 for more information on collisions with animals.
- For fatal crashes, overturn/rollover (20.4%) and collision with pedestrian (13.5%) were the next highest first harmful events.
- Overturn/rollover was 12 times more likely to result in a death than other first harmful events.

### **Collision Examples**







Utah Crash Summary 2008

### **Collision Description (Utah 2008)**

	Crash	es (Tw	o or M	ore Mo	tor Veh	icles)			
Collision	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	Total		
Description	# %		#	%	#	%	#	%	
Rear End	11,537	40.8%	5,196	43.3%	9	9.6%	16,742	41.4%	
Broadside	8,688	30.7%	4,865	40.5%	46	48.9%	13,599	33.7%	
Sideswipe	4,288	15.2%	788	6.6%	19	20.2%	5,095	12.6%	
Parked Vehicle	2,538	9.0%	521	4.3%	0	0.0%	3,059	7.6%	
Head On	350	1.2%	389	3.2%	19	20.2%	758	1.9%	
Backing Vehicle	254	0.9%	47	0.4%	0	0.0%	301	0.7%	
Unknown	634	2.2%	203	1.7%	1	1.1%	838	2.1%	
Total	28,289	100.0%	12,009	100.0%	94	100.0%	40,392	100.0%	

- For all crashes, the leading collision types involving two or more motor vehicles were rear end (41.4%) and broadside (33.7%).
- The leading collision types in fatal crashes were broadside (48.9%), head on (20.2%), and sideswipe (20.2%).
- Head on collisions were 13 times more likely to result in a death than other collisions involving two or more motor vehicles.

### **Number of Vehicles Involved (Utah 2008)**

_				_				- /					
	Crashes												
Vehicles	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total						
Involved	#	%	#	%	#	%	#	%					
1	10,713	27.5%	5,117	29.9%	146	59.6%	15,976	28.3%					
2	25,827	66.2%	9,735	56.8%	89	36.3%	35,651	63.2%					
3	2,087	5.4%	1,785	10.4%	8	3.3%	3,880	6.9%					
4	298	0.8%	388	2.3%	2	0.8%	688	1.2%					
5 or more	72	0.2%	100	0.6%	0	0.0%	172	0.3%					
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%					

• While the majority (63.2%) of all crashes involved two or more motor vehicles, 59.6% of fatal crashes involved only one motor vehicle.

### **Driver Distraction (Utah 2008)**





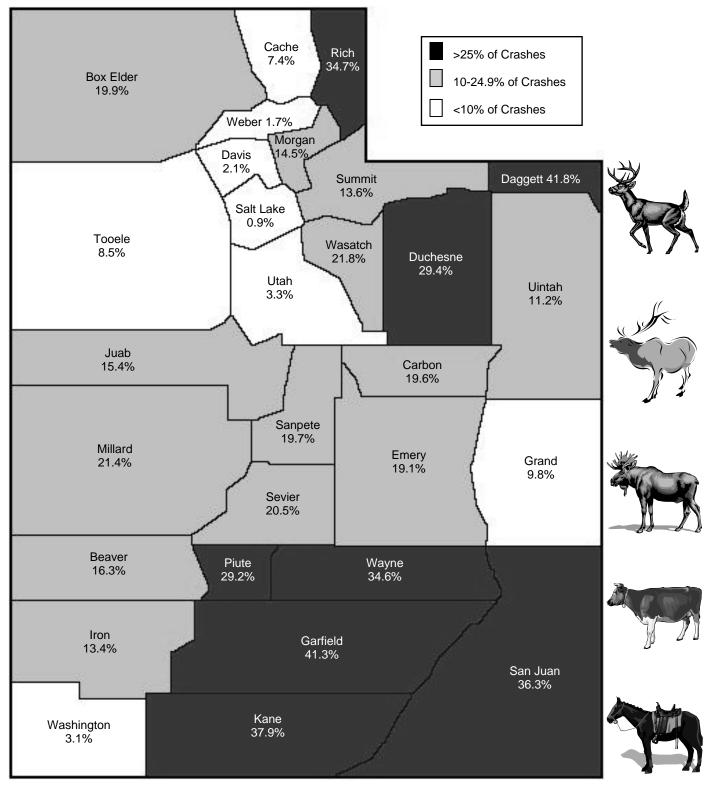
Crashes												
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total					
Driver Distraction	#	%	#	%	#	%	#	%				
None	30,486	78.2%	12,564	73.4%	127	51.8%	43,177	76.6%				
Cell Phone	514	1.3%	364	2.1%	4	1.6%	882	1.6%				
Passengers	350	0.9%	297	1.7%	4	1.6%	651	1.2%				
Radio/CD/DVD etc.	188	0.5%	129	0.8%	0	0.0%	317	0.6%				
Other Electronic Device	71	0.2%	47	0.3%	0	0.0%	118	0.2%				
Other	1,730	4.4%	1,103	6.4%	9	3.7%	2,842	5.0%				
Unknown	5,658	14.5%	2,621	15.3%	101	41.2%	8,380	14.9%				
Total	38,997	100.0%	17,125	100.0%	245	100.0%	56,367	100.0%				





- For all crashes where driver distraction was known, 10.0% of crashes involved a distracted driver. Cell phone was the leading driver distraction (18.3% of distractions). Driving demands the full attention of the driver.
- While these numbers are significant, they may not state the true size of the problem, since the identification of distraction and its role in the crash by law enforcement can be very difficult.

### Percent of Crashes Involving Animals by County (Utah 2008)



- There were 2,740 collisions with animals, 2,342 (85.5%) involved a wild animal and 398 (14.5%) involved a domestic animal.
- Daggett (41.8%), Garfield (41.3%), and Kane (37.9%) had the highest percent of crashes involving an animal.

### Violations (Utah 2008)

<u>Drivers</u>											
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	То	tal			
Violations	#	%	#	%	#	%	#	%			
Following Too Close	1,837	23.8%	738	23.8%	0	0.0%	2,575	23.7%			
Improper Lane Change/Travel	1,732	22.4%	611	19.7%	2	3.8%	2,345	21.5%			
Speed	1,185	15.3%	406	13.1%	4	7.5%	1,595	14.7%			
Improper Turn	759	9.8%	323	10.4%	2	3.8%	1,084	10.0%			
Driving Under the Influence	244	3.2%	265	8.6%	5	9.4%	514	4.7%			
License Violation	233	3.0%	131	4.2%	4	7.5%	368	3.4%			
Negligent Collision	224	2.9%	87	2.8%	0	0.0%	311	2.9%			
Equipment Violation	208	2.7%	39	1.3%	0	0.0%	247	2.3%			
Improper Start or Stop	178	2.3%	66	2.1%	0	0.0%	244	2.2%			
Failure to Yield Right of Way	158	2.0%	73	2.4%	4	7.5%	235	2.2%			
Insurance Violation	172	2.2%	56	1.8%	2	3.8%	230	2.1%			
Improper Lookout	162	2.1%	48	1.5%	0	0.0%	210	1.9%			
Hit and Run	117	1.5%	21	0.7%	1	1.9%	139	1.3%			
Failure to Obey Traffic Control Device	75	1.0%	64	2.1%	0	0.0%	139	1.3%			
Careless Driving	63	0.8%	27	0.9%	0	0.0%	90	0.8%			
Improper Backing	64	0.8%	4	0.1%	0	0.0%	68	0.6%			
Reckless Driving	26	0.3%	25	0.8%	3	5.7%	54	0.5%			
Registration Violation	43	0.6%	10	0.3%	0	0.0%	53	0.5%			
Improper Passing	37	0.5%	11	0.4%	0	0.0%	48	0.4%			
Failure to Stop at Red Light	18	0.2%	19	0.6%	2	3.8%	39	0.4%			
Alcohol/Drug Violation, Other than DUI	11	0.1%	11	0.4%	4	7.5%	26	0.2%			
Failure to Stop at Stop Sign	17	0.2%	9	0.3%	0	0.0%	26	0.2%			
Seat belt/Child Restraint	11	0.1%	11	0.4%	0	0.0%	22	0.2%			
Vehicle Homicide	0	0.0%	0	0.0%	19	35.8%	19	0.2%			
Wrong Side of Road	16	0.2%	3	0.1%	0	0.0%	19	0.2%			
Other Moving Violation	132	1.7%	37	1.2%	1	1.9%	170	1.6%			
Other Non-Moving Violation	10	0.1%	2	0.1%	0	0.0%	12	0.1%			
Total	7,732	100.0%	3,097	100.0%	53	100.0%	10,882	100.0%			

- There were 10,882 citations issued at the scene of the crash. The most common violations were for following too close (23.7%), improper lane change/travel (21.5%), and speed (14.7%).
- The leading violations in fatal crashes were vehicle homicide (35.8%) and driving under the influence (9.4%).

### **Contributing Factors (Utah 2008)**

	Dri	vers/Ve	hicles					
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	To	tal
Contributing Factors	#	%	#	%	#	%	#	%
Followed Too Closely	8,276	14.5%	3,910	13.5%	7	1.2%	12,193	14.1%
Failed to Yield Right of Way	6,194	10.9%	3,863	13.3%	37	6.4%	10,094	11.7%
Speed Too Fast	7,092	12.4%	2,793	9.7%	88	15.2%	9,973	11.5%
Failed to Keep in Proper Lane	4,386	7.7%	2,015	7.0%	77	13.3%	6,478	7.5%
Other Improper Driving	3,875	6.8%	2,110	7.3%	8	1.4%	5,993	6.9%
Vision Obscured by Weather Condition	4,028	7.1%	1,373	4.7%	1	0.2%	5,402	6.2%
Driver Distraction	2,926	5.1%	2,007	6.9%	11	1.9%	4,944	5.7%
Improper Turn	2,263	4.0%	965	3.3%	10	1.7%	3,238	3.7%
Disregard Traffic Signal/Sign	1,425	2.5%	1,384	4.8%	24	4.1%	2,833	3.3%
Improper Lane Change	1,850	3.2%	434	1.5%	10	1.7%	2,294	2.6%
Driving Under the Influence	1,139	2.0%	1,074	3.7%	58	10.0%	2,271	2.6%
Ran Off Road	1,266	2.2%	872	3.0%	80	13.8%	2,218	2.6%
Hit and Run	1,715	3.0%	461	1.6%	4	0.7%	2,180	2.5%
Overcorrected	1,030	1.8%	793	2.7%	46	7.9%	1,869	2.2%
Swerved or Evasive Action	1,133	2.0%	604	2.1%	21	3.6%	1,758	2.0%
Improper Backing	1,342	2.4%	95	0.3%	0	0.0%	1,437	1.7%
Vehicle Other Defective Condition	1,025	1.8%	339	1.2%	0	0.0%	1,364	1.6%
Asleep/Fatigue	595	1.0%	513	1.8%	18	3.1%	1,126	1.3%
Vision Obscured by Moving Vehicle	608	1.1%	357	1.2%	6	1.0%	971	1.1%
Improper Parking/Stopping	607	1.1%	239	0.8%	1	0.2%	847	1.0%
Other Driver Condition	369	0.6%	347	1.2%	0	0.0%	716	0.8%
Reckless/Aggressive Driving	380	0.7%	289	1.0%	14	2.4%	683	0.8%
Vision Obscured by Other	405	0.7%	274	0.9%	3	0.5%	682	0.8%
Driver Emotionally Upset	342	0.6%	310	1.1%	5	0.9%	657	0.8%
Vehicle Brakes	394	0.7%	226	0.8%	1	0.2%	621	0.7%
Vehicle Tires	436	0.8%	170	0.6%	10	1.7%	616	0.7%
Improper Passing	452	0.8%	110	0.4%	4	0.7%	566	0.7%
Vision Obscured by Glare	326	0.6%	231	0.8%	3	0.5%	560	0.6%
Vision Obscured by Parked Vehicle	314	0.6%	123	0.4%	0	0.0%	437	0.5%
Driver Illness	137	0.2%	216	0.7%	2	0.3%	355	0.4%
Wrong Side/Wrong Way	176	0.3%	142	0.5%	28	4.8%	346	0.4%
Vision Obscured by Building, Sign, etc.	178	0.3%	95	0.3%	1	0.2%	274	0.3%
Disregard Road Markings	118	0.2%	82	0.3%	0	0.0%	200	0.2%
Windshield or Other Window Obscured	98	0.2%	38	0.1%	1	0.2%	137	0.2%
Vision Obscured by Vegitation	75	0.1%	58	0.2%	1	0.2%	134	0.2%
Improper Signal	98	0.2%	28	0.1%	0	0.0%	126	0.1%
Total	57,073	100.0%	28,940	100.0%	580	100.0%	86,593	100.0%

- Some form of poor driver performance is present in the majority of crashes. The leading contributing factors for all crashes were followed too closely (14.1%), failed to yield right of way (11.7%), and speed too fast (11.5%).
- The leading contributing factors in fatal crashes were speed too fast (15.2%), ran off road (13.8%), and failed to keep in proper lane (13.3%).

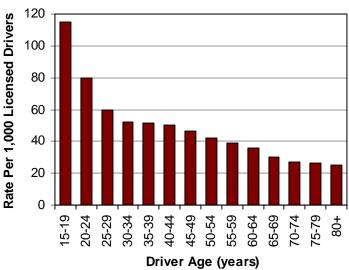
Motor vehicle crashes are the leading cause of death for ages 2 through 34 in the United States.

# Overview 🙇

### Did you know in 2008:

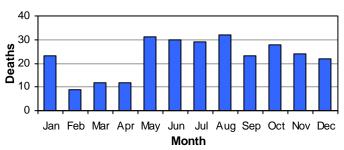
- 56,367 motor vehicle crashes occurred in Utah which resulted in 24,673 injured persons and 276 deaths.
- The 276 deaths in 2008 were the lowest in Utah since 1992.
- A motor vehicle crash occurred in Utah every 9 minutes, a person was injured in a crash every 21 minutes, and a person died in a crash every 31 hours.

### Crash Rates per Licensed Drivers by Age (Utah 2008)



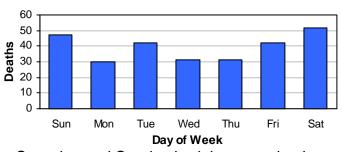
- Drivers aged 15-19 years had the highest crash rates per licensed driver.
- Older drivers had the lowest crash rates per licensed driver.

### **Deaths by Month (Utah 2008)**



August and May had the most deaths.

### Deaths by Day of Week (Utah 2008)



Saturday and Sunday had the most deaths.

### **Leading Contributing Factors (Utah 2008)**

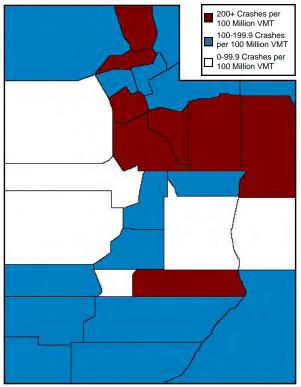
### All Crashes

- 1. Followed Too Closely (22%)
- 2. Failed to Yield Right of Way (18%)
- 3. Speed Too Fast (18%)
- 4. Failed to Keep in Proper Lane (11%)
- 5. Vision Obscured by Weather Condition (10%)

### **Fatal Crashes**

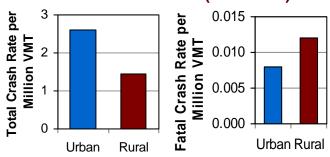
- 1. Speed Too Fast (36%)
- 2. Ran Off Road (33%)
- 3. Failed to Keep in Proper Lane (31%)
- 4. Driving Under the Influence (24%)
- 5. Overcorrected (19%)

### **County Crash Rates by Miles** Traveled (Utah 2008)



 Salt Lake, Weber, Wayne, Duchesne, and Utah Counties had the highest crash rates per miles traveled.

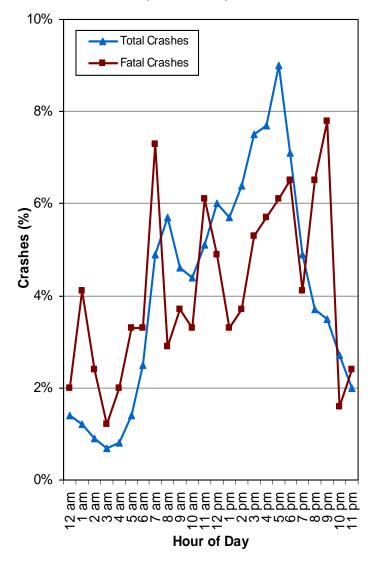
### **Urban/Rural Location (Utah 2008)**



- Urban areas had a higher rate of total crashes per vehicle mile traveled while rural areas had a higher fatal crash rate.
- Rural crashes were 2.8 times more likely to be fatal than urban crashes.

# Overview

### **Motor Vehicle Crashes by Hour of Day** (Utah 2008)



- Total crashes were more likely to occur between 3:00 p.m. and 6:59 p.m.
- Fatal crashes were highest during the hours of 9:00 p.m. and 7:00 a.m.

### **Leading Crash Descriptions (Utah 2008)**

### All Crashes

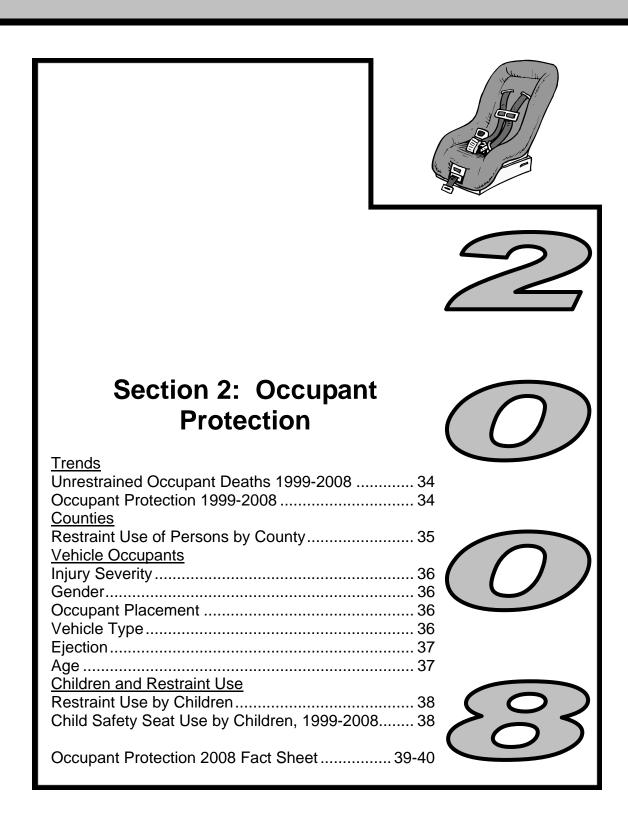
- 1. Rear End (30%)
- 2. Broadside (24%)
- 3. Collision With Fixed Object (12%) 3. Broadside (19%)
- 4. Sideswipe (9%)
- 5. Parked Vehicle (5%)

### **Fatal Crashes**

- 1. Collision With Fixed Object (23%)
- 2. Overturn/Rollover (20%)
- 4. Pedestrian/Bicyclist (15%)
- 5. Head On & Sideswipe (8% each)

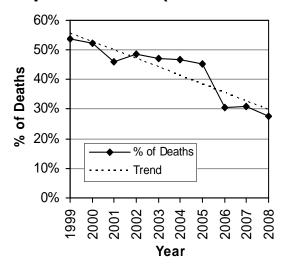
Vehicle rollovers were 12 times more likely to result in a death than other crashes.

# Occupant Protection



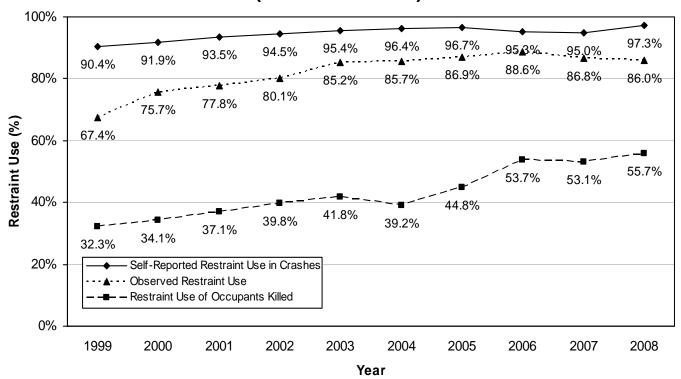
### **Unrestrained Occupant Deaths (Utah 1999-2008)**

Unre	Unrestrained Occupant Deaths											
		Deaths										
	All	Unrestrained	Occupants									
Year	#	#	%									
1999	360	193	53.6%									
2000	373	195	52.3%									
2001	291	134	46.0%									
2002	328	159	48.5%									
2003	309	146	47.2%									
2004	296	138	46.6%									
2005	282	128	45.4%									
2006	287	88	30.7%									
2007	299	92	30.8%									
2008	276	78	28.3%									
Total	3,101	1,351	43.6%									



- Over the past 10 years, 43.6% of deaths have been to unrestrained occupants.
- On average, 135
   people die a year in
   Utah who are
   unrestrained.
- The percentage of deaths to unrestrained occupants has shown a decreasing trend over the last 10 years.

## Restraint Use of Occupants In Crashes and Observational Studies (Utah 1999-2008)



- Historically, there have been differences between self-reported restraint use of people in crashes and seat belt use observed in observational studies. The difference may be due to over-reporting by the people in crashes.
- The 10-year trend shows an increase of restraint use in crashes, observational studies, and occupants killed.
- In 2008, the observational seat belt use decreased to 86.0% from 86.8% in 2007. The year 2006 had the highest observed seat belt use ever in Utah at 88.6%.
- The 2008 self-reported restraint use of people in crashes increased to 97.3% from 95.0% in 2007.
- Restraint use among occupants killed increased from 53.1% in 2007 to 55.7% in 2008.

### **Restraint Use by County (Utah 2008)**

	Persons												
	No	n-Injure	d		njured			Kille	d	To	otal		
	Restr	Unrest	rained	Restr	Unrest	rained	Restr Unrestrained			Restrained	Unrest	rained	
County	#	#	%	#	#	%	#	#	%	#	#	%	
Sevier	478	47	9.0%	134	44	24.7%	4	3	42.9%	616	94	13.2%	
Wayne	84	9	9.7%	15	4	21.1%	0	1	100.0%	99	14	12.4%	
Uintah	965	82	7.8%	163	66	28.8%	6	3	33.3%	1,134	151	11.8%	
Sanpete	284	19	6.3%	86	28	24.6%	0	2	100.0%	370	49	11.7%	
San Juan	332	21	5.9%	49	24	32.9%	2	4	66.7%	383	49	11.3%	
Emery	298	14	4.5%	59	28	32.2%	5	1	16.7%	362	43	10.6%	
Piute	15	0	0.0%	3	1	25.0%	0	1	100.0%	18	2	10.0%	
Grand	230	18	7.3%	65	14	17.7%	3	1	25.0%	298	33	10.0%	
Duchesne	723	54	6.9%	114	31	21.4%	1	1	50.0%	838	86	9.3%	
Garfield	247	18	6.8%	25	9	26.5%	1	1	50.0%	273	28	9.3%	
Daggett	39	2	4.9%	4	2	33.3%	0	0	n/a	43	4	8.5%	
Rich	84	7	7.7%	20	1	4.8%	0	0	n/a	104	8	7.1%	
Juab	459	15	3.2%	94	24	20.3%	1	2	66.7%	554	41	6.9%	
Kane	249	13	5.0%	48	9	15.8%	1	0	0.0%	298	22	6.9%	
Beaver	293	12	3.9%	79	10	11.2%	0	2	100.0%	372	24	6.1%	
Iron	1,283	63	4.7%	285	34	10.7%	1	1	50.0%	1,569	98	5.9%	
Tooele	1,019	29	2.8%	206	34	14.2%	3	10	76.9%	1,228	73	5.6%	
Carbon	639	21	3.2%	83	18	17.8%	1	1	50.0%	723	40	5.2%	
Wasatch	906	32	3.4%	126	24	16.0%	0	0	n/a	1,032	56	5.1%	
Millard	600	18	2.9%	162	18	10.0%	5	2	28.6%	767	38	4.7%	
Washington	3,956	122	3.0%	796	97	10.9%	9	5	35.7%	4,761	224	4.5%	
Box Elder	1,530	50	3.2%	356	35	9.0%	7	2	22.2%	1,893	87	4.4%	
Summit	1,718	42	2.4%	214	27	11.2%	5	7	58.3%	1,937	76	3.8%	
Morgan	274	7	2.5%	21	2	8.7%	2	0	0.0%	297	9	2.9%	
Utah	14,672	267	1.8%	3,193	201	5.9%	13	8	38.1%	17,878	476	2.6%	
Cache	3,726	68	1.8%	654	48	6.8%	2	0	0.0%	4,382	116	2.6%	
Davis	9,522	107	1.1%	1,810	91	4.8%	6	2	25.0%	11,338	200	1.7%	
Salt Lake	44,685	499	1.1%	7,875	410	4.9%	16	15	48.4%	52,576	924	1.7%	
Weber	8,142	76	0.9%	1,518	76	4.8%	4	3	42.9%	9,664	155	1.6%	
Statewide	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%	

- Restraint use is reported for occupants in a passenger car, light truck, van, SUV, or large truck. Occupants are considered "Restrained" if they were reported as using a shoulder/lap belt, lap belt, or a child safety seat at the scene of the crash.
- Restraint use is self-reported by crash occupants in the majority of crashes and may be inflated due to overreporting by the people in crashes.
- The officer determines restraint use in the event of a fatal or severe injury crash.
- The majority of persons in crashes reported being restrained (97.3%).
- Sevier (13.2%), Wayne (12.4%), and Uintah (11.8%) counties had the highest percentage of occupants that were unrestrained.
- 44.3% of vehicle occupants killed in crashes in Utah were unrestrained.
- Beaver (100%), Piute (100%), Sanpete (100%), and Wayne (100%) counties had the highest percentage of occupant deaths that were unrestrained.
- Occupants in rural crashes were 3.1 times more likely to be unrestrained than occupants in urban crashes.

### **Vehicle Occupants**

### **Restraint Use by Injury Severity (Utah 2008)**

	Persons											
	Non-Ir	njured	Inju	red	Kill	led	Total					
Restraint Use	#	%	#	%	#	%	#	%				
Restrained	97,452	98.3%	18,257	92.8%	98	55.7%	115,807	97.3%				
Unrestrained	1,732	1.7%	1,410	7.2%	78	44.3%	3,220	2.7%				
Total	99,184	100.0%	19,667	100.0%	176	100.0%	119,027	100.0%				

- Over 97% of persons who survived a crash reported being restrained.
- In contrast, only half (55.7%) of the persons killed in a crash were restrained.
- Unrestrained crash occupants were 29 times more likely to be killed than restrained crash occupants.

### Restraint Use by Gender of Crash Occupants (Utah 2008)

	Persons												
	Non-Injured				njured		Killed			Total			
	Restr	Unrest	rained	Restr Unrestrained			Restr	Unres	trained	Restrained Unrestra		rained	
Gender	#	#	%	#	#	%	#	#	%	#	#	%	
Male	55,072	1,128	2.0%	7,699	819	9.6%	56	58	50.9%	62,827	2,005	3.1%	
Female	42,079	585	1.4%	10,526	590	5.3%	42	20	32.3%	52,647	1,195	2.2%	
Unknown	301	19	5.9%	32	1	3.0%	0	0	n/a	333	20	5.7%	
Total	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%	

- Overall, female (97.8%) crash occupants restraint use was slightly higher than males (96.9%).
- For persons killed, female crash occupants had higher restraint use (67.7%) than males (49.1%).

### **Restraint Use by Occupant Placement (Utah 2008)**

1					-				•				
Persons													
	Non-Injured			Injured			Killed			Total			
Occupant	Restr	Unrestrained		Restr	estr Unrestrained			Unres	trained	Restrained	ed Unrestrained		
Placement	#	#	%	#	#	%	#	#	%	#	#	%	
Driver	70,991	1,054	1.5%	12,871	776	5.7%	71	50	41.3%	83,933	1,880	2.2%	
Front Seat	13,375	280	2.1%	3,408	344	9.2%	20	13	39.4%	16,803	637	3.7%	
Back Seat	12,854	268	2.0%	1,942	235	10.8%	5	11	68.8%	14,801	514	3.4%	
Other/Unknown	232	130	35.9%	36	55	60.4%	2	4	66.7%	270	189	41.2%	
Total	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%	

Among all occupants, drivers reported the highest restraint use (97.8%).

### Restraint Use by Vehicle Type (Utah 2008)

Persons												
	Non-Injured			Injured			Killed			Total		
	Restr	Unrestrained		Restr	Restr Unrestrained		Restr	Unrestrained		Restrained	Unrestrained	
Vehicle Type	#	#	%	#	#	%	#	#	%	#	#	%
Semi/Large Truck	3,500	163	4.4%	222	42	15.9%	6	1	14.3%	3,728	206	5.2%
Pickup Truck	16,090	439	2.7%	2,132	297	12.2%	17	18	51.4%	18,239	754	4.0%
Passenger Car	50,216	759	1.5%	11,083	722	6.1%	50	41	45.1%	61,349	1,522	2.4%
SUV	20,206	261	1.3%	3,503	268	7.1%	20	15	42.9%	23,729	544	2.2%
Van	7,440	110	1.5%	1,317	81	5.8%	5	3	37.5%	8,762	194	2.2%
Total	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%

Occupants in semi/large truck (5.2%) and pickup truck (4.0%) were the least likely to be restrained.

#### **Vehicle Occupants**

#### **Restraint Use by Ejection (Utah 2008)**

Persons												
	No	n-Injure	ed		njured			Killed	d	Total		
	Restr	Unrest	rained	Restr Unrestrained			Restr	Unres	trained	Restrained	Unrest	rained
<b>Ejection Status</b>	#	#	%	#	#	%	#	#	%	#	#	%
Not Ejected	93,743	1,602	1.7%	17,680	1,194	6.3%	76	26	25.5%	111,499	2,822	2.5%
Partially Ejected	0	0	n/a	35	13	27.1%	10	4	28.6%	45	17	27.4%
Fully Ejected	0	0	n/a	85	145	63.0%	10	48	82.8%	95	193	67.0%
Unknown	3,709	130	3.4%	457	58	11.3%	2	0	0.0%	4,168	188	4.3%
Total	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%

- There is an inverse relationship between ejection from a motor vehicle and restraint use.
- The majority (67.0%) of crash occupants fully ejected from a motor vehicle were unrestrained compared to only 2.5% of crash occupants not ejected from a motor vehicle.
- Unrestrained occupants were 79 times more likely to be fully ejected from a motor vehicle compared to restrained occupants.
- Ejection from the vehicle is one of the most harmful events that can happen to a person in a crash. Seat belts are effective in preventing total ejections.

#### Restraint Use by Age of Crash Occupants (Utah 2008)

	Persons											
	No	n-Injure	ed	ı	njured			Kille	d	To	otal	
	Restr	Unrest	rained	Restr	Unrest	rained	Restr	Unrestrained		Restrained	Unrestrained	
Age	#	#	%	#	#	%	#	#	%	#	#	%
0-4	4,565	49	1.1%	494	28	5.4%	1	2	66.7%	5,060	79	1.5%
5-9	3,161	51	1.6%	527	40	7.1%	4	1	20.0%	3,692	92	2.4%
10-14	2,819	60	2.1%	529	60	10.2%	1	4	80.0%	3,349	124	3.6%
15-19	15,060	310	2.0%	2,621	334	11.3%	13	8	38.1%	17,694	652	3.6%
20-24	14,269	270	1.9%	2,767	262	8.6%	10	13	56.5%	17,046	545	3.1%
25-29	11,348	212	1.8%	2,155	177	7.6%	11	7	38.9%	13,514	396	2.8%
30-34	8,799	143	1.6%	1,594	126	7.3%	7	11	61.1%	10,400	280	2.6%
35-39	7,051	129	1.8%	1,375	86	5.9%	8	4	33.3%	8,434	219	2.5%
40-44	6,030	85	1.4%	1,169	76	6.1%	3	8	72.7%	7,202	169	2.3%
45-49	5,735	93	1.6%	1,130	56	4.7%	8	4	33.3%	6,873	153	2.2%
50-54	5,012	68	1.3%	973	47	4.6%	8	6	42.9%	5,993	121	2.0%
55-59	3,792	64	1.7%	826	27	3.2%	4	3	42.9%	4,622	94	2.0%
60-64	2,715	47	1.7%	615	19	3.0%	3	1	25.0%	3,333	67	2.0%
65-69	1,819	29	1.6%	400	15	3.6%	5	2	28.6%	2,224	46	2.0%
70-74	1,266	20	1.6%	290	9	3.0%	4	1	20.0%	1,560	30	1.9%
75-79	946	19	2.0%	202	9	4.3%	2	1	33.3%	1,150	29	2.5%
80-84	663	11	1.6%	180	6	3.2%	5	1	16.7%	848	18	2.1%
85+	383	5	1.3%	100	6	5.7%	1	1	50.0%	484	12	2.4%
Unknown	2,019	67	3.2%	310	27	8.0%	0	0	n/a	2,329	94	3.9%
Total	97,452	1,732	1.7%	18,257	1,410	7.2%	98	78	44.3%	115,807	3,220	2.7%

- Overall, crash occupants aged 10-14 years (3.6%), 15-19 years (3.6%), and 20-24 years (3.1%) had the highest percentages of being unrestrained.
- For persons killed, crash occupants aged 10-14 years (80.0%), 40-44 years (72.7%), 0-4 years (66.7%), and 30-34 years (61.1%) had the highest percentages of being unrestrained.

#### **Children and Restraint Use**

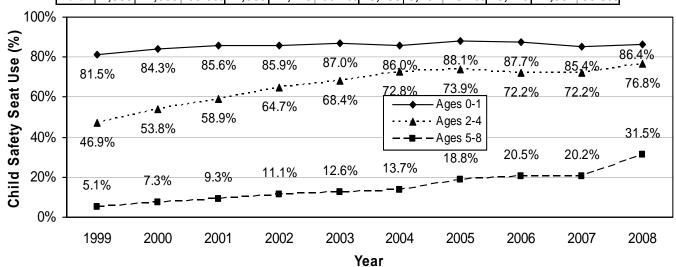
#### Restraint Use for Children Age 0 to 8 Years (Utah 2008)

Child Occupants											
	Age	s 0-1	Age	s 2-4	Age	es 5-8	Total				
Restraint Use	#	%	#	%	#	%	#	%			
Child Safety Seat	1,822	86.4%	2,301	76.8%	978	31.5%	5,101	62.2%			
Seat Belt Only	248	11.8%	655	21.9%	2,051	66.1%	2,954	36.0%			
Unrestrained	38	1.8%	39	1.3%	74	2.4%	151	1.8%			
Total	2,108	100.0%	2,995	100.0%	3,103	100.0%	8,206	100.0%			

- The older the child the less likely they were using a child safety seat.
- The drastic decrease in child safety seat use for children aged 5-8 years is concerning. This indicates that children are moving to adult-sized seat belts too early.

# Child Safety Seat Use by Children Age 0 to 8 Years (Utah 1999-2008)

	Child Occupants												
		Ages 0-	1		Ages 2-4	1	Δ	ges 5-	8	Total			
	No	Child	Child Safety No		Child	Safety	No	Child	Safety	No	Child S	Safety	
	CSS	Seat		CSS	Se	at	CSS	Se	eat	CSS	Se	at	
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	360	1,591	81.5%	1,723	1,520	46.9%	2,873	154	5.1%	4,956	3,265	39.7%	
2000	317	1,703	84.3%	1,520	1,768	53.8%	3,013	237	7.3%	4,850	3,708	43.3%	
2001	283	1,678	85.6%	1,378	1,971	58.9%	2,751	281	9.3%	4,412	3,930	47.1%	
2002	279	1,696	85.9%	1,229	2,249	64.7%	2,953	368	11.1%	4,461	4,313	49.2%	
2003	247	1,652	87.0%	1,070	2,320	68.4%	3,371	484	12.6%	4,688	4,456	48.7%	
2004	275	1,688	86.0%	952	2,542	72.8%	3,577	567	13.7%	4,804	4,797	50.0%	
2005	227	1,681	88.1%	960	2,721	73.9%	2,969	688	18.8%	4,156	5,090	55.1%	
2006	267	1,897	87.7%	881	2,288	72.2%	2,654	683	20.5%	3,802	4,868	56.1%	
2007	367	2,151	85.4%	961	2,495	72.2%	2,864	727	20.2%	4,192	5,373	56.2%	
2008	286	1,822	86.4%	694	2,301	76.8%	2,125	978	31.5%	3,105	5,101	62.2%	
Total	2,908	17,559	85.8%	11,368	22,175	66.1%	29,150	5,167	15.1%	43,426	44,901	50.8%	



- The ten year trend shows an increase of child safety seat (CSS) use in crashes for ages 0-8 years.
- Ages 2-4 years showed the biggest gain in CSS use, increasing from 46.9% in 1999 to 76.8% in 2008.

Wearing a seat belt is one of the best ways to decrease injuries and deaths in motor vehicle crashes.

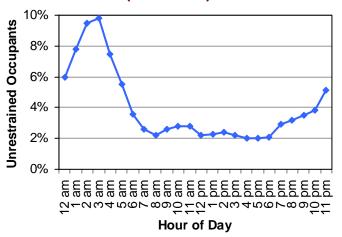
# Occupant Protection



#### Did you know in 2008:

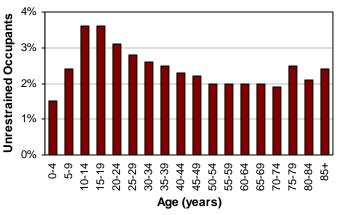
- Unrestrained crash occupants were 29 times more likely to die in a crash than restrained occupants.
- An estimated 128 lives were saved because of restraint use. (National Highway Traffic Safety Administration)
- Occupants in pickup trucks were the least likely to be restrained.

# Unrestrained Crash Occupants by Hour (Utah 2008)



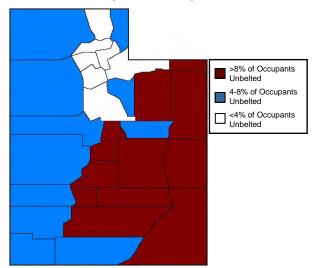
• 11:00 p.m. to 5:59 a.m. had the highest percentage of unrestrained crash occupants.

# Unrestrained Crash Occupants by Age (Utah 2008)



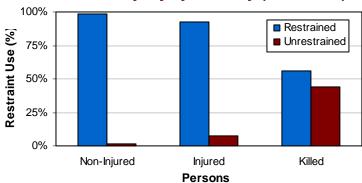
 The highest percentage of unrestrained crash occupants were aged 10-24 years.

# Unrestrained Crash Occupants by County (Utah 2008)



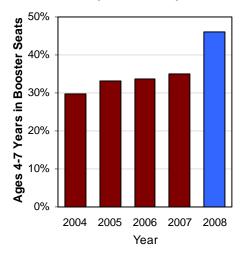
• Occupants in rural crashes were 3.1 times more likely to be unrestrained than urban occupants.

#### Restraint Use by Injury Severity (Utah 2008)



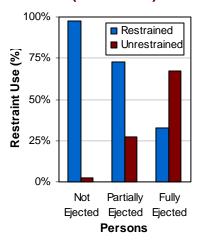
 Over 97% of persons who survived a crash were restrained compared to only half (56%) of the persons killed.

#### **Effectiveness of Booster Seat** Law (Utah 2008)



- In 2008, a law was passed increasing the age of child safety seat use from up to age four years to up to age eight years.
- In 2008, booster seat use among ages 4-7 years in crashes increased to 46%.
- Passage of the law increased booster seat use 31%.

#### **Ejection and Restraint** Use (Utah 2008)



- 67% of crash occupants fully ejected from a motor vehicle were unrestrained.
- Unrestrained occupants were 79 times more likely to be fully ejected than restrained occupants.

#### Seat Belt Recommendations:

pounds and 1 year of age.

passenger side air bag.

facing child safety seats.

a safer fit on children.

vehicle.

Children at least 1 year of age weighing

• Older children (approximately 4-8 years

of age) should ride in belt-positioning

booster seats until they are 4'9" tall and

the seat belt fits properly. Booster seats

help position an adult-size seat belt for

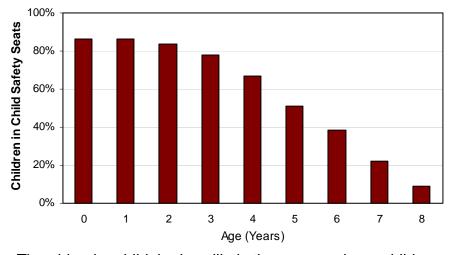
• The safest place for any child aged 12

and under is in the back seat of the

20-40 pounds should ride in forward

- Always use both the lap and shoulder belt. When worn properly, the shoulder belt should fit across the collar bone and the lap belt should fit low over the
- Never place the shoulder strap under your arm or behind your back.

#### Percent of Children Aged 0-8 Years in Crashes Using Child Safety Seats (Utah 2008)



- The older the child the less likely they were using a child safety seat.
- While 86% of children 0-1 years in a crash were in a child safety seat, only 67% of 4-year-olds, 38% of 6-year-olds, and 9% of 8-year-olds were in a child safety seat.
- The decrease in child safety seat use for children aged 4-8 years is concerning and indicates that children are moving to adult-sized seat belts too early.

# Safety Restraint Laws:

- Utah law requires all motor vehicle occupants to wear a seat belt. This is a secondary enforcement law for drivers and passengers age 19 years and older. This means an adult may be issued a citation and a \$45 fine only when the police officer has stopped the vehicle for another reason.
- The law is a primary enforcement law for drivers and passengers under age 19 years.
  - ⇒ Children age 7 years and under must ride in an approved child safety seat.
  - ⇒ Children aged 8 to 18 years must ride in an appropriate child restraint or seat belt.
  - ⇒ There are a few exemptions to the law. Contact the Highway Safety Office for more information.

This primary enforcement law means a person may be stopped and issued a citation for simply not buckling up.





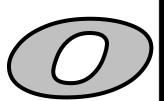
# Alcohol-Impaired Drivers

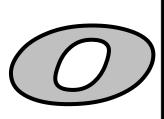


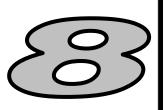
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# Section 3: Alcohol-Impaired Drivers

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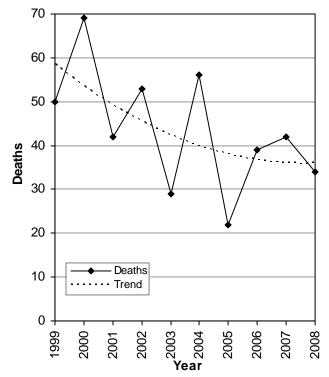
#### **Trends**

#### Alcohol-Impaired Driver Fatal Crashes (Utah 1999-2008)

Alcohol-Impaired Driver Crashes										
		Deaths		Fatal Crashes						
	All	Alco	ohol	All	Alco	ohol				
Year	#	#	# %		#	%				
1999	360	50	13.9%	318	47	14.8%				
2000	373	69	18.5%	318	59	18.6%				
2001	291	42	14.4%	258	38	14.7%				
2002	328	53	16.2%	274	47	17.2%				
2003	309	29	9.4%	262	24	9.2%				
2004	296	56	18.9%	260	50	19.2%				
2005	282	22	7.8%	235	21	8.9%				
2006	287	39	13.6%	249	32	12.9%				
2007	299	42	14.0%	260	37	14.2%				
2008	276	34	12.3%	244	32	13.1%				
Total	3,101	436	14.1%	2,678	387	14.5%				

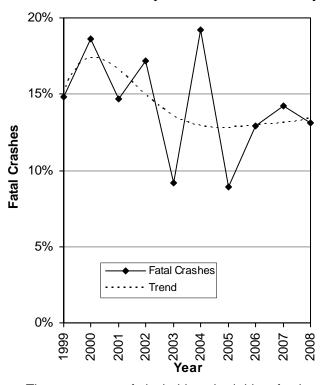
- Over the past 10 years, the percentage of alcohol-impaired driving deaths and fatal crashes has fluctuated around 15% of all deaths and fatal crashes.
- On average, 44 people die a year in Utah from alcohol-impaired driver crashes.

# Alcohol-Impaired Driver Deaths (Utah 1999-2008)



 The number of alcohol-impaired driver deaths has fluctuated from year to year with a slight decreasing trend over the last ten years.

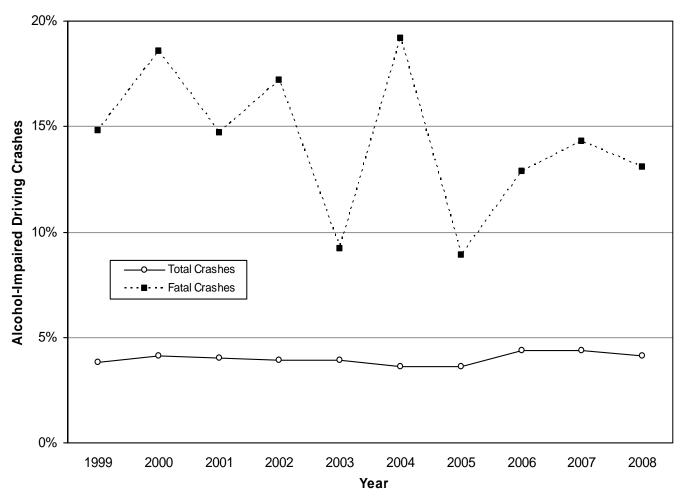
# Alcohol-Impaired Driver Fatal Crashes (Utah 1999-2008)



 The percentage of alcohol-impaired driver fatal crashes has fluctuated from year to year with a slight decreasing trend over the last ten years.

# **Alcohol-Impaired Driver Crashes (Utah 1999-2008)**

	Alcohol-Impaired Driver Crashes												
	<b>Property</b>	Damag	e Only		Injury		Fatal				Total		
	All	Alco	hol	All	All Alcohol		All Alcohol			All	Alcohol		
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	32,971	842	2.6%	19,513	1,137	5.8%	318	47	14.8%	52,802	2,026	3.8%	
2000	33,269	951	2.9%	19,564	1,152	5.9%	318	59	18.6%	53,151	2,162	4.1%	
2001	33,113	932	2.8%	19,332	1,152	6.0%	258	38	14.7%	52,703	2,122	4.0%	
2002	33,542	924	2.8%	19,552	1,117	5.7%	274	47	17.2%	53,368	2,088	3.9%	
2003	31,842	904	2.8%	18,285	1,024	5.6%	262	24	9.2%	50,389	1,952	3.9%	
2004	34,222	878	2.6%	19,423	1,020	5.3%	260	50	19.2%	53,905	1,948	3.6%	
2005	35,158	898	2.6%	19,545	1,058	5.4%	235	21	8.9%	54,938	1,977	3.6%	
2006	37,674	1,261	3.3%	18,264	1,195	6.5%	249	32	12.9%	56,187	2,488	4.4%	
2007	42,368	1,441	3.4%	18,619	1,240	6.7%	258	37	14.3%	61,245	2,718	4.4%	
2008	38,997	1,217	3.1%	17,125	1,081	6.3%	245	32	13.1%	56,367	2,330	4.1%	
Total	353,156	10,248	2.9%	189,222	11,176	5.9%	2,677	387	14.5%	545,055	21,811	4.0%	



- Over the past 10 years, 4.0% of total crashes involved alcohol-impaired drivers compared with 14.5% of fatal
- Alcohol-impaired driver crashes were 3.5 times more likely to be fatal than crashes not involving an alcoholimpaired driver.

# Counties

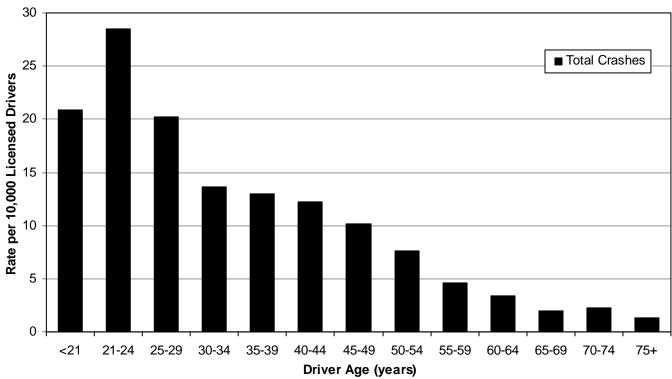
### **Alcohol-Impaired Driver Crashes by County (Utah 2008)**

Alcohol-Impaired Driver Crashes											
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	То	tal			
		Rate		Rate		Rate		Rate			
		per 100		per 100		per 100		per 100			
		Million		Million		Million		Million			
County	#	VMT	#	VMT	#	VMT	#	VMT			
Wayne	6	15.1	3	7.5	0	0.00	9	22.6			
Uintah	24	6.7	36	10.1	1	0.28	61	17.1			
Salt Lake	605	7.1	504	5.9	6	0.07	1,115	13.1			
Daggett	1	3.1	3	9.4	0	0.00	4	12.6			
Duchesne	9	3.8	18	7.6	0	0.00	27	11.5			
Weber	104	6.6	62	3.9	0	0.00	166	10.5			
Sanpete	10	4.6	8	3.7	0	0.00	18	8.3			
Washington	47	3.5	58	4.4	5	0.38	110	8.3			
Rich	2	4.1	2	4.1	0	0.00	4	8.2			
Tooele	26	3.1	39	4.7	3	0.36	68	8.1			
Utah	142	3.9	116	3.2	5	0.14	263	7.3			
Wasatch	16	5.3	6	2.0	0	0.00	22	7.3			
Garfield	4	3.5	4	3.5	0	0.00	8	7.1			
Summit	28	3.8	20	2.7	4	0.54	52	7.1			
San Juan	6	2.2	10	3.7	2	0.74	18	6.7			
Davis	96	3.8	60	2.4	2	0.08	158	6.3			
Carbon	10	3.3	8	2.7	0	0.00	18	6.0			
Beaver	5	2.1	9	3.8	0	0.00	14	5.9			
Kane	3	2.2	4	2.9	1	0.72	8	5.7			
Iron	13	1.9	22	3.2	0	0.00	35	5.2			
Sevier	4	1.2	13	3.9	0	0.00	17	5.1			
Cache	19	2.0	28	3.0	0	0.00	47	5.0			
Grand	5	1.6	11	3.4	0	0.00	16	5.0			
Morgan	2	1.5	2	1.5	2	1.46	6	4.4			
Millard	5	1.2	11	2.5	0	0.00	16	3.7			
Emery	6	1.8	5	1.5	1	0.30	12	3.6			
Box Elder	16	1.8	15	1.7	0	0.00	31	3.5			
Juab	3	0.8	4	1.0	0	0.00	7	1.8			
Piute	0	0.0	0	0.0	0	0.00	0	0.0			
Statewide	1,217	4.7	1,081	4.2	32	0.12	2,330	9.0			

- Wayne (22.6), Uintah (17.1), and Salt Lake (13.1) counties had the highest rates of alcohol-impaired driver total crashes per 100 million vehicle miles traveled.
- Piute (0.0), Juab (1.8), and Box Elder (3.5) counties had the lowest rates of alcohol-impaired driver total crashes per 100 million vehicle miles traveled.

#### Age of Alcohol-Impaired Drivers in Crashes (Utah 2008)

Alcohol-Impaired Drivers												
	F	DO Cra	shes	Ir	jury Cra	ashes		Fatal C	rashes	Total		
			Rate per			Rate per			Rate per			Rate per
			10,000			10,000			10,000			10,000
Age	#	%	Drivers	#	%	Drivers	#	%	Drivers	#	%	Drivers
<21	179	14.5%	11.3	151	13.8%	9.5	2	6.1%	0.13	332	14.0%	20.9
21-24	227	18.4%	14.2	226	20.6%	14.1	4	12.1%	0.25	457	19.3%	28.5
25-29	231	18.7%	10.5	208	19.0%	9.4	5	15.2%	0.23	444	18.8%	20.2
30-34	145	11.7%	7.3	118	10.8%	6.0	6	18.2%	0.30	269	11.4%	13.6
35-39	105	8.5%	6.4	103	9.4%	6.3	6	18.2%	0.36	214	9.1%	13.0
40-44	84	6.8%	5.9	86	7.9%	6.1	3	9.1%	0.21	173	7.3%	12.2
45-49	79	6.4%	5.3	71	6.5%	4.8	1	3.0%	0.07	151	6.4%	10.2
50-54	58	4.7%	4.1	46	4.2%	3.3	3	9.1%	0.21	107	4.5%	7.6
55-59	31	2.5%	2.6	24	2.2%	2.0	0	0.0%	0.00	55	2.3%	4.6
60-64	20	1.6%	2.1	11	1.0%	1.2	1	3.0%	0.11	32	1.4%	3.4
65-69	9	0.7%	1.3	5	0.5%	0.7	0	0.0%	0.00	14	0.6%	2.0
70-74	4	0.3%	0.8	7	0.6%	1.3	1	3.0%	0.19	12	0.5%	2.3
75+	5	0.4%	0.6	5	0.5%	0.6	1	3.0%	0.12	11	0.5%	1.3
Unknown	59	4.8%	n/a	34	3.1%	n/a	0	0.0%	n/a	93	3.9%	n/a
Total	1,236	100.0%	7.0	1,095	100.0%	6.2	33	100.0%	0.19	2,364	100.0%	13.5



- Drivers aged 21-24 years had the highest rate of total alcohol-impaired driver crashes (28.5).
- Drivers aged 35-39 years had the highest rate of alcohol-impaired driver fatal crashes (0.36).
- 332 (14.0%) of the impaired drivers in total crashes were under the age of 21 years.
- Two of the 33 (6.1%) impaired drivers in fatal crashes were under the age of 21 years.
- There is a rapid decline of impaired drivers as age increases with less than 10% of impaired drivers over the age of 50 years (9.8%).

#### **Drivers**

#### Gender of Alcohol-Impaired Drivers in Crashes (Utah 2008)

	Alcohol-Impaired Drivers											
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	Total					
Gender	#	%	#	%	#	%	#	%				
Male	932	75.4%	837	76.4%	27	81.8%	1,796	76.0%				
Female	265	21.4%	238	21.7%	6	18.2%	509	21.5%				
Unknown	39	3.2%	20	1.8%	0	0.0%	59	2.5%				
Total	1,236	100.0%	1,095	100.0%	33	100.0%	2,364	100.0%				

• Male drivers were much more likely to be an alcohol-impaired driver in a crash. Male drivers represented 76.0% of the impaired drivers in total crashes and 81.8% of impaired drivers in fatal crashes.

# Alcohol-Impaired Drivers in Fatal Crashes by Blood Alcohol Concentration (Utah 2008)

Alcohol-Impaired Drivers in Fatal Crashes										
Drivers										
BAC	#	%								
.0815	20	60.6%								
.1623	11	33.3%								
.2431	2	6.1%								
.32+	0	0.0%								
Total	33	100.0%								



• 13 out of the 33 (39.4%) drivers in fatal crashes who tested positive for alcohol had blood alcohol concentration (BAC) levels at or above twice the legal limit of 0.08.

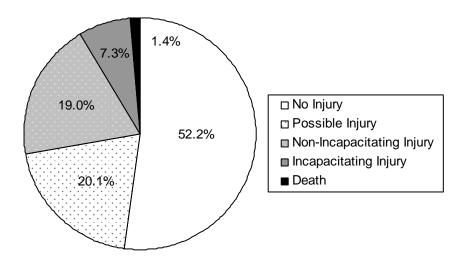
#### Previous Driving Under the Influence Convictions of Alcohol-Impaired Drivers in Fatal Crashes (Utah 2008)

• Of the 33 alcohol-impaired drivers in fatal crashes, two drivers (6.1%) had been previously convicted of driving under the influence in the past three years.

#### **Drug-Impaired Drivers in Crashes (Utah 2008)**

- There were an additional 568 drivers impaired by drugs only, 256 (45.1%) in property damage only crashes, 303 (53.3%) in injury crashes, and 9 (1.6%) in fatal crashes.
- Cannabinoids (THC, marijuana) and depressants were the most common drugs for drug-impaired drivers in fatal crashes.

#### **Alcohol-Impaired Driver Crash Severity (Utah 2008)**



- Alcohol-impaired driver crashes were more likely to have a death or injury than other crashes.
- A higher percentage of alcohol-impaired driver crashes (46.4%) resulted in an injury compared to all motor vehicle crashes that resulted in an injury (30.4%).
- In addition, a higher percentage of alcohol-impaired driver crashes were fatal (1.4%) compared to all motor vehicle crashes (0.4%).

#### **Alcohol-Impaired Driver Crashes by Month (Utah 2008)**

	Alcohol-Impaired Driver Crashes										
		PDO Cr	ashes	Injury C	rashes	Fatal C	rashes	Total			
	Days in		Rate		Rate		Rate		Rate		
	Month		per		per		per		per		
Month	#	#	Day	#	Day	#	Day	#	Day		
January	31	110	3.5	63	2.0	1	0.03	174	5.6		
February	29	93	3.2	84	2.9	3	0.10	180	6.2		
March	31	113	3.6	76	2.5	3	0.10	192	6.2		
April	30	86	2.9	101	3.4	2	0.07	189	6.3		
May	31	112	3.6	89	2.9	1	0.03	202	6.5		
June	30	98	3.3	86	2.9	3	0.10	187	6.2		
July	31	74	2.4	101	3.3	3	0.10	178	5.7		
August	31	95	3.1	111	3.6	5	0.16	211	6.8		
September	30	102	3.4	87	2.9	2	0.07	191	6.4		
October	31	96	3.1	123	4.0	2	0.06	221	7.1		
November	30	120	4.0	78	2.6	4	0.13	202	6.7		
December	31	118	3.8	82	2.6	3	0.10	203	6.5		
Total	366	1,217	3.3	1,081	3.0	32	0.09	2,330	6.4		

- Overall, the highest rates per day of alcohol-impaired driver crashes were in October (7.1), August (6.8), and November (6.7), with the lowest rate per day in January (5.6).
- The highest rates per day of fatal alcohol-impaired driver crashes occurred in August and November.

#### Alcohol-Impaired Driver Crashes by Day of Week (Utah 2008)

	Alcohol-Impaired Driver Crashes												
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total						
Day of Week	#	%	#	%	#	%	#	%					
Sunday	240	19.7%	219	20.3%	4	12.5%	463	19.9%					
Monday	119	9.8%	114	10.5%	2	6.3%	235	10.1%					
Tuesday	120	9.9%	112	10.4%	2	6.3%	234	10.0%					
Wednesday	121	9.9%	104	9.6%	3	9.4%	228	9.8%					
Thursday	131	10.8%	122	11.3%	7	21.9%	260	11.2%					
Friday	192	15.8%	152	14.1%	5	15.6%	349	15.0%					
Saturday	294	24.2%	258	23.9%	9	28.1%	561	24.1%					
Total	1,217	100.0%	1,081	100.0%	32	100.0%	2,330	100.0%					

• The highest percentage of alcohol-impaired driver total crashes (24.1%) and fatal crashes (28.1%) occurred on Saturday.

#### **Alcohol-Impaired Driver Crashes by Hour (Utah 2008)**

		Alcoho	l-Impai	red Dri	ver Cra	ashes		
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	То	tal
Hour	#	%	#	%	#	%	#	%
Midnight	94	7.7%	75	6.9%	2	6.3%	171	7.3%
1 a.m.	101	8.3%	75	6.9%	3	9.4%	179	7.7%
2 a.m.	66	5.4%	71	6.6%	4	12.5%	141	6.1%
3 a.m.	53	4.4%	47	4.3%	0	0.0%	100	4.3%
4 a.m.	57	4.7%	36	3.3%	0	0.0%	93	4.0%
5 a.m.	20	1.6%	31	2.9%	1	3.1%	52	2.2%
6 a.m.	31	2.5%	21	1.9%	1	3.1%	53	2.3%
7 a.m.	24	2.0%	15	1.4%	2	6.3%	41	1.8%
8 a.m.	20	1.6%	18	1.7%	0	0.0%	38	1.6%
9 a.m.	19	1.6%	11	1.0%	0	0.0%	30	1.3%
10 a.m.	20	1.6%	13	1.2%	1	3.1%	34	1.5%
11 a.m.	23	1.9%	12	1.1%	1	3.1%	36	1.5%
Noon	17	1.4%	19	1.8%	2	6.3%	38	1.6%
1 p.m.	11	0.9%	27	2.5%	0	0.0%	38	1.6%
2 p.m.	24	2.0%	18	1.7%	0	0.0%	42	1.8%
3 p.m.	31	2.5%	35	3.2%	1	3.1%	67	2.9%
4 p.m.	54	4.4%	47	4.3%	0	0.0%	101	4.3%
5 p.m.	74	6.1%	57	5.3%	0	0.0%	131	5.6%
6 p.m.	64	5.3%	79	7.3%	0	0.0%	143	6.1%
7 p.m.	72	5.9%	71	6.6%	2	6.3%	145	6.2%
8 p.m.	79	6.5%	65	6.0%	3	9.4%	147	6.3%
9 p.m.	81	6.7%	74	6.8%	4	12.5%	159	6.8%
10 p.m.	94	7.7%	87	8.0%	2	6.3%	183	7.9%
11 p.m.	87	7.1%	77	7.1%	2	6.3%	166	7.1%
Unknown	1	0.1%	0	0.0%	1	3.1%	2	0.1%
Total	1,217	100.0%	1,081	100.0%	32	100.0%	2,330	100.0%

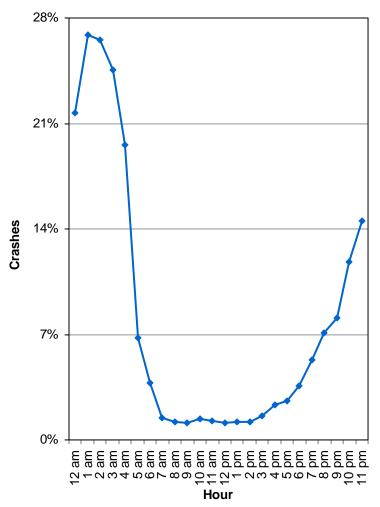
- Alcohol-impaired driver total crashes peaked in the evening and early morning hours (5:00 p.m. to 2:59 a.m.).
- Fatal alcohol-impaired driver crashes varied by hour and peaked at 9:00 p.m. and 2:00 a.m.

#### Did you know in 2008:

- 2,330 alcohol-impaired driver crashes occurred in Utah which resulted in 1,596 injured persons and 34 deaths.
- Alcohol-impaired driver crashes were 3.5 times more likely to be fatal than other crashes.
- The number of alcohol-impaired driver fatal crashes decreased 14% in 2008 from 2007.

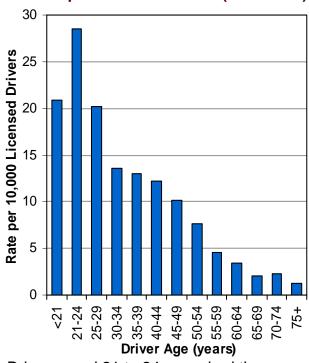
# **Alcohol-Impaired Drivers**

#### Percent of Total Crashes with an Alcohol-Impaired Driver by Hour (Utah 2008)



 While 4% of total crashes involved an alcoholimpaired driver, nearly one-fourth (24%) of crashes occurring during the hours of 12:00 a.m.-4:59 a.m. involved an alcohol-impaired driver.

#### Rate of Alcohol-Impaired Drivers in Crashes per Licensed Driver (Utah 2008)



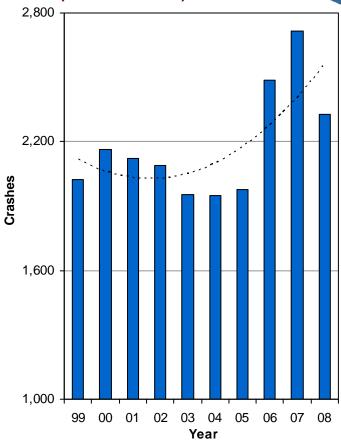
- Drivers aged 21 to 24 years had the highest rates of alcohol-impaired crashes.
- Of the impaired drivers, 332 (14%) were under the age of 21 years.



#### Previous DUI (Utah 2008)

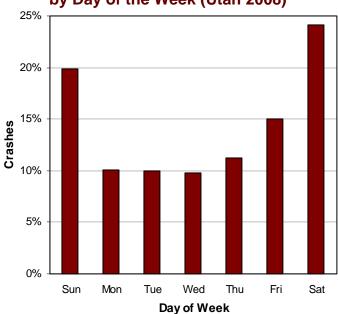
6% of the alcohol-impaired drivers in fatal crashes were previously convicted of driving under the influence in the past three years.

# Alcohol-Impaired Driver Crashes (Utah 1999-2008)



 The number of alcohol-impaired driver crashes has shown an increasing trend over the last three years.

# Alcohol-Impaired Driver Crashes by Day of the Week (Utah 2008)

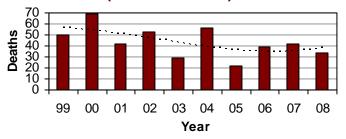


 The highest percentage of alcohol-impaired driver crashes occurred on Saturday (24%).

# Alcohol-Impaired Drivers

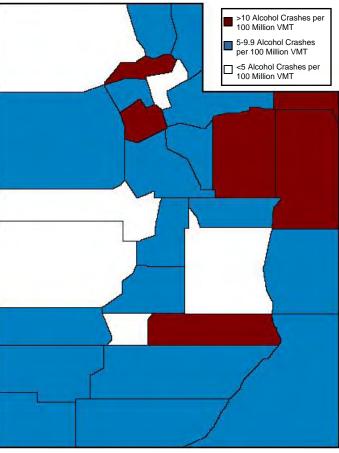


# Deaths from Alcohol-Impaired Drivers (Utah 1999-2008)



 The number of deaths from alcohol-impaired drivers has fluctuated from year to year with a slight decreasing trend over the last 10 years.

# Alcohol-Impaired Driver Crashes by County (Utah 2008)



- Wayne, Uintah, and Salt Lake Counties had the highest rates of alcohol-impaired driver crashes per vehicle miles traveled (VMT).
- Piute, Juab, and Box Elder Counties had the lowest rates of alcohol-impaired driver crashes per VMT.

# **Teenage Drivers**





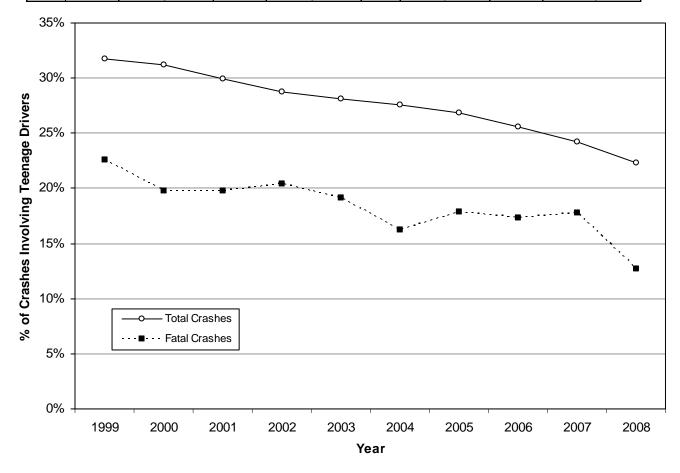
# **Section 4: Teenage Drivers**

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#### **Trends**

#### Teenage Driver Crashes (Utah 1999-2008)

	Teenage Driver Crashes												
	<b>Property</b>	/ Damag	ge Only	Injury			Fatal				Total		
	All	Teen	Driver	All	Teen	Driver	All Teen Driver			All	Teen D	Priver	
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	32,971	10,406	31.6%	19,513	6,281	32.2%	318	72	22.6%	52,802	16,759	31.7%	
2000	33,269	10,252	30.8%	19,564	6,263	32.0%	318	63	19.8%	53,151	16,578	31.2%	
2001	33,113	9,686	29.3%	19,332	6,006	31.1%	258	51	19.8%	52,703	15,743	29.9%	
2002	33,542	9,478	28.3%	19,552	5,776	29.5%	274	56	20.4%	53,368	15,310	28.7%	
2003	31,842	8,807	27.7%	18,285	5,321	29.1%	262	50	19.1%	50,389	14,178	28.1%	
2004	34,222	9,397	27.5%	19,423	5,431	28.0%	260	42	16.2%	53,905	14,870	27.6%	
2005	35,158	9,225	26.2%	19,545	5,434	27.8%	235	42	17.9%	54,938	14,701	26.8%	
2006	37,674	9,427	25.0%	18,264	4,928	27.0%	249	43	17.3%	56,187	14,398	25.6%	
2007	42,368	9,990	23.6%	18,619	4,808	25.8%	258	46	17.8%	61,245	14,844	24.2%	
2008	38,997	8,512	21.8%	17,125	4,007	23.4%	245	31	12.7%	56,367	12,550	22.3%	
Total	353,156	95,180	27.0%	189,222	54,255	28.7%	2,677	496	18.5%	545,055	149,931	27.5%	



- Teenage drivers (aged 15-19 years) are a special concern because of their high crash rates and lack of driving experience.
- The 10-year trend shows that 27.5% of all crashes in Utah involved a teenage driver with a decreasing trend over the last 10 years.
- Fatal teenage driver crashes have also shown a decreasing trend. In 1999 the percentage of fatal teenage driver crashes was 22.6% and has decreased to 12.7% in 2008.

#### **Counties**

#### **Teenage Driver Crashes by County (Utah 2008)**

				Teena	age Di	iver Cı	rashes	5				
	PD	O Crash	es	Inju	ıry Cras	shes	Fat	tal Cras	shes		Total	
	All	Teen	Driver	All	Teen	Driver	All	Teen	Driver	All	Teen	Driver
County	#	#	%	#	#	%	#	#	%	#	#	%
Sanpete	188	64	34.0%	108	35	32.4%	4	0	0.0%	300	99	33.0%
Cache	1,421	430	30.3%	592	179	30.2%	5	0	0.0%	2,018	609	30.2%
Davis	3,295	859	26.1%	1,546	416	26.9%	13	0	0.0%	4,854	1,275	26.3%
Utah	5,528	1,375	24.9%	2,865	792	27.6%	38	6	15.8%	8,431	2,173	25.8%
Weber	2,979	773	25.9%	1,339	336	25.1%	15	4	26.7%	4,333	1,113	25.7%
Washington	1,331	314	23.6%	760	214	28.2%	13	2	15.4%	2,104	530	25.2%
Uintah	610	129	21.1%	197	51	25.9%	9	1	11.1%	816	181	22.2%
Iron	561	118	21.0%	255	51	20.0%	3	1	33.3%	819	170	20.8%
Salt Lake	17,276	3,584	20.7%	7,465	1,542	20.7%	62	11		24,803	5,137	20.7%
Carbon	385	74	19.2%	107	28	26.2%	2	0	0.0%	494	102	20.6%
Tooele	543	109	20.1%	244	55	22.5%	15	0	0.0%	802	164	20.4%
Juab	237	46	19.4%	95	19	20.0%	5	0	0.0%	337	65	19.3%
Morgan	179	36	20.1%	33	5	15.2%	2	0	0.0%	214	41	19.2%
Sevier	332	49	14.8%	145	36	24.8%	6	1	16.7%	483	86	17.8%
Duchesne	440	67	15.2%	122	29	23.8%	2	0	0.0%	564	96	17.0%
Millard	276	40	14.5%	119	25	21.0%	6	0	0.0%	401	65	16.2%
Box Elder	763	105	13.8%	296	64	21.6%	7	2	28.6%	1,066	171	16.0%
Grand	128	16	12.5%	93	20	21.5%	4	0	0.0%	225	36	16.0%
Emery	181	30	16.6%	64	8	12.5%	6	1	16.7%	251	39	15.5%
Wasatch	485	70	14.4%	151	27	17.9%	1	0	0.0%	637	97	15.2%
Rich	68	12	17.6%	26	2	7.7%	1	0	0.0%	95	14	14.7%
Wayne	74	10	13.5%	29	5	17.2%	1	0	0.0%	104	15	14.4%
Summit	935	128	13.7%	220	33	15.0%	10	1	10.0%	1,165	162	13.9%
Beaver	169	22	13.0%	69	11	15.9%	2	0	0.0%	240	33	13.8%
Garfield	143	18	12.6%	44	3	6.8%	2	0	0.0%	189	21	11.1%
Daggett	40	5	12.5%	15	1	6.7%	0	0	0.0%	55	6	10.9%
Kane	188	11	5.9%	49	10	20.4%	3	1	33.3%	240	22	9.2%
San Juan	226	17	7.5%	71	9	12.7%	6	0	0.0%	303	26	8.6%
Piute	16	1	6.3%	6	1	16.7%	2	0	0.0%	24	2	8.3%
Statewide	38,997	8,512	21.8%	17,125	4,007	23.4%	245	31	12.7%	56,367	12,550	22.3%

- Overall, Sanpete (33.0%), Cache (30.2%), and Davis (26.3%) counties had the highest percentages of crashes involving a teenage driver.
- Iron (33.3%), Kane (33.3%), Box Elder (28.6%), and Weber (26.7%) counties had the highest percentages of fatal crashes involving a teenage driver.
- Overall, Piute (8.3%), San Juan (8.6%), and Kane (9.2%) counties had the lowest percentages of crashes involving a teenage driver.
- Statewide, teenage driver crashes represented 22.3% of all crashes and 12.7% of all fatal crashes.



#### **Persons Involved**

#### Restraint Use of Teen Drivers and Their Passengers (Utah 2008)

	Non-Ir	Non-Injured Killed					То	tal
Restraint Use	#	%	#	%	#	%	#	%
Restrained	14,678	98.1%	2,530	88.4%	9	64.3%	17,217	96.5%
Unrestrained	281	1.9%	333	11.6%	5	35.7%	619	3.5%
Total	14,959	100.0%	2,863	100.0%	14	100.0%	17,836	100.0%

- Overall, most teen drivers and their passengers were restrained (96.5%).
- Only 64.3% of occupants killed in teenage driven vehicles were restrained.
- In fact, teen drivers and their passengers that were unrestrained were 15 times more likely than restrained occupants to be killed in a crash.

#### Number of Occupants in Teenage Driven Vehicles (Utah 2008)

	Teenage Driven Vehicles											
Number of	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total					
Occupants	#	%	#	%	#	%	#	%				
1	6,863	73.1%	2,770	63.3%	18	56.3%	9,651	70.0%				
2	1,720	18.3%	1,072	24.5%	10	31.3%	2,802	20.3%				
3	507	5.4%	326	7.5%	1	3.1%	834	6.0%				
4 or more	296	3.2%	206	4.7%	3	9.4%	505	3.7%				
Total	9,386	100.0%	4,374	100.0%	32	100.0%	13,792	100.0%				

- Over two-thirds of teenage driven vehicles (70.0%) in crashes contained only the teenage driver.
- In comparison, one-half (56.3%) of the teenage driven vehicles in fatal crashes contained only the driver.

#### **Drivers**

#### Gender of Teenage Drivers in Crashes (Utah 2008)

	Teenage Drivers												
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	Total						
Gender	#	%	#	%	#	%	#	%					
Male	4,928	52.5%	2,246	51.3%	26	81.3%	7,200	52.2%					
Female	4,412	47.0%	2,117	48.4%	6	18.8%	6,535	47.4%					
Unknown	46	0.5%	11	0.3%	0	0.0%	57	0.4%					
Total	9,386	100.0%	4,374	100.0%	32	100.0%	13,792	100.0%					

- The majority of teen drivers in all motor vehicle crashes (52.2%) and fatal crashes (81.3%) were male.
- Crashes involving male teen drivers were 3.9 times more likely to be fatal than female teen driver crashes.

#### **Previous Driving Violations of Teens in Fatal Crashes (Utah 2008)**

• Of the 32 teenage drivers in fatal crashes, 12 (37.5%) had been previously convicted of a moving traffic violation in the past three years.

#### Alcohol Involvement of Teenage Drivers (Utah 2008)

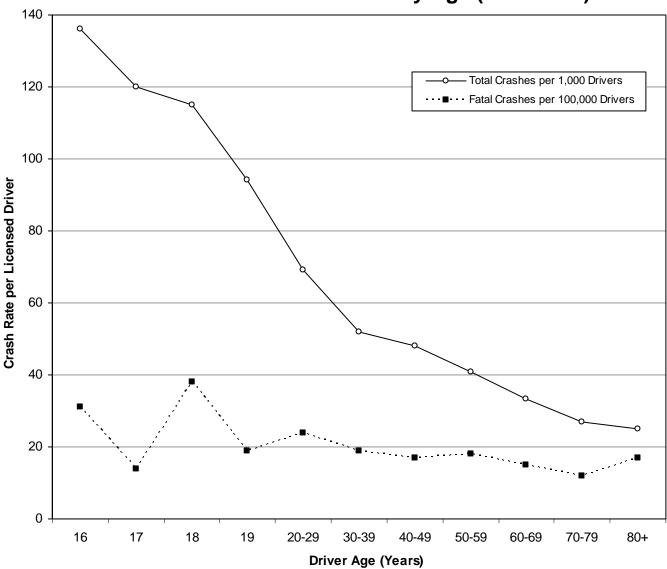
Of the 32 teenage drivers in fatal crashes, one (3.1%) was impaired by alcohol.

Friends Don't Let Friends Drive Drunk.

### Age of Teenage Drivers in Crashes (Utah 2008)

	Teenage Drivers													
	PI	DO Cras	shes	ln,	jury Cra	shes	Fatal Crashes Tot			Total				
			Rate per	Rate per			Rate pe				Rate per			
			1,000			1,000			1,000			1,000		
Age	#	%	Drivers	#	%	Drivers	#	%	Drivers	#	%	Drivers		
15	126	1.3%	n/a	65	1.5%	n/a	2	6.3%	n/a	193	1.4%	n/a		
16	1,826	19.5%	93.5	826	18.9%	42.3	6	18.8%	0.31	2,658	19.3%	136.1		
17	2,396	25.5%	81.4	1,130	25.8%	38.4	4	12.5%	0.14	3,530	25.6%	119.9		
18	2,719	29.0%	78.8	1,242	28.4%	36.0	13	40.6%	0.38	3,974	28.8%	115.1		
19	2,319	24.7%	63.6	1,111	25.4%	30.5	7	21.9%	0.19	3,437	24.9%	94.3		
Total	9,386	100.0%	78.2	4,374	100.0%	36.4	32	100.0%	0.27	13,792	100.0%	114.9		

### Crash Rate of Licensed Drivers by Age (Utah 2008)



- Drivers aged 16 years had the highest total crash rate per licensed driver (136.1).
- Drivers aged 18 years had the highest fatal crash rate per licensed driver (0.38).

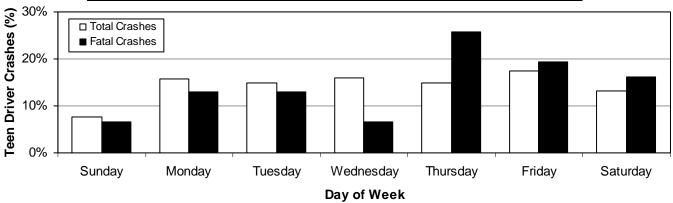
#### **Teenage Driver Crashes by Month (Utah 2008)**

	Teenage Driver Crashes												
		PDO Cr				Fatal Crashes		Tot	al				
	Days in		Rate		Rate		Rate		Rate				
	Month		per		per		per		per				
Month	#	#	Day	#	Day	#	Day	#	Day				
January	31	948	30.6	339	10.9	0	0.00	1,287	41.5				
February	29	797	27.5	301	10.4	2	0.07	1,100	37.9				
March	31	666	21.5	300	9.7	0	0.00	966	31.2				
April	30	595	19.8	340	11.3	1	0.03	936	31.2				
May	31	686	22.1	361	11.6	5	0.16	1,052	33.9				
June	30	563	18.8	352	11.7	1	0.03	916	30.5				
July	31	523	16.9	307	9.9	3	0.10	833	26.9				
August	31	610	19.7	345	11.1	5	0.16	960	31.0				
September	30	674	22.5	329	11.0	5	0.17	1,008	33.6				
October	31	744	24.0	359	11.6	4	0.13	1,107	35.7				
November	30	671	22.4	336	11.2	2	0.07	1,009	33.6				
December	31	1,035	33.4	338	10.9	3	0.10	1,376	44.4				
Total	366	8,512	23.3	4,007	10.9	31	0.08	12,550	34.3				

- Overall, December (44.4) and January (41.5) had the highest rates per day for teenage driver crashes.
- The highest rates per day of fatal teenage driver crashes occurred in September, August, and May.

#### Teenage Driver Crashes by Day of Week (Utah 2008)

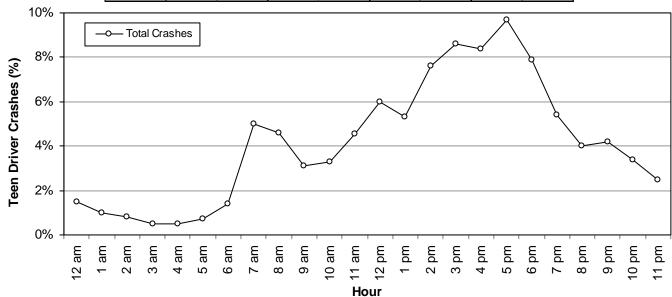
	Teenage Driver Crashes											
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	Total					
Day of Week	#	%	#	%	#	%	#	%				
Sunday	622	7.3%	344	8.6%	2	6.5%	968	7.7%				
Monday	1,352	15.9%	624	15.6%	4	12.9%	1,980	15.8%				
Tuesday	1,265	14.9%	617	15.4%	4	12.9%	1,886	15.0%				
Wednesday	1,383	16.2%	613	15.3%	2	6.5%	1,998	15.9%				
Thursday	1,289	15.1%	564	14.1%	8	25.8%	1,861	14.8%				
Friday	1,521	17.9%	672	16.8%	6	19.4%	2,199	17.5%				
Saturday	1,080	12.7%	573	14.3%	5	16.1%	1,658	13.2%				
Total	8,512	100.0%	4,007	100.0%	31	100.0%	12,550	100.0%				



- Overall, the highest percentage of teenage driver crashes occurred on Friday (17.5%).
- The highest percentage of fatal teenage driver crashes occurred on Thursday (25.8%).

# **Teenage Driver Crashes by Hour (Utah 2008)**

		Te	enage	Driver (	Crashe	S		
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	То	tal
Hour	#	%	#	%	#	%	#	%
Midnight	120	1.4%	68	1.7%	0	0.0%	188	1.5%
1 a.m.	78	0.9%	48	1.2%	1	3.2%	127	1.0%
2 a.m.	59	0.7%	41	1.0%	1	3.2%	101	0.8%
3 a.m.	36	0.4%	27	0.7%	0	0.0%	63	0.5%
4 a.m.	37	0.4%	28	0.7%	0	0.0%	65	0.5%
5 a.m.	56	0.7%	29	0.7%	1	3.2%	86	0.7%
6 a.m.	129	1.5%	51	1.3%	0	0.0%	180	1.4%
7 a.m.	460	5.4%	166	4.1%	2	6.5%	628	5.0%
8 a.m.	427	5.0%	152	3.8%	1	3.2%	580	4.6%
9 a.m.	273	3.2%	113	2.8%	2	6.5%	388	3.1%
10 a.m.	288	3.4%	129	3.2%	2	6.5%	419	3.3%
11 a.m.	411	4.8%	156	3.9%	0	0.0%	567	4.5%
Noon	523	6.1%	227	5.7%	1	3.2%	751	6.0%
1 p.m.	453	5.3%	206	5.1%	1	3.2%	660	5.3%
2 p.m.	636	7.5%	309	7.7%	3	9.7%	948	7.6%
3 p.m.	732	8.6%	349	8.7%	1	3.2%	1,082	8.6%
4 p.m.	726	8.5%	323	8.1%	2	6.5%	1,051	8.4%
5 p.m.	795	9.3%	424	10.6%	0	0.0%	1,219	9.7%
6 p.m.	652	7.7%	333	8.3%	1	3.2%	986	7.9%
7 p.m.	467	5.5%	214	5.3%	2	6.5%	683	5.4%
8 p.m.	325	3.8%	176	4.4%	2	6.5%	503	4.0%
9 p.m.	344	4.0%	175	4.4%	5	16.1%	524	4.2%
10 p.m.	271	3.2%	153	3.8%	1	3.2%	425	3.4%
11 p.m.	209	2.5%	108	2.7%	2	6.5%	319	2.5%
Unknown	5	0.1%	2	0.0%	0	0.0%	7	0.1%
Total	8,512	100.0%	4,007	100.0%	31	100.0%	12,550	100.0%



- Teenage driver total crashes were highest from 2:00 p.m. to 6:59 p.m. (after-school hours).
- Fatal teenage driver crashes varied throughout the day and peaked during the 9:00 p.m. hour.

#### **Speed Limit of Teenage Driver Crashes (Utah 2008)**

	Teenage Driver Vehicles											
	PDO C	PDO Crashes Injury Crashes Fatal Crashes						Total				
<b>Speed Limit</b>	#	%	#	%	#	%	#	%				
5-15 MPH	57	0.6%	18	0.4%	0	0.0%	75	0.5%				
20-25 MPH	1,483	15.8%	570	13.0%	2	6.3%	2,055	14.9%				
30-35 MPH	2,343	25.0%	1,189	27.2%	4	12.5%	3,536	25.6%				
40-45 MPH	2,035	21.7%	1,130	25.8%	7	21.9%	3,172	23.0%				
50-55 MPH	624	6.6%	322	7.4%	7	21.9%	953	6.9%				
60-65 MPH	1,165	12.4%	431	9.9%	9	28.1%	1,605	11.6%				
70+ MPH	152	1.6%	89	2.0%	2	6.3%	243	1.8%				
Unknown	1,527	16.3%	625	14.3%	1	3.1%	2,153	15.6%				
Total	9,386	100.0%	4,374	100.0%	32	100.0%	13,792	100.0%				

- Over half (57.6% where speed limit was known) of total teenage driver crashes occurred where the speed limit
  was 30-45 MPH.
- Fatal teenage driver crashes were more likely to occur with higher speed limits. Over one-half (56.3%) of fatal teenage driver crashes occurred where the sped limit was 50 MPH or higher.
- Teenage driver crashes where the speed limit was 50 MPH or higher were 4.4 times more likely to be fatal.
- Studies show that a 5% increase in average speed leads to a 10% increase in injury crashes and a 20% increase in fatal crashes. A 5% decrease in speed leads to a 10% decrease in injury crashes and a 20% decrease in fatal crashes.

#### Travel Speed of Teenage Driver Vehicles in Crashes (Utah 2008)

		Teen	age Dr	iver Ve	hicles			Teenage Driver Vehicles											
	PDO C	rashes	Injury (	njury Crashes Fatal Cras			s Total												
Travel Speed	#	%	#	%	#	%	#	%											
Stopped	701	7.5%	342	7.8%	0	0.0%	1,043	7.6%											
1-9 MPH	782	8.3%	302	6.9%	1	3.1%	1,085	7.9%											
10-19 MPH	1,235	13.2%	537	12.3%	2	6.3%	1,774	12.9%											
20-29 MPH	1,150	12.3%	488	11.2%	1	3.1%	1,639	11.9%											
30-39 MPH	1,140	12.1%	600	13.7%	3	9.4%	1,743	12.6%											
40-49 MPH	744	7.9%	427	9.8%	5	15.6%	1,176	8.5%											
50-59 MPH	452	4.8%	223	5.1%	3	9.4%	678	4.9%											
60-69 MPH	520	5.5%	224	5.1%	5	15.6%	749	5.4%											
70-79 MPH	193	2.1%	116	2.7%	3	9.4%	312	2.3%											
80-89 MPH	28	0.3%	20	0.5%	4	12.5%	52	0.4%											
90+ MPH	5	0.1%	16	0.4%	1	3.1%	22	0.2%											
Unknown	2,436	26.0%	1,079	24.7%	4	12.5%	3,519	25.5%											
Total	9,386	100.0%	4,374	100.0%	32	100.0%	13,792	100.0%											

- Half (50.2% where travel speed was known) of teen driver vehicles in total crashes were traveling 10-39 MPH.
- Teenage driver vehicles in fatal crashes were more likely to be traveling at higher speeds. Over one-half (57.1% of known) of teenage driver vehicles in fatal crashes were traveling 50 MPH or higher.
- Crashes involving teenage driver vehicles traveling 50 MPH or higher were 6.2 times more likely to be fatal.
- The higher the speed the greater the amount of energy that must be absorbed in a crash, hence there is more likelihood of serious injury.

### **Teenage Driver Crash Severity (Utah 2008)**



- Similar to all motor vehicle crashes, nearly one-third (31.9%) of teenage driver crashes resulted in some level of non-fatal injury.
- The percentage of fatal teenage driver crashes (0.2%) was similar to all fatal motor vehicle crashes (0.4%).

#### **Teenage Driver Crash Violations (Utah 2008)**

Teenage Drivers											
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	То	tal			
Violations	#	%	#	%	#	%	#	%			
Following Too Close	306	26.6%	108	23.2%	0	0.0%	414	25.6%			
Improper Lane Change/Travel	242	21.1%	95	20.4%	0	0.0%	337	20.8%			
Speed	154	13.4%	57	12.3%	0	0.0%	211	13.0%			
Improper Turn	130	11.3%	66	14.2%	0	0.0%	196	12.1%			
Negligent Collision	67	5.8%	17	3.7%	0	0.0%	84	5.2%			
License Violation	36	3.1%	12	2.6%	0	0.0%	48	3.0%			
Improper Lookout	33	2.9%	10	2.2%	0	0.0%	43	2.7%			
Failure to Yield Right of Way	26	2.3%	11	2.4%	1	25.0%	38	2.3%			
Insurance Violation	25	2.2%	11	2.4%	1	25.0%	37	2.3%			
Improper Start or Stop	21	1.8%	14	3.0%	0	0.0%	35	2.2%			
Driving Under the Influence	14	1.2%	15	3.2%	0	0.0%	29	1.8%			
Failure to Obey Traffic Control Device	13	1.1%	14	3.0%	0	0.0%	27	1.7%			
Careless Driving	11	1.0%	6	1.3%	0	0.0%	17	1.1%			
Hit and Run	14	1.2%	3	0.6%	0	0.0%	17	1.1%			
Reckless Driving	9	0.8%	7	1.5%	0	0.0%	16	1.0%			
Equipment Violation	10	0.9%	2	0.4%	0	0.0%	12	0.7%			
Registration Violation	8	0.7%	2	0.4%	0	0.0%	10	0.6%			
Alcohol/Drug Violation, Other than DUI	4	0.3%	5	1.1%	0	0.0%	9	0.6%			
Failure to Stop at Stop Sign	5	0.4%	3	0.6%	0	0.0%	8	0.5%			
Improper Passing	6	0.5%	1	0.2%	0	0.0%	7	0.4%			
Improper Backing	6	0.5%	0	0.0%	0	0.0%	6	0.4%			
Failure to Stop at Red Light	2	0.2%	2	0.4%	0	0.0%	4	0.2%			
Seat belt/Child Restraint	3	0.3%	1	0.2%	0	0.0%	4	0.2%			
Wrong Side of Road	1	0.1%	1	0.2%	0	0.0%	2	0.1%			
Vehicle Homicide	0	0.0%	0	0.0%	1	25.0%	1	0.1%			
Other Moving Violation	2	0.2%	2	0.4%	1	25.0%	5	0.3%			
Other Non-Moving Violation	1	0.1%	0	0.0%	0	0.0%	1	0.1%			
Total	1,149	100.0%	465	100.0%	4	100.0%	1,618	100.0%			

• There were 1,618 citations issued to teenage drivers at the scene of the crash. The most common violations were for following too close (25.6%), improper lane change/travel (20.8%), and speed (13.0%).

### **Contributing Factors of Teenage Driver Crashes (Utah 2008)**

Te	enage	Driver	s/Vehic	cles				
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	То	tal
Contributing Factors	#	%	#	%	#	%	#	%
Followed Too Closely	1,771	17.7%	726	14.2%	0	0.0%	2,497	16.4%
Failed to Yield Right of Way	1,270	12.7%	764	14.9%	5	7.4%	2,039	13.4%
Speed Too Fast	1,191	11.9%	499	9.8%	10	14.7%	1,700	11.2%
Driver Distraction	703	7.0%	438	8.6%	3	4.4%	1,144	7.5%
Other Improper Driving	660	6.6%	365	7.1%	1	1.5%	1,026	6.7%
Failed to Keep in Proper Lane	667	6.7%	331	6.5%	7	10.3%	1,005	6.6%
Vision Obscured by Weather Condition	490	4.9%	137	2.7%	0	0.0%	627	4.1%
Improper Turn	410	4.1%	210	4.1%	1	1.5%	621	4.1%
Disregard Traffic Signal/Sign	246	2.5%	226	4.4%	3	4.4%	475	3.1%
Ran Off Road	256	2.6%	157	3.1%	8	11.8%	421	2.8%
Overcorrected	231	2.3%	170	3.3%	6	8.8%	407	2.7%
Improper Lane Change	289	2.9%	66	1.3%	1	1.5%	356	2.3%
Swerved or Evasive Action	205	2.0%	106	2.1%	4	5.9%	315	2.1%
Asleep/Fatigue	134	1.3%	109	2.1%	2	2.9%	245	1.6%
Improper Backing	210	2.1%	16	0.3%	0	0.0%	226	1.5%
Driving Under the Influence	93	0.9%	113	2.2%	2	2.9%	208	1.4%
Reckless/Aggressive Driving	88	0.9%	84	1.6%	2	2.9%	174	1.1%
Vehicle Other Defective Condition	118	1.2%	51	1.0%	0	0.0%	169	1.1%
Driver Emotionally Upset	77	0.8%	84	1.6%	1	1.5%	162	1.1%
Vision Obscured by Moving Vehicle	94	0.9%	56	1.1%	3	4.4%	153	1.0%
Hit and Run	119	1.2%	29	0.6%	0	0.0%	148	1.0%
Improper Parking/Stopping	107	1.1%	36	0.7%	0	0.0%	143	0.9%
Other Driver Condition	71	0.7%	63	1.2%	2	2.9%	136	0.9%
Vehicle Brakes	85	0.8%	43	0.8%	0	0.0%	128	0.8%
Vehicle Tires	72	0.7%	28	0.5%	3	4.4%	103	0.7%
Vision Obscured by Other	60	0.6%	40	0.8%	0	0.0%	100	0.7%
Vision Obscured by Glare	64	0.6%	35	0.7%	0	0.0%	99	0.7%
Improper Passing	70	0.7%	17	0.3%	1	1.5%	88	0.6%
Vision Obscured by Parked Vehicle	46	0.5%	23	0.4%	0	0.0%	69	0.5%
Wrong Side/Wrong Way	29	0.3%	20	0.4%	3	4.4%	52	0.3%
Vision Obscured by Building, Sign, etc.	27	0.3%	15	0.3%	0	0.0%	42	0.3%
Windshield or Other Window Obscured	23	0.2%	10	0.2%	0	0.0%	33	
Driver Illness	14	0.1%	17	0.3%	0	0.0%	31	0.2%
Vision Obscured by Vegitation	12	0.1%	11	0.2%	0	0.0%	23	
Disregard Road Markings	11	0.1%	11	0.2%	0	0.0%	22	0.1%
Improper Signal	12	0.1%	6	0.1%	0	0.0%	18	
Total	10,025	100.0%	5,112	100.0%	68	100.0%	15,205	100.0%

- Some form of poor driver performance is present in the majority of crashes. The leading contributing factors for all teenage driver crashes were followed too closely (16.4%), failed to yield right of way (13.4%), and speed too fast (11.2%).
- The leading contributing factors in fatal teenage driver crashes were speed too fast (14.7%) and ran off road (11.8%).
- Compared to drivers of all ages, teenage drivers were more likely to have a contributing factor of followed too closely, failure to yield right of way, and driver distraction.

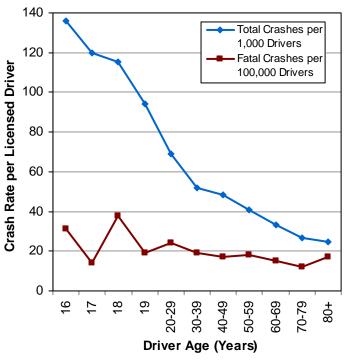
**Teenage Drivers** 

(15-19 years)

#### Did you know in 2008:

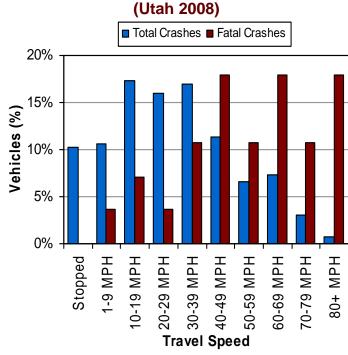
- Teenage drivers represented 7% of the licensed drivers in Utah, yet they were in nearly one-fourth (22%) of all motor vehicle crashes.
- Teenage drivers were in 12,550 motor vehicle crashes which resulted in 6,171 injured persons and 34 deaths.
- Teenage drivers were 2.5 times more likely to be in a crash than drivers of other ages.
- Although teen drivers have the highest crash rates of any drivers, teen driver crashes have decreased the last ten years.

# Crash Rates per Licensed Driver by Age Teenage Driver Crashes by Travel Speed



(Utah 2008)

 Drivers aged 16 years had the highest total crash rate per licensed driver.



 Crashes involving teenage driver vehicles traveling 50 MPH or higher were 6.2 times more likely to be fatal.

#### **Leading Contributing Factors of Teenage Driver Crashes (Utah 2008)**

#### **All Teenage Driver Crashes**

- 1. Followed Too Closely (20%)
- 2. Failed to Yield Right of Way (16%)
- 3. Speed Too Fast (14%)
- 4. Driver Distraction (9%)
- 5. Failed to Keep in Proper Lane (8%)

#### **Fatal Teenage Driver Crashes**

- 1. Speed Too Fast (32%)
- 2. Ran Off Road (26%)
- 3. Failed to Keep in Proper Lane (23%)
- 4. Overcorrected (19%)
- 5. Failed to Yield Right of Way (16%)

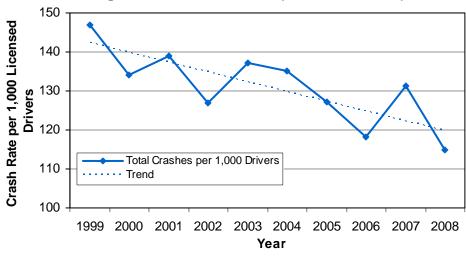


#### **Restraint Use of Teen Drivers** and Their Passengers (Utah

#### 100% Restrained Restraint Use (%) Unrestrained 75% 50% 25% 0% Not Injured Injured Killed Injury Level

- 36% of teen drivers and their passengers killed in crashes were unrestrained.
- Unrestrained teen drivers and their passengers were 15 times more likely than restrained occupants to be killed in a crash.

#### Teenage Driver Crash Trend (Utah 1999-2008)



The teenage driver crash rate per licensed driver decreased 22% from 1999 to 2008.

#### Teenage Driver Crashes by Hour (Utah 2008)



 Teenage-driver crashes peaked during after-school hours (2:00 p.m.-6:59 p.m.).

# **Teenage Drivers** (15-19 years)

#### **Graduated Driver Licensing (GDL)** Law in Utah

GDL allows beginning drivers the chance to build experience before they are exposed to more high-risk situations, such as carrying teen passengers and nighttime driving. Easing young drivers onto the roadways can reduce the number of traffic crashes involving young drivers.

#### **Learner Permit**

A person must be at least 15 years old to apply for a learner permit. Anyone who is under 18 years of age is required to hold a learner permit for six months before applying for a license.

#### **Supervised Driving**

Everyone under 18 years of age applying for a license must complete 40 hours of driving, of which at least 10 hours must be during night hours. This allows beginning drivers to practice and gain supervised experience.

#### **Driver License**

A person must be at least 16 years of age to get a driver license. Everyone who has never been licensed to drive a motor vehicle must complete an approved driver education course.

#### **Night-time Restrictions**

Anyone under the age of 17 years may not drive from midnight to 5:00 a.m. except in a limited number of situations. The majority of fatal teen crashes take place at night.

#### **Passenger Restrictions**

For the first six months of licensure, teen drivers can not drive with any passenger who is not an immediate family member with a few exceptions. Teen drivers are more likely to crash with passengers in the car, especially teen passengers. The more passengers, the greater the risk.

#### **Seatbelt Restrictions**

All occupants under the age of 19 years must be properly restrained in a motor vehicle. This is a primary law which means a person may be stopped by law enforcement solely for that offense.

# Speed



2

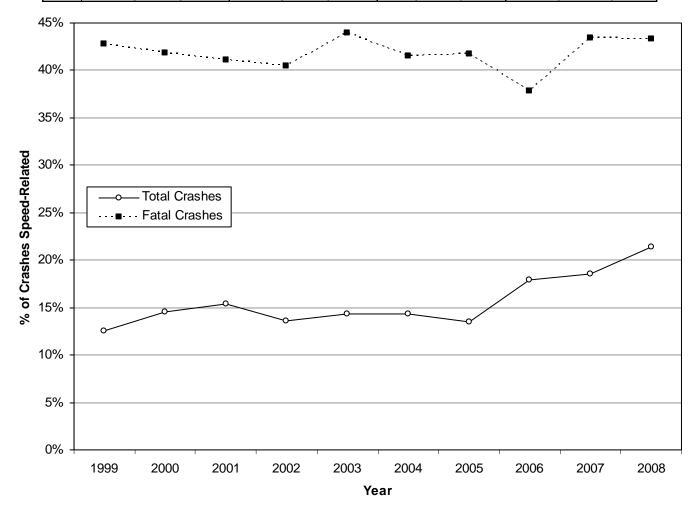
# **Section 5: Speed**

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#### **Trends**

# Speed-Related Crashes (Utah 1999-2008)

	Speed-Related Crashes												
	<b>Property</b>	/ Dama	ge Only		Injury			Fatal			Total		
	All	Spe	eed	All	Spe	eed	All	Spe	ed	All	Speed		
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	32,971	3,836	11.6%	19,513	2,652	13.6%	318	136	42.8%	52,802	6,624	12.5%	
2000	33,269	4,687	14.1%	19,564	2,934	15.0%	318	133	41.8%	53,151	7,754	14.6%	
2001	33,113	5,037	15.2%	19,332	3,003	15.5%	258	106	41.1%	52,703	8,146	15.5%	
2002	33,542	4,379	13.1%	19,552	2,770	14.2%	274	111	40.5%	53,368	7,260	13.6%	
2003	31,842	4,498	14.1%	18,285	2,604	14.2%	262	115	43.9%	50,389	7,217	14.3%	
2004	34,222	4,836	14.1%	19,423	2,764	14.2%	260	108	41.5%	53,905	7,708	14.3%	
2005	35,158	4,676	13.3%	19,545	2,653	13.6%	235	98	41.7%	54,938	7,427	13.5%	
2006	37,674	6,450	17.1%	18,264	3,539	19.4%	249	94	37.8%	56,187	10,083	17.9%	
2007	42,368	7,612	18.0%	18,619	3,687	19.8%	258	112	43.4%	61,245	11,411	18.6%	
2008	38,997	8,311	21.3%	17,125	3,622	21.2%	245	106	43.3%	56,367	12,039	21.4%	
Total	353,156	54,322	15.4%	189,222	30,228	16.0%	2,677	1,119	41.8%	545,055	85,669	15.7%	



- Speed-related crashes are a concern because of the increased potential for severe injury and death.
- Speed-related total crashes increased for the third year in a row, a 6% increase in crashes in 2008 from 2007.
- The 10-year trend shows that 15.7% of total crashes and 41.8% of fatal crashes in Utah are speed-related.
- Speed was a factor in 51.7% of fatal crashes in 2008 where speed was known.

#### **Counties**

### **Speed-Related Crashes by County (Utah 2008)**

		Spe	ed-Re	lated C	rashes	3		Speed-Related Crashes												
	PDO 0	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal												
		Rate		Rate		Rate		Rate												
		per 100		per 100		per 100		per 100												
		Million		Million		Million		Million												
County	#	VMT	#	VMT	#	VMT	#	VMT												
Wayne	20	50.3	11	27.7	1	2.51	32	80.5												
Wasatch	155	51.2	62	20.5	0	0.00	217	71.6												
Morgan	73	53.3	8	5.8	1	0.73	82	59.9												
Daggett	11	34.6	8	25.2	0	0.00	19	59.8												
Salt Lake	3,469	40.7	1,337	15.7	28	0.33	4,834	56.7												
Duchesne	82	34.8	47	20.0	1	0.42	130	55.2												
Uintah	126	35.4	65	18.2	4	1.12	195	54.7												
Utah	1,280	35.6	583	16.2	16	0.44	1,879	52.2												
Weber	548	34.7	206	13.0	5	0.32	759	48.1												
Sevier	97	29.3	51	15.4	4	1.21	152	46.0												
Cache	282	30.2	138	14.8	2	0.21	422	45.2												
Rich	12	24.5	9	18.3	1	2.04	22	44.8												
Summit	244	33.2	77	10.5	8	1.09	329	44.8												
Millard	115	26.6	58	13.4	1	0.23	174	40.2												
Davis	685	27.3	295	11.8	7	0.28	987	39.4												
Box Elder	227	25.6	112	12.6	4	0.45	343	38.6												
Garfield	24	21.3	18	16.0	1	0.89	43	38.2												
Iron	164	24.2	93	13.7	0	0.00	257	37.9												
Beaver	54	22.6	33	13.8	1	0.42	88	36.8												
Sanpete	40	18.4	34	15.6	1	0.46	75	34.5												
Carbon	73	24.4	28	9.4	1	0.33	102	34.1												
Kane	34	24.4	12	8.6	0	0.00	46	33.0												
Juab	87	22.1	35	8.9	2	0.51	124	31.5												
Tooele	125	14.9	86	10.3	7	0.84	218	26.1												
Washington	170	12.8	149	11.2	3	0.23	322	24.2												
San Juan	36	13.3	16	5.9	4	1.48	56	20.7												
Emery	43	12.9	23	6.9	2	0.60	68	20.4												
Piute	3	10.0	2	6.7	1	3.34	6	20.0												
Grand	32	10.0	26	8.1	0	0.00	58	18.2												
Statewide	8,311	32.1	3,622	14.0	106	0.41	12,039	46.5												

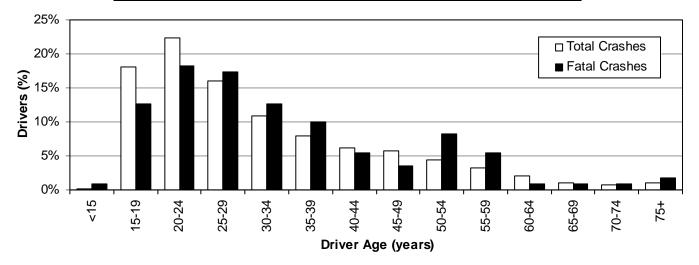
- Wayne (80.5), Wasatch (71.6), and Morgan (59.9) counties had the highest rates of speed-related total crashes per 100 million vehicle miles traveled.
- Piute (3.34), Wayne (2.51), and Rich (2.04) counties had the highest rates of fatal speed-related crashes per 100 million vehicle miles traveled.
- Grand (18.2), Piute (20.0), and Emery (20.4) counties had the lowest rates of speed-related total crashes per 100 million vehicle miles traveled.



#### **Drivers**

#### Age of Drivers in Speed-Related Crashes (Utah 2008)

	Speed-Related Drivers											
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	То	tal				
Age	#	%	#	%	#	%	#	%				
<15	10	0.1%	9	0.2%	1	0.9%	20	0.2%				
15-19	1,505	17.1%	734	18.8%	14	12.7%	2,253	17.6%				
20-24	1,957	22.3%	815	20.8%	20	18.2%	2,792	21.8%				
25-29	1,398	15.9%	588	15.0%	19	17.3%	2,005	15.7%				
30-34	923	10.5%	423	10.8%	14	12.7%	1,360	10.6%				
35-39	688	7.8%	296	7.6%	11	10.0%	995	7.8%				
40-44	536	6.1%	233	6.0%	6	5.5%	775	6.1%				
45-49	479	5.5%	223	5.7%	4	3.6%	706	5.5%				
50-54	371	4.2%	163	4.2%	9	8.2%	543	4.2%				
55-59	271	3.1%	124	3.2%	6	5.5%	401	3.1%				
60-64	161	1.8%	96	2.5%	1	0.9%	258	2.0%				
65-69	97	1.1%	43	1.1%	1	0.9%	141	1.1%				
70-74	62	0.7%	38	1.0%	1	0.9%	101	0.8%				
75+	68	0.8%	52	1.3%	2	1.8%	122	1.0%				
Unknown	254	2.9%	72	1.8%	1	0.9%	327	2.6%				
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%				



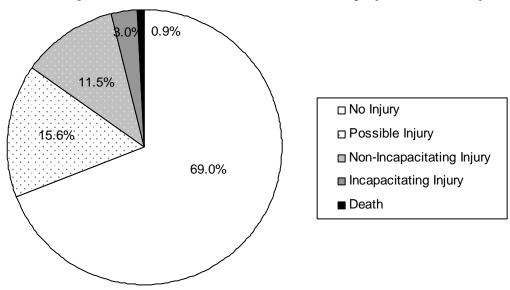
• Younger drivers had the highest percentage of total speed-related crashes and fatal crashes.

### Gender of Drivers in Speed-Related Crashes (Utah 2008)

	Speed-Related Drivers												
	PDO C	rashes	Injury (	Crashes	Fatal C	crashes	То	tal					
Gender	#	%	#	%	#	%	#	%					
Male	5,559	63.3%	2,432	62.2%	88	80.0%	8,079	63.1%					
Female	2,995	34.1%	1,424	36.4%	22	20.0%	4,441	34.7%					
Unknown	226	2.6%	53	1.4%	0	0.0%	279	2.2%					
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%					

 Male drivers represented 63.1% of the drivers in speed-related total crashes and 80.0% of the drivers in speed-related fatal crashes.

#### **Speed-Related Crash Severity (Utah 2008)**

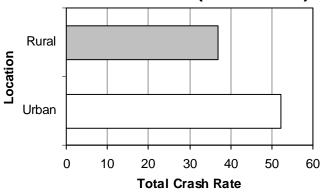


- A higher percentage of speed-related crashes were fatal (0.9%) compared to all motor vehicle crashes (0.4%).
- Speed-related crashes were 2.8 times more likely to be fatal than other motor vehicle crashes.

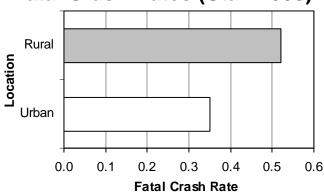
# Speed-Related Crashes by Urban/Rural Location (Utah 2008)

	Speed-Related Crashes												
	PDC	PDO Crashes   Injury Crashes   Fatal Crashes   Total											
		Rate per Rate per Rate per											
		100 Million 100 Million 100 Million 100 Million											
Location	#	VMT	#	# VMT # VMT				VMT					
Urban	5,982	36.9	36.9 2,421 14.9 56 0.35					52.2					
Rural	2,329	24.1	1,201	12.4	3,580	37.0							
Total	8,311	32.1	3,622	14.0	106	0.41	12,039	46.5					

#### **Total Crash Rates (Utah 2008)**



#### Fatal Crash Rates (Utah 2008)



- While urban areas had a higher rate of total speed-related crashes per vehicle mile traveled, rural areas had a higher rate of fatal speed-related crashes per vehicle mile traveled.
- Speed-related crashes occurring in rural areas were 2.1 times more likely to result in a death than speedrelated crashes in urban areas.

### **Speed-Related Crashes by Month (Utah 2008)**

			Speed	-Relat	ed Cras	hes				
		PDO (	Crashes	Injury	Crashes	Fatal	Crashes	s Total		
	Days in	Rate			Rate		Rate		Rate	
Month	Month	#	per Day	#	per Day	#	per Day	#	per Day	
January	31	1,869	60.3	504	16.3	7	0.23	2,380	76.8	
February	29	1,114	38.4	350	12.1	5	0.17	1,469	50.7	
March	31	587	18.9	306	9.9	5	0.16	898	29.0	
April	30	332	11.1	220	7.3	7	0.23	559	18.6	
May	31	378	12.2	251	8.1	11	0.35	640	20.6	
June	30	291	9.7	223	7.4	8	0.27	522	17.4	
July	31	270	8.7	229	7.4	10	0.32	509	16.4	
August	31	291	9.4	228	7.4	8	0.26	527	17.0	
September	30	269	9.0	216	7.2	9	0.30	494	16.5	
October	31	397	12.8	259	8.4	14	0.45	670	21.6	
November	30	472	15.7	269	9.0	13	0.43	754	25.1	
December	31	2,041	65.8	567	18.3	9	0.29	2,617	84.4	
Total	366	8,311	22.7	3,622	9.9	106	0.29	12,039	32.9	

- Overall, December (84.4), January (76.8), and February (50.7) had the highest rates of speed-related crashes per day.
- October (0.45) and November (0.43) had the highest rates per day of fatal speed-related crashes.

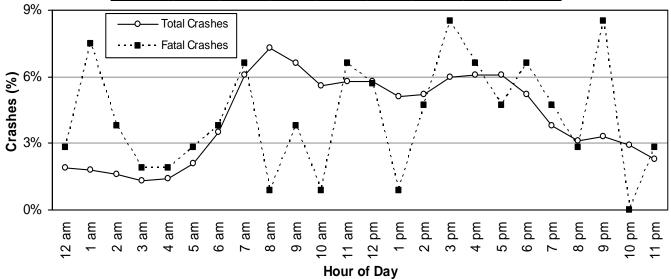
#### Speed-Related Crashes by Day of Week (Utah 2008)

	Speed-Related Crashes											
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total					
Day of Week	#	%	#	%	#	%	#	%				
Sunday	927	11.2%	437	12.1%	20	18.9%	1,384	11.5%				
Monday	1,656	19.9%	644	17.8%	12	11.3%	2,312	19.2%				
Tuesday	1,150	13.8%	467	12.9%	14	13.2%	1,631	13.5%				
Wednesday	1,206	14.5%	468	12.9%	12	11.3%	1,686	14.0%				
Thursday	1,032	12.4%	480	13.3%	9	8.5%	1,521	12.6%				
Friday	1,227	14.8%	513	14.2%	17	16.0%	1,757	14.6%				
Saturday	1,113	13.4%	613	16.9%	22	20.8%	1,748	14.5%				
Total	8,311	100.0%	3,622	100.0%	106	100.0%	12,039	100.0%				

- The highest percentage of speed-related total crashes occurred on Monday (19.2%) while the highest percentage of fatal crashes occurred on Saturday (20.8%).
- The lowest percentage of speed-related total crashes (11.5%) occurred on Sunday while the lowest percentage of fatal crashes (8.5%) occurred on Thursday.
- Over one-third (39.7%) of fatal speed-related crashes occurred on Saturday and Sunday.

# **Speed-Related Crashes by Hour (Utah 2008)**

Speed-Related Crashes										
	PDO C	rashes	Injury (	Crashes	Fatal 0	Crashes	Total			
Hour	#	%	#	%	#	%	#	%		
Midnight	144	1.7%	79	2.2%	3	2.8%	226	1.9%		
1 a.m.	131	1.6%	82	2.3%	8	7.5%	221	1.8%		
2 a.m.	114	1.4%	74	2.0%	4	3.8%	192	1.6%		
3 a.m.	104	1.3%	50	1.4%	2	1.9%	156	1.3%		
4 a.m.	115	1.4%	48	1.3%	2	1.9%	165	1.4%		
5 a.m.	178	2.1%	75	2.1%	3	2.8%	256	2.1%		
6 a.m.	329	4.0%	91	2.5%	4	3.8%	424	3.5%		
7 a.m.	547	6.6%	185	5.1%	7	6.6%	739	6.1%		
8 a.m.	661	8.0%	212	5.9%	1	0.9%	874	7.3%		
9 a.m.	599	7.2%	187	5.2%	4	3.8%	790	6.6%		
10 a.m.	488	5.9%	182	5.0%	1	0.9%	671	5.6%		
11 a.m.	508	6.1%	181	5.0%	7	6.6%	696	5.8%		
Noon	497	6.0%	195	5.4%	6	5.7%	698	5.8%		
1 p.m.	447	5.4%	168	4.6%	1	0.9%	616	5.1%		
2 p.m.	447	5.4%	178	4.9%	5	4.7%	630	5.2%		
3 p.m.	472	5.7%	244	6.7%	9	8.5%	725	6.0%		
4 p.m.	475	5.7%	250	6.9%	7	6.6%	732	6.1%		
5 p.m.	464	5.6%	265	7.3%	5	4.7%	734	6.1%		
6 p.m.	394	4.7%	226	6.2%	7	6.6%	627	5.2%		
7 p.m.	302	3.6%	152	4.2%	5	4.7%	459	3.8%		
8 p.m.	246	3.0%	124	3.4%	3	2.8%	373	3.1%		
9 p.m.	244	2.9%	146	4.0%	9	8.5%	399	3.3%		
10 p.m.	208	2.5%	140	3.9%	0	0.0%	348	2.9%		
11 p.m.	193	2.3%	86	2.4%	3	2.8%	282	2.3%		
Unknown	4	0.0%	2	0.1%	0	0.0%	6	0.0%		
Total	8,311	100.0%	3,622	100.0%	106	100.0%	12,039	100.0%		



- Total speed-related crashes peaked in the morning (7:00 a.m. to 9:59 a.m.), with another peak in the late afternoon/evening (3:00 p.m. to 5:59 p.m.).
- Fatal speed-related crashes varied by hour and were highest during the 3:00 p.m. and 9:00 p.m. hours.

# Speed-Related Crashes by Vehicle Type (Utah 2008)

Speed-Related Vehicles											
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total				
Vehicle Type	#	%	#	%	#	%	#	%			
Passenger Car	4,809	54.8%	1,917	49.0%	46	41.8%	6,772	52.9%			
Pickup Truck	1,667	19.0%	703	18.0%	21	19.1%	2,391	18.7%			
SUV	1,581	18.0%	704	18.0%	17	15.5%	2,302	18.0%			
Van	345	3.9%	180	4.6%	3	2.7%	528	4.1%			
Semi/Large Truck	271	3.1%	116	3.0%	4	3.6%	391	3.1%			
Motorcycle	24	0.3%	222	5.7%	17	15.5%	263	2.1%			
Bus	15	0.2%	2	0.1%	1	0.9%	18	0.1%			
Other	7	0.1%	44	1.1%	0	0.0%	51	0.4%			
Unknown	61	0.7%	21	0.5%	1	0.9%	83	0.6%			
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%			

- For total speed-related crashes and fatal speed-related crashes, passenger car and pickup truck were the leading vehicle types.
- Motorcycle and pickup truck were overrepresented in speed-related crashes compared to other vehicle types in all crashes.
- Van was underrepresented in speed-related crashes compared to other vehicle types in all crashes.

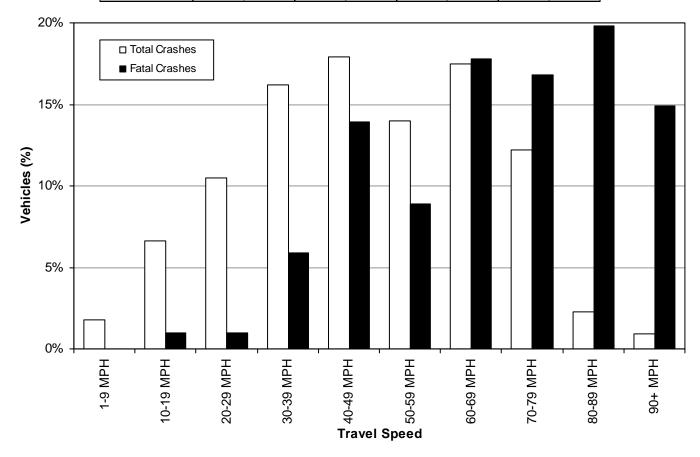
#### **Speed-Related Crashes by Speed Limit (Utah 2008)**

Speed-Related Vehicles											
	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total				
Speed Limit	#	%	#	%	#	%	#	%			
5-15 MPH	62	0.7%	34	0.9%	0	0.0%	96	0.8%			
20-25 MPH	1,018	11.6%	433	11.1%	7	6.4%	1,458	11.4%			
30-35 MPH	1,092	12.4%	620	15.9%	22	20.0%	1,734	13.5%			
40-45 MPH	904	10.3%	573	14.7%	19	17.3%	1,496	11.7%			
50-55 MPH	860	9.8%	395	10.1%	15	13.6%	1,270	9.9%			
60-65 MPH	3,442	39.2%	1,249	32.0%	30	27.3%	4,721	36.9%			
70+ MPH	698	7.9%	327	8.4%	15	13.6%	1,040	8.1%			
Unknown	704	8.0%	278	7.1%	2	1.8%	984	7.7%			
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%			

- Nearly one-half (40.0% of known) of total speed-related crashes occurred where the speed limit was 60-65 MPH.
- Fatal speed-related crashes were more likely to occur where there were higher speed limits. Over one-half (55.6% of known) of fatal speed-related crashes occurred where the speed limit was 50 MPH or higher.
- When compared to all crashes, speed-related crashes were more likely to occur on roads with higher speed limits.
- Studies show that a 5% increase in average speed leads to a 10% increase in injury crashes and a 20% increase in fatal crashes. A 5% decrease in speed leads to a 10% decrease in injury crashes and a 20% decrease in fatal crashes.

### Speed-Related Crashes by Travel Speed (Utah 2008)

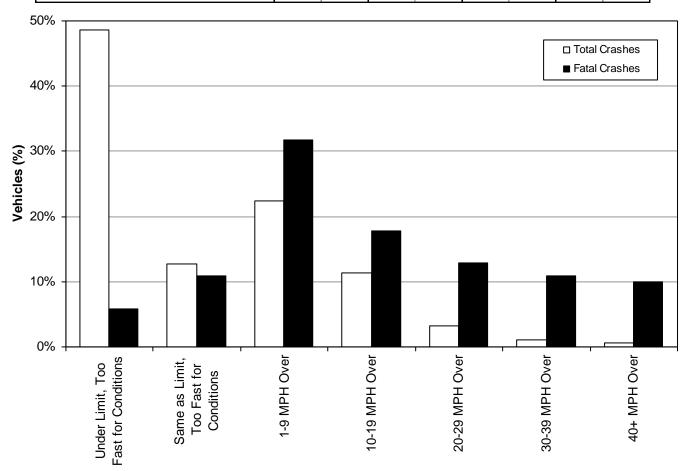
Speed-Related Vehicles											
	PDO C	rashes	Injury C	Crashes	Fatal C	rashes	Total				
<b>Travel Speed</b>	#	%	#	%	#	%	#	%			
1-9 MPH	175	2.0%	31	0.8%	0	0.0%	206	1.6%			
10-19 MPH	603	6.9%	129	3.3%	1	0.9%	733	5.7%			
20-29 MPH	897	10.2%	280	7.2%	1	0.9%	1,178	9.2%			
30-39 MPH	1,233	14.0%	576	14.7%	6	5.5%	1,815	14.2%			
40-49 MPH	1,332	15.2%	657	16.8%	14	12.7%	2,003	15.6%			
50-59 MPH	1,026	11.7%	524	13.4%	9	8.2%	1,559	12.2%			
60-69 MPH	1,329	15.1%	609	15.6%	18	16.4%	1,956	15.3%			
70-79 MPH	879	10.0%	463	11.8%	17	15.5%	1,359	10.6%			
80-89 MPH	123	1.4%	118	3.0%	20	18.2%	261	2.0%			
90+ MPH	28	0.3%	60	1.5%	15	13.6%	103	0.8%			
Unknown	1,155	13.2%	462	11.8%	9	8.2%	1,626	12.7%			
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%			



- 40-49 MPH (17.9% of known) and 60-69 MPH (17.5% of known) were the leading travel speeds of vehicles in total speed-related crashes.
- Over two-thirds (69.3% of known) of vehicles in fatal speed-related crashes were traveling 60 MPH or higher.
- Speed-related vehicles in fatal crashes were more likely to be traveling at higher speeds. The higher the
  speed the greater the amount of energy that must be absorbed in a crash, hence there is more likelihood of
  serious injury.
- Drivers become increased risks to themselves and other people on the highway due to higher speeds.

# **Speed-Related Crashes by Difference in Travel Speed From Speed Limit (Utah 2008)**

Speed-Related Vehicles										
	PDO C	rashes	<b>Injury Crashes</b>		Fatal Crashes		То	tal		
Travel Speed vs. Speed Limit	#	%	#	%	#	%	#	%		
Under Limit, Too Fast for Conditions	4,103	46.7%	1,216	31.1%	6	5.5%	5,325	41.6%		
Same as Limit, Too Fast for Conditions	984	11.2%	409	10.5%	11	10.0%	1,404	11.0%		
1-9 MPH Over Speed Limit	1,496	17.0%	923	23.6%	32	29.1%	2,451	19.1%		
10-19 MPH Over Speed Limit	703	8.0%	533	13.6%	18	16.4%	1,254	9.8%		
20-29 MPH Over Speed Limit	151	1.7%	187	4.8%	13	11.8%	351	2.7%		
30-39 MPH Over Speed Limit	42	0.5%	57	1.5%	11	10.0%	110	0.9%		
40+ MPH Over Speed Limit	22	0.3%	35	0.9%	10	9.1%	67	0.5%		
Unknown	1,279	14.6%	549	14.0%	9	8.2%	1,837	14.4%		
Total	8,780	100.0%	3,909	100.0%	110	100.0%	12,799	100.0%		



Difference in Travel Speed from Speed Limit

- It is troubling to see that 4,233 vehicles in crashes were traveling over the posted speed limit.
- Speed-related vehicles in fatal crashes were more likely to be exceeding the posted speed limit by greater amounts.
- Speed-related vehicles in total crashes were more likely to be traveling too fast for conditions.
- Nearly five out of every six speed-related vehicles (83.2% where speed was known) in fatal crashes were traveling over the posted speed limit.

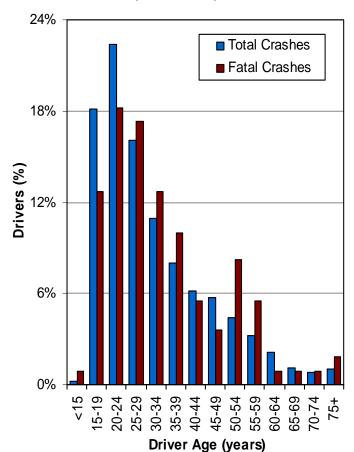
Speed is a leading unsafe driving behavior that contributes to crashes.



#### Did you know in 2008:

- 12,039 speed-related crashes occurred in Utah which resulted in 5,424 injured persons and 126 deaths.
- Speed was a factor in 43% of fatal crashes in 2008.
- Speed-related crashes were 2.8 times more likely to be fatal than other motor vehicle crashes.

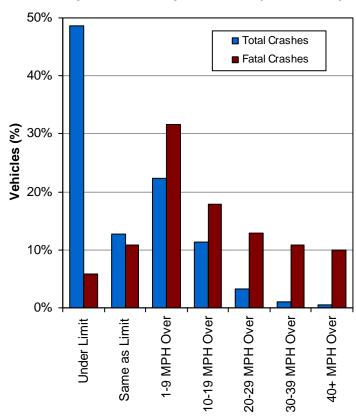
## Age of Drivers in Speed-Related Crashes (Utah 2008)



 Drivers aged 15-24 years had the highest percentage of total speedrelated crashes and fatal crashes.



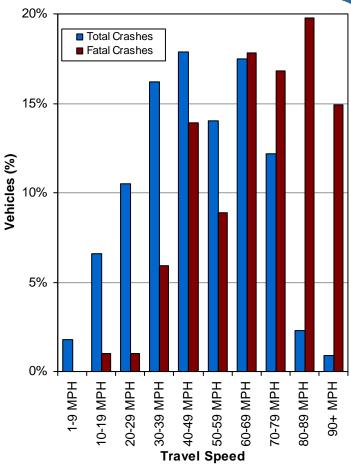
## Speed-Related Crashes by Difference in Travel Speed From Speed Limit (Utah 2008)



Difference in Travel Speed from Limit

- Speed-related vehicles in fatal crashes were more likely to be exceeding the posted speed limit by greater amounts.
- Drivers become increased risks to themselves and other people on the highway due to higher speeds.

## Speed-Related Crashes by Travel Speed (Utah 2008)

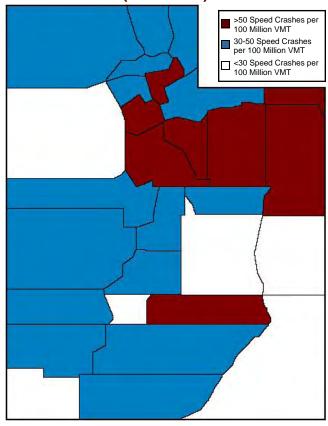


- Speed-related vehicles in fatal crashes were more likely to be traveling at higher speeds.
- The higher the speed the greater the amount of energy that must be absorbed in a crash, hence there is more likelihood of serious injury.

## **Speed**



## Speed-Related Crash Rates by County (Utah 2008)



 Wayne, Wasatch, Morgan, and Daggett Counties had the highest speed-related crash rates per miles traveled.

Speeding is one of the most common factors contributing to traffic crashes. Speeding is dangerous because it:

- Magnifies drivers' errors;
- Extends the distance necessary to stop a vehicle;
- Increases the distance a vehicle travels while the driver reacts to a situation;
- Reduces a driver's ability to steer safely around curves or objects in the road;
- Decreases the effectiveness of vehicle design features, such as seat belts;
- Reduces the stability of the vehicle structure;
- Increases the number of crashes;
- Increases the severity of crashes. For every 10 MPH over 50 MPH, the risk of death in a crash is doubled.

Drivers need to remember there is a reason for speed limits. The roadways are a dangerous place and the speed limits are designed to protect everyone—drivers, passengers, and pedestrians. The posted speed limit is the law. Slow down and obey speed limits.



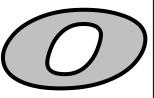
# Motorcycles

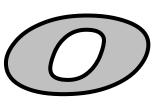


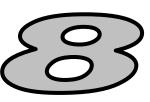
## **Section 6: Motorcycles**

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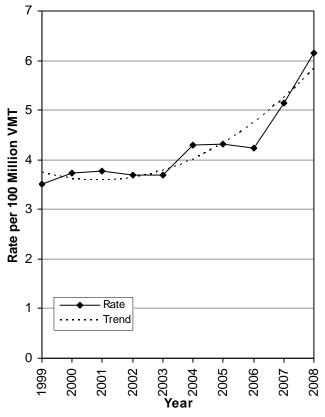


#### **Trends**

## Motorcyclists in Crashes (Utah 1999-2008)

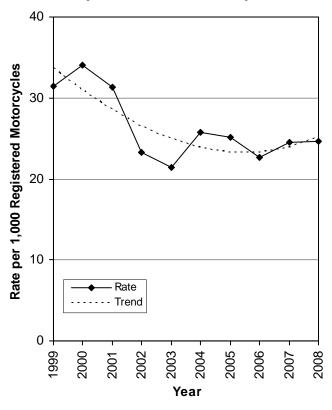
				Moto	rcyclis	ts (Drive	r an	d Pass	enger)			
		Non-Inju	ıred	Injured				Kille	d	Total		
		Rate	Rate		Rate	Rate		Rate	Rate		Rate	Rate
		per 100	per 1,000		per 100	per 1,000		per 100	per 1,000		per 100	per 1,000
		Million	Rgstrd		Million	Rgstrd		Million	Rgstrd		Million	Registered
Year	#	VMT	Mtrcycls	#	VMT	Mtrcycls	#	VMT	Mtrcycls	#	VMT	Motorcycles
1999	76	0.3	3.1	671	3.1	27.4	23	0.11	0.94	770	3.52	31.5
2000	124	0.6	5.0	694	3.1	28.1	24	0.11	0.97	842	3.74	34.1
2001	124	0.5	4.4	733	3.1	25.9	28	0.12	0.99	885	3.78	31.3
2002	130	0.5	3.4	755	3.1	19.5	18	0.07	0.46	903	3.69	23.3
2003	134	0.6	3.2	730	3.0	17.6	22	0.09	0.53	886	3.70	21.4
2004	149	0.6	3.6	877	3.6	21.4	31	0.13	0.76	1,057	4.29	25.8
2005	192	0.8	4.4	871	3.5	20.1	23	0.09	0.53	1,086	4.32	25.1
2006	186	0.7	3.8	899	3.4	18.4	24	0.09	0.49	1,109	4.24	22.7
2007	269	1.0	4.8	1,076	4.0	19.2	33	0.12	0.59	1,378	5.14	24.5
2008	255	1.0	4.0	1,301	5.0	20.2	36	0.14	0.56	1,592	6.15	24.7
Total	1,639	0.7	4.0	8,607	3.5	20.9	262	0.11	0.64	10,508	4.29	25.5

## Motorcyclist Crash Rates per VMT (Utah 1999-2008)



- The rate of motorcyclists in crashes per VMT has shown an increasing trend over the last 10 years.
- 2008 had the highest (6.15) rate of total motorcyclists in crashes per 100 million VMT.

## Motorcyclist Crash Rates per Registered Motorcycles (Utah 1999-2008)

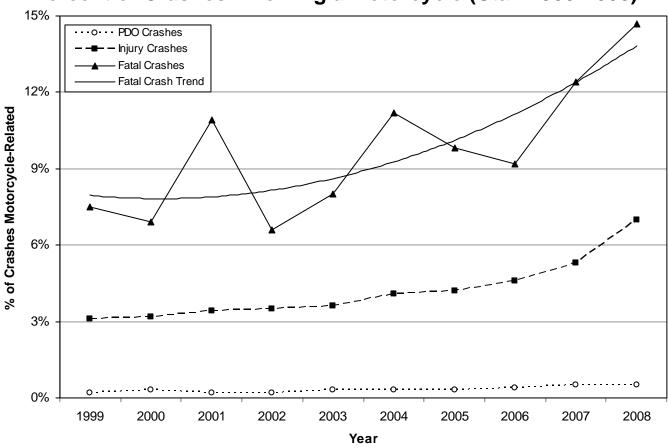


 The rate of total motorcyclists in crashes per registered motorcycles increased for the second year in a row in 2008.

## **Motorcycle Crashes (Utah 1999-2008)**

	Motorcycle Crashes												
	<b>Property</b>	Damag	ge Only	Injury				Fatal		•	Total		
	All	Motor	rcycle	All	Moto	rcycle	All	Moto	rcycle	All	Motor	cycle	
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	32,971	52	0.2%	19,513	602	3.1%	318	24	7.5%	52,802	678	1.3%	
2000	33,269	88	0.3%	19,564	624	3.2%	318	22	6.9%	53,151	734	1.4%	
2001	33,113	82	0.2%	19,332	648	3.4%	258	28	10.9%	52,703	758	1.4%	
2002	33,542	81	0.2%	19,552	689	3.5%	274	18	6.6%	53,368	788	1.5%	
2003	31,842	84	0.3%	18,285	661	3.6%	262	21	8.0%	50,389	766	1.5%	
2004	34,222	104	0.3%	19,423	805	4.1%	260	29	11.2%	53,905	938	1.7%	
2005	35,158	117	0.3%	19,545	829	4.2%	235	23	9.8%	54,938	969	1.8%	
2006	37,749	135	0.4%	18,189	835	4.6%	249	23	9.2%	56,187	993	1.8%	
2007	42,368	199	0.5%	18,619	984	5.3%	258	32	12.4%	61,245	1,215	2.0%	
2008	38,997	177	0.5%	17,125	1,192	7.0%	245	36	14.7%	56,367	1,405	2.5%	
Total	353,231	1,119	0.3%	189,147	7,869	4.2%	2,677	256	9.6%	545,055	9,244	1.7%	

## Percent of Crashes Involving a Motorcycle (Utah 1999-2008)



- The 10-year trend shows that motorcycle crashes represent 0.3% of property damage only crashes, 4.2% of injury crashes, and 9.6% of fatal crashes.
- Motorcycles are over-represented in fatal crashes accounting for 9.6% of fatal crashes compared to 1.7% of total crashes.
- During the last 10 years, the highest percent of total crashes involving motorcycles occurred in 2008 (2.5%).

## **Counties**

## **Motorcyclists in Crashes by County (Utah 2008)**

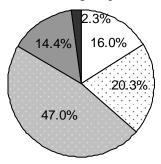
	Mot	orcycli	sts (Di	river an	d Pas	senger	)	
	Non-l	njured	Inj	ured	Ki	lled	To	otal
		Rate		Rate		Rate		Rate
		per 100		per 100		per 100		per 100
		Million		Million		Million		Million
County	#	VMT	#	VMT	#	VMT	#	VMT
Rich	0	0.0	11	22.4	1	2.0	12	24.5
Garfield	3	2.7	21	18.6	0	0.0	24	21.3
Wayne	2	5.0	6	15.1	0	0.0	8	20.1
Morgan	5	3.6	18	13.1	0	0.0	23	16.8
Daggett	0	0.0	5	15.7	0	0.0	5	15.7
Weber	29	1.8	99	6.3	4	0.3	132	8.4
Washington	17	1.3	91	6.8	1	0.1	109	8.2
Duchesne	4	1.7	15	6.4	0	0.0	19	8.1
Utah	27	0.8	242	6.7	6	0.2	275	7.6
Cache	9	1.0	58	6.2	2	0.2	69	7.4
Kane	0	0.0	9	6.5	1	0.7	10	7.2
Salt Lake	118	1.4	448	5.3	13	0.2	579	6.8
Uintah	1	0.3	23	6.5	0	0.0	24	6.7
Wasatch	1	0.3	18	5.9	1	0.3	20	6.6
Grand	2	0.6	13	4.1	0	0.0	15	4.7
Davis	14	0.6	97	3.9	4	0.2	115	4.6
San Juan	0	0.0	11	4.1	0	0.0	11	4.1
Iron	2	0.3	24	3.5	1	0.1	27	4.0
Tooele	4	0.5	27	3.2	0	0.0	31	3.7
Piute	0	0.0	1	3.3	0	0.0	1	3.3
Sanpete	0	0.0	7	3.2	0	0.0	7	3.2
Juab	2	0.5	8	2.0	2	0.5	12	3.0
Carbon	2	0.7	7	2.3	0	0.0	9	3.0
Box Elder	5	0.6	18	2.0	0	0.0	23	2.6
Sevier	1	0.3	6	1.8	0	0.0	7	2.1
Summit	4	0.5	10	1.4	0	0.0	14	1.9
Emery	2	0.6	4	1.2	0	0.0	6	1.8
Beaver	1	0.4	1	0.4	0	0.0	2	0.8
Millard	0	0.0	3	0.7	0	0.0	3	0.7
Statewide	255	1.0	1,301	5.0	36	0.1	1,592	6.2

<sup>•</sup> Rich (24.5), Garfield (21.3), and Wayne (20.1) counties had the highest rates of motorcyclists in crashes per vehicle miles traveled (VMT).

<sup>•</sup> Rich (2.0), Kane (0.7), and Juab (0.5) counties had the highest rates of motorcyclists killed in crashes.

## **Motorcyclists**

#### Injury Severity of Motorcyclists in Crashes (Utah 2008)



- □ No Injury
- □ Possible Injury
- Non-Incapacitating Injury
- Incapacitating Injury
- Death

- The percentage of motorcyclists sustaining a non-fatal injury (81.7%) was much higher than the percentage of all motor vehicle crash occupants sustaining a non-fatal injury (17.8%).
- The percentage of motorcyclists killed in crashes (2.3%) was higher than the percentage for all persons killed in motor vehicle crashes (0.2%).
- Motorcycle crashes were 7 times more likely to result in a death than other motor vehicle crashes.

## Occupant Placement of Motorcyclists in Crashes (Utah 2008)

 Drivers accounted for the majority of motorcyclists in a crash (90.2%) and motorcyclists killed (94.4%).

	Motorcyclists (Driver and Passenger)												
Occupant	Non-l	njured	Inju	ıred	Kil	led	Total						
Placement	#	%	#	%	#	%	#	%					
Driver	232	91.0%	1,170	89.9%	34	94.4%	1,436	90.2%					
Passenger	23	9.0%	131	10.1%	2	5.6%	156	9.8%					
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%					

## Gender of Motorcyclists in Crashes (Utah 2008)

	Motorcyclists (Driver and Passenger)												
	Non-l	Non-Injured Injured Killed Total											
Gender	#	%	#	%	#	%	#	%					
Male	206	80.8%	1,063	81.7%	34	94.4%	1303	81.8%					
Female	36	14.1%	233	17.9%	2	5.6%	271	17.0%					
Unknown	13	5.1%	5	0.4%	0	0.0%	18	1.1%					
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%					

The majority of all motorcyclists (81.8%) and motorcyclists killed (94.4%) in crashes were male.

## Helmet Use of Motorcyclists in Crashes (Utah 2008)



	Motorcyclists (Driver and Passenger)												
	Non-l	njured	Inju	ıred	Kil	led	Total						
Helmet Use	#	%	#	%	#	%	#	%					
Helmet Worn	156	61.2%	629	48.3%	13	36.1%	798	50.1%					
Helmet Not Worn	56	22.0%	569	43.7%	23	63.9%	648	40.7%					
Unknown	43	16.9%	103	7.9%	0	0.0%	146	9.2%					
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%					

- Only 55.2% (of known) of the motorcyclists in crashes wore a helmet.
- 23 of the 36 motorcyclists killed in crashes (63.9%) were not wearing a helmet.

## **Motorcyclists**

## Age of Motorcyclists in Crashes (Utah 2008)

	Moto	orcyclis	sts (D	river a	nd Pa	asseng	jer)	
	Non-l	njured	lnj	ured	Ki	lled	T	otal
Age	#	%	#	%	#	%	#	%
0-9	0	0.0%	3	0.2%	0	0.0%	3	0.2%
10-14	2	0.8%	15	1.2%	1	2.8%	18	1.1%
15-19	24	9.4%	139	10.7%	1	2.8%	164	10.3%
20-24	33	12.9%	293	22.5%	6	16.7%	332	20.9%
25-29	38	14.9%	167	12.8%	7	19.4%	212	13.3%
30-34	28	11.0%	114	8.8%	3	8.3%	145	9.1%
35-39	21	8.2%	109	8.4%	5	13.9%	135	8.5%
40-44	21	8.2%	73	5.6%	2	5.6%	96	6.0%
45-49	22	8.6%	106	8.1%	3	8.3%	131	8.2%
50-54	17	6.7%	98	7.5%	5	13.9%	120	7.5%
55-59	19	7.5%	71	5.5%	0	0.0%	90	5.7%
60-64	9	3.5%	55	4.2%	2	5.6%	66	4.1%
65+	7	2.7%	35	2.7%	1	2.8%	43	2.7%
Unknown	14	5.5%	23	1.8%	0	0.0%	37	2.3%
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%

- Overall, the largest percentages of motorcyclists in crashes were aged 15-29 years (44.5%).
- The highest percentages of motorcyclist deaths were aged 20-29 years (36.1%).
- The average age of a motorcyclist in a crash was 35 years.

## **Motorcycle Driver Age (Utah 2008)**

			Motor	cycle D	rivers						
	PDO 0	Crashes	Injury	Crashes	Fatal (	Crashes	Total				
Age	#	%	#	%	#	%	#	%			
<15	0	0.0%	10	0.8%	0	0.0%	10	0.7%			
15-19	15	8.6%	128	10.4%	2	5.6%	145	10.1%			
20-24	26	14.9%	267	21.8%	6	16.7%	299	20.8%			
25-29	27	15.4%	165	13.5%	7	19.4%	199	13.9%			
30-34	20	11.4%	115	9.4%	3	8.3%	138	9.6%			
35-39	12	6.9%	105	8.6%	5	13.9%	122	8.5%			
40-44	15	8.6%	68	5.6%	2	5.6%	85	5.9%			
45-49	16	9.1%	101	8.2%	3	8.3%	120	8.4%			
50-54	12	6.9%	95	7.8%	5	13.9%	112	7.8%			
55-59	14	8.0%	66	5.4%	0	0.0%	80	5.6%			
60-64	5	2.9%	54	4.4%	2	5.6%	61	4.2%			
65+	3	1.7%	35	2.9%	1	2.8%	39	2.7%			
Unknown	10	5.7%	16	1.3%	0	0.0%	26	1.8%			
Total	175	100.0%	1,225	100.0%	36	100.0%	1,436	100.0%			

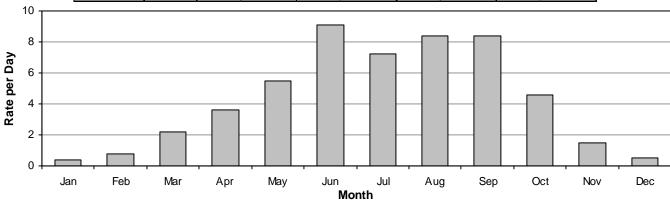
Over one-half (55.1%) of the motorcycle drivers in crashes were under the age of 35 years.

## **Motorcycle Driver License Status (Utah 2008)**

• Of the 36 motorcycle drivers in fatal crashes, 14 (38.9%) did not have a motorcycle license.

## **Motorcyclists in Crashes by Month (Utah 2008)**

	Motorcyclists (Driver and Passenger)												
	Days in	Non-	Injured	lnj	ured	Ki	lled	Т	otal				
	Month		Rate		Rate		Rate		Rate				
Month	#	#	per Day	#	per Day	#	per Day	#	per Day				
January	31	3	0.1	8	0.3	0	0.00	11	0.4				
February	29	5	0.2	17	0.6	0	0.00	22	0.8				
March	31	14	0.5	53	1.7	2	0.06	69	2.2				
April	30	15	0.5	91	3.0	3	0.10	109	3.6				
May	31	28	0.9	132	4.3	10	0.32	170	5.5				
June	30	32	1.1	237	7.9	5	0.17	274	9.1				
July	31	30	1.0	192	6.2	2	0.06	224	7.2				
August	31	44	1.4	210	6.8	6	0.19	260	8.4				
September	30	43	1.4	204	6.8	4	0.13	251	8.4				
October	31	27	0.9	112	3.6	3	0.10	142	4.6				
November	30	12	0.4	34	1.1	0	0.00	46	1.5				
December	31	2	0.1	11	0.4	1	0.03	14	0.5				
Total	366	255	0.7	1,301	3.6	36	0.10	1,592	4.3				



June through September had the highest rates per day of total motorcycle crashes. Very few motorcycle crashes occurred in the winter months, likely due to the decrease in motorcycle riding in the winter.

## Motorcyclists in Crashes by Day of Week (Utah 2008)

	Motorcyclists (Driver and Passenger)												
	Non-l	njured	Inju	ıred	Kil	led	Total						
Day of Week	#	%	#	%	#	%	#	%					
Sunday	32	12.5%	180	13.8%	5	13.9%	217	13.6%					
Monday	38	14.9%	158	12.1%	4	11.1%	200	12.6%					
Tuesday	27	10.6%	174	13.4%	5	13.9%	206	12.9%					
Wednesday	29	11.4%	150	11.5%	3	8.3%	182	11.4%					
Thursday	25	9.8%	163	12.5%	4	11.1%	192	12.1%					
Friday	55	21.6%	218	16.8%	4	11.1%	277	17.4%					
Saturday	49	19.2%	258	19.8%	11	30.6%	318	20.0%					
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%					

- Over one-third (37.4%) of total motorcycle crashes occurred on Friday and Saturday.
- Fatal motorcycle crashes occurred most frequently on Saturday (30.6%).

## **Motorcyclists in Crashes by Hour (Utah 2008)**

	Motorcyclists (Driver and Passenger)											
	Non-l	njured	Inju	ıred	Killed		To	otal				
Hour	#	%	#	%	#	%	#	%				
Midnight	2	0.8%	16	1.2%	0	0.0%	18	1.1%				
1 a.m.	0	0.0%	15	1.2%	1	2.8%	16	1.0%				
2 a.m.	1	0.4%	9	0.7%	0	0.0%	10	0.6%				
3 a.m.	1	0.4%	3	0.2%	0	0.0%	4	0.3%				
4 a.m.	1	0.4%	9	0.7%	1	2.8%	11	0.7%				
5 a.m.	0	0.0%	11	0.8%	1	2.8%	12	0.8%				
6 a.m.	2	0.8%	23	1.8%	1	2.8%	26	1.6%				
7 a.m.	6	2.4%	29	2.2%	0	0.0%	35	2.2%				
8 a.m.	7	2.7%	51	3.9%	2	5.6%	60	3.8%				
9 a.m.	3	1.2%	30	2.3%	0	0.0%	33	2.1%				
10 a.m.	11	4.3%	44	3.4%	0	0.0%	55	3.5%				
11 a.m.	17	6.7%	66	5.1%	0	0.0%	83	5.2%				
Noon	22	8.6%	88	6.8%	5	13.9%	115	7.2%				
1 p.m.	22	8.6%	78	6.0%	0	0.0%	100	6.3%				
2 p.m.	19	7.5%	77	5.9%	2	5.6%	98	6.2%				
3 p.m.	20	7.8%	103	7.9%	3	8.3%	126	7.9%				
4 p.m.	30	11.8%	113	8.7%	3	8.3%	146	9.2%				
5 p.m.	27	10.6%	122	9.4%	5	13.9%	154	9.7%				
6 p.m.	15	5.9%	101	7.8%	4	11.1%	120	7.5%				
7 p.m.	13	5.1%	86	6.6%	2	5.6%	101	6.3%				
8 p.m.	15	5.9%	83	6.4%	2	5.6%	100	6.3%				
9 p.m.	8	3.1%	59	4.5%	3	8.3%	70	4.4%				
10 p.m.	8	3.1%	35	2.7%	0	0.0%	43	2.7%				
11 p.m.	5	2.0%	49	3.8%	1	2.8%	55	3.5%				
Unknown	0	0.0%	1	0.1%	0	0.0%	1	0.1%				
Total	255	100.0%	1,301	100.0%	36	100.0%	1,592	100.0%				

 Two-thirds (66.6%) of total motorcycle crashes occurred between 12:00 p.m. and 8:59 p.m.

## Travel Speed (Utah 2008)

- Over half (58.7% where travel speed was known) of motorcycles in total crashes were traveling 20-49 MPH.
- Most (79.2% of known) of the motorcycles in fatal crashes were traveling 40 MPH or higher.

			Moto	rcycle	S			
Travel	PDO C	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal
Speed	#	%	#	%	#	%	#	%
Stopped	14	8.0%	42	3.4%	0	0.0%	56	3.9%
1-9 MPH	17	9.7%	28	2.3%	0	0.0%	45	3.1%
10-19 MPH	17	9.7%	89	7.3%	1	2.8%	107	7.5%
20-29 MPH	17	9.7%	170	13.9%	1	2.8%	188	13.1%
30-39 MPH	26	14.9%	211	17.2%	3	8.3%	240	16.7%
40-49 MPH	15	8.6%	168	13.7%	9	25.0%	192	13.4%
50-59 MPH	14	8.0%	93	7.6%	4	11.1%	111	7.7%
60-69 MPH	8	4.6%	63	5.1%	1	2.8%	72	5.0%
70-79 MPH	1	0.6%	28	2.3%	2	5.6%	31	2.2%
80+ MPH	1	0.6%	11	0.9%	3	8.3%	15	1.0%
Unknown	45	25.7%	322	26.3%	12	33.3%	379	26.4%
Total	175	100.0%	1,225	100.0%	36	100.0%	1,436	100.0%

## Maneuver of Other Vehicle Prior to Motorcycle Crash (Utah 2008)

Vehicles Other than Motorcycles (Motorcycle Crash)											
	PDO C	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal			
Vehicle Maneuver	#	%	#	%	#	%	#	%			
Turning Left	30	23.8%	221	33.8%	7	28.0%	258	32.0%			
Straight Ahead	47	37.3%	195	29.8%	11	44.0%	253	31.4%			
Stopped in Traffic Lane	10	7.9%	65	9.9%	2	8.0%	77	9.6%			
Slowing in Traffic Lane	16	12.7%	28	4.3%	0	0.0%	44	5.5%			
Changing Lanes	4	3.2%	36	5.5%	1	4.0%	41	5.1%			
Turning Right	9	7.1%	31	4.7%	0	0.0%	40	5.0%			
Making U-turn	2	1.6%	31	4.7%	3	12.0%	36	4.5%			
Entering/Leaving Traffic Lane	3	2.4%	20	3.1%	0	0.0%	23	2.9%			
Parked/Parking	1	0.8%	13	2.0%	1	4.0%	15	1.9%			
Overtaking/Passing	0	0.0%	4	0.6%	0	0.0%	4	0.5%			
Other	4	3.2%	7	1.1%	0	0.0%	11	1.4%			
Unknown	0	0.0%	3	0.5%	0	0.0%	3	0.4%			
Total	126	100.0%	654	100.0%	25	100.0%	805	100.0%			

For all motorcycle crashes, the leading maneuvers of vehicles other than motorcycles prior to the crash were turning left (32.0%) and straight ahead (31.4%).

## **Contributing Factors of Drivers Other than Motorcyclists** in Motorcycle Crashes (Utah 2008)

Drivers/Vehicles O	Drivers/Vehicles Other than Motorcycles (Motorcycle Crash)											
				Crashes				otal				
Contributing Factors	#	%	#	%	#	%	#	%				
Failed to Yield Right of Way	26	27.1%	232	37.1%	11	55.0%	269	36.3%				
Improper Turn	5	5.2%	77	12.3%	4	20.0%	86	11.6%				
Followed Too Closely	20	20.8%	36	5.8%	0	0.0%	56	7.5%				
Other Improper Driving	15	15.6%	48	7.7%	0	0.0%	63	8.5%				
Improper Lane Change	2	2.1%	29	4.6%	1	5.0%	32	4.3%				
Driver Distraction	4	4.2%	26	4.2%	0	0.0%	30	4.0%				
Vision Obscured by Moving Vehicle	2	2.1%	26	4.2%	1	5.0%	29	3.9%				
Disregard Traffic Signal/Sign	2	2.1%	20	3.2%	2	10.0%	24	3.2%				
Vision Obscured by Other	4	4.2%	26	4.2%	0	0.0%	30	4.0%				
Hit and Run	1	1.0%	19	3.0%	1	5.0%	21	2.8%				
Vehicle Defective Condition	3	3.1%	15	2.4%	0	0.0%	18	2.4%				
Failed to Keep in Proper Lane	2	2.1%	12	1.9%	0	0.0%	14	1.9%				
Swerved or Evasive Action	2	2.1%	11	1.8%	0	0.0%	13	1.8%				
Driver Emotionally Upset	0	0.0%	10	1.6%	0	0.0%	10	1.3%				
Other Driver Condition	1	1.0%	9	1.4%	0	0.0%	10	1.3%				
Driving Under the Influence	2	2.1%	7	1.1%	0	0.0%	9	1.2%				
Improper Parking/Stopping	3	3.1%	6	1.0%	0	0.0%	9	1.2%				
Vision Obscured by Parked Vehicle	0	0.0%	8	1.3%	0	0.0%	8	1.1%				
Speed Too Fast	1	1.0%	6	1.0%	0	0.0%	7	0.9%				
Reckless/Aggressive Driving	1	1.0%	3	0.5%	0	0.0%	4	0.5%				
Total	96	100.0%	626	100.0%	20	100.0%	742	100.0%				

Failed to yield right of way (36.3%), improper turn (11.6%), and followed too closely (7.5%) were the leading contributing factors for drivers other than motorcyclists in all motorcycle crashes.

## **Contributing Factors in Motorcycle Crashes (Utah 2008)**

Moto	orcycl	e Drive	rs/Veh	icles				
	PDO C	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal
Contributing Factors	#	%	#	%	#	%	#	%
Speed Too Fast	18	15.0%	159	15.1%	12	27.9%	189	15.5%
Followed Too Closely	21	17.5%	99	9.4%	2	4.7%	122	10.0%
Failed to Keep in Proper Lane	11	9.2%	103	9.8%	6	14.0%	120	9.9%
Ran Off Road	6	5.0%	83	7.9%	2	4.7%	91	7.5%
Other Improper Driving	9	7.5%	81	7.7%	0	0.0%	90	7.4%
Swerved or Evasive Action	5	4.2%	76	7.2%	2	4.7%	83	6.8%
Overcorrected	3	2.5%	49	4.6%	1	2.3%	53	4.4%
Failed to Yield Right of Way	6	5.0%	45	4.3%	0	0.0%	51	4.2%
Driver Distraction	6	5.0%	41	3.9%	0	0.0%	47	3.9%
Reckless/Aggressive Driving	0	0.0%	39	3.7%	3	7.0%	42	3.4%
Driving Under the Influence	2	1.7%	37	3.5%	2	4.7%	41	3.4%
Vehicle Other Defective Condition	5	4.2%	30	2.8%	0	0.0%	35	2.9%
Vision Obscured by Other	4	3.3%	28	2.7%	1	2.3%	33	2.7%
Vision Obscured by Moving Vehicle	2	1.7%	22	2.1%	2	4.7%	26	2.1%
Improper Turn	1	0.8%	23	2.2%	0	0.0%	24	2.0%
Other Driver Condition	2	1.7%	21	2.0%	0	0.0%	23	1.9%
Vehicle Brakes	1	0.8%	22	2.1%	0	0.0%	23	1.9%
Improper Passing	4	3.3%	16	1.5%	1	2.3%	21	1.7%
Disregard Traffic Signal/Sign	1	0.8%	17	1.6%	2	4.7%	20	1.6%
Improper Lane Change	3	2.5%	12	1.1%	2	4.7%	17	1.4%
Vehicle Tires	1	0.8%	12	1.1%	1	2.3%	14	1.1%
Vision Obscured by Weather Condition	2	1.7%	10	0.9%	0	0.0%	12	1.0%
Wrong Side/Wrong Way	2	1.7%	6	0.6%	3		11	0.9%
Driver Emotionally Upset	1	0.8%	5	0.5%	1	2.3%	7	0.6%
Hit and Run	2	1.7%	5	0.5%	0	0.0%	7	0.6%
Asleep/Fatigue	0	0.0%	6	0.6%	0	0.0%	6	0.5%
Improper Parking/Stopping	2	1.7%	3	0.3%	0	0.0%	5	0.4%
Disregard Road Markings	0	0.0%	3	0.3%	0	0.0%	3	0.2%
Improper Signal	0	0.0%	2	0.2%	0	0.0%	2	0.2%
Total	120	100.0%	1,055	100.0%	43	100.0%	1,218	100.0%

- Speed too fast (15.5%), followed too closely (10.0%), and failed to keep in proper lane (9.9%) were the leading contributing factors for all motorcycle crashes.
- The leading contributing factors for fatal crashes were speed too fast (27.9%) and failed to keep in proper lane (14.0%).

#### Did you know in 2008:

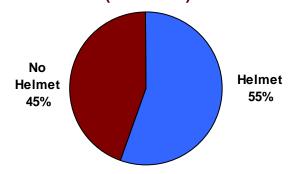
 There were 1,405 motorcycle crashes in Utah, resulting in 1,301 injured motorcyclists and 36 motorcyclist deaths.

- Motorcycles
- Motorcyclists accounted for 1% of persons in crashes and 13% of deaths.
- Compared to 2007, there was a 16% increase in the number of motorcycle crashes.
- Motorcycle crashes were 7 times more likely to result in a death than other crashes.

#### 

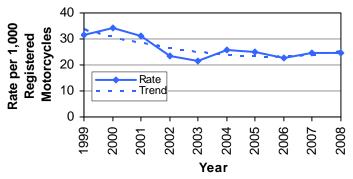
- Motorcyclist deaths are on the rise after seeing declining motorcyclist deaths in the 1990s.
- The 36 motorcyclist deaths in 2008 were the highest total since 1985.

## Helmet Use of Motorcyclists in Crashes (Utah 2008)



- Only 55% of motorcyclists wore a helmet.
- Utah law requires anyone under the age of 18 years riding a motorcycle to wear a helmet.

## Motorcyclist Crash Rates per Registered Motorcycles (Utah 1999-2008)



 The rate of motorcyclists in crashes per registered motorcycles increased for the second year in a row.

#### Leading Motorcyclist Contributing Factors in Crashes (Utah 2008)

- 1. Speed Too Fast (13%)
- 2. Followed Too Closely (9%)
- 3. Failed to Keep in Proper Lane (9%)
- 4. Ran Off Road (6%)
- 5. Swerved or Evasive Action (6%)

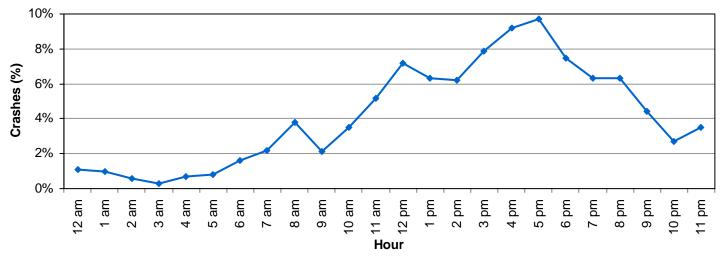




#### **Left Turns**

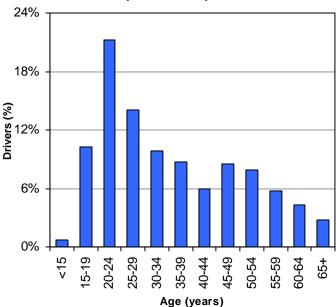
Nearly one-third (32%) of drivers who hit motorcycles were turning left. Drivers need to watch for motorcycles before turning.

#### Motorcycle Crashes by Hour of Day (Utah 2008)



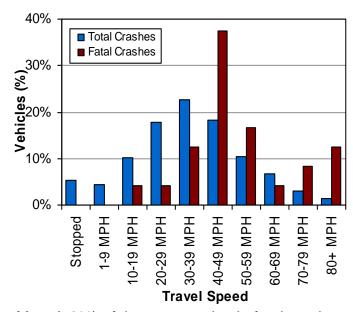
• Two-thirds (67%) of total motorcycle crashes occurred between 12:00 p.m. and 8:59 p.m.

## Age of Motorcycle Drivers in All Crashes (Utah 2008)



• Over one-half (56%) of motorcycle drivers in crashes were under the age of 35 years.

## Travel Speed of Motorcycles in Crashes (Utah 2008)



 Most (79%) of the motorcycles in fatal crashes were traveling 40 MPH or higher.

# Pedestrians





## **Section 7: Pedestrians**

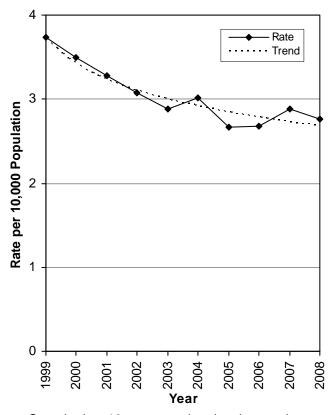
<u>Trends</u>	
Pedestrians in Crashes 1999-200888	
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#### **Trends**

#### Pedestrians in Crashes (Utah 1999-2008)

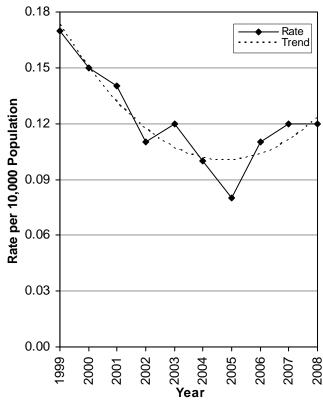
	Pedestrians												
	No	n-Injured	I	njured		Killed		Total					
		Rate per		Rate per		Rate per		Rate per					
Year	#	10,000 Pop.	#	10,000 Pop.	#	10,000 Pop.	#	10,000 Pop.					
1999	32	0.15	748	3.41	38	0.17	818	3.73					
2000	44	0.20	708	3.15	33	0.15	785	3.49					
2001	39	0.17	682	2.97	33	0.14	754	3.28					
2002	32	0.14	664	2.84	25	0.11	721	3.08					
2003	42	0.18	616	2.58	28	0.12	686	2.88					
2004	45	0.18	675	2.73	25	0.10	745	3.02					
2005	35	0.14	626	2.46	20	0.08	681	2.67					
2006	55	0.21	617	2.36	29	0.11	701	2.68					
2007	65	0.24	681	2.52	32	0.12	778	2.88					
2008	97	0.35	638	2.29	34	0.12	769	2.76					
Total	486	0.20	6,655	2.71	297	0.12	7,438	3.03					

## Pedestrian Crash Rates Per Population (Utah 1999-2008)



- Over the last 10 years, total pedestrian crash rates per population have followed a decreasing trend.
- In 2008, the total rate per population of pedestrians in crashes decreased 4.2% from 2007.
- 2005 had the lowest rate per population of total pedestrians in crashes (2.67).

## Pedestrian Death Rates Per Population (Utah 1999-2008)

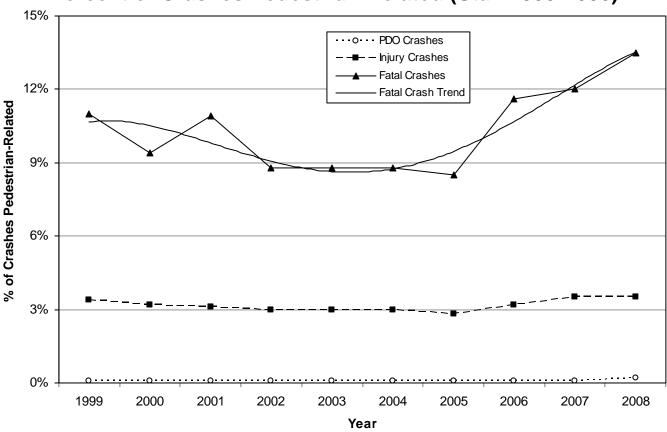


- After steadily decreasing from 1999-2005, pedestrian death rates per population have shown an increasing trend over the last three years.
- 1999 had the highest rate per population of pedestrians killed in crashes (0.17), while 2005 had the lowest rate (0.08).

#### Pedestrian-Motor Vehicle Crashes (Utah 1999-2008)

	Pedestrian-Motor Vehicle Crashes												
	Property	Dama	ge Only		Injury			Fatal		•	Total		
	All	Ped	Ped	All	Ped	Ped	All	Ped	Ped	All	Ped	Ped	
Year	#	#	%	#	#	%	#	#	%	#	#	%	
1999	32,971	24	0.1%	19,513	661	3.4%	318	35	11.0%	52,802	720	1.4%	
2000	33,269	31	0.1%	19,564	626	3.2%	318	30	9.4%	53,151	687	1.3%	
2001	33,113	30	0.1%	19,332	597	3.1%	258	28	10.9%	52,703	655	1.2%	
2002	33,542	28	0.1%	19,552	584	3.0%	274	24	8.8%	53,368	636	1.2%	
2003	31,842	36	0.1%	18,285	540	3.0%	262	23	8.8%	50,389	599	1.2%	
2004	34,222	37	0.1%	19,423	583	3.0%	260	23	8.8%	53,905	643	1.2%	
2005	35,158	28	0.1%	19,545	552	2.8%	235	20	8.5%	54,938	600	1.1%	
2006	37,749	33	0.1%	18,189	580	3.2%	249	29	11.6%	56,187	642	1.1%	
2007	42,368	40	0.1%	18,619	653	3.5%	258	31	12.0%	61,245	724	1.2%	
2008	38,997	63	0.2%	17,125	605	3.5%	245	33	13.5%	56,367	701	1.2%	
Total	353,231	350	0.1%	189,147	5,981	3.2%	2,677	276	10.3%	545,055	6,607	1.2%	

## Percent of Crashes Pedestrian-Related (Utah 1999-2008)



- The 10-year trend shows that pedestrian-motor vehicle crashes represent 0.1% of property damage only crashes, 3.2% of injury crashes, and 10.3% of fatal crashes.
- Pedestrians are over-represented in fatal crashes accounting for 10.3% of fatal crashes compared to 1.2% of total crashes.
- From 2007 to 2008, the percent of fatal crashes that involved a pedestrian increased 12.5%.
- During the last 10 years, the highest percent of fatal crashes involving pedestrians occurred in 2008 (13.5%).

## **Counties**

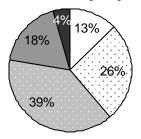
## Pedestrians in Crashes by County (Utah 2008)

			Pede	strian	S			
	Non-l	njured	Inju	ured	Kil	lled	To	otal
		Rate		Rate		Rate		Rate
		per		per		per		per
		10,000		10,000		10,000		10,000
County	#	Pop.	#	Pop.	#	Pop.	#	Pop.
Sanpete	7	2.60	4	1.49	2	0.74	13	4.83
Emery	2	1.91	2	1.91	1	0.96	5	4.79
Grand	0	0.00	4	4.29	0	0.00	4	4.29
Duchesne	0	0.00	7	4.22	0	0.00	7	4.22
Sevier	1	0.48	7	3.37	0	0.00	8	3.85
Salt Lake	40	0.38	331	3.18	13	0.12	384	3.69
Weber	11	0.49	56	2.49	3	0.13	70	3.11
Carbon	1	0.51	5	2.53	0	0.00	6	3.03
Summit	1	0.25	9	2.27	0	0.00	10	2.52
Utah	10	0.19	94	1.79	11	0.21	115	2.20
Iron	2	0.43	8	1.70	0	0.00	10	2.13
Davis	12	0.39	50	1.63	2	0.07	64	2.09
Morgan	0	0.00	2	2.07	0	0.00	2	2.07
Cache	2	0.18	19	1.69	1	0.09	22	1.96
Wasatch	0	0.00	4	1.74	0	0.00	4	1.74
Box Elder	2	0.41	6	1.24	0	0.00	8	1.65
Tooele	3	0.51	6	1.02	0	0.00	9	1.53
Kane	1	1.52	0	0.00	0	0.00	1	1.52
Washington	1	0.07	21	1.40	0	0.00	22	1.47
San Juan	0	0.00	2	1.34	0	0.00	2	1.34
Millard	1	0.74	0	0.00	0	0.00	1	0.74
Uintah	0	0.00	1	0.34	1	0.34	2	0.68
Beaver	0	0.00	0	0.00	0	0.00	0	0.00
Daggett	0	0.00	0	0.00	0	0.00	0	0.00
Garfield	0	0.00	0	0.00	0	0.00	0	0.00
Juab	0	0.00	0	0.00	0	0.00	0	0.00
Piute	0	0.00	0	0.00	0	0.00	0	0.00
Rich	0	0.00	0	0.00	0	0.00	0	0.00
Wayne	0	0.00	0	0.00	0	0.00	0	0.00
Statewide	97	0.35	638	2.29	34	0.12	769	2.76

- Sanpete (4.83), Emery (4.79), and Grand (4.29) counties had the highest rates of pedestrians in crashes per 10,000 population.
- Beaver, Daggett, Garfield, Juab, Piute, Rich, and Wayne counties had no pedestrians in crashes.
- Emery (0.96) and Sanpete (0.74) counties had the highest rates of pedestrians killed in crashes per 10,000 population.

#### **Pedestrians**

#### Injury Severity of Pedestrians in Crashes (Utah 2008)



- □ No Injury□ Possible Injury
- Non-Incapacitating Injury
- Incapacitating Injury
- Death

- 83.0% of pedestrians in crashes sustained an injury compared to 17.8% of all persons in crashes.
- The percentage of pedestrians killed in crashes (4.4%) was much higher than the percentage for all persons killed in motor vehicle crashes (0.2%).
- Pedestrian crashes were 12.9 times more likely to result in a death than other motor vehicle crashes.

## Age of Pedestrians in Crashes (Utah 2008)

Pedestrians												
	Non-	Injured	lnj	ured	K	illed	Т	otal				
Age	#	%	#	%	#	%	#	%				
0-4	14	14.4%	34	5.3%	2	5.9%	50	6.5%				
5-9	4	4.1%	46	7.2%	2	5.9%	52	6.8%				
10-14	7	7.2%	71	11.1%	3	8.8%	81	10.5%				
15-19	8	8.2%	104	16.3%	0	0.0%	112	14.6%				
20-24	9	9.3%	67	10.5%	2	5.9%	78	10.1%				
25-29	4	4.1%	52	8.2%	0	0.0%	56	7.3%				
30-34	4	4.1%	34	5.3%	1	2.9%	39	5.1%				
35-39	2	2.1%	40	6.3%	1	2.9%	43	5.6%				
40-44	1	1.0%	16	2.5%	1	2.9%	18	2.3%				
45-49	3	3.1%	27	4.2%	7	20.6%	37	4.8%				
50-54	1	1.0%	34	5.3%	5	14.7%	40	5.2%				
55-59	1	1.0%	19	3.0%	0	0.0%	20	2.6%				
60-64	2	2.1%	12	1.9%	0	0.0%	14	1.8%				
65-69	0	0.0%	13	2.0%	4	11.8%	17	2.2%				
70-74	1	1.0%	8	1.3%	2	5.9%	11	1.4%				
75-79	0	0.0%	8	1.3%	3	8.8%	11	1.4%				
80-84	1	1.0%	4	0.6%	1	2.9%	6	0.8%				
85+	0	0.0%	7	1.1%	0	0.0%	7	0.9%				
Unknown	35	36.1%	42	6.6%	0	0.0%	77	10.0%				
Total	97	100.0%	638	100.0%	34	100.0%	769	100.0%				

- Overall, the largest percentages of pedestrians in crashes were aged 10-24 years (39.2% of known).
- The highest percentage of pedestrian deaths occurred in the 45-49 year age group (20.6%).
- The average age of a pedestrian in a crash was 29 years. The average age of a pedestrian killed was 45 years.

#### **Gender of Pedestrians in Crashes (Utah 2008)**

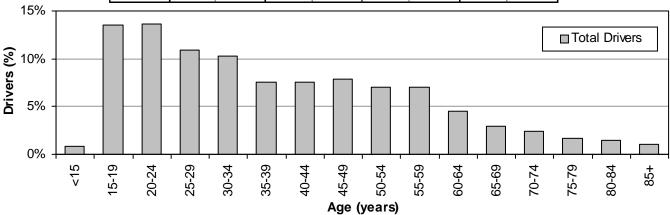
Pedestrians										
	Non-	Injured	Т	otal						
Gender	#	%	#	%	#	%	#	%		
Male	33	34.0%	375	58.8%	25	73.5%	433	56.3%		
Female	25	25.8%	247	38.7%	9	26.5%	281	36.5%		
Unknown	39	40.2%	16	2.5%	0	0.0%	55	7.2%		
Total	97	100.0%	638	100.0%	34	100.0%	769	100.0%		

The majority of all pedestrians hit (56.3%) and pedestrians killed (73.5%) in crashes were male.

#### **Drivers**

## Driver Age (Utah 2008)

	Drivers (Pedestrian-Motor Vehicle Crashes)										
	PDO C	rashes	Injury (	Crashes	Fatal C	Crashes	To	tal			
Age	#	%	#	%	#	%	#	%			
<15	0	0.0%	5	0.8%	0	0.0%	5	0.6%			
15-19	9	10.2%	75	11.5%	5	14.3%	89	11.5%			
20-24	14	15.9%	69	10.6%	7	20.0%	90	11.6%			
25-29	10	11.4%	58	8.9%	4	11.4%	72	9.3%			
30-34	7	8.0%	59	9.0%	2	5.7%	68	8.8%			
35-39	4	4.5%	44	6.7%	2	5.7%	50	6.4%			
40-44	6	6.8%	42	6.4%	2	5.7%	50	6.4%			
45-49	3	3.4%	46	7.0%	3	8.6%	52	6.7%			
50-54	7	8.0%	38	5.8%	1	2.9%	46	5.9%			
55-59	7	8.0%	37	5.7%	2	5.7%	46	5.9%			
60-64	2	2.3%	25	3.8%	3	8.6%	30	3.9%			
65-69	3	3.4%	15	2.3%	1	2.9%	19	2.4%			
70-74	1	1.1%	15	2.3%	0	0.0%	16	2.1%			
75-79	1	1.1%	10	1.5%	0	0.0%	11	1.4%			
80-84	2	2.3%	8	1.2%	0	0.0%	10	1.3%			
85+	1	1.1%	6	0.9%	0	0.0%	7	0.9%			
Unknown	11	12.5%	101	15.5%	3	8.6%	115	14.8%			
Total	88	100.0%	653	100.0%	35	100.0%	776	100.0%			



- Nearly half (48.3% of known) of drivers in total pedestrian-motor vehicle crashes were aged 15-34 years.
- The percentage of drivers in fatal pedestrian-motor vehicle crashes was highest for those aged 20-24 years.
- The average age of a driver was 39 years. The average age of a driver in a fatal crash was 36 years.

#### **Driver Gender (Utah 2008)**

	Drivers (Pedestrian-Motor Vehicle Crashes)											
	PDO C	PDO Crashes Injury Crashes			Fatal (	Crashes	Total					
Gender	#	%	#	%	#	%	#	%				
Male	48	54.5%	343	52.5%	20	57.1%	411	53.0%				
Female	34	38.6%	242	37.1%	13	37.1%	289	37.2%				
Unknown	6	6.8%	68	10.4%	2	5.7%	76	9.8%				
Total	88	100.0%	653	100.0%	35	100.0%	776	100.0%				

• Most drivers in total pedestrian crashes (58.7% of known) and fatal crashes (60.6% of known) were male.

## **Contributing Factors of Pedestrians in Crashes (Utah 2008)**

Pedestrians								
	Non-	Injured	Inj	jured	K	illed	Т	otal
Contributing Factors	# %		#	%	#	%	#	%
None	22	22.7%	197	30.9%	10	29.4%	229	29.8%
Improper Crossing	5	5.2%	72	11.3%	4	11.8%	81	10.5%
In Roadway (standing, kneeling, lying)	12	12.4%	33	5.2%	8	23.5%	53	6.9%
Darting	5	5.2%	42	6.6%	2	5.9%	49	6.4%
Not Visible	1	1.0%	27	4.2%	9	26.5%	37	4.8%
Inattentive	2	2.1%	22	3.4%	0	0.0%	24	3.1%
Failure to Obey Traffic Signs/Signals	0	0.0%	20	3.1%	0	0.0%	20	2.6%
Failure to Yield Right of Way	1	1.0%	5	0.8%	0	0.0%	6	0.8%
Other	4	4.1%	39	6.1%	0	0.0%	43	5.6%
Unknown	45	46.4%	181	28.4%	1	2.9%	227	29.5%
Total	97	100.0%	638	100.0%	34	100.0%	769	100.0%

- Improper crossing (14.9% of known), in roadway (9.8% of known), and darting (9.0% of known) were the leading contributing factors for pedestrians in total crashes.
- Not visible (26.5%) and in roadway (23.5%) were the leading contributing factors for pedestrians killed.
- No contributing factors were listed for 29.4% of the pedestrians killed and 42.3% (of known) of total pedestrians.
- Other contributing factors to consider are drivers (see page 96), roadways (such as high speeds, traffic volumes, number of lanes to cross, inadequate pedestrian crossings), and vehicles (such as vehicle size).

## Pedestrian-Motor Vehicle Crashes by Month (Utah 2008)

	Pedestrians										
		Non-In	jured	Injur	ed	Kille	ed	Tota	al		
	Days in		Rate		Rate		Rate		Rate		
	Month		per		per		per		per		
Month	#	#	Day	#	Day	#	Day	#	Day		
January	31	8	0.26	50	1.61	5	0.16	63	2.03		
February	29	12	0.41	48	1.66	0	0.00	60	2.07		
March	31	4	0.13	41	1.32	2	0.06	47	1.52		
April	30	4	0.13	45	1.50	1	0.03	50	1.67		
May	31	5	0.16	49	1.58	2	0.06	56	1.81		
June	30	3	0.10	66	2.20	0	0.00	69	2.30		
July	31	5	0.16	35	1.13	5	0.16	45	1.45		
August	31	18	0.58	62	2.00	5	0.16	85	2.74		
September	30	9	0.30	60	2.00	0	0.00	69	2.30		
October	31	5	0.16	80	2.58	3	0.10	88	2.84		
November	30	7	0.23	55	1.83	5	0.17	67	2.23		
December	31	17	0.55	47	1.52	6	0.19	70	2.26		
Total	366	97	0.27	638	1.74	34	0.09	769	2.10		

- August through October and June had the highest rates per day of total pedestrian-motor vehicle crashes.
- December (0.19) had the highest rates per day of pedestrian deaths.

## Pedestrian-Motor Vehicle Crashes by Hour (Utah 2008)

Pedestrians										
	Non-	Injured	lnj	ured	Ki	lled	Т	otal		
Hour	#	%	#	%	#	%	#	%		
Midnight	1	1.0%	6	0.9%	0	0.0%	7	0.9%		
1 a.m.	1	1.0%	9	1.4%	0	0.0%	10	1.3%		
2 a.m.	0	0.0%	7	1.1%	0	0.0%	7	0.9%		
3 a.m.	0	0.0%	3	0.5%	1	2.9%	4	0.5%		
4 a.m.	1	1.0%	4	0.6%	1	2.9%	6	0.8%		
5 a.m.	0	0.0%	5	0.8%	1	2.9%	6	0.8%		
6 a.m.	1	1.0%	14	2.2%	0	0.0%	15	2.0%		
7 a.m.	7	7.2%	37	5.8%	3	8.8%	47	6.1%		
8 a.m.	4	4.1%	38	6.0%	2	5.9%	44	5.7%		
9 a.m.	4	4.1%	18	2.8%	0	0.0%	22	2.9%		
10 a.m.	2	2.1%	20	3.1%	1	2.9%	23	3.0%		
11 a.m.	6	6.2%	30	4.7%	3	8.8%	39	5.1%		
Noon	10	10.3%	23	3.6%	0	0.0%	33	4.3%		
1 p.m.	6	6.2%	34	5.3%	2	5.9%	42	5.5%		
2 p.m.	8	8.2%	31	4.9%	1	2.9%	40	5.2%		
3 p.m.	4	4.1%	52	8.2%	1	2.9%	57	7.4%		
4 p.m.	8	8.2%	50	7.8%	0	0.0%	58	7.5%		
5 p.m.	7	7.2%	63	9.9%	3	8.8%	73	9.5%		
6 p.m.	12	12.4%	37	5.8%	6	17.6%	55	7.2%		
7 p.m.	5	5.2%	50	7.8%	0	0.0%	55	7.2%		
8 p.m.	2	2.1%	31	4.9%	2	5.9%	35	4.6%		
9 p.m.	3	3.1%	38	6.0%	6	17.6%	47	6.1%		
10 p.m.	3	3.1%	24	3.8%	1	2.9%	28	3.6%		
11 p.m.	2	2.1%	14	2.2%	0	0.0%	16	2.1%		
Total	97	100.0%	638	100.0%	34	100.0%	769	100.0%		

- Total pedestrian-motor vehicle crashes were more likely to occur between 3:00 p.m. and 7:59 p.m.
- Fatal pedestrian-motor vehicle crashes were highest during the 6:00 p.m. and 9:00 p.m. hours.

#### **Vehicle Maneuver Prior to Crash (Utah 2008)**

Vehicles (Pedestrian-Motor Vehicle Crashes)										
	PDO C	rashes	Injury (	Crashes	Fatal (	Crashes	Total			
Vehicle Maneuver	#	%	#	%	#	%	#	%		
Straight Ahead	43	45.3%	355	51.0%	34	97.1%	432	52.3%		
Turning Right	11	11.6%	109	15.7%	1	2.9%	121	14.6%		
Turning Left	9	9.5%	99	14.2%	0	0.0%	108	13.1%		
Parked/Parking	10	10.5%	43	6.2%	0	0.0%	53	6.4%		
Stopped/Slowing in Traffic Lane	17	17.9%	33	4.7%	0	0.0%	50	6.1%		
Backing	2	2.1%	27	3.9%	0	0.0%	29	3.5%		
Other	3	3.2%	19	2.7%	0	0.0%	22	2.7%		
Unknown	0	0.0%	11	1.6%	0	0.0%	11	1.3%		
Total	95	100.0%	696	100.0%	35	100.0%	826	100.0%		

• For total pedestrian-motor vehicle crashes, the leading vehicle maneuvers prior to the crash were straight ahead (52.3%), turning right (14.6%), and turning left (13.1%).

## Pedestrian-Motor Vehicle Crashes by Day of Week (Utah 2008)

Pedestrians										
Day of	Non-	Injured	lnj	ured	Ki	lled	Т	otal		
Week	#	%	#	%	#	%	#	%		
Sunday	2	2.1%	35	5.5%	2	5.9%	39	5.1%		
Monday	19	19.6%	90	14.1%	2	5.9%	111	14.4%		
Tuesday	25	25.8%	99	15.5%	12	35.3%	136	17.7%		
Wednesday	9	9.3%	101	15.8%	4	11.8%	114	14.8%		
Thursday	13	13.4%	111	17.4%	3	8.8%	127	16.5%		
Friday	16	16.5%	126	19.7%	5	14.7%	147	19.1%		
Saturday	13	13.4%	76	11.9%	6	17.6%	95	12.4%		
Total	97	100.0%	638	100.0%	34	100.0%	769	100.0%		

The highest percentage of total pedestrian-motor vehicle crashes (19.1%) occurred on Friday.

#### Pedestrian-Motor Vehicle Crashes by Speed Limit (Utah 2008)

Vehicles (Pedestrian-Motor Vehicle Crashes)									
	PDO 0	Crashes	Injury	Crashes	Total				
<b>Speed Limit</b>	#	%	#	%	#	%	#	%	
5-15 MPH	0	0.0%	11	1.6%	1	2.9%	12	1.5%	
20-25 MPH	8	8.4%	157	22.6%	3	8.6%	168	20.3%	
30-35 MPH	30	31.6%	159	22.8%	8	22.9%	197	23.8%	
40-45 MPH	17	17.9%	107	15.4%	12	34.3%	136	16.5%	
50-55 MPH	8	8.4%	16	2.3%	6	17.1%	30	3.6%	
60-65 MPH	2	2.1%	31	4.5%	4	11.4%	37	4.5%	
70+ MPH	1	1.1%	0	0.0%	0	0.0%	1	0.1%	
Unknown	29	30.5%	215	30.9%	1	2.9%	245	29.7%	
Total	95	100.0%	696	100.0%	35	100.0%	826	100.0%	

The majority (86.2% of known) of total pedestrian crashes occurred where the speed limit was 20-45 MPH.

## **Travel Speed of Vehicles in Pedestrian Crashes (Utah 2008)**

Ve	Vehicles (Pedestrian-Motor Vehicle Crashes)										
Travel	PDO (	Crashes	Injury	Crashes	Fatal	Crashes	To	otal			
Speed	#	%	#	%	#	%	#	%			
Stopped	10	10.5%	19	2.7%	0	0.0%	29	3.5%			
1-9 MPH	10	10.5%	120	17.2%	2	5.7%	132	16.0%			
10-19 MPH	12	12.6%	100	14.4%	3	8.6%	115	13.9%			
20-29 MPH	9	9.5%	82	11.8%	2	5.7%	93	11.3%			
30-39 MPH	15	15.8%	62	8.9%	5	14.3%	82	9.9%			
40-49 MPH	6	6.3%	21	3.0%	9	25.7%	36	4.4%			
50-59 MPH	1	1.1%	12	1.7%	2	5.7%	15	1.8%			
60-69 MPH	0	0.0%	5	0.7%	2	5.7%	7	0.8%			
70+ MPH	0	0.0%	2	0.3%	1	2.9%	3	0.4%			
Unknown	32	33.7%	273	39.2%	9	25.7%	314	38.0%			
Total	95	100.0%	696	100.0%	35	100.0%	826	100.0%			

- The higher the speed of the vehicle the more likely the pedestrian was injured or killed in a crash.
- Pedestrians hit by a vehicle traveling 30 MPH or higher were 7.9 times more likely to die.

## **Contributing Factors in Pedestrian Crashes (Utah 2008)**

Drivers/Vehicles (Pedestrian-Motor Vehicle Crashes)									
	PDO C	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal	
Contributing Factors	#	%	#	%	#	%	#	%	
Failed to Yield Right of Way	11	14.3%	185	27.9%	12	31.6%	208	26.7%	
Other Improper Driving	2	2.6%	89	13.4%	0	0.0%	91	11.7%	
Hit and Run	4	5.2%	55	8.3%	5	13.2%	64	8.2%	
Driver Distraction	9	11.7%	36	5.4%	2	5.3%	47	6.0%	
Vision Obscured by Weather Condition	7	9.1%	37	5.6%	0	0.0%	44	5.7%	
Speed Too Fast	9	11.7%	28	4.2%	6	15.8%	43	5.5%	
Vision Obscured by Other	1	1.3%	26	3.9%	0	0.0%	27	3.5%	
Vision Obscured by Glare	2	2.6%	23	3.5%	1	2.6%	26	3.3%	
Disregard Traffic Signal/Sign	3	3.9%	17	2.6%	1	2.6%	21	2.7%	
Driving Under the Influence	2	2.6%	14	2.1%	1	2.6%	17	2.2%	
Swerved or Evasive Action	2	2.6%	12	1.8%	3	7.9%	17	2.2%	
Failed to Keep in Proper Lane	1	1.3%	12	1.8%	3	7.9%	16	2.1%	
Driver Emotionally Upset	3	3.9%	11	1.7%	1	2.6%	15	1.9%	
Improper Backing	1	1.3%	14	2.1%	0	0.0%	15	1.9%	
Followed Too Closely	10	13.0%	3	0.5%	1	2.6%	14	1.8%	
Vehicle Other Defective Condition	0	0.0%	14	2.1%	0	0.0%	14	1.8%	
Vision Obscured by Moving Vehicle	2	2.6%	11	1.7%	0	0.0%	13	1.7%	
Other Driver Condition	3	3.9%	9	1.4%	0	0.0%	12	1.5%	
Improper Turn	0	0.0%	10	1.5%	0	0.0%	10	1.3%	
Reckless/Aggressive Driving	1	1.3%	7	1.1%	1	2.6%	9	1.2%	
Vision Obscured by Parked Vehicle	1	1.3%	8	1.2%	0	0.0%	9	1.2%	
Improper Parking/Stopping	1	1.3%	6	0.9%	0	0.0%	7	0.9%	
Vision Obscured by Building, Sign	0	0.0%	6	0.9%	0	0.0%	6	0.8%	
Ran Off Road	0	0.0%	4	0.6%	0	0.0%	4	0.5%	
Vehicle Brakes	1	1.3%	3	0.5%	0	0.0%	4	0.5%	
Vehicle Tires	1	1.3%	3	0.5%	0	0.0%	4	0.5%	
Vision Obscured by Vegitation	0	0.0%	4	0.6%	0	0.0%	4	0.5%	
Windshield or Other Window Obscured	0	0.0%	4	0.6%	0	0.0%	4	0.5%	
Asleep/Fatigue	0	0.0%	3	0.5%	0	0.0%	3	0.4%	
Improper Passing	0	0.0%	2	0.3%	1	2.6%	3	0.4%	
Disregard Road Markings	0	0.0%	2	0.3%	0	0.0%	2	0.3%	
Overcorrected	0	0.0%	2	0.3%	0	0.0%	2	0.3%	
Wrong Side/Wrong Way	0	0.0%	2	0.3%	0	0.0%	2	0.3%	
Improper Lane Change	0	0.0%	1	0.2%	0	0.0%	1	0.1%	
Total	77	100.0%	663	100.0%	38	100.0%	778	100.0%	

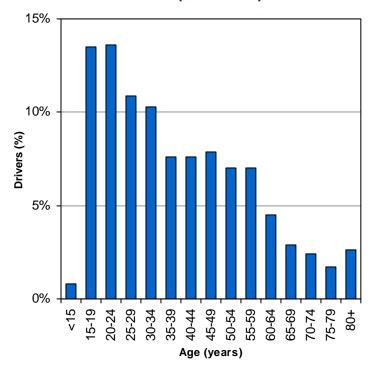
- Failed to yield right of way (26.7%), hit and run (8.2%), and driver distraction (6.0%) were the leading contributing factors in total pedestrian-motor vehicle crashes.
- Failed to yield right of way (31.6%) and speed too fast (15.8%) were the leading contributing factors in fatal pedestrian-motor vehicle crashes.

#### Did you know in 2008:

- 769 pedestrians were struck by motor vehicles; 638 were injured and 34 were killed.
- Pedestrians accounted for 1% of persons in crashes and 12% of deaths.
- Pedestrian crashes were 13 times more likely to result in a death than other crashes.

# Pedestrians 🔊

## Age of Drivers in Pedestrian-Motor Vehicle Crashes (Utah 2008)

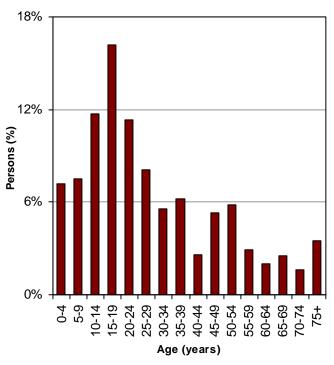


 Nearly half (48%) of drivers in pedestrian-motor vehicle crashes were aged 15-34 years.

## Leading Contributing Factors of Drivers in Pedestrian Crashes (Utah 2008)

- 1. Failed to Yield Right of Way (30%)
- 2. Hit and Run (9%)
- 3. Driver Distraction (7%)
- 4. Vision Obscured by Weather (6%)
- 5. Speed Too Fast (6%)

#### Age of Pedestrians in Pedestrian-Motor Vehicle Crashes (Utah 2008)



• Over half (54%) of the pedestrians in crashes were under 25 years of age.

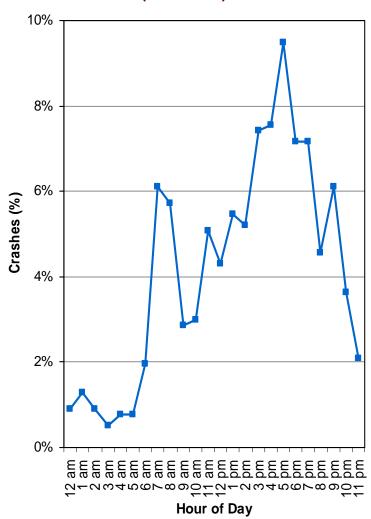
## Leading Contributing Factors of Pedestrians in Crashes (Utah 2008)

- 1. Improper Crossing (15%)
- 2. In Roadway (10%)
- 3. Darting (9%)
- 42% of pedestrians had no contributing factor in the crash.



One-fourth (28%) of drivers who hit pedestrians were turning. Drivers need to watch for pedestrians before turning.

## Pedestrian-Motor Vehicle Crashes by Hour (Utah 2008)



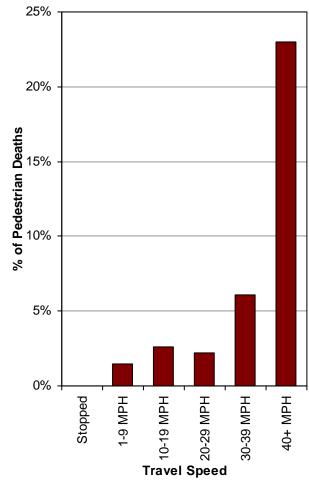
 Pedestrian-motor vehicle crashes occurred most often between 3:00 p.m.-7:59 p.m.

## Location of Pedestrians in Crashes (Utah 2008)

- 1. Marked Crosswalk (36%)
- 2. In Roadway Not at Intersection/Crosswalk (33%)
- 3. Shoulder (11%)
- 4. Unmarked Crosswalk (9%)
- 5. Sidewalk (7%)

## Pedestrians 🎉

## Percent of Pedestrian Deaths by Vehicle Travel Speed (Utah 2008)



- The higher the speed of the vehicle the more likely the pedestrian was injured or killed in a crash.
- Pedestrians hit by a vehicle traveling 40 MPH or higher were 11 times more likely to die.

## Motor Vehicle Action Prior to Crash (Utah 2008)

- 1. Straight Ahead (53%)
- 2. Turning Right (15%)
- 3. Turning Left (13%)
- 4. Parked/Parking (7%)
- 5. Slowing/Stopped (6%)



# **Bicyclists**



## **Section 8: Bicyclists**



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#### **Trends**

## **Bicyclists in Crashes (Utah 1999-2008)**

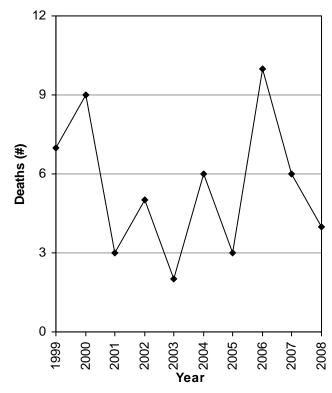
	Bicyclists									
	Non	-Injured	In	jured	K	illed	1	Total		
		Rate per		Rate per		Rate per		Rate per		
		10,000		10,000		10,000		10,000		
Year	#	Pop.	#	Pop.	#	Pop.	#	Pop.		
1999	72	0.33	777	3.54	7	0.032	856	3.90		
2000	62	0.28	635	2.83	9	0.040	706	3.14		
2001	48	0.21	625	2.72	3	0.013	676	2.94		
2002	50	0.21	590	2.52	5	0.021	645	2.76		
2003	48	0.20	621	2.60	2	0.008	671	2.81		
2004	49	0.20	648	2.62	6	0.024	703	2.85		
2005	61	0.24	654	2.57	3	0.012	718	2.82		
2006	79	0.30	592	2.26	10	0.038	681	2.60		
2007	53	0.20	584	2.16	6	0.022	643	2.38		
2008	90	0.32	708	2.54	4	0.014	802	2.88		
Total	612	0.25	6,434	2.62	55	0.022	7,101	2.89		

## **Bicyclist Crash Rates Per Population (Utah 1999-2008)**

# Rate per 10,000 Population 2000 20

- Over the last 10 years, the rates of total bicyclists in crashes has followed a decreasing trend.
- In 2008, the total rate per population of bicyclists in crashes increased 21% from the 2007 rate.
- 2007 had the lowest bicyclist crash rate per population (2.38).

## Bicyclist Deaths (Utah 1999-2008)

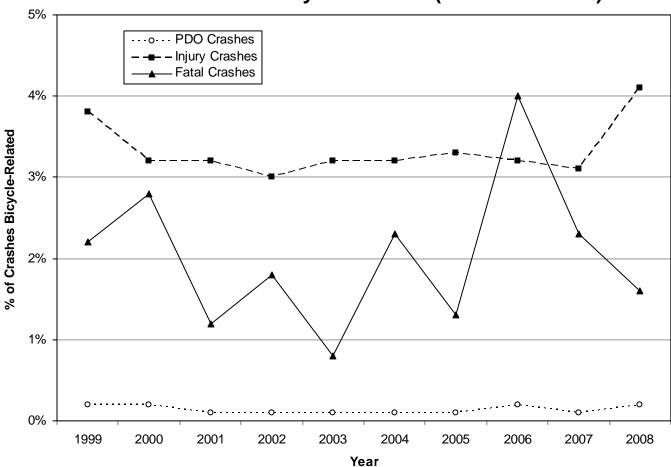


- On average, six bicyclists are killed in crashes every year.
- In 2008, there were four bicyclists killed in crashes.
- Because of the small number of bicyclist deaths, it is difficult to compare increases and decreases from year to year.

## **Bicycle-Motor Vehicle Crashes (Utah 1999-2008)**

	Bicycle-Motor Vehicle Crashes											
	Property	y Damag	ge Only	I	njury			Fatal		•	Total	
	All	Bike	Bike	All	Bike	Bike	All	Bike	Bike	All	Bike	Bike
Year	#	#	%	#	#	%	#	#	%	#	#	%
1999	32,971	66	0.2%	19,513	732	3.8%	318	7	2.2%	52,802	805	1.5%
2000	33,269	58	0.2%	19,564	625	3.2%	318	9	2.8%	53,151	692	1.3%
2001	33,113	42	0.1%	19,332	609	3.2%	258	3	1.2%	52,703	654	1.2%
2002	33,542	44	0.1%	19,552	585	3.0%	274	5	1.8%	53,368	634	1.2%
2003	31,842	39	0.1%	18,285	589	3.2%	262	2	0.8%	50,389	630	1.3%
2004	34,222	45	0.1%	19,423	626	3.2%	260	6	2.3%	53,905	677	1.3%
2005	35,158	50	0.1%	19,545	637	3.3%	235	3	1.3%	54,938	690	1.3%
2006	37,749	71	0.2%	18,189	589	3.2%	249	10	4.0%	56,187	670	1.2%
2007	42,368	46	0.1%	18,619	579	3.1%	258	6	2.3%	61,245	631	1.0%
2008	38,997	83	0.2%	17,125	697	4.1%	245	4	1.6%	56,367	784	1.4%
Total	353,231	544	0.2%	189,147	6,268	3.3%	2,677	55	2.1%	545,055	6,867	1.3%

## Percent of Crashes Bicycle-Related (Utah 1999-2008)



- The 10-year trend shows that bicycle-motor vehicle crashes represent 0.2% of property damage only crashes, 3.3% of injury crashes, and 2.1% of fatal crashes.
- During the last 10 years, 6,867 crashes involved a bicyclist. There are approximately 630 injury crashes and six fatal crashes involving bicyclists a year.

## **Counties**

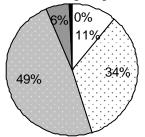
## **Bicyclists in Crashes by County (Utah 2008)**

Bicyclists									
	Non	-Injured		jured	K	lilled	1	12 2.04 1 2.01 58 1.90 42 1.87 28 1.87 3 1.81 7 1.77 1 1.52 3 1.52 3 1.44 1 1.04 5 1.03 1 0.96 2 0.87 2 0.68 1 0.67 0 0.00	
		Rate per		Rate per		Rate per		Rate per	
		10,000		10,000		10,000			
County	#	Pop.	#	Pop.	#	Pop.			
Salt Lake	59	0.57	355	3.41	2	0.02	416		
Cache	3	0.27	37	3.30	0	0.00			
Grand	0	0.00	3	3.22	0	0.00			
Utah	6	0.11	152	2.90	1	0.02			
Iron	3	0.64	9	1.92	0	0.00		2.55	
Tooele	2	0.34	10	1.70	0	0.00	12	2.04	
Garfield	1	2.01	0	0.00	0	0.00			
Davis	5	0.16	53	1.73	0	0.00			
Weber	2	0.09	39	1.73	1	0.04	42	1.87	
Washington	3	0.20	25	1.67	0	0.00	28	1.87	
Duchesne	1	0.60	2	1.21	0	0.00	3	1.81	
Summit	3	0.76	4	1.01	0	0.00	7	1.77	
Kane	0	0.00	1	1.52	0	0.00	1	1.52	
Carbon	0	0.00	3	1.52	0	0.00	3	1.52	
Sevier	0	0.00	3	1.44	0	0.00	3	1.44	
Morgan	0	0.00	1	1.04	0	0.00	1	1.04	
Box Elder	0	0.00	5	1.03	0	0.00	5	1.03	
Emery	1	0.96	0	0.00	0	0.00	1	0.96	
Wasatch	0	0.00	2	0.87	0	0.00	2	0.87	
Sanpete	0	0.00	2	0.74	0	0.00	2	0.74	
Uintah	1	0.34	1	0.34	0	0.00	2	0.68	
San Juan	0	0.00	1	0.67	0	0.00	1	0.67	
Beaver	0	0.00	0	0.00	0	0.00	0	0.00	
Daggett	0	0.00	0	0.00	0	0.00	0	0.00	
Juab	0	0.00	0	0.00	0	0.00	0	0.00	
Millard	0	0.00	0	0.00	0	0.00	0	0.00	
Piute	0	0.00	0	0.00	0	0.00	0	0.00	
Rich	0	0.00	0	0.00	0	0.00	0	0.00	
Wayne	0	0.00	0	0.00	0	0.00	0	0.00	
Statewide	90	0.32	708	2.54	4	0.01	802	2.88	

- Urban areas (3.22) had a much higher total bicycle-motor vehicle crash rate per 10,000 population than rural areas (1.85).
- Salt Lake (3.99), Cache (3.57), and Grand (3.22) counties had the highest rates per population of total bicyclists in crashes per 10,000 population.
- Beaver, Daggett, Juab, Millard, Piute, Rich, and Wayne counties had no bicyclists in crashes.

## **Bicyclists**

## Injury Severity of Bicyclists in Crashes (Utah 2008)



- □ No Injury
- □ Possible Injury
- Non-Incapacitating Injury
- Incapacitating Injury
- Death

 88.3% of bicyclists in crashes sustained an injury compared to 17.8% of all persons in motor vehicle crashes.

#### Age of Bicyclists in Crashes (Utah 2008)

			В	icyclist	ts			
	Non-	Injured	lnj	ured	Ki	lled	T	otal
Age	#	%	#	%	#	%	#	%
0-4	6	6.7%	17	2.4%	1	25.0%	24	3.0%
5-9	0	0.0%	50	7.1%	0	0.0%	50	6.2%
10-14	14	15.6%	106	15.0%	2	50.0%	122	15.2%
15-19	8	8.9%	108	15.3%	0	0.0%	116	14.5%
20-24	8	8.9%	87	12.3%	0	0.0%	95	11.8%
25-29	2	2.2%	64	9.0%	1	25.0%	67	8.4%
30-34	3	3.3%	37	5.2%	0	0.0%	40	5.0%
35-39	2	2.2%	27	3.8%	0	0.0%	29	3.6%
40-44	1	1.1%	41	5.8%	0	0.0%	42	5.2%
45-49	3	3.3%	41	5.8%	0	0.0%	44	5.5%
50-54	1	1.1%	20	2.8%	0	0.0%	21	2.6%
55-59	0	0.0%	23	3.2%	0	0.0%	23	2.9%
60-64	1	1.1%	7	1.0%	0	0.0%	8	1.0%
65-69	0	0.0%	8	1.1%	0	0.0%	8	1.0%
70-74	0	0.0%	3	0.4%	0	0.0%	3	0.4%
75-79	0	0.0%	0	0.0%	0	0.0%	0	0.0%
80-84	0	0.0%	2	0.3%	0	0.0%	2	0.2%
85+	0	0.0%	1	0.1%	0	0.0%	1	0.1%
Missing	41	45.6%	66	9.3%	0	0.0%	107	13.3%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

• Where age was known, over half (58.6%) of the bicyclists in crashes were under 25 years.

## Gender of Bicyclists in Crashes (Utah 2008)

			Ві	cyclist	s			
	Non-	Injured	lnj	ured	Ki	illed	T	otal
Gender	#	%	#	%	#	%	#	%
Male	48	53.3%	531	75.0%	3	75.0%	582	72.6%
Female	11	12.2%	170	24.0%	1	25.0%	182	22.7%
Unknown	31	34.4%	7	1.0%	0	0.0%	38	4.7%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

• The majority of all bicyclists (72.6%) in crashes were male.

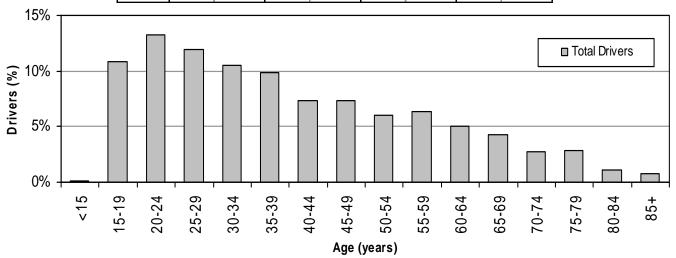


#### **Bicyclists and Helmet Use**

Helmet use for bicyclists in crashes was not reported consistently at the scene of the crash. As a result, it is not in this summary.

## **Motor Vehicle Drivers**

	Drivers (Bicycle-Motor Vehicle Crashes)										
	PDO C	Crashes	Injury	Crashes	Fatal (	Crashes	To	otal			
Age	#	%	#	%	#	%	#	%			
<15	0	0.0%	1	0.1%	0	0.0%	1	0.1%			
15-19	11	12.4%	65	9.3%	1	25.0%	77	9.7%			
20-24	4	4.5%	90	12.9%	0	0.0%	94	11.9%			
25-29	7	7.9%	77	11.0%	1	25.0%	85	10.7%			
30-34	6	6.7%	68	9.7%	1	25.0%	75	9.5%			
35-39	5	5.6%	65	9.3%	0	0.0%	70	8.8%			
40-44	8	9.0%	43	6.2%	1	25.0%	52	6.6%			
45-49	6	6.7%	46	6.6%	0	0.0%	52	6.6%			
50-54	8	9.0%	35	5.0%	0	0.0%	43	5.4%			
55-59	4	4.5%	41	5.9%	0	0.0%	45	5.7%			
60-64	5	5.6%	31	4.4%	0	0.0%	36	4.5%			
65-69	5	5.6%	26	3.7%	0	0.0%	31	3.9%			
70-74	4	4.5%	15	2.1%	0	0.0%	19	2.4%			
75-79	1	1.1%	19	2.7%	0	0.0%	20	2.5%			
80-84	1	1.1%	7	1.0%	0	0.0%	8	1.0%			
85+	1	1.1%	5	0.7%	0	0.0%	6	0.8%			
Missing	13	14.6%	65	9.3%	0	0.0%	78	9.8%			
Total	89	100.0%	699	100.0%	4	100.0%	792	100.0%			



Over half (56.3% of known) of drivers in total bicycle-motor vehicle crashes were under age 40 years.

## **Driver Gender (Utah 2008)**

	Drivers (Bicycle-Motor Vehicle Crashes)									
	PDO C	PDO Crashes Injury Crashes Fatal Crashes Total								
Gender	#	%	#	%	#	%	#	%		
Male	42	47.2%	349	49.9%	2	50.0%	393	49.6%		
Female	38	42.7%	299	42.8%	2	50.0%	339	42.8%		
Unknown	9	10.1%	51	7.3%	0	0.0%	60	7.6%		
Total	89	100.0%	699	100.0%	4	100.0%	792	100.0%		

• The majority of drivers in total bicycle-motor vehicle crashes (53.7% of known) were male.

Utah Crash Summary 2008

## **Bicycle-Motor Vehicle Crashes by Month (Utah 2008)**

				Зісу	clists				
		Non	-Injured	Ir	njured	ŀ	Killed		Total
	Days in		Rate per		Rate per		Rate per		Rate per
Month	Month	#	Day	#	Day	#	Day	#	Day
January	31	1	0.0	13	0.4	0	0.00	14	0.5
February	29	2	0.1	9	0.3	0	0.00	11	0.4
March	31	3	0.1	27	0.9	0	0.00	30	1.0
April	30	7	0.2	41	1.4	1	0.03	49	1.6
May	31	11	0.4	78	2.5	1	0.03	90	2.9
June	30	14	0.5	88	2.9	1	0.03	103	3.4
July	31	7	0.2	99	3.2	0	0.00	106	3.4
August	31	11	0.4	111	3.6	1	0.03	123	4.0
September	30	18	0.6	119	4.0	0	0.00	137	4.6
October	31	9	0.3	66	2.1	0	0.00	75	2.4
November	30	3	0.1	34	1.1	0	0.00	37	1.2
December	31	4	0.1	23	0.7	0	0.00	27	0.9
Total	366	90	0.2	708	1.9	4	0.01	802	2.2

• September (4.6) and August (4.0) had the highest rates per day of total bicycle-motor vehicle crashes.

## Bicycle-Motor Vehicle Crashes by Day of Week (Utah 2008)

			Bicy	/clists					
	Non-	Injured	lnj	ured	Ki	lled	Total		
Day of Week	#	%	#	%	#	%	#	%	
Sunday	8	8.9%	33	4.7%	0	0.0%	41	5.1%	
Monday	13	14.4%	111	15.7%	0	0.0%	124	15.5%	
Tuesday	13	14.4%	126	17.8%	0	0.0%	139	17.3%	
Wednesday	16	17.8%	118	16.7%	2	50.0%	136	17.0%	
Thursday	11	12.2%	117	16.5%	1	25.0%	129	16.1%	
Friday	18	20.0%	114	16.1%	0	0.0%	132	16.5%	
Saturday	11	12.2%	89	12.6%	1	25.0%	101	12.6%	
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%	

• The highest percentage of total bicycle-motor vehicle crashes (17.3%) occurred on Tuesday.

## **Bicycle-Motor Vehicle Crashes by Speed Limit (Utah 2008)**

Мо	Motor Vehicles (Bicycle-Motor Vehicle Crashes)											
Speed	PDO C	crashes	Injury (	Crashes	Fatal (	Crashes	To	tal				
Limit	#	%	#	%	#	%	#	%				
5-15 MPH	4	4.4%	19	2.7%	0	0.0%	23	2.9%				
20-25 MPH	18	20.0%	189	26.7%	2	50.0%	209	26.1%				
30-35 MPH	18	20.0%	194	27.4%	1	25.0%	213	26.6%				
40-45 MPH	17	18.9%	64	9.0%	1	25.0%	82	10.2%				
50-55 MPH	2	2.2%	12	1.7%	0	0.0%	14	1.7%				
60+ MPH	2	2.2%	1	0.1%	0	0.0%	3	0.4%				
Unknown	29	32.2%	229	32.3%	0	0.0%	258	32.2%				
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%				

Almost all (92.6% of known) of bicycle-motor vehicle crashes occurred where the speed limit was 20-45 MPH.

## **Bicycle-Motor Vehicle Crashes by Hour (Utah 2008)**

			Bi	cyclist	S			
	Non-l	Injured	lnj	ured	Ki	lled	T	otal
Hour	#	%	#	%	#	%	#	%
Midnight	0	0.0%	7	1.0%	0	0.0%	7	0.9%
1 a.m.	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2 a.m.	2	2.2%	3	0.4%	0	0.0%	5	0.6%
3 a.m.	0	0.0%	2	0.3%	1	25.0%	3	0.4%
4 a.m.	0	0.0%	3	0.4%	0	0.0%	3	0.4%
5 a.m.	0	0.0%	8	1.1%	0	0.0%	8	1.0%
6 a.m.	1	1.1%	7	1.0%	0	0.0%	8	1.0%
7 a.m.	1	1.1%	37	5.2%	1	25.0%	39	4.9%
8 a.m.	2	2.2%	40	5.6%	0	0.0%	42	5.2%
9 a.m.	3	3.3%	35	4.9%	0	0.0%	38	4.7%
10 a.m.	3	3.3%	26	3.7%	0	0.0%	29	3.6%
11 a.m.	3	3.3%	44	6.2%	0	0.0%	47	5.9%
Noon	8	8.9%	32	4.5%	0	0.0%	40	5.0%
1 p.m.	4	4.4%	33	4.7%	0	0.0%	37	4.6%
2 p.m.	11	12.2%	41	5.8%	0	0.0%	52	6.5%
3 p.m.	9	10.0%	69	9.7%	1	25.0%	79	9.9%
4 p.m.	7	7.8%	59	8.3%	0	0.0%	66	8.2%
5 p.m.	7	7.8%	79	11.2%	0	0.0%	86	10.7%
6 p.m.	7	7.8%	57	8.1%	0	0.0%	64	8.0%
7 p.m.	10	11.1%	46	6.5%	1	25.0%	57	7.1%
8 p.m.	4	4.4%	28	4.0%	0	0.0%	32	4.0%
9 p.m.	4	4.4%	31	4.4%	0	0.0%	35	4.4%
10 p.m.	3	3.3%	9	1.3%	0	0.0%	12	1.5%
11 p.m.	1	1.1%	12	1.7%	0	0.0%	13	1.6%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

• Total bicycle-motor vehicle crashes were highest between 3:00 p.m. and 6:59 p.m.

## Motor Vehicle Maneuver Prior to Crash (Utah 2008)

Motor Vehic	cles (B	icycle-	-Moto	<b>Vehic</b>	le Cra	shes)		
	PDO 0	Crashes	Injury	Crashes	Fatal Crashes		To	otal
Vehicle Maneuver	#	%	#	%	#	%	#	%
Turning Right	27	30.0%	260	36.7%	0	0.0%	287	35.8%
Straight Ahead	37	41.1%	243	34.3%	3	75.0%	283	35.3%
Turning Left	10	11.1%	128	18.1%	1	25.0%	139	17.3%
Stopped/Slowing in Traffic Lane	6	6.7%	19	2.7%	0	0.0%	25	3.1%
Entering/Leaving Traffic Lane	3	3.3%	16	2.3%	0	0.0%	19	2.4%
Backing	1	1.1%	11	1.6%	0	0.0%	12	1.5%
Parked/Parking	1	1.1%	8	1.1%	0	0.0%	9	1.1%
Making U-turn	1	1.1%	6	0.8%	0	0.0%	7	0.9%
Other	4	4.4%	5	0.7%	0	0.0%	9	1.1%
Unknown	0	0.0%	12	1.7%	0	0.0%	12	1.5%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

• For total bicycle-motor vehicle crashes, the leading motor vehicle maneuvers prior to the crash were turning right (35.8%), straight ahead (35.3%), and turning left (17.3%).

## **Contributing Factors of Bicyclists in Crashes (Utah 2008)**

	Bi	cyclist	5					
	Non-	Injured	ln,	jured	K	illed	Т	otal
Contributing Factors	#	%	#	%	#	%	#	%
None	16	17.8%	214	30.2%	2	50.0%	232	28.9%
Wrong Side of Road	9	10.0%	63	8.9%	0	0.0%	72	9.0%
Improper Crossing	5	5.6%	52	7.3%	0	0.0%	57	7.1%
Failure to Yield Right of Way	2	2.2%	32	4.5%	0	0.0%	34	4.2%
Not Visible	1	1.1%	28	4.0%	0	0.0%	29	3.6%
Darting	1	1.1%	27	3.8%	1	25.0%	29	3.6%
Inattentive	1	1.1%	27	3.8%	0	0.0%	28	3.5%
Failure to Obey Traffic Signs/Signals	2	2.2%	22	3.1%	1	25.0%	25	3.1%
In Roadway (standing/kneeling/lying)	0	0.0%	4	0.6%	0	0.0%	4	0.5%
Other	1	1.1%	23	3.2%	0	0.0%	24	3.0%
Unknown	52	57.8%	216	30.5%	0	0.0%	268	33.4%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

- Wrong side of road (13.5% of known), improper crossing (10.7% of known), and failure to yield right of way (6.4% of known) were the leading contributing factors for bicyclists in total crashes.
- No bicyclist contributing factors were listed for 43.4% (of known) of the total bicyclists in crashes.
- Other contributing factors to consider are driver factors (see page 108), roadway factors (such as high speeds, inadequate on-road bicycle facilities), and vehicle factors (such as vehicle design, vehicle size).

## **Bicyclist Location in Bicycle-Motor Vehicle Crashes (Utah 2008)**

		Bicycl	ists					
	Non-	Injured	lnj	ured	Ki	lled	Total	
Bicyclist Location	#	%	#	%	#	%	#	%
Marked Crosswalk	11	12.2%	136	19.2%	1	25.0%	148	18.5%
In Roadway (not at intersection)	8	8.9%	104	14.7%	3	75.0%	115	14.3%
Shoulder	7	7.8%	95	13.4%	0	0.0%	102	12.7%
Sidewalk	3	3.3%	78	11.0%	0	0.0%	81	10.1%
Unmarked Crosswalk	4	4.4%	42	5.9%	0	0.0%	46	5.7%
Bike Path	0	0.0%	20	2.8%	0	0.0%	20	2.5%
Shared Use Path/Trail	1	1.1%	4	0.6%	0	0.0%	5	0.6%
Outside Right of Way	1	1.1%	1	0.1%	0	0.0%	2	0.2%
Other	3	3.3%	24	3.4%	0	0.0%	27	3.4%
Unknown	52	57.8%	204	28.8%	0	0.0%	256	31.9%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

- For total crashes, the largest percentages of bicyclist location prior to the crash were crosswalk (marked or unmarked, 35.5% of known), in roadway, (21.1% of known), and shoulder (18.7% of known).
- Bicycles are considered vehicles and have a legal right to the road.

## **Travel Speed of Motor Vehicles in Bicycle Crashes (Utah 2008)**

Motor Vehicles (Bicycle-Motor Vehicle Crash)								
Travel	PDO C	rashes	Injury (	Crashes	Fatal C	rashes	Total	
Speed	#	%	#	%	#	%	#	%
Stopped	5	5.6%	17	2.4%	0	0.0%	22	2.7%
1-9 MPH	22	24.4%	183	25.8%	0	0.0%	205	25.6%
10-19 MPH	10	11.1%	113	16.0%	1	25.0%	124	15.5%
20-29 MPH	11	12.2%	63	8.9%	1	25.0%	75	9.4%
30-39 MPH	3	3.3%	37	5.2%	0	0.0%	40	5.0%
40-49 MPH	2	2.2%	10	1.4%	1	25.0%	13	1.6%
50+ MPH	1	1.1%	1	0.1%	0	0.0%	2	0.2%
Unknown	36	40.0%	284	40.1%	1	25.0%	321	40.0%
Total	90	100.0%	708	100.0%	4	100.0%	802	100.0%

• Over two-thirds (68.4% of known) of motor vehicles were travelling 1-19 MPH in crashes with bicycles.

## **Contributing Factors in Bicycle Crashes (Utah 2008)**

Drivers/Motor Vehicles (Bicycle-Motor Vehicle Crashes)								
			<b>Injury Crashes</b>		Fatal Crashes		Total	
Contributing Factors	#	%	#	%	#	%	#	%
Failed to Yield Right of Way	23	30.3%	283	43.7%	2	40.0%	308	42.2%
Other Improper Driving	14	18.4%	63	9.7%	0	0.0%	77	10.6%
Driver Distraction	3	3.9%	47	7.3%	1	20.0%	51	7.0%
Hit and Run	7	9.2%	33	5.1%	0	0.0%	40	5.5%
Improper Turn	2	2.6%	36	5.6%	0	0.0%	38	5.2%
Vision Obscured by Glare	0	0.0%	37	5.7%	0	0.0%	37	5.1%
Disregard Traffic Signal/Sign	4	5.3%	14	2.2%	0	0.0%	18	2.5%
Vision Obscured by Building, Sign	2	2.6%	15	2.3%	0	0.0%	17	2.3%
Vision Obscured by Vegitation	1	1.3%	14	2.2%	0	0.0%	15	2.1%
Vision Obscured by Other	1	1.3%	13	2.0%	0	0.0%	14	1.9%
Vision Obscured by Moving Vehicle	1	1.3%	12	1.9%	0	0.0%	13	1.8%
Driver Emotionally Upset	1	1.3%	9	1.4%	0	0.0%	10	1.4%
Failed to Keep in Proper Lane	3	3.9%	7	1.1%	0	0.0%	10	1.4%
Speed Too Fast	0	0.0%	8	1.2%	0	0.0%	8	1.1%
Vision Obscured by Weather	0	0.0%	8	1.2%	0	0.0%	8	1.1%
Driving Under the Influence	2	2.6%	5	0.8%	0	0.0%	7	1.0%
Improper Backing	1	1.3%	6	0.9%	0	0.0%	7	1.0%
Vehicle Defective Condition	3	3.9%	4	0.6%	0	0.0%	7	1.0%
Vision Obscured by Parked Vehicle	1	1.3%	6	0.9%	0	0.0%	7	1.0%
Followed Too Closely	1	1.3%	4	0.6%	1	20.0%	6	0.8%
Improper Lane Change	0	0.0%	5	0.8%	0	0.0%	5	0.7%
Improper Passing	1	1.3%	4	0.6%	0	0.0%	5	0.7%
Ran Off Road	1	1.3%	3	0.5%	0	0.0%	4	0.5%
Reckless/Aggressive Driving	1	1.3%	3	0.5%	0	0.0%	4	0.5%
Wrong Side/Wrong Way	1	1.3%	3	0.5%	0	0.0%	4	0.5%
Disregard Road Markings	1	1.3%	2	0.3%	0	0.0%	3	0.4%
Improper Parking/Stopping	1	1.3%	2	0.3%	0	0.0%	3	0.4%
Other Driver Condition	0	0.0%	2	0.3%	1	20.0%	3	0.4%
Total	76	100.0%	648	100.0%	5	100.0%	729	100.0%

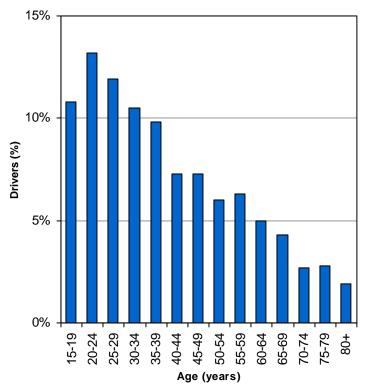
• Failed to yield right of way (42.2%) was the leading contributing factor in total bicycle-motor vehicle crashes. *Utah Crash Summary 2008* 

#### Did you know in 2008:

- 802 bicyclists were hit by motor vehicles; 708 were injured and 4 were killed.
- Utah's bicyclist crash rate per population increased 21% from 2007.

# Bicyclists 🎉

## Age of Drivers in Bicycle-Motor Vehicle Crashes (Utah 2008)

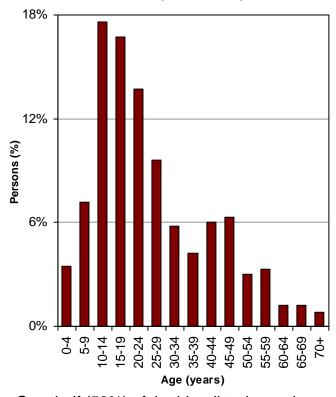


 Over half (56%) of drivers in bicycle-motor vehicle crashes were under 40 years.

## Leading Contributing Factors of Drivers in Bicyclist Crashes (Utah 2008)

- 1. Fail to Yield Right of Way (39%)
- 2. Driver Distraction (7%)
- 3. Hit and Run (5%)
- 4. Improper Turn (5%)
- 5. Vision Obscured by Glare (5%)

## Age of Bicyclists in Bicycle-Motor Vehicle Crashes (Utah 2008)



• Over half (59%) of the bicyclists in crashes were under 25 years of age.

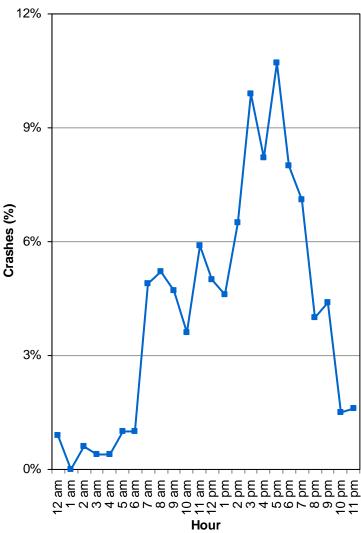
## Leading Contributing Factors of Bicyclists in Crashes (Utah 2008)

- 1. Wrong Side of Road (13%)
- 2. Improper Crossing (11%)
- 3. Fail to Yield Right of Way (6%)
- 43% of bicyclists had no contributing factor in the crash.



Over one-half (55%) of motor vehicles that hit bicyclists were turning. Drivers need to watch for bicycles before turning.

## Bicycle-Motor Vehicle Crashes by Hour (Utah 2008)



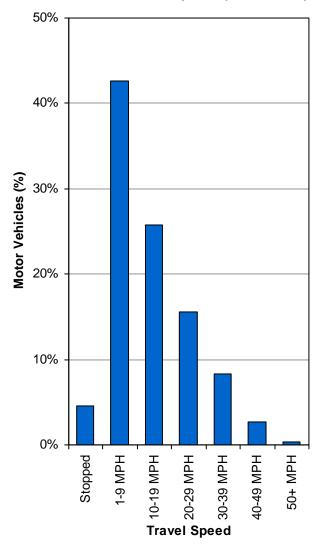
 Bicycle-motor vehicle crashes occurred most often between 3:00 p.m.-6:59 p.m.

## Location of Bicyclists in Crashes (Utah 2008)

- 1. Marked Crosswalk (27%)
- 2. In Roadway (Not at Intersection) (21%)
- 3. Shoulder (19%)
- 4. Sidewalk (15%)
- 5. Unmarked Crosswalk (8%)

# Bicyclists 2

Bicycle-Motor Vehicle Crashes by Motor Vehicle Travel Speed (Utah 2008)

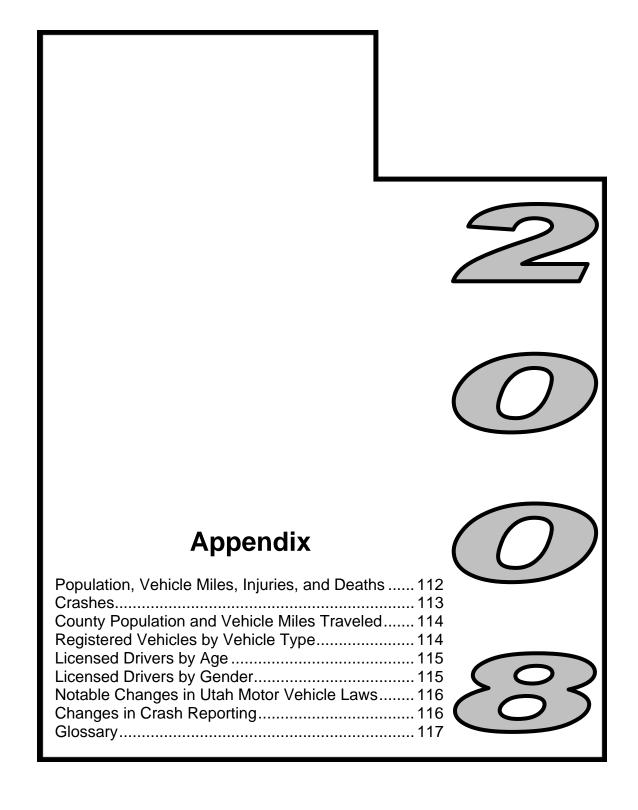


 Over two-thirds (68%) of crashes with bicyclists occurred when the motor vehicle was traveling 1-19 MPH.

## Motor Vehicle Action Prior to Crash (Utah 2008)

- 1. Turning Right (36%)
- 2. Straight Ahead (36%)
- 3. Turning Left (18%)
- 4. Stopped/Slowing (3%)
- 5. Entering/Leaving Traffic (2%)

# Appendix



## Population, Vehicle Miles Traveled, Injuries, and Deaths (Utah 1970-2008)

Persons								
			Injuries			Deaths		
		Vehicle Miles	Rate Per 100			Rate Per 100		
Year	Population	Traveled (VMT)	#	Million VMT	#	Million VMT		
1970	1,066,000	6,108,000,000	17,076	279.6	335	5.48		
1971	1,101,150	6,544,000,000	18,073	276.2	337	5.15		
1972	1,135,100	6,969,000,000	18,261	262.0	382	5.48		
1973	1,168,950	7,274,000,000	18,415	253.2	361	4.96		
1974	1,196,950	7,457,000,000	16,268	218.2	228	3.06		
1975	1,233,900	7,942,000,000	17,762	223.6	274	3.45		
1976	1,272,050	8,420,000,000	18,315	217.5	254	3.02		
1977	1,315,950	9,054,000,000	19,728	217.9	360	3.98		
1978	1,363,750	9,826,000,000	21,029	214.0	376	3.83		
1979	1,415,950	9,811,000,000	20,798	212.0	328	3.34		
1980	1,474,000	10,645,000,000	17,828	167.5	335	3.15		
1981	1,515,000	10,733,000,000	18,090	168.5	364	3.39		
1982	1,558,000	10,947,000,000	17,538	160.2	296	2.70		
1983	1,595,000	11,228,000,000	18,910	168.4	283	2.52		
1984	1,622,000	11,642,000,000	20,487	176.0	315	2.71		
1985	1,643,000	12,035,000,000	21,346	177.4	303	2.52		
1986	1,663,000	12,253,000,000	21,350	174.2	312	2.55		
1987	1,678,000	12,679,000,000	19,237	151.7	297	2.34		
1988	1,690,000	13,229,853,875	19,066	144.1	297	2.24		
1989	1,706,000	13,933,977,565	19,843	142.4	303	2.17		
1990	1,729,227	14,649,064,030	20,608	140.7	272	1.86		
1991	1,780,870	15,390,400,930	19,540	127.0	271	1.76		
1992	1,838,149	16,263,289,670	22,490	138.3	269	1.65		
1993	1,889,393	17,055,044,750	25,763	151.1	303	1.78		
1994	1,946,721	18,091,944,321	28,436	157.2	343	1.90		
1995	1,995,228	18,798,488,669	28,343	150.8	325	1.73		
1996	2,042,893	19,433,341,748	30,711	158.0	321	1.65		
1997	2,099,409	20,407,590,239	31,238	153.1	366	1.79		
1998	2,141,632	21,236,980,216	30,232	142.4	350	1.65		
1999	2,193,014	21,867,355,694	29,959	137.0	360	1.65		
2000	2,246,553	22,517,131,427	30,086	133.6	373	1.66		
2001	2,295,971	23,398,734,621	29,375	125.5	291	1.24		
2002	2,338,761	24,438,992,554	30,433	124.5	328	1.34		
2003	2,385,358	23,963,242,376	28,352	118.3	309	1.29		
2004	2,469,230	24,641,658,091	29,638	120.3	296	1.20		
2005	2,547,389	25,129,538,952	29,221	116.3	282	1.12		
2006	2,615,129	26,166,885,473	27,433	104.8	287	1.10		
2007	2,699,554	26,824,244,333	27,420	102.2	299	1.11		
2008	2,781,954	25,883,467,343	24,672	95.3	276	1.07		
Total	70,450,185	604,888,226,877	903,370	149.3	12,261	2.03		

POPULATION SOURCE: State of Utah Population Estimates, Demographic and Economic Analysis, www.governor.utah.gov/dea

VEHICLE MILES TRAVELED SOURCE: Utah Highway Performance Monitoring System, www.udot.utah.gov

## **Crashes (Utah 1970-2008)**

Crashes								
	Property I	Damage Only	ļ	Injury		Fatal	٦	Γotal
		Rate Per 100		Rate Per 100	Rate Per 100			Rate Per 100
Year	#	Million VMT	#	Million VMT	#	Million VMT	#	Million VMT
1970	24,168	395.7	10,722	175.5	276	4.52	35,166	575.7
1971	27,429	419.1	11,399	174.2	280	4.28	39,108	597.6
1972	27,914	400.5	11,630	166.9	312	4.48	39,856	571.9
1973	26,220	360.5	11,710	161.0	304	4.18		525.6
1974	20,637	276.7	10,560	141.6	204	2.74	31,401	421.1
1975	24,740	311.5	11,441	144.1	245	3.08	36,426	
1976	22,435	266.4	11,685	138.8	225	2.67	34,345	407.9
1977	25,562	282.3	12,652	139.7	310	3.42	38,524	425.5
1978	28,946	294.6	13,423	136.6	315	3.21	42,684	434.4
1979	26,732	272.5	13,449	137.1	287	2.93		
1980	21,589	202.8	11,701	109.9	292	2.74		315.5
1981	23,844	222.2	11,824	110.2	321	2.99	35,989	335.3
1982	26,425	241.4	11,504	105.1	263	2.40	38,192	348.9
1983	28,419	253.1	12,317	109.7	253	2.25	40,989	365.1
1984	33,738	289.8	13,477	115.8	274	2.35	47,489	407.9
1985	33,684	279.9	13,917	115.6	270	2.24		397.8
1986	32,426	264.6	13,988	114.2	276	2.25	46,690	381.0
1987	33,386	263.3	13,599	107.3	271	2.14	47,256	
1988	35,614	269.2	13,377	101.1	258	1.95	49,249	372.3
1989	37,110	266.3	13,941	100.1	269	1.93	51,320	368.3
1990	37,823	258.2	14,632	99.9	236	1.61	52,691	359.7
1991	33,443	217.3	13,763	89.4	229	1.49	47,435	308.2
1992	34,760	213.7	15,665	96.3	235	1.44	50,660	311.5
1993	38,357	224.9	17,088	100.2	259	1.52	55,704	
1994	40,243	222.4	18,726	103.5	303	1.67	59,272	327.6
1995	37,532	199.7	19,828	105.5	284	1.51	57,644	306.6
1996	40,225	207.0	20,988	108.0	292	1.50	61,505	316.5
1997	33,512	164.2	21,131	103.5	309	1.51	54,952	269.3
1998	34,337	161.7	19,427	91.5	308	1.45	54,072	254.6
1999	32,971	150.8	19,513	89.2	318	1.45	52,802	241.5
2000	33,269	147.7	19,564	86.9	318	1.41		236.0
2001	33,113	141.5	19,332	82.6	258	1.10		225.2
2002	33,542	137.2	19,552	80.0	274	1.12		218.4
2003	31,842	132.9	18,285	76.3	262	1.09		210.3
2004	34,222	138.9	19,423	78.8	260	1.06	-	218.8
2005	35,158	139.9	19,545	77.8	235	0.94		218.6
2006	37,674	144.0	18,264	69.8	249	0.95		214.7
2007	42,368	157.9	18,619	69.4	258	0.96		228.3
2008	38,997	150.7	17,125	66.2	245	0.95	56,367	217.8
Total	1,244,406	205.7	598,786	99.0	10,637	1.76	1,853,829	306.5

## County Population and Vehicle Miles Traveled (Utah 2008)

	County	
	Vehicle Miles	
County	Traveled	Population
Beaver	239,081,054	6,520
Box Elder	888,141,329	48,441
Cache	933,581,410	112,141
Carbon	298,870,342	19,781
Daggett	31,755,181	995
Davis	2,508,173,288	305,855
Duchesne	235,574,934	16,575
Emery	332,648,360	10,449
Garfield	112,698,473	4,967
Grand	319,209,905	9,323
Iron	678,994,624	46,992
Juab	393,948,954	9,926
Kane	139,478,070	6,582
Millard	432,624,553	13,504
Morgan	137,006,302	9,644
Piute	29,968,350	1,397
Rich	49,070,396	2,193
Salt Lake	8,529,679,693	1,041,578
San Juan	270,382,962	14,969
Sanpete	217,429,239	26,935
Sevier	330,620,440	20,764
Summit	734,516,203	39,615
Tooele	836,524,946	58,771
Uintah	356,307,584	29,621
Utah	3,596,652,175	523,792
Wasatch	302,992,521	22,956
Washington	1,328,955,907	150,079
Wayne	39,762,678	2,672
Weber	1,578,817,470	224,917
Statewide	25,883,467,343	2,781,954

VEHICLE MILES TRAVELED SOURCE: Utah Highway Performance Monitoring System, www.udot.utah.gov

POPULATION SOURCE: State of Utah Population Estimates, Demographic and Economic Analysis, www.governor.utah.gov/dea

#### Number of Registered Vehicles by Vehicle Type (Utah 2005-2008)

Vehicles							
Year	<b>Heavy Truck</b>	<b>Light Truck</b>	Motorcycle	Passenger Car	Total		
2005	58,645	552,931	43,271	1,205,430	1,860,277		
2006	60,765	564,280	48,949	1,243,041	1,917,035		
2007	62,860	585,413	56,146	1,297,242	2,001,661		
2008	66,578	601,655	64,376	1,334,906	2,067,515		
Total	248,848	2,304,279	212,742	5,080,619	7,846,488		

SOURCE: Utah State Tax Commission, Economic and Statistical Unit

Utah Crash Summary 2008

## Number of Licensed Drivers by Age (Utah 2008)

Licensed Drivers							
Age	#	%					
15-19	120,039	6.8%					
20-24	198,751	11.3%					
25-29	220,315	12.6%					
30-34	197,783	11.3%					
35-39	164,532	9.4%					
40-44	141,515	8.1%					
45-49	148,401	8.5%					
50-54	140,783	8.0%					
55-59	119,988	6.8%					
60-64	94,023	5.4%					
65-69	70,319	4.0%					
70-74	52,574	3.0%					
75-79	39,888	2.3%					
80-84	27,876	1.6%					
85+	18,657	1.1%					
Total	1,755,444	100.0%					

## Number of Licensed Drivers by Gender (Utah 2008)

<b>Licensed Drivers</b>						
Gender	#	%				
Male	890,338	50.7%				
Female	865,034	49.3%				
Unknown	72	0.0%				
Total	1,755,444	100.0%				

SOURCE: Utah Department of Public Safety, Driver License Division

#### **Notable Changes in Utah Motor Vehicle Laws**

- **1915** Driving age established at 16 years and older.
- **1926** Stop sign law implemented.
- **1935** Alcohol drinking age set at 21 years and older.
- **1967** Illegal to operate a motor vehicle at or above .08 BAC.
- **1969** Motorcycle helmet required for all ages on roads with speed limits 35 mph or higher.
- **1973** Maximum speed limit lowered to 55 mph.
- **1977** Motorcycle helmet law changed, helmets required only for riders under 18 years on all roads.
- **1985** First child restraint law.
- 1986 First seat belt law.
- 1987 Maximum speed limit raised to 65 mph.
- **1992** Illegal for drivers under age 21 years to drive with any detectable amount of alcohol.
- **1996** Maximum speed limit raised to 75 mph.
- 1997 Increased age that children need to be restrained from up to eight years to up to 10 years.
- **1999** First Graduated Driver License law implemented.
- **2000** Secondary seat belt law for drivers and all passengers of motor vehicles.
- **2000** Increased age for use of child restraints up to age four years.
- 2008 Increased age for use of child restraints up to age eight years.
- **2008** Maximum speed limit raised to 80 mph on selected parts of rural I-15.

## **Changes in Crash Reporting**

- **1991** Amount of property damage required for reportable crashes increased from \$400 to \$750.
- **1996** Amount of property damage required for reportable crashes increased to \$1,000.
- **1997** Private property crashes excluded. Private property crashes accounted for approximately 10% of crashes in previous years.
- **2006** State of Utah Investigating Officer's Report of Traffic Crash DI-9 Form updated.

## **Glossary**

**Alcohol-Impaired Driver Crash:** A crash in which the driver was cited for driving under the influence, the alcohol test was positive, or if the investigating officer reported alcohol use.

**Alcohol-Impaired Driver Fatal Crash:** A crash resulting in one or more deaths involving at least one driver with a blood alcohol concentration of .08 grams per deciliter or above.

**Contributing Factor:** The circumstances reported by the investigating officer surrounding a crash that contributed to the crash or the crash severity.

**Crash Rate:** Crashes per 100 million vehicle miles traveled unless otherwise specified.

**Death Rate:** Traffic deaths per 100 million vehicle miles traveled unless otherwise specified.

**Fatal Crash:** A motor vehicle crash on public roadways resulting in one or more deaths. The death must occur within 30 days of the crash.

Fatality Analysis Reporting System (FARS): National data system containing data on all fatal traffic crashes in the U.S.

**Incapacitating Injury:** Any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Often defined as needing help from the scene.

**Injury Crash:** A crash in which one or more persons sustained a possible injury, non-incapacitating injury, or an incapacitating injury.

**Miles per Hour (MPH):** A unit of speed expressing the distance traveled (in miles) to the time spent traveling (in hours).

**Motorcycle Crash:** A crash involving a motorcycle or moped.

**Non-Incapacitating Injury:** Any injury, other than a fatal injury or an incapacitating injury, which is evident to observers at the scene of the crash in which the injury occurred. Examples: bruise, cut, bloody nose.

**Out-of-State Driver:** A driver licensed from a state/country other than Utah who is in a crash. Some of these drivers may reside in Utah and have not yet applied for a Utah driver license.

**Possible Injury:** Complaint of pain without visible injury.

**Property Damage Only (PDO) Crash:** A crash which results in damage to the motor vehicle or other property but without injury or death to any person.

Restraint Use: Restraint use is reported for occupants in a passenger car, light truck, van, SUV, or large truck. Occupants are coded as restrained if they reported using a shoulder/lap belt, lap belt, or a child safety seat at the scene of the crash. Occupants using only a shoulder strap were reported as being unrestrained. In the majority of cases, restraint use is self-reported by the crash occupant. In the case of fatal or severe injury crashes, the officer determines restraint use.

Rural: Counties with 0-100 persons per square mile. Rural counties in Utah are Beaver, Box Elder, Cache, Carbon, Daggett, Duchesne, Emery, Garfield, Grand, Iron, Juab, Kane, Millard, Morgan, Piute, Rich, San Juan, Sanpete, Sevier, Summit, Tooele, Uintah, Wasatch, Washington, and Wayne.

**Speed Crash:** A crash where a driver was charged with a speeding offense, a vehicle exceeded posted speed limits, or if the officer indicated that street racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash.

**Teenage Driver Crash:** A crash involving a driver aged 15 to 19 years.

**Urban:** Counties with more than 100 persons per square mile. Urban counties in Utah are Davis, Salt Lake, Utah, and Weber.

**Vehicle Miles Traveled (VMT):** The number of miles traveled in a year for a given area calculated by the Utah Department of Transportation.

#### **UTAH DEPARTMENT OF PUBLIC SAFETY**

www.publicsafety.utah.gov

#### **UTAH HIGHWAY SAFETY**

www.highwaysafety.utah.gov

#### NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

www.nhtsa.dot.gov