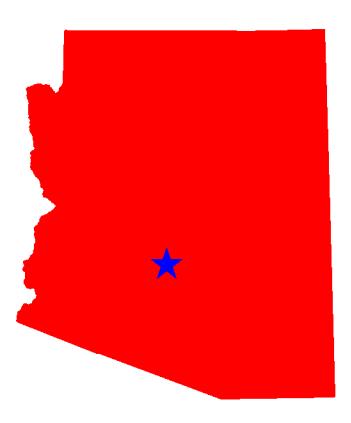




# Traffic Safety Facts Arizona 2005-2009



This Report Contains Data From the Following Sources:

Fatality Data - NCSA Fatality Analysis Reporting System (FARS): 2005-2008 Final File and 2009 Annual Report File (ARF) Observed Safety Belt Data - NCSA National Occupant Protection Use Survey (NOPUS) and the Arizona State Survey Vehicle Miles of Travel Data and Motorcycle Registrations - Federal Highway Administration (FHWA) Population Data - U.S. Bureau of the Census





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Core Outcome Measure				Year		
	5	2005	2006	2007	2008	2009
Traffic Fatalities	Total	1,179	1,293	1,071	938	807
	Rural	536	650	516	474	418
	Urban	643	641	555	464	387
	Unknown	0	2	0	0	2
Fatalities Per 100 Million Vehicle Miles Driven	Total	1.97	2.07	1.70	1.52	1.31
	Rural	3.06	3.27	2.63	2.60	2.29
	Urban	1.52	1.51	1.28	1.07	0.89
Passenger Vehicle Occupant Fatalities (All Seat Positions)	Total	739	868	699	595	460
	Restrained	254	277	238	201	160
	Unrestrained	406	469	379	330	240
	Unknown	79	122	82	64	60
Alcohol-Impaired Driving Fatalities (BAC=.08+	)**	375	399	337	262	219
Speeding-Related Fatalities		519	584	452	389	283
Motorcyclist Fatalities	Total	138	142	135	141	121
	Helmeted	58	45	54	67	50
	Unhelmeted	74	91	71	68	64
	Unknown	6	6	10	6	7
Drivers Involved in Fatal Crashes	Total	1,578	1,720	1,430	1,243	981
	Aged Under 15	2	3	3	2	1
	Aged 15-20	210	222	177	151	93
	Aged Under 21	212	225	180	153	94
	Aged 21 and Over	1,290	1,412	1,205	1,051	835
	Unknown Age	76	83	45	39	52
Pedestrian Fatalities		158	167	154	121	120

## Traffic Safety Performance (Core Outcome) Measures\* For Arizona

\*These Performance Measures Were Developed By The National Highway Traffic Safety Administration (NHTSA)

and the Governors Highway Safety Association (GHSA) (See Publication: DOT HS 811 025)

\*\*Based on the BAC of All Involved Drivers and Motorcycle Riders (Operators) Only





## Fatality Rates: Arizona , U.S. and Best State

	Year	Fatalities	Total Vehicle Miles Traveled (Millions)	Fatalities Per 100 Million Vehicle Miles Traveled	Total Population	Fatalities Per 100,000 Population
2005	Arizona	1,179	59,799	1.97	5,974,834	19.73
	US	43,510	2,989,430	1.46	295,753,151	14.71
	Best State*			0.80		6.83
2006	Arizona	1,293	62,468	2.07	6,192,100	20.88
	US	42,708	3,014,371	1.42	298,593,212	14.30
	Best State*			0.78		6.34
2007	Arizona	1,071	62,963	1.70	6,362,241	16.83
	US	41,259	3,031,124	1.36	301,579,895	13.68
	Best State*			0.79		6.54
2008	Arizona	938	61,628	1.52	6,499,377	14.43
	US	37,423	2,976,528	1.26	304,374,846	12.30
	Best State*			0.67		5.56
2009	Arizona	807	61,628	1.31	6,595,778	12.24
	US	33,808	2,953,501	1.14	307,006,550	11.01
	Best State*			0.61		4.84

\*State (or States) With Lowest Rates: Lowest VMT and Population Rates Could Be in Different States





#### Fatalities By The Highest Blood Alcohol Concentration (BAC) in the Crash\*\*: Arizona, U.S. and Best State (Old Definition)

	Year					vel in the	Crash	
	i eai	Total	E	BAC = .01-	F	E	BAC = .08-	F I
		Fatalities in all Crashes	Number	Percent	Per 100 Million VMT	Number	Percent	Per 100 Million VMT
2005	Arizona	1,179	508	43	0.85	446	38	0.75
	US	43,510	17,590	40	0.59	15,102	35	0.51
	Best State*			14	0.16		12	0.14
2006	Arizona	1,293	578	45	0.93	480	37	0.77
	US	42,708	17,738	42	0.59	15,144	35	0.50
	Best State*			24	0.26		20	0.22
2007	Arizona	1,071	466	44	0.74	403	38	0.64
	US	41,259	17,158	42	0.57	14,603	35	0.48
	Best State*			24	0.27		21	0.23
2008	Arizona	938	389	41	0.63	327	35	0.53
	US	37,423	15,449	41	0.52	13,258	35	0.45
	Best State*			21	0.21		16	0.16
2009	Arizona	807	323	40	0.52	280	35	0.45
	US	33,808	14,188	42	0.48	12,233	36	0.41
	Best State*			23	0.22		18	0.16

\*State (or States) With Lowest Percents: Lowest Percents Could Be in Different States

\*\*Based on the BAC of All Involved Drivers, Motorcycle Riders (Operators), Pedalcyclists and Pedestrians





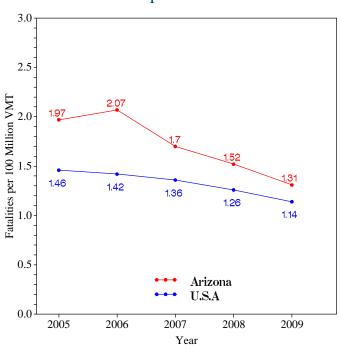
#### Alcohol-Impaired Driving Fatalities\*\*: Arizona , U.S. and Best State (New Definition)

	Year	Total	Alcohol-Impaired Driving Fatalities (BAC = .08+)				
		Fatalities in all Crashes	Number	Percent	Per 100 Million VMT		
2005	Arizona	1,179	375	32	0.63		
	US	43,510	13,582	31	0.45		
	Best State*			12	0.13		
2006	Arizona	1,293	399	31	0.64		
	US	42,708	13,491	32	0.45		
	Best State*			18	0.20		
2007	Arizona	1,071	337	31	0.54		
	US	41,259	13,041	32	0.43		
	Best State*			19	0.21		
2008	Arizona	938	262	28	0.43		
	US	37,423	11,711	31	0.39		
	Best State*			16	0.16		
2009	Arizona	807	219	27	0.36		
	US	33,808	10,839	32	0.37		
	Best State*			16	0.15		

\*State (or States) With Lowest Percents: Lowest Percents Could Be in Different States \*\*Based on the BAC of All Involved Drivers and Motorcycle Riders (Operators) Only



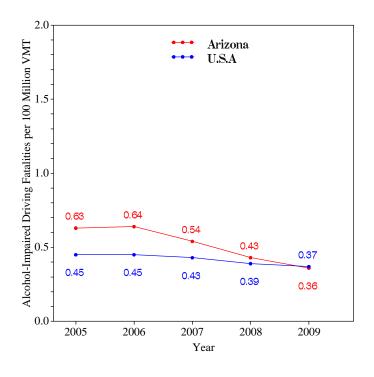




# Fatalities per 100 Million VMT

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Alcohol-Impaired Driving Fatalities per 100 Million VMT







#### Blood Alcohol Concentration (BAC) Reporting Rates For Drivers/Motorcycle Riders (Operators) Involved in Fatal Crashes: Arizona, U.S. and Best State

		Driv	Surviving ers/Motor Riders		Killed [	Drivers/Mo Riders	otorcycle	Total D	)rivers/Mo Riders	torcycle
Year			With Blood Alcohol Concentration (BAC) Results Reported to FARS			With Blood Alcohol Concentration (BAC) Results Reported to FARS			With   Alco Concer (B/ Res Repor FA	ohol htration AC) ults ted to
		Total	Number	Percent	Total	Number	Percent	Total	Number	Percent
2005	Arizona	928	52	6	650	321	49	1,578	373	24
	US	31,729	7,415	23	27,491	18,773	68	59,220	26,188	44
	Best State*			77			98			84
2006	Arizona	1,018	252	25	702	491	70	1,720	743	43
	US	30,498	7,482	25	27,348	18,911	69	57,846	26,393	46
	Best State*			81			99			85
2007	Arizona	851	246	29	579	457	79	1,430	703	49
	US	29,449	7,631	26	26,570	19,434	73	56,019	27,065	48
	Best State*			82			100			84
2008	Arizona	721	213	30	522	426	82	1,243	639	51
	US	26,162	7,656	29	24,254	18,415	76	50,416	26,071	52
	Best State*			81			99			85
2009	Arizona	554	155	28	427	246	58	981	401	41
	US	23,432	6,372	27	21,798	15,505	71	45,230	21,877	48
	Best State*			86			97			90

\*State (or States) With Highest Percents: Highest Percents Could Be in Different States





# Daytime Front Seat (Outboard Only) Passenger Vehicle Occupants, Aged 5 and Over, by Restraint Use:

Fatalities and Observed Arizona, U.S. and Best State

	Year	Fatalities - Restrained**	Observed - Restrained***
	Tear	Percent	Percent
2005	Arizona	52	94
	US	55	82
	Best State*	88	95
2006	Arizona	45	79
	US	55	81
	Best State*	100	96
2007	Arizona	50	81
	US	57	82
	Best State*	82	98
2008	Arizona	52	80
	US	56	83
	Best State*	78	97
2009	Arizona	51	81
	US	58	84
	Best State*	77	98

\*State With Highest Percent. Fatal Crash and Observed Percents Can Be Different States

\*\*Percent Based Only Where Restraint Use Was Known

\*\*\*USA Data: National Occupant Protection Use Survey. Arizona Data: State Survey

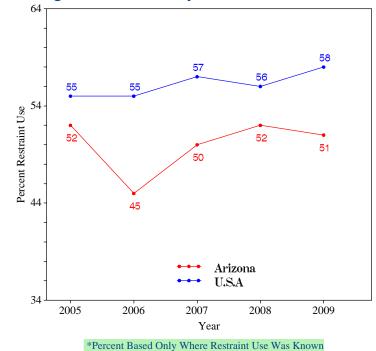
Note: The Purpose of this Table is to Compare (as closely as possible) the Use of Restraint Systems

by Fatally Injured Occupants with Occupants in all Driving Situations



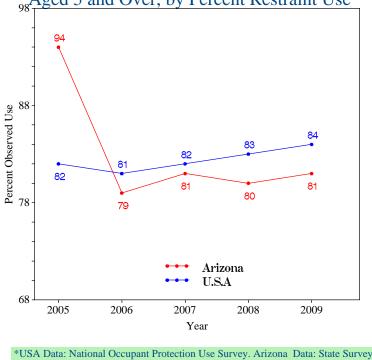


#### Daytime Front Seat (Outboard Only) Passenger Vehicle Occupant Fatalities, Aged 5 and Over, by Percent Restraint Use\*



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Daytime Front Seat (Outboard Only) Passenger Vehicle Occupants Observed, <u>98</u>Aged 5 and Over, by Percent Restraint Use\*







#### Passenger Vehicle Occupant Fatalities Age 5 and Above by Restraint Use and Lives Saved Estimates

		Fata	alities Age 5 ar	nd Above		Lives Saved Estimates**		
Year	Total	Restrained	Unrestrained	Unknown Restraint Use	Percent Known Restrained*	Lives Saved at Current Belt Use	Additional Lives Savable at 100% Belt Usage	
2005	731	250	403	78	38	346	54	
2006	845	268	465	112	37	366	175	
2007	681	226	375	80	38	298	135	
2008	588	198	328	62	38	266	115	
2009	448	152	238	58	39	217	91	

\*Percent Based Only Where Restraint Use Was Known

\*\*Lives Saved Estimates (Sum of columns may not equal other published numbers due to rounding)

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#### Passenger Vehicle Occupant Fatalities Age 4 and Under by Restraint Use and Lives Saved Estimates

		Fat	alities Age 4 ar	nd Under		Lives Saved Estimates**
Year	Total Restrained		Unrestrained	Unknown Restraint Use	Percent Known Restrained*	Lives Saved at Current Seat Belt and Child Safety Seat Usage
2005	6	4	2	0	67	5
2006	16	9	4	3	69	13
2007	15	11	3	1	79	20
2008	5	3	2	0	60	6
2009	10	8	1	1	89	11

\*Percent Based Only Where Restraint Use Was Known

\*\*Lives Saved Estimates





#### Motorcyclist Fatalities by Helmet Use and Lives Saved Estimates

			Fatalities	5		Lives Saved Estimates**		
Year	Total	Helmeted	Unhelmeted	Unknown Helmet Use	Percent Known Helmeted*	Lives Saved at Current Helmet Use	Additional Lives Savable at 100% Helmet Usage	
2005	138	58	74	6	44	36	29	
2006	142	45	91	6	33	29	35	
2007	135	54	71	10	43	35	29	
2008	141	67	68	6	50	42	26	
2009	121	50	64	7	44	32	25	

\*Percent Based Only Where Helmet Use Was Known

\*\*Lives Saved Estimates (Sum of columns may not equal other published numbers due to rounding)





		200	)5	200	)6	200	)7	20	08	20	09
	Person Type	#	%*	#	%*	#	%*	#	%*	#	%*
Occupants	Passenger Car	353	30	425	33	357	33	299	32	209	26
	Light Truck - Pickup	175	15	212	16	167	16	130	14	88	11
	Light Truck - Utility	139	12	171	13	140	13	132	14	120	15
	Light Truck - Van	71	6	57	4	35	3	34	4	43	5
	Light Truck - Other	1	0	3	0	0	0	0	0	0	0
	Large Truck	15	1	21	2	20	2	19	2	9	1
	Bus	0	0	0	0	0	0	0	0	7	1
	Other/Unknown Occupants	88	7	62	5	34	3	37	4	60	7
	Total Occupants	842	71	951	74	753	70	651	69	536	66
Motorcyclists	Total Motorcyclists	138	12	142	11	135	13	141	15	121	15
Nonoccupants	Pedestrian	158	13	167	13	154	14	121	13	120	15
	Bicyclist and Other Cyclist	35	3	29	2	21	2	19	2	25	3
	Other/Unknown Nonoccupants	6	1	4	0	8	1	6	1	5	1
	Total Nonoccupants	199	17	200	15	183	17	146	16	150	19
Total	Total	1,179	100	1,293	100	1,071	100	938	100	807	100

# Fatalities by Person Type

\*Sum of Percents May Not = 100 Due to Individual Cell Rounding





## Fatalities by Crash Type

Crash Type	2005	2006	2007	2008	2009
Total Fatalities (All Crashes)*	1,179	1,293	1,071	938	807
- (1) Single Vehicle	661	701	615	558	506
- (2) Involving a Large Truck	118	136	98	98	66
- (3) Involving Speeding	519	584	452	389	283
- (4) Involving a Rollover	417	495	413	356	276
- (5) Involving a Roadway Departure	526	535	506	425	345
- (6) Involving an Intersection (or Intersection Related)	268	318	269	234	165

(1) Crash Involved Only One Coded Vehicle

(2) Crash Involved at Least One Large Truck

(3) Crash Involved at Least One Vehicle Speeding

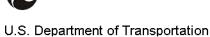
(4) Crash Involved at Least One Vehicle That Rolled Over

(5) Crash Involved at Least One Vehicle That Departed the Roadway (FHWA Definition)

(6) Crash Occured Within an Intersection or Within the Approach to an Intersection

\*A Fatality Can Be in More Than One Category. Therefore Sum of the Individual Cells Will Not Equal the Total Due to Double Counting





Year				Age	•			
Icai	<20	20-29	30-39	40-49	50-59	>59	Unknown	Total
2005	13	34	26	29	24	12	0	138
2006	13	34	23	28	33	11	0	142
2007	12	22	28	35	23	15	0	135
2008	3	36	20	30	27	25	0	141
2009	2	11	23	27	29	28	1	121

# Motorcyclist Fatalities by Age

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## Motorcyclist Fatalities Per 100,000 Registered Motorcycles

Year	Motorcyclist Fatalities	Total Motorcycle Registrations*	Motorcyclist Fatalities Per 100,000 Motorcycle Registrations
2005	138	98,703	139.8
2006	142	114,443	124.1
2007	135	125,219	107.8
2008	141	134,434	104.9
2009	121	138,475	87.38

\*Data Source: FHWA





# Fatalities by Person Type and Race/Hispanic Origin

Person Type b	2005	2006	2007	2008	
Occupants (All Vehicle Types)	Hispanic	311	347	266	220
	White Non-Hispanic	374	538	463	435
	Black, Non-Hispanic	28	26	28	25
	American Indian, Non-Hispanic/Unknown	108	107	107	84
	Asian, Non-Hispanic/Unknown	5	4	2	5
	Pacific Islander, Non-Hispanic/Unknown	1	0	0	0
	Multiple Races, Non-Hispanic/Unknown	1	0	0	0
	All Other Non-Hispanic or Race	143	61	18	15
	Unknown Race and Unknown Hispanic	9	10	4	8
	Total	980	1,093	888	792
Non-Occupants (Pedestrians, Pedalcyclists and Other/Unknown NonOccupants)					
	Hispanic	60	64	54	35
	White Non-Hispanic	65	80	87	70
	Black, Non-Hispanic	6	5	5	9
	American Indian, Non-Hispanic/Unknown	29	34	33	29
	Asian, Non-Hispanic/Unknown	1	0	2	0
	Pacific Islander, Non-Hispanic/Unknown	0	0	0	0
	Multiple Races, Non-Hispanic/Unknown	0	0	0	0
	All Other Non-Hispanic or Race	37	15	0	1
	Unknown Race and Unknown Hispanic	1	2	2	2
	Total	199	200	183	146
Total	1,179	1,293	1,071	938	

2009 Race/Hispanic Origin Data is Not Yet Complete





Counties by 2009 Ranking			F	atalitie	S		Percent of Total				
		2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
1	Maricopa County	524	564	461	368	307	44	44	43	39	38
2	Pima County	137	154	129	137	92	12	12	12	15	11
3	Pinal County	84	131	86	81	75	7	10	8	9	9
4	Yavapai County	73	72	59	41	46	6	6	6	4	6
5	Navajo County	45	41	56	36	44	4	3	5	4	5
6	Mohave County	61	61	52	57	42	5	5	5	6	5
7	Coconino County	62	82	56	51	40	5	6	5	5	5
8	Cochise County	47	35	21	33	39	4	3	2	4	5
9	Apache County	32	33	50	45	32	3	3	5	5	4
10	Yuma County	37	37	31	26	25	3	3	3	3	3
Sub Total 1.*	Top Ten Counties	1,105	1,210	1,009	875	742	94	94	94	93	92
Sub Total 2.**	All Other Counties	73	83	62	63	64	6	6	6	7	8
Total	All Counties	1,178	1,293	1,071	938	806	100	100	100	100	100

# 5 Year Trend For The Top 10 Counties of 2009 - Fatalities

\*This Sub Total is the Total for the Top Ten Counties

\*\*This Sub Total is the Total for all Counties Outside the Top Ten





## 5 Year Trend For The Top 10 Counties of 2009 - Fatalities Year to Year Percent Change

Counties by 2009 Ranking			F	atalitie	S	Percent Change From Previous Year				
		2005	2006	2007	2008	2009	2006	2007	2008	2009
1	Maricopa County	524	564	461	368	307	8	-18	-20	-17
2	Pima County	137	154	129	137	92	12	-16	6	-33
3	Pinal County	84	131	86	81	75	56	-34	-6	-7
4	Yavapai County	73	72	59	41	46	-1	-18	-31	12
5	Navajo County	45	41	56	36	44	-9	37	-36	22
6	Mohave County	61	61	52	57	42	0	-15	10	-26
7	Coconino County	62	82	56	51	40	32	-32	-9	-22
8	Cochise County	47	35	21	33	39	-26	-40	57	18
9	Apache County	32	33	50	45	32	3	52	-10	-29
10	Yuma County	37	37	31	26	25	0	-16	-16	-4
Sub Total 1.*	Top Ten Counties	1,105	1,210	1,009	875	742	10	-17	-13	-15
Sub Total 2.**	All Other Counties	73	83	62	63	64	14	-25	2	2
Total	All Counties	1,178	1,293	1,071	938	806	10	-17	-12	-14

\*This Sub Total is the Total for the Top Ten Counties

\*\*This Sub Total is the Total for all Counties Outside the Top Ten





# 5 Year Trend For The Top 10 Counties of 2009 - Fatality Rates

Counties by 2009 Ranking		Fatalities Per 100,000 Population							
Counties	2005	2006	2007	2008	2009				
1	La Paz County	174.94	134.21	144.04	99.98	89.95			
2	Apache County	46.89	47.78	72.17	64.73	45.33			
3	Navajo County	42.07	37.61	50.45	32.04	38.95			
4	Santa Cruz County	31.62	38.06	18.74	20.87	38.84			
5	Gila County	35.35	42.61	45.95	44.00	32.57			
6	Coconino County	49.68	65.06	43.94	39.71	30.81			
7	Cochise County	37.41	27.61	16.44	25.70	30.11			
8	Graham County	24.52	30.04	23.03	22.10	26.99			
9	Greenlee County	27.43	107.17	12.89	37.23	24.87			
10	Pinal County	35.37	48.44	28.42	24.62	22.00			
Sub Rate 1.*	Top Ten Counties	40.57	45.01	36.64	33.06	31.11			
Sub Rate 2.**	All Other Counties	14.70	15.70	12.38	10.72	9.06			
Total Rate	All Counties	19.72	20.88	16.83	14.43	12.22			

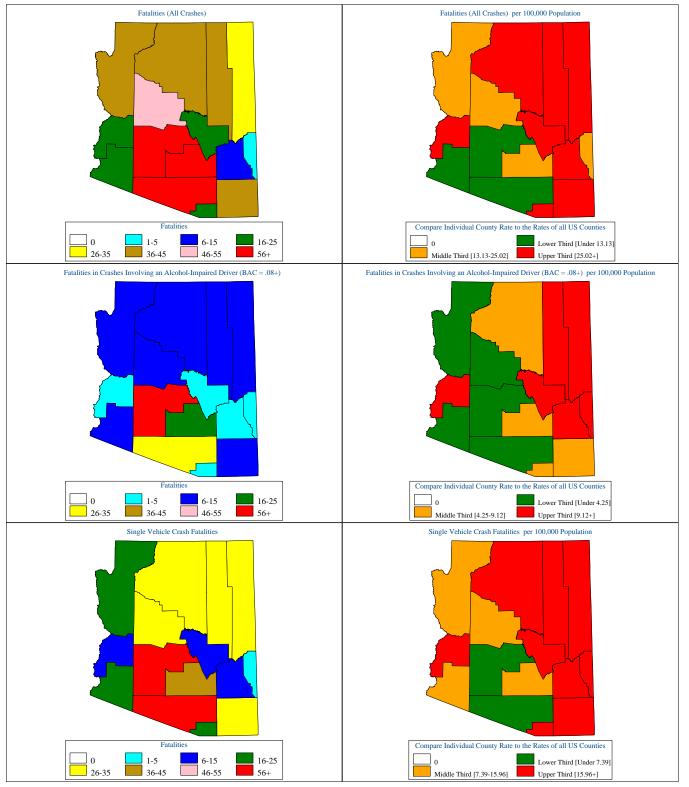
#### Median Rate for all U.S. Counties: 18.23

\*This Sub Rate is the Rate for the Top Ten Counties

\*\*This Sub Rate is the Rate for all Counties Outside the Top Ten



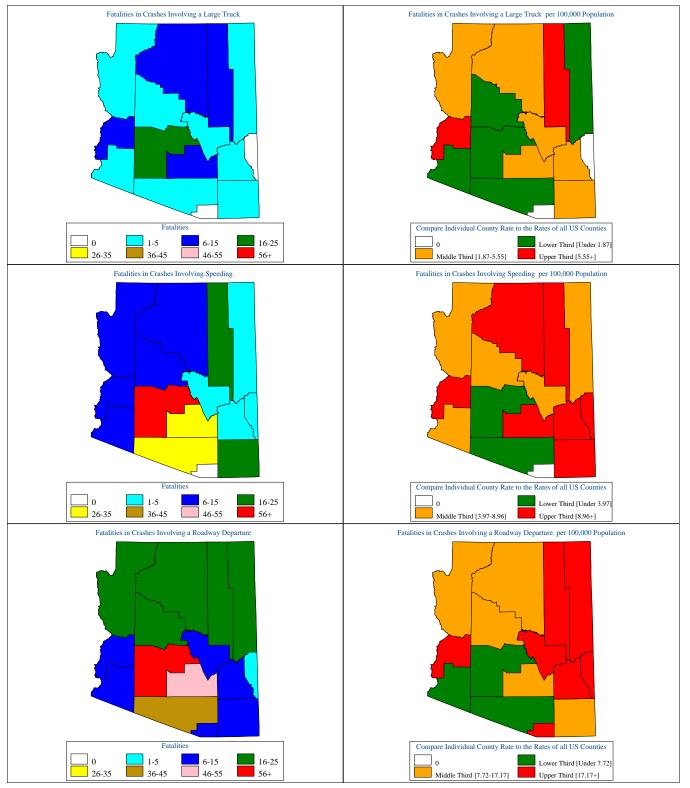




## Arizona Motor Vehicle Crash Fatality Maps for 2009



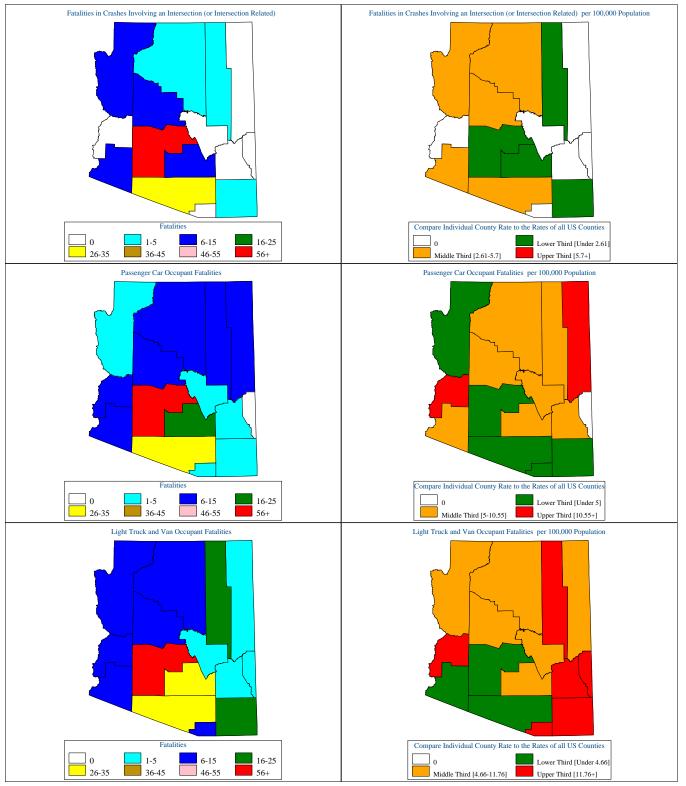




## Arizona Motor Vehicle Crash Fatality Maps for 2009



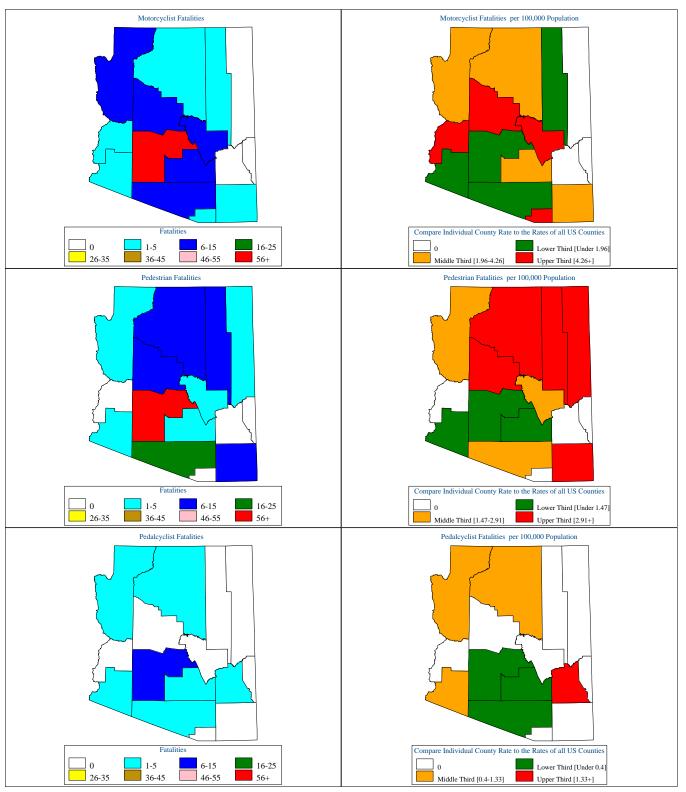




## Arizona Motor Vehicle Crash Fatality Maps for 2009







## Arizona Motor Vehicle Crash Fatality Maps for 2009