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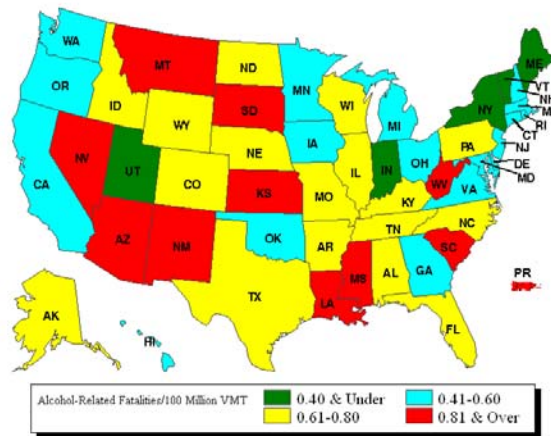


DOT HS 809 673

December 2003

## Technical Report

# State Alcohol Related Fatality Rates 2002



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15. Supplementary Notes <b>Rajesh Subramanian is a Programmer Analyst employed by Rainbow Technology, Inc., a contractor for the Mathematical Analysis Division of the National Center for Statistics and Analysis.</b>					
16. Abstract  Alcohol related fatalities are defined as fatalities that occur in crashes where at least one driver or nonoccupant (pedestrian or pedalcyclist) involved in the crash has a positive Blood Alcohol Concentration (BAC) value.  This report examines the extent of alcohol related fatalities in traffic crashes across states and over time and normalizes this data by estimating the rate of these fatalities as a function of the Annual Vehicle Miles of Travel (VMT) data for that state. The rate of alcohol related fatalities as a measure of the State's VMT serves as an important metric for States and NHTSA Regions to evaluate the effectiveness of their drunk-driving countermeasures as well as assess the performance of their alcohol programs relative to their states and regions.					
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## Introduction

The purpose of this document is to present rates of alcohol involvement in fatal crashes by state from 1982 to 2002. Also, NHTSA has recently adopted a new methodology to estimate missing alcohol data in FARS and this report documents state-wise historic estimates of alcohol involvement that have been re-calculated using the new methodology.

Alcohol related fatalities are defined as fatalities that occur in crashes where at least one driver or nonoccupant (pedestrian or pedalcyclist) involved in the crash has a positive Blood Alcohol Concentration (BAC) value.

In 2002, about 17,419 fatalities or roughly 41 percent of all fatalities in Motor Vehicle Traffic Crashes were estimated to be alcohol related. The number of fatalities varied widely across the states and over time for various reasons, the most significant of which could be varying exposure. An important metric most frequently used by NHTSA to quantify exposure to the risk of fatal traffic crashes is the Federal Highway Administration's (FHWA) Annual Vehicle Miles of Travel (VMT) data.

This report examines the extent of alcohol related fatalities in traffic crashes across states and over time and normalizes this data by estimating the rate of these fatalities as a function of the Annual VMT data for that state. The rate of alcohol related fatalities serves as an important metric for States and NHTSA Regions to evaluate the effectiveness of their drunk-driving countermeasures as well as to assess the performance of their alcohol programs relative to other states and regions.

## Methodology

The estimates of alcohol involvement in this report are based on known Blood Alcohol Concentration (BAC) values as well as estimated BAC values in those cases where the test results are not known. BAC values have been assigned using statistical procedures<sup>1</sup> to drivers, pedestrians and pedalcyclists involved in fatal crashes only when their alcohol test results are unknown.

The *Alcohol Related Fatality Rate* (AR Rate) in a given year is simply the ratio of the alcohol related fatalities in that year and the VMT as expressed below:

$$AR\ Rate\ Year = \left[ \frac{(AR\ Fatalities)\ Year}{VMT\ Year} \right] * 100$$

FHWA publishes Annual VMT in millions of miles traveled in every state. NHTSA uses these estimates to present its annual fatality rate per 100 million vehicle miles of travel. There is no measure that quantifies the extent of driving under the influence of alcohol. Hence, all rate measures (Total and alcohol-related fatality rates) in this report will be quantified per 100 million vehicle miles of travel.

## Other Issues

Discrepancies may occur between the number of alcohol-related fatalities as reported by some states and those reported by NHTSA for that state. This may arise due to many reasons, which have been addressed in a Q&A section at the end of this report.

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<sup>1</sup> NHTSA uses *multiple imputation* to estimate missing BAC values in FARS. For more information refer to *Transitioning to Multiple Imputation: A New Method for estimating missing BAC values in FARS [DOT HS 809 403]*

## Data

The data used throughout this report are from NCSA's Fatality Analysis Reporting System (FARS). Final FARS files are available from 1982 to 2001 and data is available for 2002 in the form of the Annual Report File (ARF – to be updated to a final version early next year).

Supplemental alcohol files containing the crash and person level estimated and known alcohol test results are available for the 1982 to 2002 FARS data. These data are combined with the FARS files to generate estimates of alcohol involvement by state and county.

Annual VMT data by state is released by the Federal Highway Administration (FHWA). Further classification of this data by county is not available.

Information on the status of impaired driving legislations has been extracted from NHTSA's 2002 Traffic Safety Facts Annual Report (NHTSA, 2002). Variations occur for some states as new laws were enacted in 2002.

## Tabulations

This section presents estimated rates of alcohol involvement for each state from 1982, the first data year for which NHTSA began reporting alcohol data, to 2002, the most recent year for which data is available.

For each state, there are three Tables, a chart and two maps that depict the data. The tables are:

- A Table showing the number of total (Tot) and alcohol related fatalities (Alc-Rel), alcohol related fatalities as a proportion of total fatalities (%),

total and alcohol related fatality rate per 100 Million VMT.

- A Table depicting the percent change in alcohol related fatality rate over the last 10, 5, 3 and 1 year periods as well as the change from 1982 as well as provide comparisons with the corresponding rates for the U.S. for those periods of time.
- A Table outlining the BAC levels of *per se* Impaired Driving Legislations and where available, the *Effective Date* of such a law.

The chart depicts trend lines from 1982 to 2002 for Total Fatality Rates for the State and the U.S. as well as Alcohol Related Fatality Rate for the State and the U.S.

The maps illustrate:

- For each state, the alcohol related fatalities by county for the state.
- For each county in the state, if the alcohol-related fatalities, as a percent of total fatalities, is above or below the percentage for the state as a whole. For example, Montgomery County in Maryland, 34 percent of all fatalities in the county were alcohol-related. In comparison, 40 percent of all fatalities in Maryland were alcohol-related. Since the county percentage is lower than the state percentage, Montgomery county will not be shaded in the map.

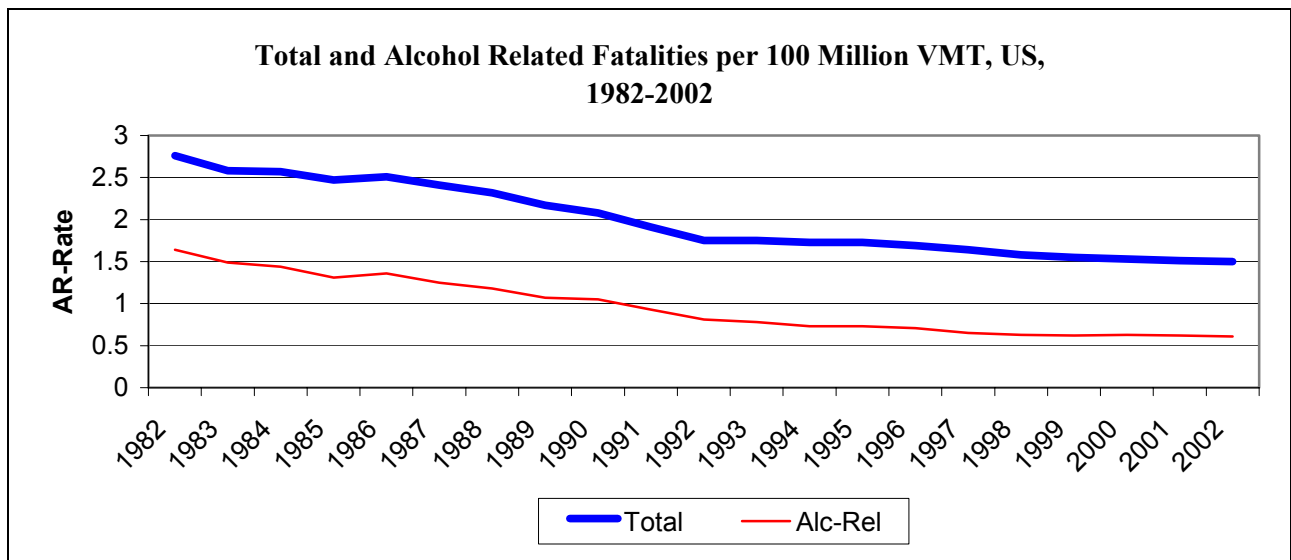


## Fatalities and Fatality Rate per 100 Million VMT

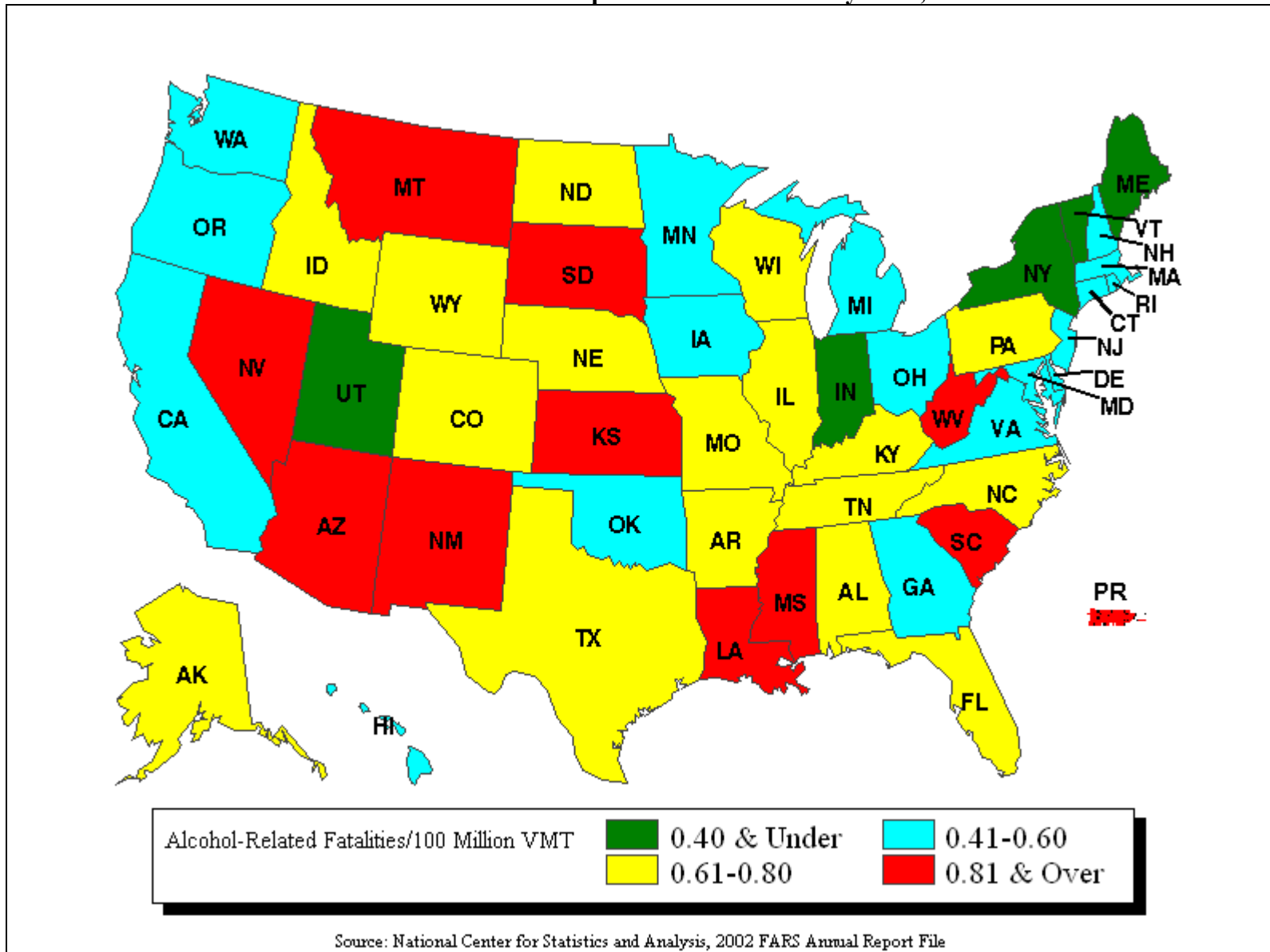
Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	43,945	26,173	60	2.76	1.64
1983	42,589	24,635	58	2.58	1.49
1984	44,257	24,762	56	2.57	1.44
1985	43,825	23,167	53	2.47	1.31
1986	46,087	25,017	54	2.51	1.36
1987	46,390	24,094	52	2.41	1.25
1988	47,087	23,833	51	2.32	1.18
1989	45,582	22,424	49	2.17	1.07
1990	44,599	22,587	51	2.08	1.05
1991	41,508	20,159	49	1.91	0.93
1992	39,250	18,290	47	1.75	0.81
1993	40,150	17,908	45	1.75	0.78
1994	40,716	17,308	43	1.73	0.73
1995	41,817	17,732	42	1.73	0.73
1996	42,065	17,749	42	1.69	0.71
1997	42,013	16,711	40	1.64	0.65
1998	41,501	16,673	40	1.58	0.63
1999	41,717	16,572	40	1.55	0.62
2000	41,945	17,380	41	1.53	0.63
2001	42,196	17,400	41	1.51	0.62
2002	42,815	17,419	41	1.50	0.61

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Series

USA



Alcohol Related Fatalities per 100 Million VMT by State, 2002



The Table below compares the alcohol related fatality rate by state for 1982 and 2002.

Alcohol Related Fatalities per 100 Million Vehicle Miles of Travel, by State, 1982 and 2002 and Percentage Change from the 1982 Rate							
State	1982	2002	% Change	State	1982	2002	% Change
Alabama	1.63	0.72	-56%	Montana	2.56	1.22	-52%
Alaska	1.85	0.71	-61%	Nebraska	1.15	0.63	-45%
Arizona	2.07	0.93	-55%	Nevada	2.98	0.95	-68%
Arkansas	2.01	0.80	-60%	New Hampshire	1.59	0.41	-75%
California	1.65	0.50	-69%	New Jersey	1.20	0.43	-64%
Colorado	1.73	0.71	-59%	New Mexico	3.16	0.94	-70%
Connecticut	1.77	0.45	-75%	New York	1.41	0.36	-74%
Delaware	1.79	0.57	-68%	North Carolina	1.92	0.65	-66%
DC	0.62	0.70	13%	North Dakota	1.85	0.65	-65%
Florida	1.77	0.72	-60%	Ohio	1.35	0.52	-61%
Georgia	1.54	0.49	-68%	Oklahoma	2.03	0.54	-73%
Hawaii	1.70	0.56	-67%	Oregon	1.66	0.52	-69%
Idaho	1.68	0.64	-62%	Pennsylvania	1.47	0.63	-57%
Illinois	1.54	0.61	-60%	Rhode Island	1.20	0.56	-53%
Indiana	1.29	0.37	-71%	South Carolina	1.82	1.17	-36%
Iowa	1.29	0.42	-67%	South Dakota	1.41	1.08	-23%
Kansas	1.43	0.81	-44%	Tennessee	1.92	0.69	-64%
Kentucky	1.88	0.64	-66%	Texas	2.24	0.79	-65%
Louisiana	2.45	0.95	-61%	Utah	1.10	0.3	-73%
Maine	1.23	0.35	-72%	Vermont	1.76	0.28	-84%
Maryland	1.24	0.49	-60%	Virginia	1.19	0.48	-60%
Massachusetts	1.11	0.41	-63%	Washington	1.54	0.54	-65%
Michigan	1.42	0.49	-66%	West Virginia	2.23	0.90	-60%
Minnesota	1.10	0.47	-58%	Wisconsin	1.46	0.62	-58%
Mississippi	2.47	0.91	-63%	Wyoming	2.23	0.78	-65%
Missouri	1.38	0.77	-44%	<b>U.S. Total</b>	<b>1.64</b>	<b>0.61</b>	<b>-63%</b>
Puerto Rico	3.03	1.33	-56%				

Source: 1982-2001,(Final) FARS File and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	839	486	58	2.81	1.63
1983	930	573	62	3.00	1.85
1984	932	537	58	2.83	1.63
1985	882	439	50	2.51	1.25
1986	1,081	609	56	3.18	1.79
1987	1,111	596	54	2.97	1.59
1988	1,024	503	49	2.58	1.27
1989	1,029	527	51	2.52	1.29
1990	1,121	583	52	2.65	1.38
1991	1,116	551	49	2.60	1.28
1992	1,031	498	48	2.25	1.09
1993	1,044	476	46	2.21	1.01
1994	1,083	472	44	2.21	0.96
1995	1,114	494	44	2.20	0.98
1996	1,146	516	45	2.23	1.00
1997	1,192	499	42	2.23	0.93
1998	1,071	442	41	1.94	0.80
1999	1,138	465	41	2.03	0.83
2000	996	426	43	1.76	0.75
2001	991	374	38	1.75	0.66
2002	1,033	413	40	1.80	0.72

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## ALABAMA

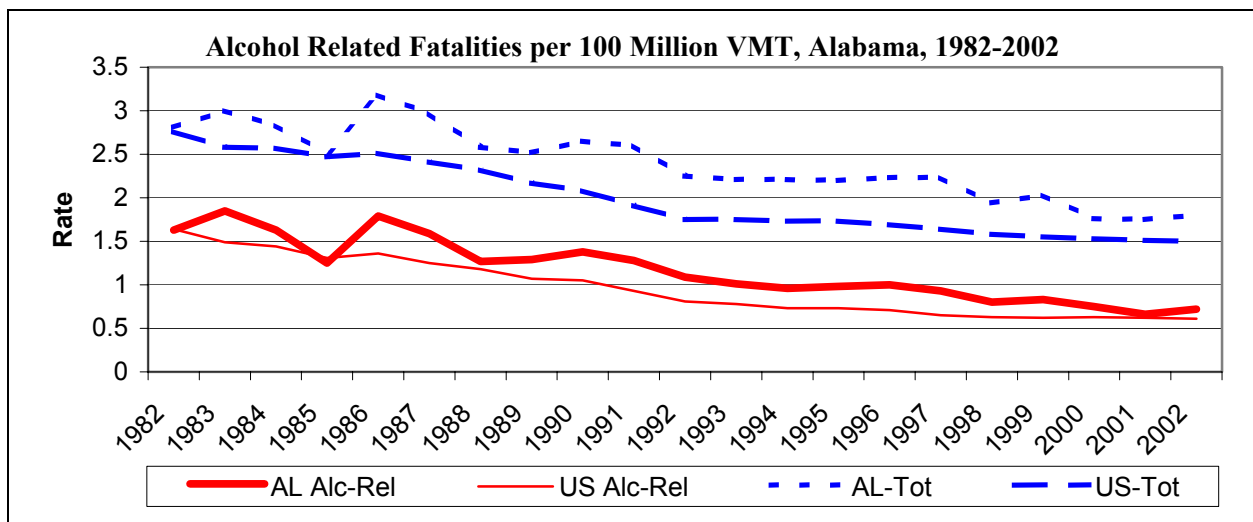
### Change in AR-Rates over time, Alabama vs. US

Time Period	Alabama	US
1982 to 2002	-56%	-63%
Last 10 years	-34%	-25%
Last 5 years	-23%	-6%
Last 3 Years	-13%	-2%
Last 1 Year	+9%	-2%

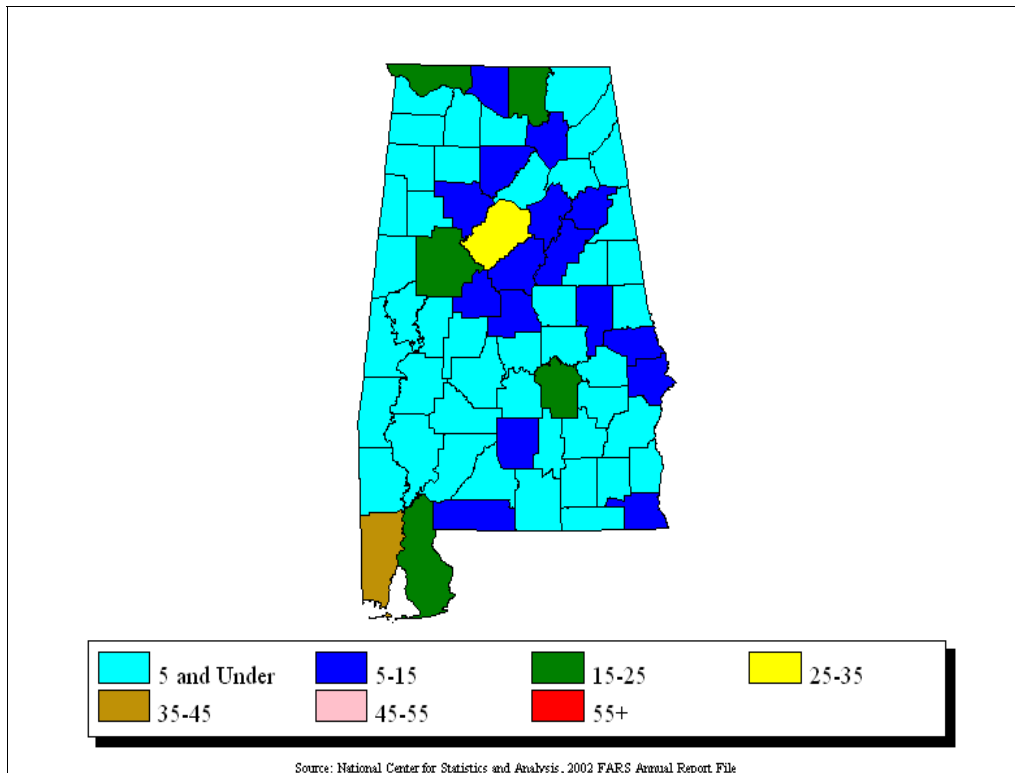
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (10/01/95)
Youthful (Under 21) Offenders BAC Level	0.02

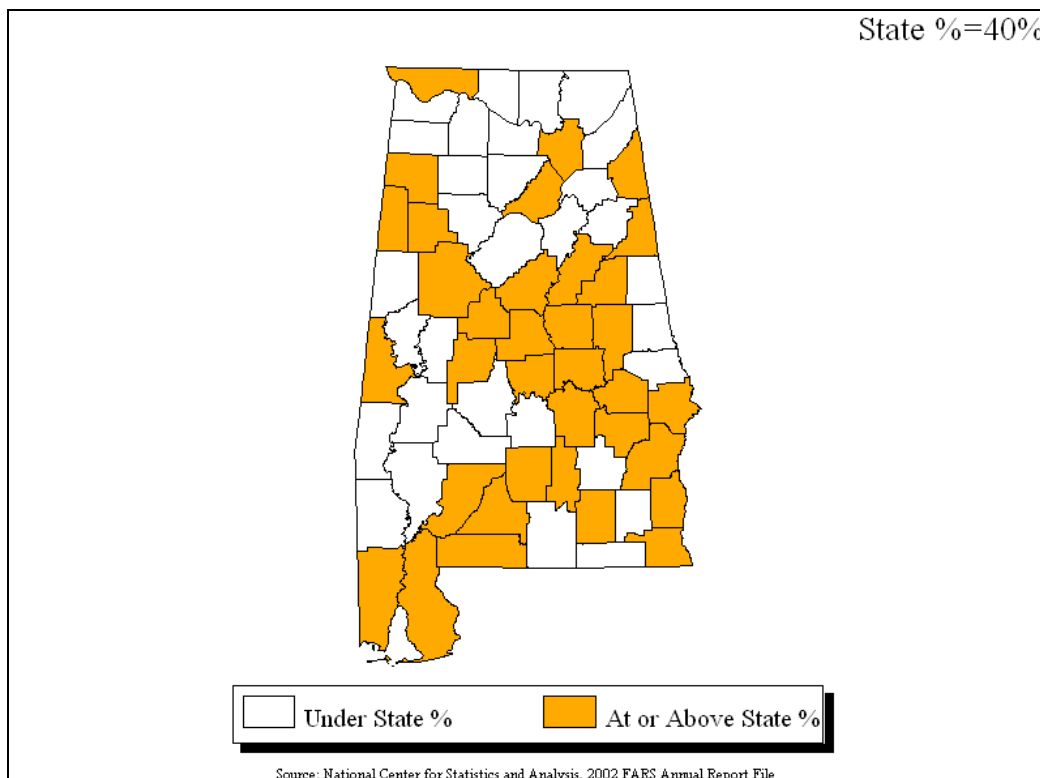
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	105	64	61	3.03	1.85
1983	150	88	59	4.47	2.62
1984	134	88	66	3.48	2.29
1985	127	78	61	3.17	1.95
1986	101	57	56	2.53	1.43
1987	76	44	58	1.95	1.13
1988	97	57	59	2.45	1.44
1989	84	48	58	2.16	1.23
1990	98	51	52	2.51	1.30
1991	101	49	48	2.51	1.22
1992	108	67	62	2.81	1.74
1993	118	54	46	3.01	1.38
1994	85	51	60	2.05	1.23
1995	87	47	54	2.11	1.14
1996	81	43	53	1.97	1.04
1997	77	41	53	1.76	0.93
1998	70	31	44	1.55	0.69
1999	79	40	51	1.74	0.88
2000	106	56	53	2.30	1.21
2001	89	47	53	1.89	1.00
2002	87	35	41	1.78	0.71

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## ALASKA

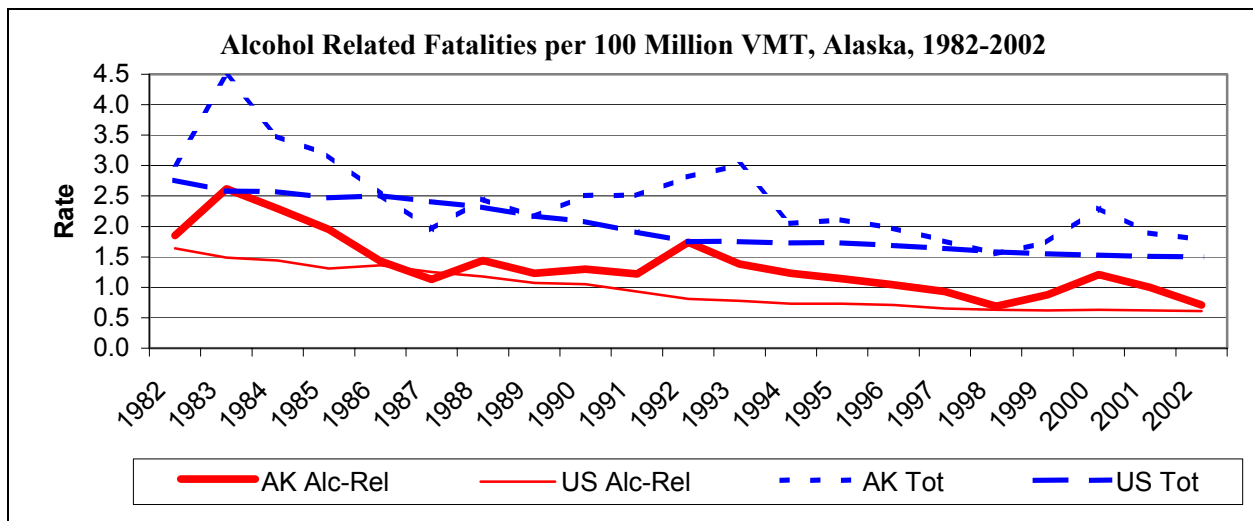
### Change in AR-Rates over time, Alaska vs. US

Time Period	Alaska	US
1982 to 2002	-62%	-63%
Last 10 years	-59%	-25%
Last 5 years	-24%	-6%
Last 3 Years	-19%	-2%
Last 1 Year	-29%	-2%

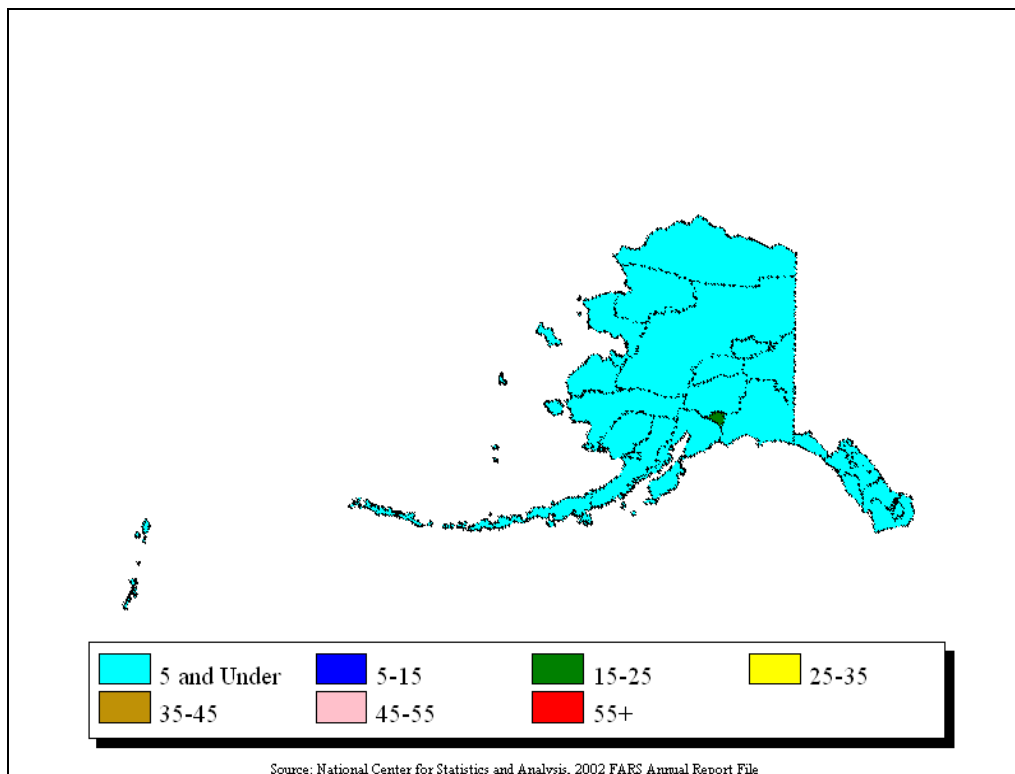
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level ( <i>Effective Date</i> )	0.08 (09/01/01)
Youthful (Under 21) Offenders BAC Level	0.00

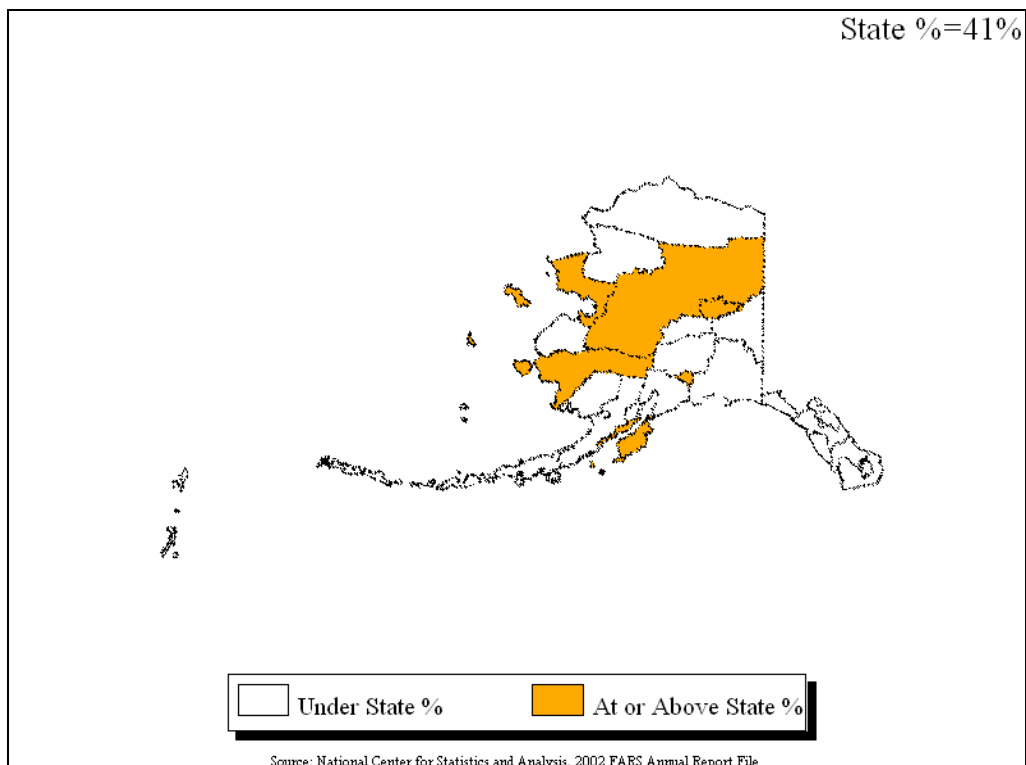
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	724	422	58	3.55	2.07
1983	675	388	57	3.28	1.89
1984	869	473	54	4.15	2.26
1985	893	502	56	4.14	2.33
1986	1,007	582	58	4.44	2.57
1987	939	532	57	2.96	1.68
1988	944	488	52	2.76	1.42
1989	879	443	50	2.52	1.27
1990	869	434	50	2.45	1.22
1991	816	429	53	2.34	1.23
1992	809	403	50	2.31	1.15
1993	801	400	50	2.13	1.06
1994	904	410	45	2.33	1.06
1995	1,035	478	46	2.61	1.21
1996	994	442	45	2.36	1.05
1997	951	451	47	2.19	1.04
1998	980	444	45	2.17	0.98
1999	1,024	424	41	2.19	0.91
2000	1,036	469	45	2.11	0.95
2001	1,051	487	46	2.12	0.98
2002	1,117	477	43	2.18	0.93

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## ARIZONA

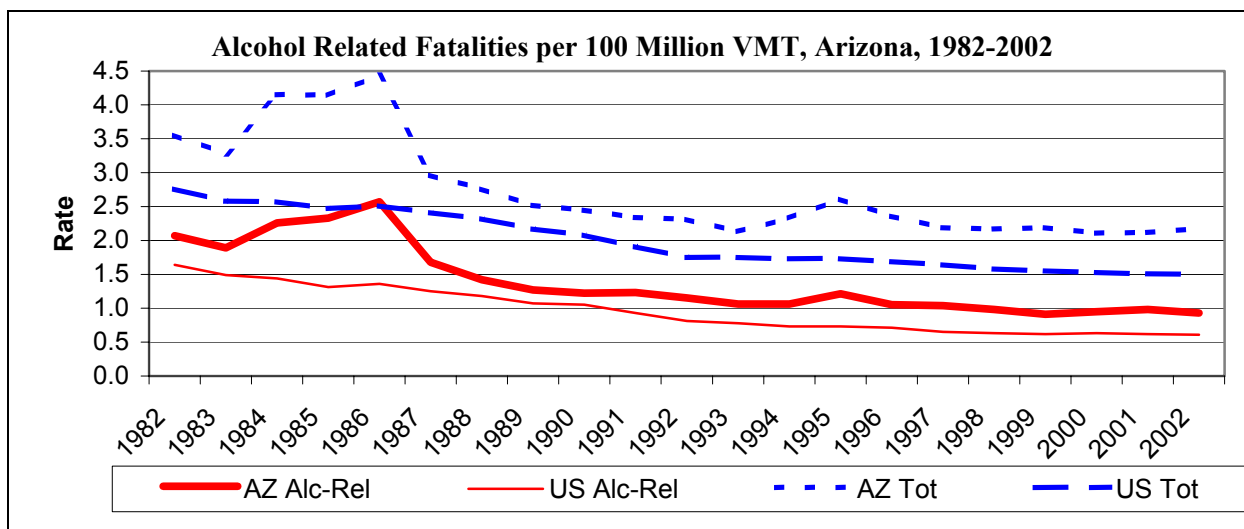
### Change in AR-Rates over time, Arizona vs. US

Time Period	Arizona	US
1982 to 2002	-55%	-63%
Last 10 years	-19%	-25%
Last 5 years	-11%	-6%
Last 3 Years	+2%	-2%
Last 1 Year	-5%	-2%

### Impaired Driving Legislations\*

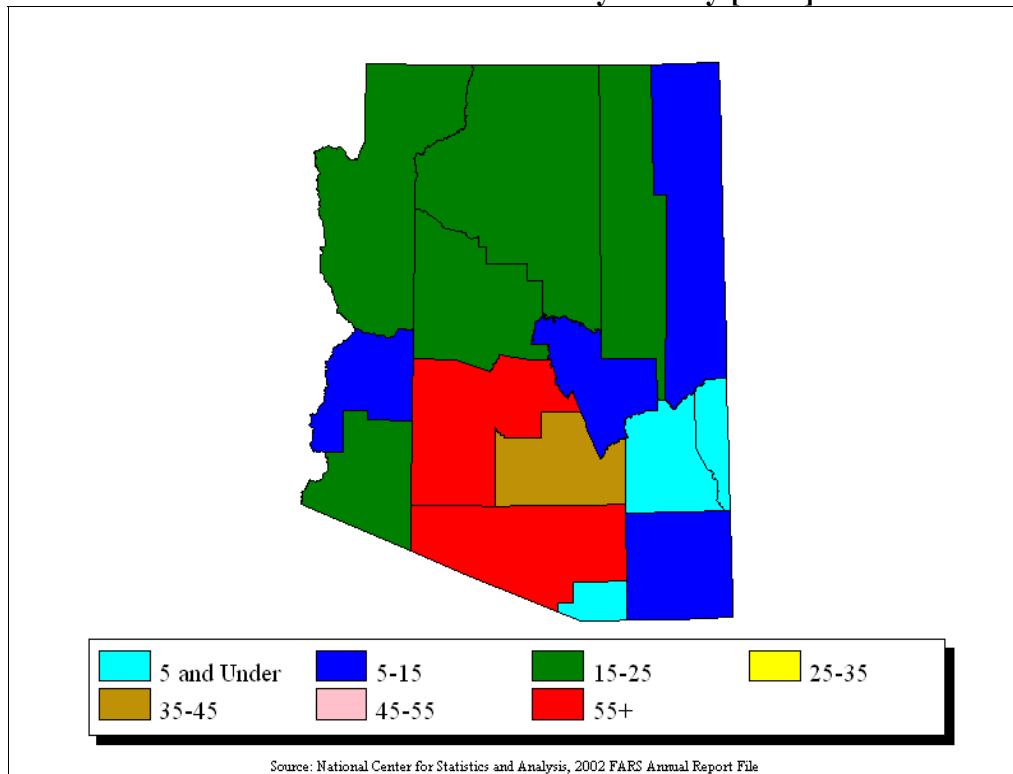
Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (08/31/01)
Youthful (under 21) Offenders BAC Level	0.00

\*As of October 2003

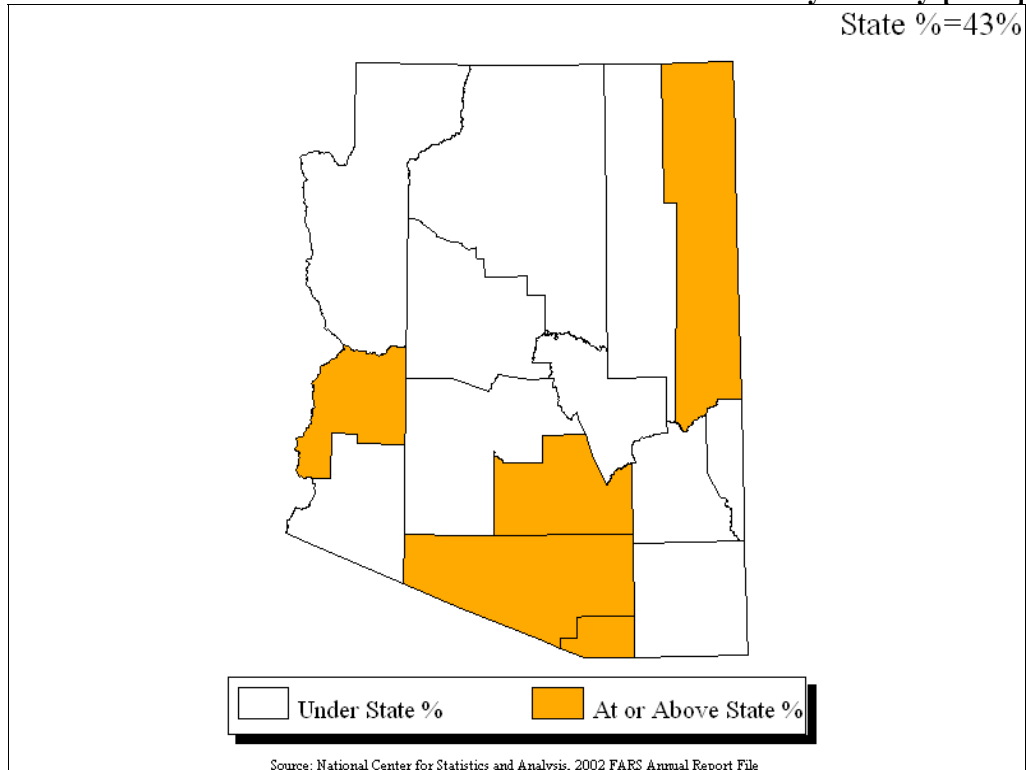




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	550	334	61	3.31	2.01
1983	557	315	57	3.34	1.89
1984	525	311	59	3.16	1.87
1985	534	299	56	3.12	1.75
1986	603	361	60	3.43	2.06
1987	639	366	57	3.49	2.00
1988	610	361	59	3.17	1.88
1989	647	380	59	3.17	1.86
1990	604	344	57	2.87	1.64
1991	608	362	60	2.77	1.65
1992	588	286	49	2.55	1.24
1993	583	241	41	2.43	1.00
1994	609	226	37	2.44	0.91
1995	631	243	39	2.37	0.91
1996	615	237	39	2.21	0.85
1997	660	216	33	2.35	0.77
1998	625	216	35	2.20	0.76
1999	604	212	35	2.07	0.72
2000	652	223	34	2.24	0.76
2001	611	195	32	2.08	0.66
2002	640	242	38	2.13	0.80

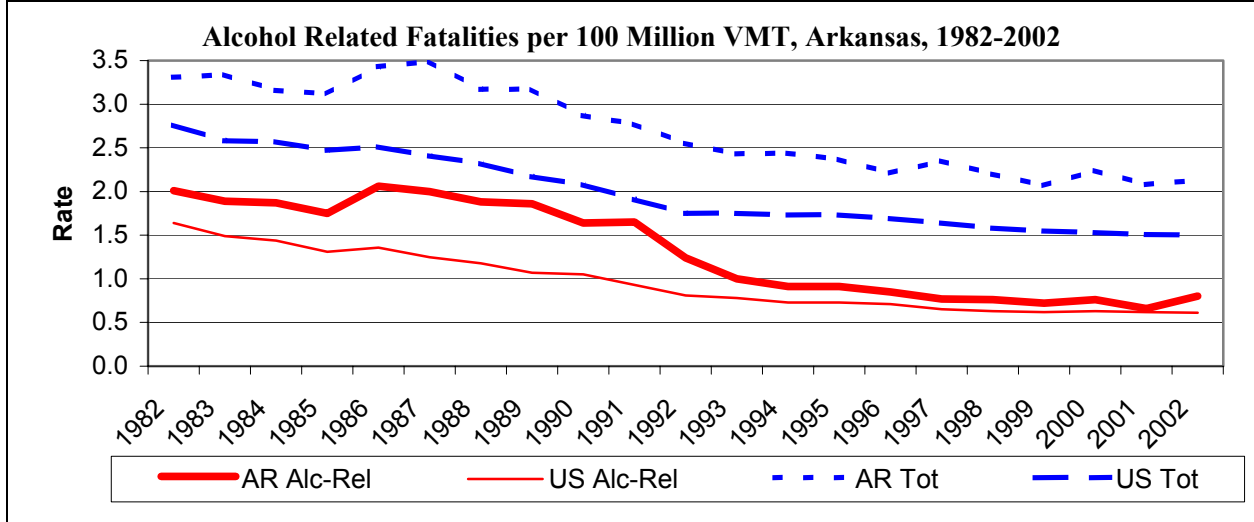
Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

**ARKANSAS**

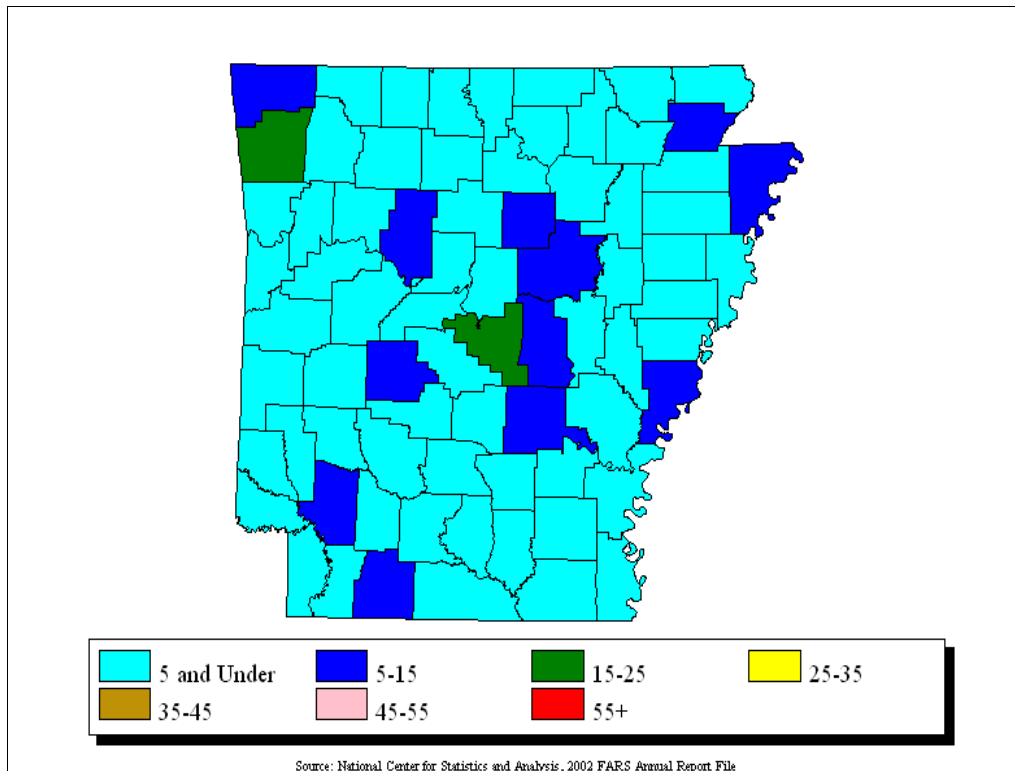
Change in AR-Rates over time, Arkansas vs. US		
Time Period	Arkansas	US
1982 to 2002	-60%	-63%
Last 10 years	-35%	-25%
Last 5 years	+4%	-6%
Last 3 Years	+11%	-2%
Last 1 Year	+21%	-2%

Impaired Driving Legislations*	
Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (08/13/01)
Youthful (under 21) Offenders BAC Level	0.02

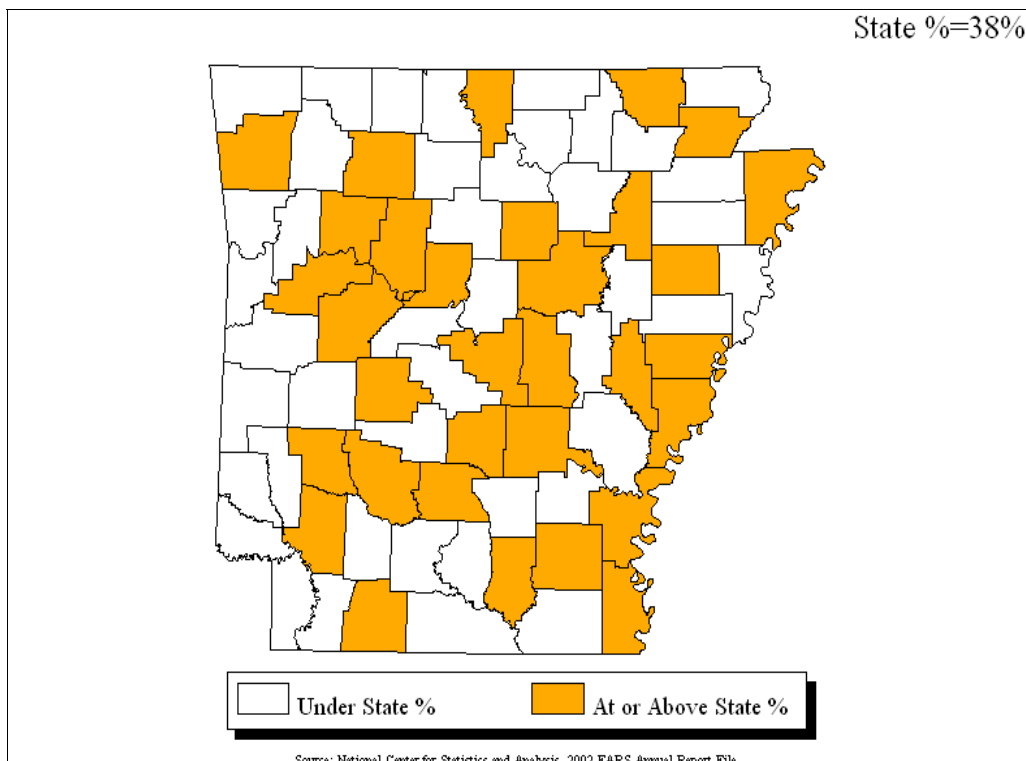
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	4,615	2,799	61	2.71	1.65
1983	4,573	2,669	58	2.50	1.46
1984	5,020	2,894	58	2.55	1.47
1985	4,960	2,633	53	2.39	1.27
1986	5,253	2,813	54	2.44	1.31
1987	5,504	2,961	54	2.43	1.31
1988	5,392	2,773	51	2.23	1.15
1989	5,412	2,795	52	2.15	1.11
1990	5,192	2,697	52	2.01	1.04
1991	4,688	2,263	48	1.82	0.88
1992	4,192	2,015	48	1.60	0.77
1993	4,164	1,815	44	1.56	0.68
1994	4,232	1,743	41	1.56	0.64
1995	4,192	1,758	42	1.52	0.64
1996	3,989	1,666	42	1.43	0.60
1997	3,688	1,348	37	1.29	0.47
1998	3,494	1,367	39	1.20	0.47
1999	3,559	1,397	39	1.19	0.47
2000	3,753	1,450	39	1.22	0.47
2001	3,956	1,552	39	1.27	0.50
2002	4,078	1,612	40	1.27	0.50

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## CALIFORNIA

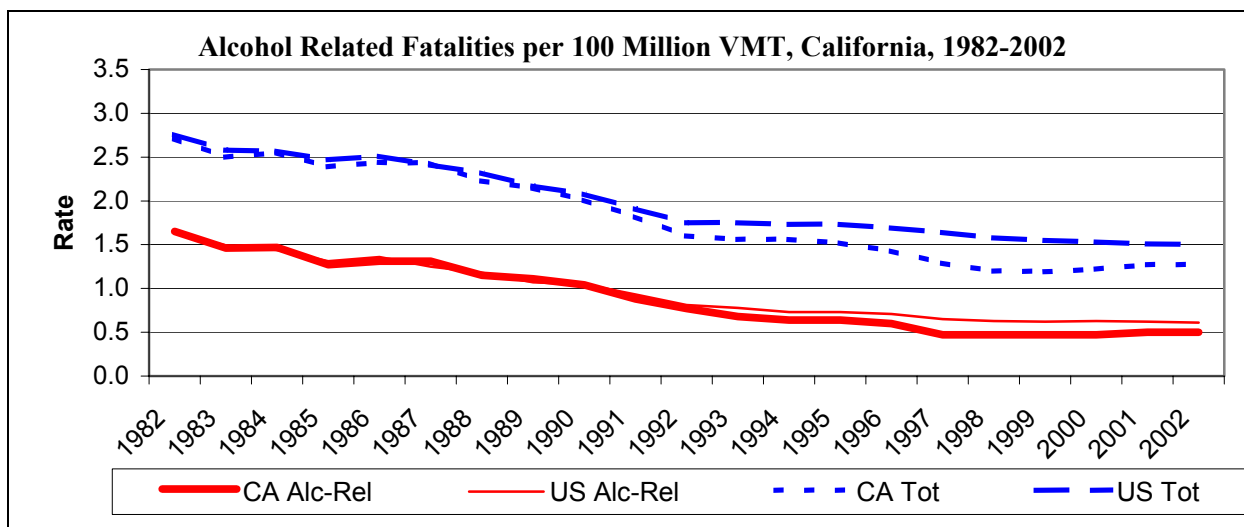
### Change in AR-Rates over time, California vs. US

Time Period	California	US
1982 to 2002	-70%	-63%
Last 10 years	-35%	-25%
Last 5 years	+6%	-6%
Last 3 Years	+6%	-2%
Last 1 Year	0%	-2%

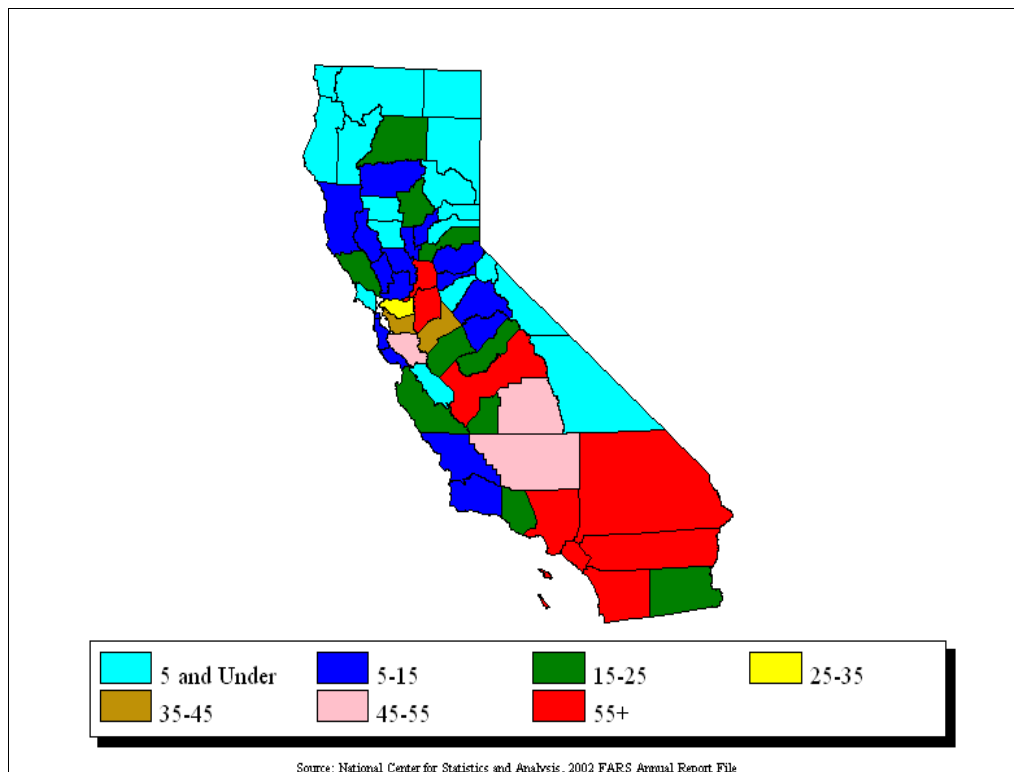
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (01/01/90)
Youthful (under 21) Offenders BAC Level	0.01

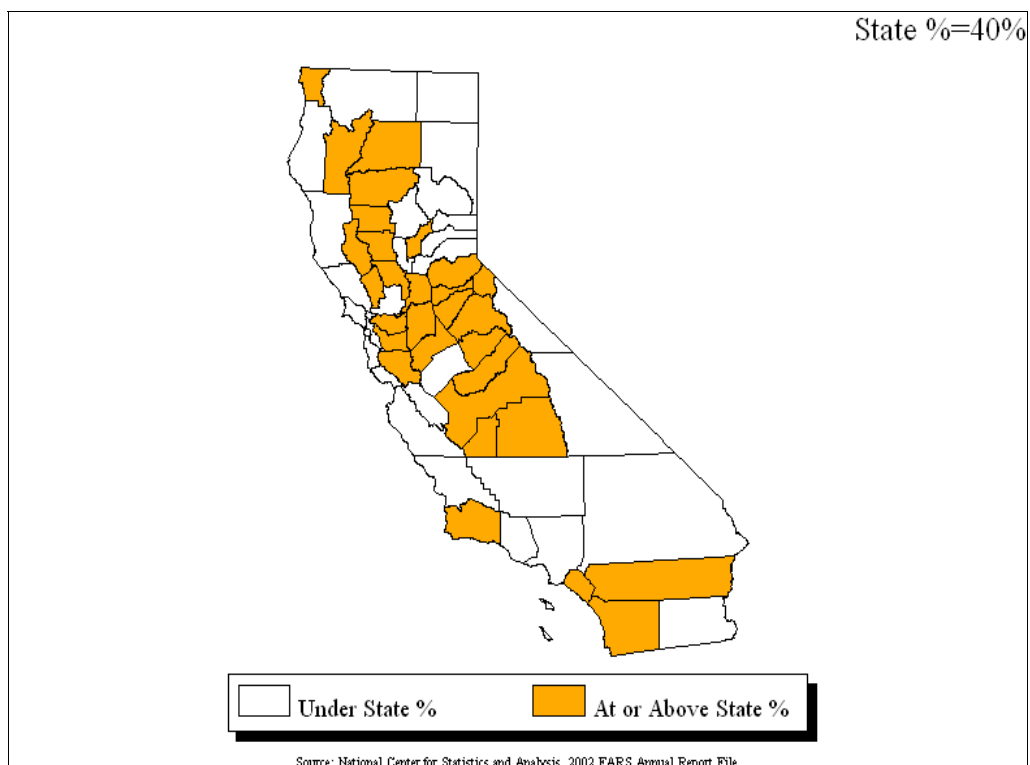
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	668	422	63	2.74	1.73
1983	646	418	65	2.60	1.68
1984	608	374	61	2.33	1.43
1985	579	316	55	2.21	1.21
1986	603	360	60	2.29	1.36
1987	591	291	49	2.19	1.08
1988	497	227	46	1.80	0.82
1989	527	247	47	1.91	0.90
1990	544	260	48	2.00	0.96
1991	543	280	51	1.96	1.01
1992	522	263	50	1.69	0.85
1993	559	235	42	1.71	0.72
1994	586	282	48	1.74	0.84
1995	645	304	47	1.84	0.87
1996	617	252	41	1.71	0.70
1997	613	229	37	1.62	0.61
1998	628	244	39	1.60	0.62
1999	626	229	37	1.54	0.56
2000	681	268	39	1.63	0.64
2001	741	328	44	1.73	0.76
2002	742	307	41	1.70	0.71

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## COLORADO

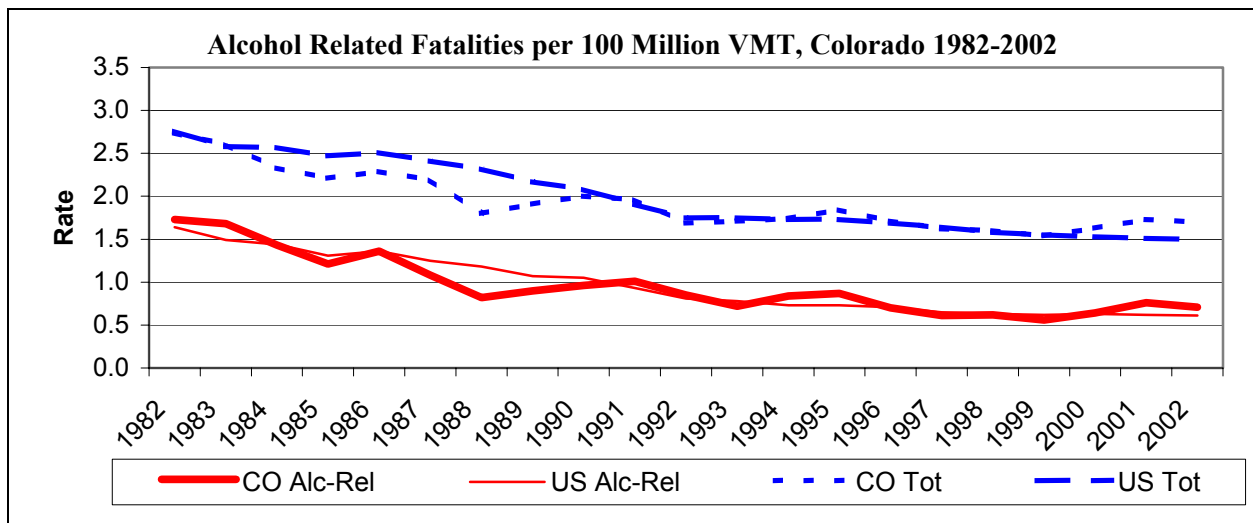
### Change in AR-Rates over time, Colorado vs. US

Time Period	Colorado	US
1982 to 2002	-59%	-63%
Last 10 years	-16%	-25%
Last 5 years	+16%	-6%
Last 3 Years	27%	-2%
Last 1 Year	-7%	-2%

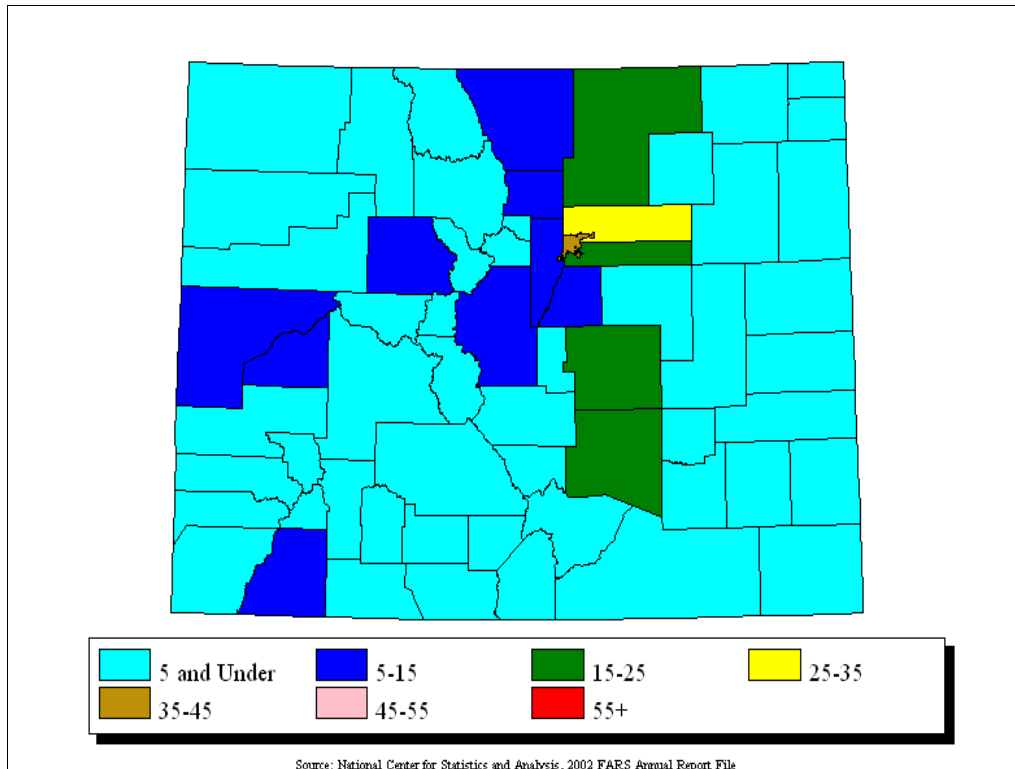
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

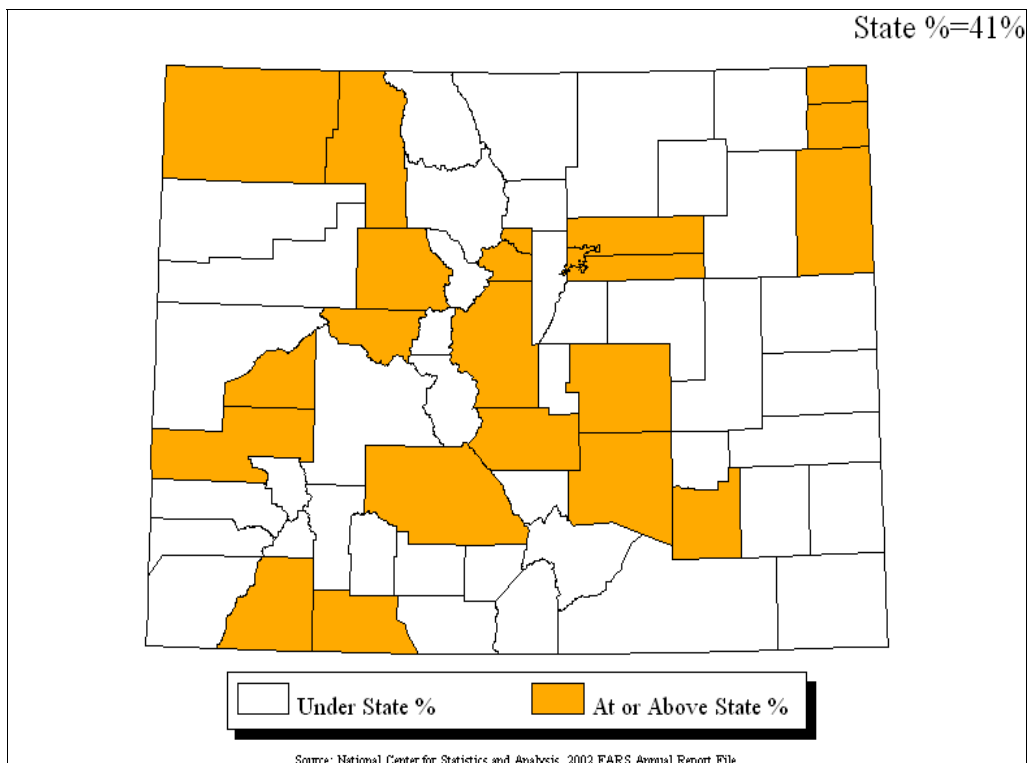
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	515	356	69	2.56	1.77
1983	438	284	65	2.12	1.38
1984	469	306	65	2.23	1.45
1985	448	267	60	2.00	1.19
1986	455	261	57	1.89	1.08
1987	449	270	60	1.80	1.08
1988	484	257	53	1.86	0.99
1989	406	217	53	1.55	0.83
1990	385	217	56	1.46	0.83
1991	310	168	54	1.16	0.63
1992	296	144	49	1.12	0.54
1993	342	152	44	1.27	0.56
1994	310	148	48	1.14	0.55
1995	317	153	48	1.13	0.55
1996	310	152	49	1.10	0.54
1997	339	153	45	1.19	0.54
1998	329	144	44	1.12	0.49
1999	301	136	45	1.01	0.45
2000	341	161	47	1.11	0.52
2001	318	161	51	1.03	0.52
2002	322	140	43	1.03	0.45

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## CONNECTICUT

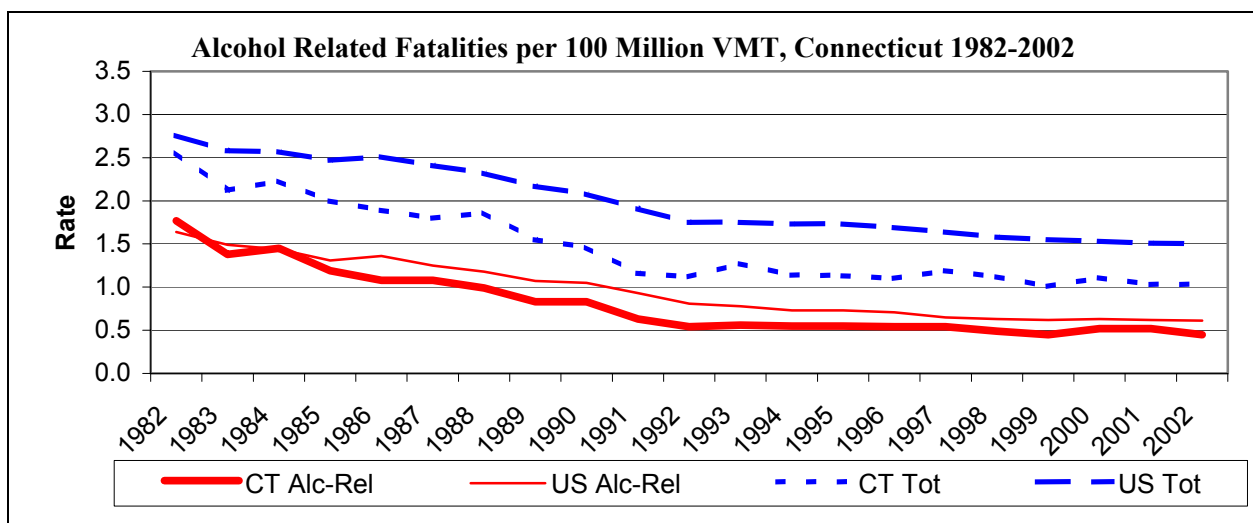
### Change in AR-Rates over time, Connecticut vs. US

Time Period	Connecticut	US
1982 to 2002	-75%	-63%
Last 10 years	-17%	-25%
Last 5 years	-17%	-6%
Last 3 Years	0%	-2%
Last 1 Year	-13%	-2%

### Impaired Driving Legislations

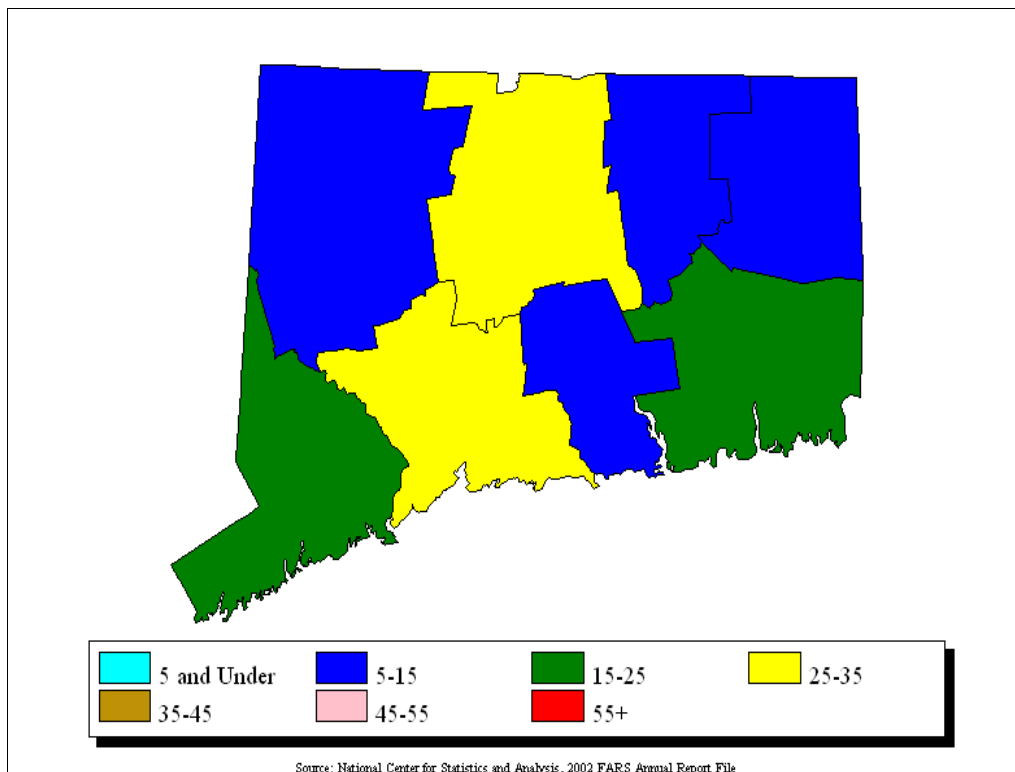
Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (07/01/02)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

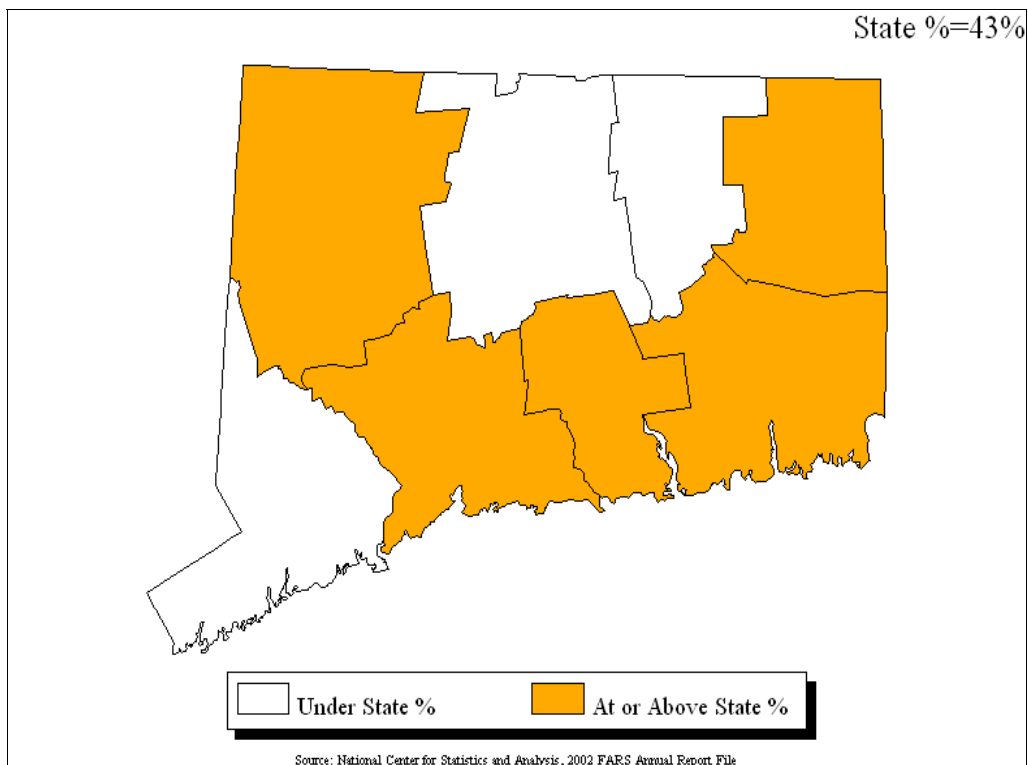




**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	122	82	67	2.66	1.79
1983	110	73	67	2.25	1.49
1984	130	65	50	2.53	1.27
1985	104	74	71	1.94	1.38
1986	136	80	58	2.36	1.39
1987	146	81	55	2.40	1.33
1988	160	86	54	2.50	1.34
1989	116	66	57	1.79	1.02
1990	138	86	62	2.11	1.31
1991	102	51	50	1.52	0.76
1992	140	60	43	2.03	0.87
1993	110	56	51	1.60	0.81
1994	112	63	56	1.59	0.90
1995	121	50	41	1.61	0.67
1996	116	47	40	1.51	0.61
1997	143	64	45	1.79	0.80
1998	115	47	40	1.40	0.57
1999	100	42	42	1.17	0.49
2000	123	61	50	1.49	0.74
2001	136	66	48	1.58	0.77
2002	124	51	41	1.40	0.57

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## DELAWARE

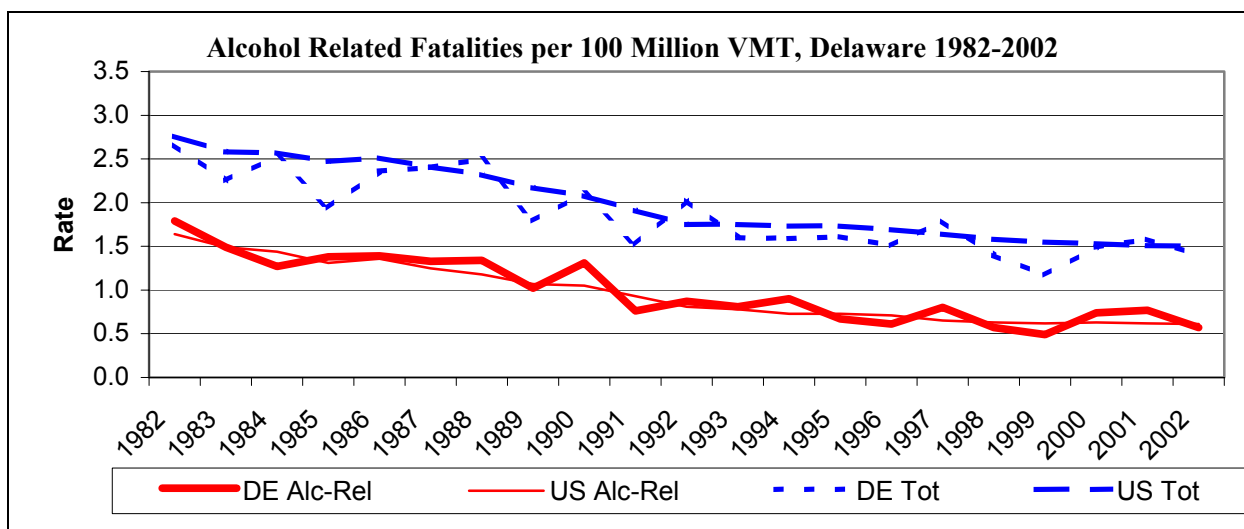
### Change in AR-Rates over time, Delaware vs. US

Time Period	Delaware	US
1982 to 2002	-68%	-63%
Last 10 years	-34%	-25%
Last 5 years	-29%	-6%
Last 3 Years	+16%	-2%
Last 1 Year	-26%	-2%

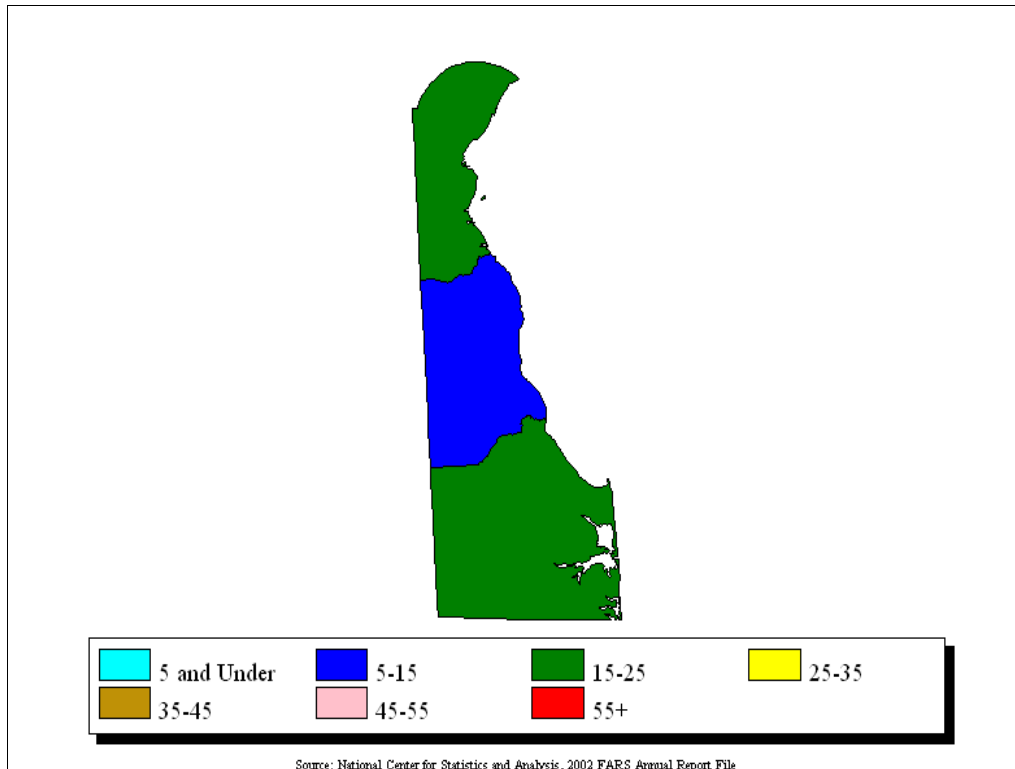
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

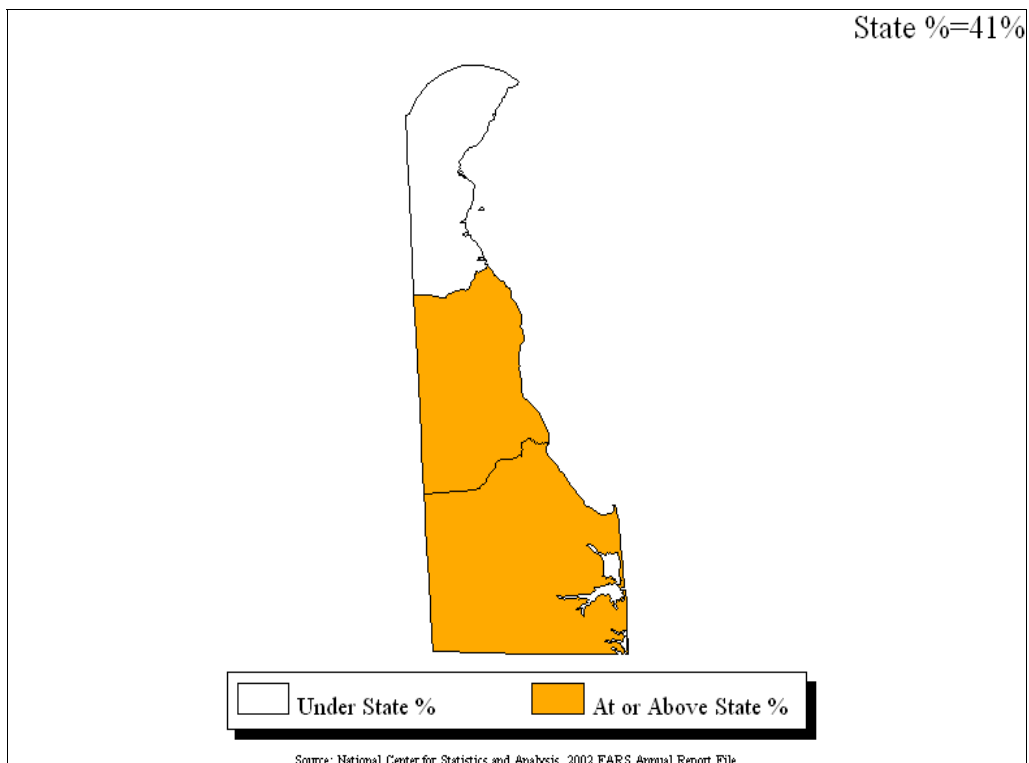
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Alcohol Related Fatalities

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	35	21	61	1.04	0.62
1983	66	39	59	2.13	1.26
1984	64	37	58	1.99	1.15
1985	60	32	53	1.86	0.99
1986	44	16	35	1.34	0.49
1987	53	26	49	1.57	0.77
1988	61	26	42	1.79	0.76
1989	72	33	46	2.11	0.97
1990	48	33	68	1.41	0.97
1991	63	24	37	1.84	0.70
1992	50	23	46	1.40	0.65
1993	57	24	41	1.64	0.69
1994	69	33	48	2.00	0.96
1995	58	31	53	1.74	0.93
1996	62	32	51	1.59	0.82
1997	60	34	57	1.80	1.02
1998	54	31	57	1.63	0.94
1999	41	23	57	1.18	0.66
2000	48	20	42	1.37	0.57
2001	68	34	50	1.81	0.91
2002	47	25	52	1.33	0.70

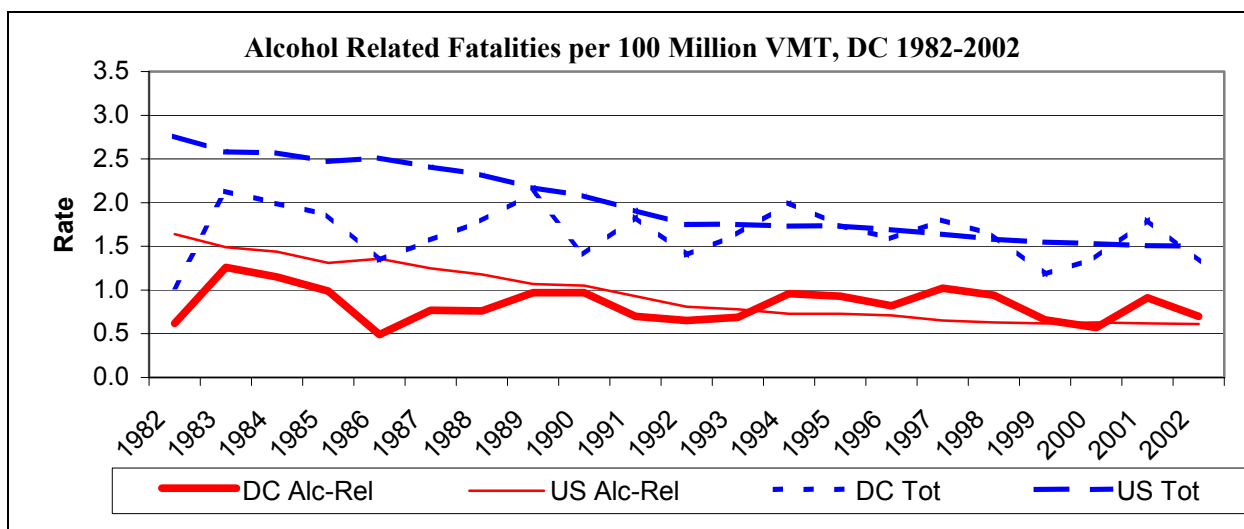
Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

**DC**

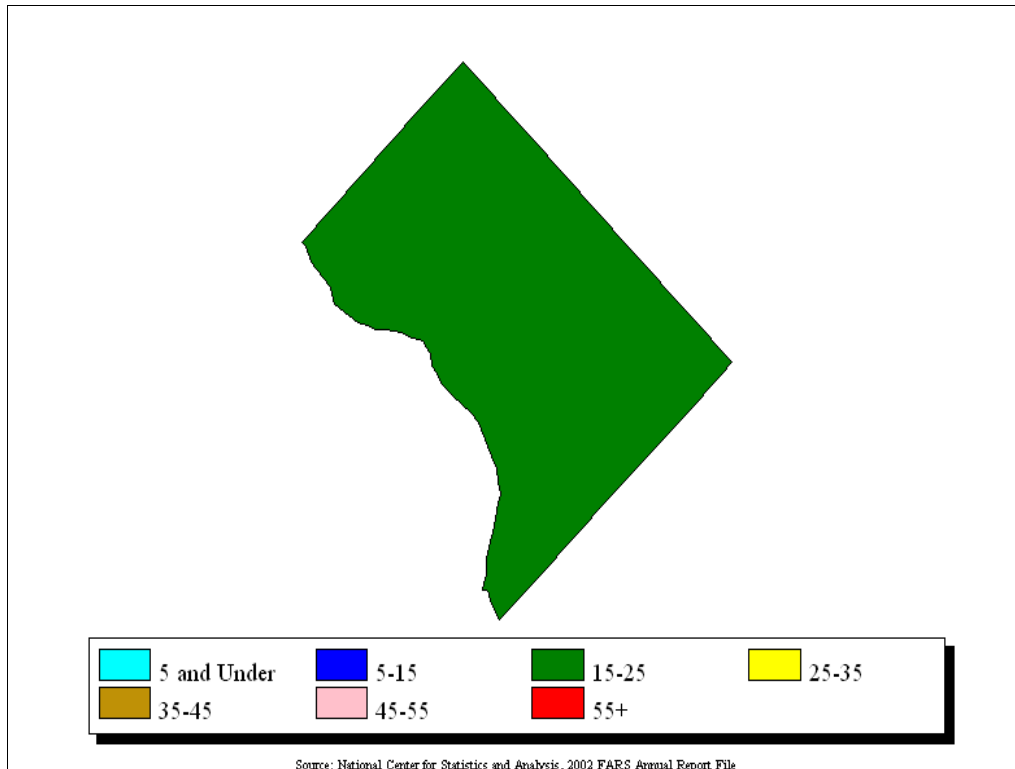
Change in AR-Rates over time, DC vs. US		
Time Period	DC	US
1982 to 2002	+13%	-63%
Last 10 years	+8%	-25%
Last 5 years	-31%	-6%
Last 3 Years	+6%	-2%
Last 1 Year	-23%	-2%

Impaired Driving Legislations*	
Law	BAC Level
Administrative Per Se BAC Level	0.05
Illegal Per Se BAC Level (Effective Date)	0.08 (04/13/99)
Youthful (under 21) Offenders BAC Level	0.00

\*As of October 2003



Alcohol Related Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	2,653	1,407	53	3.34	1.77
1983	2,686	1,539	57	3.28	1.88
1984	2,814	1,551	55	3.29	1.81
1985	2,832	1,518	54	3.22	1.72
1986	2,831	1,574	56	3.24	1.80
1987	2,839	1,516	53	3.06	1.63
1988	3,078	1,564	51	2.92	1.48
1989	2,984	1,506	50	2.74	1.38
1990	2,891	1,477	51	2.63	1.34
1991	2,463	1,227	50	2.17	1.08
1992	2,427	1,143	47	2.02	0.95
1993	2,636	1,210	46	2.19	1.00
1994	2,687	1,137	42	2.20	0.93
1995	2,805	1,183	42	2.19	0.93
1996	2,753	1,104	40	2.12	0.85
1997	2,785	1,003	36	2.08	0.75
1998	2,825	1,039	37	2.05	0.76
1999	2,920	1,139	39	2.06	0.80
2000	2,999	1,277	43	1.99	0.85
2001	3,012	1,281	43	1.77	0.75
2002	3,132	1,276	41	1.76	0.72

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## FLORIDA

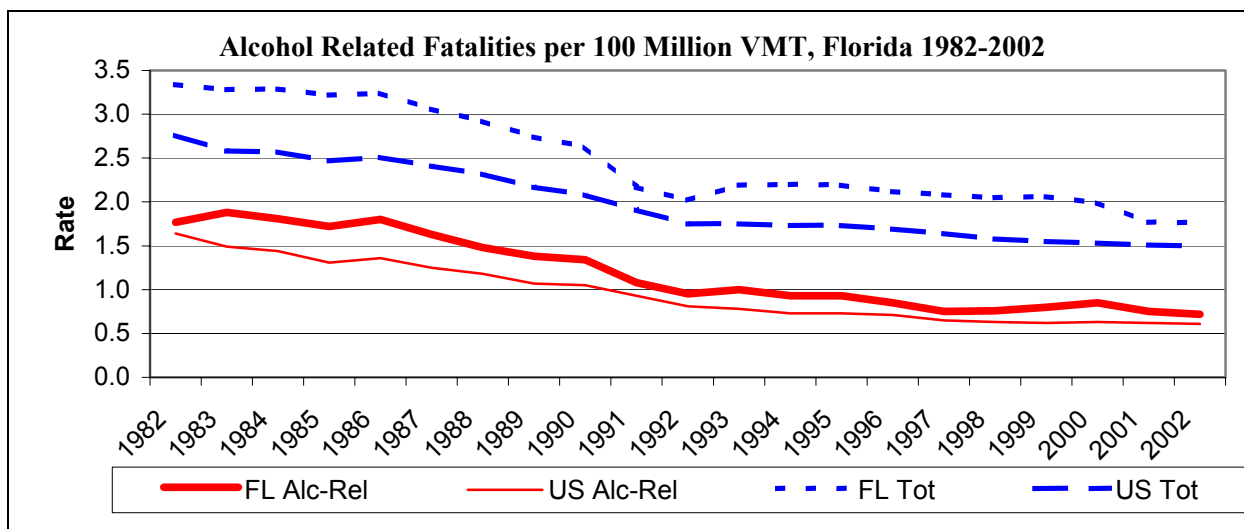
### Change in AR-Rates over time, Florida vs. US

Time Period	Florida	US
1982 to 2002	-59%	-63%
Last 10 years	-24%	-25%
Last 5 years	-4%	-6%
Last 3 Years	-10%	-2%
Last 1 Year	-4%	-2%

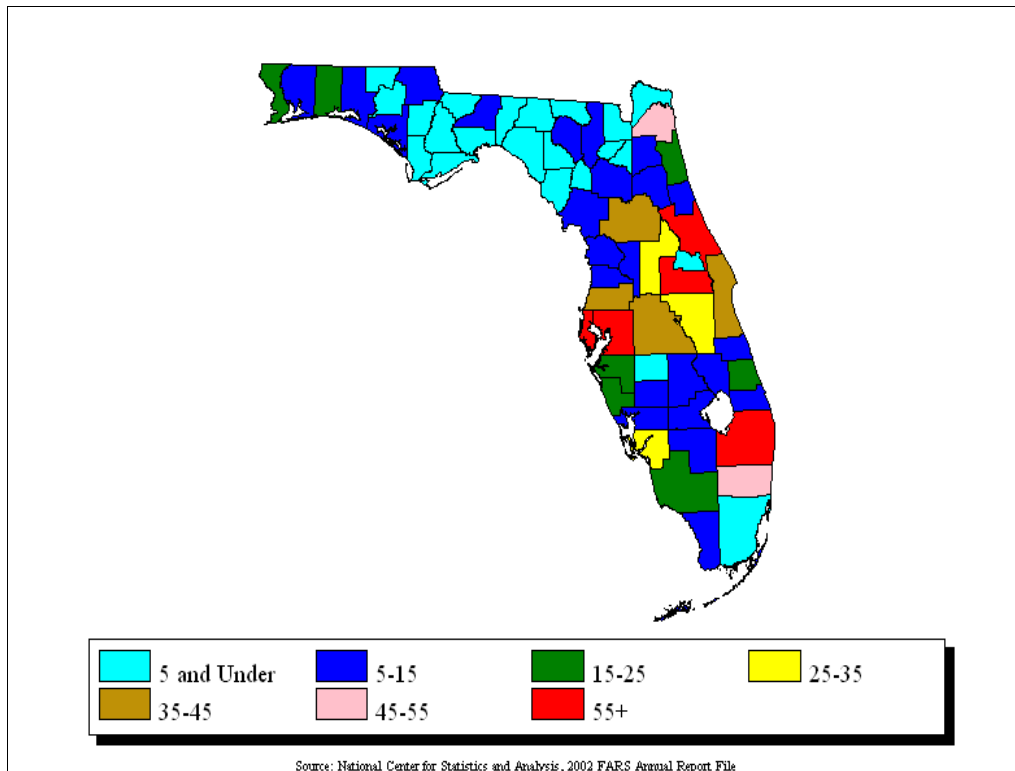
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (01/01/94)
Youthful (under 21) Offenders BAC Level	0.02

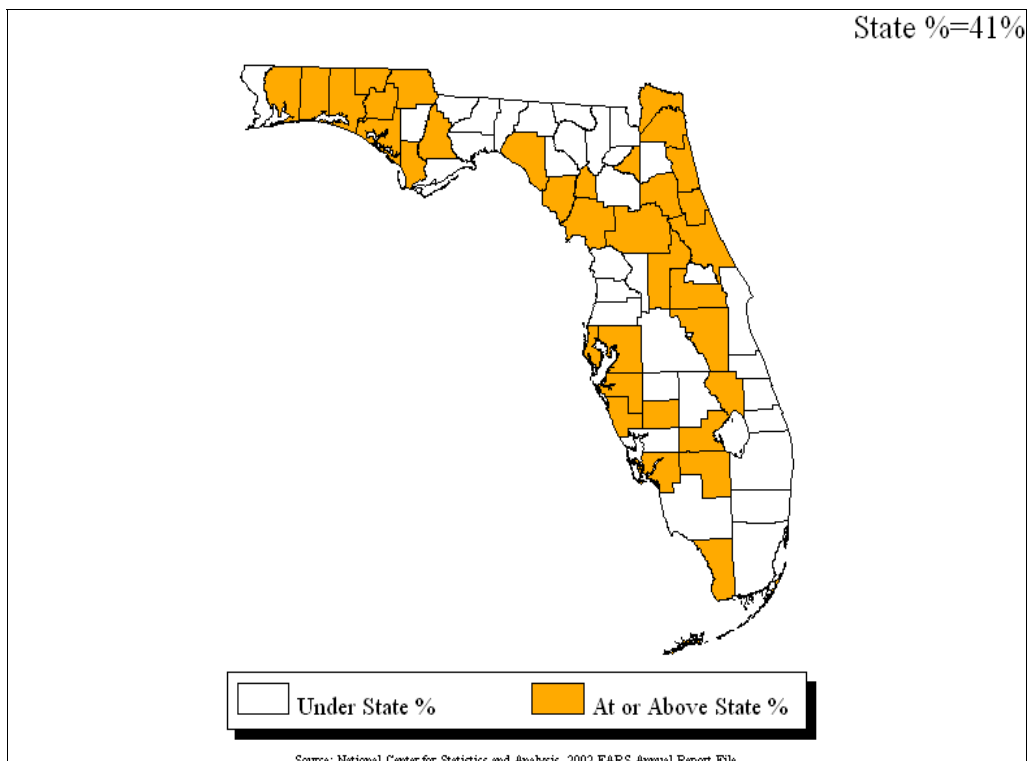
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,229	750	61	2.52	1.54
1983	1,296	716	55	2.65	1.47
1984	1,410	780	55	2.79	1.54
1985	1,361	694	51	2.53	1.29
1986	1,530	803	52	2.69	1.41
1987	1,599	798	50	2.65	1.32
1988	1,654	797	48	2.66	1.28
1989	1,632	779	48	2.40	1.14
1990	1,562	735	47	2.22	1.05
1991	1,389	648	47	1.90	0.89
1992	1,315	537	41	1.69	0.69
1993	1,394	561	40	1.78	0.72
1994	1,425	540	38	1.72	0.65
1995	1,488	531	36	1.74	0.62
1996	1,573	577	37	1.76	0.65
1997	1,577	586	37	1.68	0.62
1998	1,568	528	34	1.62	0.54
1999	1,508	524	35	1.53	0.53
2000	1,541	585	38	1.47	0.56
2001	1,647	558	34	1.53	0.52
2002	1,523	529	35	1.41	0.49

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## GEORGIA

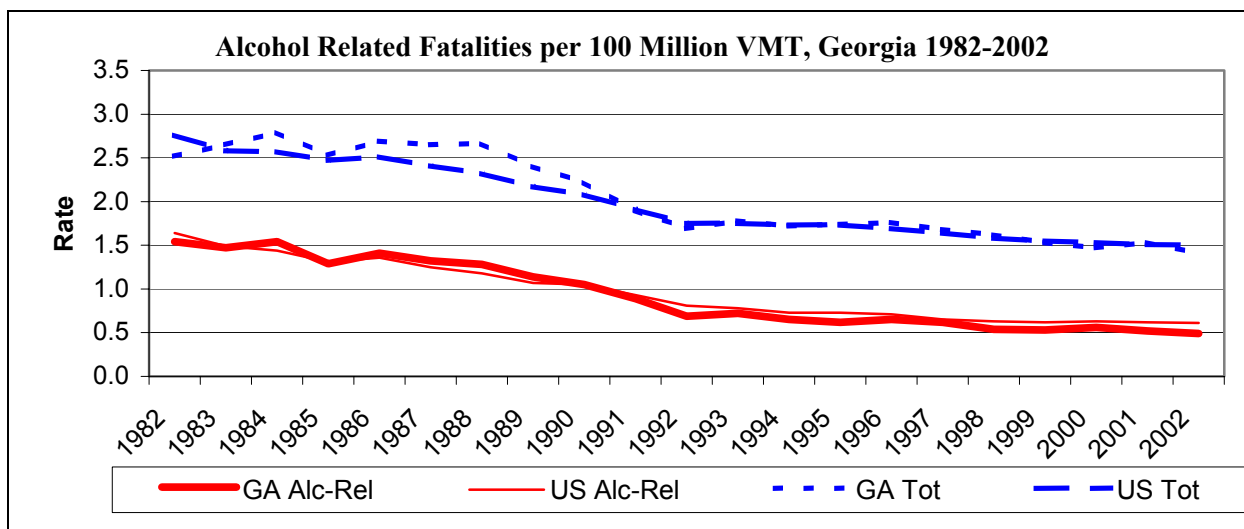
### Change in AR-Rates over time, Georgia vs. US

Time Period	Georgia	US
1982 to 2002	-68%	-63%
Last 10 years	-29%	-25%
Last 5 years	-21%	-6%
Last 3 Years	-8%	-2%
Last 1 Year	-6%	-2%

### Impaired Driving Legislations

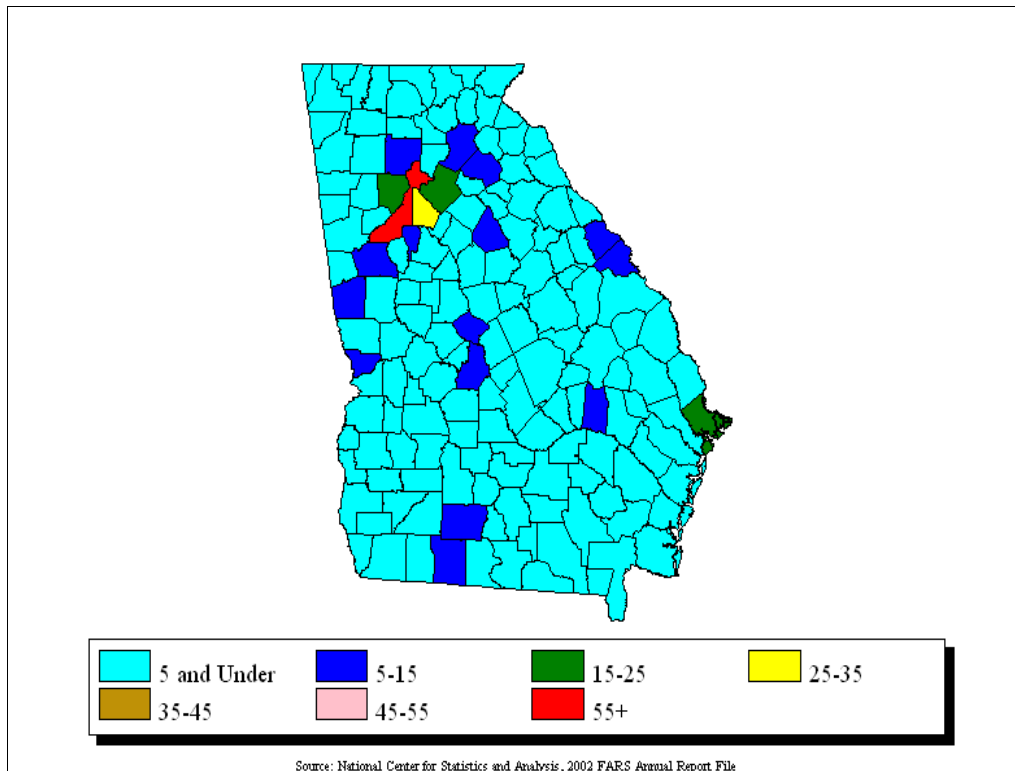
Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/01)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

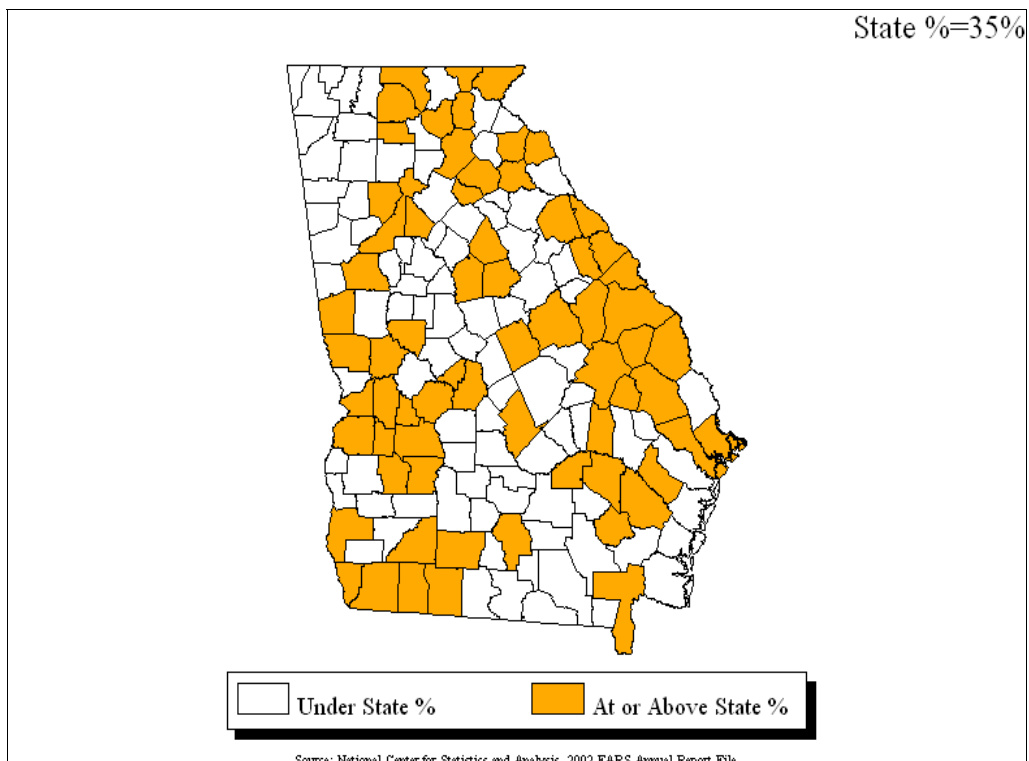




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	163	103	63	2.70	1.70
1983	141	95	67	2.40	1.62
1984	138	89	65	2.12	1.37
1985	126	80	63	1.86	1.18
1986	120	70	58	1.72	1.00
1987	139	86	62	1.93	1.19
1988	148	87	59	1.99	1.17
1989	149	91	61	1.92	1.17
1990	177	92	52	2.19	1.14
1991	135	77	57	1.66	0.95
1992	129	68	53	1.60	0.84
1993	134	76	57	1.69	0.96
1994	122	60	49	1.54	0.76
1995	130	65	50	1.64	0.82
1996	148	68	46	1.84	0.85
1997	131	59	45	1.67	0.75
1998	120	59	49	1.50	0.74
1999	98	44	45	1.21	0.54
2000	132	55	42	1.55	0.64
2001	140	59	42	1.61	0.68
2002	119	50	42	1.34	0.56

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## HAWAII

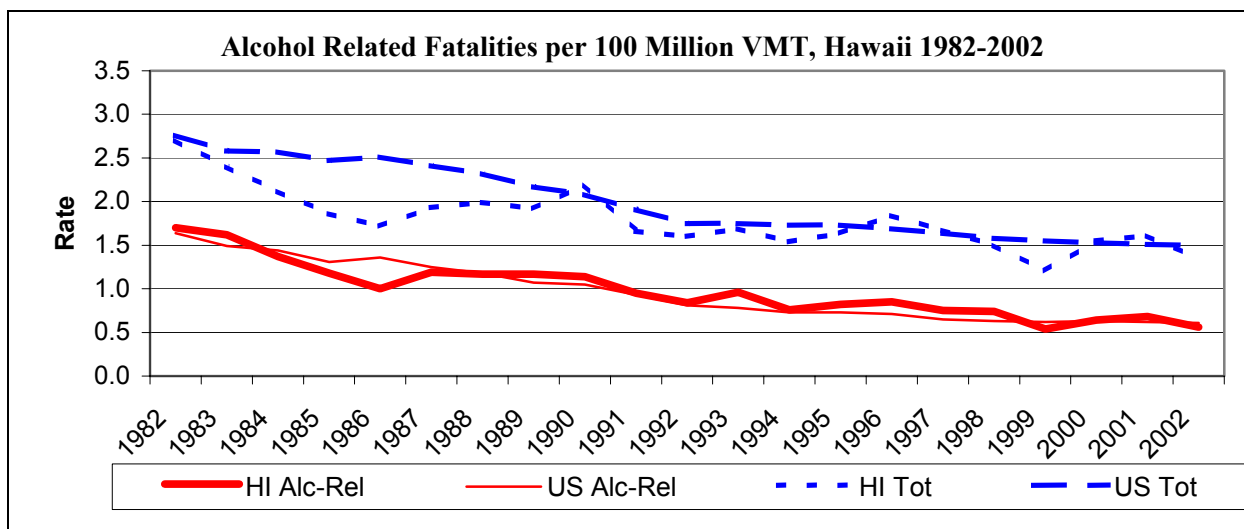
### Change in AR-Rates over time, Hawaii vs. US

Time Period	Hawaii	US
1982 to 2002	-67%	-63%
Last 10 years	-33%	-25%
Last 5 years	-25%	-6%
Last 3 Years	+4%	-2%
Last 1 Year	-18%	-2%

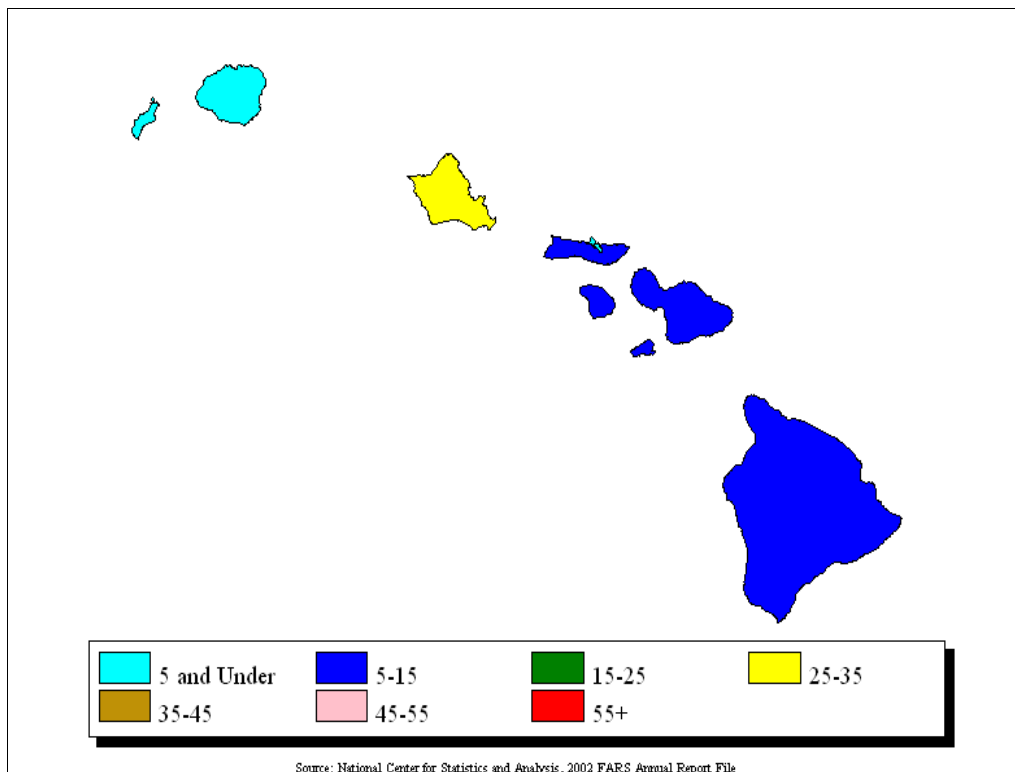
### Impaired Driving Legislations

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (06/30/95)
Youthful (under 21) Offenders BAC Level	0.02

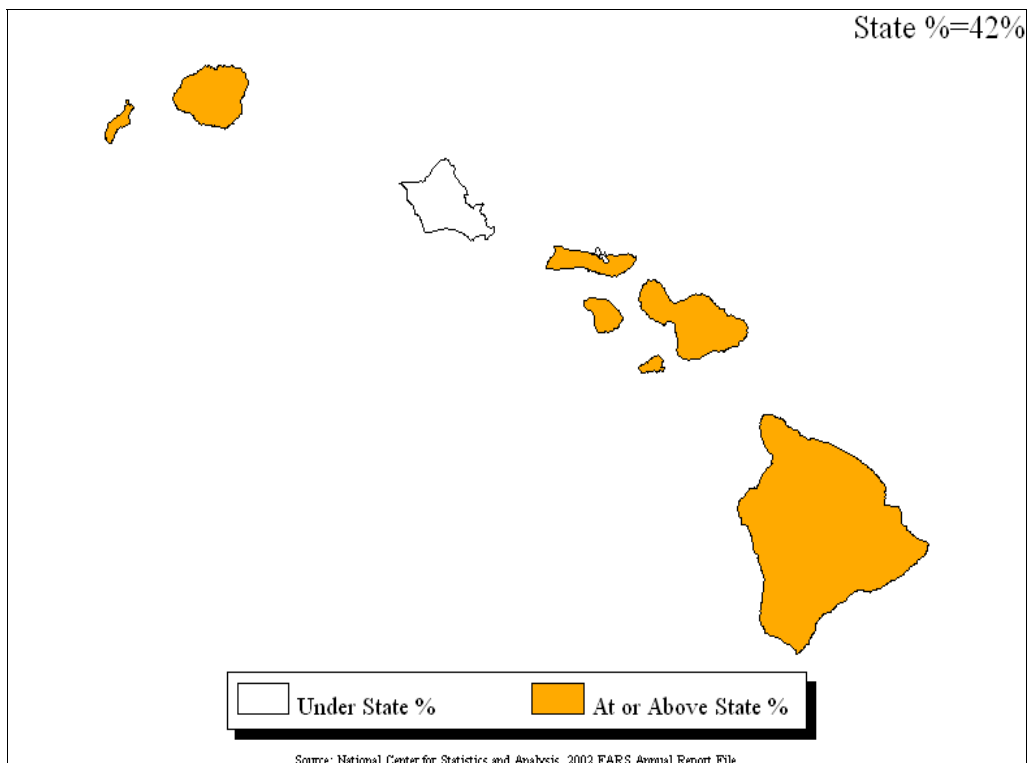
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	256	132	51	3.26	1.68
1983	263	129	49	3.17	1.56
1984	242	117	48	3.12	1.51
1985	255	137	54	3.31	1.78
1986	258	147	57	3.32	1.89
1987	260	135	52	3.20	1.66
1988	257	119	46	3.16	1.46
1989	238	107	45	2.83	1.27
1990	244	133	55	2.48	1.35
1991	264	127	48	2.56	1.23
1992	243	104	43	2.26	0.97
1993	230	111	48	2.04	0.98
1994	250	93	37	2.15	0.80
1995	262	90	35	2.13	0.73
1996	258	94	36	1.99	0.73
1997	259	104	40	2.01	0.81
1998	265	100	38	1.97	0.74
1999	278	104	37	1.99	0.74
2000	276	119	43	2.04	0.88
2001	259	91	35	1.84	0.65
2002	264	91	34	1.86	0.64

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## IDAHO

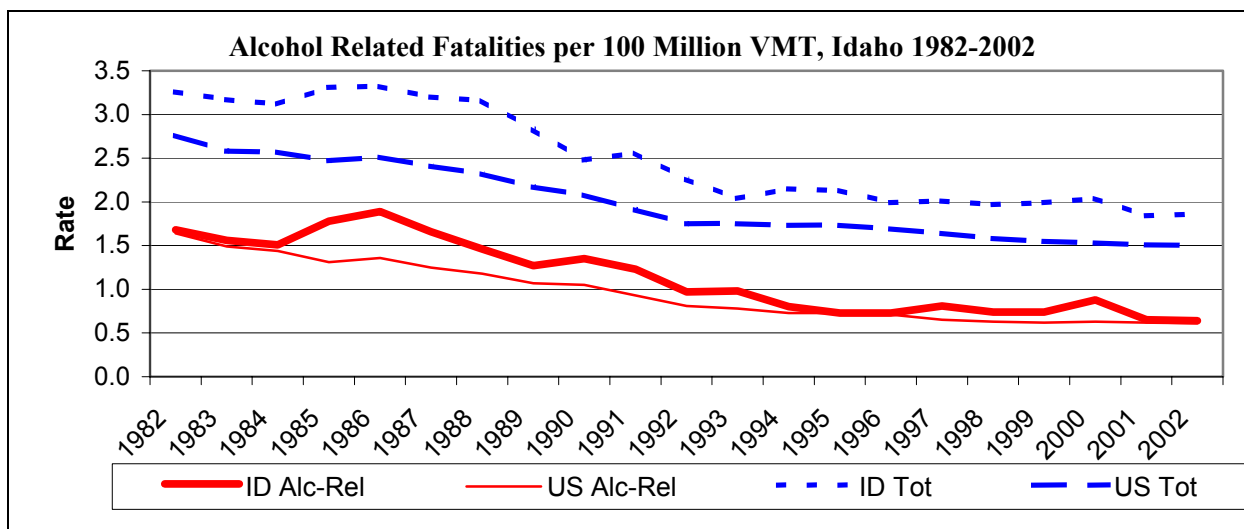
### Change in AR-Rates over time, Idaho vs. US

Time Period	Idaho	US
1982 to 2002	-62%	-63%
Last 10 years	-34%	-25%
Last 5 years	-21%	-6%
Last 3 Years	-14%	-2%
Last 1 Year	-2%	-2%

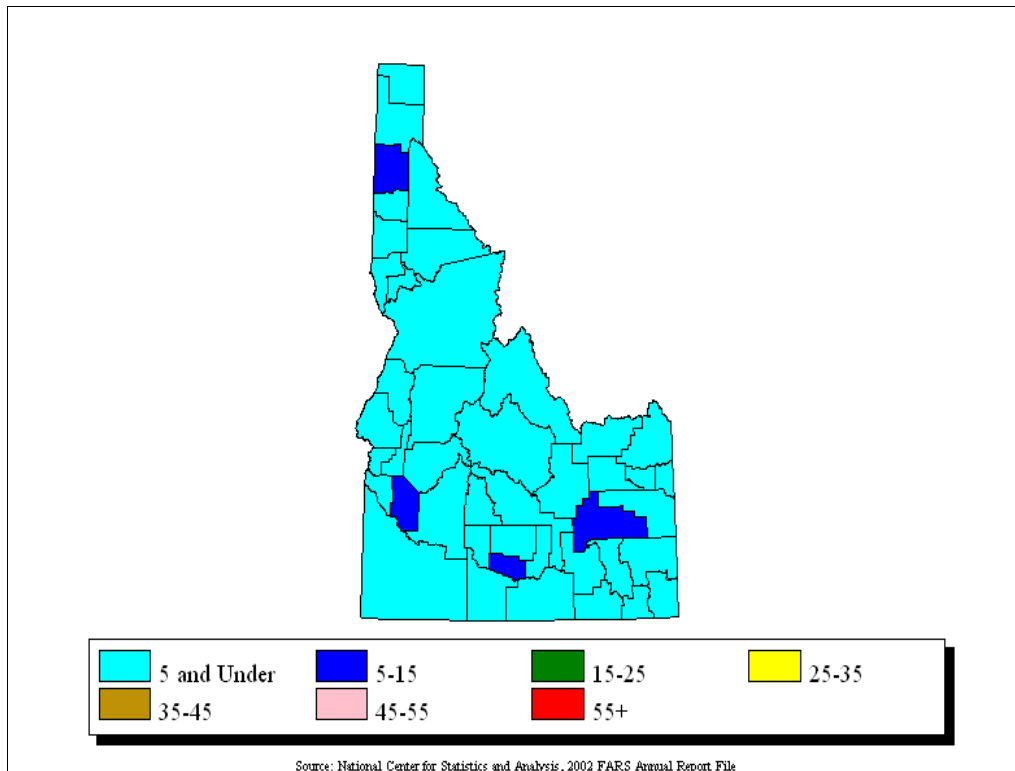
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/97)
Youthful (under 21) Offenders BAC Level	0.02

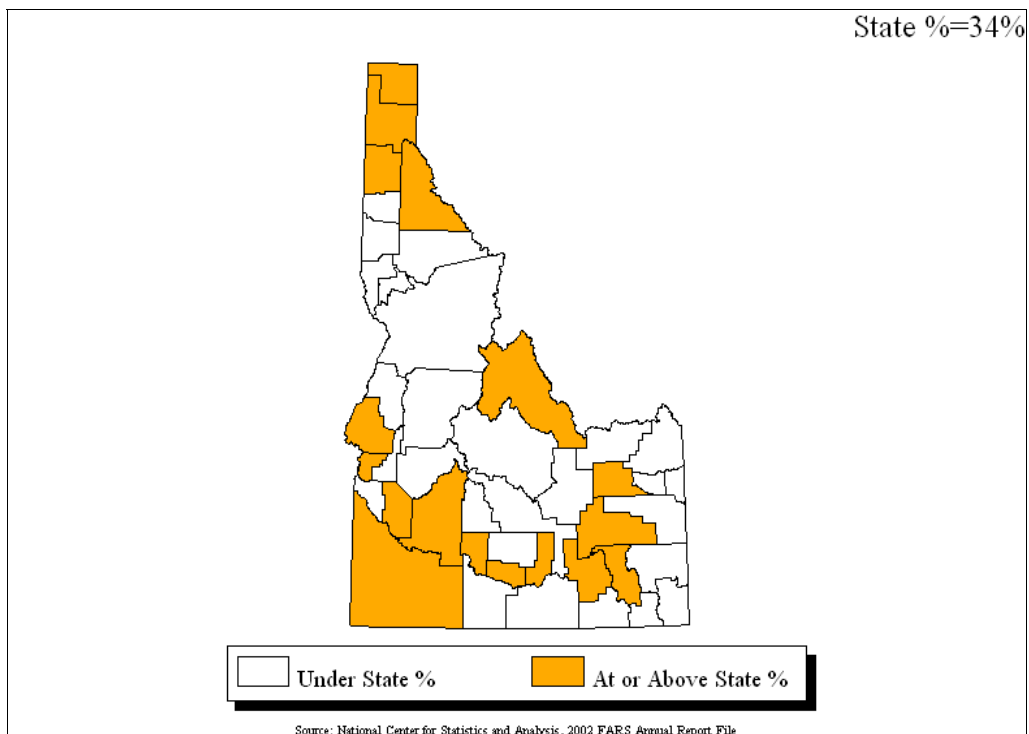
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,651	1,014	61	2.51	1.54
1983	1,526	909	60	2.27	1.35
1984	1,547	892	58	2.21	1.28
1985	1,534	835	54	2.17	1.18
1986	1,596	869	54	2.15	1.17
1987	1,654	843	51	2.18	1.11
1988	1,837	939	51	2.34	1.20
1989	1,748	898	51	2.15	1.10
1990	1,589	826	52	1.91	0.99
1991	1,448	736	51	1.69	0.86
1992	1,384	680	49	1.58	0.78
1993	1,392	638	46	1.55	0.71
1994	1,554	687	44	1.68	0.74
1995	1,586	700	44	1.68	0.74
1996	1,477	678	46	1.53	0.70
1997	1,397	597	43	1.41	0.60
1998	1,393	619	44	1.38	0.61
1999	1,456	646	44	1.42	0.63
2000	1,418	628	44	1.38	0.61
2001	1,414	623	44	1.37	0.60
2002	1,411	648	46	1.34	0.61

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## ILLINOIS

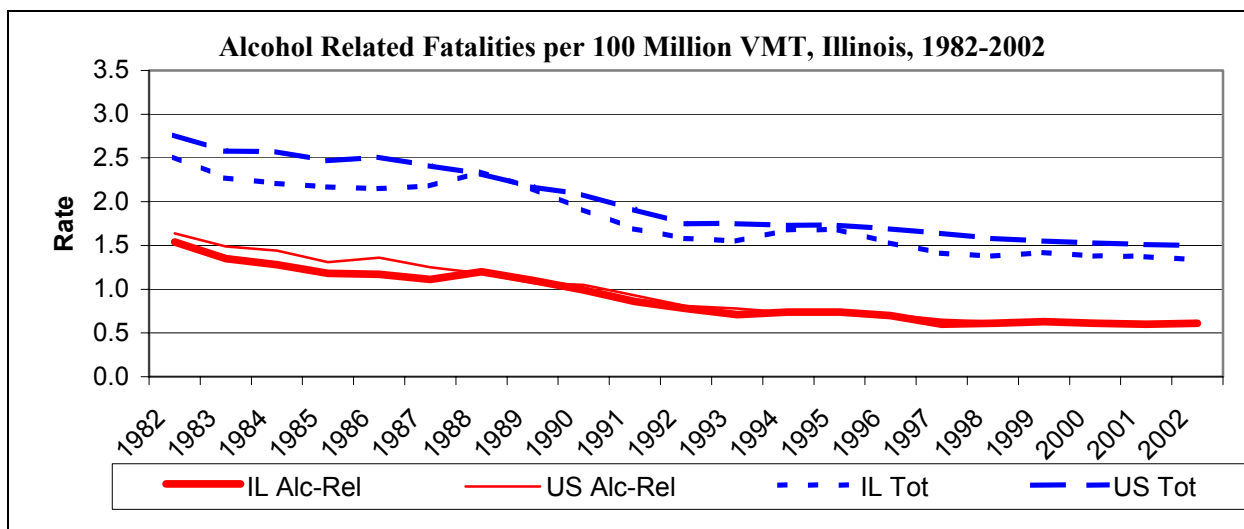
### Change in AR-Rates over time, Illinois vs. US

Time Period	Illinois	US
1982 to 2002	-60%	-63%
Last 10 years	-22%	-25%
Last 5 years	+2%	-6%
Last 3 Years	-3%	-2%
Last 1 Year	+2%	-2%

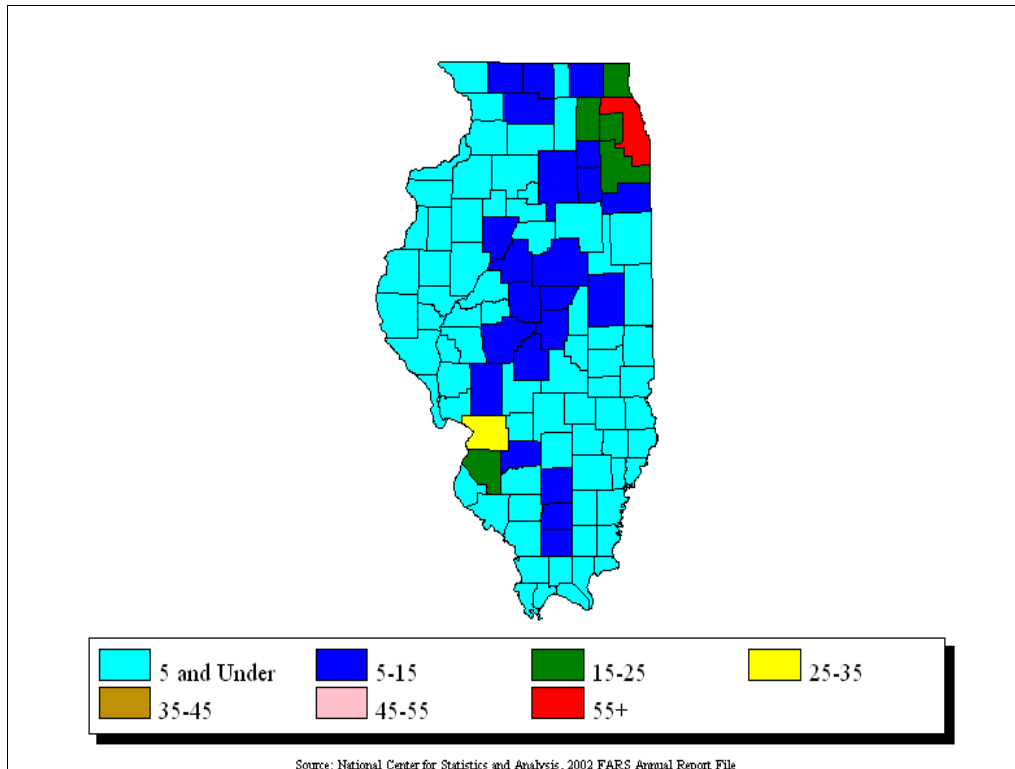
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/02/97)
Youthful (under 21) Offenders BAC Level	0.02

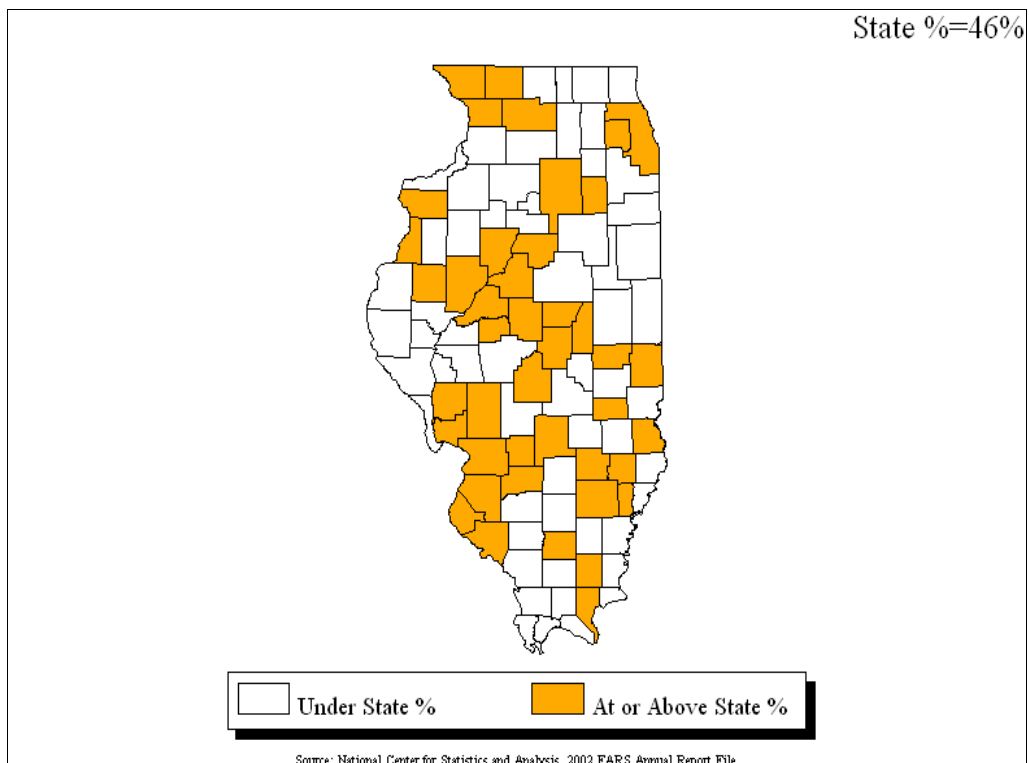
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	961	504	52	2.45	1.29
1983	1,016	505	50	2.55	1.27
1984	925	474	51	2.25	1.15
1985	974	445	46	2.39	1.09
1986	1,038	539	52	2.55	1.32
1987	1,055	454	43	2.42	1.04
1988	1,099	530	48	2.15	1.04
1989	971	447	46	1.73	0.80
1990	1,049	485	46	1.95	0.90
1991	1,022	493	48	1.88	0.91
1992	901	375	42	1.58	0.66
1993	901	351	39	1.49	0.58
1994	971	353	36	1.59	0.58
1995	960	348	36	1.49	0.54
1996	984	350	36	1.49	0.53
1997	935	331	35	1.36	0.48
1998	982	405	41	1.42	0.59
1999	1,020	384	38	1.46	0.55
2000	886	303	34	1.25	0.43
2001	909	320	35	1.27	0.45
2002	792	269	34	1.09	0.37

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## INDIANA

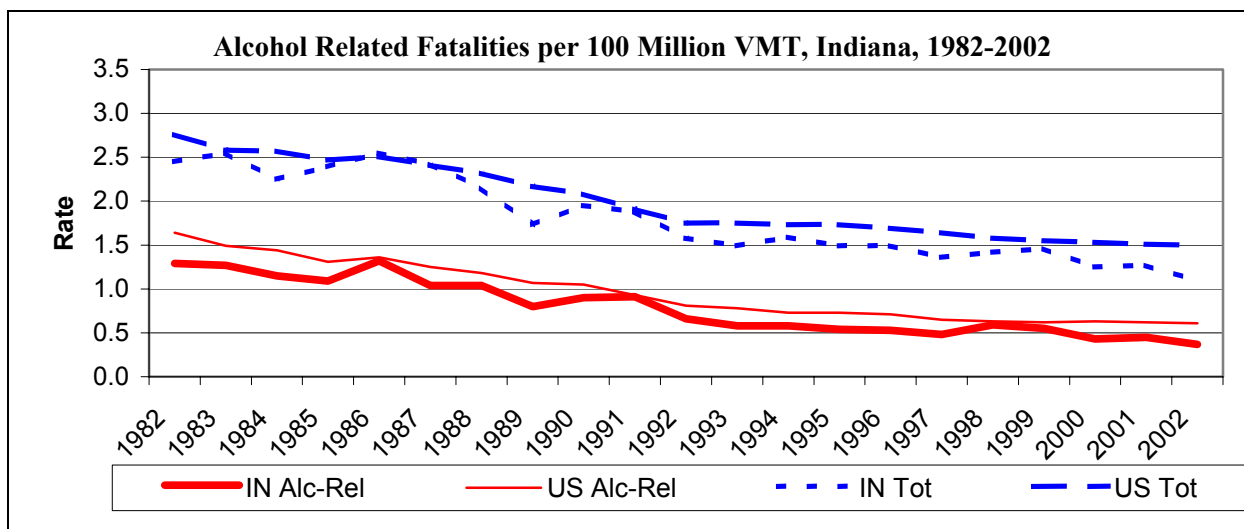
### Change in AR-Rates over time, Indiana vs. US

Time Period	Indiana	US
1982 to 2002	-71%	-63%
Last 10 years	-44%	-25%
Last 5 years	-23%	-6%
Last 3 Years	-33%	-2%
Last 1 Year	-18%	-2%

### Impaired Driving Legislations\*

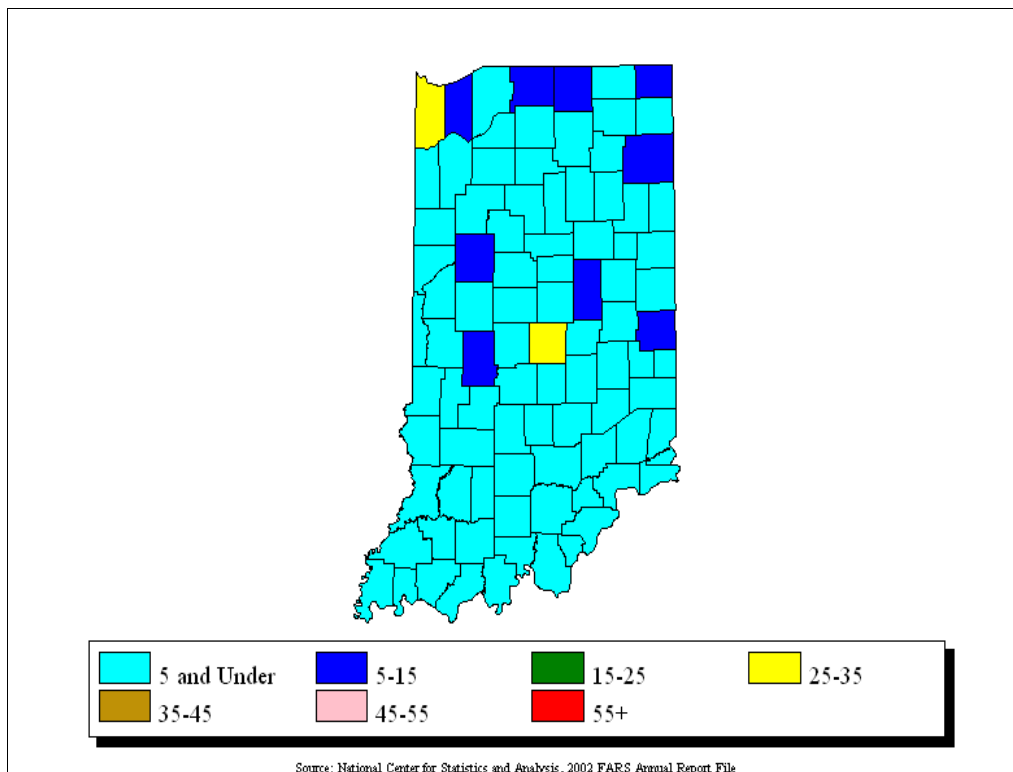
Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/01)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

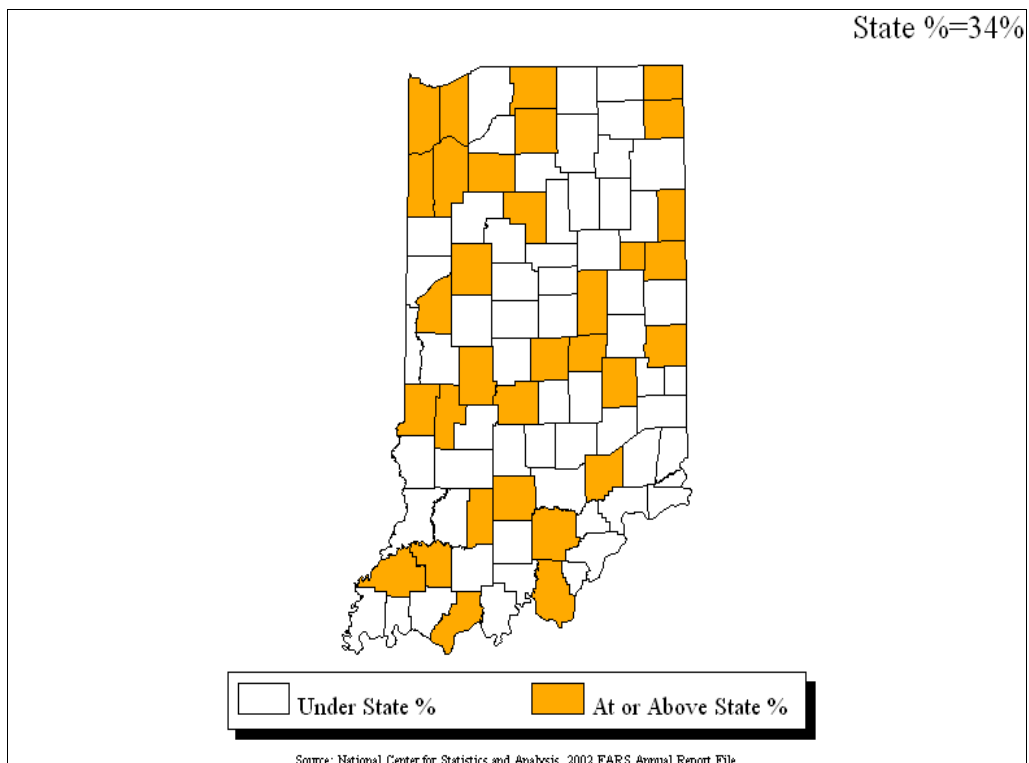




**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	480	250	52	2.48	1.29
1983	514	305	59	2.61	1.55
1984	420	239	57	2.05	1.17
1985	474	260	55	2.35	1.29
1986	441	228	52	2.16	1.12
1987	491	252	51	2.36	1.21
1988	557	279	50	2.54	1.27
1989	514	232	45	2.28	1.03
1990	465	233	50	2.02	1.01
1991	488	205	42	2.12	0.89
1992	437	176	40	1.83	0.74
1993	459	208	45	1.83	0.83
1994	478	211	44	1.86	0.82
1995	527	219	42	2.03	0.84
1996	465	199	43	1.73	0.74
1997	468	178	38	1.67	0.64
1998	449	163	36	1.55	0.56
1999	490	169	34	1.68	0.58
2000	445	139	31	1.51	0.47
2001	446	152	34	1.49	0.51
2002	404	131	32	1.31	0.42

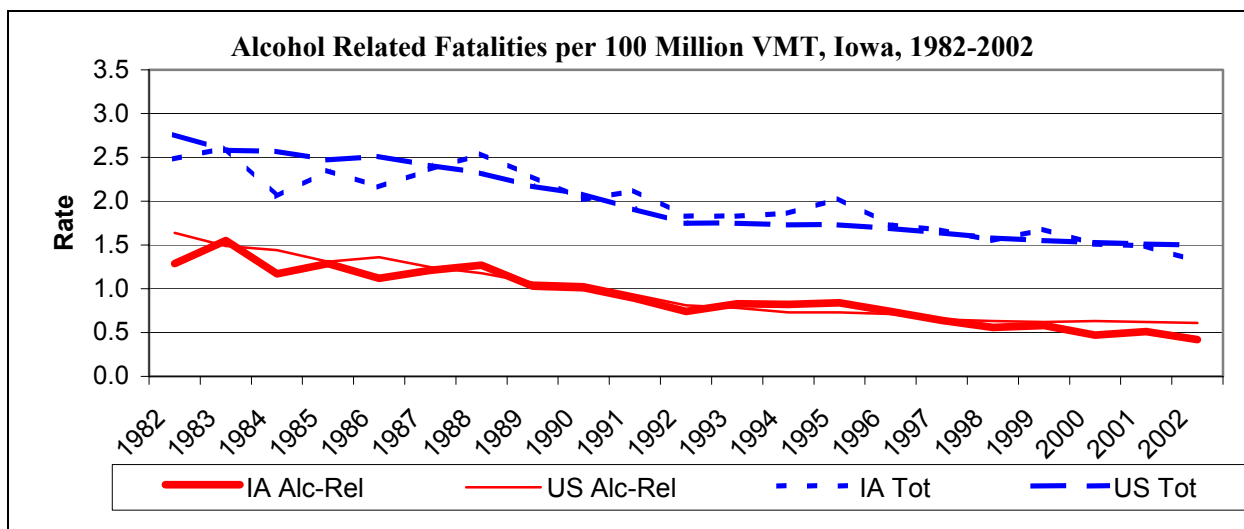
Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## IOWA

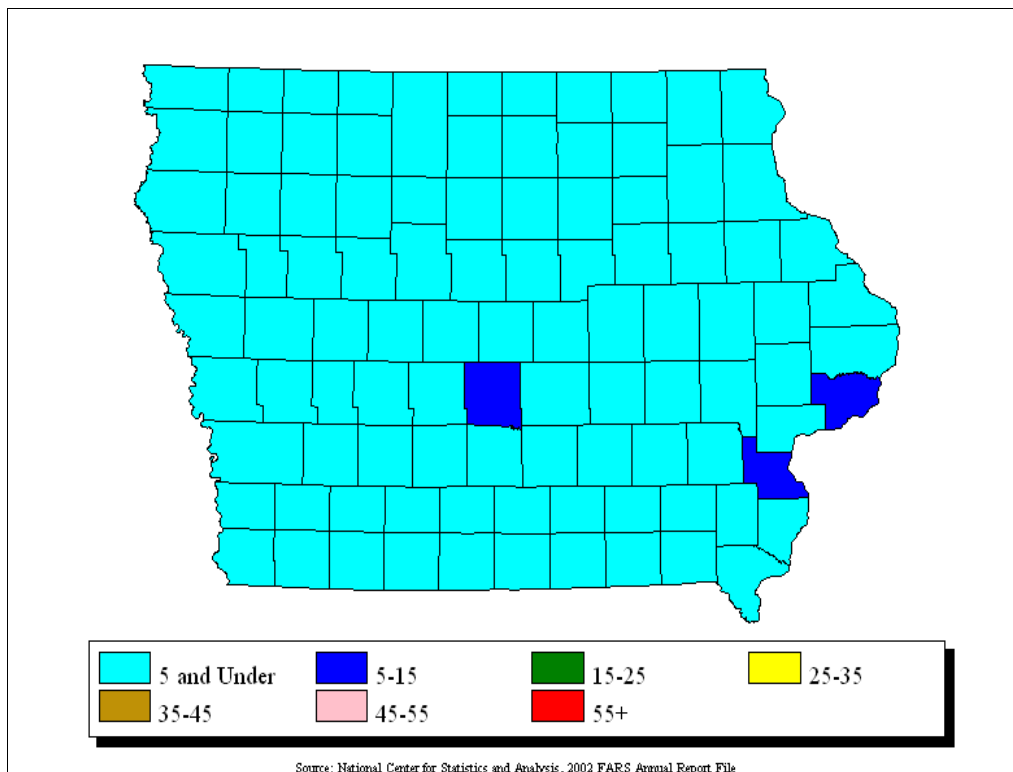
Change in AR-Rates over time, Iowa vs. US		
Time Period	Iowa	US
1982 to 2002	-67%	-63%
Last 10 years	-43%	-25%
Last 5 years	-34%	-6%
Last 3 Years	-28%	-2%
Last 1 Year	-18%	-2%

Impaired Driving Legislations*	
Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

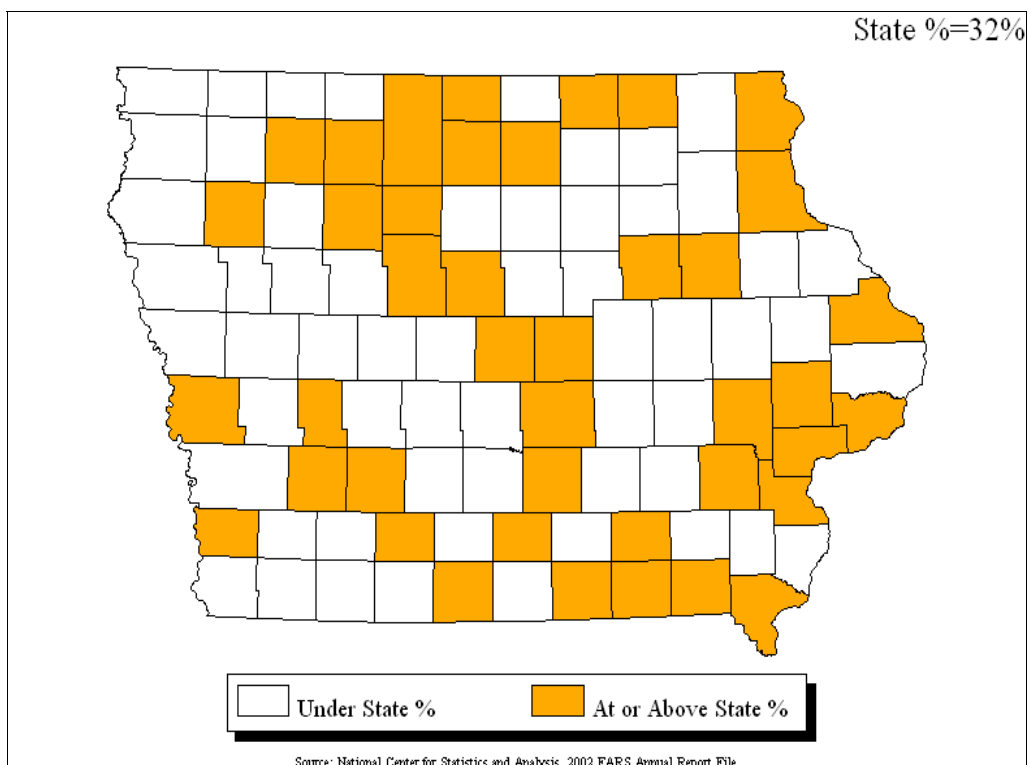
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	498	253	51	2.82	1.43
1983	411	214	52	2.26	1.18
1984	510	251	49	2.72	1.34
1985	486	214	44	2.52	1.11
1986	500	279	56	2.52	1.41
1987	491	248	50	2.39	1.21
1988	483	225	47	2.28	1.06
1989	428	194	45	1.95	0.89
1990	444	227	51	1.94	0.99
1991	409	189	46	1.76	0.82
1992	387	158	41	1.60	0.65
1993	428	157	37	1.77	0.65
1994	442	169	38	1.79	0.68
1995	442	184	42	1.76	0.73
1996	490	203	41	1.89	0.78
1997	482	147	30	1.82	0.55
1998	492	165	34	1.82	0.61
1999	540	193	36	1.95	0.70
2000	461	161	35	1.64	0.57
2001	494	193	39	1.75	0.69
2002	512	229	45	1.80	0.81

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## KANSAS

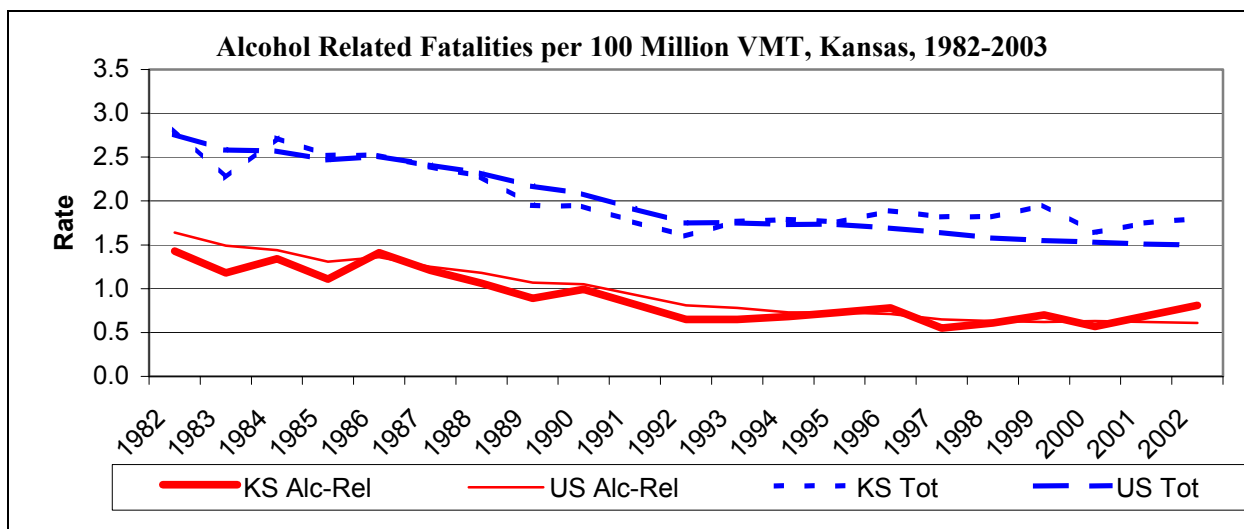
### Change in AR-Rates over time, Kansas vs. US

Time Period	Kansas	US
1982 to 2002	-43%	-63%
Last 10 years	+25%	-25%
Last 5 years	+47%	-6%
Last 3 Years	+16%	-2%
Last 1 Year	+17%	-2%

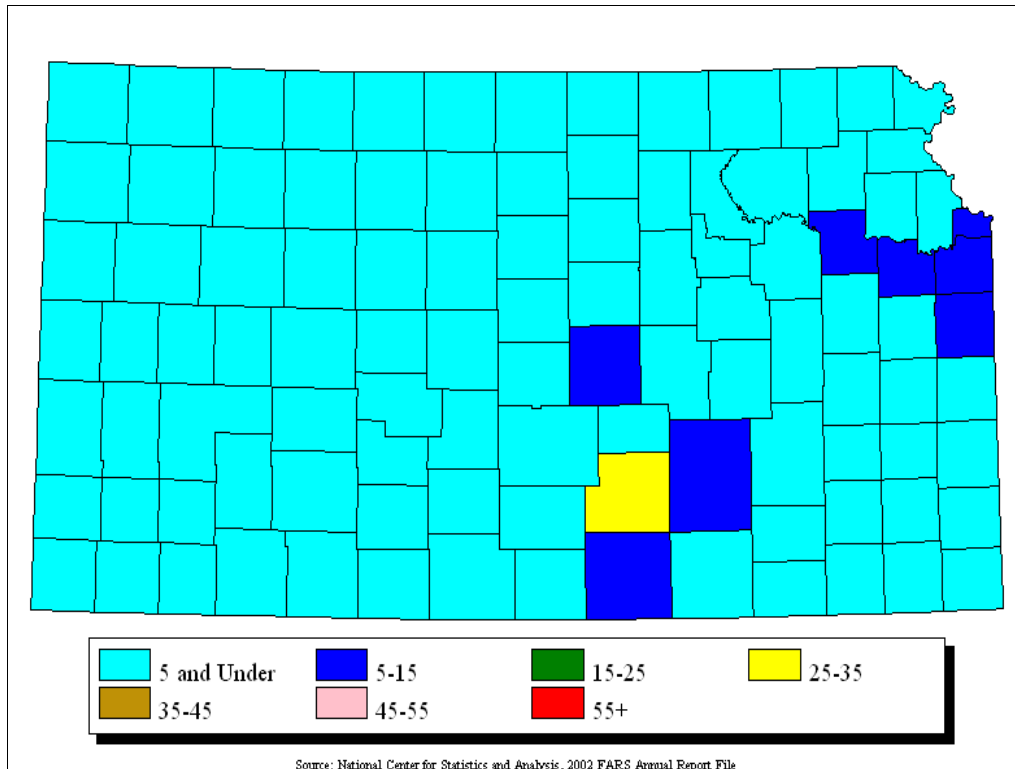
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/93)
Youthful (under 21) Offenders BAC Level	0.02

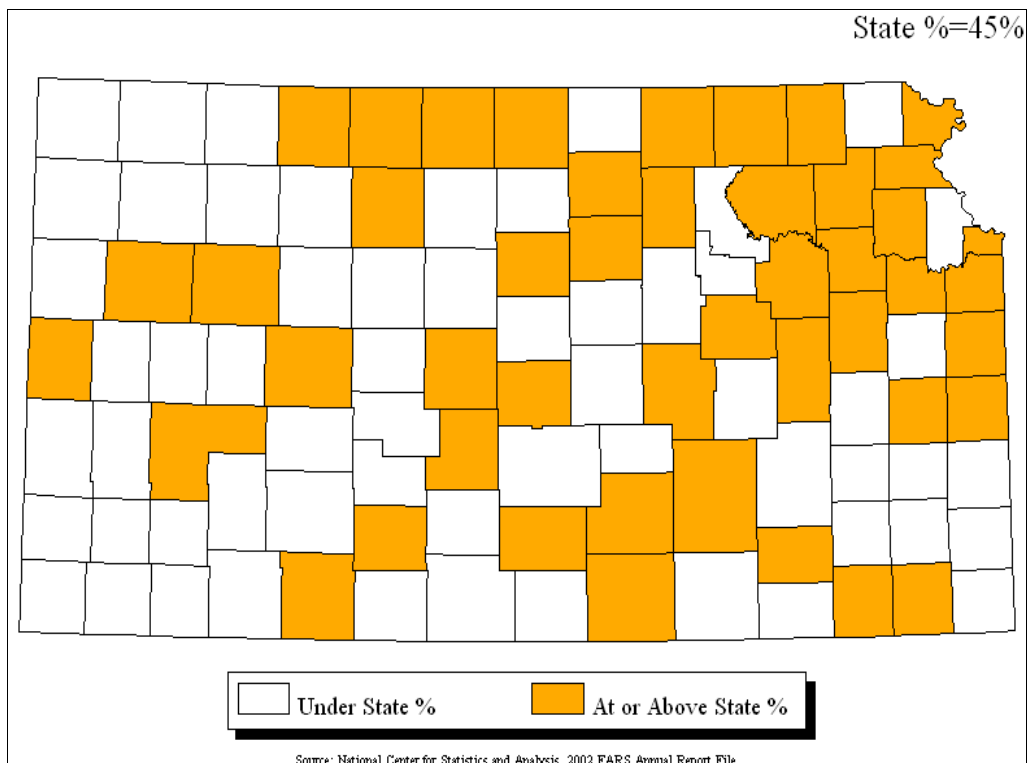
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	822	482	59	3.21	1.88
1983	778	435	56	2.91	1.63
1984	754	389	52	2.70	1.39
1985	712	343	48	2.50	1.20
1986	805	398	49	2.75	1.36
1987	844	407	48	2.78	1.34
1988	838	411	49	2.65	1.30
1989	772	341	44	2.40	1.06
1990	849	371	44	2.52	1.10
1991	826	380	46	2.35	1.08
1992	815	333	41	2.14	0.87
1993	871	338	39	2.20	0.85
1994	778	309	40	1.95	0.78
1995	849	302	36	2.07	0.73
1996	842	317	38	1.98	0.74
1997	857	301	35	1.91	0.67
1998	858	306	36	1.84	0.66
1999	814	300	37	1.70	0.63
2000	820	280	34	1.75	0.60
2001	845	251	30	1.83	0.54
2002	915	301	33	1.95	0.64

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## KENTUCKY

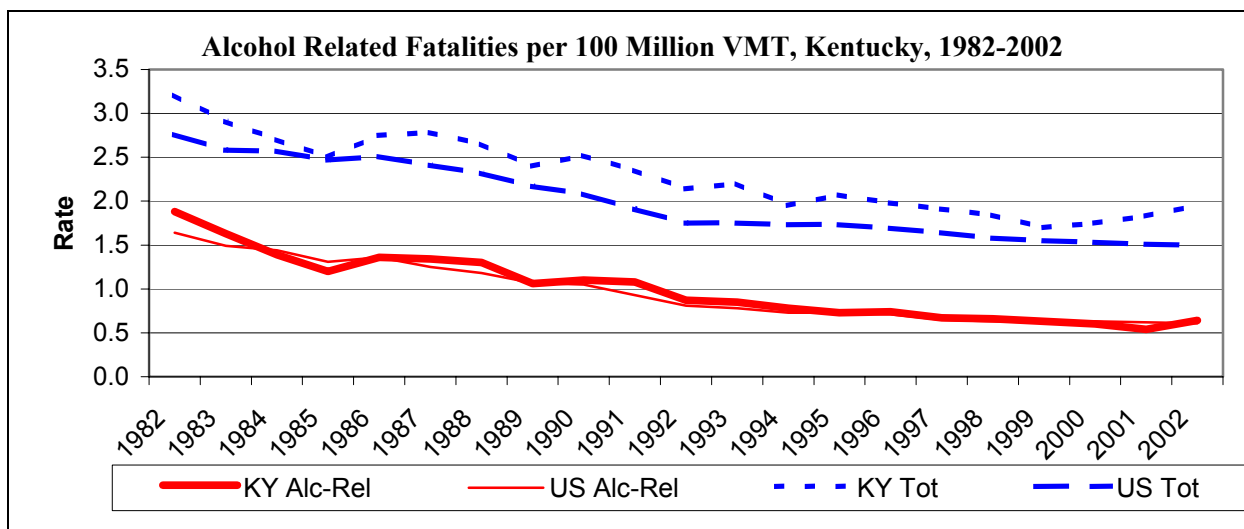
### Change in AR-Rates over time, Kentucky vs. US

Time Period	Kentucky	US
1982 to 2002	-66%	-63%
Last 10 years	-26%	-25%
Last 5 years	-4%	-6%
Last 3 Years	+2%	-2%
Last 1 Year	+19%	-2%

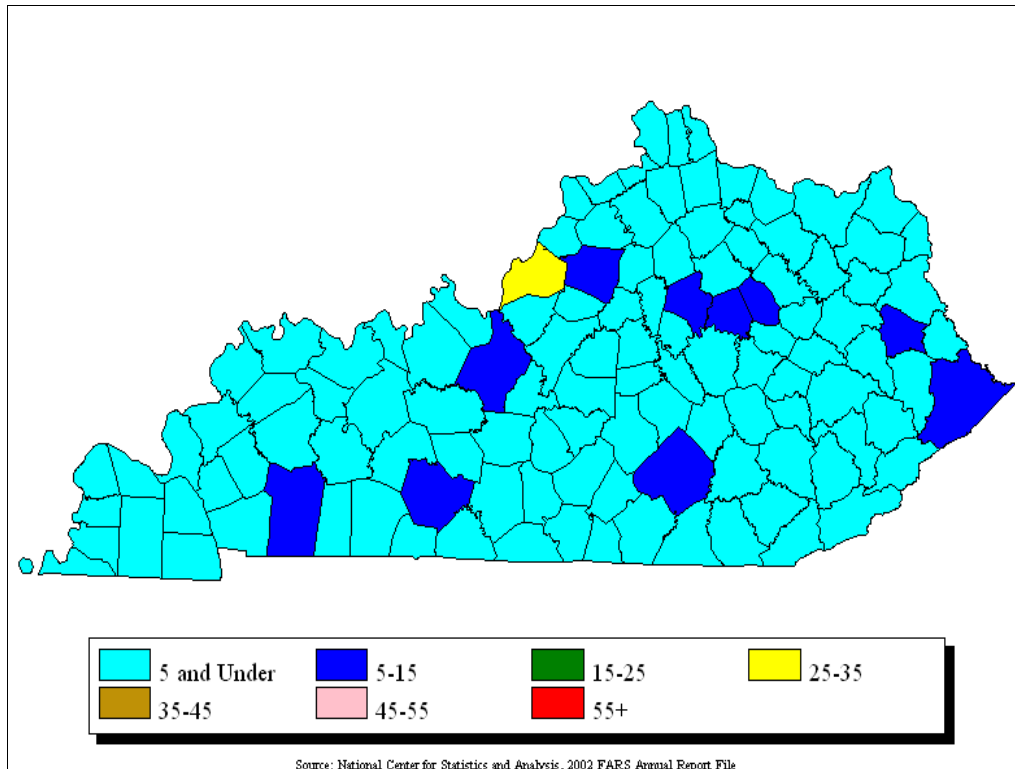
### Impaired Driving Legislations

Law	BAC Level
Administrative Per Se BAC Level	-
Illegal Per Se BAC Level (Effective Date)	0.08 (10/01/00)
Youthful (under 21) Offenders BAC Level	0.02

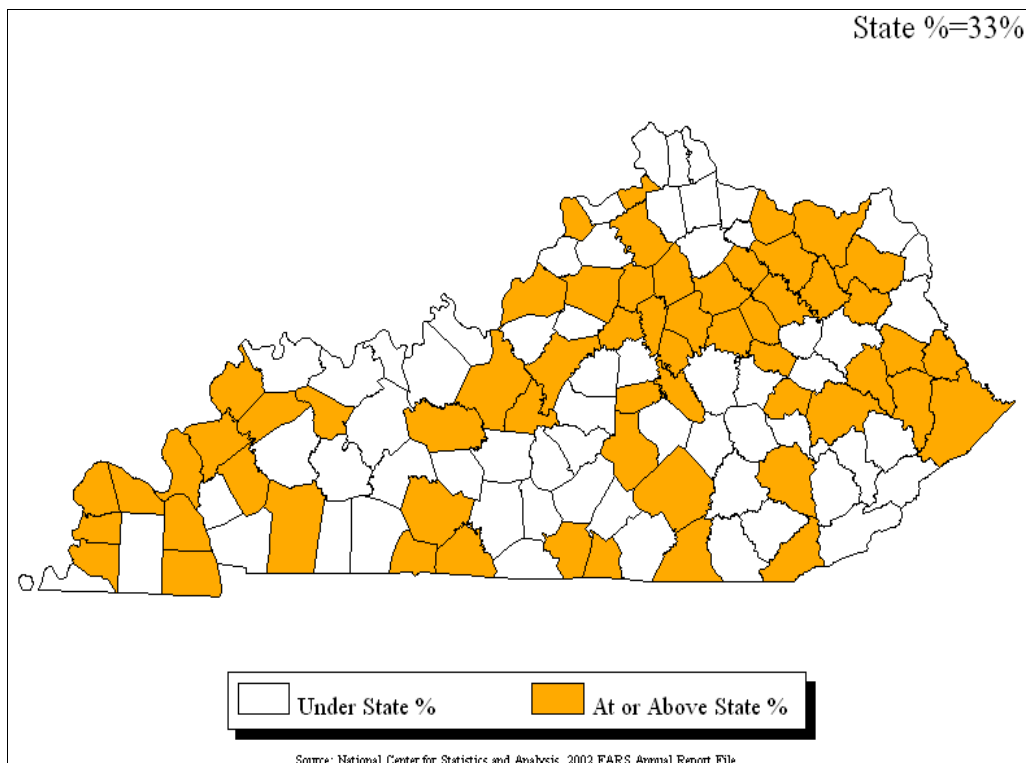
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,091	658	60	4.06	2.45
1983	933	538	58	3.07	1.77
1984	961	590	61	2.94	1.81
1985	931	471	51	2.79	1.41
1986	932	502	54	3.12	1.68
1987	826	460	56	2.73	1.52
1988	925	490	53	2.67	1.41
1989	878	442	50	2.47	1.24
1990	959	550	57	2.53	1.45
1991	862	491	57	2.48	1.41
1992	886	493	56	2.62	1.46
1993	878	483	55	2.42	1.33
1994	843	429	51	2.25	1.15
1995	894	476	53	2.31	1.23
1996	902	461	51	2.37	1.21
1997	931	444	48	2.40	1.14
1998	926	443	48	2.30	1.10
1999	938	445	47	2.28	1.08
2000	938	454	48	2.30	1.11
2001	952	444	47	2.20	1.03
2002	875	413	47	2.02	0.95

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## LOUISIANA

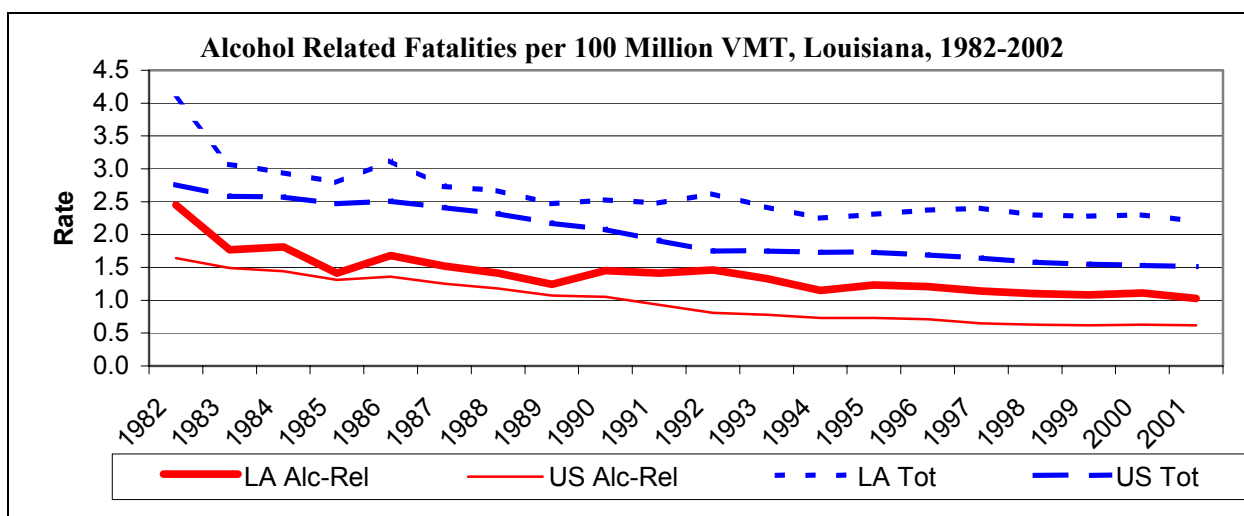
### Change in AR-Rates over time, Louisiana vs. US

Time Period	Louisiana	US
1982 to 2002	-61%	-63%
Last 10 years	-35%	-25%
Last 5 years	-17%	-6%
Last 3 Years	-12%	-2%
Last 1 Year	-8%	-2%

### Impaired Driving Legislations\*

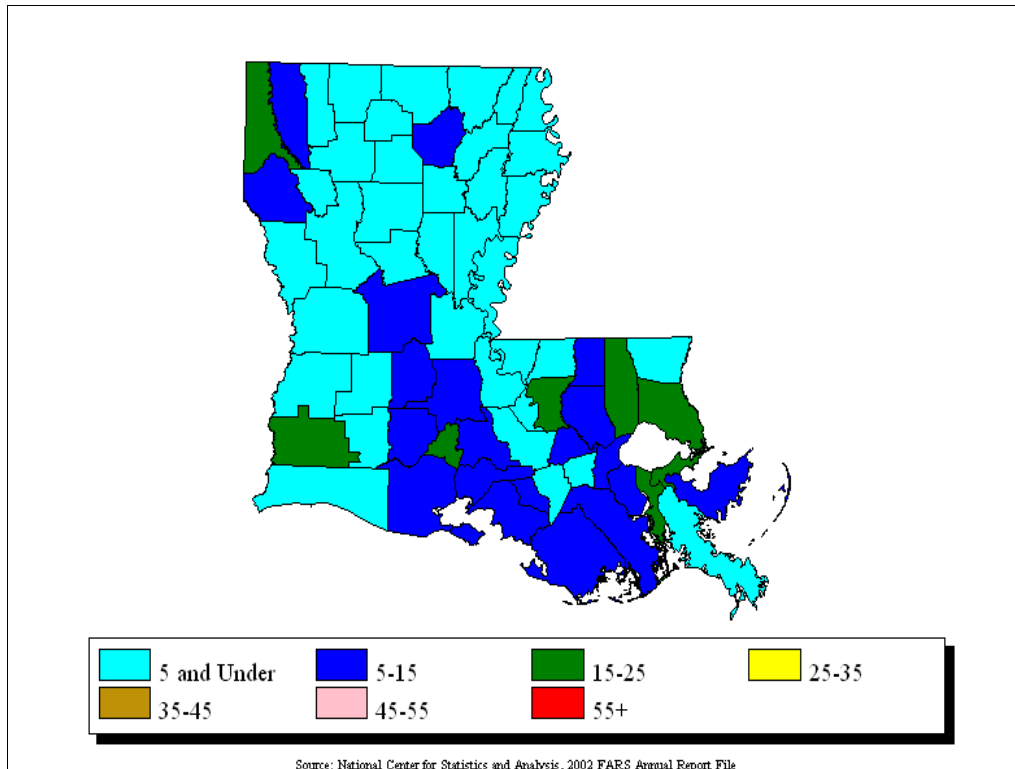
Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.08* (09/30/03)
Youthful (under 21) Offenders BAC Level	0.02

\*Enacted As of October 2003 but effective as of a later date.

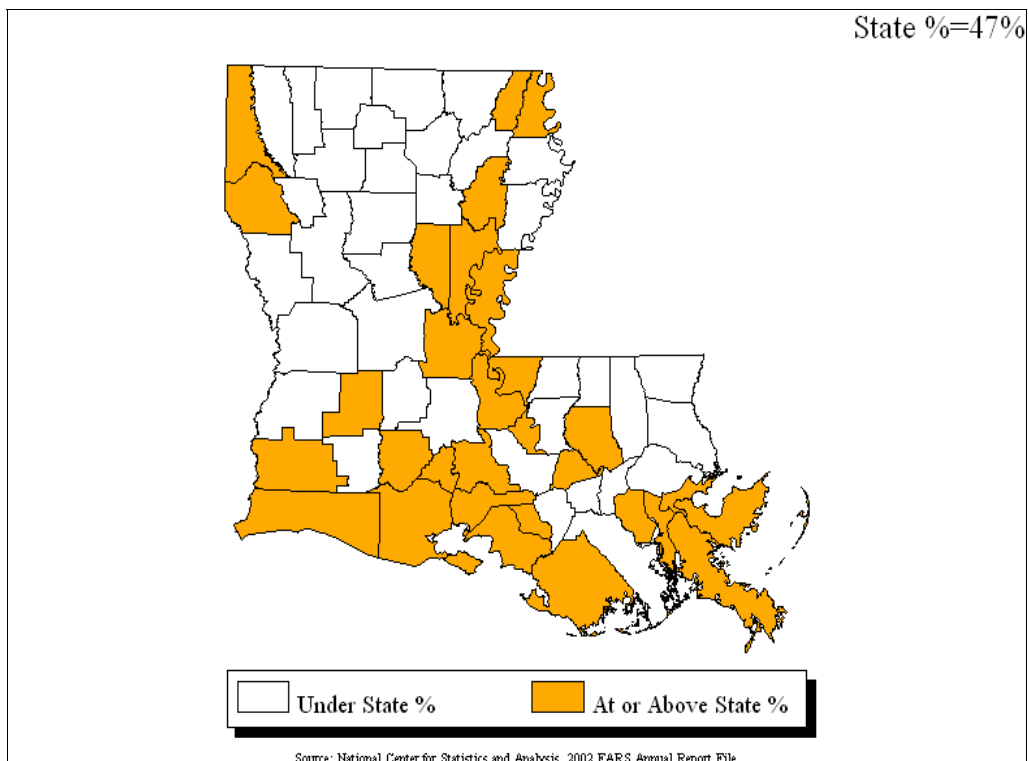




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	166	94	56	2.17	1.23
1983	224	135	60	2.90	1.75
1984	232	132	57	2.68	1.53
1985	206	112	54	2.22	1.21
1986	214	113	53	2.14	1.13
1987	232	119	51	2.15	1.11
1988	256	103	40	2.25	0.90
1989	194	70	36	1.65	0.60
1990	213	94	44	1.79	0.79
1991	205	83	41	1.73	0.70
1992	214	90	42	1.76	0.74
1993	185	77	42	1.52	0.63
1994	188	66	35	1.51	0.53
1995	187	58	31	1.49	0.46
1996	169	65	38	1.32	0.51
1997	192	65	34	1.45	0.49
1998	192	55	28	1.42	0.41
1999	181	60	33	1.28	0.42
2000	169	51	30	1.19	0.36
2001	192	65	34	1.33	0.45
2001	216	51	24	1.47	0.35

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MAINE

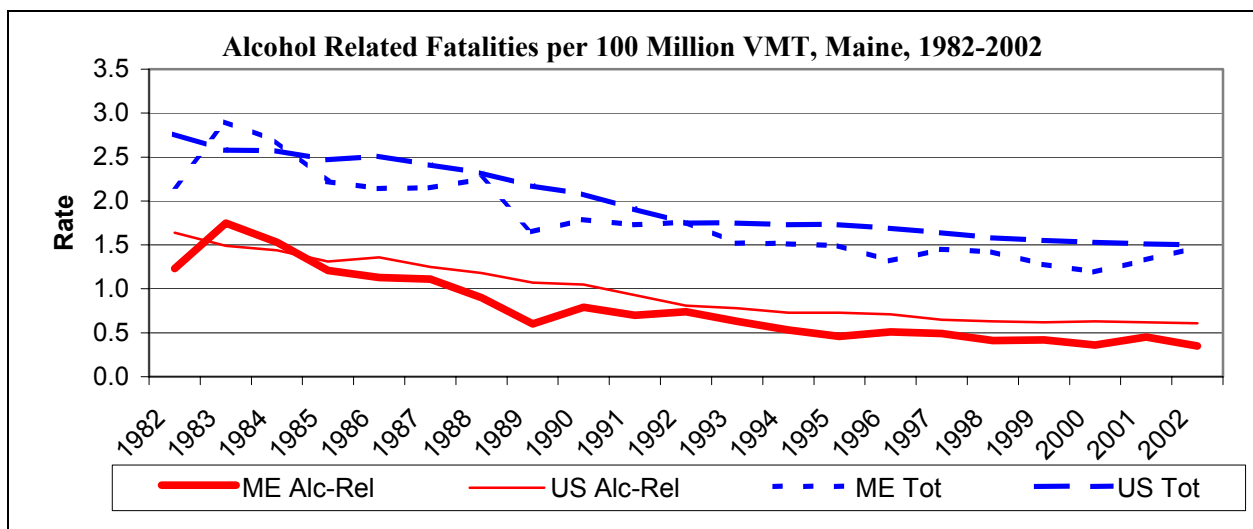
### Change in AR-Rates over time, Maine vs. US

Time Period	Maine	US
1982 to 2002	-72%	-63%
Last 10 years	-53%	-25%
Last 5 years	-29%	-6%
Last 3 Years	-17%	-2%
Last 1 Year	-22%	-2%

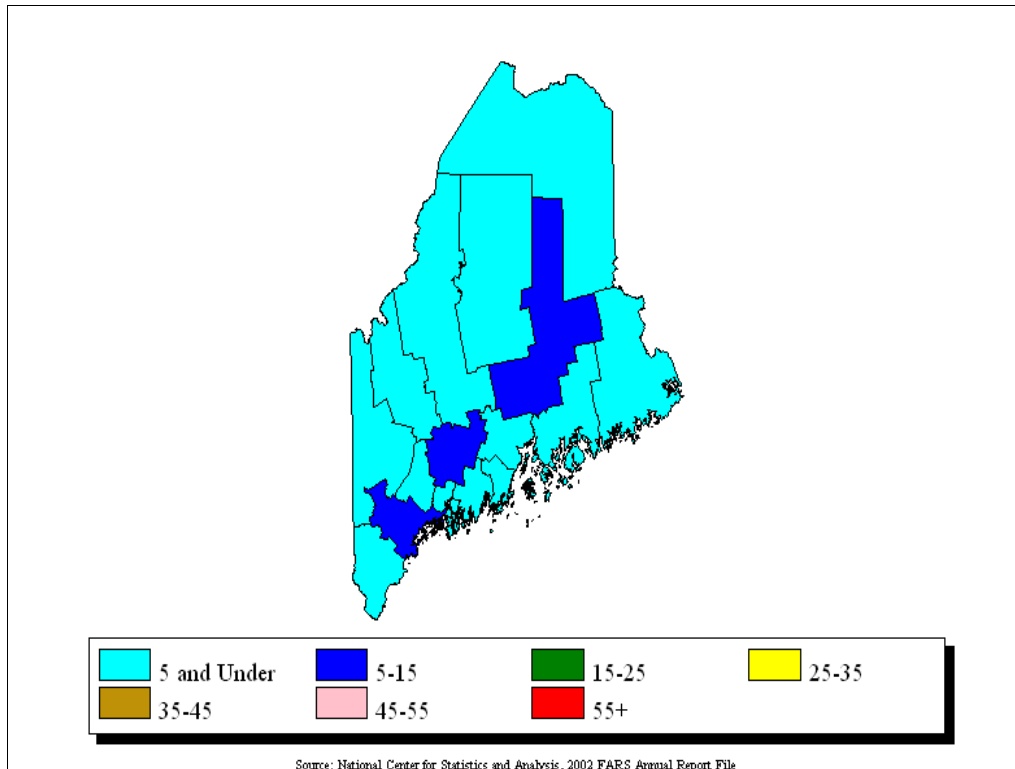
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (08/04/88)
Youthful (under 21) Offenders BAC Level	0.00

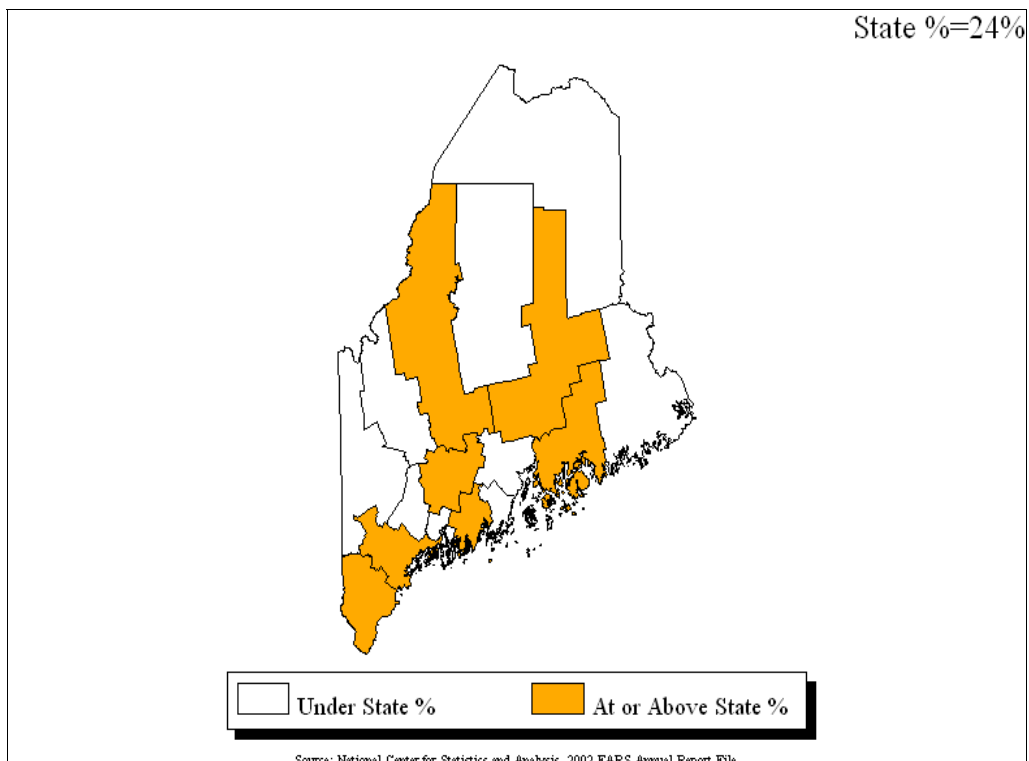
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	640	360	56	2.21	1.24
1983	656	382	58	2.11	1.23
1984	643	344	54	2.03	1.09
1985	729	378	52	2.19	1.13
1986	784	407	52	2.23	1.16
1987	814	380	47	2.23	1.04
1988	781	352	45	2.08	0.94
1989	726	316	43	1.87	0.81
1990	707	325	46	1.74	0.80
1991	694	261	38	1.68	0.63
1992	659	243	37	1.57	0.58
1993	666	244	37	1.54	0.56
1994	651	232	36	1.47	0.53
1995	671	249	37	1.50	0.55
1996	608	213	35	1.32	0.46
1997	611	224	37	1.31	0.48
1998	606	223	37	1.25	0.46
1999	590	215	36	1.20	0.44
2000	588	240	41	1.17	0.48
2001	659	282	43	1.27	0.54
2002	659	265	40	1.23	0.49

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MARYLAND

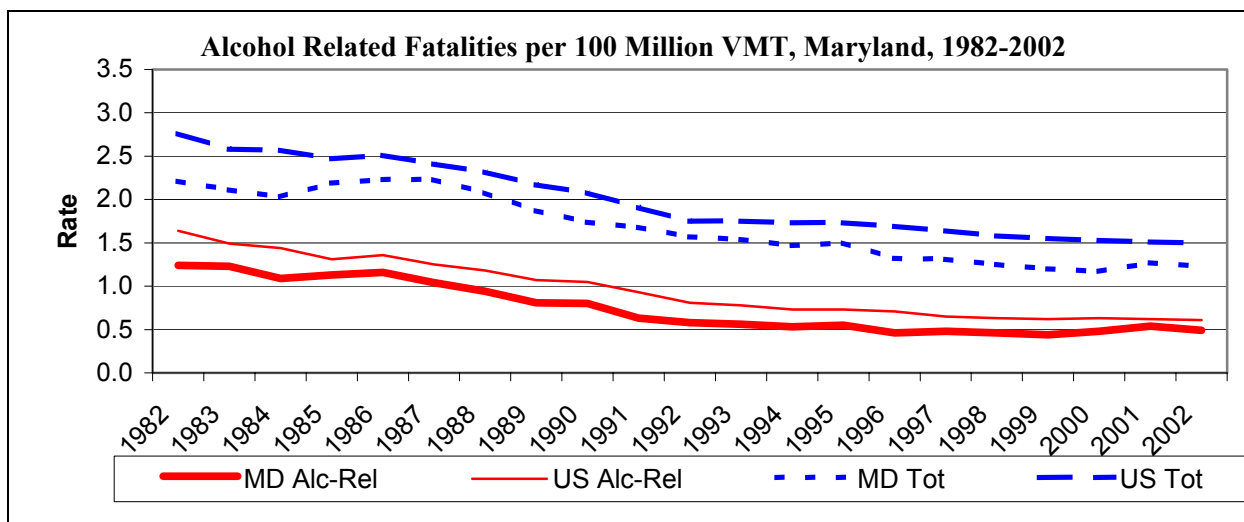
### Change in AR-Rates over time, Maryland vs. US

Time Period	Maryland	US
1982 to 2002	-60%	-63%
Last 10 years	-16%	-25%
Last 5 years	+2%	-6%
Last 3 Years	+11%	-2%
Last 1 Year	-9%	-2%

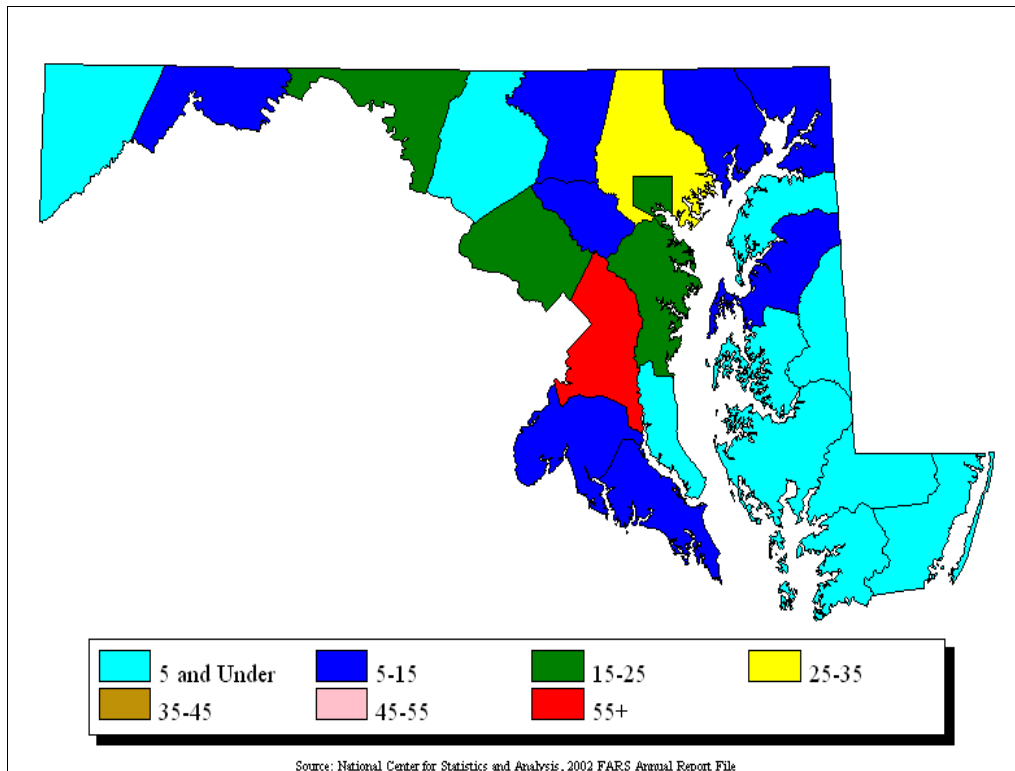
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (09/30/01)
Youthful (under 21) Offenders BAC Level	0.02

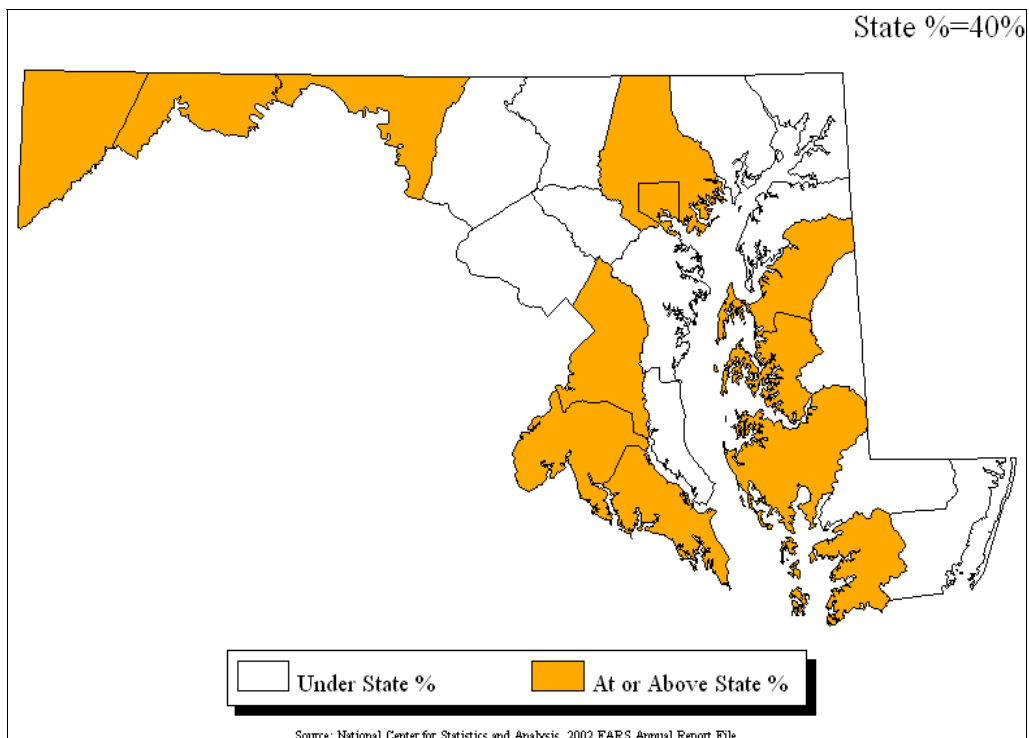
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	659	407	62	1.80	1.11
1983	651	409	63	1.73	1.09
1984	666	411	62	1.73	1.07
1985	742	390	53	1.87	0.98
1986	752	405	54	1.84	0.99
1987	689	377	55	1.63	0.89
1988	725	408	56	1.67	0.94
1989	696	384	55	1.51	0.83
1990	605	349	58	1.31	0.76
1991	552	288	52	1.19	0.62
1992	485	262	54	1.02	0.55
1993	475	208	44	1.02	0.45
1994	440	212	48	0.94	0.45
1995	444	193	43	0.92	0.40
1996	417	184	44	0.83	0.37
1997	441	198	45	0.87	0.39
1998	406	184	45	0.78	0.36
1999	414	195	47	0.80	0.38
2000	433	216	50	0.82	0.41
2001	477	228	48	0.90	0.43
2002	459	221	48	0.86	0.41

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MASSACHUSETTS

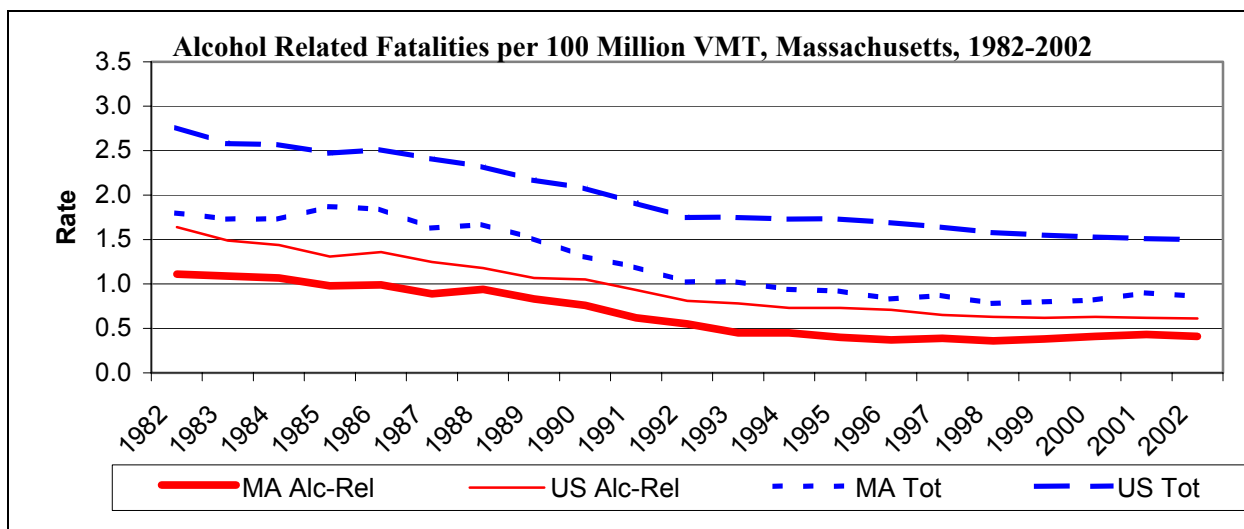
### Change in AR-Rates over time, Massachusetts vs. US

Time Period	Massachusetts	US
1982 to 2002	-63%	-63%
Last 10 years	-25%	-25%
Last 5 years	+5%	-6%
Last 3 Years	+8%	-2%
Last 1 Year	-5%	-2%

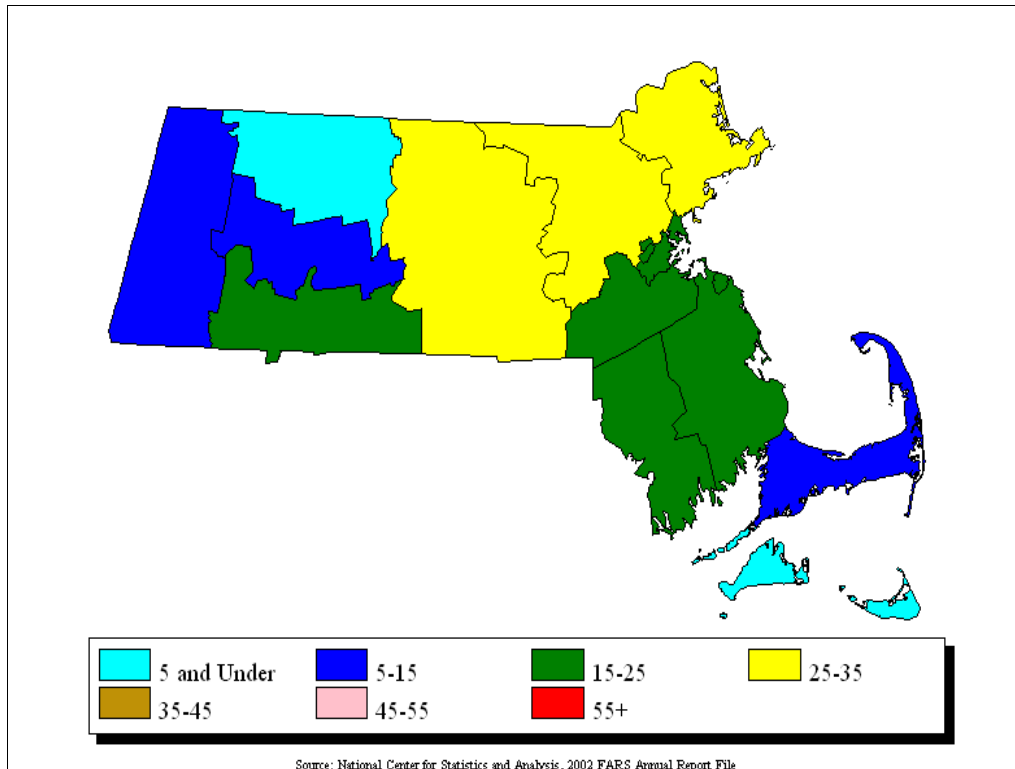
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	- (-)
Youthful (under 21) Offenders BAC Level	0.02

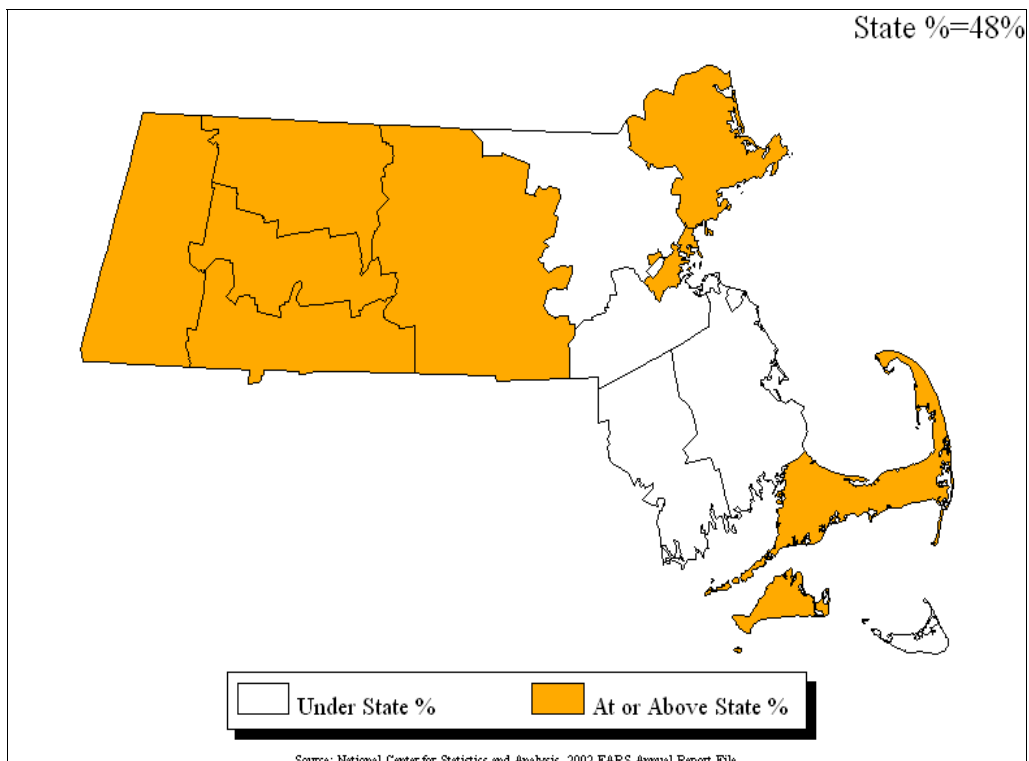
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,392	871	63	2.27	1.42
1983	1,314	788	60	2.16	1.29
1984	1,531	897	59	2.41	1.41
1985	1,545	788	51	2.29	1.17
1986	1,605	862	54	2.23	1.20
1987	1,602	839	52	2.12	1.11
1988	1,708	869	51	2.19	1.12
1989	1,639	780	48	2.05	0.98
1990	1,571	798	51	1.94	0.98
1991	1,421	684	48	1.73	0.83
1992	1,300	553	43	1.54	0.66
1993	1,414	632	45	1.65	0.74
1994	1,421	604	43	1.67	0.71
1995	1,530	634	41	1.79	0.74
1996	1,505	630	42	1.67	0.70
1997	1,446	573	40	1.58	0.62
1998	1,366	552	40	1.45	0.59
1999	1,382	565	41	1.44	0.59
2000	1,382	528	38	1.41	0.54
2001	1,328	520	39	1.34	0.53
2002	1,277	490	38	1.28	0.49

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MICHIGAN

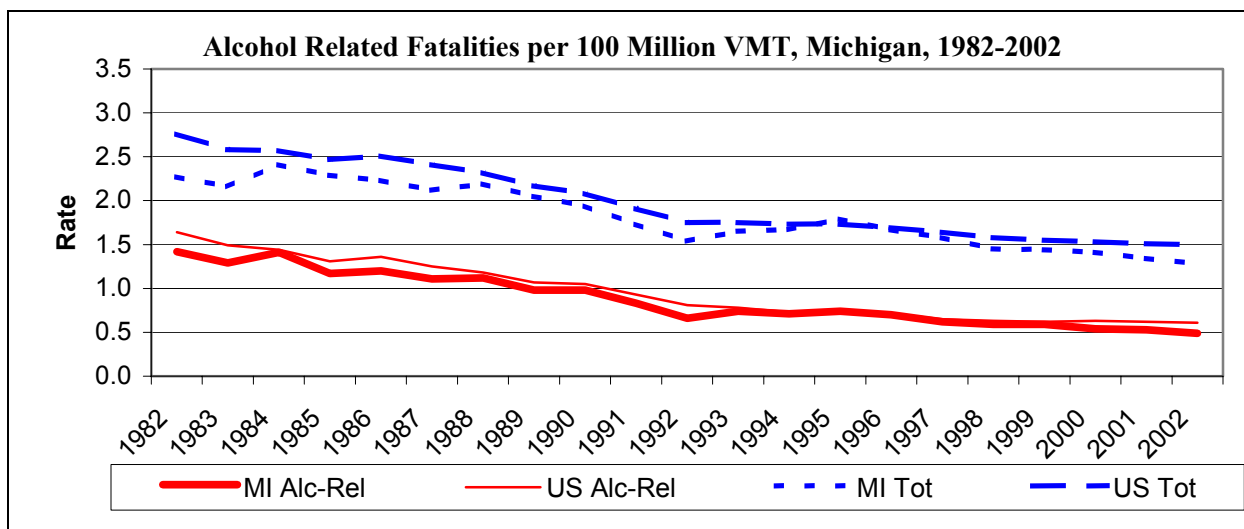
### Change in AR-Rates over time, Michigan vs. US

Time Period	Michigan	US
1982 to 2002	-65%	-63%
Last 10 years	-26%	-25%
Last 5 years	-21%	-6%
Last 3 Years	-17%	-2%
Last 1 Year	-8%	-2%

### Impaired Driving Legislations\*

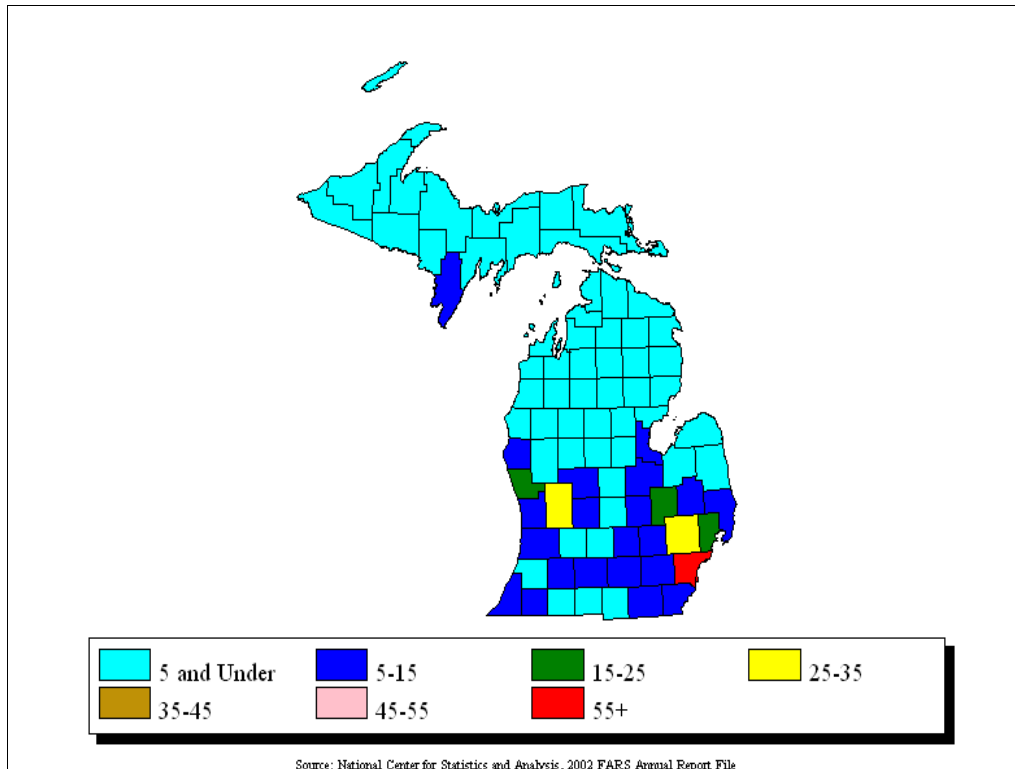
Law	BAC Level
Administrative Per Se BAC Level	-
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

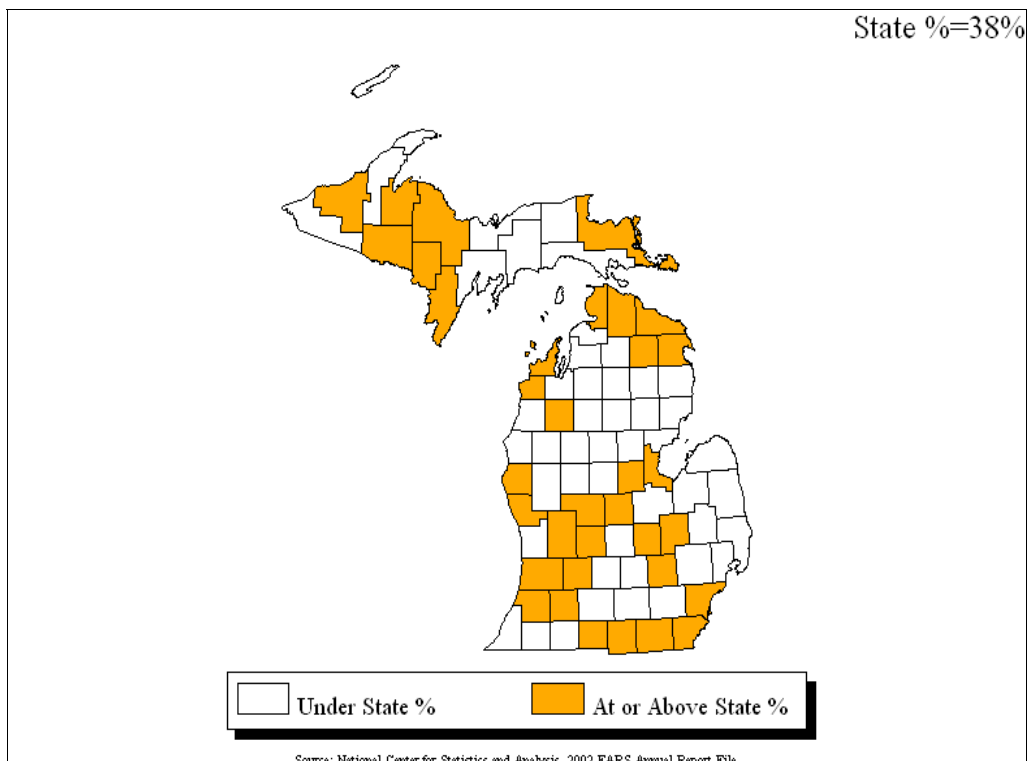




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	571	322	56	1.96	1.10
1983	555	314	56	1.79	1.01
1984	582	332	57	1.82	1.04
1985	608	287	47	1.86	0.88
1986	571	284	50	1.69	0.84
1987	530	248	47	1.51	0.71
1988	612	294	48	1.68	0.81
1989	604	289	48	1.62	0.77
1990	566	258	46	1.45	0.66
1991	531	233	44	1.35	0.59
1992	581	240	41	1.41	0.58
1993	538	216	40	1.27	0.51
1994	646	250	39	1.49	0.58
1995	597	269	45	1.35	0.61
1996	576	222	38	1.30	0.50
1997	600	197	33	1.22	0.40
1998	650	285	44	1.31	0.57
1999	626	206	33	1.22	0.40
2000	625	258	41	1.19	0.49
2001	568	225	40	1.06	0.42
2002	657	255	39	1.20	0.47

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MINNESOTA

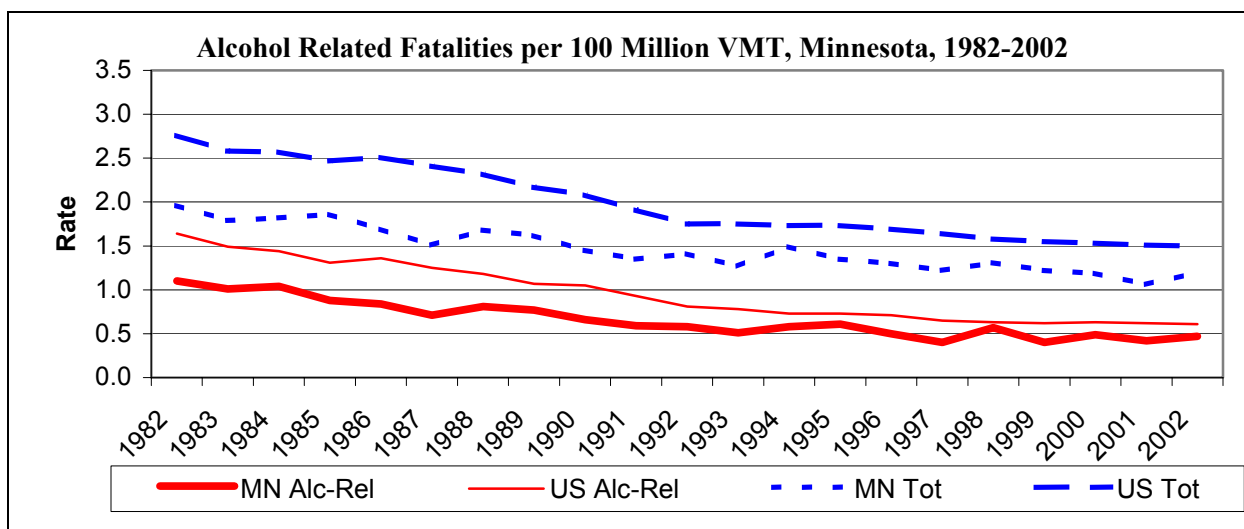
### Change in AR-Rates over time, Minnesota vs. US

Time Period	Minnesota	US
1982 to 2002	-57%	-63%
Last 10 years	-19%	-25%
Last 5 years	+18%	-6%
Last 3 Years	+18%	-2%
Last 1 Year	+12%	-2%

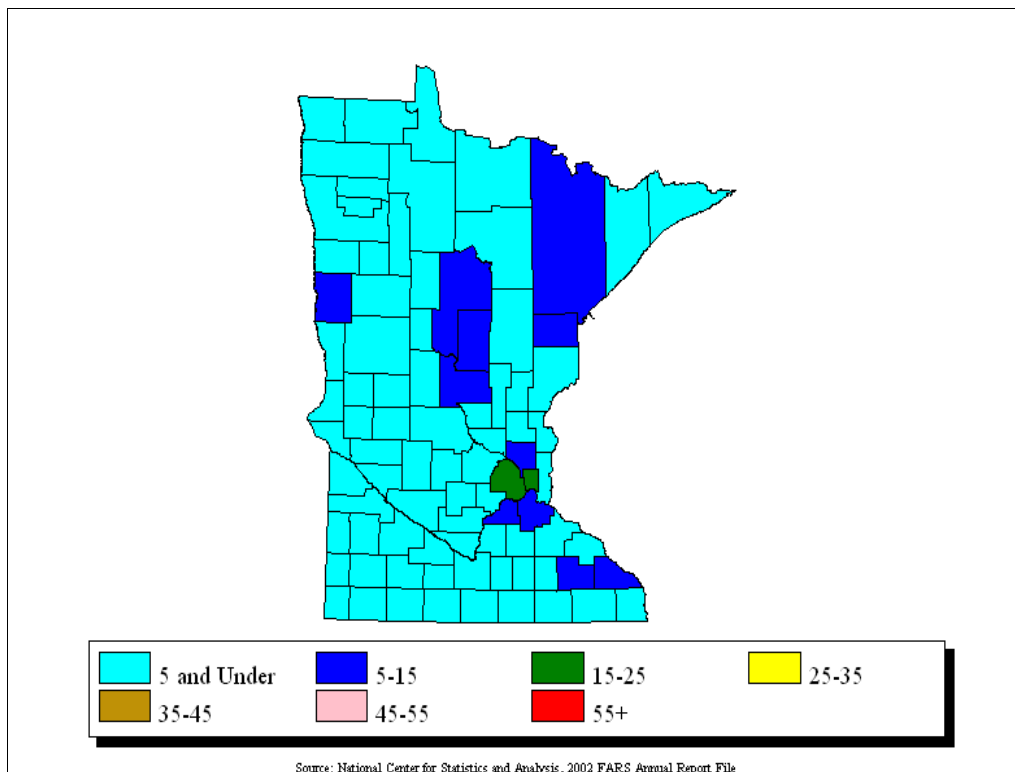
### Impaired Driving Legislation\*s

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.00

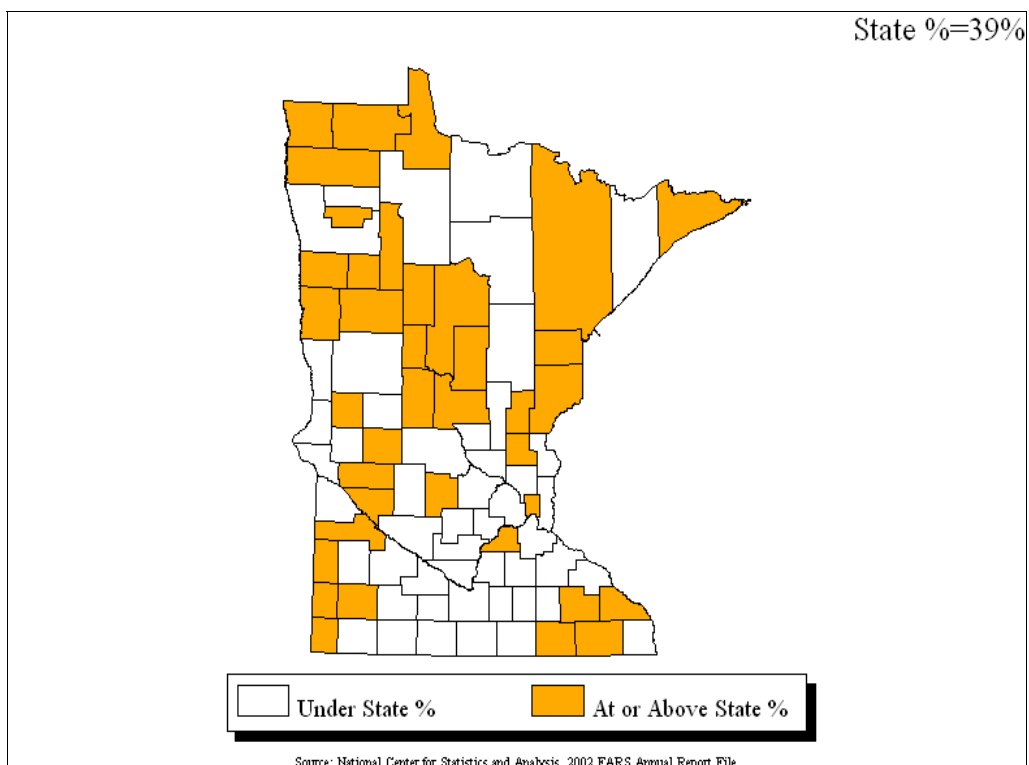
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	730	423	58	4.26	2.47
1983	715	310	43	4.02	1.74
1984	679	247	36	3.68	1.34
1985	662	238	36	3.45	1.24
1986	771	286	37	4.01	1.49
1987	756	242	32	3.75	1.20
1988	722	198	27	3.28	0.90
1989	727	255	35	3.18	1.11
1990	750	280	37	3.07	1.15
1991	714	282	40	2.87	1.13
1992	766	381	50	2.92	1.45
1993	813	392	48	3.03	1.46
1994	791	358	45	2.77	1.25
1995	868	363	42	2.94	1.23
1996	811	344	42	2.65	1.13
1997	861	352	41	2.73	1.12
1998	948	356	38	2.77	1.04
1999	927	367	40	2.66	1.05
2000	949	385	41	2.67	1.08
2001	784	277	35	2.18	0.77
2002	885	332	38	2.43	0.91

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MISSISSIPPI

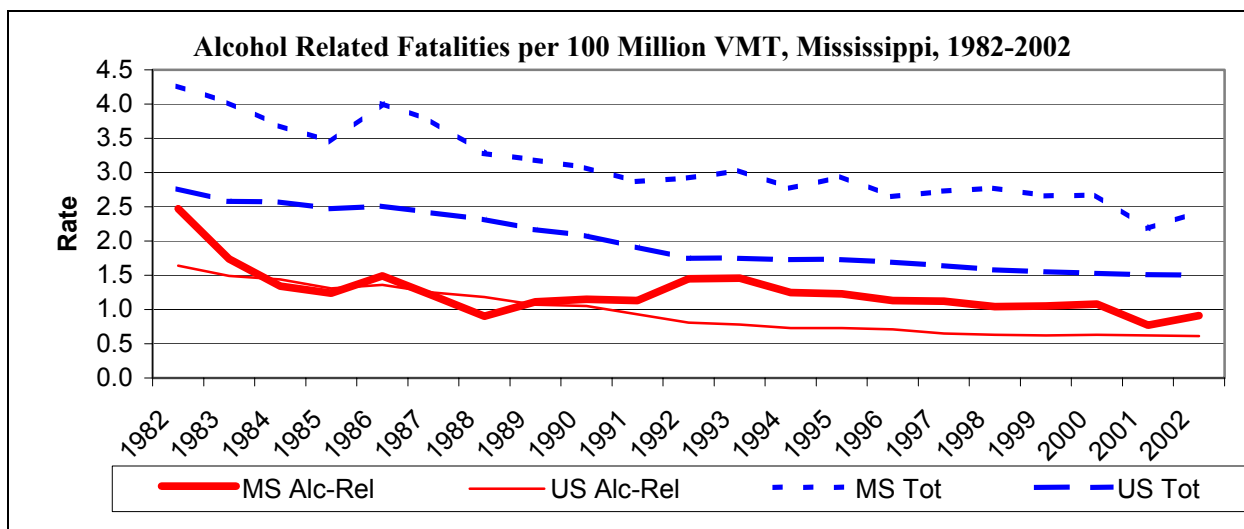
### Change in AR-Rates over time, Mississippi vs. US

Time Period	Mississippi	US
1982 to 2002	-63%	-63%
Last 10 years	-37%	-25%
Last 5 years	-19%	-6%
Last 3 Years	-13%	-2%
Last 1 Year	+18%	-2%

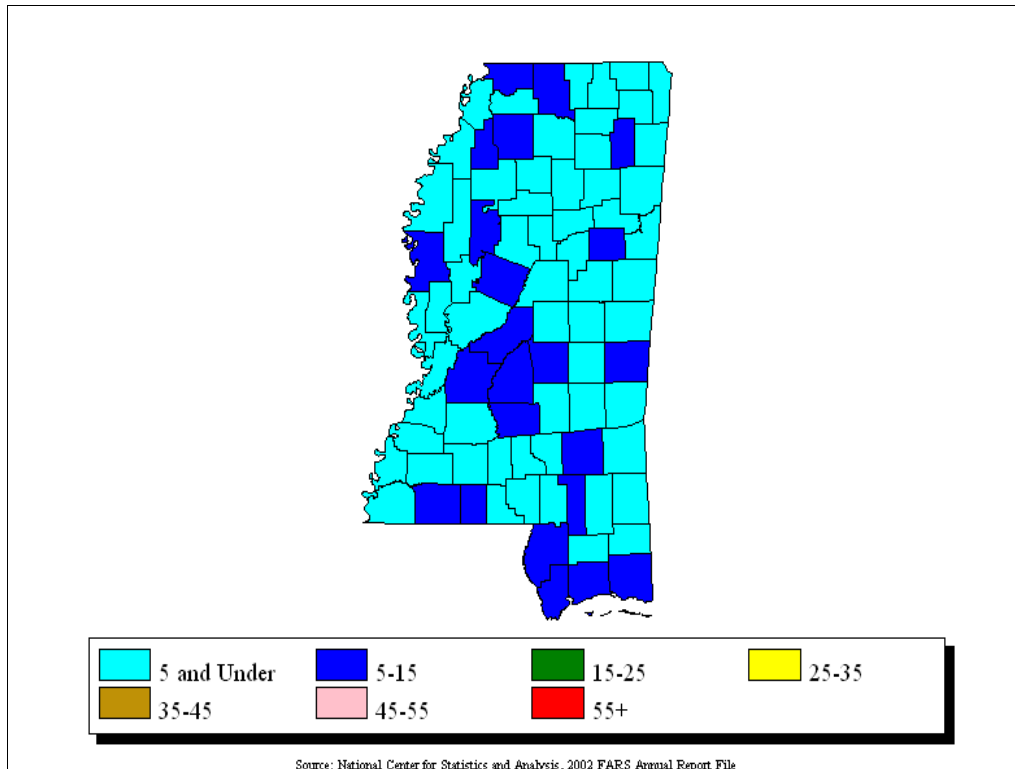
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

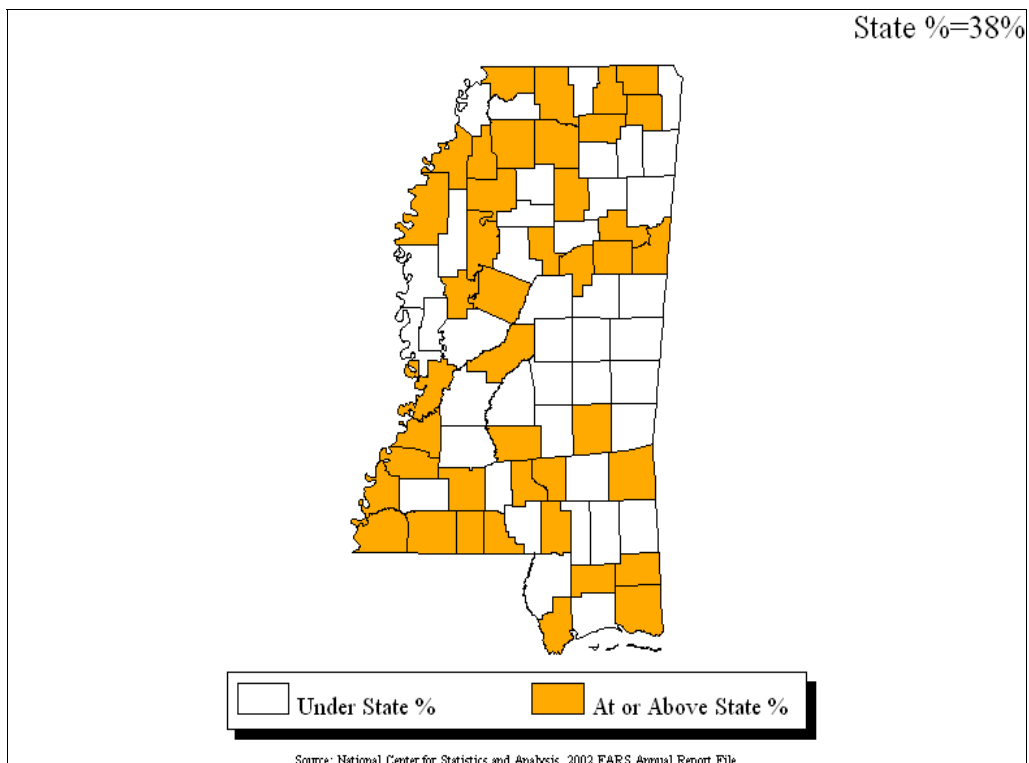
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	890	483	54	2.54	1.38
1983	911	505	55	2.49	1.38
1984	967	480	50	2.51	1.25
1985	931	434	47	2.37	1.10
1986	1,129	609	54	2.72	1.46
1987	1,045	542	52	2.41	1.25
1988	1,103	601	54	2.42	1.32
1989	1,052	562	53	2.19	1.17
1990	1,097	597	54	2.16	1.17
1991	1,011	516	51	1.98	1.01
1992	985	477	48	1.85	0.90
1993	947	474	50	1.73	0.86
1994	1,089	552	51	1.90	0.96
1995	1,109	560	50	1.87	0.94
1996	1,148	576	50	1.88	0.94
1997	1,192	504	42	1.89	0.80
1998	1,169	513	44	1.81	0.79
1999	1,094	438	40	1.64	0.66
2000	1,157	516	45	1.72	0.77
2001	1,098	520	47	1.62	0.77
2002	1,208	525	43	1.77	0.77

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MISSOURI

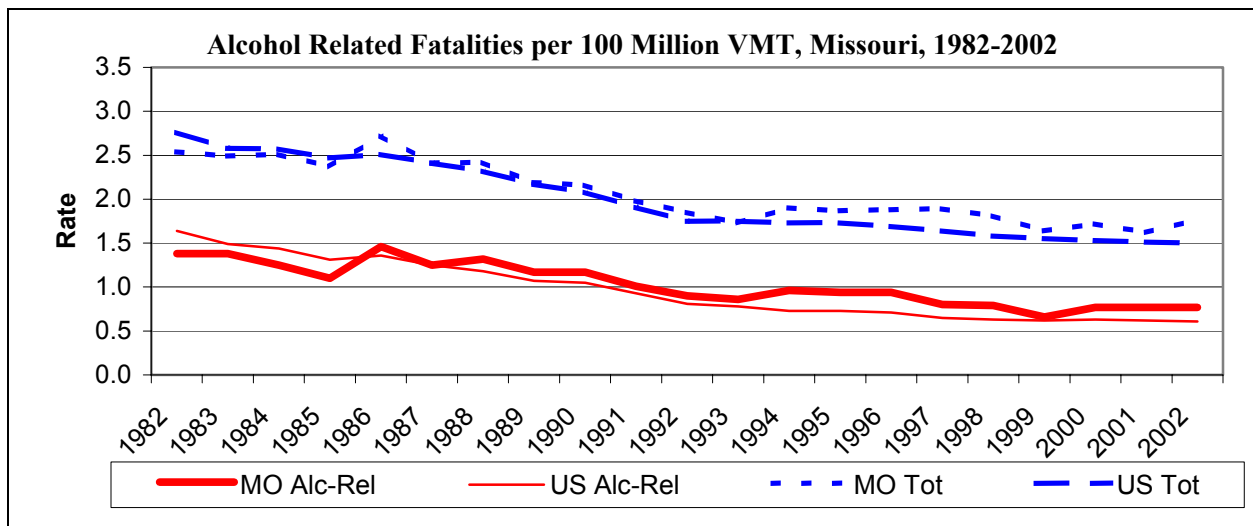
### Change in AR-Rates over time, Missouri vs. US

Time Period	Missouri	US
1982 to 2002	-44%	-63%
Last 10 years	-14%	-25%
Last 5 years	-4%	-6%
Last 3 Years	+17%	-2%
Last 1 Year	0%	-2%

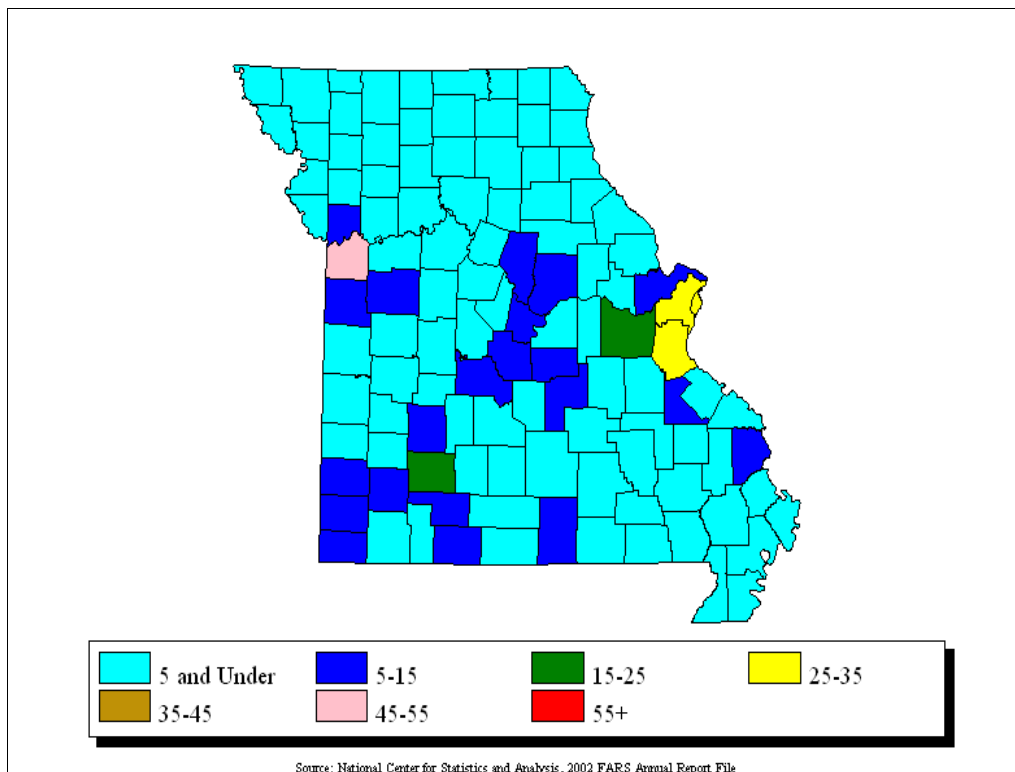
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (09/29/01)
Youthful (under 21) Offenders BAC Level	0.02

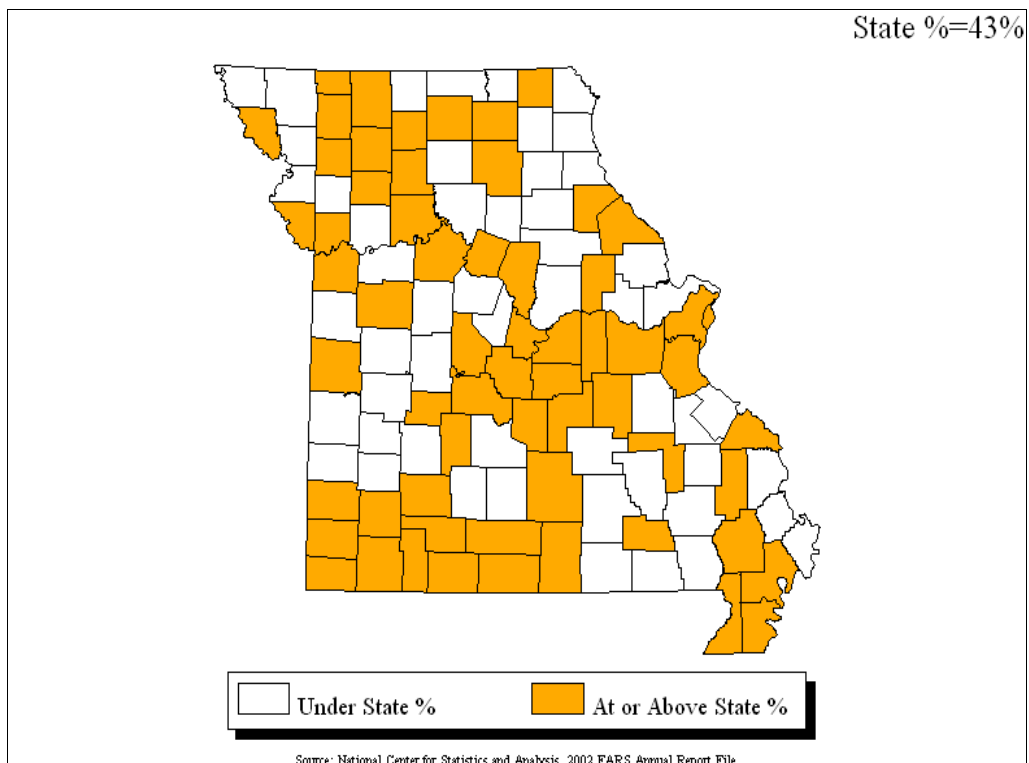
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	254	171	67	3.81	2.56
1983	286	184	64	3.98	2.56
1984	238	145	61	3.22	1.96
1985	223	154	69	3.03	2.09
1986	222	122	55	2.87	1.58
1987	234	143	61	2.90	1.77
1988	198	117	59	2.43	1.44
1989	181	94	52	2.19	1.14
1990	212	119	56	2.54	1.43
1991	200	112	56	2.41	1.35
1992	192	104	54	2.25	1.22
1993	195	115	59	2.24	1.32
1994	202	104	52	2.22	1.14
1995	215	95	44	2.28	1.01
1996	200	78	39	2.12	0.83
1997	265	124	47	2.82	1.32
1998	237	105	44	2.47	1.10
1999	220	109	49	2.24	1.11
2000	237	117	49	2.40	1.18
2001	230	104	45	2.30	1.04
2002	270	127	47	2.60	1.22

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## MONTANA

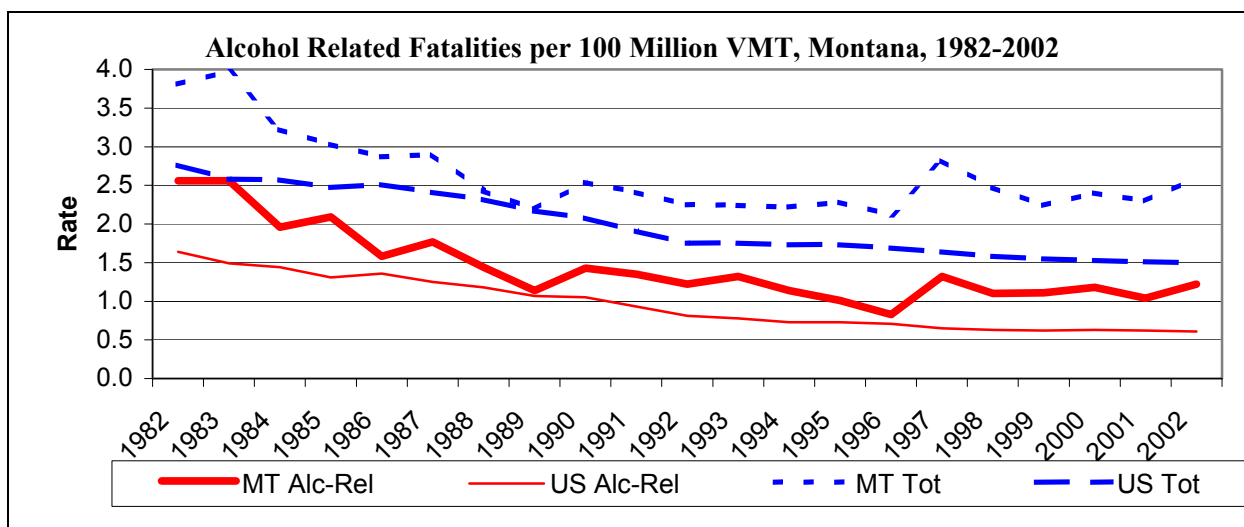
### Change in AR-Rates over time, Montana vs. US

Time Period	Montana	US
1982 to 2002	-52%	-63%
Last 10 years	0%	-25%
Last 5 years	-8%	-6%
Last 3 Years	+10%	-2%
Last 1 Year	+17%	-2%

### Impaired Driving Legislations\*

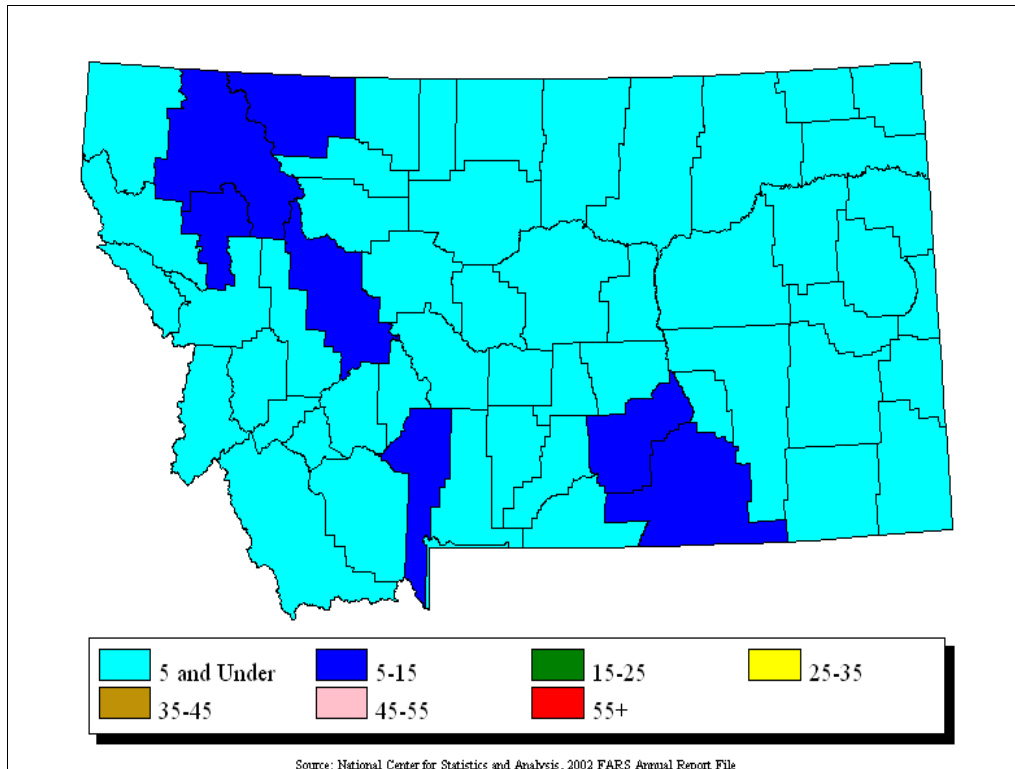
Law	BAC Level
Administrative Per Se BAC Level	-
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

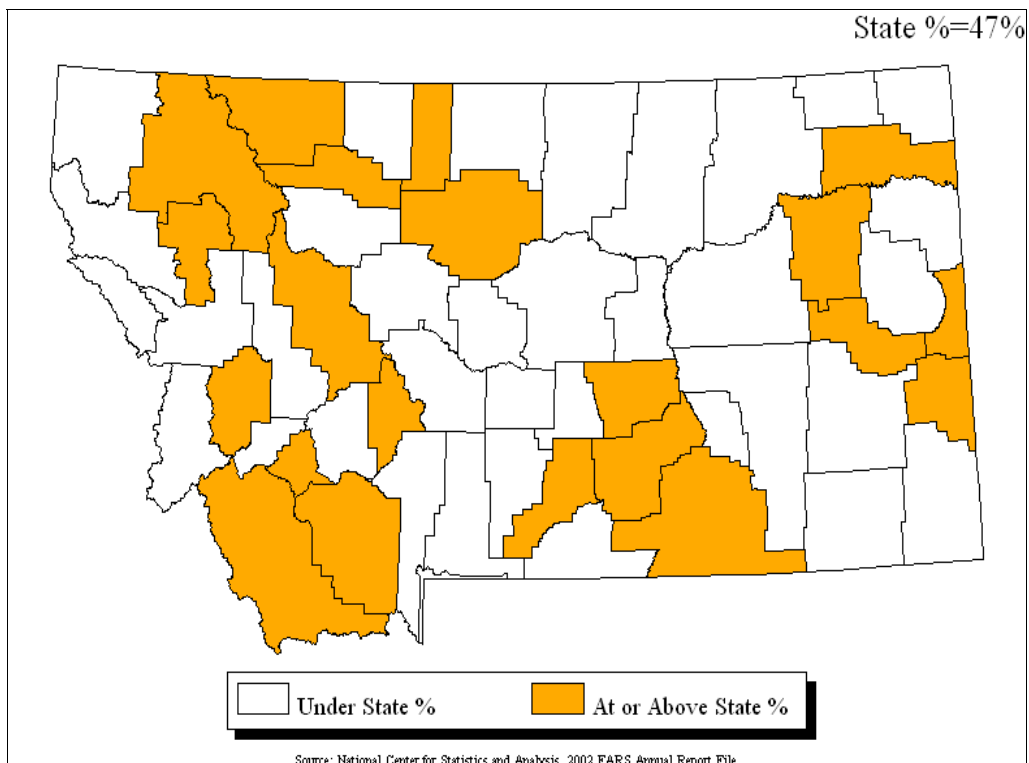




### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	261	131	50	2.28	1.15
1983	255	125	49	2.21	1.08
1984	285	133	47	2.38	1.11
1985	237	101	43	1.97	0.84
1986	290	141	49	2.30	1.12
1987	297	130	44	2.27	0.99
1988	261	135	52	1.95	1.01
1989	296	118	40	2.15	0.86
1990	262	110	42	1.88	0.79
1991	275	118	43	1.95	0.84
1992	269	91	34	1.84	0.62
1993	254	106	42	1.72	0.72
1994	271	117	43	1.75	0.76
1995	254	94	37	1.61	0.59
1996	293	102	35	1.80	0.63
1997	302	108	36	1.77	0.63
1998	315	120	38	1.79	0.68
1999	295	126	43	1.64	0.70
2000	276	104	38	1.53	0.58
2001	246	94	38	1.36	0.52
2002	307	117	38	1.64	0.63

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEBRASKA

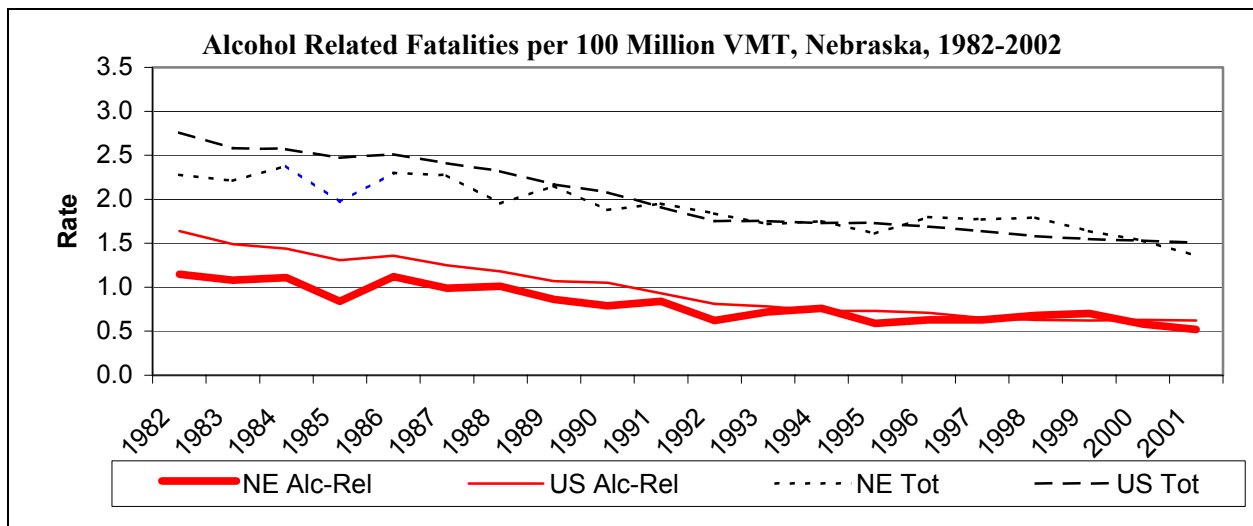
### Change in AR-Rates over time, Nebraska vs. US

Time Period	Nebraska	US
1982 to 2002	-45%	-63%
Last 10 years	+2%	-25%
Last 5 years	0%	-6%
Last 3 Years	-10%	-2%
Last 1 Year	+21%	-2%

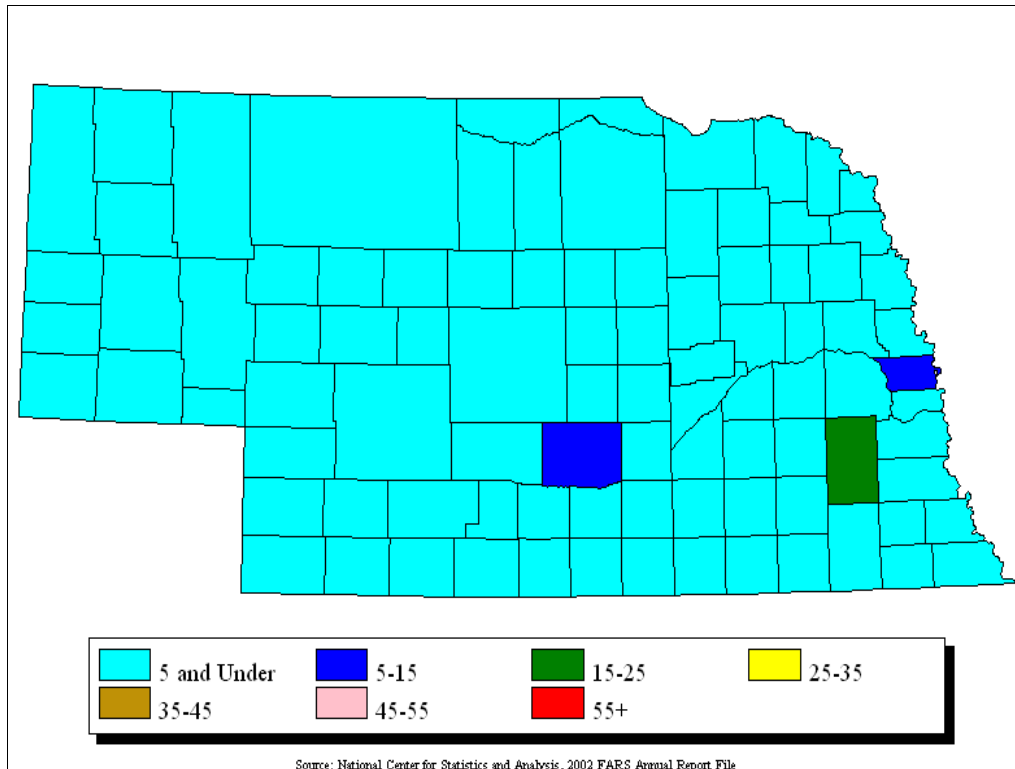
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (09/01/01)
Youthful (under 21) Offenders BAC Level	0.02

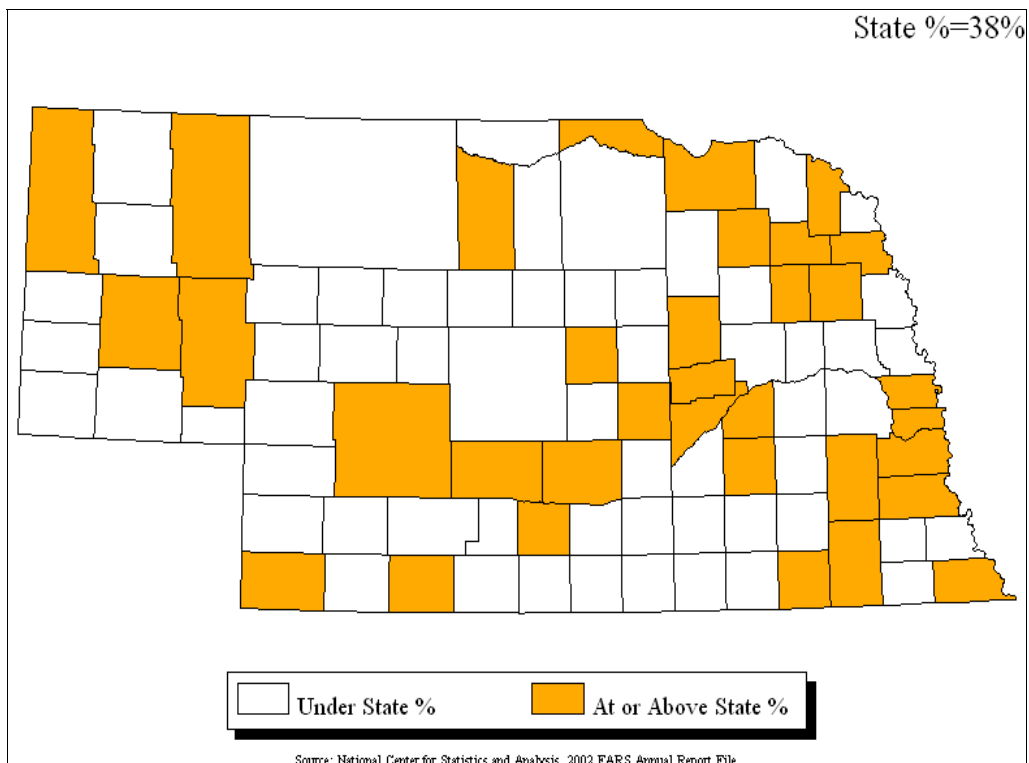
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	280	191	68	4.37	2.98
1983	253	152	60	3.68	2.21
1984	249	135	54	3.40	1.84
1985	259	148	57	3.42	1.96
1986	233	135	58	2.92	1.69
1987	262	151	58	3.12	1.80
1988	286	162	57	3.18	1.80
1989	308	172	56	3.28	1.83
1990	343	203	59	3.36	1.99
1991	298	165	55	2.84	1.57
1992	254	125	49	2.33	1.15
1993	263	121	46	2.26	1.04
1994	294	144	49	2.26	1.11
1995	313	148	47	2.24	1.06
1996	348	170	49	2.18	1.06
1997	347	155	45	2.13	0.95
1998	361	176	49	2.09	1.02
1999	350	153	44	2.01	0.88
2000	323	140	43	1.83	0.79
2001	314	133	42	1.72	0.73
2002	381	171	45	2.12	0.95

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEVADA

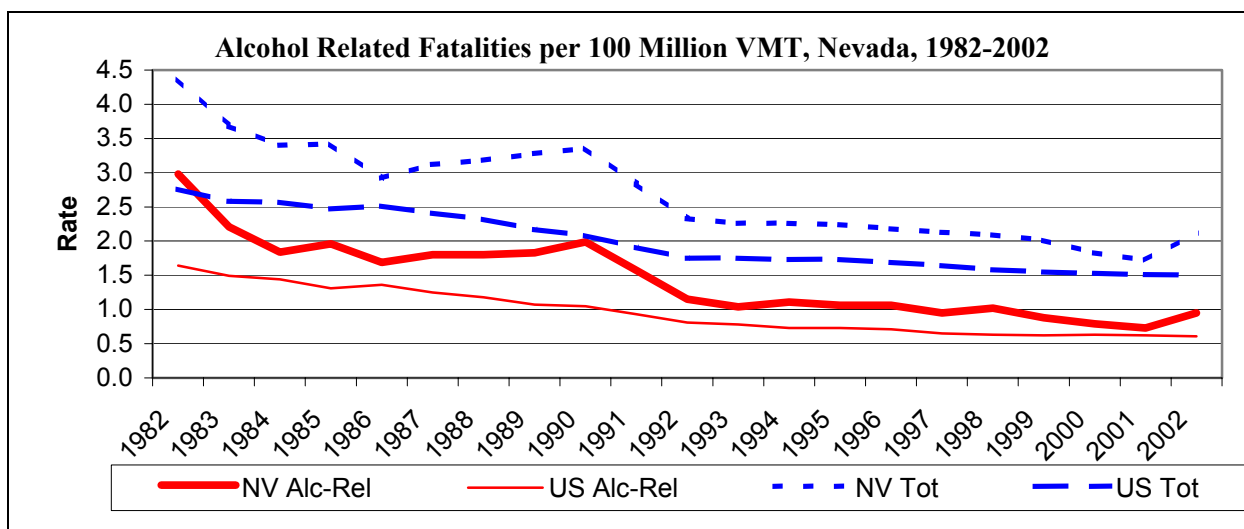
### Change in AR-Rates over time, Nevada vs. US

Time Period	Nevada	US
1982 to 2002	-68%	-63%
Last 10 years	-17%	-25%
Last 5 years	0%	-6%
Last 3 Years	+8%	-2%
Last 1 Year	+30%	-2%

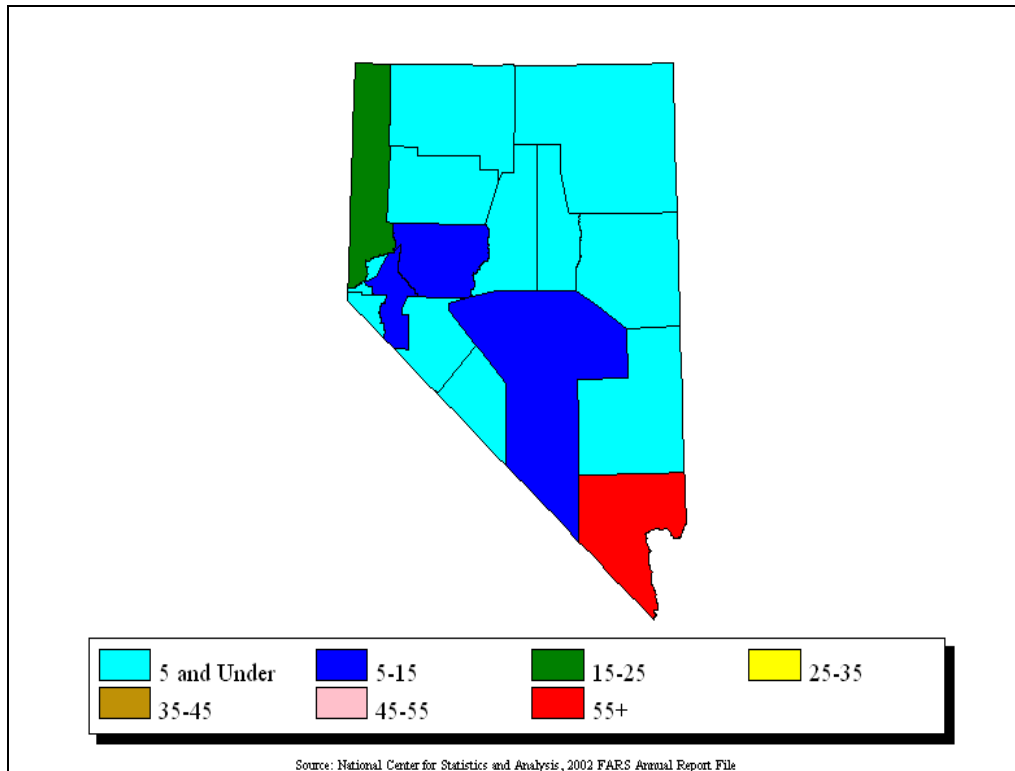
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

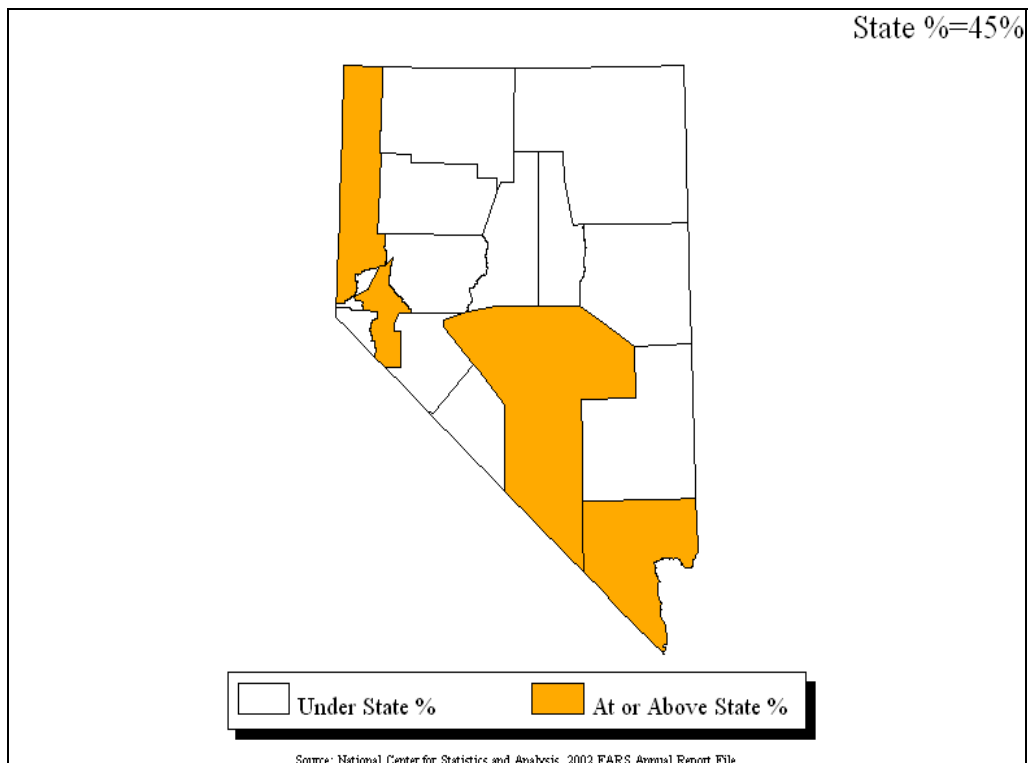
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	173	111	64	2.48	1.59
1983	191	103	54	2.66	1.43
1984	192	109	57	2.63	1.49
1985	191	132	69	2.53	1.75
1986	172	139	81	2.17	1.76
1987	179	93	52	1.95	1.01
1988	166	84	51	1.73	0.88
1989	187	93	50	1.90	0.95
1990	158	77	48	1.61	0.78
1991	144	67	46	1.45	0.67
1992	122	40	32	1.21	0.40
1993	121	52	43	1.17	0.50
1994	119	50	42	1.13	0.48
1995	118	47	39	1.11	0.44
1996	134	47	35	1.22	0.43
1997	125	60	48	1.12	0.54
1998	128	63	49	1.11	0.54
1999	140	66	47	1.18	0.55
2000	126	49	39	1.05	0.41
2001	142	67	47	1.15	0.54
2002	127	51	40	1.01	0.41

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEW HAMPSHIRE

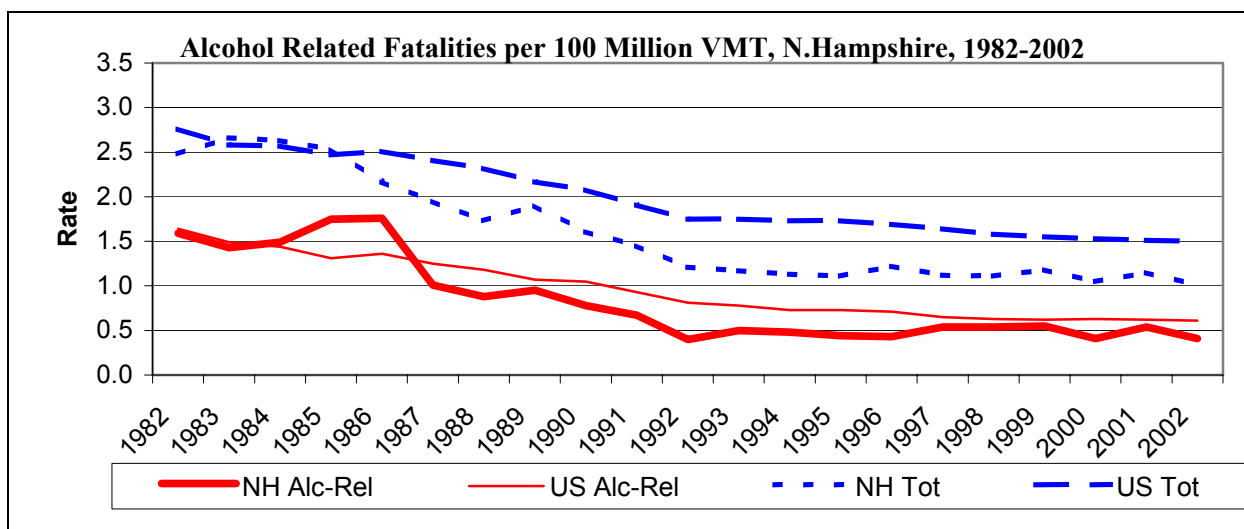
### Change in AR-Rates over time, New Hampshire vs. US

Time Period	N.Hampshire	US
1982 to 2002	-74%	-63%
Last 10 years	+3%	-25%
Last 5 years	-24%	-6%
Last 3 Years	-25%	-2%
Last 1 Year	-24%	-2%

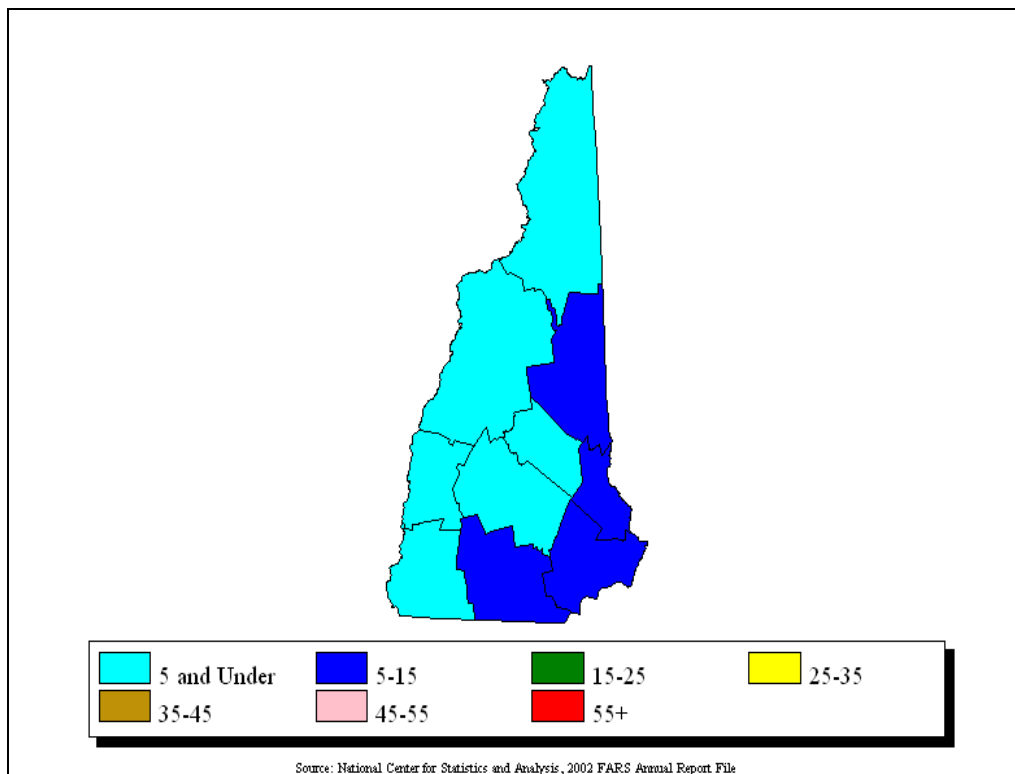
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (01/01/94)
Youthful (under 21) Offenders BAC Level	0.02

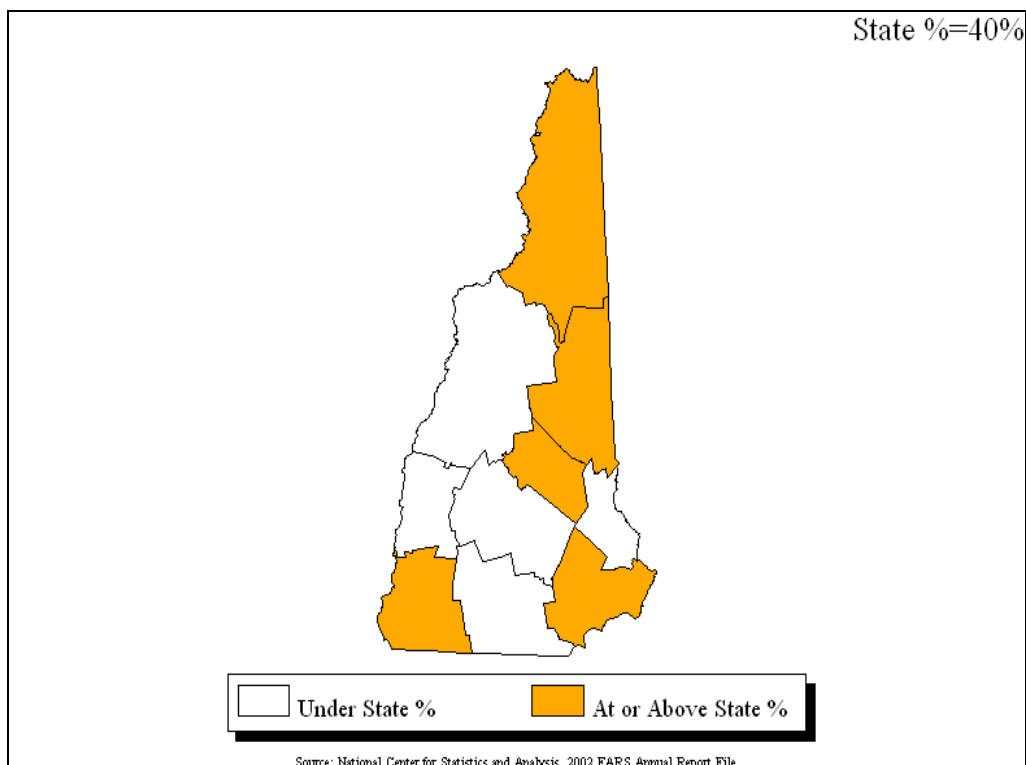
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,061	622	59	2.04	1.20
1983	932	494	53	1.78	0.95
1984	922	451	49	1.76	0.86
1985	964	479	50	1.83	0.91
1986	1,039	490	47	1.87	0.88
1987	1,023	435	43	1.79	0.76
1988	1,051	457	43	1.79	0.78
1989	891	384	43	1.49	0.64
1990	886	366	41	1.50	0.62
1991	783	320	41	1.32	0.54
1992	763	280	37	1.28	0.47
1993	789	290	37	1.32	0.49
1994	761	289	38	1.26	0.48
1995	774	277	36	1.27	0.45
1996	814	283	35	1.31	0.45
1997	775	278	36	1.22	0.44
1998	741	267	36	1.15	0.41
1999	726	283	39	1.11	0.43
2000	731	322	44	1.08	0.48
2001	745	285	38	1.08	0.41
2002	773	299	39	1.11	0.43

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEW JERSEY

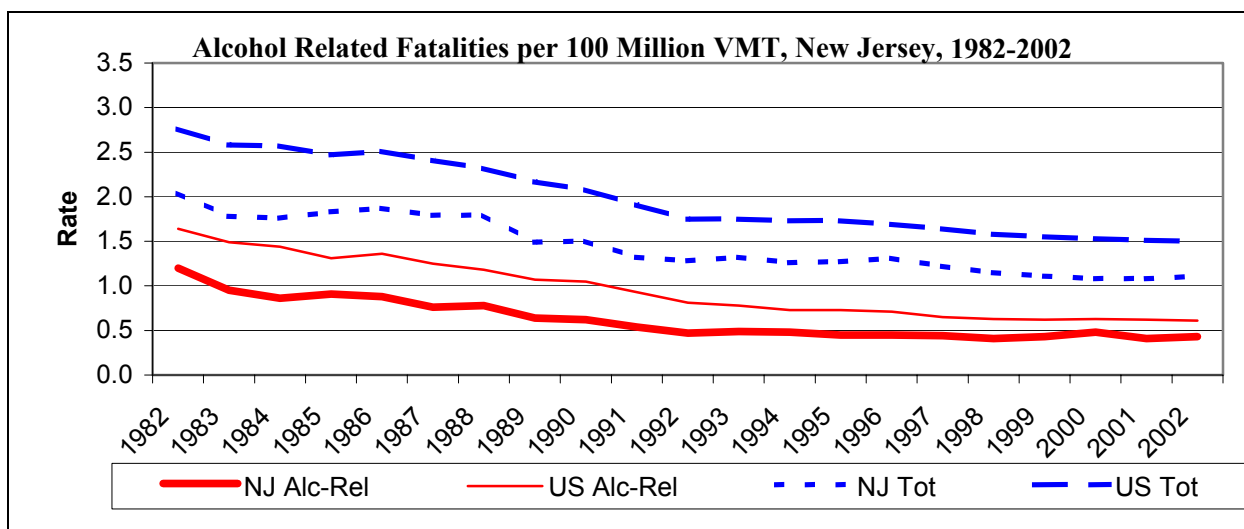
### Change in AR-Rates over time, New Jersey vs. US

Time Period	New Jersey	US
1982 to 2002	-64%	-63%
Last 10 years	-9%	-25%
Last 5 years	-2%	-6%
Last 3 Years	0%	-2%
Last 1 Year	+5%	-2%

### Impaired Driving Legislations\*

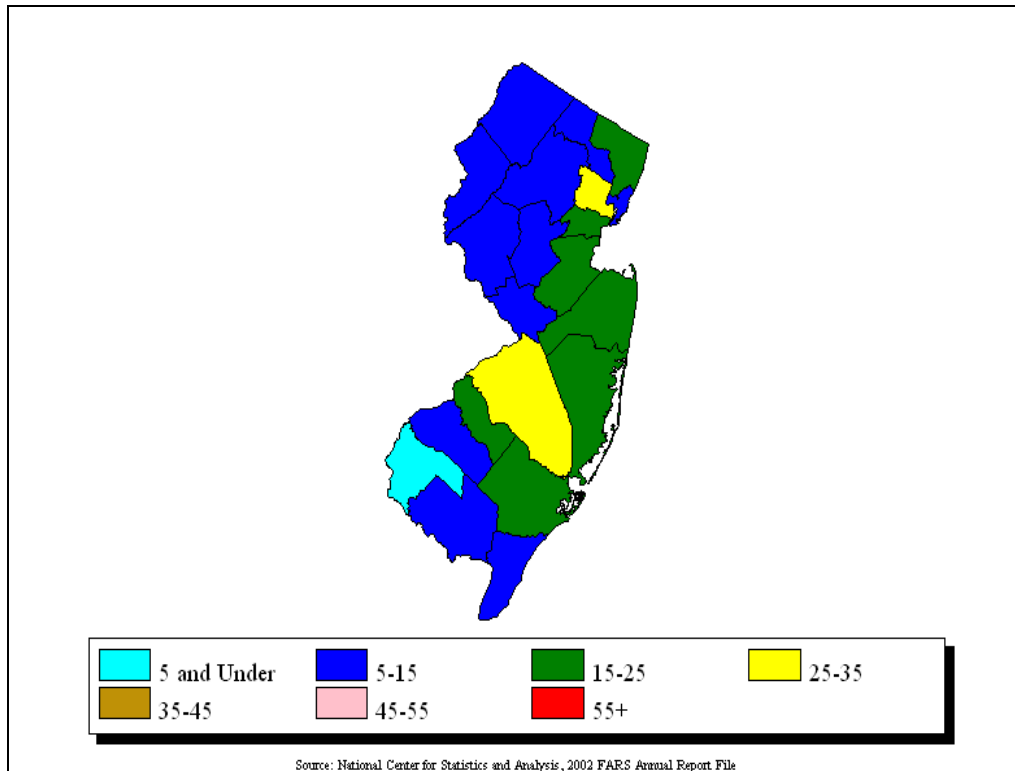
Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.01

\*As of October 2003

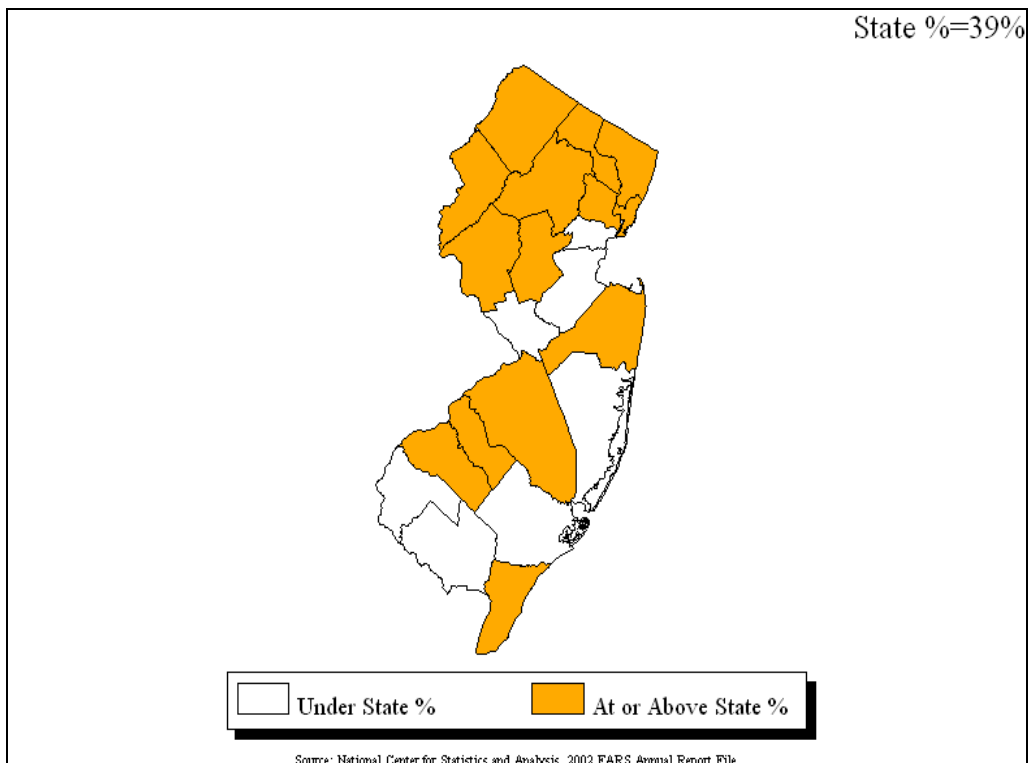




**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	577	375	65	4.87	3.16
1983	531	350	66	4.55	3.00
1984	497	326	66	3.85	2.53
1985	535	320	60	4.03	2.41
1986	499	322	65	3.79	2.44
1987	568	373	66	3.76	2.47
1988	487	332	68	3.19	2.17
1989	538	321	60	3.40	2.03
1990	499	323	65	3.09	2.00
1991	469	270	58	2.80	1.61
1992	460	285	62	2.49	1.54
1993	431	254	59	2.28	1.34
1994	447	240	54	2.18	1.17
1995	485	240	49	2.29	1.13
1996	485	247	51	2.25	1.15
1997	484	224	46	2.21	1.02
1998	424	196	46	1.91	0.88
1999	460	206	45	2.06	0.92
2000	432	213	49	1.90	0.94
2001	464	216	47	2.00	0.93
2002	449	215	48	1.97	0.94

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEW MEXICO

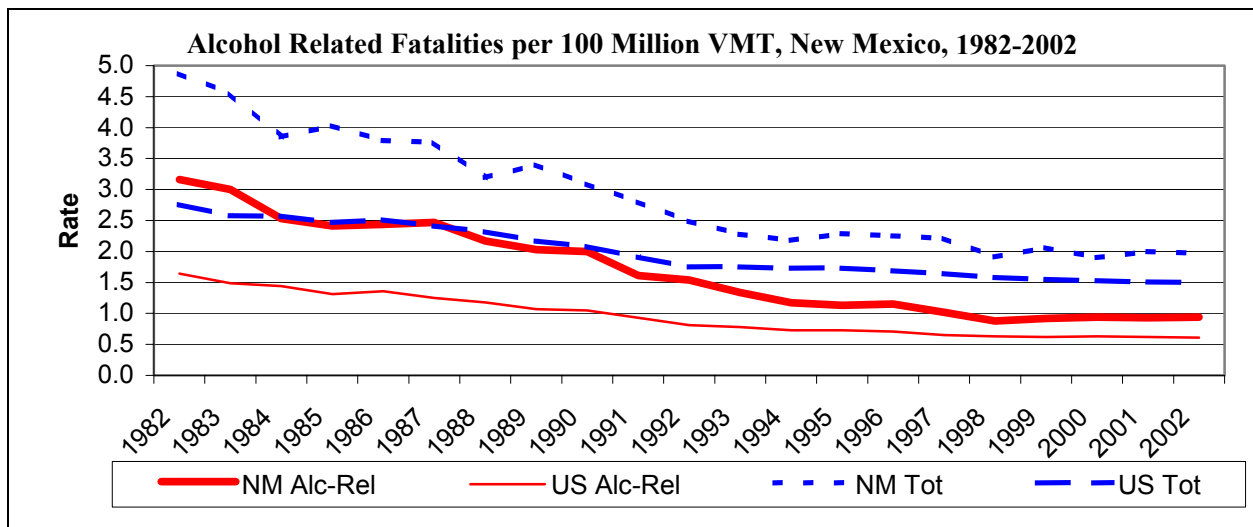
### Change in AR-Rates over time, New Mexico vs. US

Time Period	New Mexico	US
1982 to 2002	-70%	-63%
Last 10 years	-39%	-25%
Last 5 years	-8%	-6%
Last 3 Years	+2%	-2%
Last 1 Year	+1%	-2%

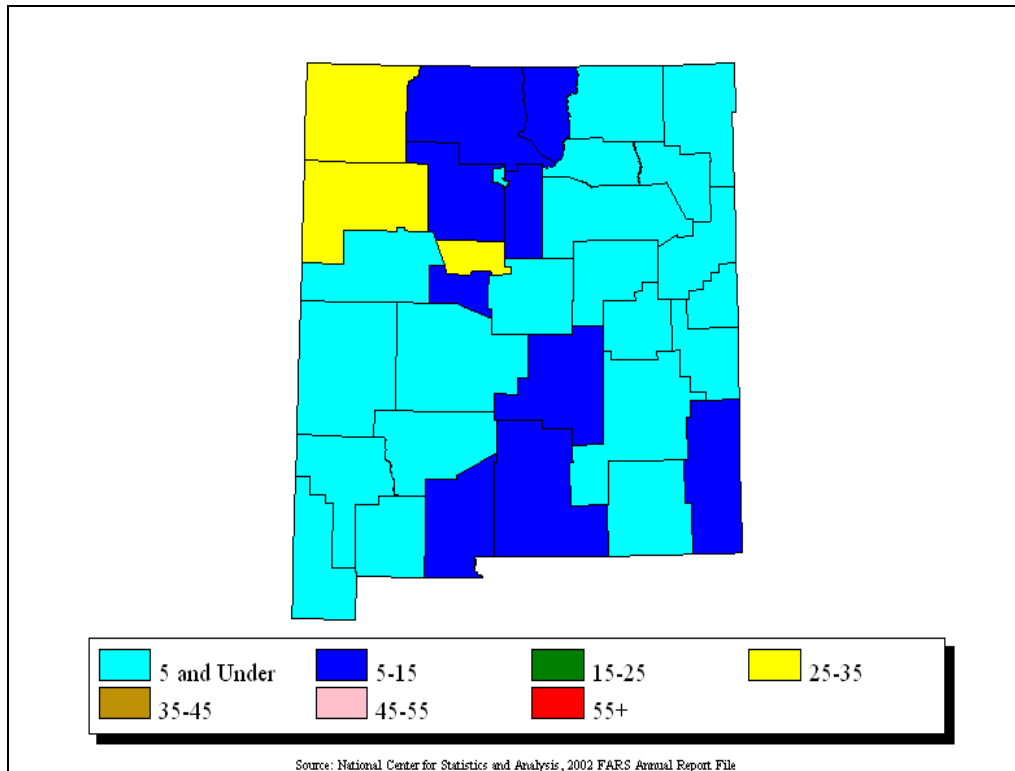
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (01/01/94)
Youthful (under 21) Offenders BAC Level	0.02

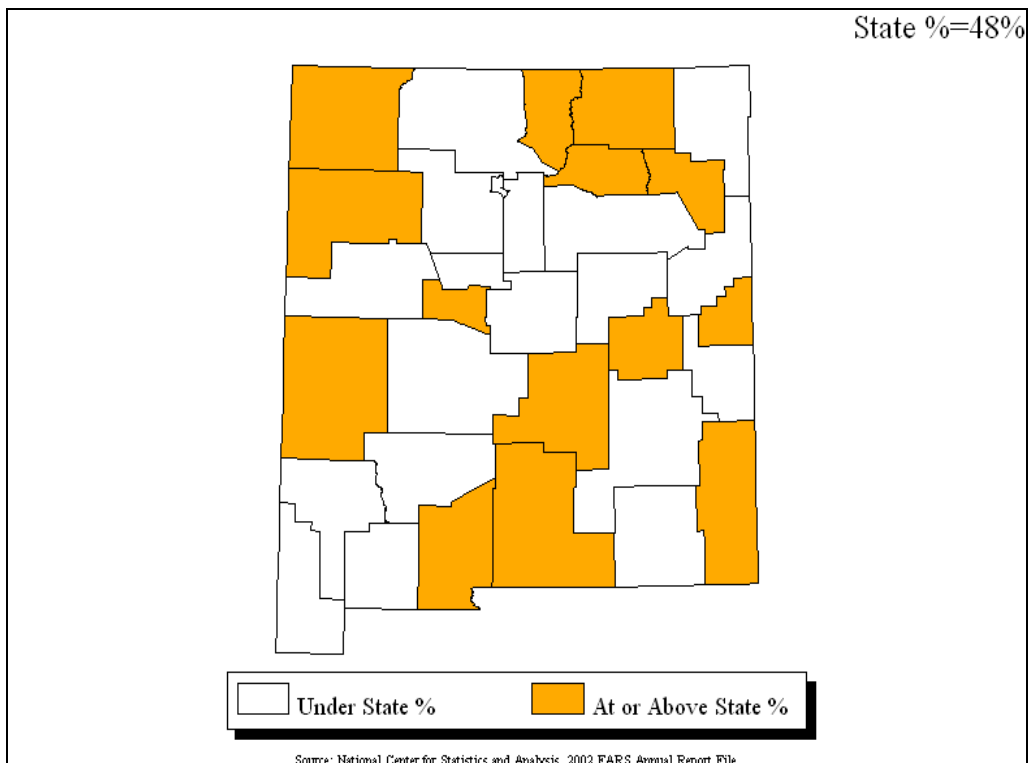
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	2,162	1,131	52	2.69	1.41
1983	2,077	1,019	49	2.48	1.22
1984	2,060	1,023	50	2.36	1.17
1985	2,006	966	48	2.22	1.07
1986	2,121	979	46	2.24	1.03
1987	2,339	1,081	46	2.39	1.10
1988	2,256	946	42	2.18	0.91
1989	2,260	924	41	2.13	0.87
1990	2,217	952	43	2.07	0.89
1991	2,008	787	39	1.87	0.73
1992	1,815	676	37	1.65	0.62
1993	1,790	650	36	1.59	0.58
1994	1,678	560	33	1.49	0.50
1995	1,679	577	34	1.46	0.50
1996	1,593	557	35	1.34	0.47
1997	1,652	512	31	1.37	0.42
1998	1,514	451	30	1.23	0.37
1999	1,599	483	30	1.26	0.38
2000	1,460	476	33	1.13	0.37
2001	1,564	505	32	1.20	0.39
2002	1,522	478	31	1.14	0.36

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NEW YORK

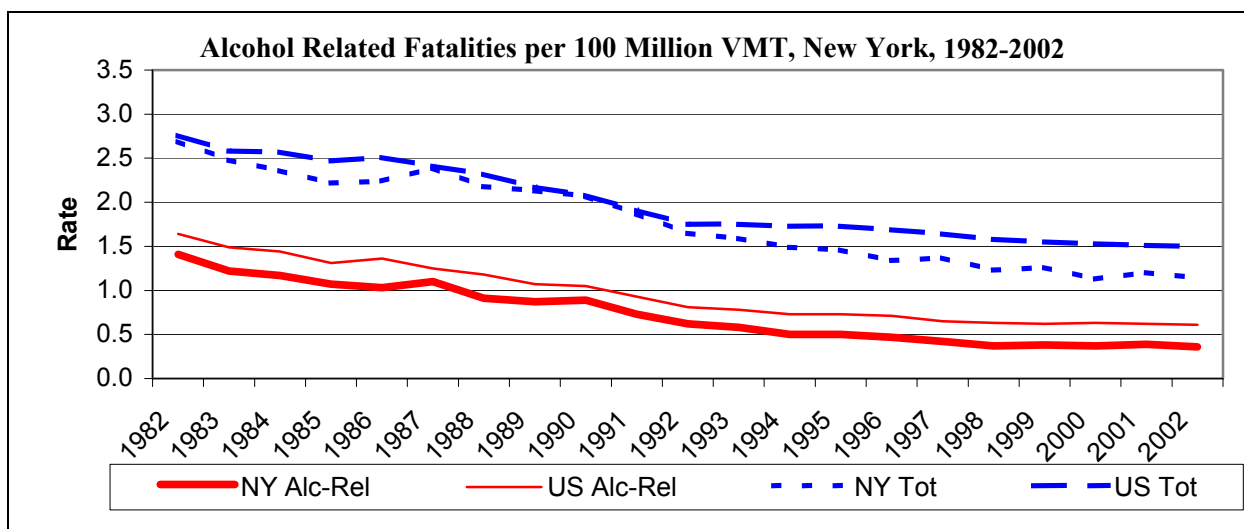
### Change in AR-Rates over time, New York vs. US

Time Period	New York	US
1982 to 2002	-74%	-63%
Last 10 years	-42%	-25%
Last 5 years	-14%	-6%
Last 3 Years	-5%	-2%
Last 1 Year	-8%	-2%

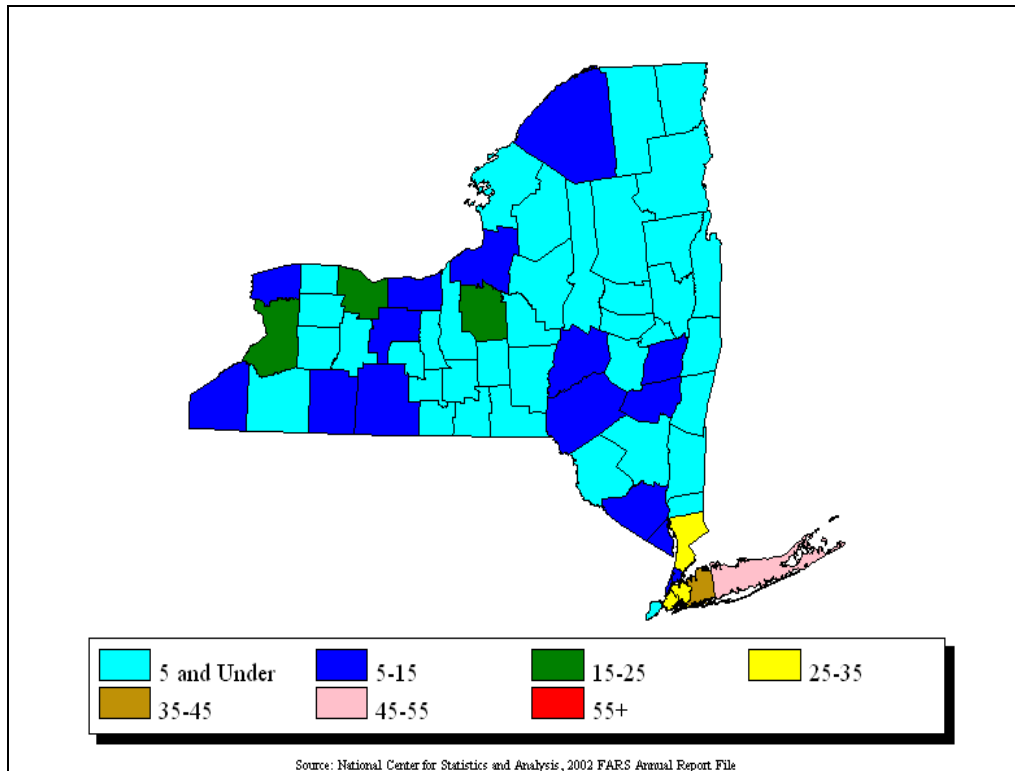
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	-
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

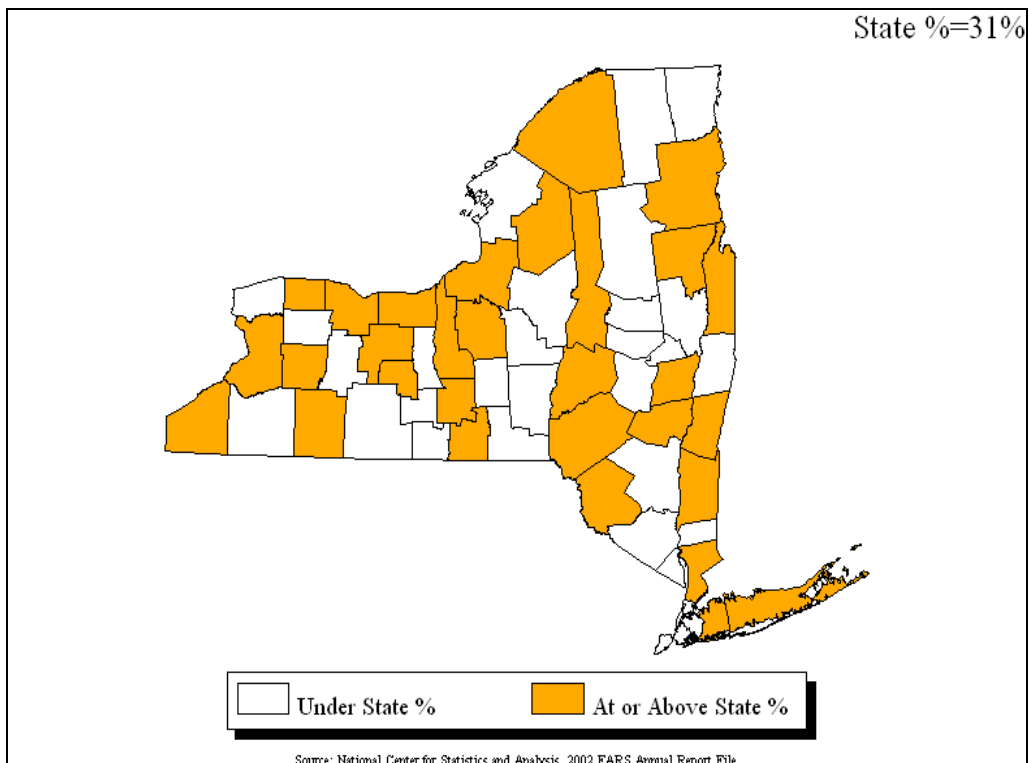
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,303	827	63	3.02	1.92
1983	1,234	672	54	2.74	1.49
1984	1,450	750	52	3.01	1.56
1985	1,482	686	46	2.97	1.37
1986	1,647	806	49	3.12	1.52
1987	1,584	764	48	2.90	1.40
1988	1,573	709	45	2.71	1.22
1989	1,471	621	42	2.40	1.01
1990	1,385	644	46	2.21	1.03
1991	1,369	600	44	2.11	0.92
1992	1,265	567	45	1.87	0.84
1993	1,389	529	38	2.00	0.76
1994	1,431	535	37	1.99	0.74
1995	1,448	501	35	1.90	0.66
1996	1,494	546	37	1.89	0.69
1997	1,483	545	37	1.81	0.67
1998	1,596	581	36	1.87	0.68
1999	1,505	573	38	1.71	0.65
2000	1,557	614	39	1.74	0.69
2001	1,530	536	35	1.67	0.59
2002	1,575	601	38	1.70	0.65

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NORTH CAROLINA

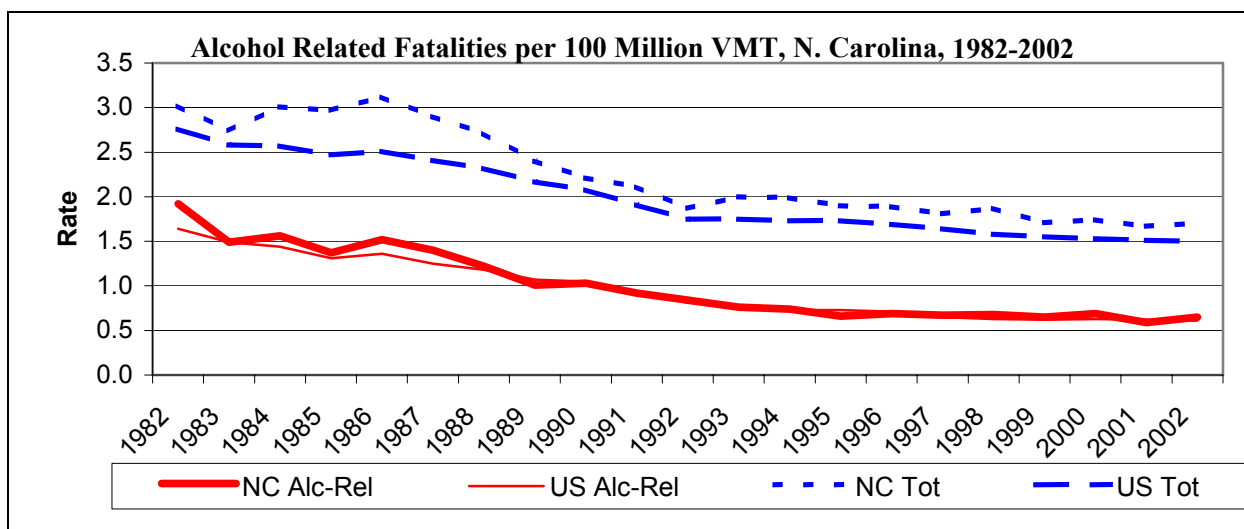
### Change in AR-Rates over time, N. Carolina vs. US

Time Period	N. Carolina	US
1982 to 2002	-66%	-63%
Last 10 years	-23%	-25%
Last 5 years	-3%	-6%
Last 3 Years	0%	-2%
Last 1 Year	+10%	-2%

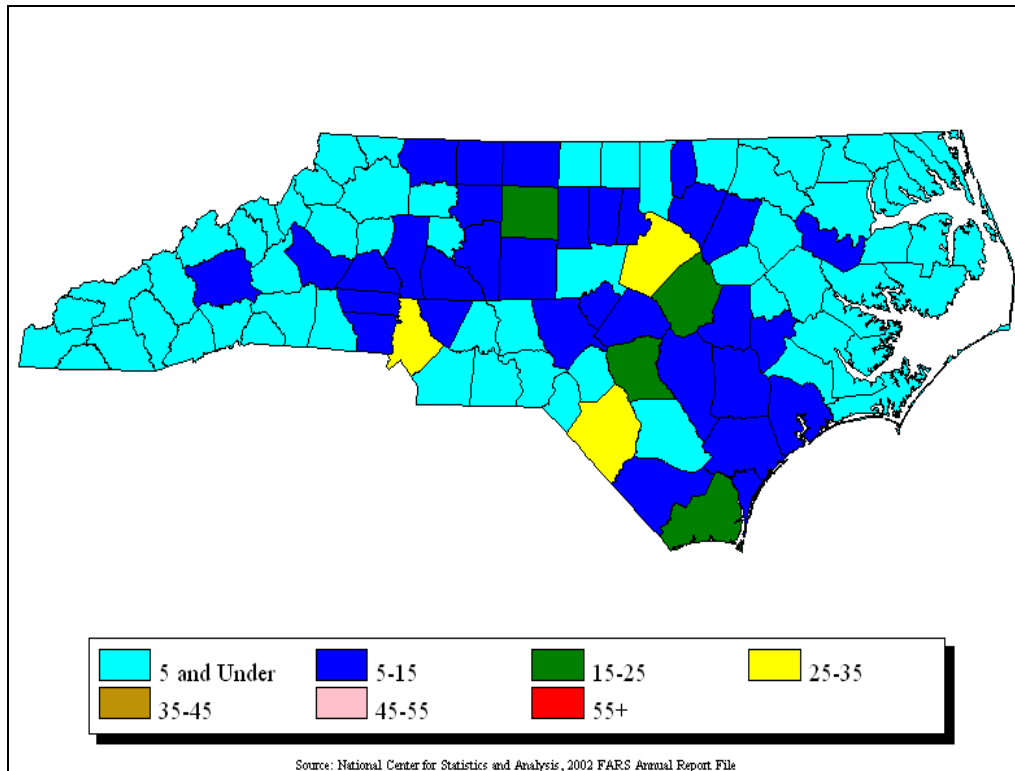
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (10/01/93)
Youthful (under 21) Offenders BAC Level	0.00

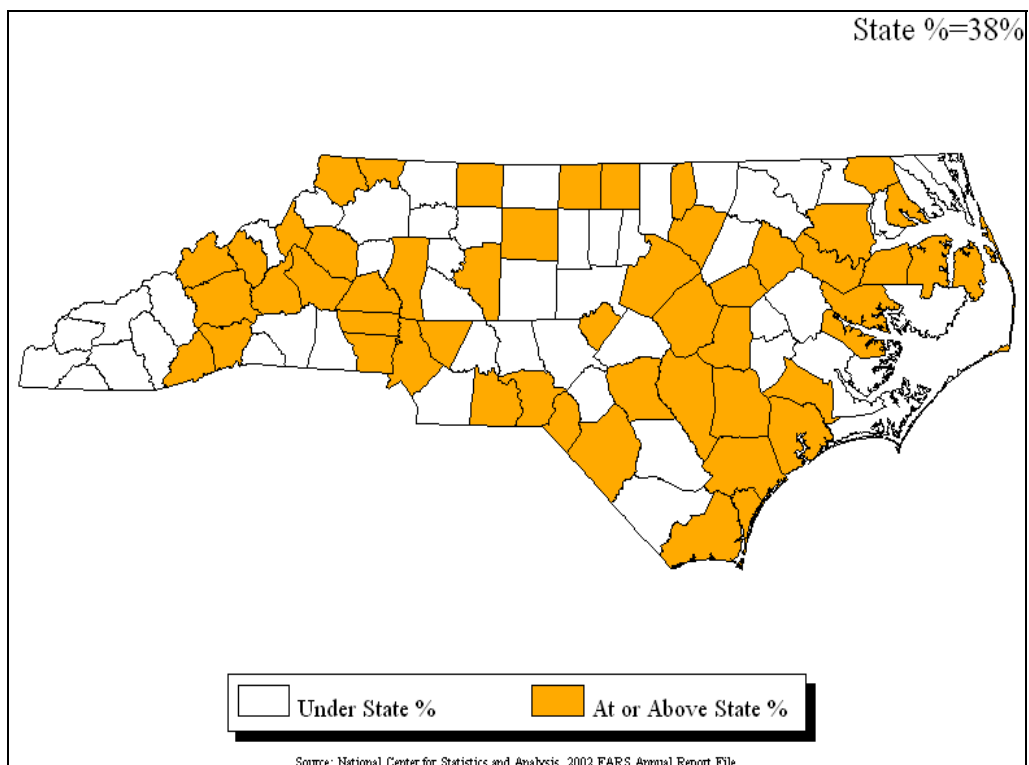
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	148	97	66	2.82	1.85
1983	116	72	62	2.16	1.34
1984	100	51	51	1.86	0.95
1985	90	54	60	1.61	0.97
1986	100	46	46	1.78	0.82
1987	101	57	56	1.78	1.00
1988	104	55	53	1.80	0.95
1989	81	38	47	1.38	0.65
1990	112	62	55	1.90	1.05
1991	94	51	54	1.58	0.86
1992	88	39	44	1.45	0.64
1993	89	44	49	1.45	0.71
1994	88	46	53	1.39	0.73
1995	74	43	58	1.13	0.66
1996	85	49	58	1.26	0.73
1997	105	54	51	1.47	0.76
1998	92	46	50	1.25	0.63
1999	119	58	49	1.64	0.80
2000	86	41	47	1.19	0.57
2001	105	53	51	1.45	0.73
2002	97	48	50	1.32	0.65

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## NORTH DAKOTA

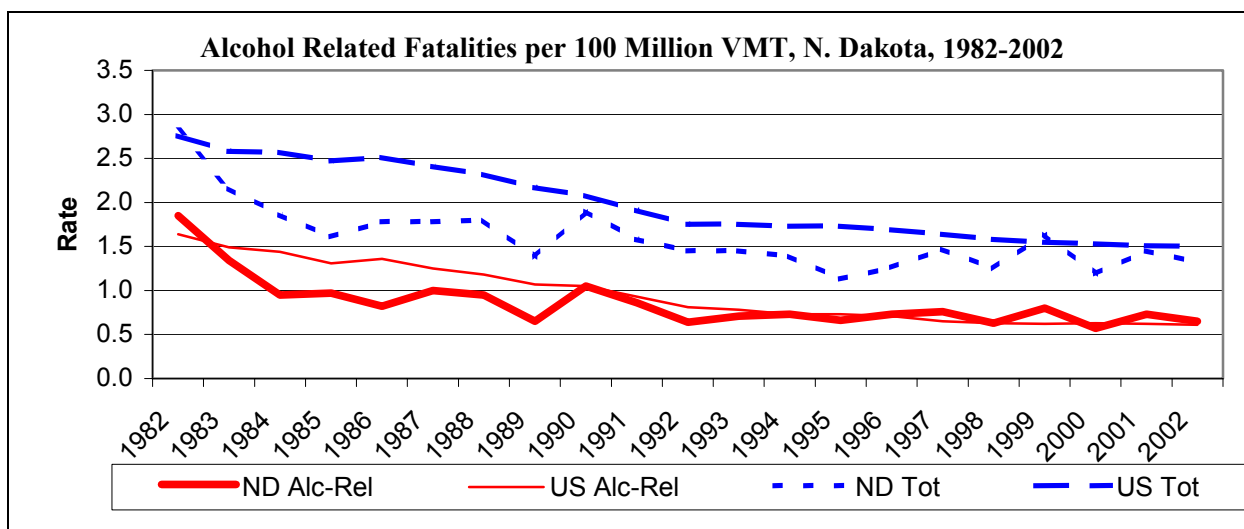
### Change in AR-Rates over time, N. Dakota vs. US

Time Period	N.Dakota	US
1982 to 2002	-65%	-63%
Last 10 years	+2%	-25%
Last 5 years	-14%	-6%
Last 3 Years	-19%	-2%
Last 1 Year	-11%	-2%

### Impaired Driving Legislations\*

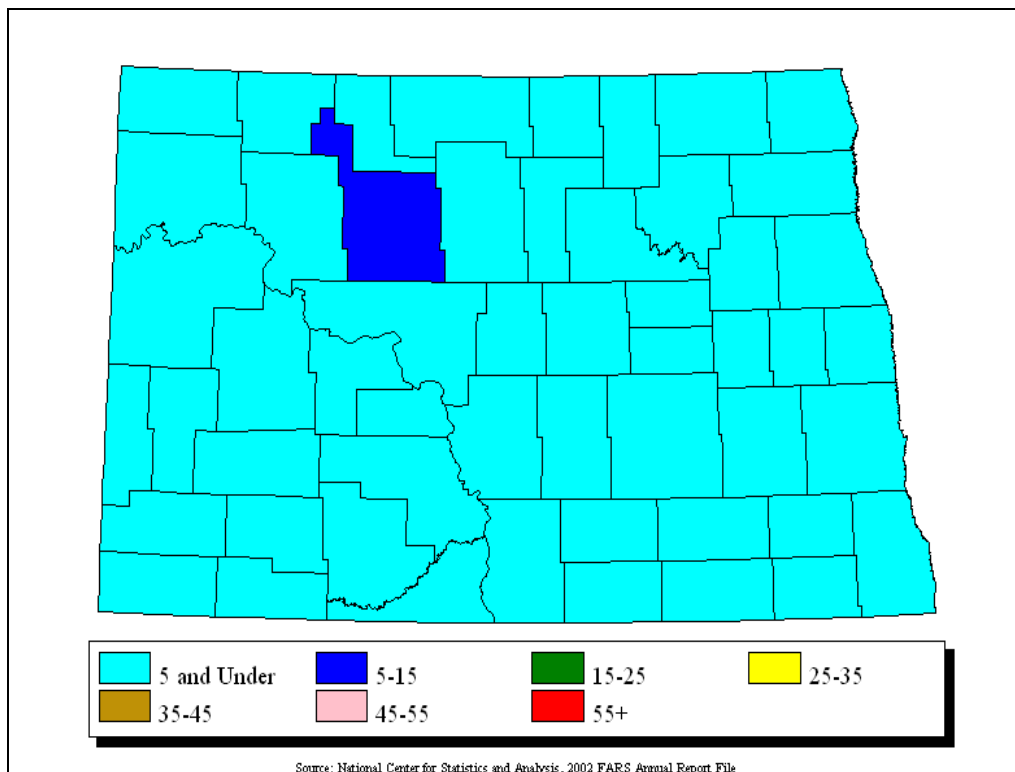
Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

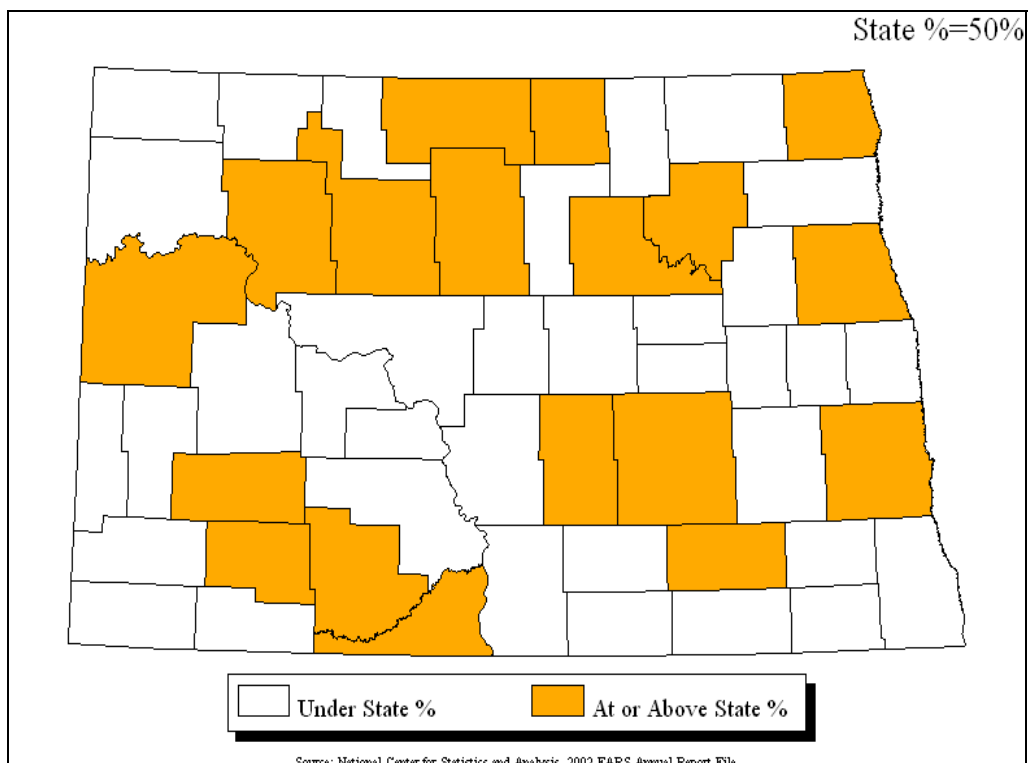




### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,607	966	60	2.24	1.35
1983	1,582	919	58	2.16	1.26
1984	1,646	957	58	2.20	1.28
1985	1,646	927	56	2.18	1.23
1986	1,673	978	58	2.17	1.27
1987	1,772	1,007	57	2.24	1.27
1988	1,748	946	54	2.13	1.15
1989	1,772	834	47	2.10	0.99
1990	1,638	745	45	1.79	0.82
1991	1,636	730	45	1.76	0.78
1992	1,439	535	37	1.51	0.56
1993	1,478	577	39	1.54	0.60
1994	1,370	455	33	1.40	0.46
1995	1,360	486	36	1.35	0.48
1996	1,391	509	37	1.35	0.49
1997	1,441	528	37	1.39	0.51
1998	1,422	531	37	1.36	0.51
1999	1,430	535	37	1.36	0.51
2000	1,366	562	41	1.29	0.53
2001	1,378	608	44	1.29	0.57
2002	1,418	562	40	1.31	0.52

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## OHIO

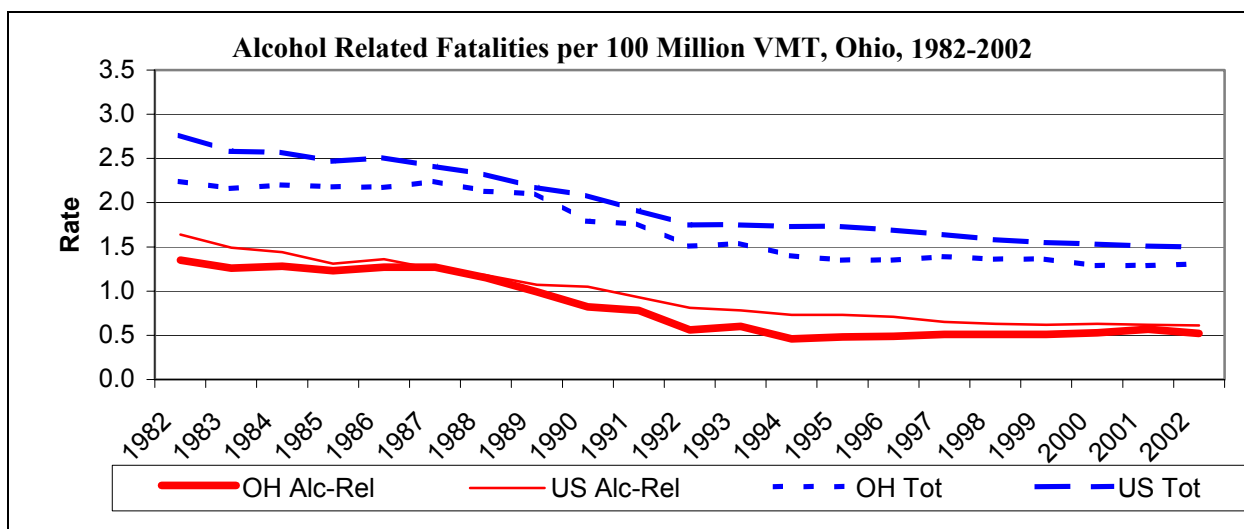
### Change in AR-Rates over time, Ohio vs. US

Time Period	Ohio	US
1982 to 2002	-61%	-63%
Last 10 years	-7%	-25%
Last 5 years	+2%	-6%
Last 3 Years	+2%	-2%
Last 1 Year	-9%	-2%

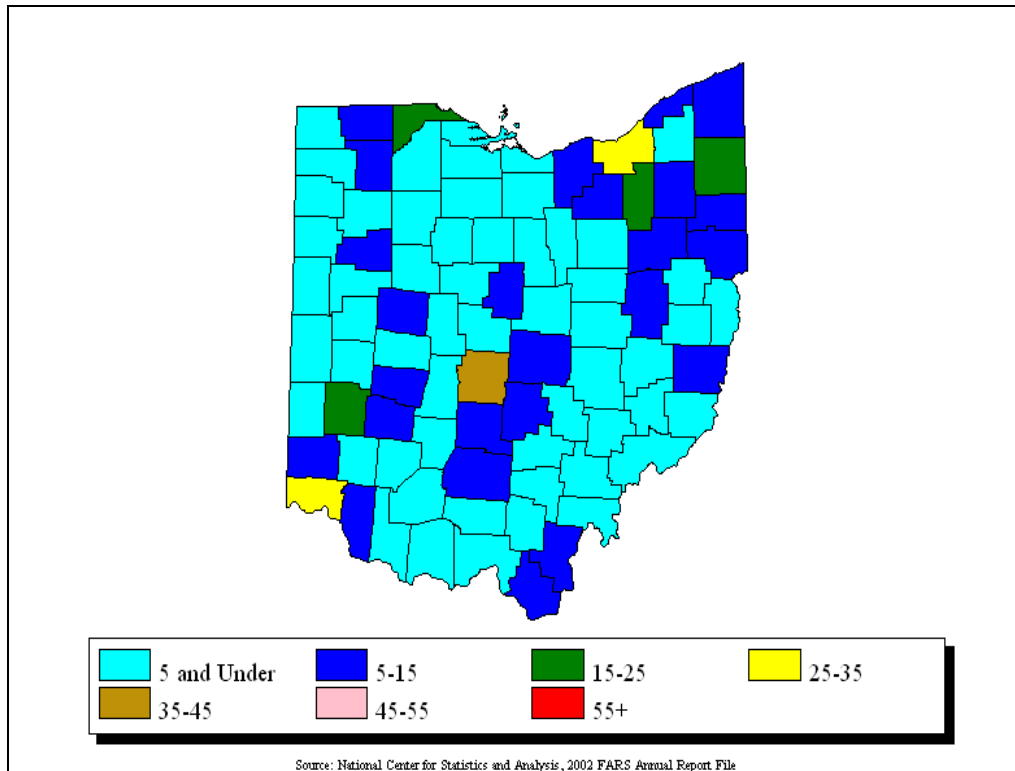
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

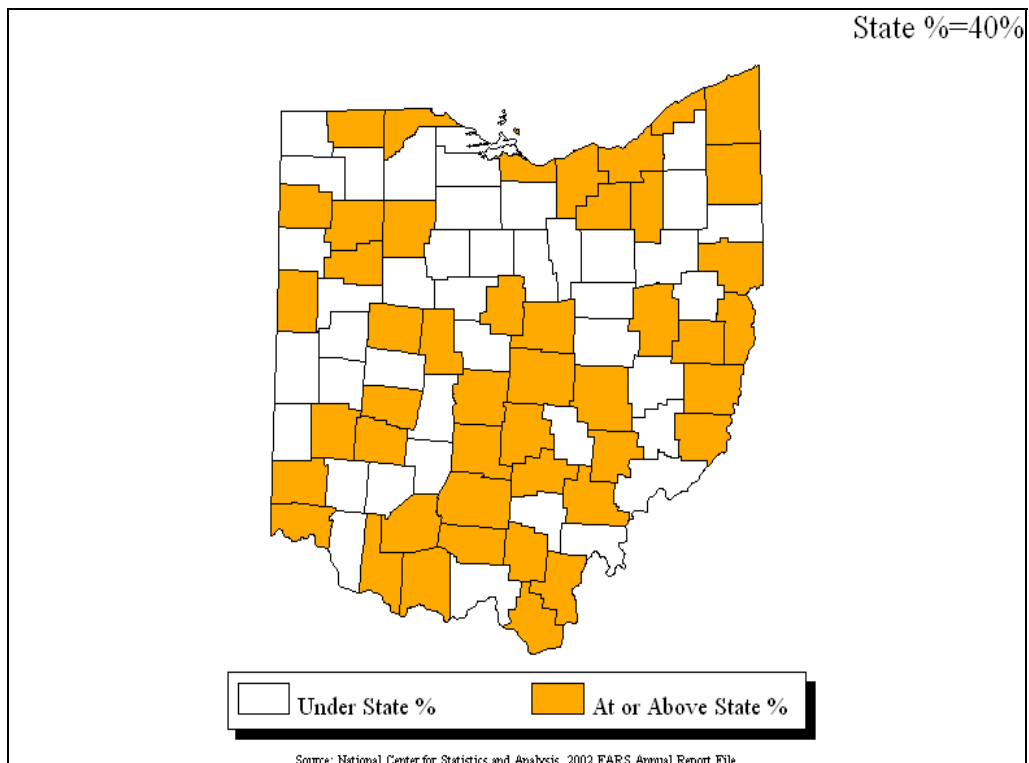
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,054	608	58	3.51	2.03
1983	848	437	52	2.87	1.48
1984	797	382	48	2.57	1.23
1985	744	353	47	2.39	1.13
1986	698	340	49	2.26	1.10
1987	597	254	43	1.89	0.80
1988	638	298	47	1.97	0.92
1989	648	284	44	1.97	0.86
1990	641	284	44	1.93	0.86
1991	652	292	45	1.90	0.85
1992	613	273	45	1.75	0.78
1993	671	284	42	1.89	0.80
1994	687	281	41	1.93	0.79
1995	669	258	39	1.74	0.67
1996	772	295	38	1.96	0.75
1997	838	328	39	2.02	0.79
1998	755	268	35	1.80	0.64
1999	741	258	35	1.74	0.61
2000	650	229	35	1.50	0.53
2001	682	270	40	1.57	0.62
2002	734	249	34	1.61	0.54

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## OKLAHOMA

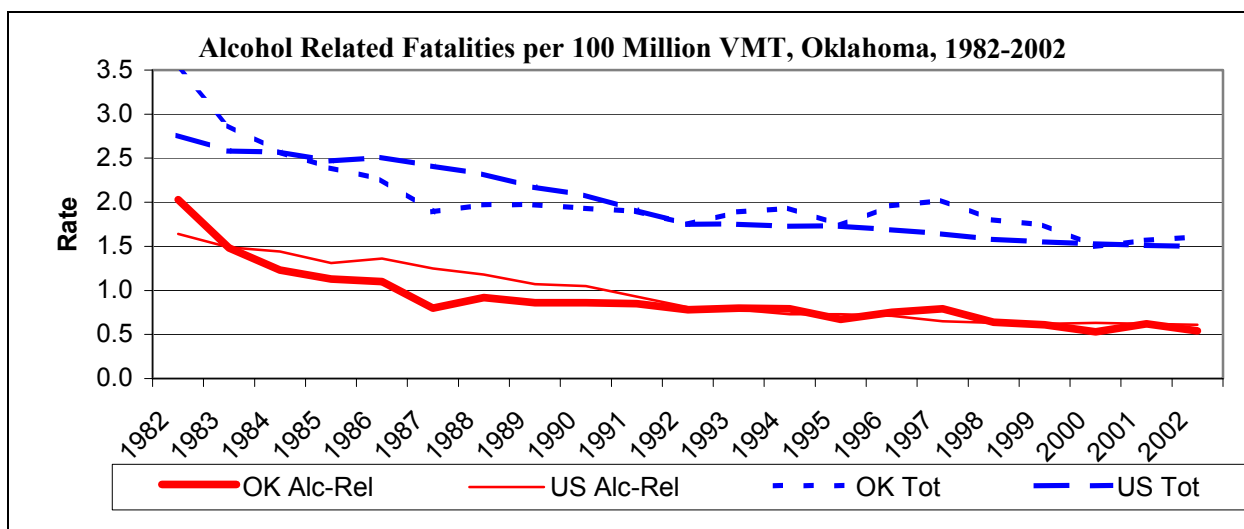
### Change in AR-Rates over time, Oklahoma vs. US

Time Period	Oklahoma	US
1982 to 2002	-73%	-63%
Last 10 years	-31%	-25%
Last 5 years	-32%	-6%
Last 3 Years	-11%	-2%
Last 1 Year	-13%	-2%

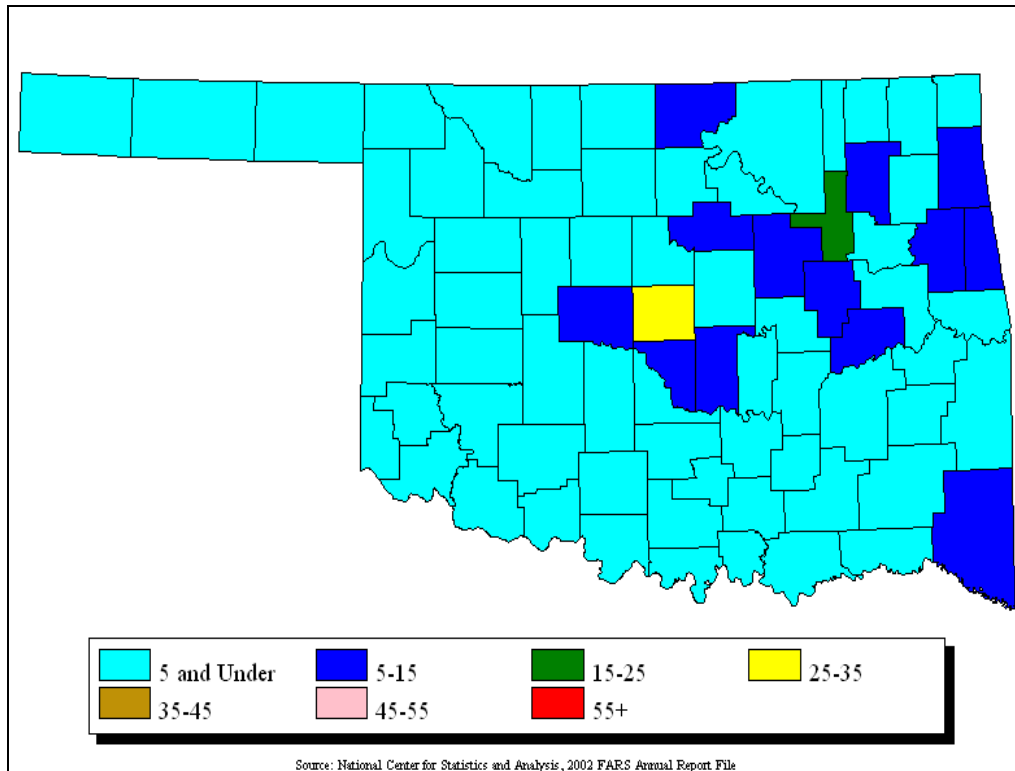
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/01)
Youthful (under 21) Offenders BAC Level	0.00

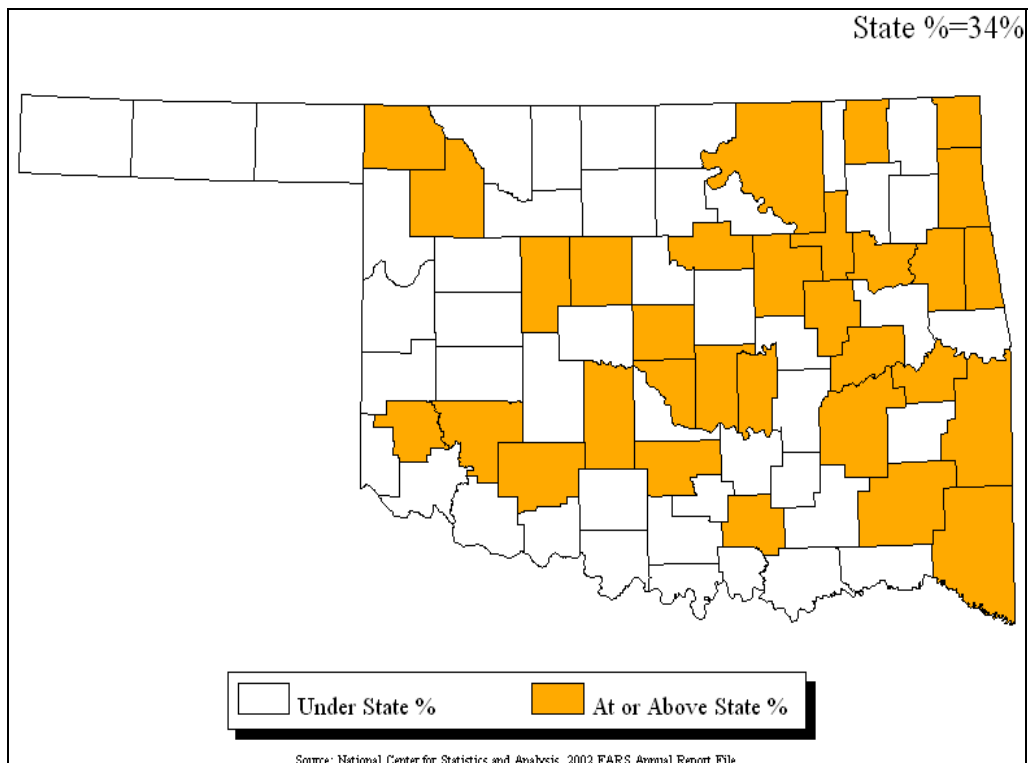
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	518	322	62	2.67	1.66
1983	550	325	59	2.75	1.63
1984	572	328	57	2.73	1.57
1985	559	308	55	2.61	1.44
1986	619	302	49	2.72	1.33
1987	619	286	46	2.65	1.23
1988	677	325	48	2.69	1.29
1989	626	284	45	2.42	1.10
1990	579	285	49	2.17	1.07
1991	482	235	49	1.87	0.91
1992	471	210	45	1.69	0.75
1993	523	220	42	1.76	0.74
1994	494	201	41	1.68	0.68
1995	574	240	42	1.91	0.80
1996	526	221	42	1.73	0.73
1997	524	231	44	1.62	0.72
1998	538	233	43	1.61	0.70
1999	414	172	42	1.19	0.50
2000	451	186	41	1.33	0.55
2001	488	187	38	1.42	0.54
2002	436	179	41	1.26	0.52

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## OREGON

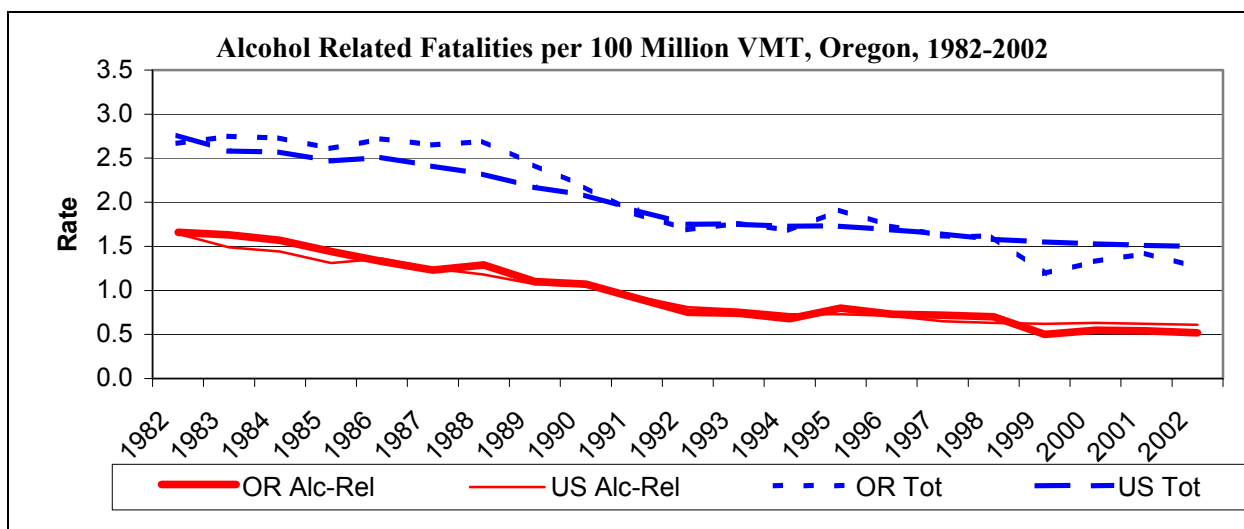
### Change in AR-Rates over time, Oregon vs. US

Time Period	Oregon	US
1982 to 2002	-69%	-63%
Last 10 years	-31%	-25%
Last 5 years	-28%	-6%
Last 3 Years	+4%	-2%
Last 1 Year	-4%	-2%

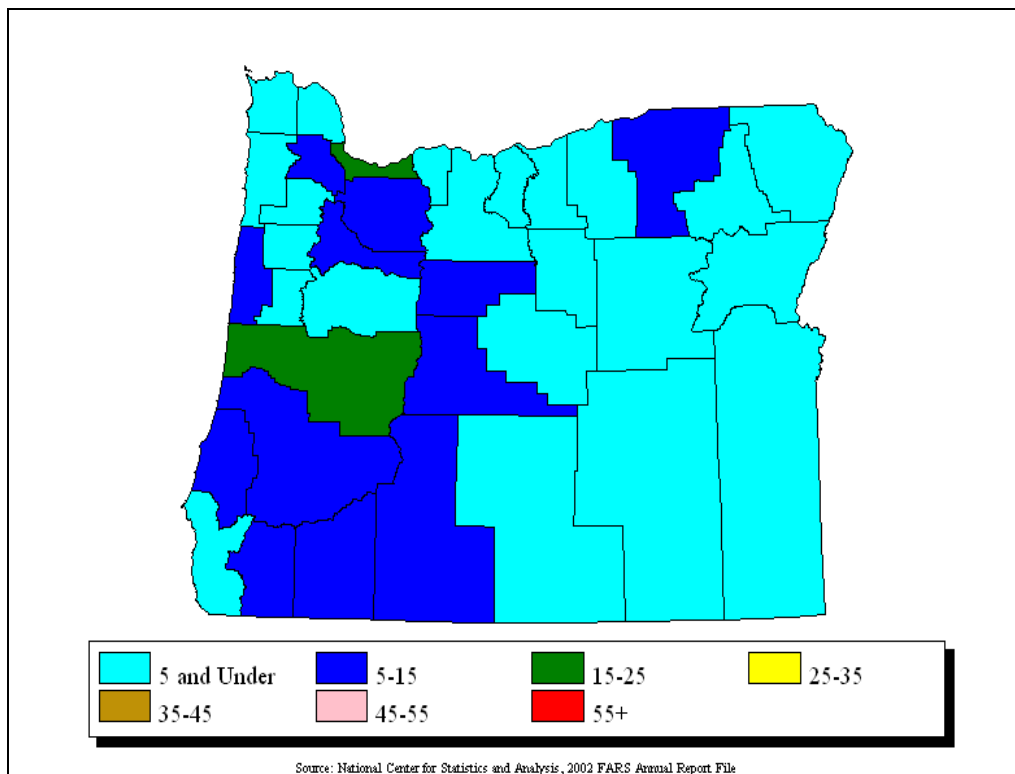
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (10/15/83)
Youthful (under 21) Offenders BAC Level	0.00

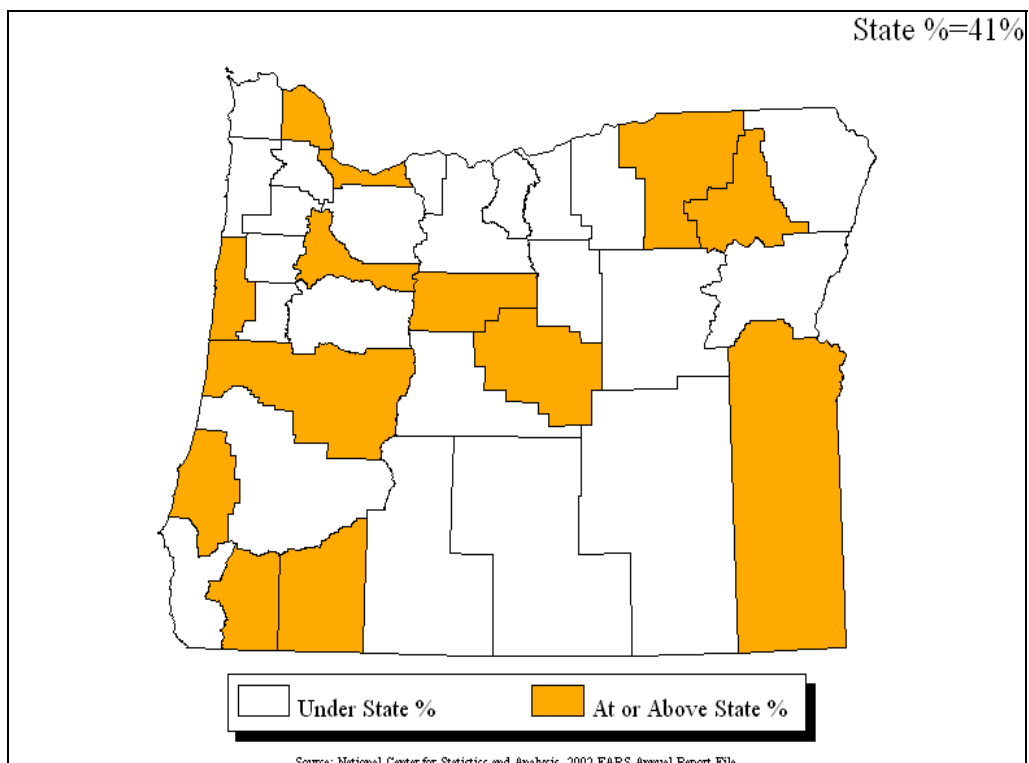
\*As of October 2003



### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,819	1,048	58	2.55	1.47
1983	1,721	980	57	2.38	1.36
1984	1,727	934	54	2.32	1.26
1985	1,771	961	54	2.35	1.27
1986	1,894	1,042	55	2.44	1.34
1987	1,987	1,042	52	2.53	1.33
1988	1,931	935	48	2.38	1.15
1989	1,877	981	52	2.27	1.18
1990	1,646	846	51	1.92	0.99
1991	1,661	807	49	1.90	0.92
1992	1,545	729	47	1.73	0.82
1993	1,529	700	46	1.69	0.77
1994	1,441	612	42	1.56	0.66
1995	1,480	619	42	1.57	0.65
1996	1,469	588	40	1.52	0.61
1997	1,557	626	40	1.59	0.64
1998	1,481	642	43	1.48	0.64
1999	1,549	618	40	1.52	0.61
2000	1,520	647	43	1.49	0.63
2001	1,532	646	42	1.49	0.63
2002	1,614	656	41	1.54	0.63

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## PENNSYLVANIA

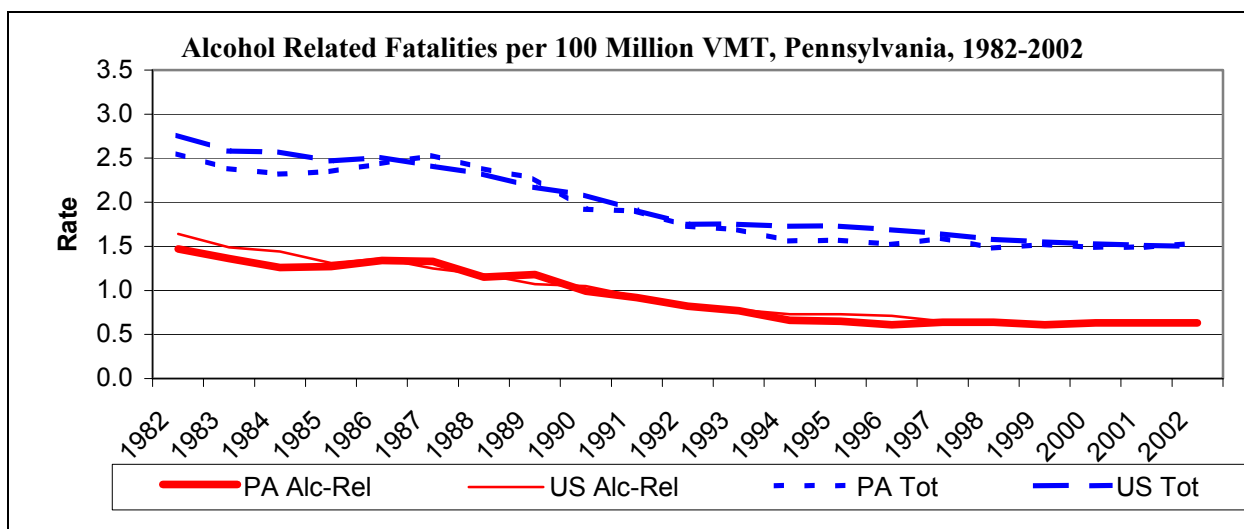
### Change in AR-Rates over time, Pennsylvania vs. US

Time Period	Pennsylvania	US
1982 to 2002	-57%	-63%
Last 10 years	-23%	-25%
Last 5 years	-2%	-6%
Last 3 Years	+3%	-2%
Last 1 Year	0%	-2%

### Impaired Driving Legislations\*

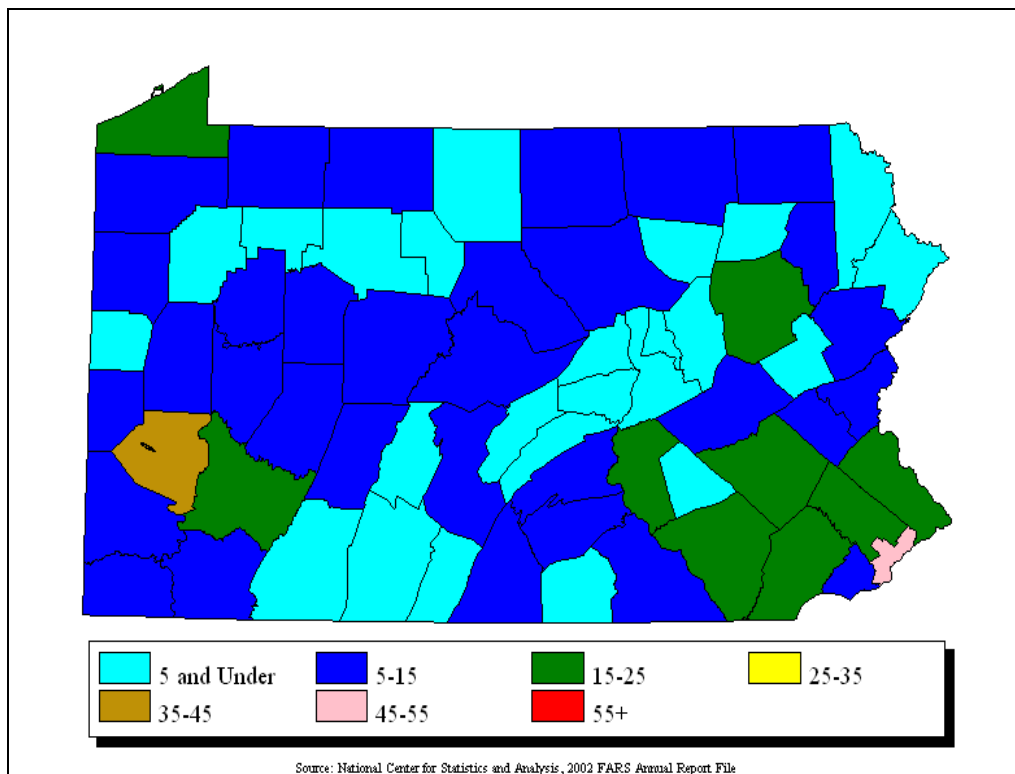
Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

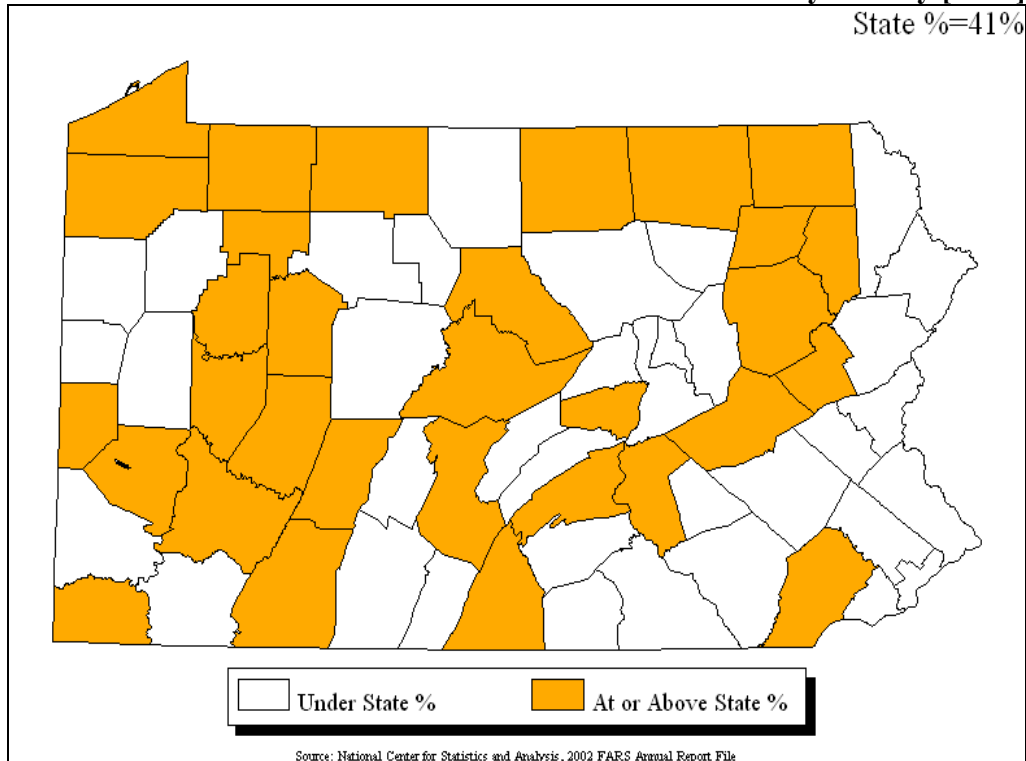




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	105	71	67	1.78	1.20
1983	100	60	60	1.84	1.10
1984	79	52	66	1.45	0.95
1985	109	57	52	1.87	0.98
1986	124	79	64	2.28	1.46
1987	113	56	49	1.88	0.93
1988	125	69	55	2.14	1.18
1989	100	49	49	1.48	0.73
1990	84	51	61	1.14	0.69
1991	88	45	51	1.23	0.63
1992	79	43	54	1.05	0.57
1993	74	40	54	1.02	0.55
1994	63	31	49	0.89	0.44
1995	69	28	41	1.00	0.41
1996	69	33	48	0.97	0.46
1997	75	41	55	1.06	0.58
1998	74	36	49	0.93	0.45
1999	88	36	41	1.06	0.43
2000	80	41	52	0.96	0.49
2001	81	48	59	1.01	0.60
2002	84	46	55	1.03	0.56

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## RHODE ISLAND

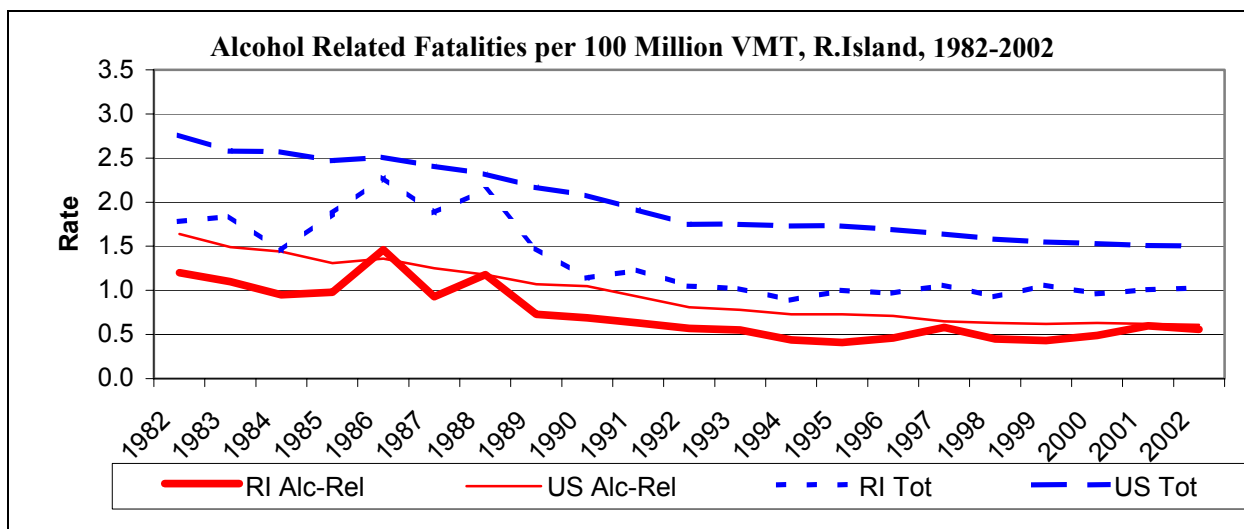
### Change in AR-Rates over time, Rhode Island vs. US

Time Period	Rhode Island	US
1982 to 2002	-53%	-63%
Last 10 years	-2%	-25%
Last 5 years	-3%	-6%
Last 3 Years	+30%	-2%
Last 1 Year	-7%	-2%

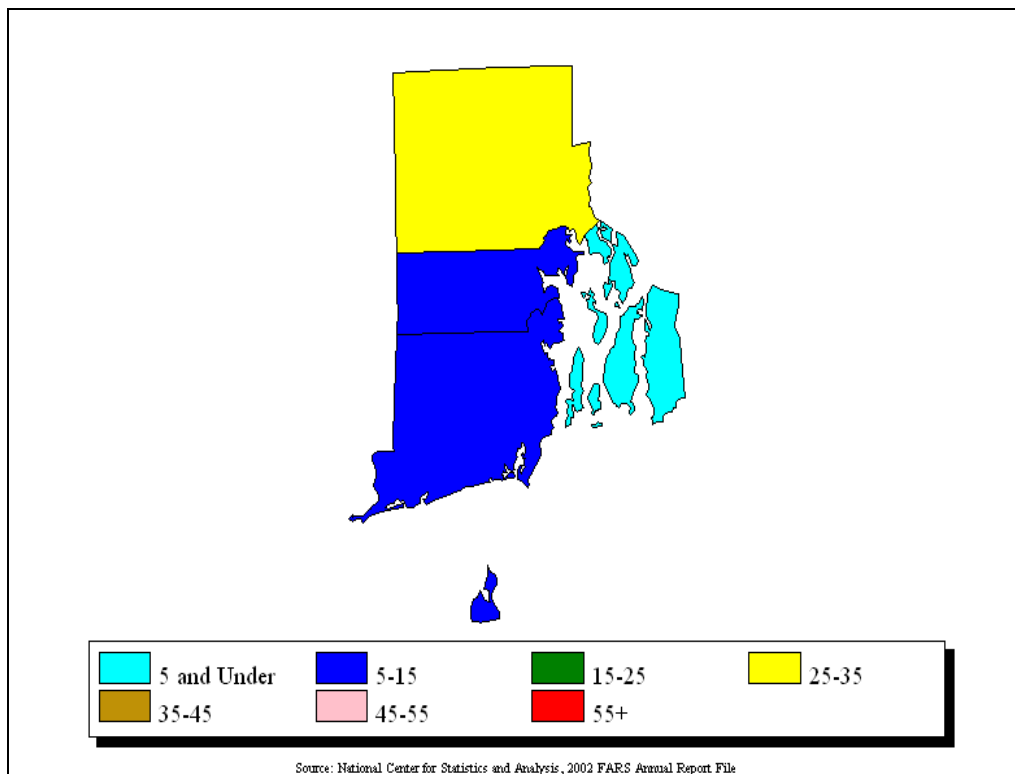
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.08 (07/13/00)
Youthful (under 21) Offenders BAC Level	0.02

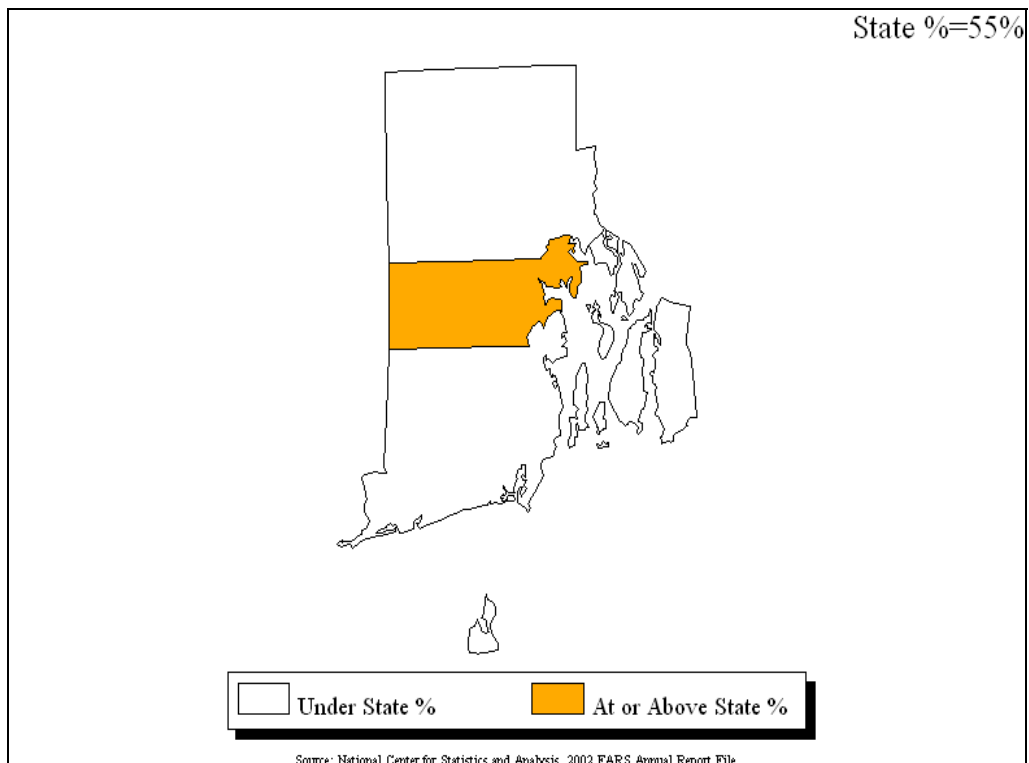
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	730	441	60	3.01	1.82
1983	844	509	60	3.38	2.04
1984	916	503	55	3.53	1.94
1985	951	534	56	3.56	2.00
1986	1,059	636	60	3.75	2.25
1987	1,086	577	53	3.59	1.91
1988	1,031	523	51	3.25	1.65
1989	996	473	47	3.04	1.44
1990	979	494	50	2.85	1.44
1991	890	420	47	2.58	1.22
1992	807	352	44	2.30	1.00
1993	846	305	36	2.34	0.84
1994	847	269	32	2.27	0.72
1995	881	346	39	2.28	0.89
1996	930	428	46	2.34	1.08
1997	903	362	40	2.18	0.88
1998	1,002	372	37	2.34	0.87
1999	1,065	391	37	2.41	0.89
2000	1,065	480	45	2.34	1.05
2001	1,060	582	55	2.27	1.25
2002	1,053	551	52	2.23	1.17

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## SOUTH CAROLINA

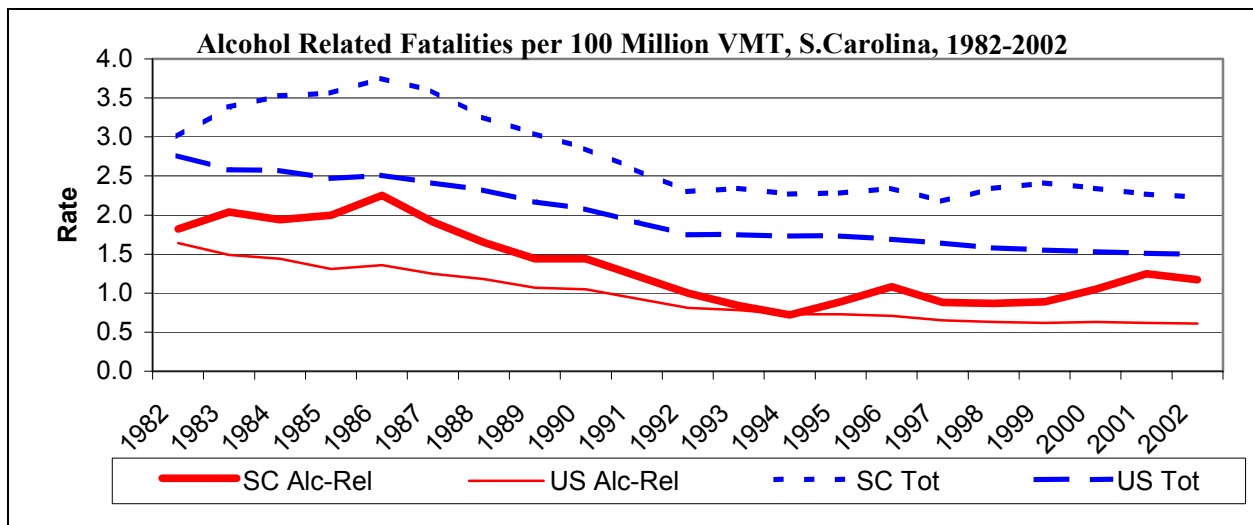
### Change in AR-Rates over time, South Carolina vs. US

Time Period	S.Carolina	US
1982 to 2002	-36%	-63%
Last 10 years	+17%	-25%
Last 5 years	+33%	-6%
Last 3 Years	+31%	-2%
Last 1 Year	-6%	-2%

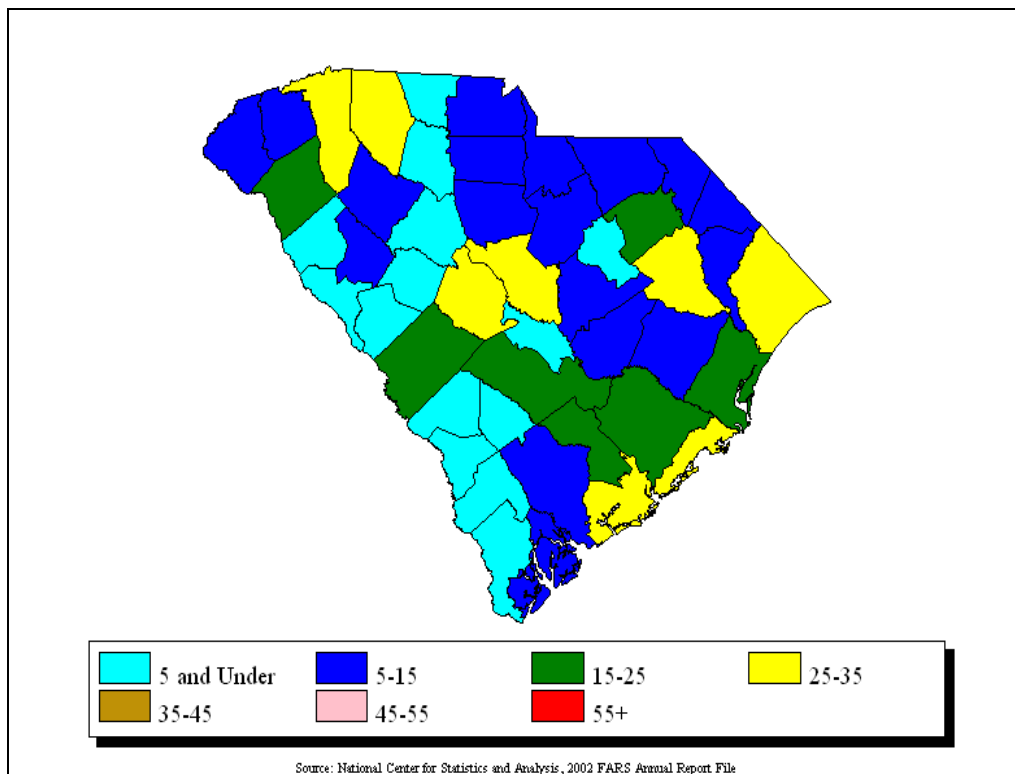
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.15
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

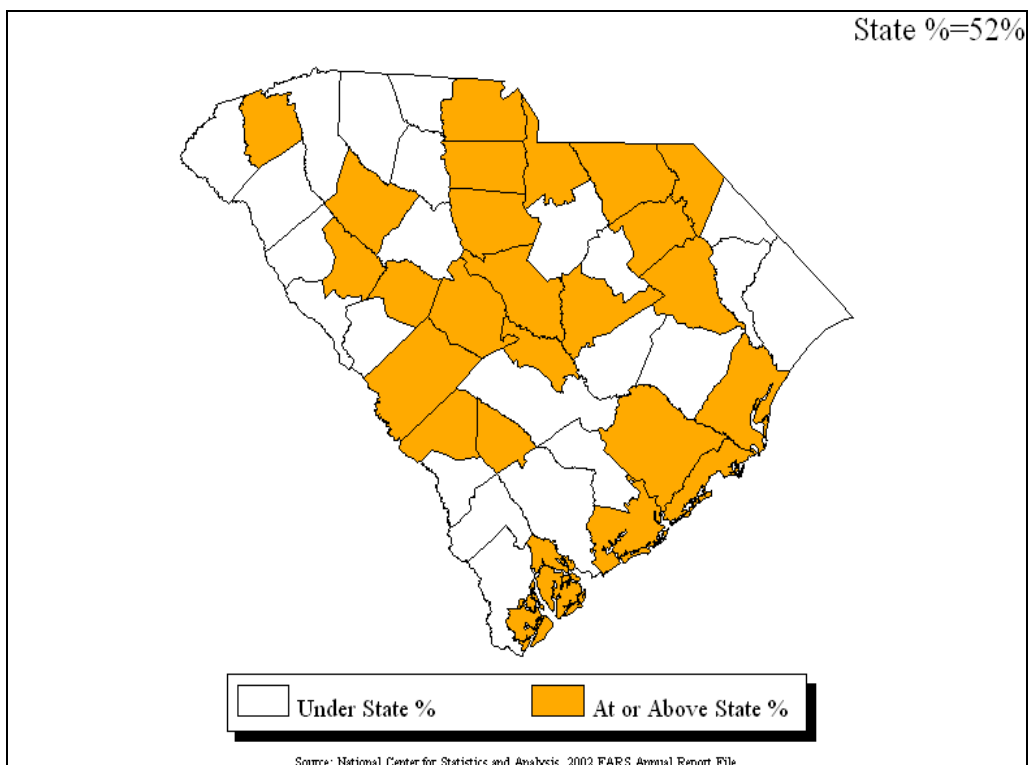
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	148	90	61	2.33	1.41
1983	175	98	56	2.77	1.55
1984	143	86	60	2.23	1.34
1985	130	73	56	2.07	1.16
1986	134	74	55	2.15	1.19
1987	134	68	51	2.09	1.06
1988	147	73	50	2.22	1.10
1989	152	84	55	2.27	1.25
1990	153	81	53	2.19	1.16
1991	143	64	45	2.13	0.95
1992	161	78	48	2.23	1.08
1993	140	61	43	1.89	0.82
1994	154	76	49	2.02	1.00
1995	158	72	45	2.06	0.94
1996	175	72	41	2.24	0.92
1997	148	62	42	1.86	0.78
1998	165	68	41	2.04	0.84
1999	150	66	44	1.82	0.80
2000	173	83	48	2.05	0.98
2001	171	85	50	2.00	1.00
2002	180	92	51	2.12	1.08

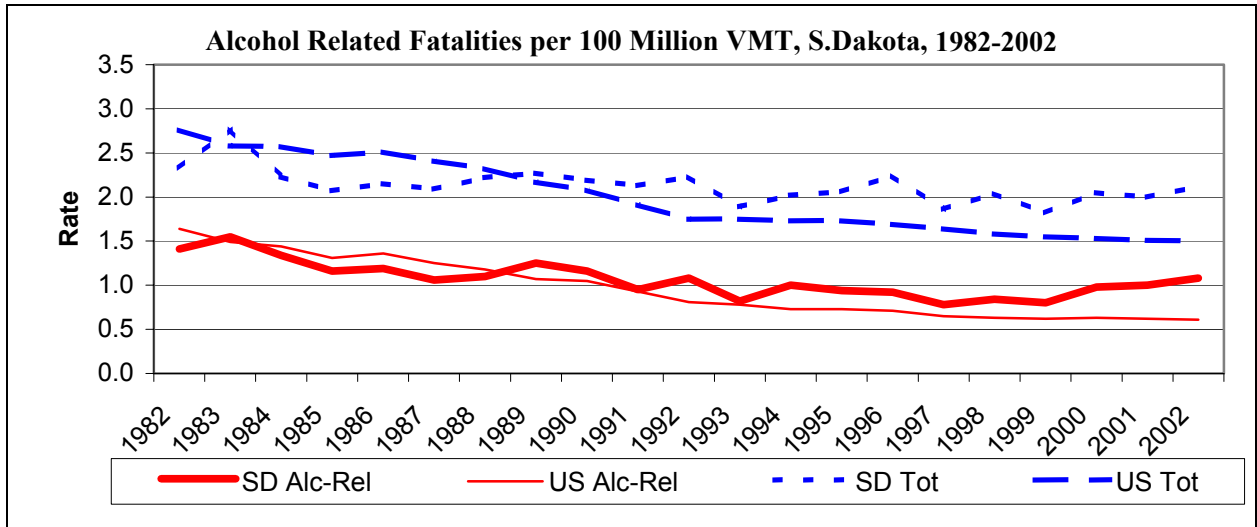
Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## SOUTH DAKOTA

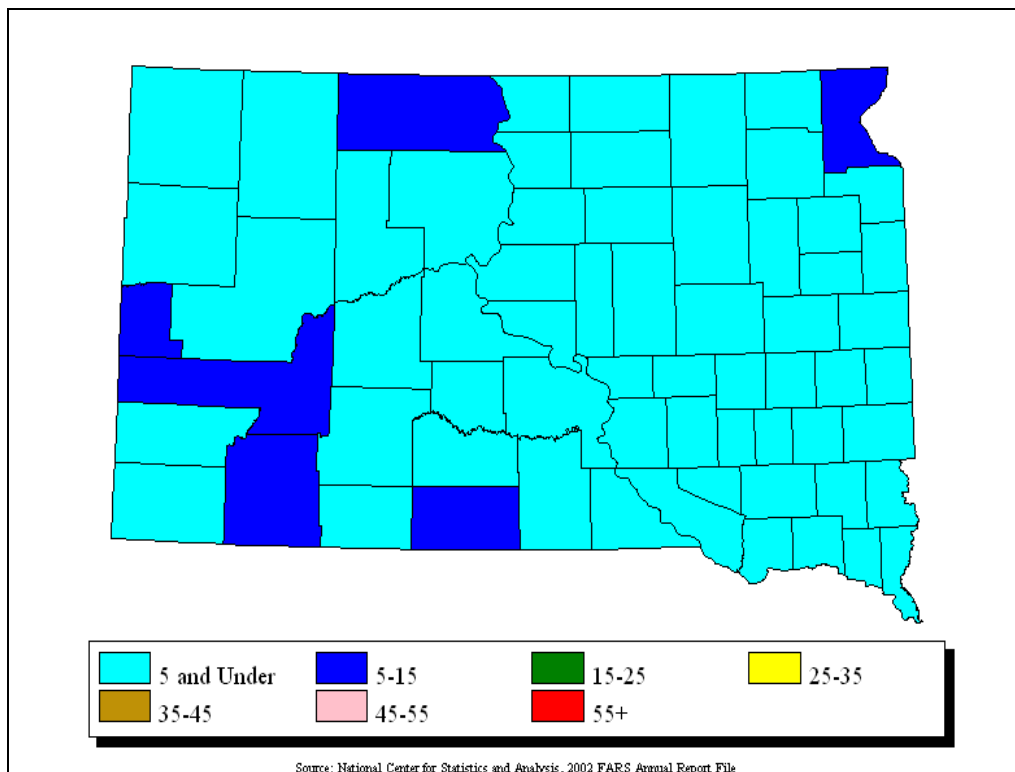
Change in AR-Rates over time, South Dakota vs. US		
Time Period	S.Dakota	US
1982 to 2002	-23%	-63%
Last 10 years	0%	-25%
Last 5 years	+38%	-6%
Last 3 Years	+35%	-2%
Last 1 Year	+8%	-2%

Impaired Driving Legislations*	
Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/02)
Youthful (under 21) Offenders BAC Level	0.02

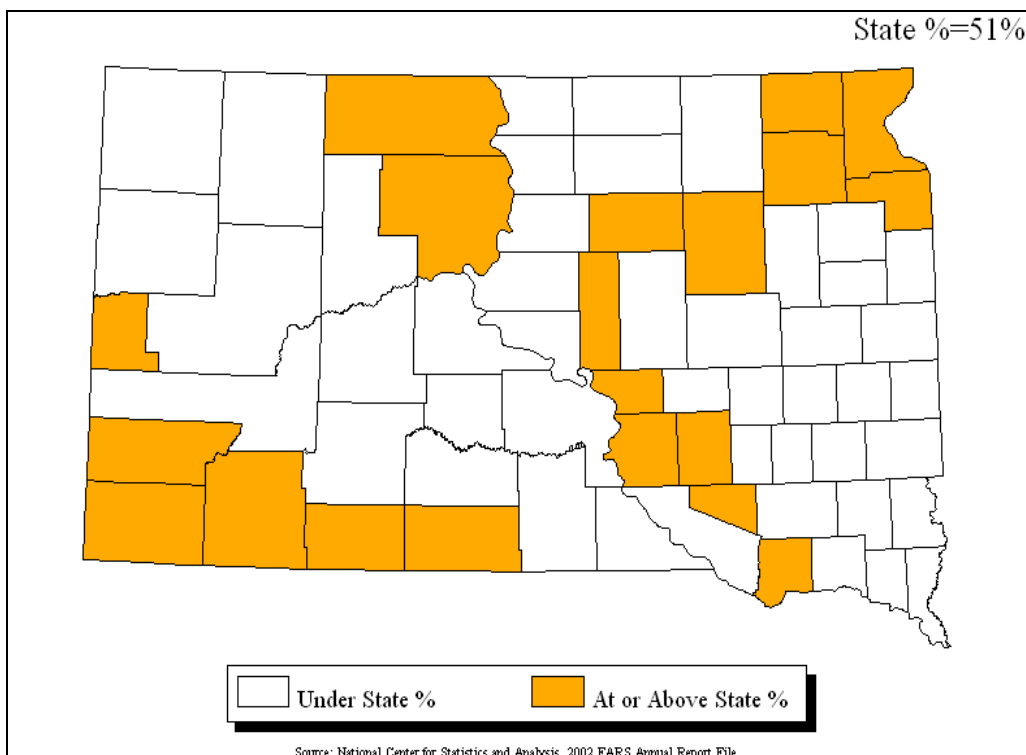
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	1,055	668	63	3.03	1.92
1983	1,037	643	62	2.86	1.77
1984	1,095	640	58	3.00	1.75
1985	1,101	603	55	3.03	1.66
1986	1,230	686	56	3.11	1.74
1987	1,247	621	50	2.96	1.47
1988	1,266	673	53	2.86	1.52
1989	1,088	559	51	2.38	1.22
1990	1,177	601	51	2.52	1.29
1991	1,113	601	54	2.35	1.27
1992	1,153	562	49	2.31	1.12
1993	1,170	538	46	2.25	1.03
1994	1,214	503	41	2.23	0.92
1995	1,259	533	42	2.24	0.95
1996	1,239	523	42	2.12	0.90
1997	1,225	510	42	2.02	0.84
1998	1,216	513	42	1.94	0.82
1999	1,302	515	40	2.01	0.80
2000	1,307	542	41	1.99	0.82
2001	1,251	533	43	1.85	0.79
2002	1,175	471	40	1.72	0.69

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## TENNESSEE

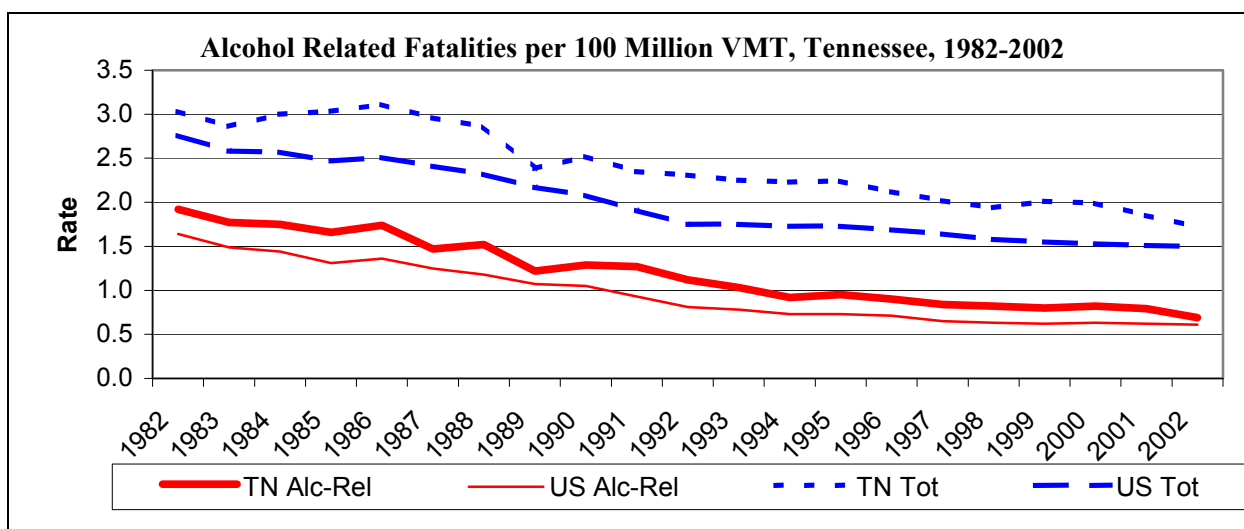
### Change in AR-Rates over time, Tennessee vs. US

Time Period	Tennessee	US
1982 to 2002	-64%	-63%
Last 10 years	-38%	-25%
Last 5 years	-18%	-6%
Last 3 Years	-14%	-2%
Last 1 Year	-13%	-2%

### Impaired Driving Legislations\*

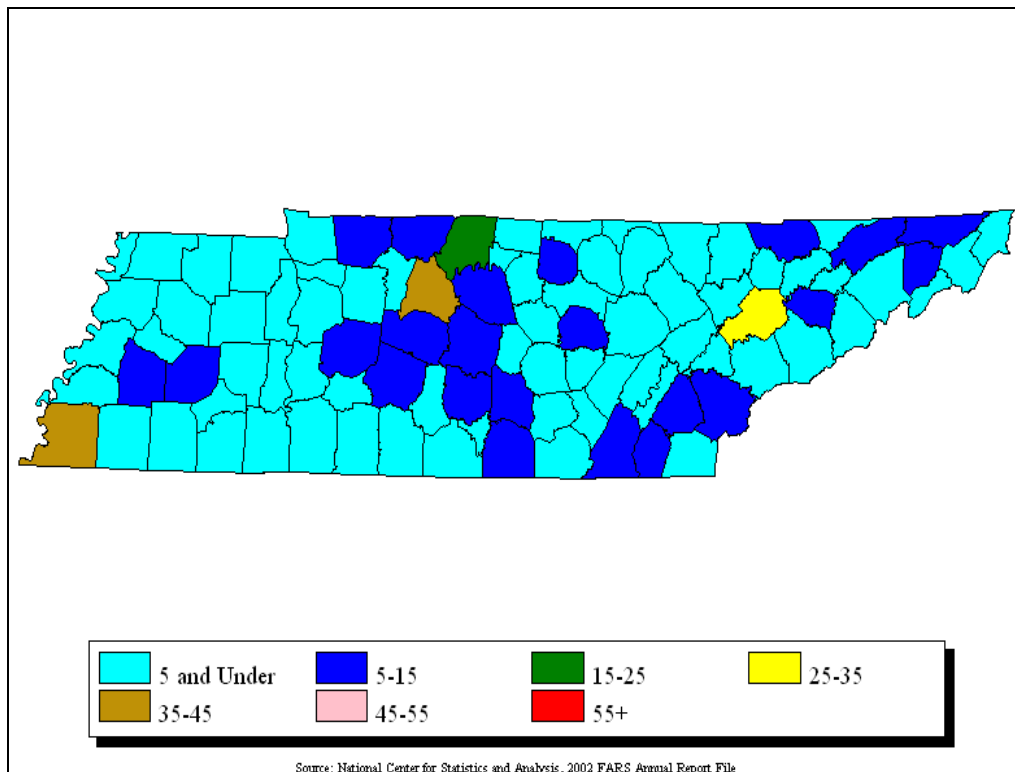
Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.08* (07/01/03)
Youthful (under 21) Offenders BAC Level	0.02

\*Enacted As of October 2003 but effective as of a later date.

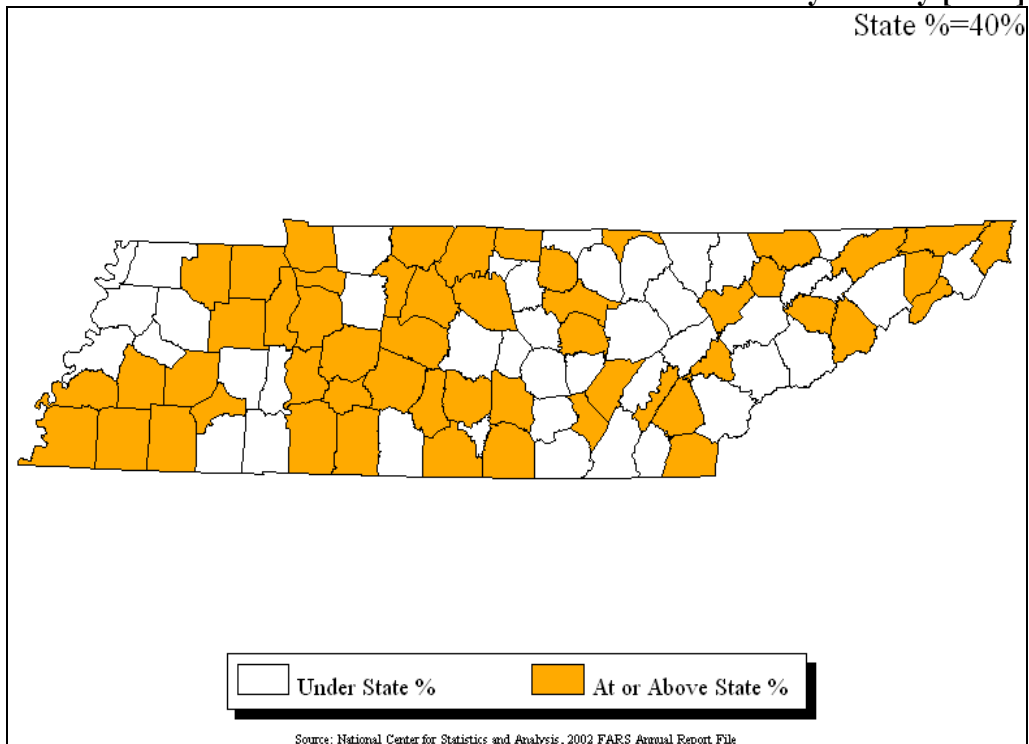




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	4,213	2,801	66	3.36	2.24
1983	3,823	2,503	65	2.90	1.90
1984	3,912	2,457	63	2.84	1.78
1985	3,678	2,271	62	2.57	1.59
1986	3,567	2,206	62	2.40	1.49
1987	3,260	1,951	60	2.16	1.29
1988	3,392	2,011	59	2.17	1.29
1989	3,370	1,927	57	2.11	1.21
1990	3,250	1,989	61	2.08	1.27
1991	3,078	1,814	59	1.94	1.14
1992	3,059	1,818	59	1.87	1.11
1993	3,043	1,748	57	1.82	1.04
1994	3,187	1,725	54	1.79	0.97
1995	3,183	1,739	55	1.76	0.96
1996	3,742	1,967	53	2.00	1.05
1997	3,513	1,710	49	1.77	0.86
1998	3,586	1,745	49	1.74	0.85
1999	3,522	1,700	48	1.67	0.81
2000	3,779	1,841	49	1.72	0.84
2001	3,736	1,807	48	1.73	0.84
2002	3,725	1,745	47	1.69	0.79

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## TEXAS

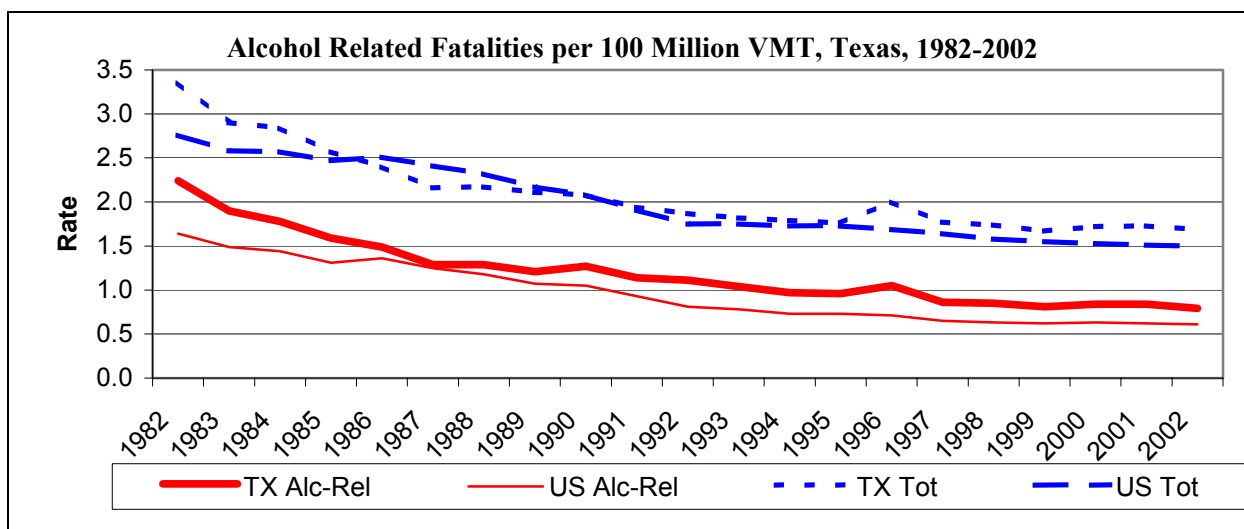
### Change in AR-Rates over time, Texas vs. US

Time Period	Texas	US
1982 to 2002	-65%	-63%
Last 10 years	-29%	-25%
Last 5 years	-8%	-6%
Last 3 Years	-2%	-2%
Last 1 Year	-6%	-2%

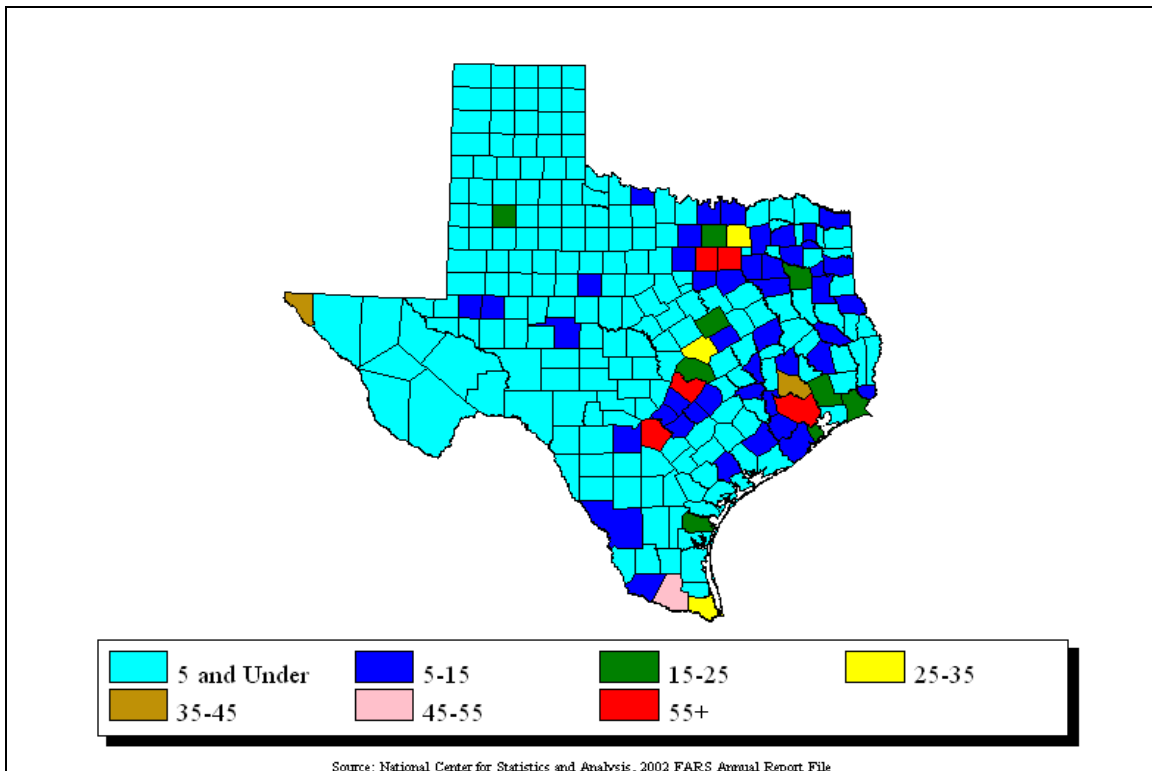
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (09/01/99)
Youthful (under 21) Offenders BAC Level	0.00

\*As of October 2003

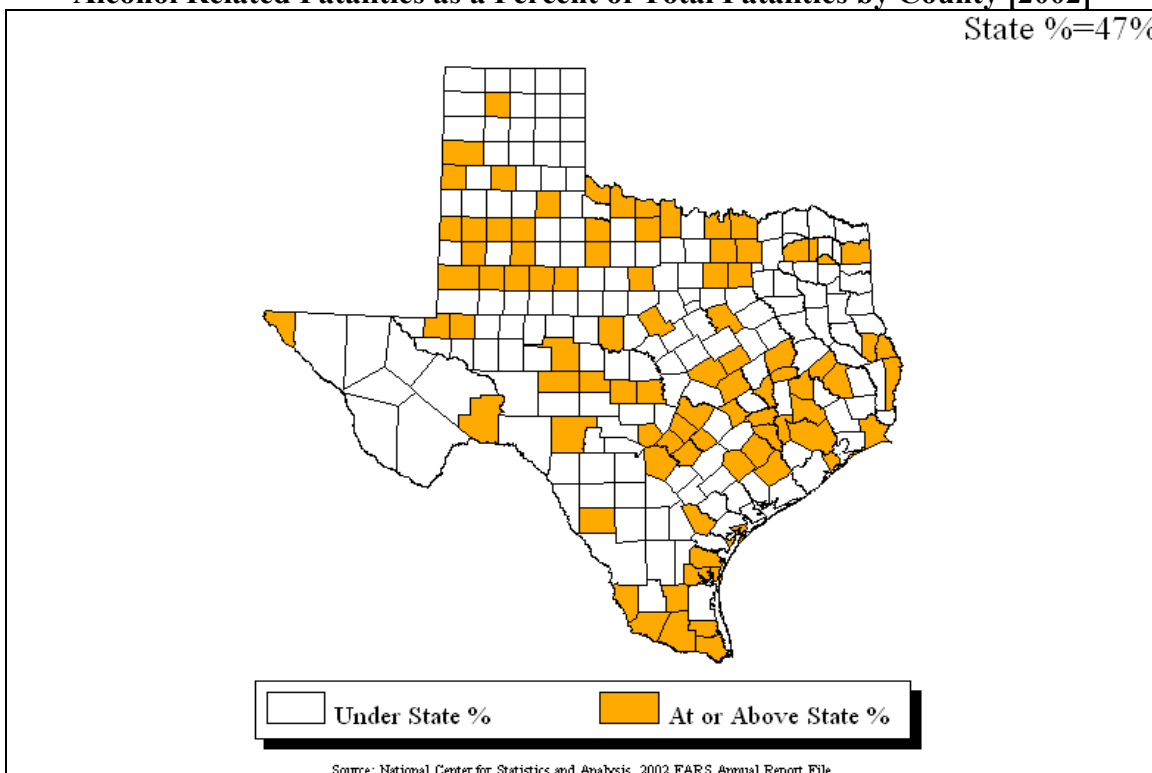


Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]

State %=47%



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	295	120	41	2.70	1.10
1983	283	112	39	2.52	1.00
1984	315	140	44	2.70	1.20
1985	303	116	38	2.52	0.96
1986	313	117	37	2.56	0.96
1987	297	98	33	2.34	0.77
1988	297	119	40	2.24	0.90
1989	303	93	31	2.18	0.67
1990	272	71	26	1.86	0.48
1991	271	86	32	1.76	0.56
1992	269	86	32	1.65	0.53
1993	303	89	30	1.78	0.52
1994	343	96	28	1.90	0.53
1995	325	92	28	1.73	0.49
1996	321	88	27	1.64	0.45
1997	366	81	22	1.79	0.40
1998	350	65	18	1.65	0.31
1999	360	90	25	1.63	0.41
2000	373	107	29	1.65	0.47
2001	291	70	24	1.24	0.30
2002	328	73	22	1.34	0.30

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## UTAH

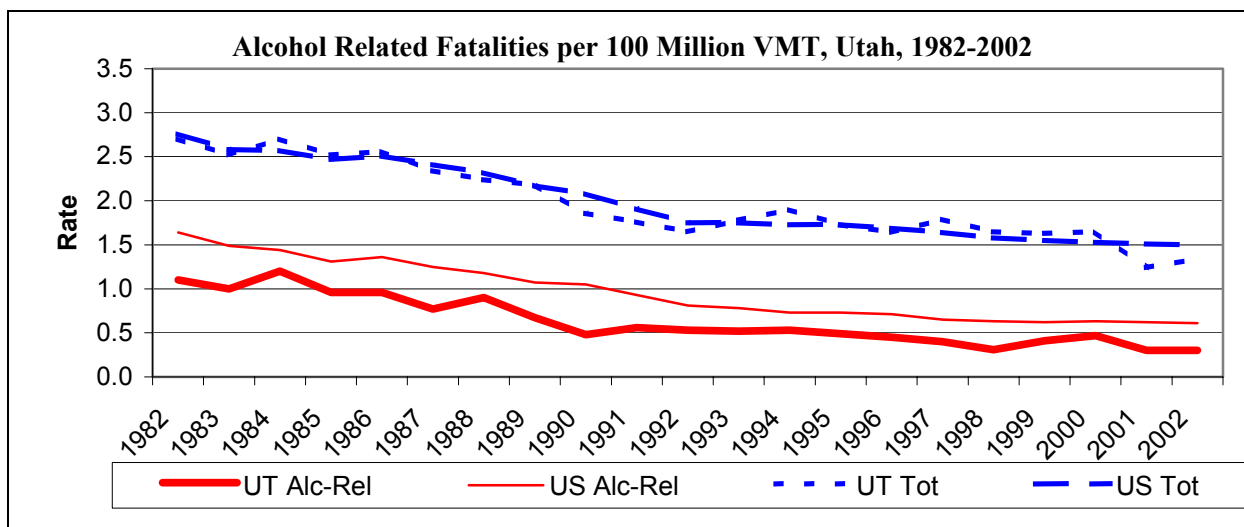
### Change in AR-Rates over time, Utah vs. US

Time Period	Utah	US
1982 to 2002	-73%	-63%
Last 10 years	-43%	-25%
Last 5 years	-25%	-6%
Last 3 Years	-27%	-2%
Last 1 Year	0%	-2%

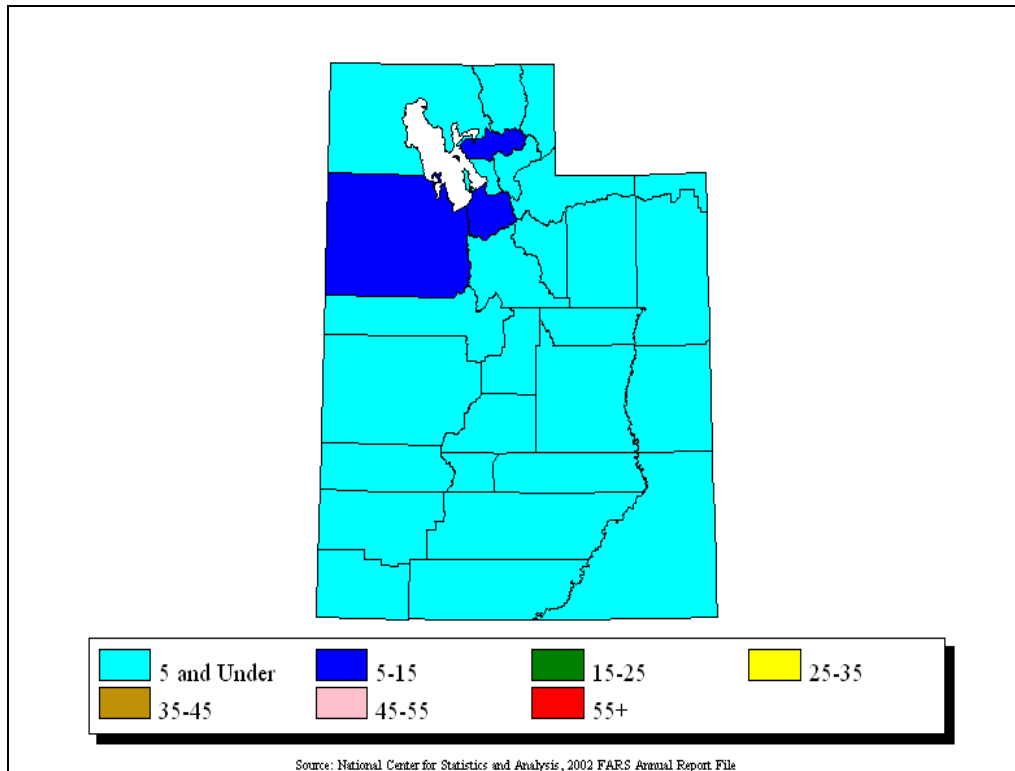
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (08/01/83)
Youthful (under 21) Offenders BAC Level	0.00

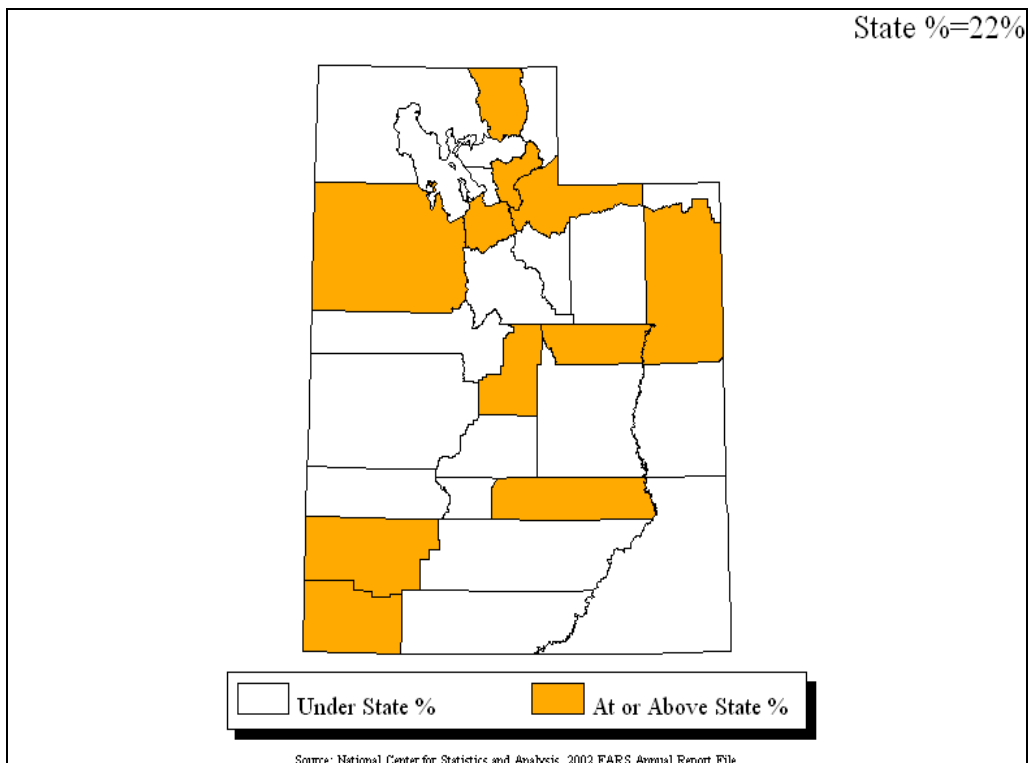
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	107	70	65	2.70	1.76
1983	94	60	64	2.26	1.45
1984	114	61	53	2.60	1.39
1985	115	55	48	2.45	1.17
1986	109	77	71	2.28	1.61
1987	119	73	62	2.36	1.45
1988	129	67	52	2.32	1.21
1989	116	57	49	2.01	0.99
1990	90	52	57	1.54	0.89
1991	110	60	55	1.87	1.02
1992	96	41	43	1.59	0.68
1993	110	51	46	1.84	0.85
1994	77	37	48	1.25	0.60
1995	106	48	45	1.71	0.77
1996	88	40	45	1.38	0.63
1997	96	40	42	1.48	0.62
1998	104	40	38	1.58	0.61
1999	90	35	39	1.31	0.51
2000	76	32	42	1.12	0.47
2001	92	34	37	0.96	0.35
2002	78	27	35	0.81	0.28

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## VERMONT

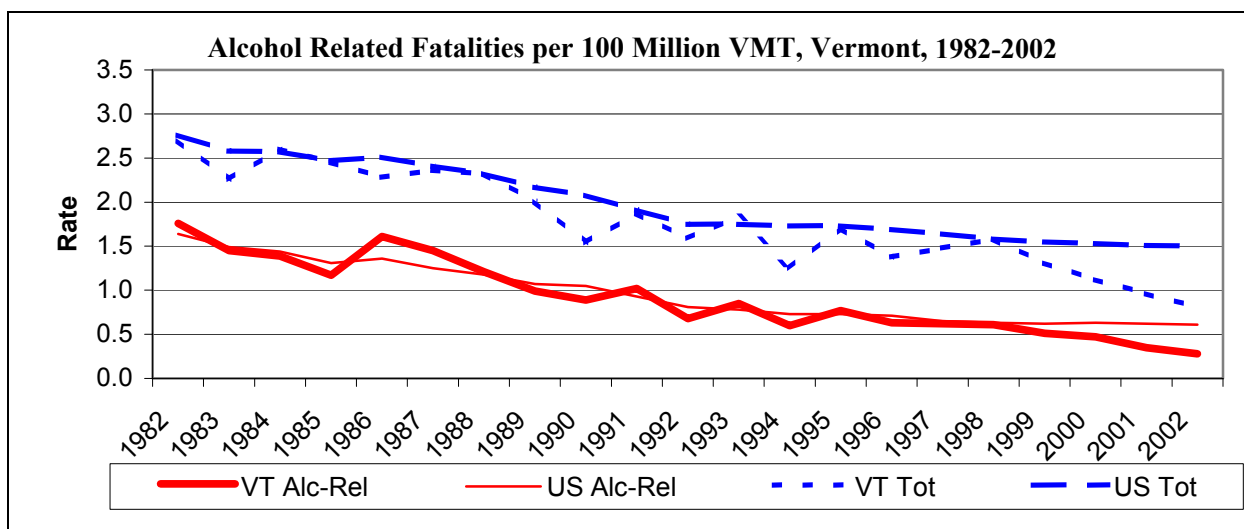
### Change in AR-Rates over time, Vermont vs. US

Time Period	Vermont	US
1982 to 2002	-84%	-63%
Last 10 years	-59%	-25%
Last 5 years	-55%	-6%
Last 3 Years	-45%	-2%
Last 1 Year	-20%	-2%

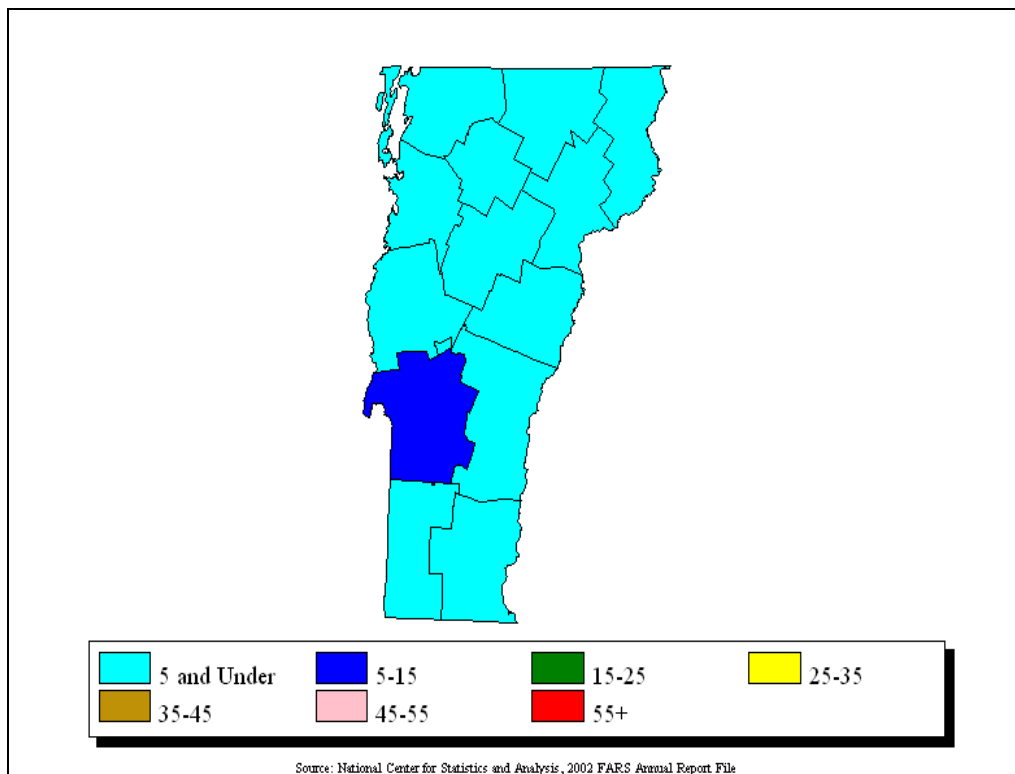
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/91)
Youthful (under 21) Offenders BAC Level	0.02

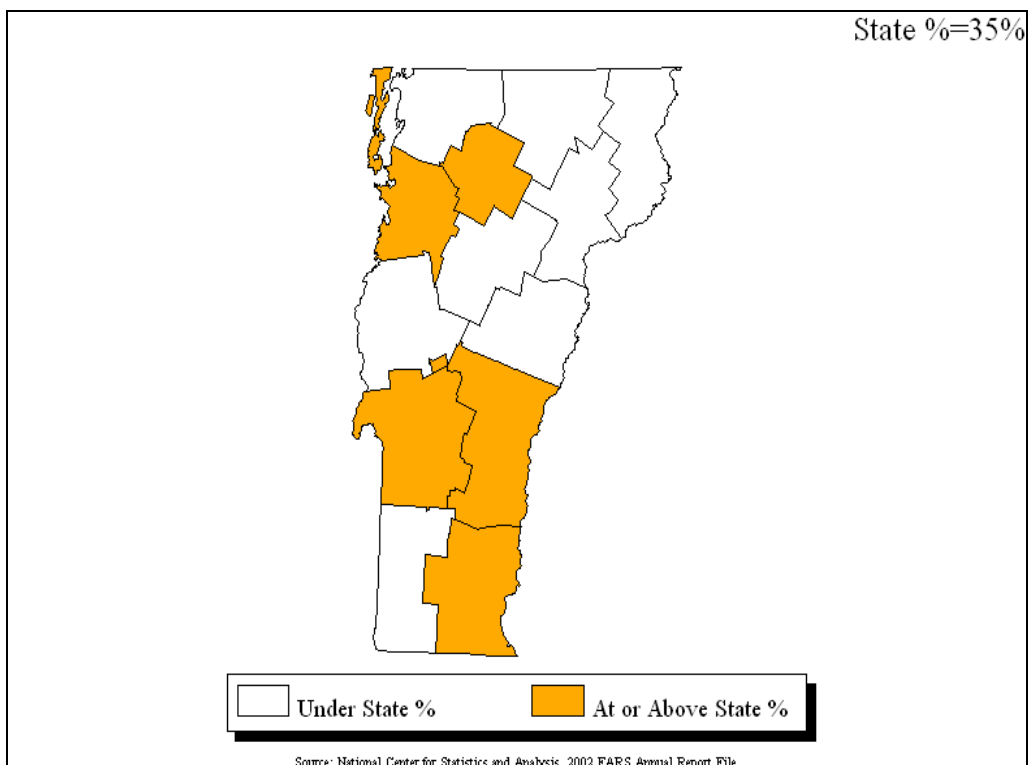
\*As of October 2003



**Alcohol Related Fatalities by County [2002]**



**Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]**



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	881	493	56	2.13	1.19
1983	901	518	57	2.13	1.22
1984	1,013	572	56	2.28	1.28
1985	976	496	51	2.04	1.03
1986	1,126	606	54	2.18	1.17
1987	1,021	527	52	1.86	0.96
1988	1,072	501	47	1.87	0.87
1989	1,004	466	46	1.69	0.79
1990	1,079	540	50	1.79	0.90
1991	948	430	45	1.55	0.70
1992	839	373	44	1.32	0.59
1993	879	398	45	1.34	0.61
1994	930	385	41	1.38	0.57
1995	900	373	41	1.29	0.53
1996	877	353	40	1.23	0.50
1997	984	398	40	1.40	0.57
1998	935	359	38	1.29	0.49
1999	878	337	38	1.19	0.46
2000	929	360	39	1.24	0.48
2001	935	339	36	1.27	0.46
2002	914	371	41	1.18	0.48

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## VIRGINIA

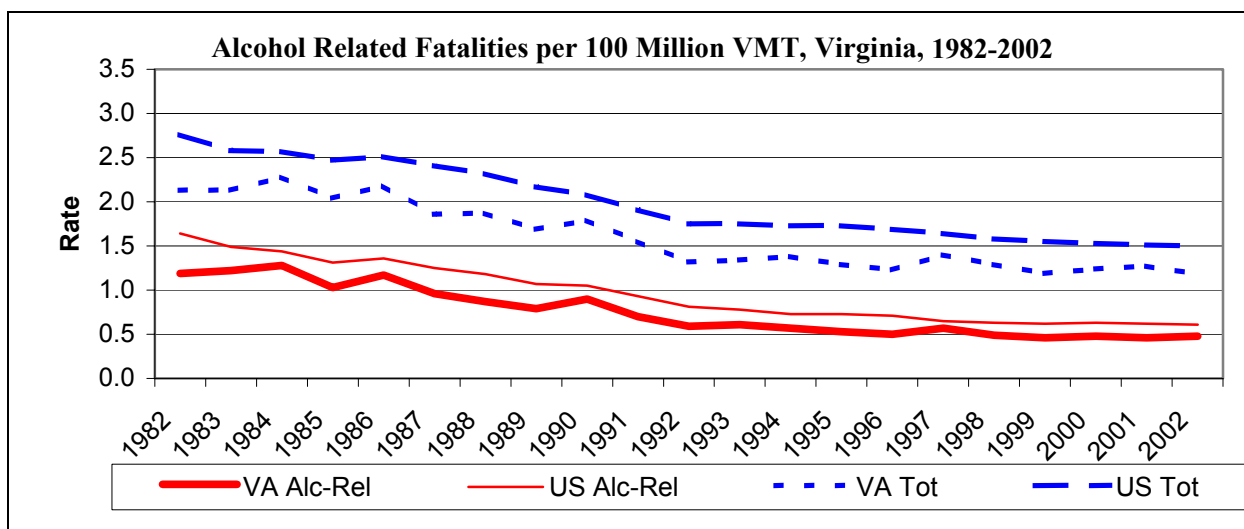
### Change in AR-Rates over time, Virginia vs. US

Time Period	Virginia	US
1982 to 2002	-60%	-63%
Last 10 years	-19%	-25%
Last 5 years	-16%	-6%
Last 3 Years	+4%	-2%
Last 1 Year	+4%	-2%

### Impaired Driving Legislations\*

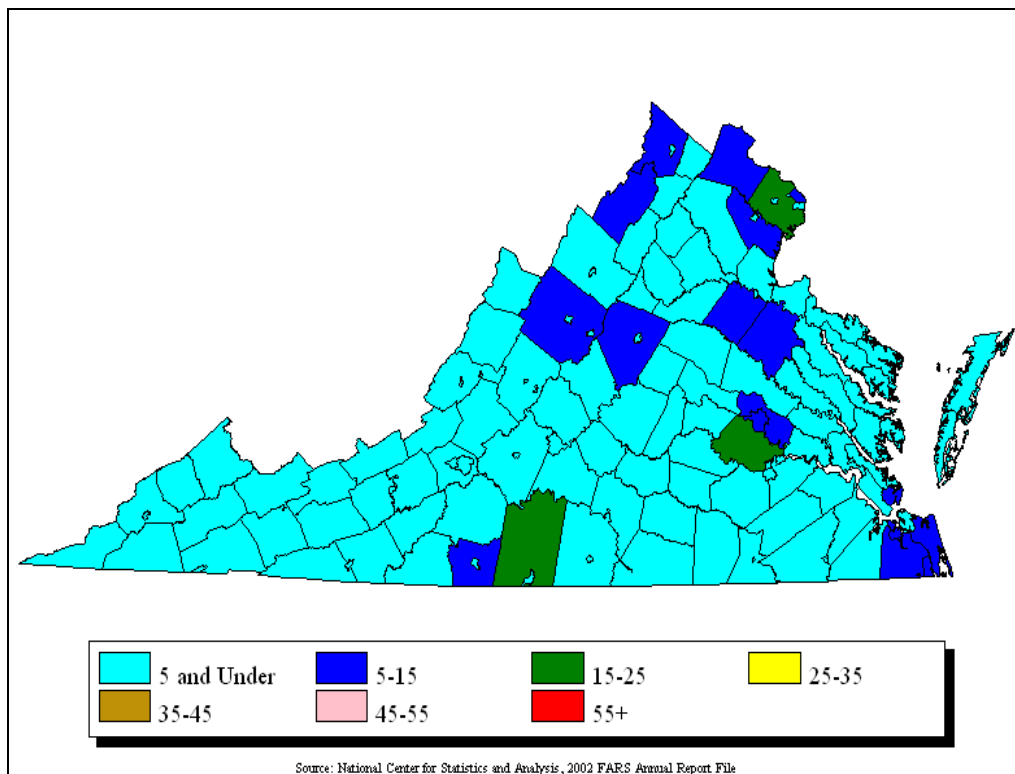
Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/94)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

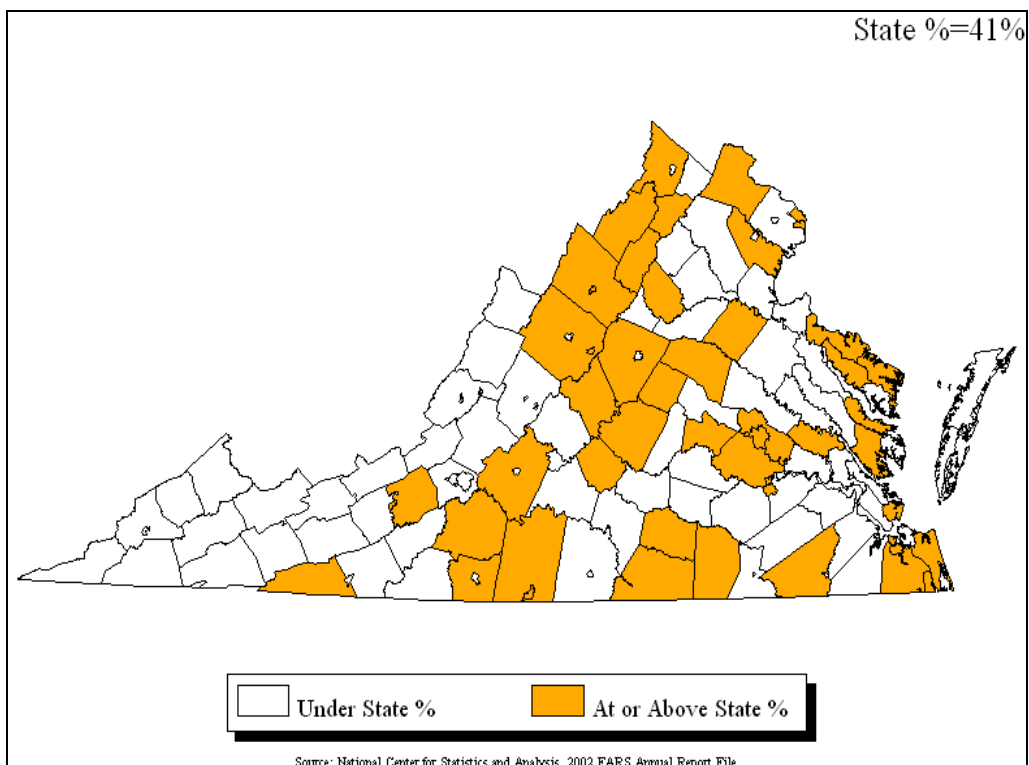




### Alcohol Related Fatalities by County [2002]



### Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	748	482	64	2.39	1.54
1983	698	421	60	1.93	1.16
1984	746	421	56	2.18	1.23
1985	744	407	55	2.16	1.18
1986	703	422	60	1.95	1.17
1987	780	431	55	2.02	1.12
1988	778	464	60	1.86	1.11
1989	781	428	55	1.81	0.99
1990	825	475	58	1.85	1.06
1991	682	370	54	1.47	0.80
1992	651	339	52	1.32	0.69
1993	661	340	51	1.43	0.74
1994	640	317	49	1.35	0.67
1995	653	322	49	1.33	0.65
1996	712	361	51	1.44	0.73
1997	674	304	45	1.32	0.60
1998	662	313	47	1.27	0.60
1999	637	274	43	1.21	0.52
2000	631	286	45	1.18	0.54
2001	649	281	43	1.21	0.52
2002	659	298	45	1.20	0.54

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## WASHINGTON

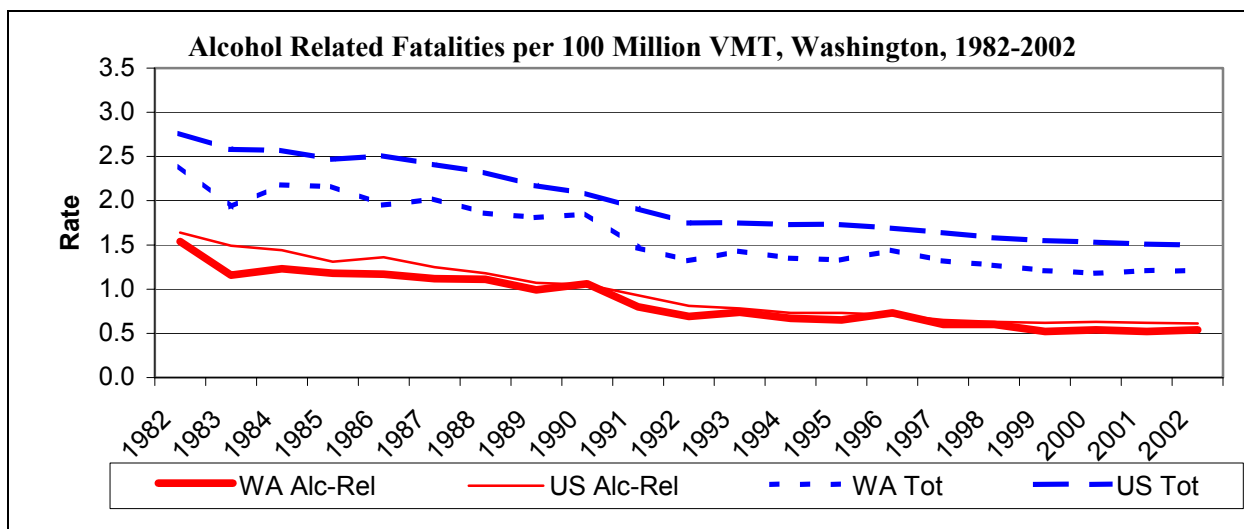
### Change in AR-Rates over time, Washington vs. US

Time Period	Washington	US
1982 to 2002	-65%	-63%
Last 10 years	-22%	-25%
Last 5 years	-10%	-6%
Last 3 Years	+4%	-2%
Last 1 Year	+4%	-2%

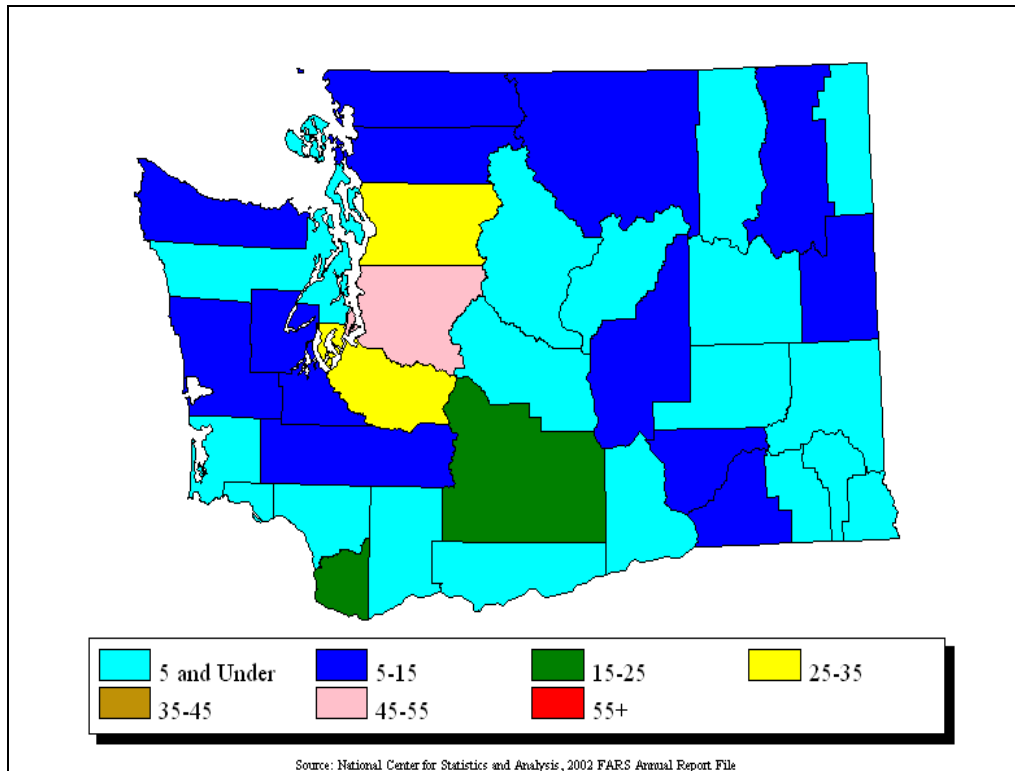
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.08
Illegal Per Se BAC Level (Effective Date)	0.08 (01/01/99)
Youthful (under 21) Offenders BAC Level	0.02

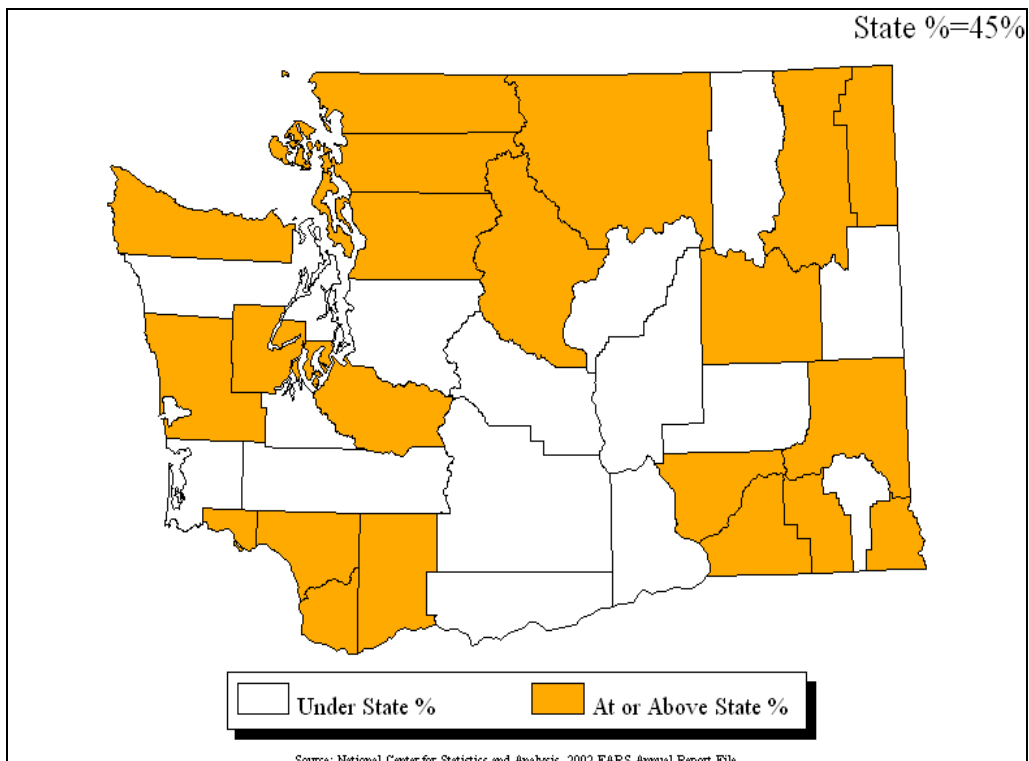
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	450	244	54	4.12	2.23
1983	425	253	60	3.63	2.16
1984	438	238	54	3.46	1.88
1985	420	219	52	3.32	1.73
1986	440	242	55	3.34	1.84
1987	471	239	51	3.43	1.74
1988	460	250	54	3.31	1.80
1989	468	235	50	3.13	1.57
1990	481	239	50	3.12	1.55
1991	414	202	49	2.58	1.26
1992	420	203	48	2.55	1.23
1993	429	190	44	2.56	1.13
1994	356	162	46	2.08	0.95
1995	376	168	45	2.16	0.96
1996	348	138	40	1.97	0.78
1997	381	152	40	2.08	0.83
1998	354	150	42	1.90	0.80
1999	395	149	38	2.08	0.78
2000	411	181	44	2.14	0.94
2001	376	136	36	1.91	0.69
2002	439	180	41	2.19	0.90

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## WEST VIRGINIA

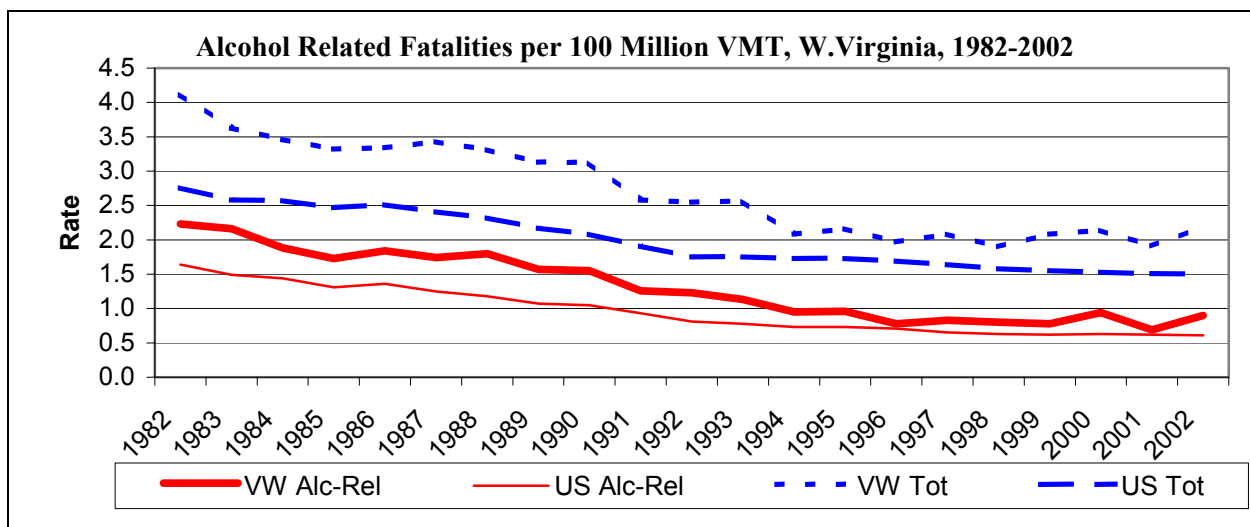
### Change in AR-Rates over time, West Virginia vs. US

Time Period	W.Virginia	US
1982 to 2002	-60%	-63%
Last 10 years	-27%	-25%
Last 5 years	+8%	-6%
Last 3 Years	+15%	-2%
Last 1 Year	+30%	-2%

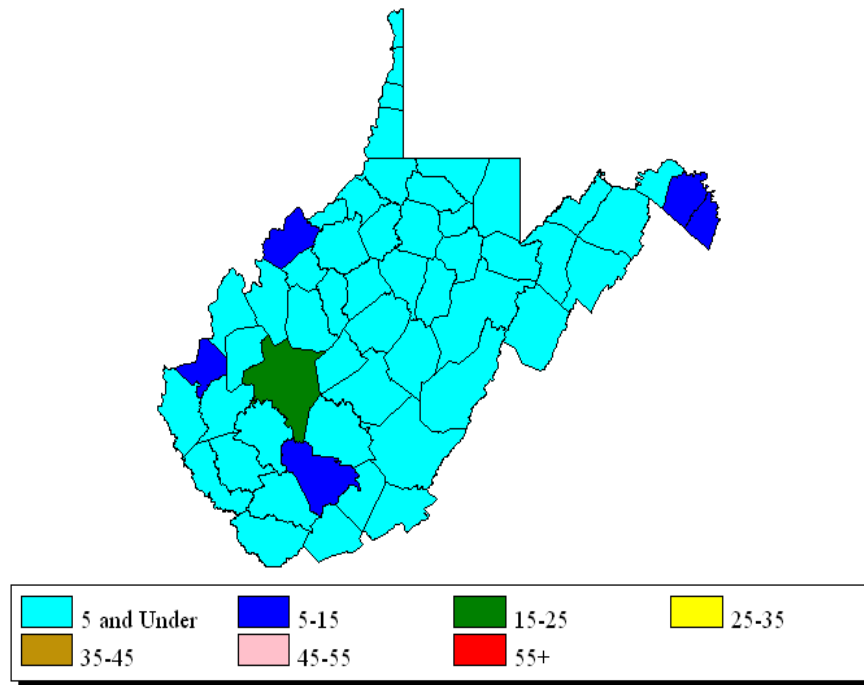
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

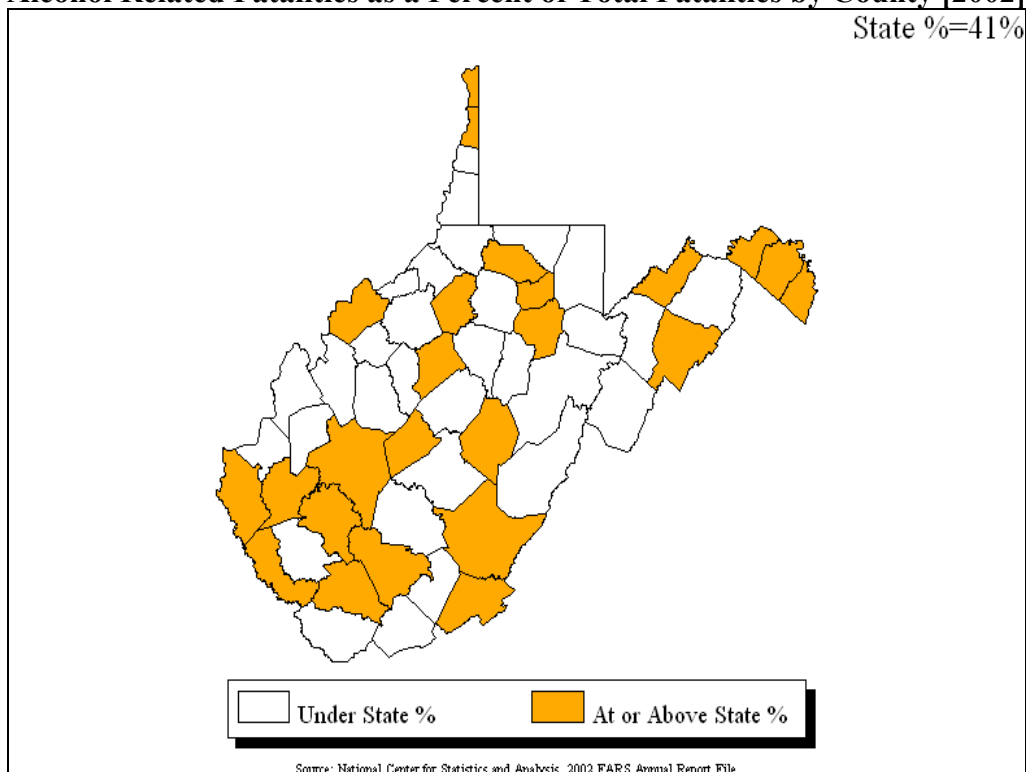


Alcohol Related Fatalities by County [2002]



Source: National Center for Statistics and Analysis, 2002 FARS Annual Report File

Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



Source: National Center for Statistics and Analysis, 2002 FARS Annual Report File

## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	770	479	62	2.35	1.46
1983	725	453	63	2.13	1.33
1984	822	482	59	2.31	1.36
1985	744	404	54	2.03	1.10
1986	747	428	57	1.94	1.11
1987	797	450	56	1.98	1.12
1988	807	462	57	1.90	1.09
1989	817	397	49	1.90	0.92
1990	769	370	48	1.74	0.84
1991	797	362	45	1.75	0.80
1992	652	302	46	1.37	0.63
1993	714	330	46	1.45	0.67
1994	712	311	44	1.42	0.62
1995	745	323	43	1.45	0.63
1996	761	325	43	1.44	0.62
1997	725	335	46	1.33	0.62
1998	714	304	43	1.26	0.54
1999	745	310	42	1.31	0.54
2000	799	350	44	1.40	0.61
2001	763	366	48	1.33	0.64
2002	803	364	45	1.37	0.62

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## WISCONSIN

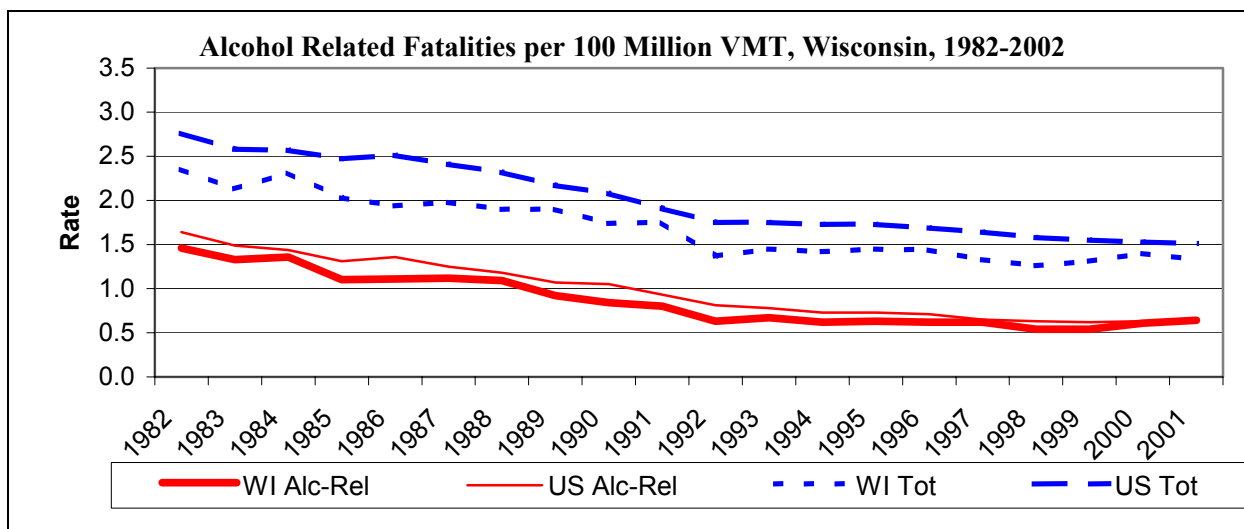
### Change in AR-Rates over time, Wisconsin vs. US

Time Period	Wisconsin	US
1982 to 2002	-58%	-63%
Last 10 years	-2%	-25%
Last 5 years	0%	-6%
Last 3 Years	+15%	-2%
Last 1 Year	-3%	-2%

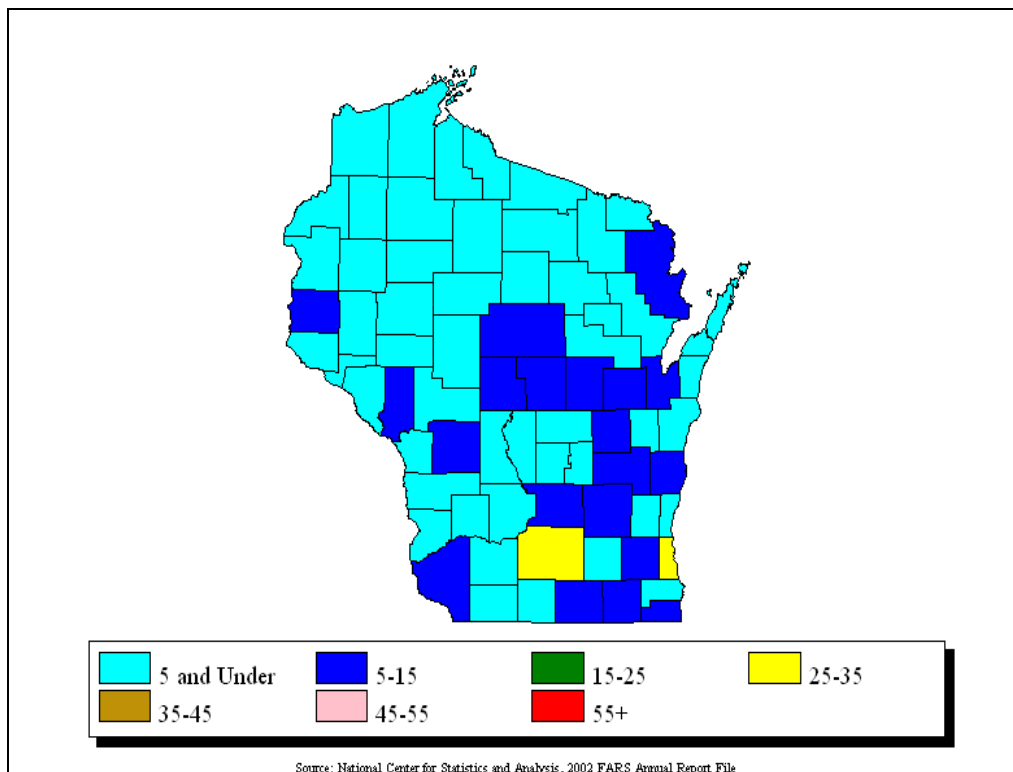
### Impaired Driving Legislations\*

Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.10 (-)
Youthful (under 21) Offenders BAC Level	0.02

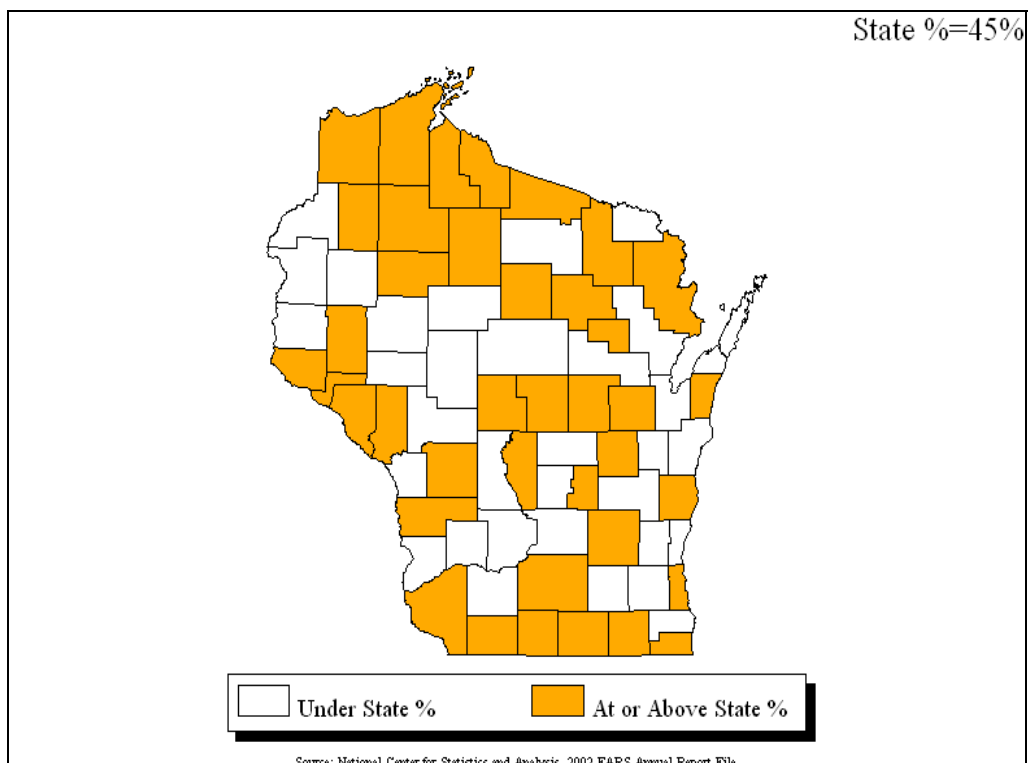
\*As of October 2003



Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	201	118	59	3.81	2.23
1983	173	98	57	3.42	1.94
1984	157	88	56	3.06	1.72
1985	152	83	54	2.81	1.54
1986	168	92	55	3.13	1.71
1987	129	72	56	2.40	1.34
1988	155	79	51	2.74	1.40
1989	127	60	47	2.21	1.04
1990	125	77	62	2.14	1.32
1991	122	56	46	2.03	0.93
1992	118	67	57	1.90	1.08
1993	120	50	42	1.77	0.74
1994	144	72	50	2.15	1.08
1995	170	85	50	2.41	1.21
1996	143	59	42	1.94	0.80
1997	137	44	32	1.81	0.58
1998	154	71	46	1.92	0.88
1999	189	71	38	2.42	0.91
2000	152	49	32	1.88	0.61
2001	186	82	44	2.16	0.95
2002	176	70	39	1.95	0.78

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## WYOMING

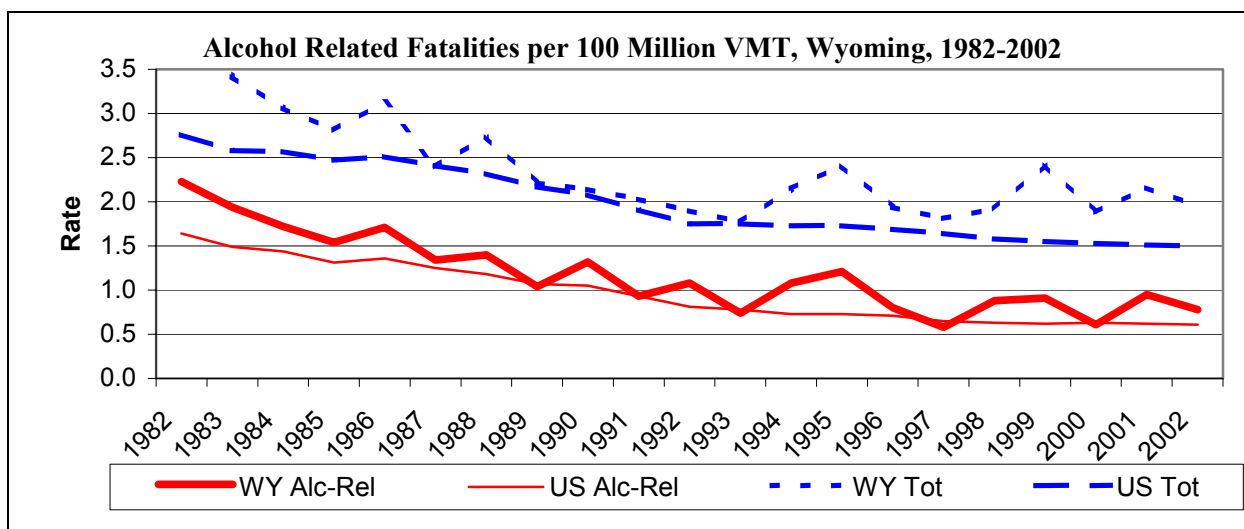
### Change in AR-Rates over time, Wyoming vs. US

Time Period	Wyoming	US
1982 to 2002	-65%	-63%
Last 10 years	-28%	-25%
Last 5 years	+34%	-6%
Last 3 Years	-14%	-2%
Last 1 Year	-18%	-2%

### Impaired Driving Legislations\*

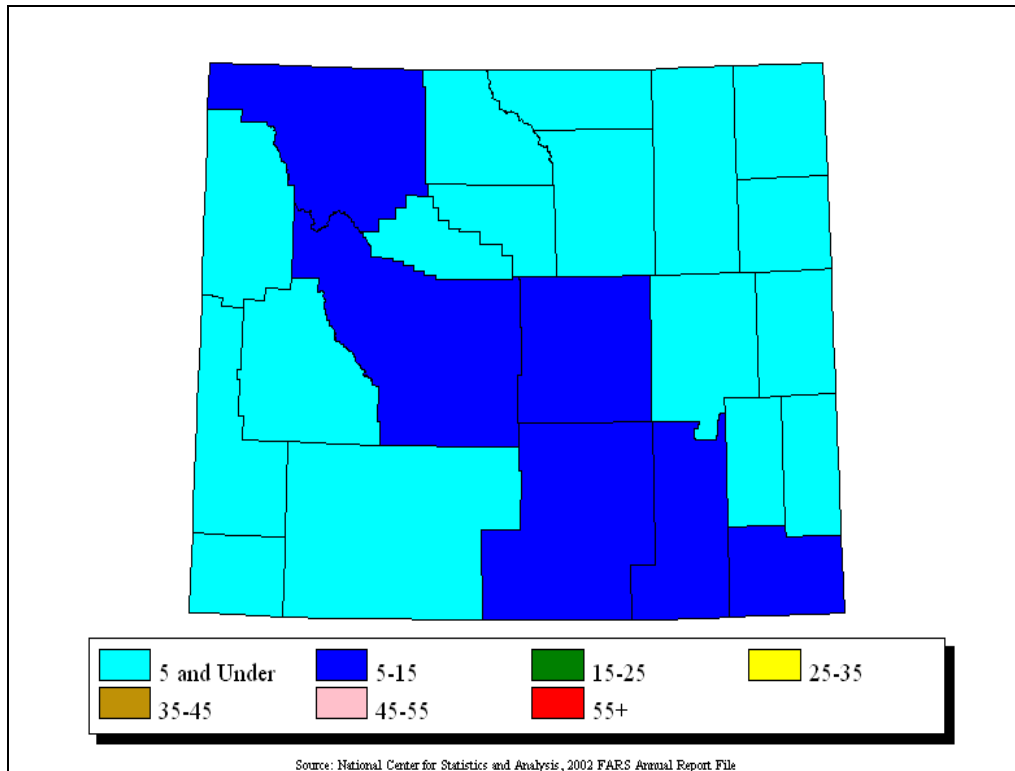
Law	BAC Level
Administrative Per Se BAC Level	0.10
Illegal Per Se BAC Level (Effective Date)	0.08 (07/01/02)
Youthful (under 21) Offenders BAC Level	0.02

\*As of October 2003

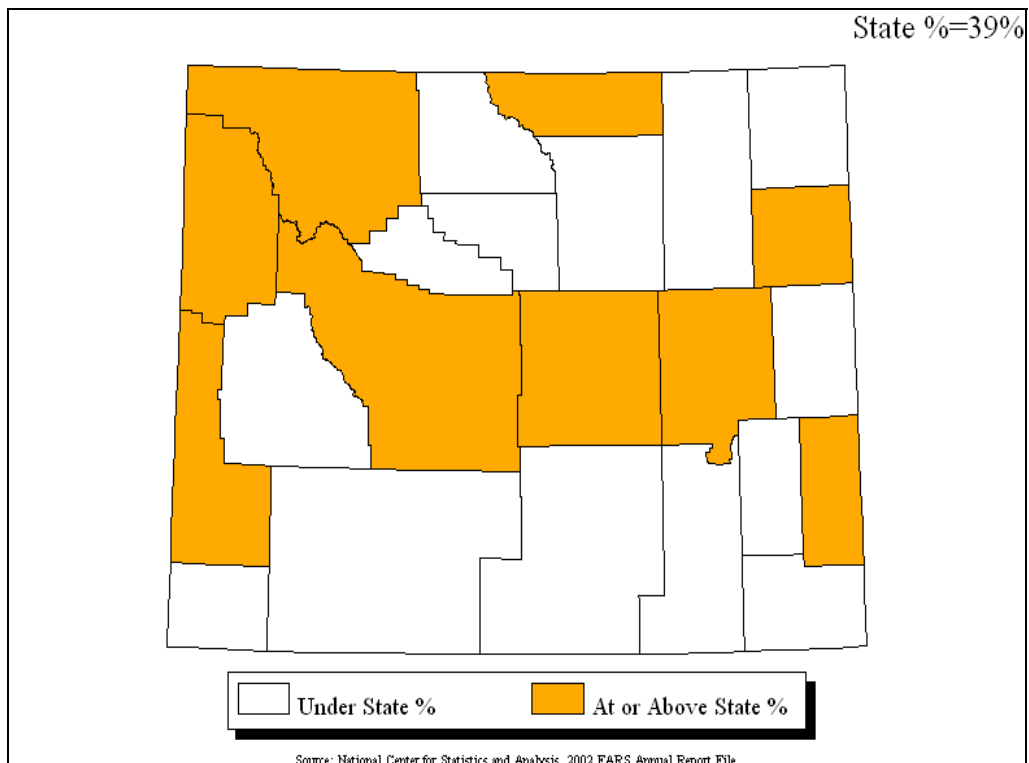




Alcohol Related Fatalities by County [2002]



Alcohol Related Fatalities as a Percent of Total Fatalities by County [2002]



## Fatalities and Fatality Rate per 100 Million VMT

Year	Fatalities			Fatality Rate	
	Tot	Alc-Rel	%	Tot	Alc-Rel
1982	480	267	56	5.46	3.03
1983	514	294	57	5.81	3.32
1984	545	349	64	4.92	3.15
1985	600	383	64	5.74	3.66
1986	592	392	66	5.40	3.58
1987	614	383	62	5.53	3.45
1988	585	384	66	5.03	3.30
1989	543	321	59	4.27	2.52
1990	473	285	60	3.68	2.22
1991	495	267	54	3.80	2.05
1992	571	333	58	4.18	2.44
1993	600	337	56	4.39	2.47
1994	598	308	52	4.14	2.13
1995	595	327	55	3.83	2.10
1996	601	322	54	3.83	2.05
1997	592	293	49	3.66	1.81
1998	558	291	52	3.38	1.76
1999	558	249	45	3.28	1.47
2000	568	268	47	3.23	1.53
2001	495	256	52	2.78	1.44
2002	510	241	47	2.82	1.33

Source: 1982-2001 (Final) FARS Files and 2002 FARS Annual Report File, FHWA's Highway Statistics Annual Series

## PUERTO RICO

### Change in AR-Rates over time, Puerto Rico vs. US

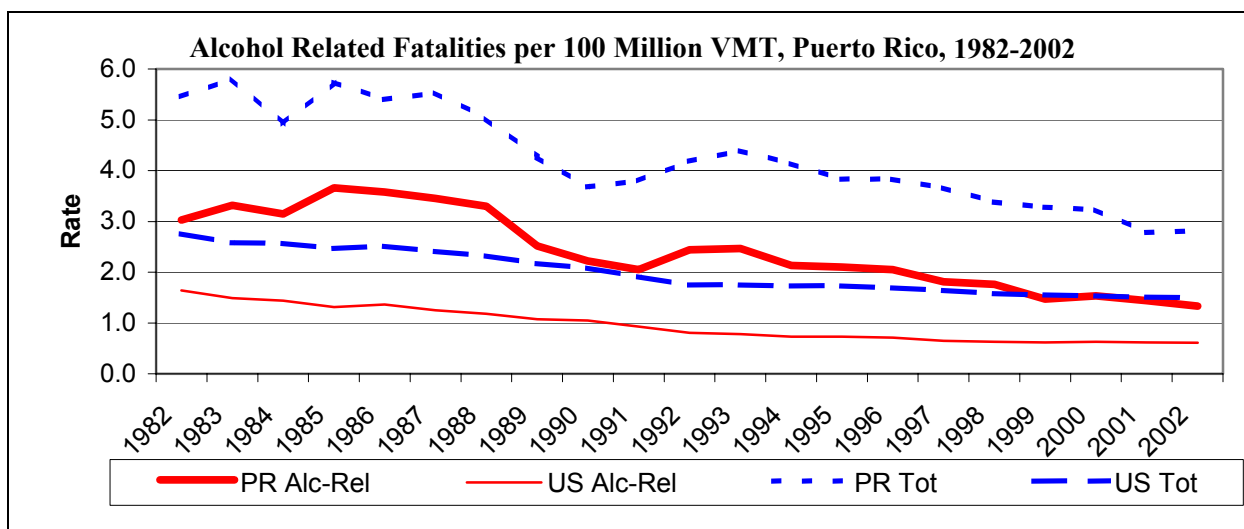
Time Period	Puerto Rico*	US
1982 to 2002	-56%	-63%
Last 10 years	-45%	-25%
Last 5 years	-27%	-6%
Last 3 Years	-10%	-2%
Last 1 Year	-8%	-2%

\*VMT data for 2002 is not available.

### Impaired Driving Legislations\*

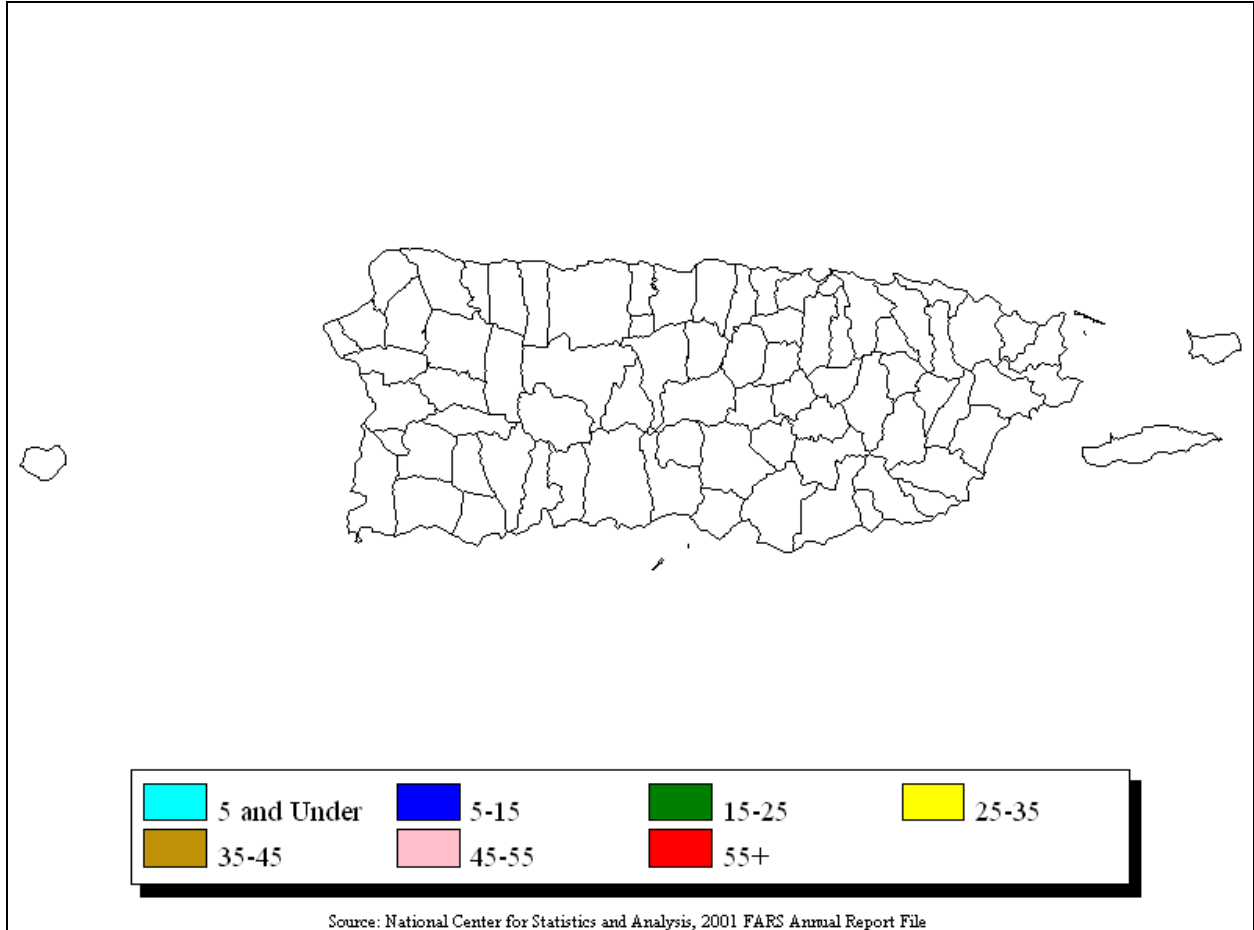
Law	BAC Level
Administrative Per Se BAC Level	None
Illegal Per Se BAC Level (Effective Date)	0.08 (01/10/01)
Youthful (under 21) Offenders BAC Level	None

\*As of October 2003



Alcohol Related Fatalities by County [2002]

NOTE: COUNTY CODE INFORMATION WAS NOT AVAILABLE FOR PUERTO RICO



## Discussion

This document is intended to serve as a reference for regional analyses of alcohol involvement in fatal crashes. The alcohol related Fatality Rate per 100 Million VMT can be used as a metric that is normalized with respect to the extent of the traffic fatality problem for any given state. The 1982-2002 summary figures on change in fatalities in rates serve to indicate the change in the alcohol problem in motor vehicle crashes with respect to 1982, the data year for which NHTSA began quantifying alcohol involvement in fatal crashes.

## References

1. FHWA (2002) *Highway Statistics. Annual Report*, Federal Highway Administration, Department of Transportation.
2. NHTSA (2002) *Traffic Safety Facts 2002 Early Edition*. Report DOT-HS-809-620, National Highway Traffic Safety Administration, Department of Transportation.
3. Subramanian, R. (2002) *Transitioning to Multiple Imputation: A New Method to Estimate Missing Blood Alcohol Concentration (BAC) values in FARS* Report DOT-HS-809-403, National Highway Traffic Safety Administration, Department of Transportation.

This document answers questions related to the differences between the number of alcohol-related fatalities as reported by some states and those reported by NHTSA.

**1. Why do some states report a smaller number of alcohol-related fatalities than the number reported by NHTSA?**

- A. Discrepancies may occur because NHTSA and a state may use different approaches to counting alcohol-related fatalities. The primary reason for these discrepancies is that some states include only those fatalities that occur in crashes where alcohol involvement is **known**. NHTSA, on the other hand, also includes those fatalities that occur in crashes where actual alcohol involvement is unknown, but is estimated using imputation.

**2. What is “imputation”?**

- A. Imputation, the statistical procedure of ‘filling in’ missing data with plausible values, is an effective approach to estimating missing data. Imputation is widely used by researchers whose analyses would otherwise be biased by missing data.

**3. Are there a large number of fatal crashes where alcohol involvement is not known?**

- A. Yes. On an average, in more than 50 percent of the cases, alcohol involvement, as determined by actual alcohol testing, is not known. Alcohol test results may not be known for any of several reasons: the test was given, but the results were not obtained by the Fatality Analysis Reporting System (FARS); the test was refused; FARS was unable to determine if the tests were given; or, the test was not given.

**4. How does NHTSA “impute” alcohol involvement?**

- A. Imputation, as applied by NHTSA, uses characteristics of the persons involved in the crash to predict alcohol involvement when it is **not known**. Those characteristics include police-reported drinking, age, sex, restraint-use, type of crash, time of day, and driver of striking or struck vehicle.

**5. How does NHTSA count alcohol-related fatalities?**

- A. NHTSA counts a fatality as alcohol related if it occurs in a crash where any of the drivers, pedestrians or pedalcyclists involved has a Blood Alcohol Concentration (BAC) of 0.01 or more. BAC is the grams of alcohol per deciliter of blood (g/dl). NHTSA determines a fatality to be alcohol related based on known BACs in the FARS as well as imputed BACs when an alcohol test result is not reported.

**6. What is the disadvantage of not imputing alcohol involvement?**

- A. Because alcohol test results are unknown for a large proportion of cases, reporting alcohol-related fatalities based only on those cases with known results could lead to a significant underestimate of alcohol-related fatalities. When imputation is not used, cases with unknown alcohol involvement are treated as not being alcohol related.

**7. What are the benefits of imputing alcohol involvement?**

- A. Because the reporting of alcohol test results varies widely by state, imputation provides a more meaningful way for states to assess the problem of alcohol involvement in fatal crashes and compare the extent of their problem with other states. In addition, because NHTSA has applied imputation back to 1982 data, using the NHTSA estimates enables a state to perform a consistent assessment of its progress as well as to better allocate funds to impaired driving programs. Without imputation, the wide variation in a state's year-to-year reporting of alcohol involvement could produce a less consistent assessment of progress.

**8. Are there any other reasons why NHTSA's estimates of alcohol-related fatalities may differ from those reported by some states?**

- A. Yes. Other reasons that a state estimate of alcohol-related fatalities would differ from NHTSA's estimate include: the state may exclude fatalities that occur in some jurisdictions; the state may count only fatalities in crashes with an alcohol involved driver; the state may use an alcohol threshold other than 0.01 g/dl for counting alcohol related fatalities; or, the state may use data that has not yet been reported to FARS. While these definitional differences may cause a discrepancy in some states, the principal difference is whether or not imputation is used.

**9. How could estimates of alcohol-related fatalities be improved?**

- A. Data are most reliable when they are known. Consequently, if states tested all drivers involved in fatal crashes (killed *and* surviving) as well as improved the reporting of alcohol (BAC) test results to FARS, improved estimates of alcohol-related fatalities could be obtained.

*More information about the methodology to impute missing BAC test results can be found in the following report located on NCSA's web site:*

<http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rpts/2002/809-403.pdf>

*Additional information about imputation and Statistics on alcohol-related fatalities can be found at:*

<http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/AvailInf.html>



For additional copies of this Technical Report, please call (202) 366-4198 or fax your request to (202) 366-3189. For questions regarding the data reported in this research, contact Rajesh Subramanian [202-366-5371]. Internet users may access this research note and other general information on highway traffic safety at:  
<http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/AvailInf.html>

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