

State Laws and Practices for BAC Testing and Reporting Drivers Involved in Fatal Crashes

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16. Abstract			•	
This report presents the results of a study involved in fatal traffic crashes. In 2002, data file recorded BACs for 65 percent of percent of all drivers in fatal crashes. The and problems that hinder, obtaining BAC each State's laws affecting BAC testing, r and results. With the advice of a steering BAC testing and reporting, ten diverse Statest practices currently in use and the maj implementing these best practices in State	NHTSA's Fata fatally injured study's goals data for driver ecent testing ra committee rep ates were chose or barriers to i	ality Analysis Reporting Sys drivers, 25 percent of surviv were to identify the best pra is involved in fatal traffic cra ates, and other information of presenting the organizations are en for detailed examination. Increasing testing. It conclude	tem (FARS) annual reving drivers, and 43 ctices for, and the bashes. The study revin each State's praction disciplines involved the report identifies des with suggestions.	rriers ewed ces ved in s the
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This report presents the results of a study of alcohol testing and reporting methods and rates for drivers involved in fatal traffic crashes. It identifies the best practices currently in use and the major barriers to increasing testing, as determined from detailed studies of ten States. It concludes with suggestions for implementing these best practices.

BACKGROUND

The National Highway Traffic Safety Administration (NHTSA) estimates that more than one-quarter of all drivers in fatal crashes in 2002 had a positive Blood Alcohol Concentration (BAC), and 21 percent had a BAC level at or above the typical per se limit of 0.08. Accurate State and national data are critical to measure the size of this impaired driving problem, describe its characteristics, evaluate trends, explore potential countermeasures, and evaluate the effects of laws and programs.

The most accurate data come from a blood or breath measurement of a driver's BAC. In 2002, NHTSA's Fatality Analysis Reporting System (FARS) annual report data file recorded BACs for 65 percent of fatally injured drivers, 25 percent of surviving drivers, and 43 percent of all drivers in fatal crashes.

STUDY GOALS AND ACTIVITIES

This study's goals were to identify the best practices for, and the barriers and problems that hinder, obtaining BAC data for drivers involved in fatal traffic crashes, and to provide recommendations for States that wish to improve their BAC testing and reporting. The study reviewed each State's laws affecting BAC testing, recent testing rates, and other information on each State's practices and results. With the advice of a steering committee representing the organizations and disciplines involved in BAC testing and reporting, ten diverse States were chosen for detailed examination. Known BAC rates in 2001 ranged from 89 percent to 45 percent for fatally injured drivers, and from 83 percent to 1 percent for surviving drivers, across the ten States. Through personal and telephone interviews, project staff examined in detail each State's BAC laws, policies, practices, procedures, and testing results.

STATE LAWS REGARDING BAC TESTING IN FATAL CRASHES

Fatally Injured Drivers

• Mandatory testing: 25 States require a test.

• Discretionary testing: 11 States authorize, but do not require a test.

• No law: 14 States and the District of Columbia.

State law type	2002 State BAC Testing Rates			
State law type	Lowest State's rate	Median State's rate	Highest State's rate	
Mandatory test	43 %	82 %	91 %	
Discretionary test	37 %	70 %	83 %	
No law	16 %	80 %	98 %	

Testing rates varied widely for States with each law type. A mandatory law by itself does not guarantee a high testing rate, and high rates can be obtained under each type of law.

State medical examiners in many States or jurisdictions have adopted the practice of conducting a BAC test on every traffic fatality so that the medical examiner's report can assess whether alcohol may have affected the death. Each of the ten study States had a mandatory testing law or medical examiner practice of testing all traffic fatalities. The two States with less than 80 percent known BACs had not implemented the law or practice in all areas of the State.

Surviving Drivers

- Mandatory testing: 5 States require or permit a test for all surviving drivers.
- Discretionary testing: 5 States reduce the standard required for a test, usually allowing a test when the driver is believed to have caused the crash.
- Required to submit to a test request: 30 States and the District of Columbia make test submission mandatory when the implied consent provisions have been met.
- Statistical purposes: 1 State authorizes testing for statistical purposes only.
- No law: 9 States do not distinguish surviving drivers in fatal crashes from other drivers.

The five mandatory test law States had by far the highest testing rates, followed by States with no special law. At least one State in each law category (with the exception of the statistical purposes law) tested more than 70 percent of the surviving drivers.

State law type	2002 State BAC Testing Rates			
State law type	Lowest State's rate	Median State's rate	Highest State's rate	
Mandatory test	47 %	79 %	90 %	
Reduced standard	9 %	22 %	76 %	
Required if DWI	4 %	32 %	74 %	
Statistical purposes		22 %		
No law	1 %	33 %	72 %	

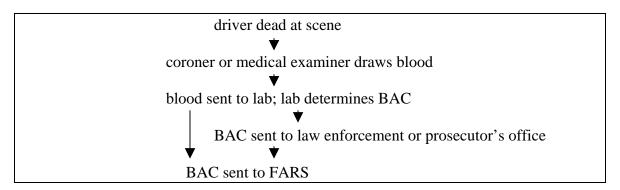
Some law enforcement jurisdictions request voluntary tests from all surviving drivers not suspected of Driving While Impaired (DWI), as well as requesting tests of the remaining drivers under standard DWI procedures. Most drivers comply with this request. Many traffic fatalities in some States are investigated by dedicated teams or by Highway Patrol/State Police officers, who have the training and incentive to achieve high testing rates.

State Insurance Laws and Regulations

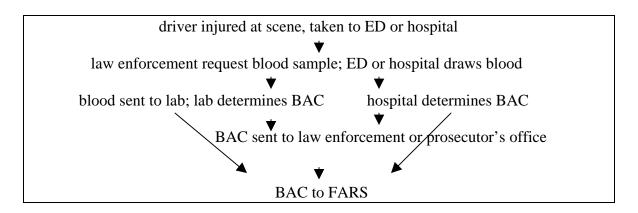
Many emergency treatment facilities draw blood from trauma patients for clinical purposes. This clinical blood sample may be the only source of a useful BAC test result. Until recently, the Uniform Accident and Sickness Policy of the National Association of Insurance Commissioners (NAIC) had a provision that allowed insurers to deny payment for medical treatment of intoxicated persons. More than 30 States adopted this provision, which substantially impedes BAC testing and reporting in some States. NAIC repealed this provision in 2001, but many States have not yet eliminated it from their laws or insurance codes.

BAC TESTING AND REPORTING PROCESSES

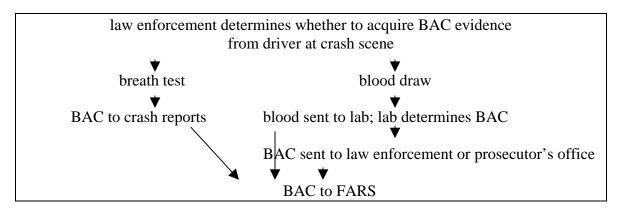
Three fundamentally different circumstances occur in obtaining a BAC from a driver in a fatal crash. When the driver dies at the crash scene, the coroner or medical examiner is responsible for investigating the death and obtaining any BAC information. Some medical examiners and coroners may not choose to draw a blood sample and some may not have appropriate equipment or training. Laboratories may have no standard procedure for reporting BAC results and reports may be delayed for many months.



When the driver is transported to an Emergency Department (ED) for treatment, the investigating law enforcement officer is responsible for requesting a blood sample in a timely manner from the facility or a BAC value from the facility's analysis of a blood sample. Law enforcement must first establish that the driver meets the State's requirements for a test. Medical facilities may require a warrant before drawing a blood sample and may be reluctant to draw a sample if insurance companies may not pay treatment costs for intoxicated drivers.



When the driver remains at the crash scene, the investigating law enforcement officer is responsible for determining if a BAC test is allowed under the State's laws and then administering a breath test or transporting the driver to a person authorized to draw a blood sample.



CONCLUSIONS AND BEST PRACTICES

No one model BAC testing and reporting system applies to all States. The following best practices are presented both as general principles that each State can apply within its own structure and as examples from the study States that other States may wish to adopt or adapt.

Who is tested: fatally injured drivers		
Conclusions	Best practices	
 Mandatory testing laws for driver fatalities produce high testing rates only if the laws are understood and followed consistently. Mandatory testing laws by themselves do not assure high testing rates. A medical examiner or coroner practice of testing all driver fatalities will produce high testing rates if understood and followed consistently. 	 Establish and follow medical examiner and coroner practice of testing all driver fatalities. In States with mandatory testing laws, inform all coroners and medical examiners of the law's requirements and assure that these requirements are followed. Provide medical examiners and coroners with appropriate training and equipment. 	

W	Who is tested: surviving drivers			
	onclusions	Best practices		
•	Mandatory testing laws for surviving drivers produce high testing rates, but only five States have these laws. Voluntary testing programs can produce testing rates above 50 percent. Without either a mandatory testing law or a voluntary testing program, test rates are unlikely to exceed 35 percent and may be considerably lower. Rural areas may have lower testing rates for both fatally injured and surviving drivers due to lack of knowledge by coroners or medical examiners, lack of equipment or training, or long travel times to medical facilities or breath testing equipment.	 In States with no mandatory testing law, request voluntary tests for all surviving drivers in fatal crashes. Establish standard procedures to request and administer tests. Provide appropriate training and equipment for all law enforcement personnel or others who administer tests. 		
W	ho is tested: drivers taken to medical fa	cilities		
_	onclusions	Best practices		
•	Law enforcement officers, medical examiners, and coroners seeking blood samples or test results need good communications and relationships with medical facilities. State insurance laws or regulations should not deny payment for treating intoxicated persons.	 Maintain good communications and relations with medical facilities. Inform facilities about applicable laws. Eliminate State laws or regulations that allow insurers to deny payment for treating intoxicated persons. Consider using contract phlebotomists or other authorized persons where there are difficulties in obtaining cooperation of medical personnel to draw blood. 		
_	ow test results are transmitted to FARS			
Co	onclusions	Best practices		
•	In 2002, eight per cent of fatally injured drivers and five percent of surviving drivers were known to have a BAC test but the results were not reported to FARS. The number of missing test results may be higher if some tested persons were reported to FARS as "unknown if tested" or "not tested." Missing test results suggest problems in managing the data flow from BAC test to FARS.	 Use a well-defined reporting process, with clear responsibilities, that does not rely on personal relationships. Establish both standard and backup methods for notifying FARS promptly of each fatal crash. Track each involved driver until BAC data are received in the FARS office; follow up if data are late. If appropriate, establish methods to obtain BAC data directly from testing laboratories, coroner or medical 		
		 examiner files, or State breath test files. Use electronic data transfer methods to reduce data delays and errors. 		

How the process is managed		
Conclusions	Best practices	
 Management is a continuing challenge, in part because organizations with critical roles are housed in several State agencies. Funding and resources can be barriers. Several States have used BAC testing and reporting forums to improve their rates substantially. 	 Maintain good communications and relations among all organizations and staff involved in BAC testing and reporting. Maintain good communications and relations with counterparts in adjoining States to obtain crash and medical facility reports from these States. Maintain adequate staff levels in all involved organizations, especially the State FARS office. Conduct State or regional BAC testing forums as appropriate. 	

IMPLEMENTATION

States have primary responsibility for BAC testing and reporting and for implementing the best practices discussed in this report. Each State should consider its own BAC testing and reporting rates and processes. If improvements are sought, each State should implement the strategies and best practices that are most appropriate to its situation. Other organizations can and should assist States through activities including the following.

National Highway Traffic Safety Administration (NHTSA)

- Establish national guidelines for testing and reporting rates, for example 80 percent known BACs for fatally injured drivers (achieved in 2002 by 21 States) and 60 percent for surviving drivers (eight States), as were used in the Section 410 grant criteria.
- Accept PBT and other non-evidentiary BAC evidence in FARS for drivers where evidentiary BAC tests are not available or appropriate.
- Assist States to improve BAC testing and reporting:
 - o Organize and fund regional BAC or FARS meetings;
 - o Help States organize and fund State BAC forums;
 - o Support, recognize, and reward State FARS management and staff.

Governors Highway Safety Association (GHSA)

• Help establish BAC testing and reporting as a priority for States, through a resolution (adopted at the 2003 GHSA Annual Meeting).

National Association of Medical Examiners (NAME)

- Establish a best practice for medical examiners and coroners of BAC testing every driver fatality; encourage medical examiners and coroners to follow this best practice.
- Work with NHTSA to develop and implement training for coroners, medical examiners, and others who may participate in BAC testing of fatally injured drivers.

International Association of Chiefs of Police (IACP), National Sheriffs'Association (NSA)

• Support voluntary BAC testing for all surviving drivers in fatal crashes through national resolutions, State and local policies, and training as needed.

National District Attorneys Association (NDAA)

• Support voluntary BAC testing for all surviving drivers in fatal crashes through national resolutions and State and local policies.

All Organizations

- Support States in eliminating provisions from State laws or insurance codes that allow insurers to deny payment for treating intoxicated persons.
- Support the training and equipment that law enforcement officers, medical examiners, and coroners need for BAC testing and reporting.

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CHAPTER I. INTRODUCTION

This report presents the results of a study of alcohol testing and reporting methods and rates for drivers involved in fatal traffic crashes. It identifies the best practices currently in use and the major barriers to increasing testing, as determined from detailed studies of ten States. The report concludes with suggestions for implementing these best practices.

Background

Drivers impaired by alcohol have been and continue to be a major highway safety problem. In 2002, the National Highway Traffic Safety Administration (NHTSA) estimates that 14,662 drivers involved in fatal crashes -- over one-quarter of all drivers in fatal crashes -- had a positive Blood Alcohol Concentration (BAC), and 12,344, or 21 percent of all drivers in fatal crashes, had a BAC level at or above the typical *per se* limit of 0.08. Extensive efforts by many persons and organizations have reduced impaired driving substantially over the past 20 years. These efforts continue, since every fatality caused by an impaired driver is preventable.

Accurate data on impaired driving are critical to this effort. Accurate data are the best and most objective way to measure the size of the impaired driving problem, describe its characteristics, evaluate trends, explore potential countermeasures, and evaluate the effects of laws and programs. Accurate data are needed at both national and State levels.

BAC Data in FARS

The most comprehensive data on impaired driving come from drivers involved in fatal crashes, both fatally injured and surviving drivers. NHTSA has collected these data in its Fatality Analysis Reporting System (FARS) since 1975. The most accurate data come from direct measurements of a driver's BAC from a blood or breath test. Lacking a BAC, inferences about a driver's alcohol use are derived from an investigating law enforcement officer's observations and other information. The quality of these observations varies substantially. Even the best may not estimate BAC levels accurately.

In 1982, NHTSA began publishing both National and State estimates of alcohol involvement in fatal crashes. In 1982, 54 percent of the fatally injured drivers and 16 percent of the surviving drivers in fatal crashes had a BAC test result recorded in FARS. Together, only 33 percent of all drivers in fatal crashes had a known BAC. For the remaining two-thirds, NHTSA used a complex imputation methodology to estimate the likelihood that each driver's BAC fell into each of three categories 0.00, 0.01-0.09, and 0.10 and above (Klein, 1986).

Twenty years later, in 2002, BAC data have improved somewhat, with results in the FARS annual report data file recorded for 65 percent of fatally injured drivers, 25 percent of surviving drivers, and 43 percent of all drivers in fatal crashes. Final data for

2002, to be released in 2004, may increase these figures slightly. But this still leaves well over half the drivers with no objective BAC data. In 2002, NHTSA introduced a new imputation method to estimate the missing data at any BAC level (NCSA, 2003a; Subramanian, 2002). However, estimated data still may be inaccurate. State-level estimates are quite accurate for States with high levels of known BAC results but may be far less accurate for States with substantial missing BAC data.

States do differ substantially. In the 2002 annual report file, BAC levels are known for 85 percent or more of fatally injured drivers in 11 States, but for less than 50 percent in another 11 States. They are known for 60 percent or more of surviving drivers in 7 States, but for less than 15 percent in 16 States. Tables 1 and 2, from NHTSA's 2002 State Alcohol Estimates (NCSA, 2003b), present the most recent BAC data by State.

Study Goals and Plan

This study's goals were to identify the best practices for, and the barriers and problems that hinder, obtaining BAC data for drivers involved in fatal traffic crashes, and to provide recommendations for States that wish to improve their alcohol testing and reporting. The study's principal activity was to study BAC testing and reporting procedures in detail in ten States. A steering committee of representatives of national organizations involved in BAC testing and reporting helped guide the project.

Outline of Report

Chapter II describes the study methods. Chapter III presents results on how States decide whom to test, through laws, policies, and practices. Chapter IV describes process issues from the point at which a blood or breath sample is taken, through determining the BAC, to recording the BAC in FARS. Chapter V presents best practice recommendations and Chapter VI discusses potential strategies for implementing these recommendations. The Appendices document State laws affecting BAC testing and the ten State case studies.

Table 1. BAC Testing and Reporting Rates by State FARS 2002

FARS 2002							
		tally injured			Surviving drivers		
State	Total N	Tested	Known		Total	Tested	Known
Alabama	696	36.8%	4.7%		653	26.5%	11.5%
Alaska	53	34.0%	32.1%		58	46.6%	44.8%
Arizona	566	71.9%	54.2%		871	9.2%	5.5%
Arkansas	431	72.6%	72.6%		381	50.7%	50.7%
California	2,202	88.1%	86.2%		3,301	25.1%	21.5%
Colorado	472	80.5%	80.5%		499	25.3%	25.3%
Connecticut	192	87.5%	86.5%		219	28.8%	25.1%
Delaware	72	86.1%	81.9%		101	57.4%	53.5%
DC	28	3.6%	0.0%		44	18.2%	15.9%
Florida	1,792	66.8%	64.6%		2,621	25.2%	23.8%
Georgia	956	83.1%	69.6%		1,219	78.8%	69.3%
Hawaii	54	66.7%	61.1%		114	46.5%	37.7%
Idaho	172	76.2%	71.5%		178	41.0%	35.4%
Illinois	861	90.1%	90.1%		1,058	22.3%	22.3%
Indiana	546	70.3%	66.7%		605	69.6%	66.6%
Iowa	283	49.8%	44.2%		313	35.1%	33.5%
Kansas	353	16.1%	15.6%		323	11.8%	11.5%
Kentucky	630	58.3%	57.5%		593	37.6%	36.3%
Louisiana	544	82.2%	48.2%		625	72.3%	56.3%
Maine	146	91.8%	91.8%		125	89.6%	89.6%
Maryland	407	83.3%	81.8%		551	12.5%	10.5%
Massachusetts	293	57.7%	42.3%		331	3.6%	
	796	75.4%	71.1%				2.7%
Michigan					1,053	39.5%	34.4%
Minnesota	430	86.5%	85.3%		459	62.3%	61.2%
Mississippi	590	68.0%	68.0%		516	50.8%	50.8%
Missouri	791	78.4%	78.4%		849	11.7%	11.0%
Montana	181	90.6%	80.7%		123	71.5%	62.6%
Nebraska	214	85.0%	85.0%		197	83.2%	83.2%
Nevada	205	82.4%	80.5%	-	308	36.7%	35.1%
New Hampshire	100	90.0%	90.0%		84	76.2%	75.0%
New Jersey	419	56.6%	55.8%	-	603	22.1%	20.2%
New Mexico	247	83.0%	80.6%		324	12.7%	5.9%
New York	808	42.6%	42.6%		1,243	3.9%	3.7%
North Carolina	1,017	95.7%	74.9%		1,120	8.5%	0.5%
North Dakota	68	80.9%	80.9%		57	14.0%	14.0%
Ohio	981	82.0%	81.5%		1,010	37.8%	37.3%
Oklahoma	473	76.5%	76.3%		500	8.0%	1.8%
Oregon	263	87.1%	85.6%		293	41.3%	38.9%
Pennsylvania	1,078	86.9%	68.3%		1,112	24.1%	12.0%
Rhode Island	59	86.4%	86.4%		59	16.9%	5.1%
South Carolina	695	74.4%	68.8%		677	13.9%	2.2%
South Dakota	119	85.7%	83.2%		95	73.7%	71.6%
Tennessee	793	72.5%	43.8%		760	53.8%	31.6%
Texas	2,274	51.9%	32.9%		2,740	26.6%	13.8%
Utah	181	56.4%	56.4%		213	44.6%	43.7%
Vermont	52	98.1%	98.1%		56	25.0%	25.0%
Virginia	575	42.6%	42.6%		636	0.8%	0.6%
Washington	419	90.7%	90.7%		445	19.8%	19.3%
West Virginia	300	90.3%	89.0%		276	33.0%	26.8%
Wisconsin	558	81.5%	79.7%		576	38.4%	38.2%
Wyoming	114	76.3%	76.3%		87	35.6%	32.2%
Total	26,549	72.6%	64.9%		31,254	30.3%	25.2%

Table 2. BAC Testing and Reporting Rates by State, Sorted by Percent Known FARS 2002

	Fatally injured	drivers	Surviving drivers					
State	Total N	Tested	Known		State	Total N	Tested	Known
				-				
Vermont	52	98.1%	98.1%		Maine	125	89.6%	89.6%
Maine	146	91.8%	91.8%		Nebraska	197	83.2%	83.2%
Washington	419	90.7%	90.7%		New Hampshire	84	76.2%	75.0%
Illinois	861	90.1%	90.1%		South Dakota	95	73.7%	71.6%
New Hampshire	100	90.0%	90.0%		Georgia	1,219	78.8%	69.3%
West Virginia	300	90.3%	89.0%		Indiana	605	69.6%	66.6%
Connecticut	192	87.5%	86.5%		Montana	123	71.5%	62.6%
Rhode Island	59	86.4%	86.4%		Minnesota	459	62.3%	61.2%
California	2,202	88.1%	86.2%		Louisiana	625	72.3%	56.3%
Oregon	263	87.1%	85.6%		Delaware	101	57.4%	53.5%
Minnesota	430	86.5%	85.3%		Mississippi	516	50.8%	50.8%
Nebraska	214	85.0%	85.0%		Arkansas	381	50.7%	50.7%
South Dakota	119	85.7%	83.2%		Alaska	58	46.6%	44.8%
Delaware	72	86.1%	81.9%		Utah	213	44.6%	43.7%
Maryland	407	83.3%	81.8%		Oregon	293	41.3%	38.9%
Ohio	981	82.0%	81.5%		Wisconsin	576	38.4%	38.2%
North Dakota	68	80.9%	80.9%		Hawaii	114	46.5%	37.7%
Montana	181	90.6%	80.7%		Ohio	1,010	37.8%	37.3%
New Mexico	247	83.0%	80.6%		Kentucky	593	37.6%	36.3%
Colorado	472	80.5%	80.5%		Idaho	178	41.0%	35.4%
Nevada	205	82.4%	80.5%		Nevada	308	36.7%	35.1%
Wisconsin	558	81.5%	79.7%		Michigan	1,053	39.5%	34.4%
Missouri	791	78.4%	78.4%		Iowa	313	35.1%	33.5%
Oklahoma	473	76.5%	76.3%		Wyoming	87	35.6%	32.2%
Wyoming	114	76.3%	76.3%		Tennessee	760	53.8%	31.6%
North Carolina	1,017	95.7%	74.9%		West Virginia	276	33.0%	26.8%
Arkansas	431	72.6%	72.6%		Colorado	499	25.3%	25.3%
Idaho	172	76.2%	71.5%		Connecticut	219	28.8%	25.1%
Michigan	796	75.4%	71.1%		Vermont	56	25.0%	25.0%
Georgia	956	83.1%	69.6%		Florida	2,621	25.2%	23.8%
South Carolina	695	74.4%	68.8%		Illinois	1,058	22.3%	22.3%
Pennsylvania	1,078	86.9%	68.3%		California	3,301	25.1%	21.5%
Mississippi	590	68.0%	68.0%		New Jersey	603	22.1%	20.2%
Indiana	546	70.3%	66.7%		Washington	445	19.8%	19.3%
Florida	1,792	66.8%	64.6%		DC	44	18.2%	15.9%
Hawaii	54	66.7%	61.1%		North Dakota	57	14.0%	14.0%
Kentucky	630	58.3%	57.5%		Texas	2,740	26.6%	13.8%
Utah	181	56.4%	56.4%	_	Pennsylvania	1,112	24.1%	12.0%
New Jersey	419	56.6%	55.8%	_	Alabama	653	26.5%	11.5%
Arizona	566	71.9%	54.2%	_	Kansas	323	11.8%	11.5%
Louisiana	544	82.2%	48.2%		Missouri	849	11.7%	11.0%
Iowa	283	49.8%	44.2%		Maryland	551	12.5%	10.5%
Tennessee	793	72.5%	43.8%		New Mexico	324	12.7%	5.9%
Virginia	575	42.6%	42.6%		Arizona	871	9.2%	5.5%
New York	808	42.6%	42.6%		Rhode Island	59	16.9%	5.1%
Massachusetts	293	57.7%	42.3%		New York	1,243	3.9%	3.7%
Texas	2,274	51.9%	32.9%		Massachusetts	331	3.6%	2.7%
Alaska	53	34.0%	32.1%		South Carolina	677	13.9%	2.7%
Kansas	353	16.1%	15.6%		Oklahoma	500	8.0%	1.8%
Alabama	555 696	36.8%	4.7%		Virginia	636	0.8%	0.6%
DC	28	36.8%	0.0%		North Carolina	1,120	8.5%	0.5%
Total	26,549	72.6%	64.9%		Total	31,254	30.3%	25.2%

FARS Data Files

FARS produces a data file for the previous year's crashes in approximately June. NHTSA uses this file for its annual reports and Fact Sheets. FARS continues to accept crash data for at least a full year after the crash date, and produces the final annual file approximately 18 months after the calendar year's end (*Traffic Safety Facts 2001*, DOT HS 809 484, p. 3.) In particular, BAC data may be added during this time.

Tables 3 and 4 compare BAC testing and reporting data from the 2001 annual report and final files. Data for about one-third of the States were unchanged from the annual report to the final file. Most other States added, or occasionally subtracted, a small number of drivers and tests. A few States had substantial changes: California added 209 known BACs of fatally injured drivers; Ohio added 136; Georgia added 131; Pennsylvania added 118. Georgia added 182 known BACs of surviving drivers while Pennsylvania added 71 and Texas added 68. Nationwide, the percent tested increased from the annual report file to the final file by 4.1 percent for fatally injured drivers and 1.1 percent for surviving drivers while the percent known increased by 4.5 percent for fatally injured drivers and 1.6 percent for surviving drivers.

NHTSA's goal is to obtain as complete BAC reporting as possible in the annual report file, because this file not only provides the first complete look at the previous year's alcohol-related crashes, but also will be the file used for all analyses for at least a year. All data presented in this report come from annual report files unless explicitly noted otherwise.

Table 3. BAC Testing and Reporting in Annual Report and Final Files, FARS 2001 Fatally Injured Drivers

		A	nnual Repo		atany inju				n Annual R	eport to Fina	al File
	Total			Pct	Pct			nunge ir or		Pct	Pct
State	N	Tested	Known	Tested	Known		Total	Tested	Known	Tested	Known
Alabama	681	405	89	59.5%	13.1%	-	0	0	0	0.0%	0.0%
Alaska	61	42	39	68.9%	63.9%		3	1	0	-1.7%	-3.0%
Arizona	519	392	302	75.5%	58.2%		4	4	1	0.2%	-0.3%
Arkansas	410	303	303	73.9%	73.9%		0	0	0	0.2%	0.0%
California	2,075	1,688	1,681	81.3%	81.0%	-	0	212	209	10.2%	10.1%
Colorado	444	383	383	86.3%	86.3%		2	15	15	3.0%	3.0%
Connecticut	211	175	172	82.9%	81.5%		2	1	1	-0.3%	-0.3%
DC	77	70	68	90.9%	88.3%	-	0	0	0	0.0%	0.0%
Delaware	34	22	0	64.7%	0.0%	-	0	0	0	0.0%	0.0%
Florida	1,698	1,140	1,110	67.1%	65.4%	-	0	6	9	0.4%	0.5%
Georgia	1,025	859	613	83.8%	59.8%		14	11	131	-0.1%	11.8%
Hawaii	81	68	61	84.0%	75.3%	-	0	2	7	2.5%	8.6%
Idaho	158	116	109	73.4%	69.0%	-	0	1	8	0.6%	5.1%
Illinois	847	758	756	89.5%	89.3%	-	-1	-1	-1	0.0%	0.0%
Indiana	613	405	333	66.1%	54.3%		0	16	65	2.6%	10.6%
Iowa	299	148	135	49.5%	45.2%	-	-1	-1	-1	-0.2%	-0.2%
Kansas	347	176	156	50.7%	45.0%		0	19	25	5.5%	7.2%
Kentucky	569	342	333	60.1%	58.5%	-	0	0	0	0.0%	0.0%
Louisiana	607	476	368	78.4%	60.6%		-3	3	3	0.9%	0.8%
Maine	120	107	107	89.2%	89.2%		0	0	0	0.0%	0.0%
Maryland	411	348	339	84.7%	82.5%		-1	25	29	6.3%	7.3%
Massachusetts	287	105	104	36.6%	36.2%		0	67	48	23.3%	16.7%
Michigan	821	654	633	79.7%	77.1%		0	3	4	0.4%	0.5%
Minnesota	365	332	326	91.0%	89.3%	-	0	0	0	0.0%	0.0%
Mississippi	551	367	367	66.6%	66.6%		0	0	0	0.0%	0.0%
Missouri	738	551	551	74.7%	74.7%		0	35	34	4.7%	4.6%
Montana	156	139	62	89.1%	39.7%		0	0	0	0.0%	0.0%
Nebraska	160	135	135	84.4%	84.4%		1	6	6	3.2%	3.2%
Nevada	181	148	141	81.8%	77.9%		1	1	1	0.1%	0.1%
New Hampshire	98	79	79	80.6%	80.6%		0	9	8	9.2%	8.2%
New Jersey	421	318	318	75.5%	75.5%		-2	33	33	8.2%	8.2%
New Mexico	242	198	197	81.8%	81.4%		1	-1	-1	-0.7%	-0.7%
New York	825	485	483	58.8%	58.5%		2	9	9	0.9%	0.9%
North Carolina	955	881	723	92.3%	75.7%		0	74	64	7.7%	6.7%
North Dakota	84	71	71	84.5%	84.5%		0	0	0	0.0%	0.0%
Ohio	944	734	631	77.8%	66.8%		-1	37	136	4.0%	14.5%
Oklahoma	428	260	260	60.7%	60.7%		5	64	64	14.1%	14.1%
Oregon	282	245	239	86.9%	84.8%		0	0	0	0.0%	0.0%
Pennsylvania	965	804	642	83.3%	66.5%		0	40	118	4.1%	12.2%
Rhode Island	54	51	51	94.4%	94.4%		0	0	0	0.0%	0.0%
South Carolina	685	499	445	72.8%	65.0%		0	-2	-1	-0.3%	-0.1%
South Dakota	103	82	81	79.6%	78.6%		0	0	0	0.0%	0.0%
Tennessee	849	250	250	29.4%	29.4%		0	348	34	41.0%	4.0%
Texas	2,248	1,215	740	54.0%	32.9%		4	15	93	0.6%	4.1%
Utah	169	114	87	67.5%	51.5%		-1	0	11	0.4%	6.9%
Vermont	62	55	55	88.7%	88.7%		0	0	0	0.0%	0.0%
Virginia	600	430	430	71.7%	71.7%		0	26	26	4.3%	4.3%
Washington	392	345	344	88.0%	87.8%		0	4	4	1.0%	1.0%
West Virginia	247	232	230	93.9%	93.1%		0	0	0	0.0%	0.0%
Wisconsin	521	433	429	83.1%	82.3%		0	0	0	0.0%	0.0%
Wyoming	120	97	92	80.8%	76.7%		0	0	0	0.0%	0.0%
Total	25,840	18,732	16,653	72.5%	64.4%		29	1,082	1,192	4.1%	4.5%

Table 4. BAC Testing and Reporting in Annual Report and Final Files, FARS 2001 Surviving Drivers

	FARS 2001 Survivin Annual Report File			Change from Annual Report to Final File							
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Ctata	Total	Tantad	V	Pct	Pct	_	Total	Tostad	V	Pct	Pct
State	N	Tested	Known	Tested	Known		Total	Tested	Known	Tested	Known
Alabama	681	252	72	37.0%	10.6%		-1	-1	0	-0.1%	0.0%
Alaska	63	29	27	46.0%	42.9%		2	2	2	1.7%	1.8%
Arizona	886	96	46	10.8%	5.2%		4	9	6	1.0%	0.7%
Arkansas	391	196	196	50.1%	50.1%		0	0	0	0.0%	0.0%
California	3,227	779	691	24.1%	21.4%		0	11	7	0.3%	0.2%
Colorado	534	145	142	27.2%	26.6%		2	6	6	1.0%	1.0%
Connecticut	211	66	57	31.3%	27.0%		7	5	5	1.3%	1.4%
DC	106	72	68	67.9%	64.2%		0	0	0	0.0%	0.0%
Delaware	52	36	13	69.2%	25.0%		0	0	0	0.0%	0.0%
Florida	2,606	642	579	24.6%	22.2%		0	7	14	0.3%	0.5%
Georgia	1,292	1,030	726	79.7%	56.2%		31	7	182	-1.3%	12.4%
Hawaii	107	49	34	45.8%	31.8%		0	0	2	0.0%	1.9%
Idaho	159	58	53	36.5%	33.3%		0	-1	4	-0.6%	2.5%
Illinois	1,121	265	265	23.6%	23.6%		0	6	5	0.5%	0.4%
Indiana	672	435	388	64.7%	57.7%		0	1	26	0.1%	3.9%
Iowa	306	109	106	35.6%	34.6%		0	0	0	0.0%	0.0%
Kansas	293	106	99	36.2%	33.8%		0	9	9	3.1%	3.1%
Kentucky	591	238	233	40.3%	39.4%		0	0	0	0.0%	0.0%
Louisiana	671	473	416	70.5%	62.0%		2	2	2	0.1%	0.1%
Maine	142	118	118	83.1%	83.1%		0	1	1	0.7%	0.7%
Maryland	529	71	56	13.4%	10.6%		0	22	22	4.2%	4.2%
Massachusetts	331	12	12	3.6%	3.6%		0	0	0	0.0%	0.0%
Michigan	1,111	392	330	35.3%	29.7%		0	0	0	0.0%	0.0%
Minnesota	424	276	267	65.1%	63.0%		0	0	0	0.0%	0.0%
Mississippi	459	254	254	55.3%	55.3%		$\begin{bmatrix} 0 \\ 0 \end{bmatrix}$	0	0	0.0%	0.0%
Missouri	704	87	86	12.4%	12.2%			0	0	0.0%	0.0%
Montana Nebraska	111	71 146	25 146	64.0%	22.5%		$\begin{bmatrix} 0 \\ 0 \end{bmatrix}$	0 2	0	0.0%	0.0% 1.1%
	186 257	101	97	78.5% 39.3%	78.5% 37.7%		1	0	2	1.1% -0.2%	-0.1%
Nevada	237 97	66		59.5% 68.0%	68.0%		0	8	8	-0.2% 8.2%	-0.1% 8.2%
New Hampshire New Jersey		180	66 176	27.5%	26.9%		1	23	25	3.5%	3.8%
New Mexico	655 327	48	32	14.7%	9.8%		0	23	23 1	3.5% 0.6%	0.3%
New York	1,246	48 60	53	4.8%	9.8% 4.3%		19	0	0	-0.1%	-0.1%
North Carolina	1,136	51	33 11	4.5%	1.0%		0	3	3	0.3%	0.3%
North Dakota	49	16	16	32.7%	32.7%		0	0	0	0.5%	0.5%
Ohio	984	339	284	34.5%	28.9%		1	2	41	0.0%	4.1%
Oklahoma	455	10	204 9	2.2%	2.0%		2	1	1	0.2%	0.2%
Oregon	350	171	166	48.9%	47.4%		0	0	0	0.2%	0.2%
Pennsylvania Pennsylvania	1,145	225	132	19.7%	11.5%		19	25	71	1.8%	5.9%
Rhode Island	61	10	5	16.4%	8.2%		0	0	0	0.0%	0.0%
South Carolina	706	97	21	13.7%	3.0%		0	1	0	0.0%	0.0%
South Dakota	115	58	54	50.4%	47.0%		0	0	0	0.1%	0.0%
Tennessee	854	189	189	22.1%	22.1%		-1	221	21	25.9%	2.5%
	2,890	816	435	28.2%	15.1%		7	6	68	0.1%	2.3%
Texas Utah	2,890	114	433 94	51.4%	42.3%		0	-1	4	-0.5%	1.8%
Vermont	57	22	22	38.6%	38.6%		0	-1 1	1	1.8%	1.8%
Virginia	719	8	5	1.1%	0.7%		17	3	3	0.4%	0.4%
Washington Washington	463	96	94	20.7%	20.3%		0	5	5	1.1%	1.1%
West Virginia	259	67	59	25.9%	20.3%		0	0	0	0.0%	0.0%
Wisconsin	499	186	180	37.3%	36.1%		0	0	0	0.0%	0.0%
Wyoming	86	32	31	37.3%	36.0%		0	0	0	0.0%	0.0%
Total	31,598	9,465	7,736	30.0%	24.5%		113	388	547	1.1%	1.6%

CHAPTER II. STUDY METHODS

The study first reviewed each State's laws affecting BAC testing for both fatally injured and surviving drivers, recent BAC testing rates, and other readily-available information relevant to each State's BAC testing practices and results. At the same time, the steering committee was formed. With the advice of the steering committee, ten States were chosen for study. Through personal and telephone interviews, project staff examined in detail each State's BAC laws, policies, practices, procedures, and testing results. Information from the review and the ten State investigations was synthesized into draft findings, conclusions, and recommendations. The steering committee reviewed these results and made additional suggestions for the study's conclusions and this final report.

State Law Review

Some States have laws explicitly authorizing or enabling BAC testing for drivers involved in fatal crashes, in addition to the standard laws regarding drivers suspected of violating the State's impaired driving statutes. Project staff reviewed and summarized each State's laws for both fatally injured and surviving drivers. State laws were searched through the Internet. Additional information was obtained from *Forced Blood Draws*, American Prosecutors Research Institute (2002), and *Digest of State Alcohol-Highway Safety Related Legislation*, *Twentieth Edition*, NHTSA, DOT-HS-809 435 (2002). The results are presented and discussed in Chapter III. The review identified three general types of laws for fatally injured drivers and five types for surviving drivers.

Steering Committee

A seven-member steering committee advised the project. The committee members and their organizations are listed below and in Appendix A.

Jonathan Arden, MD, Chief Medical Examiner, District of Columbia
John Bobo, Director, National Traffic Law Center
Phillip Brewer, MD, Yale New Haven Hospital
James Champagne, Executive Director, Louisiana Highway Safety Commission
Robert DiMiceli, California Highway Patrol
Barbara Harsha, Executive Director, Governors Highway Safety Association
Chip Walls, Director, Forensic Toxicology Laboratory, University of Miami
School of Medicine

Collectively, the committee members represent the disciplines involved in all aspects of BAC testing: medical examiners, prosecutors, physicians, highway safety office directors, law enforcement, and toxicologists. The committee met on August 29, 2002, reviewed the overall project goals and plan, advised on critical issues in BAC testing, and suggested States for detailed study. The committee met again on July 29, 2003, reviewed the results from the ten State case studies, reviewed and commented on the draft recommendations, and suggested how the recommendations could be implemented.

Ten State Case Studies

States were selected for study using four criteria.

- 1) Laws: include States from each of the major law types, for both fatally injured and surviving drivers.
- 2) Testing rates: include States with good and not-so-good testing rates and States that have improved their testing rates markedly.
- 3) Geographic diversity: include States from as many NHTSA Regions as possible; include both large and small States.
- 4) Efficiency: when possible, include States that will provide useful information for both dead and surviving driver testing and reporting practices.

Project staff prepared a preliminary list and circulated it to the steering committee. Staff also discussed the project and the list with Administrators or staff in each NHTSA Region and reviewed reports from workshops regarding BAC testing conducted recently in several States. This produced a working list of eleven States together with several alternates. Project staff contacted these States to investigate arrangements for visits or telephone interviews. Two States could not accommodate the study and one State was added from the alternate list, to produce the final ten States.

California Minnesota
Delaware Nebraska
Iowa North Carolina

Louisiana Oregon Maine Utah

The ten States are geographically diverse and include a representative from nine of the ten NHTSA regions (Figure 1). Known BAC rates in 2001 (the most recent data at the time States were selected), ranged from 89 percent to 45 percent for fatally injured drivers, and from 83 percent to 1 percent for surviving drivers, across the ten States.

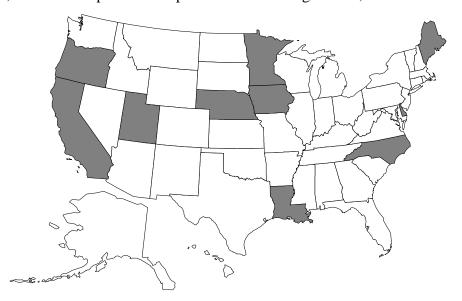


Figure 1. Study States

Project staff visited or conducted telephone interviews with key persons in each State. Contacts began with the State's Governor's Representative or staff and FARS analyst. For the States studied by telephone (Iowa, Minnesota and Nebraska), they recommended representatives from law enforcement, medical examiners or coroners, physicians, and testing laboratories who were then contacted and interviewed. For the States visited, they recruited representatives of these disciplines to meet with project staff. Appendix B lists the persons contacted in each State. Each State study was based on the outline protocol of Appendix C, modified as appropriate to meet the State's specific circumstances.

CHAPTER III. THE BAC TESTING AND REPORTING PROCESS

Three fundamentally different circumstances occur in obtaining BACs from a driver in a fatal crash:

- 1) The driver dies at the crash scene.
- 2) The driver is taken to an emergency department or other medical facility for treatment; the driver may die later or survive.
- 3) The driver is uninjured or has minor injuries that do not require emergency transportation to a medical facility.

Each requires different processes and procedures for obtaining a BAC and reporting the BAC to FARS. Each has different persons in critical roles, different barriers, and different potential solutions. Each is outlined below, to provide context for the more detailed discussions of the following chapters.

Driver Dies at the Crash Scene

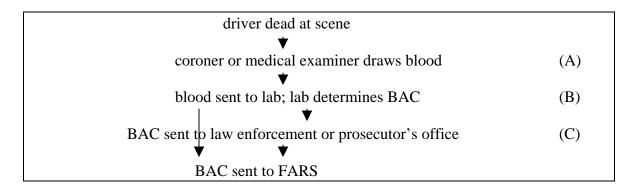


Figure 2. BAC testing and reporting for drivers who die at the crash scene

At the Crash Scene (A)

When the driver dies at the crash scene, the coroner or medical examiner is responsible for investigating the death, including any BAC evidence relevant to the death. Law enforcement or emergency medical personnel typically notify the coroner or medical examiner of the death, though in some instances the coroner or medical examiner may require an official order from a judge or prosecutor's office. Some States have laws requiring coroners and medical examiners to obtain BAC evidence from a blood sample from all fatally injured drivers. Similarly, some States or jurisdictions have a standard medical examiner and coroner practice of obtaining a blood sample and BAC from all fatally injured drivers.

Regardless of the presence of a law or standard practice, coroners and medical examiners may not choose to draw blood for BAC analysis. Some coroners and medical examiners will not draw blood if they do not suspect that the victim had been drinking. Many lay coroners do not have training on correct blood sample procedures: for example, an accurate BAC reading requires a sample of arterial blood from the chest. Blood samples must be drawn within three or four hours of the crash in order to obtain an

accurate BAC reading, and in some instances, especially in rural areas, coroners and medical examiners may not obtain access to the victim within this time. Some medical examiners may not conduct autopsies on traffic fatalities if the cause of death is obvious, or if resources are limited, and without an autopsy may not may not obtain blood for BAC analysis.

At the Laboratory (B)

Obtaining a BAC reading from a blood sample in at the laboratory is a simple process which produces accurate and reliable BAC results. NHTSA has a free voluntary laboratory quality control and certification program to assure consistent quality.

Reporting the BAC to FARS (C)

Laboratories may have no standard procedures for reporting BAC results. Some States, especially those with centralized laboratories that analyze many blood samples, have established procedures for laboratories to forward BAC results directly to the FARS analyst. In other instances the BAC must be reported to the law enforcement agency investigating the crash, added to the information on the crash report, and then forwarded to FARS. BAC results at a law enforcement agency may be considered as evidence in a criminal case arising from the crash, so may not be available to FARS until the case has been resolved. Backlogs at laboratories may delay BAC analyses substantially, so that the BAC results are reported to the law enforcement agency after the initial crash report has been submitted to FARS. FARS analysts in most States must follow up with laboratories and law enforcement agencies to obtain BAC results that have been delayed.

Driver Taken to a Treatment Facility

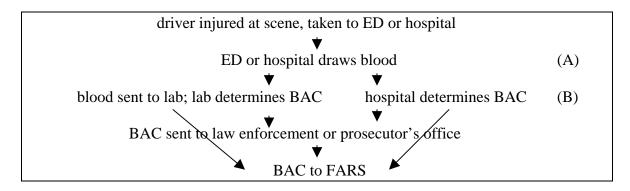


Figure 3. BAC testing and reporting for drivers taken to a treatment facility

At the Emergency Department or Hospital (A)

When the driver's injuries require treatment at an emergency facility, there usually is no opportunity to acquire a breath or blood sample before the driver is admitted to the facility. Some facilities routinely draw a blood sample upon admission, for medical purposes, but many do not. In either case, law enforcement officers responding

to the crash are responsible for requesting that the medical facility provide a blood sample for BAC analysis or provide a BAC value directly from the facility's own analysis of a blood sample. Law enforcement must make this request promptly, so that blood may be drawn within three or four hours of the crash to provide an accurate BAC reading. Except in those few States where BAC tests are required for all drivers involved in fatal crashes, law enforcement must establish that the driver meets the State's requirements, whether probable cause or some reduced standard, before making the request. Establishing probable cause may be difficult if emergency personnel remove the driver from the crash scene before law enforcement offices arrive at the scene.

Some States or medical facilities may require a warrant for a blood sample. In these cases, law enforcement must request and obtain a warrant and present it to the medical facility quickly enough to meet the three or four hour deadline. Some State laws or regulations allow insurance companies to deny payment for the entire medical treatment of intoxicated individuals. While this provision is invoked only rarely, medical facilities in these States still may be reluctant to draw a blood sample for fear that it may demonstrate that the driver is intoxicated. Some emergency facilities may not have blood test kits available. In these instances, the investigating officer must provide the test kit.

At the Laboratory or Hospital (B)

If the blood sample is sent to an outside laboratory for analysis, the process is identical to that described previously for drivers who die at the scene. If the emergency facility analyzes the blood sample, then law enforcement typically must obtain the BAC directly or request that it be transmitted to FARS. The medical facility may require a search warrant before releasing the BAC. Again, once the BAC is obtained, the process is the same as for drivers who die at the scene. Illinois law allows medical facilities to report BAC readings as "business records," which considerably simplifies the process.

Driver Remains at Crash Scene

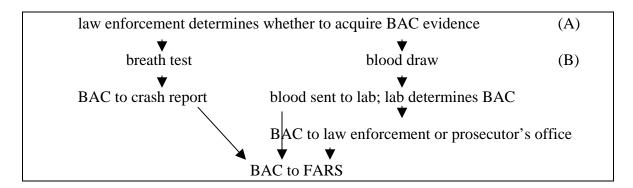


Figure 4. BAC testing and reporting for drivers remaining at the crash scene

At the Crash Scene (A)

When the driver remains at the crash scene, either uninjured or with minor injuries that do not require immediate transportation to a treatment facility, investigating law enforcement officers are responsible for determining if a BAC test is appropriate and then administering the test. As with drivers taken to a medical facility, law enforcement must establish that a BAC test is allowed under the State's requirements.

At the Testing Facility (B)

If a breath test is appropriate, then an officer administers the test, usually in a law enforcement station, under the standard procedures used for an impaired driving arrest. The results are recorded on the crash report and sent to FARS. If a blood test is appropriate, then the law enforcement officer is responsible for transporting the driver to a person authorized to draw blood and for obtaining a blood sample, which is then sent to a testing laboratory. The procedures for obtaining the BAC and forwarding it to FARS are the same as described previously.

CHAPTER IV. STATE LAWS, POLICIES AND PRACTICES GOVERNING BAC TESTING

Fatally Injured Drivers

In 2002, the FARS annual report file showed that 74 percent of the drivers killed in the U.S. were tested for alcohol, with known BAC test results recorded for 65 percent (*Traffic Safety Facts 2002: State Alcohol Estimates*, DOT HS 809 617). The median State tested 81 percent of fatally injured drivers and results were known for 75 percent. State-by-State data were presented in Chapter I. The final 2002 data will be released in summer 2004 and likely will increase these figures slightly.

Laws Governing BAC Testing

The States can be grouped into one of three categories regarding laws governing BAC testing of fatally injured crash victims. Appendix D lists the States with each type of law.

Mandatory Testing

Laws in 25 States require coroners or medical examiners to test all victims of motor vehicle crashes for alcohol and report the results. For example, Oregon law reads, "When a death requiring an investigation as a result of a motor vehicle accident occurs within five hours after the accident and the deceased is over 13 years of age, a blood sample *shall* be taken and forwarded to an approved laboratory for analysis. Such blood or urine samples shall be analyzed for the presence and quantity of ethyl alcohol, and if considered necessary by the State Medical Examiner, the presence of controlled substances. Laboratory reports of the analysis shall be made a part of the State Medical Examiner's and district medical examiner's files", and transmitted "monthly to the Department of Transportation..."

The median State in this group tested 82 percent of its fatally injured drivers in 2002, and had known BAC results for 81 percent. However, these "mandatory" laws are not always obeyed. As Table 5 shows, one State tested only 43 percent of fatally injured drivers.

• Discretionary Testing

Laws in 11 States authorize, but do not require BAC testing for crash victims. For example, Texas law reads, "(b) If the person is dead, a specimen *may* be taken by: (1) the county medical examiner or the examiner's designated agent; or (2) a licensed mortician or a person authorized under Section 724.016 or 724.017 if there is not a county medical examiner for the county." In three of these States, the standard is that a test must be conducted when there is reasonable grounds or probable cause to believe that the driver was under the influence of alcohol (or equivalent). Testing in other circumstances is discretionary.

The median State in this group tested 70 percent and recorded known BAC results for 61 percent of its fatally injured drivers in 2002.

• No Law Governing Testing

Fourteen States and the District of Columbia have no law regarding alcohol testing of fatally injured crash victims. The median State tested 80 percent and reported known BACs for 76 percent of its fatally injured drivers.

Tables 5 and 6 summarize the testing and known BAC rates for States with the three types of laws. As Table 5 shows, States with mandatory testing laws had the highest median testing rate, followed very closely by States that had no testing law, and then by States that had discretionary laws. The rates varied widely for States with each law type. The known BAC rates follow the same pattern. In fact, four States with mandatory laws tested fewer than 60 percent of all fatally injured drivers, while Vermont, a State with no special law, had the highest overall testing rate of 98 percent. A mandatory law by itself does not guarantee a high testing rate, and high rates can be obtained under each type of law.

Table 5. BAC Testing Rates by State Law Type, Fatally Injured Drivers, FARS 2002

State law type	Lowest State's rate	Median State's rate	Highest State's rate
Mandatory test	43 %	82 %	91 %
Discretionary test	37 %	70 %	83 %
No law	16 %	80 %	98 %

Table 6. Known BAC Rates by State Law Type, Fatally Injured Drivers, FARS 2002

State law type	Lowest State's rate	Median State's rate	Highest State's rate
Mandatory test	42 %	81 %	91 %
Discretionary test	5 %	61 %	81 %
No law	16 %	76 %	98 %

Survival Time

Another factor that affects testing rates is survival time. Drivers who die at the crash scene, or shortly thereafter, immediately become the responsibility of the coroner or medical examiner system for custody and testing. Drivers who survive for some period of time after the crash normally will be taken to a medical facility. Post mortem BAC testing of drivers who survive many hours would be meaningless and State laws that authorize testing typically do so only when the victim dies within a specified number of hours of the crash. BAC data for drivers who survive for several hours before dying usually must depend on blood samples drawn for medical reasons when the driver is admitted to a hospital.

In 2001, using final FARS file data, 57 percent of all fatally injured drivers in the U.S. died within one hour of their crash. The known BAC rate for this group was 76 percent. Twenty-two percent of the fatally injured drivers survived for at least an hour, but died within 12 hours of their crash. The known BAC rate for this group was 71 percent. Finally, 21 percent of the drivers died after longer periods or had missing crash or death times in FARS. The known BAC rate for this group was 47 percent.

In 2001, eight States tested 95 percent or more of fatally injured drivers who died within an hour of their crash. Four of these States have mandatory testing laws and four have no laws regarding testing. This shows that it is possible to test virtually all drivers who die shortly after their crash even without a mandatory testing law.

Surviving Drivers

In 2002, FARS reported that 30 percent of the surviving drivers in fatal crashes were tested for alcohol, with known BAC test results recorded for 25 percent. The median State tested 33 percent and results were known for 25 percent. The final 2002 data will be released in summer 2004 and likely will increase these figures slightly. State-by-State data were presented in Chapter I.

Laws Governing BAC Testing

State implied consent laws define the circumstances under which a law enforcement officer can request a motorist to submit to a chemical test for alcohol. In a typical Driving While Impaired (DWI) investigation, the law allows this request when the law enforcement officer has reasonable grounds or probable cause to believe that the motorist was operating in violation of the State's impaired driving law. Many States modify these laws for drivers involved in crashes resulting in serious injury or fatality. The States can be grouped according to the laws that govern BAC testing of surviving drivers involved in fatal crashes. Appendix E lists the States in each group and summarizes each State's laws.

Mandatory Testing

Five States require or permit a law enforcement officer to request a test from all surviving drivers in a fatal crash. For example, Maine's law reads, "If there is probable cause to believe that death has occurred or will occur as a result of an accident, an operator of a motor vehicle involved in the motor vehicle accident shall submit to a test to determine blood-alcohol level or drug concentration in the same manner as for OUI. The investigating law enforcement officer shall cause a test to be administered as soon as practicable following the accident...". Two other States, Mississippi and Pennsylvania, had similar laws that were declared unconstitutional by State courts.

Maine leads this group of States, testing and reporting data from 90 percent of surviving drivers in 2002. The median State testing rate was 79 percent.

• Reduced Standard

Five States have laws that reduce in some way the standard required for a law enforcement officer to request a test from a surviving driver in a fatal or potentially fatal crash. In Missouri, a BAC test request of a surviving driver is authorized "whenever the person has been arrested or stopped for any reason." Illinois' law is similar. In Arizona, the test request can be made when, "a law enforcement officer has probable cause to believe that the person caused the accident or the person is issued a citation..." In New Hampshire, a law enforcement officer shall obtain a blood sample for testing when, "the officer has probable cause to believe that the driver caused the collision." In Vermont, a test is required when a law enforcement officer has reasonable grounds to believe that the driver has any amount of alcohol.

In 2002, New Hampshire tested 76 percent and recorded known BAC results for 75 percent of surviving drivers. The other four States all tested and reported no more than 25 percent.

• Drivers Required to Submit to a Test Request

Thirty States and the District of Columbia have implied consent provisions for drivers involved in fatal crashes that do not reduce the standard for requesting a chemical test, but do make test submission mandatory when the implied consent provisions have been met. For example, Louisiana law says, "When a law enforcement officer has probable cause to believe that a person has violated [DWI] that person may not refuse to submit to a chemical test in any case wherein a traffic fatality had occurred or a person has sustained serious bodily injury" The laws in a few States specifically authorize the use of "reasonable force" to administer a blood test. In eight States, a forced blood draw can be done only if a court order or search warrant is obtained. In Delaware, where submission to a test is mandatory when there is probable cause, the law encourages law enforcement officers to be diligent in their investigations: "In the event of a fatal accident if the officer does not believe that a probable cause exists to require testing, then the officer shall file a written report outlining the reasons for that determination."

Mandatory testing, with or without a court order, may apply to DWI situations other than fatal crashes (non-fatal injury crashes or any DWI investigation). For example, California law says, "A person who has been arrested for DWI may be compelled to submit to a blood test for either alcohol concentration or the presence of drugs."

The median testing rate for surviving drivers in these States was 32 percent in 2002.

• Testing Authorized for Statistical Purposes

One State, New Jersey, authorizes surviving drivers to be tested for statistical purposes. New Jersey tested 22 per cent of surviving drivers in 2002.

• No Law Governing Testing

Nine States have no laws to facilitate BAC testing for surviving drivers in fatal crashes. The same standard for requesting a BAC test applies in a fatal crash as in any other DWI situation, and forced blood draws are not permitted. The median testing rate for these States was 33 percent in 2002.

Tables 7 and 8 summarize the testing and known BAC rates for States with different law types. The five mandatory test law States had by far the highest testing rates, followed by States with no special law. As with fatally injured drivers, the testing rates varied widely for States with each law type. At least one State in each law category (with the exception of the statistical purposes law) tested more than 70 percent of the surviving drivers. Clearly, high testing rates can be achieved under any of the common law types.

Table 7. BAC Testing Rates by State Law Type, Surviving Drivers, FARS 2002

State law type	Lowest State's rate	Median State's rate	Highest State's rate
Mandatory test	47 %	79 %	90 %
Reduced standard	9 %	22 %	76 %
Required if DWI	4 %	32 %	74 %
Statistical purposes		22 %	
No law	1 %	33 %	72 %

Table 8. Known BAC Rates by State Law Type, Surviving Drivers, FARS 2002

State law type	Lowest State's rate	Median State's rate	Highest State's rate
Mandatory test	45 %	69 %	90 %
Reduced standard	6 %	22 %	75 %
Required if DWI	1 %	29 %	72 %
Statistical purposes		20 %	
No law	1 %	27 %	63 %

Voluntary Tests

Some law enforcement agencies in some States have a policy or practice to request voluntary BAC tests of all surviving drivers in fatal crashes, regardless of whether the State has a mandatory testing law. Tests are requested from drivers suspected of DWI under normal DWI procedures. Tests for other drivers can provide objective evidence that they were in fact not impaired. In Louisiana and Minnesota, for example, State Patrol and other agencies routinely request BAC tests of all surviving drivers. The known BAC rates for surviving drivers in 2002 were 72 percent in Louisiana and 62 percent in Minnesota.

Laws Related to Treatment Personnel

Many surviving drivers in fatal crashes are injured and transported to medical facilities for treatment. Law enforcement officers investigating the crash scene may find physical evidence, witness reports, or other reasons that provide probable cause to believe an injured and transported driver had been operating in violation of the impaired driving law. To proceed with the investigation, a law enforcement officer must go to the treatment facility and seek a BAC test of the driver (usually a blood draw).

- Who can draw blood: most States have laws that specifically define who can draw blood for law enforcement in a DWI investigation (physicians, registered nurses, licensed phlebotomists, etc.)
- Voluntary versus mandated cooperation: in many States, authorized personnel will draw blood voluntarily when requested to do so by law enforcement or when they are responding to a lawful order to do so. In some States, the law dictates compliance. For example, Pennsylvania law states that "No physician, nurse or technician or hospital employing such physician, nurse or technician may administratively refuse to perform such tests and provide the results to the police officer except as may be reasonably expected from unusual circumstances that pertain at the time the request is made."
- Liability: most States have laws that protect medical personnel from liability if they draw blood in response to a request from law enforcement. For example, Utah law states, "Any physician, registered nurse, practical nurse, or person authorized under [the law] who, at the direction of a peace officer, draws a sample of blood from any person whom a peace officer has reason to believe is driving in violation of this chapter, or hospital or medical facility at which the sample is drawn, is immune from any civil or criminal liability arising from drawing the sample, if the test is administered according to standard medical practice."

In March 1999, the National Commission Against Drunk Driving and the National Highway Traffic Safety Administration convened a working group to discuss the issues involved in obtaining BAC data from hospitals and emergency rooms. The group consisted of 27 persons including law enforcement officers, physicians, nurses, insurance representatives, prosecutors, researchers, and representatives of the sponsoring organizations. Its consensus recommendations included:

- Law enforcement officers should have the responsibility for requesting BAC data from hospitals and emergency facilities; when asked, hospitals and emergency facilities should provide a BAC reading or a blood sample, as appropriate.
- Medical personnel responding to such a request should be exempt from any liability or confidentiality provisions.

 BAC data recorded by hospitals and other health care providers should be admitted into evidence as business records, as is the case in Illinois, to eliminate the need for court appearances by health care personnel and to avoid chain of custody issues.

The group's report, "Drunk Drivers Escaping Detection Through the Emergency Room," (NCADD, 1999) provides a full discussion. It is available at www.ncadd.com.

Insurance Laws and Regulations

A common medical practice is to draw blood for clinical purposes when trauma patients are first seen in emergency rooms. The blood sample is used to determine blood type and to learn if any substances are present that could adversely affect treatment and recovery. If a driver dies well after the crash, this clinical blood sample will be the only source of a useful BAC test result. In some circumstances, a portion of the blood from this sample or the BAC determined from it may be available. In some jurisdictions, upon death, medical examiners have access to the medical records, including the BAC test result. In some States, medical BAC test results for surviving drivers may be obtained by subpoena in criminal cases.

The National Association of Insurance Commissioners (NAIC) promulgates a Uniform Accident and Sickness Policy. Until recently, that policy had a provision that allowed insurers to deny payment for the entire medical treatment of intoxicated individuals. More than 30 States adopted this provision in their Uniform Accident and Sickness Policy Laws. Hospitals, emergency treatment facilities, and other health care providers are understandably reluctant to report BAC data to law enforcement if these data can be used to affect the patient's insurance coverage. Some States report that these provisions in their States do in fact substantially impede BAC testing and reporting.

The American College of Emergency Physicians and others have urged NAIC to repeal the provision, noting that nearly 50 percent of patients admitted to trauma centers are under the influence of alcohol/drugs and that the provision is a major disincentive to substance abuse screening. In 2001, NAIC voted to repeal the payment denial provision. In some States with this provision, the State insurance commission can repeal it administratively. Repeal in other States will require legislative action.

Examples of laws applicable to the various aspects of BAC testing in fatal crashes can be found in Appendix F.

CHAPTER V. REPORTING BAC RESULTS TO FARS -- PRACTICES AND PITFALLS

Once a BAC test is taken, the test result must be transmitted to FARS. Tables 1 and 9 show that this process is not as straightforward as it might seem. Nationally, in 2002, eight percent of fatally injured drivers and five percent of surviving drivers were known to have been tested, but the test results were not reported to FARS. The number of missing test results may be higher, if some persons who were tested were reported to FARS as "unknown if tested" or "not tested."

Some individual States fared much worse than the national averages: nine States for fatally injured drivers, and seven States for surviving drivers, had more than ten percent unreported test results. Many States, though, had excellent reporting: 21 States had unreported test results for fewer than one percent of fatally injured drivers, and 17 States did the same for surviving drivers. This chapter examines the process by which test results are transmitted to FARS.

The ten study States were selected for the reasons outlined in Chapter II: to provide a variety of law types and testing rates, geographic diversity, and efficiency for the study. Testing and reporting for both fatally injured and surviving drivers were reviewed in all ten States, so the study was able to document both strong and weaker systems. Study staff also reviewed several NHTSA sponsored State alcohol testing workshop reports and the responses of FARS analysts to NHTSA queries about practices and problems. Detailed analyses of FARS data on BAC test rates also provided insights into potential problem areas.

Drivers Who Die at the Crash Scene

Drivers who die at the scene of their crashes or shortly thereafter (approximately two-thirds of all fatally injured drivers) are processed by death investigation systems that come into play because the death was not due to natural causes. All States have coroners or medical examiners who are required to establish and record the cause of death. Twenty States employ the medical examiner system, 11 States have coroner systems, and the remaining States have mixed coroner and medical examiner systems. Coroners in some States may be justices of the peace with no formal medical training. Law enforcement will also investigate fatal crashes intensively to document the crash and determine culpability, whether crimes have been committed, and causal factors.

States with Mandatory Testing Laws

Twenty-five States require coroners or medical examiners to test and report on alcohol in all motor vehicle crash victims. Among these States, the percentage of drivers recorded in FARS for 2002 as having been tested ranged from 43 percent to 91 percent (Table 5).

For the States with mandatory testing laws with testing rates above 80 percent, almost all the cases without a known BAC are reported as "test not given." Since about

Table 9. BAC Testing Rates by State, Sorted by Percent Missing FARS 2002

Fatally injured drivers Surviving drivers										
State	Total	Tested	Known	Missing		State	Total	Tested	Known	Missing
	544					Ì				
Louisiana		82.2%	48.2%	34.0%		Tennessee	760	53.8%	31.6%	22.2%
Alabama	696	36.8%	4.7%	32.0%	-	Louisiana	625	72.3%	56.3%	16.0%
Tennessee	793	72.5%	43.8%	28.8%		Alabama	653	26.5%	11.5%	15.0%
North Carolina	1,017	95.7%	74.9%	20.7%		Texas	2,740	26.6%	13.8%	12.8%
Texas	2,274	51.9%	32.9%	19.0%	-	Pennsylvania	1,112	24.1%	12.0%	12.1%
Pennsylvania	1,078	86.9%	68.3%	18.6%		Rhode Island	59	16.9%	5.1%	11.9%
Arizona	566	71.9%	54.2%	17.7%	<u> </u>	South Carolina	677	13.9%	2.2%	11.7%
Massachusetts	293	57.7%	42.3%	15.4%		Georgia	1,219	78.8%	69.3%	9.5%
Georgia	956	83.1%	69.6%	13.5%	<u> </u>	Montana	123	71.5%	62.6%	8.9%
Montana	181	90.6%	80.7%	9.9%	<u> </u>	Hawaii	114	46.5%	37.7%	8.8%
Iowa	283	49.8%	44.2%	5.7%	<u> </u>	North Carolina	1,120	8.5%	0.5%	7.9%
Hawaii	54	66.7%	61.1%	5.6%	<u> </u>	New Mexico	324	12.7%	5.9%	6.8%
South Carolina	695	74.4%	68.8%	5.6%	<u> </u>	Oklahoma	500	8.0%	1.8%	6.2%
Idaho	172	76.2%	71.5%	4.7%	<u> </u>	West Virginia	276	33.0%	26.8%	6.2%
Michigan	796	75.4%	71.1%	4.3%	<u> </u>	Idaho	178	41.0%	35.4%	5.6%
Delaware	72	86.1%	81.9%	4.2%	<u> </u>	Michigan	1,053	39.5%	34.4%	5.1%
Indiana	546	70.3%	66.7%	3.7%	<u> </u>	Delaware	101	57.4%	53.5%	4.0%
DC	26	3.6%	0.0%	3.6%		Arizona	871	9.2%	5.5%	3.7%
South Dakota	119	85.7%	83.2%	2.5%		California	3,301	25.1%	21.5%	3.7%
New Mexico	247	83.0%	80.6%	2.4%		Connecticut	219	28.8%	25.1%	3.7%
Florida	1,792	66.8%	64.6%	2.2%	<u></u>	Wyoming	87	35.6%	32.2%	3.4%
Nevada	205	82.4%	80.5%	2.0%		Indiana	605	69.6%	66.6%	3.0%
Alaska	53	34.0%	32.1%	1.9%		Oregon	293	41.3%	38.9%	2.4%
California	2,202	88.1%	86.2%	1.8%		DC	44	18.2%	15.9%	2.3%
Wisconsin	558	81.5%	79.7%	1.8%		South Dakota	95	73.7%	71.6%	2.1%
Oregon	263	87.1%	85.6%	1.5%		Maryland	651	12.5%	10.5%	2.0%
Maryland	407	83.3%	81.8%	1.5%		New Jersey	603	22.1%	20.2%	1.8%
West Virginia	300	90.3%	89.0%	1.3%		Alaska	58	46.6%	44.8%	1.7%
Minnesota	430	86.5%	85.3%	1.2%		Nevada	308	36.7%	35.1%	1.6%
Connecticut	192	87.5%	86.5%	1.0%		Iowa	313	35.1%	33.5%	1.6%
Kentucky	630	58.3%	57.5%	0.8%		Florida	2,621	25.2%	23.8%	1.4%
New Jersey	419	56.6%	55.8%	0.7%		Kentucky	593	37.6%	36.3%	1.3%
Kansas	353	16.1%	15.6%	0.6%		New Hampshire	84	76.2%	75.0%	1.2%
Ohio	981	82.0%	81.5%	0.4%		Minnesota	459	62.3%	61.2%	1.1%
Oklahoma	473	76.5%	76.3%	0.2%		Massachusetts	331	3.6%	2.7%	0.9%
Arkansas	431	72.6%	72.6%	0.0%		Utah	213	44.6%	43.7%	0.9%
Colorado	472	80.5%	80.5%	0.0%		Missouri	849	11.7%	11.0%	0.7%
Illinois	861	90.1%	90.1%	0.0%		Ohio	1,010	37.8%	37.3%	0.5%
Maine	146	91.8%	91.8%	0.0%		Washington	445	19.8%	19.3%	0.4%
Mississippi	590	68.0%	68.0%	0.0%		Kansas	323	11.8%	11.5%	0.3%
Missouri	791	78.4%	78.4%	0.0%		New York	1,243	3.9%	3.7%	0.2%
Nebraska	214	85.0%	85.0%	0.0%		Wisconsin	576	38.4%	38.2%	0.2%
New Hampshire	100	90.0%	90.0%	0.0%		Virginia	636	0.8%	0.6%	0.2%
New York	808	42.6%	42.6%	0.0%		Arkansas	381	50.7%	50.7%	0.0%
North Dakota	68	80.9%	80.9%	0.0%		Colorado	499	25.3%	25.3%	0.0%
Rhode Island	59	86.4%	86.4%	0.0%		Illinois	1,058	22.3%	22.3%	0.0%
Utah	181	56.4%	56.4%	0.0%		Maine	125	89.6%	89.6%	0.0%
Vermont	52	98.1%	98.1%	0.0%		Mississippi	516	50.8%	50.8%	0.0%
Virginia	575	42.6%	42.6%	0.0%		Nebraska	197	83.2%	83.2%	0.0%
Washington	419	90.7%	90.7%	0.0%		North Dakota	57	14.0%	14.0%	0.0%
Wyoming	114	76,3%	76.3%	0.0%		Vermont	56	25.0%	25.0%	0.0%
Total	26,549	72.6%	64.9%	7.7%		Total	31,254	30.3%	25.2%	5.1%

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20 percent of fatally injured drivers survive 12 or more hours after their crash, it is likely that these States have well functioning systems for obtaining blood test results for drivers who die shortly after their crashes.

Two issues may affect States with mandatory testing laws that have less than 80 percent known BAC rates. First, States with substantial numbers of "test not given" appear not to be enforcing their mandatory testing law in some circumstances.

Second, States with more than one or two percent of "test given, result unknown" or "unknown if tested" appear to have a breakdown in the reporting process. One State with a high percentage of "result unknown" cases determined that coroners were performing the tests, but some did not know where to send the test results. Better communications with the coroners and a special reporting form for them overcame much of the reporting problem.

States with Discretionary Testing Laws

Most of the States in this group have relatively high percentages of "test not given" cases, suggesting that tests are frequently not given despite the authority to do so. Many of these States also have high percentages of "result unknown" and "unknown if tested," suggesting difficulties in data flow between test administration and FARS.

States with No Laws

As Table 5 shows, seven of the 14 States in this group had BAC testing rates for fatally injured drivers above 80 percent. This suggests that good coroner or medical examiner practice, as part of death investigation, can produce high testing rates without the authority of a mandatory testing law. On the other hand, several States in this group have high rates of "test not given," suggesting that these practices are not universal.

Drivers Who Die after an Extended Period

Drivers who survive for some period of time after their crashes typically will be transported from the scene to a medical facility for treatment. When death does occur, various processing systems come into play that determine the extent to which BAC data reach FARS.

In some States, the coroner or medical examiner system will conduct the death investigation and have access to hospital records so that BAC data from clinical blood draws can be included. Some State laws specifically require hospitals to notify medical examiners when traffic deaths have occurred. Some State laws authorize accessing medical records; in others, there is voluntary compliance. In some States, law enforcement investigation continues and clinical BAC data are obtained from treatment facilities via subpoena.

In the 2001 FARS final file, five States recorded known BACs for 70 percent or more of fatally injured drivers who died 12 or more hours after the crash, suggesting that

viable systems exist for FARS to obtain clinical BAC data. On the other hand, eleven States recorded known BACs for fewer than 40 percent of the drivers who survived for 12 or more hours.

In some States an attending physician can sign the death certificate, and the victim is turned over to a funeral home and the custody of the family. In such cases, the coroner or medical examiner may never enter the case and obtaining any clinical test results becomes problematic.

Surviving Drivers

Fatal crash scenes are often complex situations. Typically, first notification comes from citizen calls to 911. Law enforcement will be dispatched along with fire and EMS as the needs of the scene are clarified. The first responder usually will be the "beat" patrol unit. Backup and supervisory units may be dispatched as the nature of the crash becomes known. Some law enforcement agencies have dedicated fatal crash investigation teams that are dispatched to some or all fatal crashes in their jurisdiction, or as cooperative assistance to other departments. Response times and resources vary by location (urban/rural), by time of day, and other factors. In many States, the State law enforcement agency processes most fatal crashes. Metropolitan police agency traffic units typically respond to crashes in their jurisdictions.

As units respond, their first priority is to secure the safety of the scene. Once this has been accomplished, treatment of the victims becomes the main concern. When there are known fatalities, a coroner or medical examiner may be contacted to obtain permission to move the victims or to come to the scene to take custody. In some jurisdictions, other units such as EMS will transport fatalities to a morgue. Other authorities such as prosecutor's attorneys may routinely be called to the scene to participate in or guide the law enforcement investigation.

Injured parties will be treated at the scene by EMS and, except for those with minor injuries, will then be transported to medical facilities for further treatment. Those seriously injured may be transported to a level-one trauma center, in some instances by medical evacuation helicopter. Trauma centers may be considerable distances from the crash scene, perhaps even in another State.

At the scene, one law enforcement officer will be designated the lead investigator who ultimately will complete and submit the crash report. Law enforcement officers will examine and measure the crash scene and collect any physical evidence related to the crash. Other drivers, passengers, and witnesses will be identified and interviewed.

The crash report itself typically is an extensive compilation of the results of the investigation. It will consist of the standard State crash report, together with any criminal offense reports, with various supplements such as witness statements, collision reconstruction findings, and photographs. The crash report usually is not submitted until it is virtually complete and has been reviewed by supervisors in the investigating department. However, in locales with long delays for receiving blood

testing results, the report may be submitted without the BAC results, which will be submitted as a report supplement when available.

Law enforcement interviews of the involved drivers are an important part of the crash investigation process. Many drivers can be interviewed at the crash scene. In other cases, a law enforcement officer must be dispatched to the medical facility and interviews may be delayed until the driver is physically able to respond. Where a driver has been transported beyond the immediate jurisdiction, other law enforcement agencies may be asked to assist in interviewing drivers.

Drivers remaining at the scene or transported to a medical facility may become the subject of a DWI investigation if a law enforcement officer has reason to suspect alcohol use. At-scene investigations will proceed much like any other DWI case, except that in many States a forced blood draw is authorized if the subject refuses an evidentiary test. These blood draws usually are accomplished by transporting the driver to a medical facility and requesting a qualified medical staff person to draw the blood. Medical personnel cooperation in drawing blood also is necessary when a driver being treated at a medical facility is being investigated for DWI. Some States require a medical facility to provide law enforcement officers with a sample of a driver's blood if blood already has been drawn for medical purposes.

Among the law enforcement agencies contacted during the case studies, some reported high voluntary cooperation of hospital personnel, others reported that cooperation varied from hospital to hospital, some noted a recent trend toward lesser cooperation, and some reported having to threaten to arrest medical personnel in order to obtain a blood draw. Knowledge of applicable law among medical staff was also mentioned as affecting their cooperation. A few law enforcement agencies reported using contract phlebotomists to draw blood in DWI cases, with this approach overcoming the problems of having to use hospital staff to draw blood.

While a few States authorize BAC testing of all drivers involved in fatal crashes, most do not. In some States without such a law, the State law enforcement agency and other law enforcement agencies have adopted the practice of requesting voluntary tests from all drivers involved in fatal crashes as a part of the crash investigation process. These agencies report high degrees of compliance. The voluntary request approach accounts for the high rates of surviving driver testing in these States.

FARS System

FARS analysts or supervisors in each of the study States described how they learned of fatal crashes, how BAC and other data were obtained, what kinds of follow-ups were necessary, and what they felt contributed to missing data.

Initial Crash Identification

FARS analysts usually first learn of a fatal crash from the law enforcement. In some jurisdictions, the analyst is notified by telephone or teletype. Analysts also use other sources: reports from coroners or medical examiners, death certificates, or press clipping services. Some States create a case file as soon as they are notified of a traffic fatality. Others wait until they have received official crash reports.

Most FARS operations are located either in the State Highway Safety Office or in the State unit responsible for motor vehicle crash reports. The latter arrangement places FARS directly in the flow of crash reporting. The former arrangement provides designated management responsibility, but requires cooperative agreements for FARS to receive crash reports.

BAC Data for Fatally Injured Drivers

BAC data on fatally injured drivers are received through various processes. In States that mandate testing and reporting, the organization housing FARS operations may be the designated recipient of coroner or medical examiner periodic reports or may receive copies of received reports. Other States request specific test results from the coroner or medical examiner system. The most workable arrangements occur when there is a central State laboratory that conducts all death investigation blood testing. Systems where testing is done locally, for instance using contract laboratories, may require greater follow-up efforts to obtain comprehensive data.

In at least one State, highway safety funds are used to pay for blood testing in fatal crashes. This ensures that the tests are conducted and the results reported. In at least one other State, the fatal crash investigation team is the driving force in obtaining BAC test results by requesting test results directly from coroners or medical examiners.

BAC Data for Surviving Drivers

In some States, the law enforcement crash report contains a field for recording BAC test results, so that these data are directly available to FARS. Other reports may be received with "test pending" noted, as can happen when there are extensive delays in receiving blood test results from laboratories. This requires a crash report supplement containing the test results. In other States, crash reports do not contain BAC results, but supplemental forms are used to report results to FARS.

Another possible source of BAC data is direct reporting from a central laboratory (for example a State crime laboratory) that tests blood samples submitted by law enforcement agencies.

Finally, some FARS analysts can obtain BAC test data directly when necessary. One State indicated that when its FARS analysts read a fatal crash report that has any indication that alcohol was involved but that has no BAC report, the analysts contact the investigating law enforcement agency to obtain any BAC test results. This State

believes that this process allows the FARS analyst to obtain complete test results.

In another State, the procedures manual instructs FARS analysts that when BAC results for surviving drivers have not been received, they are to call the records section of the reporting department to request the result and, "if the agency does not have the information, or is unable to release it due to legal constraints, call the District Attorney handling the case."

Work Environment

Some FARS analysts work in environments with well-documented procedures and written interagency agreements for obtaining data. Others work in less formal settings where job tasks are well-known by the analysts, but not necessarily documented in detail, and where personal relationships are used to obtain data. While either approach can work well, personal relationships must be re-established when a cooperating individual leaves and there is no "institutional memory" to continue providing the data.

One relatively new FARS analyst indicated that there was little documentation to describe the tasks to be performed or whom to contact for necessary data. The result was that for the analyst's first year, known BAC rates in FARS dropped by more than one-half from the prior year.

FARS operations differ from State to State in terms of the data on BAC (and other items) that are routinely provided and the data that the analyst must actively seek. In some States, relatively complete information is routinely obtained so that little follow-up is needed. In other States there are many gaps in routine reporting that must be filled by follow-up mail or phone contacts. In these States, management must emphasize BAC reporting and must commit resources in order to attain a high reporting level.

CHAPTER VI. BEST PRACTICES

This chapter presents conclusions and best practices for BAC testing and reporting. It is based on information from all study sources: law review, data analyses, ten State visits, reports or other information from additional States, and the steering committee. It is organized into three sections. The first two, Who Is Tested and How Test Results Are Transmitted to FARS, build on the information presented in Chapters III and IV, respectively. The third, Management, affects every aspect of the issue.

No one model BAC testing and reporting system applies to all States. Each State has its own structure for the organizations involved in BAC testing and reporting: medical examiners or coroners, law enforcement, testing facilities, and traffic records. Each State has its own laws and procedures that affect testing and reporting. This means that laws, policies, or practices that work well in one State may not be effective or even possible in another State. This chapter presents best practices in two forms: as general principles that each State can apply within its own structure, and as examples from the study States that other States may wish to adopt or adapt.

Who Is Tested

Fatally Injured Drivers

Coroners or medical examiners typically have the responsibility for testing driver fatalities as part of their duties in investigating deaths not due to natural causes. As discussed in Chapter III, 27 States have laws requiring all fatally injured drivers to be tested. Ten States authorize, but do not require testing. Thirteen States and the District of Columbia have no law affecting testing. Chapter III also observed that BAC testing rates varied widely among the States in each of these three groups and that none of the three groups had testing rates markedly different from the others (Table 5).

Of the ten study States, six require testing -- California, Louisiana, Minnesota, Nebraska, Oregon, and Utah; and four have no law affecting testing -- Delaware, Iowa, Maine, and North Carolina.

Mandatory testing law requirements are not always understood or followed consistently throughout a State: sometimes different persons involved in the BAC testing and reporting process have quite different interpretations of their State's laws. The presence of a law by itself does not assure high testing rates.

State medical examiners in many States or jurisdictions have adopted the practice of conducting a BAC test on every traffic fatality, sometimes also on non-traffic fatalities not due to natural causes, so that the medical examiner's report can assess whether alcohol may have affected the death. Delaware, Iowa, Maine, and North Carolina all have such practices, though in some States not all county medical examiners or coroners

observe them. A mandatory testing law will of course support this practice. Table 10 summarizes the testing rates, laws, and medical examiner practices in the study States.

Table 10. BAC Testing for Fatally Injured Drivers Study States, FARS 2002

State	Tested	Known	Missing	Dead Driver Test law	Coroner/Med Examiner Practice
California	88 %	86 %	2 %	mandatory	
Delaware	86 %	82 %	4 %		all dead drivers
Iowa	50 %	44 %	6 %		all dead drivers
Louisiana	82 %	48 %	34 %	mandatory	
Maine	92 %	92 %	0 %		all dead drivers
Minnesota	86 %	85 %	1 %	mandatory	
Nebraska	85 %	85 %	0 %	mandatory	
North Carolina	96 %	75 %	21 %		all dead drivers
Oregon	87 %	86 %	2 %	mandatory	
Utah	56 %	56 %	0 %	mandatory	
US	73 %	65 %	8 %		

Row percentages may not add due to rounding.

Each of the ten study States had a mandatory testing law or medical examiner practice of testing all traffic fatalities. The two States with less than 80 percent known BACs had not implemented the law or practice in all areas of the State.

Fatally injured drivers who are not tested in high-testing States, even States with mandatory testing laws or practices, fall into several main classes. A small number cannot reasonably be tested because they die in crashes in which the driver cannot be identified or are crushed or burned so severely that a blood draw is not possible. Some die in crashes in rural locations where medical examiners or coroners may not be notified promptly. Others may be in areas where medical examiners or coroners do not have the equipment, training, or initiative to test. Still others are so "obviously" sober that medical examiners or coroners see no need to test. These latter two classes can be addressed through well-understood medical examiner practices and adequate equipment for testing. Finally, some are taken to a treatment facility and die some time after the crash. These are discussed subsequently.

Conclusions:

- Mandatory testing laws for fatally injured drivers produce high testing rates only if the laws are understood and followed consistently. Mandatory testing laws by themselves do not assure high testing rates.
- The medical examiner or coroner practice of testing all driver fatalities, as part of a complete report on the cause of death, will produce high testing rates if understood and followed consistently.

Best Practices:

- Establish and follow a medical examiner and coroner practice of testing all driver fatalities.
- In States with mandatory testing laws, inform all coroners and medical examiners of the law's requirements and assure that these requirements are satisfied.
- Provide medical examiners and coroners with appropriate training and equipment for testing. Training may be provided through distance learning so need not be expensive or inconvenient.

Surviving Drivers

Law enforcement typically has the responsibility for obtaining a BAC test from surviving drivers under the circumstances authorized by State law. As discussed in Chapter III, five States require or permit all surviving drivers to be tested. Four States require or permit testing if the driver was responsible for the crash or violated a traffic law. Testing in the remaining States follows the probable cause standards of any DWI investigation. Thirty of these States and the District of Columbia have some law to assist in obtaining a test from drivers in fatal crashes who are under investigation for DWI, though these laws may not be commonly used or applied. Nine States have criminalized test refusal in any DWI investigation. Again, Chapter III observed that test rates varied considerably within each of these groups and that States in each group have achieved high testing rates.

Maine and Nebraska, among the study States, require all surviving drivers to be tested. Minnesota authorizes all surviving drivers to be tested under its vehicular homicide law and can force a test. Delaware, Louisiana, Maine, and Oregon also can force a test if law enforcement has established probable cause for a DWI violation. Test refusal is a criminal offense in Minnesota and Nebraska. In California, forced tests have been upheld in case law rather than by statute. The remaining three States -- Iowa, North Carolina, and Utah -- have no special provision for requesting or forcing a BAC test.

Law enforcement in some States without a mandatory testing law uses two practices to encourage BAC testing for surviving drivers. First, some law enforcement jurisdictions in Delaware, Louisiana, Oregon, and Utah request voluntary tests from all surviving drivers not suspected of DWI, as well as requesting tests of the remaining drivers under standard DWI procedures. They report very high compliance. Second, Delaware and Louisiana have established dedicated teams to investigate many fatalities. In several other States, the State law enforcement agency investigates a large proportion of traffic fatalities. The special teams and many State law enforcement officers are

highly trained and understand the importance of BAC evidence, so have high testing rates for those drivers for whom tests are permitted by the State's laws. Table 11 summarizes the testing rates, laws, and law enforcement practices in the study States.

Table 11. BAC Testing for Surviving Drivers Study States, FARS 2002

State	Tested	Known	Missing	Test Required or Allowed *	Force Test	Voluntary Tests Used
California	25 %	21 %	4 %		case law	
Delaware	57 %	53 %	4 %		if DWI	yes
Iowa	35 %	34 %	2 %			
Louisiana	72 %	56 %	16 %		if DWI	yes
Maine	90 %	90 %	0 %	required in fatal	if DWI	
Minnesota	62 %	61 %	1 %	allowed in fatal	in fatal	
Nebraska	83 %	83 %	0 %	required in fatal		
No. Carolina	8 %	1 %	8 %			
Oregon	41 %	39 %	2 %		if DWI	yes
Utah	45 %	45 %	1 %			yes
US	30 %	25 %	5 %			

Row percentages may not add due to rounding

Some States have adopted standard procedures to assist officers in acquiring BAC tests. Minnesota has a Motor Vehicle Implied Consent Advisory that the investigating law enforcement officer reads to a driver. It informs the driver that a test can be forced under Minnesota's vehicular homicide law and is remarkably effective in encouraging cooperation. Louisiana has a Voluntary Submission Form that explains the reasons for the test request. Other States, including Louisiana and Maine, assist testing by providing investigating law enforcement officers with blood test equipment for use when needed by those authorized to draw blood.

Each of the five study States that tested over 50 percent of surviving drivers had either a mandatory testing law or requested voluntary tests as a standard practice. The remaining two States that requested voluntary tests tested 41 and 45 percent of surviving drivers, respectively.

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^{*} in addition to standard DWI investigations

California and Iowa have excellent law enforcement systems, no law that requires or encourages testing, and no widespread practice of requesting voluntary tests. They tested 25 percent and 35 percent of surviving drivers, respectively. They probably define the maximum testing rate that can be obtained without a mandatory testing law for all involved drivers or a widespread practice of requesting voluntary tests.

As with fatally injured drivers, testing rates for surviving drivers may be lower in rural areas, where law enforcement may not be able to respond quickly to the crash, may not be experienced or trained in investigating fatal crashes, or may have long travel times from the crash scene to breath test equipment.

Conclusions:

- Mandatory testing laws for surviving drivers produce high testing rates; however, only five States have these laws.
- Voluntary testing programs can produce testing rates of 50 percent or more.
- Without either a mandatory testing law or a voluntary testing program, test rates are unlikely to exceed 35 percent and may be considerably lower.
- Testing rates may be lower in rural areas due to long response and travel times or lack of experience by investigating officers.
- Law enforcement should have standard procedures for carrying out the State's testing requirements, backed up with appropriate training and equipment.

Best practices:

- In States with no mandatory testing law, establish and implement voluntary testing for all surviving drivers in fatal crashes.
- Establish standard procedures to request and administer tests. Back these up with appropriate training and equipment for all law enforcement personnel or others who may be called upon to administer tests. Training may be provided at roll-call or through distance learning methods as well as in formal class settings.

Drivers Taken to Hospitals or Emergency Departments

Drivers taken to hospitals or emergency departments present special challenges. If the driver subsequently dies, medical examiner or coroner personnel must go to the hospital and either draw blood, acquire a portion of the blood sample drawn upon admission, or access hospital records to obtain the BAC. In most study States, medical examiners reported good cooperation from hospitals. Oregon encourages cooperation with a law that authorizes medical examiners to access medical records and blood drawn for clinical purposes.

If the driver survives, law enforcement must go to the hospital to seek a test as appropriate: a mandatory test if required by the State, a DWI investigation test if probable cause has been established, or a voluntary test. Most study States routinely dispatch a law enforcement officer to the hospital in these circumstances. Cooperation between law enforcement and hospitals is critical. Again, Oregon law assists this process by authorizing medical personnel to notify law enforcement if the driver's BAC level

exceeds Oregon's *per se* level of 0.08 and by providing legal immunity for medical personnel who draw blood at the request of law enforcement.

As discussed in Chapter III, insurance laws in some States, including North Carolina and Texas, inhibit hospitals from drawing blood for clinical purposes. These laws substantially reduce BAC testing rates in these States.

Conclusions:

- Officials seeking blood samples or test results -- law enforcement, medical examiners, and coroners -- need good communications and relationships with medical facilities.
- Insurance laws should not deny payment to treat intoxicated persons.

Best practices:

- Establish and maintain good relationships and communications with medical facilities. Provide information about applicable laws.
- Eliminate provisions from State laws or insurance codes that allow insurers to deny payment for the treatment of intoxicated persons.
- Consider the use of contract phlebotomists or other authorized persons where there are difficulties in obtaining cooperation of medical personnel to draw blood.

How Test Results Are Transmitted to FARS

As Table 9 shows, in nine States over 10 percent of the fatally injured drivers were tested but the test results were not reported to FARS. Seven States had at least 10 percent unreported test results for surviving drivers. Several States appear on both lists.

Missing test results suggest problems in managing the data flow from test to FARS. States differ in their systems for processing and reporting test results. As with the discussion of who is tested, the following discussion of the reporting process attempts to document general principles that have been effective and to present examples of good practices in the study States.

FARS analysts in most study States obtain most BAC test information from the law enforcement agency that investigated the crash. The test information may be on the State's crash report or on a separate report that accompanies the crash report. The process begins when the State's FARS analyst is notified of a traffic fatality. Law enforcement in most study States notifies the FARS analyst by telephone, fax, or teletype as soon as they learn of a fatality. Many States use additional notification methods.

- California uses a weekly Persons Killed Report from the Highway Patrol, a monthly report from most county coroners, and regular copies of all death certificates (though death certificates may not be complete for six to nine months after a fatality).
- Delaware State Police have a Fatal Accident Investigation/Reconstruction (FAIR) team in each county that investigates most traffic fatalities. The FAIR teams notify FARS when they respond to a crash.

• Some States, including Iowa, Louisiana, and Maine, also scan newspaper stories of traffic crashes. This method works well in States with a small number of newspapers that between them cover the entire State.

Once FARS learns of a traffic fatality, FARS waits for a crash report on the crash and for BAC testing information for each driver and nonoccupant: whether the person was tested, and, if so, the test result. Often BAC test results are delayed substantially due to backups in a testing laboratory or to legal issues in crashes where criminal action is contemplated. When BAC results are delayed, law enforcement typically submits an incomplete crash report to FARS and follows up with an amended crash report or other report when the BAC results are received. These delays make more work for law enforcement, who must submit an additional report to FARS well after the original report has been sent. Sometimes law enforcement forgets to forward the BAC reports to FARS, so that FARS must check back periodically with law enforcement for the information.

Some States have developed alternate ways to obtain BAC test information if needed.

- Iowa obtains blood test results directly from the State testing laboratory, which conducts 50 to 60 percent of all tests from drivers in fatal crashes.
- Minnesota FARS has developed a special "fatality report" form for BAC data on each fatal crash, since Minnesota's crash report does not include BAC test results.
- Nebraska has a unique system. The county attorney in each county is responsible for reporting the BAC result of each driver, fatally injured or surviving, in each fatal crash. (Nebraska law requires all drivers in fatal crashes to be tested.) Each county attorney sends BAC test results directly to FARS.
- Medical examiners in Oregon similarly report test results for fatally injured drivers directly to FARS.

FARS analysts in all study States have developed methods to track BAC test results and to follow up when necessary with the persons responsible for submitting these test results to FARS. Some examples:

- California FARS will call law enforcement agencies or coroners to obtain missing BAC test results.
- Maine and Utah FARS send letters to law enforcement requesting test results. Maine FARS also sends a quarterly spreadsheet of all fatally injured drivers and pedestrians to the State medical examiner's office. The medical examiner's office checks the spreadsheet against their records and add any missing data.
- Minnesota FARS faxes a form to the law enforcement agency if a crash report is received without BAC test data.
- Minnesota's Office of Traffic Safety conducts an end-of-year check of all drivers in fatal crashes who may have had a BAC test, but for whom no test result has been recorded on FARS. The list is checked against the files of the State testing laboratory and, if necessary, with the individual law enforcement officer or medical examiner who would have been responsible for a test.
- Nebraska FARS will follow up with county attorneys periodically when necessary.

- North Carolina FARS receives a monthly report from the State medical examiner.
- Oregon has a "traffic fatalities tracking" crash data file with a "BAC received" field, from which it produces a monthly missing BAC report.

Study States raised several common problems in addition to delays in receiving BAC test results from testing laboratories.

- Staffing shortages at any point in the system can reduce testing and reporting rates, since BAC testing and reporting is not the top priority for many law enforcement officers, medical examiners, or coroners responsible for a fatal crash. In particular, staffing changes in one State's FARS office reduced reported BAC results by 50 percent for one year.
- Reporting procedures in some States are not well institutionalized, but depend on personal relationships. These relationships must be re-established after every staffing change.
- Victims from crashes occurring near a State border may be transported to a hospital in an adjoining State for treatment. This adds another layer of complexity to establishing cooperation between law enforcement, medical examiners, coroners, and medical staff.
- The State's FARS analysts are ultimately responsible for the completeness of the FARS data, but FARS has no direct authority over the persons responsible for supplying the data.

Conclusions:

- There is no single system for processing and reporting test results. Each State's system must work within the confines and opportunities of the State's structure.
- Effective systems employ many or all of the following best practices.

Best practices:

- Use a well-defined reporting process, with clear responsibilities. Institutionalize
 the process so it does not rely on personal relationships. Consider creating a
 flowchart to outline the process and responsibilities and checklists for FARS
 analysts, law enforcement, coroners, medical examiners, and other key
 participants.
- Establish a standard method for notifying FARS promptly of each fatal crash; use alternate sources as a backup.
- Track each involved driver from the FARS office until BAC data are received; follow up regularly with the persons responsible for reporting the data.
- When appropriate, establish methods to obtain BAC data directly from testing laboratories, coroner or medical examiner databases, or State breath test databases as well as through crash reports.
- Use electronic data transfer methods when possible to reduce data transmission delays and errors.
- Examine the FARS data periodically to check for missing BAC data; follow up if necessary.
- Establish and maintain good communication and relations among all organizations and staff involved in the process. It is especially important for law

- enforcement, medical examiners, and coroners to communicate well with hospitals and emergency departments and for the FARS office to communicate well with every involved organization.
- Establish good communications and working relationships with counterparts in adjoining States to obtain reports from crashes occurring in these States.

How the Process Is Managed

The BAC testing and reporting process presents management challenges. Law enforcement, medical examiners and coroners, State laboratories, hospitals and emergency departments, Highway Safety Offices, and motor vehicle departments all have critical roles, but are housed in different State agencies. States with high testing and reporting rates have established good working relations and communications among these organizations at both staff and management levels. High-reporting States also have made acquiring BAC data a high priority for all organizations involved in the process.

Some States cited funding and resources as barriers to higher testing and reporting rates. Law enforcement can be reluctant to seek tests on drivers where there is no suspicion of alcohol because of the time that must be taken from their other duties. Some jurisdictions, especially smaller towns and counties, are reluctant to send blood to a laboratory for testing if the jurisdiction must pay for the tests.

Several States encourage blood samples to be sent to the State laboratory for testing and pay all laboratory costs from the State budget. Maine uses Section 402 highway safety funds to pay the costs of drawing blood and analyzing blood samples.

An inexpensive suggestion that may increase testing and reporting rates is to relax FARS standards for BAC test evidence. Many investigating law enforcement officers use PBT (Preliminary Breath Test) equipment routinely. The PBT may not meet evidentiary standards in some States, but will provide a BAC reading that is acceptable for FARS. PBTs can be used easily and quickly to obtain voluntary tests from surviving drivers who are not suspected of being impaired. Similarly, clinical BAC results from medical facilities are not included in California autopsy reports because they are not considered to meet forensic standards, but they should be perfectly acceptable for FARS.

Conclusions:

- Managing the BAC testing and reporting process is a continuing challenge.
- In addition to the specific suggestions outlined in the previous section, good management requires that all participating organizations give BAC testing and reporting a high priority and that adequate resources and funding be provided.

Best practices:

- Establish BAC testing and reporting as a high priority for all State-level organizations involved in testing and reporting.
- Fund BAC testing at the State level as much as possible
- Accept PBT and other non-evidentiary BAC evidence in FARS for drivers where evidentiary BAC tests are not available or appropriate.

- To be most effective, State BAC testing and reporting operations need a focal
 point or champion -- a dedicated individual who will ensure that data collection
 steps are well documented, that staff are well trained, that interagency agreements
 are formalized and communications maintained, that necessary follow-up work is
 encouraged, that resources are available, that problems are resolved quickly, and
 that overall performance is monitored.
- Maintain adequate staff levels in all organizations involved in the process, especially the FARS office.

State BAC Testing and Reporting Forums

States have used BAC testing and reporting forums as a method to bring all participants together to understand the testing and reporting process, clarify roles, and uncover and solve problems. Other States have included BAC testing and reporting as one topic in a more general impaired driving forum. NHTSA encourages States with BAC testing and reporting issues to hold these forums and for a time accepted a forum as satisfying Basic Grant Criterion #7 for Section 410 impaired driving grants if the forum was:

"...attended by law enforcement officials, prosecutors, hospital officials, medical examiners, coroners, physicians, and judges; and must address the medical, ethical, and legal impediments to increasing the percentage of BAC testing among drivers involved in fatal motor vehicle crashes."

Table 12 lists the fifteen States that held a forum devoted entirely to BAC issues from 1999 through 2003. Forum reports are available from the State Highway Safety Offices when noted. Appendix G contains the agenda from South Carolina's 2003 forum.

Table 12. State BAC Testing and Reporting Forums, 1999 - 2003

State	Forum date	Report available		
Alabama	June 2000			
District of Columbia	November 2001	yes 202-671-0492		
Florida	November 1999			
Indiana	Spring 1999			
Louisiana	January 2002	yes 225-925-6991		
Maryland	June 2000			
Missouri	April 2001			
New Jersey	September 2002			
New Mexico	December 2000	yes 505-827-0428		
North Carolina	May 2000			
Ohio	July 2000	yes 614-466-3250		
Pennsylvania	November 1999			
South Carolina	May 2000 and April 2003	yes 803-896-9950		
Texas	November 2002	yes 512-416-3167		
Virginia	September 2000			

Table 13 summarizes BAC testing and reporting rate changes following their forums for the 12 States that held forums between 1999 and 2001. In the table, the year of each State's forum is shaded. Indiana, North Carolina, Ohio, and South Carolina improved some or all of their testing and reporting rates markedly after their forums. Florida, Maryland, and Missouri may have seen slight improvements. The forums in Alabama, the District of Columbia, New Mexico, Pennsylvania, and Virginia appear to have produced little change.

Conclusions:

• BAC testing and reporting forums can be a useful method to identify problems and suggest improvements.

Best practices:

• If appropriate, use a State BAC testing forum to clarify the testing and reporting process, discover problems, and suggest solutions.

Regional FARS Meetings

NHTSA's Region VI conducts an annual meeting of the FARS coordinators from the Region's States to share issues, solutions, strategies, and ideas. NHTSA covers travel expenses for participants. Other Regions may wish to consider similar meetings if there are problems common to several States in the Region or if some States can suggest strategies to deal with issues from other States.

	e 13. BAC T	to this time			_		_
A. T. T.		m . 1	1998 62	1999 57	2000	2001 59	2002
Alabama	■ Dead	Tested Known	26	6	60	13	37 5
		Tested	31	31	36	37	26
	Surviving	Known	13	10	11	11	11
D:-4 -6 C-1		Tested	33	0	0	65	4
Dist of Col	— Dead	Known	21	0	0	0	0
		Tested	42	11	33	69	18
	Surviving	Known	34	11	33	25	16
	1		56	63	66	67	67
Florida	■ Dead	Tested Known	56	63	65	65	65
	~	Tested	17	18	22	25	25
	Surviving	Known	17	18	21	22	24
r 1!			62	66	64	66	70
Indiana	→ Dead	Tested Known	36	45	42	54	67
	~	Tested	59	62	57	65	70
	Surviving	Known	49	52	46	58	67
Maryland		Tested	93	98	94	85	83
Maryianu	■ Dead	Known	75	25	83	82	82
	g	Tested	18	16	11	13	13
	Surviving	Known	7	7	3	11	11
Missouri		Tested	74	74	73	75	78
WIISSOUTI	Dead	Known	74	73	73	75	78
	g · ·	Tested	10	12	11	12	12
	Surviving	Known	9	12	11	12	11
New Mexico		Tested	85	92	88	82	83
New Mexico	— Dead	Known	85	91	87	81	81
	Compining	Tested	16	16	20	15	13
	Surviving	Known	8	9	18	10	6
No Carolina	- ·	Tested	36	40	46	92	96
THE CHICAGO	— Dead	Known	36	40	22	76	75
	Surviving	Tested	0	0	4	4	8
	Surviving	Known	0	0	1	1	1
Ohio	- ·	Tested	69	66	66	78	82
	Dead	Known	43	39	48	69	82
	Surviving	Tested	31	28	29	34	38
	Surviving	Known	19	16	21	29	37
Pennsylvania	Dand	Tested	82	89	91	83	87
	Dead	Known	64	70	66	67	68
	Surviving	Tested	21	23	20	19	24
	Surviving	Known	15	17	12	11	12
So Carolina	Dead	Tested	35	46	23	73	74
	Dead	Known	26	40	17	65	69
	Surviving	Tested	8	7	7	14	14
	Sur 111 mg	Known	3	3	4	3	2
Virginia	Dood	Tested	70	77	74	72	43
	■ Dead	Known	66	77	74	72	43
	Surviving	Tested	2	1	2	1	1
	Sui viving	Known	0	0	2	1	1
US Total	D. 1	Tested	70	72	72	72	73
	— Dead	Known	63	62	63	64	65
	Surviving	Tested	29	30	30	30	30
	Surviving	Known	25	25	25	24	25

CHAPTER VII. IMPLEMENTATION

States have primary responsibility for BAC testing and reporting and for implementing the best practices discussed in this report. Each State should consider its own BAC testing and reporting rates and processes. If improvements are sought, each State should implement the strategies and best practices that are most appropriate to its situation.

Other organizations can and should assist States. This chapter summarizes key activities these organizations should undertake.

NHTSA

• Show States why high BAC testing and reporting rates are in their own best interest.

States that set a high priority on BAC testing and reporting achieve high rates. States that see no need to test anyone not involved in a DWI investigation have considerably lower testing and reporting rates. Ordering or cajoling States to increase testing and reporting rates is far less effective than convincing them that higher rates are in their own best interest. NHTSA should articulate the case for higher testing and reporting rates clearly and convincingly to the States. State Highway Safety Offices in turn should explain the case for higher testing and reporting rates to the key organizations within the State, such as law enforcement, medical examiners and coroners, testing laboratories, prosecutors, and others.

• Establish national guidelines for testing and reporting, for example 80 percent for fatally injured drivers (achieved in 2002 by 21 States) and 60 percent for surviving drivers (eight States), as were used in the Section 410 grant criteria.

Several States raised the issue of how much testing is good enough. Raising testing rates above 85 or 90 percent for fatally injured drivers may or may not be possible for a given State in a given year. If it were possible, it would be expensive and time-consuming. At some point the marginal benefit of more test results may not be worth the marginal cost of acquiring them. The same holds, probably at a lower reporting level, for surviving drivers.

 Accept PBT and other non-evidentiary BAC evidence in FARS for drivers where evidentiary BAC tests are not available or appropriate.

This suggestion was discussed in Chapter V.

- Assist States to improve BAC testing and reporting:
 - o Organize and fund regional BAC or FARS meetings;
 - o Help States organize and fund State BAC forums;
 - o Support, recognize, and reward State FARS management and staff

- Assist other organizations:
 - o Coroners and medical examiners: help draft and promulgate a model best practice for testing; help provide training as needed.
 - Law enforcement: help draft and promulgate a model voluntary testing system; help provide training as needed.
 - Health and medical organizations: work cooperatively to eliminate provisions in State insurance codes or statutes that allow insurance companies to deny payment for medical treatment of intoxicated persons.

Governors Highway Safety Association (GHSA)

• Help establish BAC testing and reporting as a priority for States, through a resolution.

The 2003 GHSA Annual Meeting adopted the following resolution:

E. 19 BAC TESTING

Improved BAC testing should be a priority for every State because BAC data will give States an accurate picture of the impaired driving problem in their State. All States are encouraged to enact mandatory BAC testing laws for dead and surviving drivers and pedestrians involved in a fatal crash or where there is a likelihood of a fatality. States are encouraged to support law enforcement officers, medical examiners, and coroners with the training and equipment they need for BAC testing and reporting. States should also develop specific procedures for the FARS analysts so they can accurately report BAC test results. State law or insurance codes that deny payment for the treatment of intoxicated persons should be repealed because such laws/codes hamper State BAC reporting efforts. States are also encouraged to convene State forums on BAC testing which would bring all the responsible agencies together to identify and overcome State BAC testing and reporting problems.

GHSA should work with States, law enforcement, medical examiners and coroners to follow up on the activities discussed in the resolution.

National Association of Medical Examiners (NAME)

 Establish a "best practice" for medical examiners and coroners of testing every driver fatality for alcohol and encourage medical examiners and coroners to follow this best practice.

A best practice statement could read as follows:

"Over 12,000 drivers impaired by alcohol were involved in fatal traffic crashes in 2002. Accurate data on each driver's alcohol level are crucial to develop, implement, and evaluate measures to reduce these crashes. All medical examiners and coroners should determine the blood alcohol concentration of each

driver fatality and should report this information to their State's traffic records system."

 Work with NHTSA to develop and implement training for coroners, medical examiners, and others (such as justices of the peace) who may be called upon to participate in BAC testing of fatally injured drivers.

International Association of Chiefs of Police (IACP) and National Sheriffs' Association (NSA)

• Support voluntary BAC testing for all surviving drivers in fatal crashes through national resolutions, State and local policies, and training as needed.

National District Attorneys Association (NDAA)

• Support voluntary BAC testing for all surviving drivers in fatal crashes through national resolutions and State and local policies.

All Organizations

- Support States in eliminating provisions from State laws or insurance codes that allow insurers to deny payment for the treatment of intoxicated persons.
- Support the training and equipment that law enforcement officers, medical examiners, and coroners need for BAC testing and reporting.

CHAPTER VIII. REFERENCES

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NCADD (1999). Drunk Drivers Escaping Detection Through the Emergency Department: Report of the BAC Reporting Group Consensus Meeting. Washington, DC: National Commission Against Drunk Driving.

NCSA (2003a). *Estimates of Alcohol Involvement in Fatal Crashes*. Report DOT HS 809 450. Washington, DC: U.S. Department of Transportation.

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Subramanian, R. (2002). *Transitioning to Multiple Imputation: A New Method to Estimate Missing BAC in FARS*. Report DOT HS 809 403. Washington, DC: U.S. Department of Transportation.

APPENDIX A. STEERING COMMITTEE

MEMBERS

Jonathan Arden District of Columbia Chief Medical Examiner 1900 Massachusetts Ave., SE Building #27 Washington, DC 20003

John Bobo Director, National Traffic Law Center 99 Canal Center Plaza, Suite 510 Alexandria, VA 22314

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Medicine
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University of Miami School of Medicine
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EX OFFICIO MEMBERS

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NHTSA Regions

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Stephanie Hancock NHTSA Region III 10 South Howard Street, Suite 4000 Baltimore, MD 21201

NHTSA Headquarters

400 Seventh Street, SW Washington, DC 20590

Traffic Safety Programs

James Frank Valerie Gompf Susan Ryan James Wright

National Center for Statistics and Analysis Kathy Silks Barbara Rhea

APPENDIX B. STATE CASE STUDY CONTACTS

California -- visit, January 30-31, 2003

Lt. Douglas Munyer, California Highway Patrol (CHP), Research and Planning Section Lt. D.R. "Ike" Iketani, CHP, Enforcement Services Division Greg Wyatt, Assistant Coroner, Sacramento County Coroner's Office Michael Sowvien, Supervisor FARS, CHP Support Services Section Teri Thomas, (FARS Analyst), Data Services Group, CHP Support Services Section Robert DiMiceli, CHP, Study Steering Committee member Lt. Deborah Schroder, Statewide DRE Coordinator, CHP

Delaware – visit, December 11, 2002

David Sockrider, DE State Police Crime Lab
Sandra Ryder, DE State Police FARS
Philip Strohm, DE State Police Fatal Accident Investigation/Reconstruction (FAIR)
DWI Officers, Wilmington PD
Connie Morgan, DE Division of Motor Vehicles
Dr. Rebecca Jufer, Medical Examiner's Office
William Matthews, Sussex County EMS
Lisa Moore, Office of Highway Safety

Iowa -- telephone, January 9 - February 6, 2003

J. Michael Laski, Director, Iowa Governor's Traffic Safety Bureau Terry Dillinger, Director, Driver Services Scott Falb, FARS analyst Robert Thompson, Governor's Traffic Safety Bureau Dr. John Kraemer, Office of the State Medical Examiner Sgt. Randy Bulver, Iowa State Patrol, Accident Investigation Officer Steve Areges, Des Moines Police

Louisiana -- visit, January 7-8, 2003

James Champagne, Executive Director, Louisiana Highway Safety Commission Charles Miller, FARS, Louisiana Highway Safety Commission Sgt. Terry Chultz, Louisiana State Police, Applied Technology Sgt. April Overman, DWI Specialist, New Orleans Police Department Bridgett Shumert, RN New Orleans Charity Hospital John Ricca, Assistant Director, Louisiana State Police Crime Lab John Young, Assistant District Attorney, Jefferson Parrish Cathy Childers, Louisiana MADD Executive Director

Maine -- visit, October 16-17, 2002

Richard Perkins, Director, Maine Bureau of Highway Safety Carl Hinman, FARS analyst Jay Bradshaw, Director, Maine Emergency Medical Services Chris Montagna, Supervisor, Forensic Section Sgt. Reed, Augusta Police James Ferland, Office of the State Medical Examiner Lt. Theodore Short, Maine State Police

Minnesota -- telephone, December 12, 2002 - February 3, 2003

Alan Rodgers, Minnesota Office of Traffic Safety
Julian Draper, FARS analyst
Dr. Gary Peterson, Hennepin County (Minneapolis) Medical Examiner
Deputy Sheriff Dan DeSmet, Lyon County
Sgt. Don Marose, Minnesota State Patrol

Nebraska -- telephone, October 15-30, 2002

Fred Zwonechek, Administrator, Nebraska Office of Highway Safety Jan Voss, FARS analyst Sheriff Terry Wagner, Lancaster County (Lincoln) Lt. John Friend, Omaha Police Department

North Carolina -- visit, January 23, 2003

William Stout, Deputy Director, North Carolina Governor's Highway Safety Program Joan Tuttle, FARS analyst Arvilla Stiffler, Director, Trauma Program, University of North Carolina Pat Barnes, Administrator, North Carolina Medical Examiner's Office

Oregon -- visit, January 16-17, 2003

Troy Costales, Governor's Highway Safety Representative
Kathy Jones, FARS Analyst
Mark Wills, Crash Analysis & Reporting Unit Manager
Robin Ness, Crash Analysis & Reporting Program Coordinator
Mary Hiser, Data Tracking Technician
Lt. Ethan Wilson, Oregon State Police, District 2
Jeff Rost, Oregon State Police, Implied Consent Unit Manager
Spencer Smith, Chief Deputy Medical Examiner, Jackson County (by phone)
Frank Ratti, Lane County, Chief Deputy Medical Examiner
Sgt. Chris Fink, Washington County Sheriffs Office

Utah -- visit, January 13-14, 2003

Dave Beach, Director, Utah Highway Safety Office Marilee Gomez, FARS Data Manager, Utah Highway Safety Office Neil Porter, Major, Utah Highway Patrol Kelly Rushton, Lieutenant, West Valley Police Department Terry Lamoreaux, Forensic Toxicologist, Utah Health Laboratory

APPENDIX C. FIELD DATA COLLECTION PROTOCOL

OVERALL MANAGEMENT -- STATE HIGHWAY SAFETY OFFICE

Describe the systems for both dead and surviving drivers

- Laws and policies
- Processes -- see flowcharts
- Key players -- law enforcement, hospital/ER, med examiner/coroner, labs, FARS analysts
- Information flow between players

Key questions and issues

- What parts work well?
- What parts have problems? What are they?

DRIVER DIES AT SCENE

ME/Coroners

Describe the system:

Medical Examiners

Coroners (lay or medical qualifications)

Combination

How are Medical Examiners/Coroners organized?

- State level
- County level
- City level

Review our understanding of laws governing BAC testing of victims in that State:

- Discuss what we know about the law
- Any recent or pending changes?
- Other regulations that apply?
- What controls reporting of test results: law, regulation, custom, discretion?

When there is a fatal crash:

- How does a coroner/Medical Examiner get involved?
 - Notification of death
 - Possession of remains
- When will coroner/Medical Examiner test or not test for BAC?
 - o Circumstances of death -- at scene or in hospital
 - o Case load
 - o Paperwork involved
 - o Availability of testing facility

- Describe laboratory facilities for blood tests:
 - State level
 - o County level
 - o City level
- What happens to the test results:
 - o Lab sends results to coroner/Medical Examiner
 - o Lab results remain with coroner/Medical Examiner
 - o Communication/storage of lab results is electronic, paper, etc.
 - o Lab results are available upon request from other qualified agency (name agencies)
 - o Lab results are reported to other qualified agency (name agencies)

What changes do you think may improve (or did improve) State's BAC reporting for drivers who died in a crash? Alternatively, why is State's system working so well?

- Law (discuss)
- Logistics of BAC reporting within/among agencies
- Other

FARS Analyst

What agency 'houses' the analyst?

How does the analyst learn that a fatal crash has occurred?

BAC data on fatal victims:

- When obtained
- How and from whom obtained
 - o Police records
 - o Hospital records
 - o Victim transported out of State

If number is significant, what are causes for "test taken/results unknown"?

- Police records
- Hospital records
- Victim transported out of State

How do you follow up for BAC data?

- Police records
- Hospital records
- Victim transported out of State

What are other problems of getting BAC data? How do you address them?

What changes do you think may improve (or did improve) State's BAC reporting for dead drivers? Alternatively, why is State's system working so well?

- Law (discuss)
- Logistics of BAC reporting within/among agencies
- Other

Law Enforcement

Describe step-by-step law enforcement processing of a case with a fatally injured driver.

• What 'triggers' alcohol investigation?

How are BAC results reported to the Law Enforcement?

- Lab/Medical Examiner/Coroner
- Added to crash report/supplement

What controls sending crash report outside department?

Centralized State agency gets report?

DRIVER TAKEN TO HOSPITAL/ER

Medical

Review our understanding of laws governing BAC testing in that State:

- Discuss what we know about the law
- Any recent or pending changes?
- Other regulations that apply?
- What governs reporting of test results: law, regulation, custom, discretion?

When the driver is injured

ER or Hospital Draws Blood:

- Is blood routinely drawn from trauma victims for tox-testing?
- If "sometimes", when is it done and not done?
- Are tox-screen testing packets readily available?
- Can/do police ask for/demand a test? If yes, what is required, e.g. court order?

If a blood test has been performed:

- How is patient hospital record treated, e.g. business record?
- How can another qualified agency obtain the result of a BAC test?

If the injured driver dies in the hospital (within a short period of time)

ER or Hospital Draws Blood:

- Is blood routinely drawn from somebody who has been involved in a crash and who dies in the hospital for a tox-screen?
- Describe interactions with coroner/Medical Examiner
 - o Does a coroner/Medical Examiner receive BAC results from the hospital?
 - o If not, how can a coroner/Medical Examiner obtain the result?

What changes do you think may improve (or did improve) State's BAC reporting for injured drivers involved in fatal crashes? Alternatively, why is State's reporting working so well?

- Law
- Definition of a hospital record
- Logistics of BAC reporting within/among agencies
- Other

B) FARS Analyst

How does a FARS analyst find out that a death related to a traffic crash occurred in a hospital?

What does a FARS analyst have to do to obtain results of blood draws by a hospital?

- Go through law enforcement
- Obtain results from the LAB

What changes do you think may improve (or did improve) State's BAC reporting for injured drivers involved in fatal crashes? Alternatively, why is State's system working so well?

- Law
- Definition of a hospital record
- Logistics of BAC reporting within/among agencies
- Other

C) Law Enforcement

Review our understanding of laws governing BAC testing in that State:

- Discuss what we know about the law
- Any recent or pending changes?
- Other regulations that apply?
- What governs reporting of test results: law, regulation, custom, discretion?

Step by step walk-through of case where driver is taken to medical facility:

When the driver is injured:

- What 'triggers' alcohol investigation? When the following agency involved:
 - o State police
 - o Major metro PD
 - o Sheriffs/other
- When is a qualified medical person asked to do a blood test?
 - o Can it be ordered, e.g. court order?
- How can a law enforcement officer obtain the results?
 - o Hospital record
 - o Directly from lab

If the injured driver dies in the hospital (within a short period of time):

- How does law enforcement pursue obtaining BAC?
 - State police
 - o Major metro PD
 - o Sheriffs/other
- How can a law enforcement officer obtain the results?
 - Hospital record
 - o Directly from lab

What changes do you think may improve (or did improve) State's BAC reporting for injured drivers involved in fatal crashes? Alternatively, why is State's system working so well?

- Law
- Definition of a hospital record
- Logistics of BAC reporting within/among agencies
- Other

SURVIVING DRIVER REMAINS AT SCENE

A) Law Enforcement

Review our understanding of laws governing BAC testing in that State:

- Discuss what we know about the law
- Any recent or pending changes?
- Other regulations/rulings that apply?
- Is BAC result evidence that is public or not?
- What governs reporting of test results: law, regulation, custom, discretion?

Step-by-step of alcohol investigation under this law:

- How does a law enforcement officer determine whether to acquire BAC evidence?
- When an alcohol investigation is conducted, do the results get to the crash reports?

What changes do you think may improve (or did improve) State's BAC reporting for drivers involved in fatal crashes? Alternatively, why is State's system working so well?

- Law
- Logistics of BAC reporting within/among agencies
- Other

B) FARS Analyst

How does a FARS analyst find out that law enforcement have investigated a surviving driver?

What does a FARS analyst have to do to obtain results of BAC test?

What changes do you think may improve (or did improve) State's BAC reporting for drivers involved in fatal crashes? Alternatively, why is State's system working so well?

- Law
- Better investigation by law enforcement
- Logistics of BAC reporting within/among agencies
- Other

Appendix D

BAC Testing Laws for Fatally Injured Drivers, by State Shall Test State **May Test** None Alabama 22-19-80(d) Alaska Х Arizona 28-668(A) (Probable Cause) Arkansas 5-65-208 (a) (Probable Cause) 27491.25 California Colorado 42-4-1304 (1) Connecticut 14-227 (c) **Delaware** Х D.C. Х Florida 45.16.46 Georgia Hawaii 841-3 Idaho 49-1314 (1) Illinois 55 ILCS 5/3 -3013 Indiana IC9-27-5-1 or -4 (Statistical purposes) Iowa X Kansas X Kentucky¹ Х Louisiana 32-661 A(2)(b) Maine Х Maryland Х Massachusetts 6-38-4A Michigan 257.625a(6)(f) Minnesota 169.09 subd 11 **Mississippi** 63-11-7 (Reasonable grounds) 58.445.2 Missouri Montana X Nebraska 60-6,102 Nevada 43-484.383(2) 265.93 **New Hampshire** New Jersev 26-2B-24 (Statistical purposes) New Mexico² 24-11-6 (B) **New York** 11-17A-674.3(b) **North Carolina** X North Dakota 39-20-13 Ohio 3-313.13 (B) Oklahoma X Oregon 146.113 (2) Pennsylvania 75-3749(b) Rhode Island Х South Carolina 17-7-80 South Dakota 34-25-22.1 Tennessee 38-7-109(a) Texas 724.014(b) Utah 26-1-30(q) Vermont \mathbf{X} Virginia X Washington 46.52.065 West Virginia 17C-5B-1

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Wisconsin

Wyoming

346.71(2)

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¹ Based on Case Law. It is also implied in §189.590; OAG 73-170 & OAG 73-796.

² Given that a death occurred resulting from a motor vehicle collision and a medical examiner performs a blood test for alcohol content of the dead driver, a copy of the result of the test shall be sent to the State Highway Department for statistical purposes.

Appendix E BAC Testing of Surviving Drivers, by State

B	BAC Testing of Surviving Drivers, by State								
	Mandatory	Reduced	Required	Statistical	Standard				
	Test	Standard	to Submit	Purposes	DWI				
Alabama			X						
Alaska	X								
Arizona		X							
Arkansas			X						
California			X						
Colorado			X						
Connecticut			X						
Delaware			X						
DC			X						
Florida			X						
Georgia	X								
Hawaii			X						
Idaho			X						
Illinois		X	11						
Indiana	X								
Iowa	71		X						
Kansas			X						
Kentucky			X						
Louisiana			X						
Maine	X		Λ						
	Λ		X						
Maryland Massachusetts			Λ		X				
			X		Λ				
Michigan			X						
Minnesota									
Mississippi		37	X						
Missouri		X			V				
Montana	V				X				
Nebraska	X		37						
Nevada		37	X						
New Hampshire		X		37					
New Jersey			37	X					
New Mexico			X						
New York			X						
North Carolina			X						
North Dakota			X						
Ohio					X				
Oklahoma			X						
Oregon			X						
Pennsylvania					X				
Rhode Island					X				
South Carolina			X						
South Dakota			X						
Tennessee					X				
Texas			X						
Utah					X				
Vermont		X							
Virginia					X				
Washington			X						
West Virginia					X				
Wisconsin			X						
Wyoming			X						

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Alabama	Based on Serious-Injury Collision and Reasonable Grounds for Standard DWI Section 32-5-200(a): "Any person who operates a motor vehicle on the public highways of this state who is involved in an accident that results in death or serious physical injury to any person shall be deemed to have given consent to a test of his or her blood for the purpose of determining the alcoholic content of his or her blood or the presence of amphetamines, opiates, or cannabis. The test or tests shall be administered at the direction of a law enforcement officer having reasonable grounds to believe that the person, while driving a motor vehicle on the public highways of this state, was under the influence of alcohol"	Admissible in criminal and civil cases Section 32-5A-194(c) Section 32-5-192.1(a): Refusing to submit to a test under the Accident Related Implied Consent Law – 2 year mandatory administrative license suspension; but could be reduced if found not at-fault.	Court Order Section 32-5-200 (d): "If a person refuses to submit to a test, none shall be given, unless a court order has been obtained ordering the person to submit to a test"	Not Liable Section 32-5A- 194(5d)
Alaska	Based on Being Involved in a Serious-Injury Collision Only Section 28.35.031(g): "A person who operates or drives a motor vehicle in this state shall be considered to have given consent to a chemical test or tests of the person's breath and blood for the purpose of determining the alcoholic content of the person's breath and blood and shall be considered to have given consent to a chemical test or tests of the person's blood and urine for the purpose of determining the presence of controlled substances in the person's blood and urine if the person is involved in a motor vehicle accident that causes death or serious physical injury to another person. The test or tests may be administered at the direction of a law enforcement officer who has reasonable grounds to believe that the person was operating or driving a motor vehicle in this state that was involved in an accident causing death or serious physical injury to another person."	Admissible in criminal and civil cases Sections 28.35.032(e) & 28.35.285(c) Section 28.35.032(a) "refusal is a crime"; (g) " refusal is a class A misdemeanor"	Administration of Chemical Test Without Consent Section 28.35.035(a) "If a person is under arrest for an offense arising out of acts alleged to have been committed while the person was operating a motor vehicle, aircraft, or watercraft while intoxicated, and that arrest results from an accident that causes death or physical injury to another person, a chemical test may be administered without the consent of the person arrested to determine the amount of alcohol in that person's breath or blood or to determine the presence of controlled substances in that person's blood and urine." Warrant Issued by Judicial Officer Section 28.35.031(h)	

	Medical Liability	
Mondatour Tout (6December Dough)	onable rorce "Count Ord	110
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

Arizona	Based on Involvement in Serious-Injury Collision and Caused the Collision §28-673(A): "A person who operates a motor vehicle within this state gives consent to a test or tests of the person's blood, breath, urine or other bodily substance for the purposes of determining alcohol concentration of drug content if the person is involved in a traffic accident resulting in death or serious physical injury as defined in section 13-105 and a law enforcement officer has probable cause to believe that the person caused the accident or the person is issued a citation"	Admissible in criminal and civil cases \$28-1388 (D)	Warrant Issued by Judicial Officer \$28-673 (D): "If a person refuses to submit to the test designated by the law enforcement agency (1) the test shall not be given, except as provided in section 28-1388 [medical testing], subsection E [caused accident] or pursuant to a search warrant." \$28-673 (H): "Nothing in this section [DWI arrest where no one is injured] shall be construed to restrict searches or seizures under a warrant issued by a judicial officer, in addition to a test permitted under this section."	Not Liable §28-1388 (H)
Arkansas (Dept of Arkansas State Police maintains database; used only for stat purposes)	Based on Involvement in Serious-Injury Collision and Probable Cause for Standard DWI §5-65-208(a): "When the driver of a motor vehicle is involved in an accident resulting in loss of human life or where there is reason to believe death may result, and there exists probable causes to believe that the driver is guilty of a violation of the state's law prohibiting driving while under the influence, in addition to penalties established elsewhere under state law, a test or tests of the driver's blood, breath, or urine must be administered to the driver, including those fatally injured, to determine the presence of and percentage of concentration of alcohol or drugs in such person's body."	Admissible in criminal cases (1989 & 1998 Case Law)	Must Be Administered \$5-508(a): " [test] must be administered to the driver"	Not Liable §5-65-204(3)
California	823612: "(A) Any person who drives a motor vehicle is deemed to have given his or her consent to chemical testing of his or her blood or breath for the purpose of determining the alcoholic content of his or her blood (C) The testing shall be incidental to a lawful arrest and administered at the direction of a peace officer having reasonable cause to believe the person was driving a motor vehicle in violation of Section 23140, 23152, or 23153 [DWI]."	Admissible in criminal and civil cases §23612(a)(4)	May Be Compelled Case Law: A person, who has been arrested for a DWI offense may be compelled to submit to a blood test for either alcohol concentration or the presence of drugs (Mercer v. Dept of Motor Vehicles, 1991).	<i>Not Liable</i> §23158 (d)

	Medical Liability	
Mandatory Test/ "Reasonable Force"	Voucent on Count Onder	carcii
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

Connecticut	Based on Standard DWI	Admissible in criminal cases	Reasonable Force To The Extent Provided by	
(Division of	\$14-227b(a): "Any person who operates a	§14-227a(c)	Law	
Scientific	motor vehicle in this state shall be deemed to		§ 14-227c: "[blood sample] may be obtained	
Services, Dept of	have given such person's consent to a chemical		from surviving driver to the extent provided	
Public Safety)	analysis of such person's blood, breath or		by law";	
	urine" (b) If any such person, having been		§14-227a(j): "seizure and admissibility of	
	placed under arrest for operating a motor		medical records of injured operator by search	
	vehicle while under the influence of intoxicating		warrant"	
	liquor or any drug or both or while such			
	person's ability to operate such motor vehicle is			
	impaired by the consumption of intoxicating liquor"			
Delaware	Based on Involvement in Serious-Injury	Admissible in criminal and civil cases	Test Shall Be Required	Not Liable
	Collision and Probable Cause for Standard	Title 21 §2749	Title 21 §2740b: 'The testing shall be	Title 21 §2748
	DWI		required of a person when an officer has	
	Title 21 §2740(a): "Any person who drives,		probable cause to believe the person was	
	operates or has in actual physical control of a		driving, operating or in physical control of a	
	vehicle, an off-highway vehicle, or a moped		vehicle in violation of \$4177 or \$2742 of this	
	within this State shall be deemed to have given		title or a local ordinance substantially	
	consent, subject to this section and §§4177 and		conforming thereto and was involved in an	
	4177L [DWI] of this title to a chemical test or		accident which resulted in a person's death.	
	tests of that person's blood, breath and/or urine		In the event of a fatal accident if the officer	
	for the purpose of determining the presence of		does not believe that a probable cause exists	
	alcohol or a drug or drugs. The testing may be		to require testing, then the officer shall file a	
	required of a person when an officer has		written report outlining the reasons for that	
	probable cause to believe the person was		determination."	
	driving, operating or in physical control of a			
	vehicle in violation of §§ 4177 and 4177L or			
	\$2742 of this title, or a local ordinance			
	substantially conforming thereto."			

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
D.C.	Based on Involvement in Collision and	Admissible in criminal and civil cases	Shall Submit to Test	
(Mayor is	Reasonable Grounds for Standard DWI	\$40-505(c)	§50-1902(b): Driver "shall submit" when	
responsible for	\$50-1902(b): "Any person who operates or who		involved in a serious-injury accident and	
data)	is in physical control of a motor vehicle within		arrested for DWI	
	the District and who is involved in a motor		BUT: there is a right to object to the use of	
	vehicle accident shall submit, subject to the		the test results, if driver is unconscious or	
	provisions of this chapter, to 2 chemical tests of		dead	
	the person's blood, urine, or breath for the		BUT: driver can object to the test on	
	purpose of determining blood-alcohol content or		medical/ religious grounds	
	blood-drug content whenever a police officer			
	arrests such person for a violation of law and			
	has reasonable grounds to believe such person			
	to have been operating or in physical control or			
	a motor vehicle within the District while that			
	person's blood contains .08% or more, by			
	weight, of alcohol,, or while under the			
	influence of an intoxicating liquor or any drug			
	or any combination thereof, or while the ability			
	to operate a motor vehicle is impaired by the			
	consumption of intoxicating liquor"			

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Florida	Based on Involvement in Serious-Injury Collision and Reasonable Cause for Standard DWI Title 23 Section 316.1933(1)(a): Notwithstanding any recognized ability to refuse to submit to the tests provided in s.316.1932 [IC] or any recognized power to revoke the implied consent to such tests, if a law enforcement officer has probable cause to believe that a motor vehicle driven by or in the actual physical control of a person under the influence of alcoholic beverages, any chemical substances, or any controlled substances has caused the death or serious bodily injury of a human being, such person shall submit, upon request of a law enforcement officer, to a test of the person's blood for the purpose of determining the alcoholic content thereof or the presence of chemical substances"	Admissible in criminal cases Title 23 Section 316.1932(1)(a)	May Use Reasonable Force Title 23 Section 316.1933(1) (a): "The law enforcement officer may use reasonable force if necessary to require such person to submit to the administration of the blood test. The blood test shall be performed in a reasonable manner." Case law: 1988, 1990, 1992 & 1995.	Not Liable Title 23 Section 316.1933(2)(a)(4)(c)
Georgia	Based on Involvement in Serious-Injury Collision §40-5-55(a): "The tests or tests shall be administered as soon as possible to any person who operates a motor vehicle upon the highways or elsewhere throughout this state who is involved in any traffic accident resulting in serious injuries or fatalities."	Admissible in criminal cases §40-6-392(d)	None Shall Be Given (Statute) \$40-5-67.1 (d) "If a person under arrest or a person who was involved in any traffic accident resulting in serious injuries or fatalities refuses, upon request of a law enforcement officer, to submit to a chemical test designated by a law enforcement officer no test shall be given" Case Law: State v. Leviner (1994) — a driver has the right to refuse subject that it's admissible in criminal cases; Lutz v. State (2001) — the Georgia Constitution does not protect citizens from compelled blood testing or from the use of compelled blood testing at trial even though implied consent warning did not state that results of the test could be used against him in subsequent prosecution.	Not Liable \$40-6-392(a)(2) & \$45-16-46

Medical Liability
Mandatory Test/"Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

Hawaii (State DOT director is responsible for maintaining the database)	Based on Standard DWI §291E-11(b): "The test or tests shall be administered at the request of a law enforcement officer having probable cause to believe the person operating a vehicle upon a public way, street, road, or highway or on or in the waters of the State is under the influence of an intoxicant"	May not be admitted as evidence in criminal and civil cases §286-159	Nothing Shall Prevent/Mandatory Test (Relating to health care providers involved in treatment of injured) § 291E-21(a): "Nothing in this part shall be construed to prevent a law enforcement officer from obtaining a sample of breath, blood, or urine, from the operator of any vehicle involved in a collision resulting in injury to or the death of any person, as evidence that the operator was under the influence of an intoxicant."	Not Liable \$291E-21(e)
Idaho	Based on Standard DWI §18–8002(1): "Any person who drives or is in actual physical control of a motor vehicle in this state shall be deemed to have given his consent to evidentiary testing for concentration of alcohol as defined in section 18–8004 [DWI], Idaho Code, and to have given his consent to evidentiary testing for the presence of drugs or other intoxicating substances, provided that such testing is administered at the request of a peace officer having reasonable grounds to believe that person has been driving or in actual physical control of a motor vehicle in violation of the provisions of section 18–8004 [DWI], Idaho Code, or section 18–8006 [Aggravated DWI], Idaho Code."	No Case law: Refusal is admitted in a criminal case (State v. Bock, 1958)	Yes § 18-8002, 6(d): "A peace officer is empowered to order an individual authorized in section 18-8003, Idaho Code, to withdraw a blood sample for evidentiary testing when the peace officer has probable cause to believe that the suspect has committed any of the following offenses: (i) Aggravated driving under the influence of alcohol, drugs or other intoxicating substance; (ii) Vehicular manslaughter (e) The withdrawal of the blood sample may be delayed or terminated if (i) In the reasonable judgment of the hospital personnel withdrawal of the blood sample may results in serious bodily injury to hospital personnel or other patients; or (ii) The licensed health care professional treating the suspect believes the withdrawal of the blood sample is contraindicated because of the medical condition of the suspect or other patients."	\$18-8002-6

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Illinois	Based on Uniform Traffic Ticket	Admissible in criminal and civil cases	Shall Submit	Not Liable
(Dept of Public	625 ILCS 5/11-501.6(a): "Any person who	625 LLCS 5/11-501.2(c)(1)	625 ILCS 5/11-501.2(c)(2):	625 ILCS 5/11-
Health – dead	drives or is in actual control of a motor vehicle		"Notwithstanding any ability to refuse under	500.1(a)
driver testing;	upon the public highways of this State and who		this Code to submit to these tests or any	
Police Agency—	has been involved in a personal injury or fatal		ability to revoke the implied consent to these	
surviving driver	motor vehicle accident, shall be deemed to have		tests, if a law enforcement officer has	
testing)	given consent to a breath test using a portable		probable cause to believe that a motor vehicle	
	device as approved by the Department of State		driven by or in actual physical control of a	
	Police or to a chemical test or tests of blood,		person under the influence of alcohol, other	
	breath, or urine for the purpose of determining		drugs or drugs, or intoxicating compound or	
	the content of alcohol, other drug or drugs, or		compounds, or any combination thereof has	
	intoxicating compound or compounds of such		caused the death or personal injury to another,	
	person's blood if arrested as evidence by the		that person shall submit, upon the request of a	
	issuance of a Uniform Traffic Ticket for any		law enforcement officer, to a chemical test or	
	violation of the Illinois Vehicle Code or similar		tests of his or her blood, breath or urine for	
	provision of a local ordinance, with the		the purpose of determining the alcohol	
	exception of equipment violations contained in		content thereof or the presence of any other	
	Chapter 12 of this Code"		drug or combination of both."	
			Case law: a blood sample may be taken by	
			force for a DWI offense (injury or non-injury	
			related) as long as police have "probable	
			cause" of such offense (2 cases in 1991)	

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Indiana	Based on Involvement in Serious-Injury Collision IC9-30-7-3(a): "A law enforcement officer shall offer a portable breath test or chemical test to any person who the officer has reason to believe operated a vehicle that was involved in a fatal accident or an accident involving serious bodily injury. If: (1) the results of a portable breath test indicate the presence of alcohol; (2) the results of a portable breath test on ot indicate the presence of alcohol but the law enforcement officer has probable cause to believe the person is under the influence of a controlled substance or another drug; or (3) the person refuses to submit to a portable breath test; the law enforcement officer shall offer a chemical test to the person."	Admissible in criminal and civil cases IC9-30-6-3(b) IC9-30-7-5: Refusal is a class C Infraction	May Use Reasonable Force IC9-30-6-(g)(2)(D): "A physician or a person trained in obtaining bodily substance samples and acting under the direction of or under a protocol prepared by a physician shall obtain a blood, urine, or other bodily substance sample if the following exist: (2)(D) That the accident that caused the serious bodily or death of another occurred not more than three hours before the time the sample is requested." IC9-30-6-6(h): "If the person: (1) from whom the bodily substance sample is to be obtained under this section does not consent; and (2) resists the taking of a sample; the law enforcement officer may use reasonable force to assist an individual, who must be authorized under this section to obtain a sample; in the taking of the sample."	Not Liable IC9-30-6-6(b)
Iowa	Based on Standard DWI Title 8 §321J.6: "A person who operates a motor vehicle in this state under circumstances which give reasonable grounds to believe that the person has been operating a motor vehicle in violation of section 321J.2 or 321J.2A [DWI] is deemed to have given consent to the withdrawal of specimens of the person's blood, breath, or urine and to a chemical test or tests of the specimens for the purpose of determining the alcohol concentration or presence of a controlled substance or other drugs, subject to this section."	Admissible in criminal and civil cases Title 8 §321J.16	Search Warrant Title 8 §3211.10(1): "Refusal to consent to a Title 8 §3211.10(1): "Refusal to consent to a test under section 3211.6 does not prohibit the withdrawal of a specimen for chemical testing pursuant to a search warrant issued in the investigation of a suspected violation of section 707.5 or 707.6A [Vehicular manslaughter/homicide] if all of the following grounds exist: (a) A traffic accident has resulted in a death or personal injury reasonably likely to cause death; (b) There are reasonable grounds to believe that one or more of the persons whose driving may have been the proximate cause of the accident was violating section 321J.2 [DWI] at the time of accident." Also Title 8 §321J.10-4(a)	Not Liable Title 8 \$321J.10-9

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Kansas	88-1001(b): "A law enforcement officer shall request a person to submit to a test or tests deemed consented to under subsection (a) [IC] if the officer has reasonable grounds to believe the person was operating or attempting to operate a vehicle while under the influence of alcohol or drugs, or both; and one of the following conditions exists: (1) The person has been arrested or otherwise taken into custody for any offense involving operation or attempted operation of a vehicle while under the influence of alcohol or drugs, or both, or for a violation of K.S.A. 8-1567a, and amendments thereto, or involving driving a commercial motor vehicle, as defined in K.S.A. 8-2,128, and amendments thereto, while having alcohol or other drugs in such person's system, in violation of a state statute or a city ordinance; or (2) the person has been involved in a vehicle accident or collision resulting in property damage, personal injury or death."	Admissible in criminal cases §8-1001(f)(G)	Search Warrant §8-1001(h): "After giving the forgoing information, a law enforcement officer shall request the person to submit to testing. The selection of the test or tests shall be made by the officer. If the person refuses to submit to and complete a test as requested pursuant to this section, additional testing shall not be given unless the certifying officer has probable cause to believe that the person, while under the influence of alcohol or drugs, or both, has operated a vehicle in such a manner as to have caused the death of or serious injury to another person (k) In such event, such test or tests may be pursuant to a search warrant [search incident to arrest to discover the 'fruits, instrumentalities, or evidence of the crime]".	Not liable when driver consented or when requested by police officer in the form of a written statement \$8-1001(c)
Kentucky	Based on Standard DWI Title 16 §189A.103 (1): "He has given his consent to one or more tests of his blood, breath, and urine, or combination thereof, for the purpose of determining alcohol concentration or presence of a substance which may impair one's driving ability, if an officer has reasonable grounds to believe that a violation of KRS 189A.010(1) [DWI] or 189.520(1) [DWI] has occurred."	Admissible in criminal cases Title 16 \$189A.105(2)(a)(1) Title 16 \$189A.105: "Test refusal is an aggravated circumstance": twice as long jail sentence for those who refused and were convicted than for those tested and convicted	Search Warrant Title 16 §189A.105(2)(b): "Nothing in this subsection shall be construed to prohibit a judge of a court of competent jurisdiction from issuing a search warrant or other court order requiring a blood or urine test, or a combination thereof, of a defendant charged with a violation of KRS 189A.010 [DWI], or other statutory violation arising from the incident, when a person is killed or suffers physical injury, as defined in KRS 500.080, as a result of the incident in which the defendant has been charged."	

Medical Liability
Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

Louisiana	Based on Standard DWI	Admissible in criminal cases	Yes	Not Liable
(Dept of Public	\$32-661(A)(2)(a): "The test or tests shall be	§32:666(A)(3)	§32:666(A): "When a law enforcement	§32-664 (C)
Safety and	administered at the direction of a law		officer has probable cause to believe that a	
Corrections)	enforcement officer having reasonable grounds		person has violated R.S. 14:98, R.S. 14:98.1	
	to believe the person, regardless of age, to have		[DWI] or any other law or ordinance that	
	been driving or in actual physical control of a		prohibits operating a vehicle while	
	motor vehicle upon the public highways of this		intoxicated, that person may not refuse to	
	state while under the influence of either		submit to a chemical test in any case wherein	
	alcoholic beverages or any abused substance or		a traffic fatality has occurred or a person has	
	controlled dangerous substance."		sustained serious bodily injury."	
Maine	Based on Involvement in Serious-Injury	Admissible in criminal cases	Shall Submit	
	Collision	29-A MRSA §2521(3)	29-A MRSA §2522(1): " shall submit"	
	29-A MRSA §2522(1): "If there is probable			
	cause to believe that death has occurred or will	Refusal is an aggravating factor at	Case Law: A person shall be required to	
	occur as a result of an accident, an operator of a	sentencing	submit to a chemical test if they are involved	
	motor vehicle involved in the motor vehicle		in an accident that results or may result in	
	accident shall submit to a test to determine		death to any to any other person and there is	
	blood-alcohol level or drug concentration in the		probable cause to believe that they were	
	same manner as for OUI."		operating a vehicle while DWI (State ν .	
			Roche, 1996); forced tests may be	
			administered if there is probable cause to	
			believe that a driver has committed a DWI	
			offense and they have refused to submit to a	
			chemical test (State v. Baker, 1985).	

		Admissibility of Test Refusal as	Mondatom: Took (6December 12 const)	
State	Evidentiary Test	Evidence in Court/Other Relevant	With Count Woment on Count Orden	Medical Liability
		Statutes	With Search Wallallt of Court Officer	

Maryland	Based on Involvement in Serious-Injury Collision and Reasonable Grounds for Standard DWI \$16-205.1(c)(1): "If a person is involved in a motor vehicle accident that results in the death of, or a life threatening injury to, another person and the person is detained by a police officer who has reasonable grounds to believe that the person has been driving or attempting to drive while under the influence of alcohol, while impaired by alcohol, while so far impaired by any drug, any combination of drugs, or a combination of one or more drugs and alcohol that the person could not drive a vehicle safely, while impaired by a controlled dangerous substance, or in violation of \$16-205.1(c) of this title, the person shall be required to submit to a test as directed by the officer."	Admissible in criminal cases \$10-309(a)	\$16-205.1(c)(1): " shall be required to submit to a test as directed by the officer."	Not Liable \$16-205.1(c)(3)
Massachusetts	Based on Standard DWI Title 14 Chapter 90 \$24(f)(1): "Such test shall be administered at the direction of a police officer, as defined in this section one of the chapter ninety C, having reasonable grounds to believe that the person arrested has been operating a motor vehicle upon such way or place while under the influence of intoxicating liquor."	Refusal CANNOT be admissible in criminal and civil cases Title 14 Chapter 90 §24(a)(1)(e)	No Title 14 Chapter 90 §24(f)(1): " If the person arrested refuses to submit to such test or analyses, after having been informed that his license or permit to operate motor vehicles or right to operate motor vehicles in the commonwealth shall be suspended for at least a period of one hundred and twenty days, but not more than one year for such refusal, no such test or analyses shall be made"	Not Liable Title 14 Chapter 90§24: test has to be administered at medical facility

Medical Liability
Mandatory Test/"Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

Michigan	Based on Involvement in Serious-Injury Collision and Reasonable Grounds for Standard DWI §257.625c: "(b) If the person is arrested for felonious driving, negligent homicide, manslaughter, or murder resulting from the operation of a motor vehicle, and the peace officer had reasonable grounds to believe the person was operating the vehicle while impaired by or under the influence of intoxicating liquor or a controlled substance or a controlled substance or a controlled substance"	Admissible in criminal cases, but not as evidence of guilt \$257.625(a)(10) Refusal adds 6pts to license	Court Order \$257.625a(6)(b)(iv): "If he or she refuses the request of a peace officer to take a test described in subparagraph (i), a test shall not be given without a court order, but the peace officer may seek to obtain a court order."	Not Liable \$257.625a (6)(c)
Minnesota	Based on Involvement in Serious-Injury Collision and Probable Cause for Standard DWI §169A.51 subd 1(b): "The test may be required of a person when an officer has probable cause to believe the person was driving, operating, or in physical control of a motor vehicle in violation of section 169A.20 [DWI], and one of the following exists: (1) the person has been lawfully placed under arrests for violation of section 169A.20; (2) the person has been involved in a motor vehicle accident or collision resulting in property damage, personal injury or death"	Admissible in criminal and civil cases \$169A.45 subd 3 \$169A.51 subd 2 (2): It is a crime to refuse (criminal and administrative punishment)	Without Consent \$169A.51 subd 2(3): "If a peace officer has probable cause to believe that the person has violated criminal vehicular homicide and injury laws, a test may be taken with or without the person's consent."	Not Liable \$169A.51 Subd 7 (C)

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Mississippi	Based on Involvement in Deadly Collision (pre-2000) §63-11-8 (2) (was declared unconstitutional in 2000): "If any investigating law enforcement officer has reasonable grounds to believe that a person is the operator of a motor vehicle involved in an accident that has resulted in a death, it shall be such officer's duty to see that a chemical test is administered as required by this section." Based on Standard DWI (starting in 2000) §63-11-5 (1): "Any person who operates a motor vehicle upon the public highways, public roads and street of this state shall be deemed to have given his consent, subject to the provisions of this chapter, to a chemical test or tests of his breath for the purpose of determining alcohol concentration The test or tests shall be administered at the direction of any highway patrol officer, when such officer has reasonable grounds and probable cause to believe that the person was driving or had under the public streets or highways of this state while under the influence of intoxicating liquor or any other substance which had impaired such."	863-11-41	Cannot Refuse (before 2000) \$63-11-8(4): "No person may refuse to submit to a chemical test required under the provisions of this section (\$63-11-8)". Now a blood can be drawn pursuant to a search warrant after satisfying the criteria of Implied Consent.	863-11-17

	Medical Liability	
Mondatom: Tout (Doctoroblo Lono)	With Sough Woment on Court Ondon	With Search Wallant of Court Office
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

Missouri	Based on Involvement in Serious-Injury Collision and Issuance of UTT Title 38 §577.020.1: "(5) If the person, while operating a motor vehicle, has been involved in a motor vehicle collision which resulted in a fatality or a readily apparent serious physical injury as defined in section 565.002, RSMo, and has been arrested as evidenced by the issuance of a uniform traffic ticket for the violation of any state law or county or municipal ordinance with the exception of equipment violations contained in chapter 306, RSMo, or similar provisions contained in county or municipal ordinances; or (6) If the person, while operating a motor vehicle, has been involved in a motor vehicle collision which resulted in a fatality. The test shall be administered at the direction of the law enforcement officer whenever the person has been arrested or stopped for any reason."	Admissible in criminal and civil cases Title 38 §577.041.1	Without Consent Case law: Under "exigent circumstances", a blood sample may be withdrawn from a driver without their consent but prior to a DWI arrest if there is "probable cause" of such offense (State v. Lerette, 1993)	Not Liable Title 38 \$577.031
Montana	Based on Involvement in Serious-Injury Collision §61-8-402(2)(a): "The test or tests must be administered at the direction of a peace officer when: (iii) the officer has probable cause to believe that the person has been driving or has been in actual physical control of a vehicle: (B) involved in a motor vehicle accident or collision resulting in serious bodily injury or death."	Admissible in criminal cases §61-8-402(2)	No 861-8-402(4): "If an arrested person refuses to submit to one or more tests required and designated by the officer as provided in subsection (2), the refused test or tests may not be given, but the officer shall, on behalf of the department, immediately seize the person's diver's license"	Not Liable §61-8-405(4)
Nebraska	Based on Involvement in Deadly Collision \$60-6,103: "Any surviving driver or pedestrian sixteen year of age or older who is involved in a motor vehicle accident in which a person is killed shall be requested, if he or she has not otherwise been directed by a peace officer to submit to a chemical test under section 60-6,197 [IC], to submit to a chemical test of blood, urine, or breath as the peace officer directs for the purpose of determining the amount of alcohol or drugs in his or her body fluids."	Admissible in criminal cases \$60-6,197(11) \$60-6, 197(10): Refusal to submit is a separate crime for which the person may be charged	May Be Required \$60-6,197(9): "Any person involved in a motor vehicle accident in this state may be required to submit to a chemical test of his or her blood, breath, or urine, subject to the implied consent law."	Not Liable \$606-6.202(1)

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Nevada New Hampshire	Based on Standard DWI Title 43 §484.383.1: "[A]ny person who drivers or is in actual physical control of a vehicle on a highway or on premises to which the public has access shall be deemed to have given his consent to an evidentiary test of his blood, urine, breath or other bodily substance to determine the concentration of alcohol in his blood or breath or to determine whether a controlled substance, chemical, poison, organic solvent or another prohibited substance is present, if such a test is administered at the direction of a police officer having reasonable grounds to believe that the person was: (1) Diving or in actual control of a vehicle while under the influence of intoxicating liquor or a controlled substance" Based on Involvement in Serious-Injury	Admissible in criminal cases Title 43 §484.389 Admissible in criminal and civil cases	Reasonable Force Title 43 §484.383.7: "If a person to be tested fails to submit to a required test as directed by a police officer pursuant to this section and the officer has reasonable grounds to believe that the person to be tested was: (a) Driving or in actual physical control of a vehicle while under the influence of intoxicating liquor or a controlled substance; or (b) Engaging in any other conduct prohibited by NRS 484.379 or 484.379.5 [DWI], the officer may direct that reasonable force be used to the extent necessary to obtain samples of blood from the person to be tested"	Not Liable Title 43 §484.393.3 Not Liable
	Collision and Caused Collision Title 21 §265-93: "When a collision results in death or serious bodily injury to any person, all drivers involved, whether living or deceased, and all deceased vehicle occupants and pedestrians involved shall be tested for evidence of alcohol or controlled drugs. A law enforcement officer shall request a licensed physicianto withdraw blood from each driver involved if living and from the body of each deceased driver, deceased occupant or deceased pedestrian for purpose of testing for evidence of alcohol content or controlled drugs; provided that in case of a living driver the officer has probable cause to believe that the driver caused the collision."	Title 21 §265:88-a Title 21 §265:82-a: To cause a serious- injury collision is an aggravated DWI circumstance (§265:92(2): 2 yrs vs. 180 days license suspension)	Title 21 \$265-93: " shall be tested"	Title 21 §265.85 (I)

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
New Jersey	Based on Standard DWI §39:4-50.2(a): "Any person who operates a motor vehicle on any public road, street or highway or quasi-public area in this State shall be deemed to have given his consent to the taking of samples of his breath for the purpose of making chemical tests to determine the content of alcohol in his blood; provided, however, that the taking of samples is made in accordance with the provisions of this act and at the request of a police officer who has reasonable grounds to believe that such person has been operating a motor vehicle in violation of provisions of R.S. 39:4-50 [DWI]." Based on Testing for Statistical Purposes §26:2B-24 "[The Division of Health and Vital Statistics] shall, in cooperation with the State, municipal and local police, and the Division of Motor Vehicles, conduct tests for alcohol in the bodies of automobile drivers and pedestrians who dies as a result of and within 4 hours of a	Case Law: Refusal is admissible in criminal cases (State v. Stever, 1987)	No in Statute §39:4-50.2(e): "No chemical test, as provided in this section, or specimen necessary thereto, may be made or taken forcibly and against physical resistance thereto by the defendant." BUT, For Statistical Purposes: §26:2B-24: " shall conduct tests" Case-law: Involuntary blood may be obtained from a person arrested for a DWI offense (State v. Dyrl, 1984 and State v. Woomer, 1984)	
	traffic accident, and in automobile drivers who survive traffic accidents fatal to others."			

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
New Mexico	Based on Standard DWI \$66-8-107 B: "A test of blood, breath or both, approved by the scientific laboratory division of the department of health, shall be administered at the direction of a law enforcement officer having reasonable grounds to believe the person to have been driving a motor vehicle within this state while under the influence of intoxicating liquor or drug."	Case Law: Refusal is admissible in criminal cases (McKay v. Davis, 1982)	Search Warrant \$66-8-111 A: "If a person under arrest for violation of a [DWI] offense, refuses upon request of a law enforcement officer to submit to chemical tests, none shall be administered except when a municipal judge, magistrate or district judge issues a search warrant authorizing chemical tests, upon his finding in a law enforcement officer's written affidavit that there is probable cause to believe that the person has driven a motor vehicle while under the influence of alcohol or a controlled substance, thereby causing the death or great bodily injuty of another person, or there is probable cause to believe that the person has committed a felony while under the influence of alcohol or a controlled substance and that the chemical tests will produce material evidence in a felony	\$66-8-103

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
New York	Based on Standard DWI Chapter 71 Title 7 Article 31 §1194(2)(a) "Any person who operates a motor vehicle in this state shall be deemed to have given consent to a chemical testprovided that such tests is administered by or at the direction of a police officer(1) having reasonable grounds to believe such person to have been operating in violation of any subdivision of [DWI] section"	Admissible in criminal and civil cases \$1194(2)(f) but may be suppressed if obtained by force (§1194(3))	§ 1194(3): "Compulsory chemical tests. (a) Court ordered chemical tests. Notwithstanding the provisions of subdivision two of this section, no person who operates a motor vehicle in this state may refuse to submit to a chemical test of one or more of the following: breath, blood, urine or saliva, for the purpose of determining the alcoholic and/or drug content of the blood when a court order for such chemical test has been issued in accordance with the provisions of this subdivision. (b) When authorized. Upon refusal by any person to submit to a chemical test or any portion thereof as described above, the test shall not be given [unless] a police officer or a district attorney, as defined in subdivision 32 of section 1.20 of the criminal procedure law, requests and obtains a court order to compel a person to submit to a chemical test to determine the alcoholic or drug content of the person's blood upon a finding of reasonable cause to believe that: (1) such person was the operator of a motor vehicle and in the course of such operation a person other than the operator was killed or suffered serious physical injury as defined in section 10.00 of the penal law; and (2) a either such person operated the vehicle in violation of any subdivision of the section	81194(4)(a)(2)

Medical Liability
Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

North Carolina	Based on Standard DWI \$20-16.2(a): "Any nerson who drives a vehicle	Admissible in criminal cases 820-16.2(a)(3) & 20-139.1(f)	Yes 820-16.2(c): "Request to Submit to Chemical	Not Liable \$20-16.2 (c)
	on a highway or public vehicular area thereby		Analysis If a person charged willfully	
	gives consent to a chemical analysis if charged with an implied-consent offense. The charging	\$20-16.2(d1): "If the retusal occurred in case involving death or critical injury to	refuses to submit to that chemical analysis, none may be given under the provisions of	
	officer shall designate the type of chemical analysis to be administered, and it may be	another person, no limited driving privilege may be issued."	this section, but the refusal does not preclude testing under other applicable procedures of	
	administered when the officer has reasonable		law."	
	grounds to believe that the person charged has			
	committed the implied-consent offense."		Case Law: Officers obtained blood and urine	
			samples pursuant to a valid search warrant (State v. Davis, 2001)	
North Dakota	Based on Standard DWI	No	Yes	Not Liable
	\$39-20-01: "Any person who operates a motor		\$39-20-01.1: "Notwithstanding section 39-	(\$39-20-12)
	vehicle on a highway or on public or private	§39-20-08: Refusal is admissible in	20-01 or 39-20-04 [DWI], when the driver of	
	areas to which the public has a right of access	criminal and civil cases	a vehicle is involved in an accident resulting	
	for vehicular use in this state is deemed to have		in the death or serious bodily injury, as	
	given consent, and shall consent, subject to the		defined in section 12.1-01-04, of another	
	provisions of this chapter, to a chemical test		person, and there is probable cause to believe	
	The test or tests must be administered at the		that the driver is in violation of section 39-08-	
	direction of a law enforcement officer only after		01 [DWI], the driver may be compelled by a	
	placing the person under arrest and informing		police officer to submit to a test or tests of the	
	that person that the person is or will be charged		driver's blood, breath, saliva, or urine to	
	with the offense of driving or being in actual		determine the alcohol concentration or the	
	physical control of a vehicle upon the public		presence of other drugs or substances."	
	highways while under the influence of			
	intoxicating liquor, drugs, or a combination			
	thereof."			

	Medical Liability	
Mandatory Test/ "Reasonable Force"	Voucent on Count Onder	carcii
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

Ohio	Based on Standard DWI	Case Law: Refusal is admissible in	No	Not Liable
	§4511.191(A): "The chemical test or tests shall	criminal cases (1994 & 1968)	Case law: A conscious person cannot have	\$4511.19
	be administered at the request of a police officer		blood withdrawn by force for testing (State v.	
	having reasonable grounds to believe the person		Lampman, 1992)	
	to have been operating a vehicle upon a			
	highway or any public or private property used			
	by the public for vehicular travel or parking in			
	this state while under the influence of alcohol, a			
	drug of abuse, or alcohol and a drug of abuse or			
	with a prohibited concentration of alcohol in			
	blood, breath, or urine."			
Oklahoma	Based on Standard DWI	Admissible in criminal cases	Search Warrant	Not Liable when
	47 §751(2): "A law enforcement officer, having	47 §756(A)	47 §753: If a conscious person under arrest	consent is signed by
	reasonable grounds to believe that such person		refuses to submit to testing of his or her blood	offender, police
	was operating or in actual physical control of a		or breath for the purpose of determining the	officer, and the
	motor vehicle while under the influence may		alcohol concentration thereof, or to a test of	person is arrested
	direct the administration of or administer the		his or her blood, saliva or urine for the	for DWI
	test or tests."		purpose of determining the concentration of	47 §752
			any other intoxicating substance, or the	
			combined influence of alcohol and any other	
			intoxicating substance, none shall be given,	
			unless the investigating officer has probable	
			cause to believe that the person under arrest,	
			while intoxicated, has operated the motor	
			vehicle in such a manner as to have caused	
			the death or serious physical injury of any	
			other person or persons. In such event, such	
			test otherwise authorized by law may be made	
			in the same manner as if a search warrant had	
			been issued for such test or tests.	

Medical Liability
Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

Oregon	Reasonable grounds for Standard DWI	Admissible in criminal and civil cases	Search Warrant	Not Liable
	motor vehicle upon premises open to the public or the highways of this state shall be deemed to		pursuant to a search warrant	(2)001:0108
	have given consent, subject to the implied		Case Law: The Oregon Supreme Court has	
	consent law, to a chemical test of the person's breath, or of the person's blood if the person is		indirectly indicated that law enforcement officers are not authorized via statute to	
	receiving medical care in a health care facility		obtain a blood sample via force for BAC	
	immediately after a motor vehicle accident, for		testing in DWI cases. However, such a	
	of the person's blood if the person is arrested for		for BAC for other criminal offense related to	
	driving a motor vehicle while under the		motor vehicle operation, e.g. criminally	
	influence of intoxicants in violation of ORS		negligent homicide or manslaughter (<i>State v. Milliam 1088</i>)	
	test shall be administered upon the request of a		mini Sun, 1700)	
	police officer having reasonable grounds to			
	believe the person arrested to have been driving			
	while under the influence of intoxicants in			
	violation of PRS 810.010 or a municipal			
	ordinance."			
Pennsylvania	Based on Involvement in Serious-Injury	Admissible in criminal cases	No	Not liable
	Collision (75 §157(A)(2) was declared	75 §1547(e)	Case Law: A person has a right to refuse to	75 §1547 (j)
	unconstitutional in 1992)		submit to a chemical test. A "forced" test	
	75 §1547(a): "Any person who drives, operates		cannot be administered if this right is	
	or is in actual physical control of the movement		exercised (Com. v. Kohl, 1992)	
	of a motor vehicle in this Commonwealth shall			
	be deemed to have given consent to one or more		Case Law: If a blood sample was withdrawn	
	chemical tests of breath, blood or urine for the		by a medical personnel at a hospital for	
	purpose of determining the alcoholic content of		treatment purposes and a test is conducted	
	orounds to believe the nerson to have been		(given reasonable grounds for unum unving), such test is admissible as evidence (Com v	
	driving, operating or in actual physical control		Riedel, 1995)	
	of the movement of a motor vehicle: (1) while			
	under the influence of alcohol or a controlled			
	substance or both; or (2) which was involved in			
	an accident in which the operator or passenger			
	of any vehicle involved or a pedestrian required			
	neathlein at a medical facility of was knied.			
	Based on Standard DWI (starting in 1992) 75 §1547(a)(1)			

Medical Liability
Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes
Evidentiary Test
State

Rhode Island (Department of Health)	§ 31-27-2.1(a) "No more than two (2) complete tests, one for the presence of intoxicating liquor and one for the presence of intoxicating liquor and one for the presence of toluene or any controlled substance, as defined in § 21-28-1.02(7), shall be administered at the direction of a law enforcement officer having reasonable grounds to believe the person to have been driving a motor vehicle within this state while under the influence of intoxicating liquor, toluene, or any controlled substance, as defined in chapter 28 of title 21, or any combination of these."	No statutory law or case law on admissibility of a test refusal in criminal or civil proceedings.	831-27-2.1(b): "If a person having been placed under arrest refused upon the request of a law enforcement officer to submit to the tests none shall be given" Case law: Upon refusal, a test shall not be given with or without a warrant (<i>Rhode Island v. Distefano, 2000</i>). \$31-27-2.1(b): A defendant may file an affidavit if cannot be subjected to blood tests for religious or medical reasons.	
South Carolina	Based on Involvement in Serious-Injury Collision and Probable Cause for Standard DWI \$56-5-2946: "Notwithstanding any other provision of law, a person must submit to either one or a combination of chemical tests of his breath, blood, or urine for the purpose of determining the presence of alcohol, drugs, or a combination of alcohol and drugs if there is probable cause to believe that the person violated or is under arrested for a violation of Section 56-5-2945 [DWI and great bodily injury]."	Admissible in criminal cases \$56-5-2950 Case Law: Refusal is admissible in criminal cases (1971, 1998)	Must Submit \$56-5-2946: " must submit" Case Law: State v. Mullins, 1997	Not Liable AND: No person may be required by arresting officer or by other law enforcement officer to obtain or take sample of blood/urine \$56-5-2950(a)

	Medical Liability	
Mandatory Test/ "Reasonable Force"/	With Cough Wounds on Court Onlon	With Search Warrant of Court Order
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

South Dakota	Based on Involvement in Serious-Injury	Admissible in criminal cases	Yes	Not Liable
	\$32-23-1.2: "Every person operating a motor vehicle which has been involved in an accident or which is operated in violation of any of the provisions of this chapter shall, at the request of a law enforcement officer, submit to a breath test to be administered by such officer. If such test indicates that such operator has consumed alcohol, the law enforcement officer may require such operator to submit to a chemical test in the manner set forth in this chapter [DWI]."	\$19-13-28(1) & \$32-23-10.1	\$32-23-10(1): "It the person retuses to submit to the withdrawal or chemical analysis, no withdrawal or chemical analysis may be required unless the person has been arrested for a third, fourth, or subsequent violation of \$32-23-1 [DWI], constituting a felony offense under \$32-23-4 or \$32-23-4.6 or has been arrested for vehicular homicide under \$22-16-41 or vehicular battery under \$22-16-42." Case Law: "Force" may be used to obtain a blood sample (<i>State v. Heinrich, 1989; State</i>	§32-23-14
			v. Lanier, 1990; State v. Sickler, 1992; and State v. Jacobson, 1992)	
Tennessee	Based on Standard DWI \$55-10-406(a)(1): "Any person who drives any	Case Law: Refusal is admissible in criminal cases (1984 & 1996).	No 855-10-406(3): "If such person having been	Not Liable \$55-10-406(a)(1)
	motor vehicle in the state is deemed to have		placed under arrest and thereafter having been	(1)(2)(2)
	given consent to a test for the purpose of determining the alcoholic or drug content of that	\$55-10-406(a)(3)(C): License is revoked for 2-5 years when driver refuses and is	requested by a law enforcement officer to submit to such test and advised of the	
	person's blood; provided, that such test is administered at the direction of a law	involved in an serious injury accident. \$55-10-406(a)(2): If refused -	consequences for refusing to do so, refuses to submit, the test shall not be given, and such	
	enforcement officer having reasonable grounds	mandatory fine and jail or workhouse	person shall be charged with violating this	
	to beneve such person was driving while under the influence of an intoxicant or drug"	semence for a subsequent offender of for an offender who drives while	subsection	
		susp/rev/canc or who has a previous vehicular homicide conviction.		

Medical Liability	•
y Test/	With Search Warrant of Court Order
Admissibility of Test Refusal as Evidence in Court/Other Relevant	Statutes
Evidentiary Test	
State	

Texas	Based on Standard DWI	Admissible in criminal cases	Yes	Not Liable
	Title 7 §724.012(a): "One or more specimens	Title 7 §724.061	Title 7 §724.012(b): "A peace officer shall	Title 7 §724-017(b)
	of a person's breath or blood may be taken if the		require the taking of a specimen of the	
	person is arrested and at the request of a peace		person's breath or blood if: (1) the officer	
	officer having reasonable grounds to believe the		arrests the person for an offense under	
	person: (1) while intoxicated was operating a		Chapter 49, Penal Code, involving the	
	motor vehicle in a public place, or a watercraft;		operation of a motor vehicle or a watercraft;	
	or (2) was in violation of Section 106.041,		(2) the person was the operator of a motor	
	Alcoholic Beverage Code."		vehicle or a watercraft involved in an accident	
			that the officer reasonably believes occurred	
			as a result of offense; (3) at the time of the	
			arrest the officer reasonably believes that a	
			person has died or will die as a direct result of	
			the accident; and (4) the person refuses the	
			officer's request to submit to the taking of a	
			specimen voluntarily."	
Utah	Based on Standard DWI	Admissible in criminal and civil cases	No	Not Liable
	\$41-6-44.10(1)(a): "if the test is or tests are	\$41-6-44.10(8)		\$41-6-44.10-5(b)
	administered at the direction of a peace officer			
	having grounds to believe that person to have			
	been operating or in actual physical control of a			
	motor vehicle while having a blood or breath			
	alcohol content statutorily prohibited under			
	Section 41-6-44, 53-3-231, or 53-3-232 [DWI],			
	or while under the influence of alcohol"			

	Medical Liability	
Mandatory Test/ "Reasonable Force"/	With Cough Wounds on Court Onlon	With Search Warrant of Court Order
Admissibility of Test Refusal as	Evidence in Court/Other Relevant	Statutes
	Evidentiary Test	
	State	

State	Evidentiary Test	Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Vermont	Based on Involvement in Serious-Injury Collision and Reasonable Grounds for Any Amount of Alcohol 23 §1202(a)(4): "The evidentiary test shall also be required if the person is the surviving operator of a motor vehicle involved in a fatal incident or collision or an incident or collision resulting in serious bodily injury and the law enforcement officer has reasonable grounds to believe that the person has any amount of alcohol or other drug in his or her system."	Admissible in criminal cases 23 §1202(b)	Search Warrant 23 \$1202(f): "If a person has been involved in an accident or collision resulting in serious bodily injury or death a law enforcement officer may apply for a search warrant to obtain a sample of blood for an evidentiary test [and] the fact of the refusal may still be introduced as evidence" 23 \$1201 (c): "A person shall not operate, attempt to operate, or be in actual physical control of any vehicle on a highway and be involved in an accident or collision resulting in serious bodily injury or death to another and refuse a law enforcement officer's reasonable request under the circumstances for an evidentiary test where the officer has reasonable grounds to believe the person has any amount of alcohol in the system."	23 §1203a(f)
Virginia	\$18.2-268.2.A: "Any person, whether licensed by Virginia or not, who operates a motor vehicle upon a highway, as defined in \$46.2-100, in this Commonwealth shall deemed thereby, as a condition of such operation, to have consented to have samples of his blood, breath or both blood and breath taken for a chemical test to determine the alcohol, drug, or both alcohol and drug content of his blood"	A finding of unreasonable refusal to consent may be admitted as evidence at a criminal trial \$ 18.2-268.3	May Be Required \$ 18.2-268.2 (C). A person, after having been arrested for a violation of \$ 18.2-266 (iii) or (iv) or \$ 18.2-266.1 or of a similar ordinance, may be required to submit to a blood test to determine the drug or both drug and alcohol content of his blood. When a person, after having been arrested for a violation of \$ 18.2-266 (i) or (ii) or both, submits to a breath test in accordance with subsection B of this section or refuses to take or is incapable of taking such a breath test, he may be required to submit to tests to determine the drug or both drug and alcohol content of his blood if the law-enforcement officer has reasonable cause to believe the person was driving under the influence of any drug or combination of drugs"	§18.2-268.5

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Washington	Based on Standard DWI	Admissible in criminal cases	Without the Consent	Not Liable
(State	§46.20.308(1): "Any person who operates a	\$46.61.517	\$46.20.308(3): "Except as provided in this	\$46.61.508
Toxicologist	motor vehicle within this state is deemed to		section, the test administered shall be of the	
collects and	have given consent, subject to provisions of		breath only. If an individual is unconscious	
analyzes data)	RCW 46.61.506, to a test or tests of his or her		or is under arrest for the crime of vehicular	
	breath or blood for the purpose of determining		homicide as provided in RCW 46.61.520 or	
	41111		1 1 1 1 DONY	

Washington (State Toxicologist collects and analyzes data)	Based on Standard DWI §46.20.308(1): "Any person who operates a motor vehicle within this state is deemed to have given consent, subject to provisions of RCW 46.61.506, to a test or tests of his or her breath or blood for the purpose of determining the alcohol concentration or presence of any drug in his or her breath or blood if arrested for any offense where, at the time of the arrest, the arresting officer has reasonable grounds to believe the person had been driving or was in actual physical control of a motor vehicle while under the influence of intoxicating liquor or any drug or was in violation of RCW 46.51.503 [DWI]:"	Admissible in criminal cases §46.61.517	Without the Consent \$46.20.308(3): "Except as provided in this section, the test administered shall be of the breath only. If an individual is unconscious or is under arrest for the crime of vehicular homicide as provided in RCW 46.61.520 or vehicular assault as provided in RCW 46.61.520 or vehicular assault as provided in RCW influence of intoxicating liquor or drugs as provided in RCW 46.61.502, which arrest results from an accident in which there has been serious bodily injury to another person, a breath or blood test may be administered without the consent of the individual arrested."	Not Liable §46.61.508
West Virginia	Based on Standard DWI §17C-5-4(c): "A secondary test of blood, breath or urine is incidental to a lawful arrest and is to be administered at the direction of the arresting law-enforcement officer having reasonable grounds to believe the person has committed an offense prohibited by section two of this article [DWI] or by an ordinance of a municipality of this state which has the same elements"	Case Law: Refusal is admissible in criminal cases (State v. Cozart, 1986) \$17C-5-4: if the driver refuses to submit to a blood test but submits to breath or urine test, no suspension is given	817C-5-7 (a) If any person under arrest as specified in section four of this article refuses to submit to any secondary chemical test, the tests shall not be given: Provided, That prior to such refusal, the person is given a written statement advising him that his refusal to submit to the secondary test finally designated will result in the revocation of his license to operate a motor vehicle in this state for a period of at least one year and up to life.	Not Liable when withdrawing and testing blood of a dead driver \$17C-5-6
Wisconsin	Based on Standard DWI \$343.305(3): "Prior to arrest, a law enforcement officer may request the person to provide one or more samples of his or her breath, blood or urine for the purpose specified under sub.(2) [IC] whenever a law enforcement officer detects any presence of alcoholand has reasons to believe that the person violated [DWI statute]."	Case Law: Refusal is admissible in criminal cases (State v. Bolstad, 1985)	By Lawful Means \$343.305(3)(c): "This section does not limit the right of a law enforcement officer to obtain evidence by any other lawful means." Case Law: A blood sample may be obtained via force if done in a constitutional manner (State v. Bolhing, 1993); a warrantless blood draw taken subsequent to defendant's refusal, performed by a doctor in the police booking room, was reasonable and, therefore, constitutional (State v. Dagget, 2001); there has to be a probable cause to subpoena hospital records (State v. Denure, 2002).	Not Liable §343.305 (5)(c)

State	Evidentiary Test	Admissibility of Test Refusal as Evidence in Court/Other Relevant Statutes	Mandatory Test/ "Reasonable Force"/ With Search Warrant or Court Order	Medical Liability
Wyoming	Based on Standard DWI	Admissible in criminal and civil cases	Yes	Not Liable
	§31-6-102(a): "If arrested for an offense as	\$\$31-6-105(f) & 31-6-108(k)	§31-6-102(d): "If a person under arrest	\$31-6-106
	defined in W.S. 31-5-233 [DWI]: (i) Any		refuses upon the request of a peace officer to	
	person who drives or is in actual physical	Note: A person may initially refuse and	submit to a chemical test designated by the	
	control of a motor vehicle upon a public street	then plead guilty within 10 days and not	agency employing the peace officer as	
	or highway in this state is deemed to have given	have his/her license suspended for	provided in subsection (a) of this section,	
	consent to a chemical test or tests of his	refusal.	none shall be given except in cases where	
	blood, breath or urine for the purpose of		serious bodily injury or death has resulted.	
	determining the alcohol concentration or		The peace officer shall submit his signed	
	controlled substance content of his blood. The		statement to the department. The statement	
	test or tests shall be: (A) Incidental to a lawful		submitted by the officer shall contain: (i) his	
	arrest; (B) Given as promptly as possible after		probable cause to believe the arrested person	
	the arrest; (C) Administered at the direction of a		was driving or in actual physical control of a	
	peace officer who has probable cause to believe		motor vehicle: (B) In violation of W.S. 31-5-	
	the person was driving or in actual physical		233(b)[DWI]; and (ii) That the person	
	control of a motor vehiclein violation of		refused to submit to a test upon the request of	
	[DWI statutes] or any other law prohibiting		the peace officer."	
	driving under the influence"			

APPENDIX F. SAMPLE LAWS

Mandatory Testing of Fatally Injured Drivers

Laws in 27 States require coroners or medical examiners to test fatally injured victims of motor vehicle crashes. The most comprehensive of these laws specifically indicate to whom the test results are to be reported and the frequency of reporting.

Oregon

- **146.113** Authority to order removal of body fluids. (1) A medical examiner or district attorney may, in any death requiring investigation, order samples of blood or urine taken for laboratory analysis.
- (2) When a death requiring an investigation as a result of a motor vehicle accident occurs within five hours after the accident and the deceased is over 13 years of age, a blood sample shall be taken and forwarded to an approved laboratory for analysis. Such blood or urine samples shall be analyzed for the presence and quantity of ethyl alcohol, and if considered necessary by the State Medical Examiner, the presence of controlled substances.
- (3) Laboratory reports of the analysis shall be made a part of the State Medical Examiner's and district medical examiner's files.

146.035 State Medical Examiner; personnel; records; right to examine records. (1) There shall be established within the Department of State Police the State Medical Examiner's office for the purpose of directing and supporting the State death investigation program.

- (2) The State Medical Examiner shall manage all aspects of the State Medical Examiner's program.
- (3) Subject to the State Personnel Relations Law, the State Medical Examiner may employ or discharge other personnel of the State Medical Examiner's office.
- (4) The State Medical Examiner's office shall:
- (a) File and maintain appropriate reports on all deaths requiring investigation.
- (b) Maintain an accurate list of all active district medical examiners, assistant district medical examiners and designated pathologists.
- (c) Transmit monthly to the Department of Transportation a report for the preceding calendar month of all information obtained under ORS 146.113.

South Carolina

17-7-80. Duties of coroner concerning motor vehicle, swimming or boating accident deaths. Every coroner or other official responsible for performing the duties of coroner shall examine the body within eight hours of death of any driver and any pedestrian, sixteen years old or older, who dies within four hours of a motor vehicle accident or any swimmer or boat occupant who dies within four hours of a boating accident, and take or cause to have taken by a qualified person such blood or other fluids of the victim as are necessary to a determination of the presence and percentages of alcohol or drugs. Such blood or other fluids shall be forwarded to the South Carolina Law Enforcement Division within five days after the accident in accordance with procedures established by the Law Enforcement Division.

Testing of Surviving Drivers

The basic standard for a law enforcement officer to request BAC tests from a driver is that the officer has *probable cause* or *reasonable grounds* to believe that the motorist was operating in violation of the State's impaired driving law. In fatal/serious injury crashes, a few States have reduced the BAC test request standard.

Maine -- Involvement in the Crash is Sufficient

- **§2522. Accidents.** (1) Mandatory submission to test. If there is probable cause to believe that death has occurred or will occur as a result of an accident, an operator of a motor vehicle involved in the motor vehicle accident shall submit to a test to determine bloodalcohol level or drug concentration in the same manner as for OUI.
- (2) Administration of test. The investigating law enforcement officer shall cause a test to be administered as soon as practicable following the accident as provided in section 2521.
- (3) Admissibility of test results. The result of a test is admissible at trial if the court, after reviewing all the evidence, whether gathered prior to, during or after the test, is satisfied that probable cause exists, independent of the test result, to believe that the operator was under the influence of intoxicants at the time of the accident.
- (4) Suspension. The Secretary of State shall suspend for a period of one year the license of a person who fails to submit to a test under this section.
- (5) Scope of hearing. The scope of any hearing the Secretary of State holds pursuant to section 2483 must include whether there was probable cause to believe that the person was the operator of a motor vehicle involved in a motor vehicle accident in which a death occurred or will occur and whether the person failed to submit to and complete the test. If a person shows, after hearing, that the person was not under the influence of intoxicants or that the person did not negligently cause the accident, then the suspension must be immediately removed.

Illinois -- Any Traffic Arrest is Sufficient

625 ILCS 5/11-501.6 (a) Any person who drives or is in actual control of a motor vehicle upon the public highways of this State and who has been involved in a personal injury or fatal motor vehicle accident, shall be deemed to have given consent to a breath test using a portable device as approved by the Department of State Police or to a chemical test or tests of blood, breath, or urine for the purpose of determining the content of alcohol, other drug or drugs, or intoxicating compound or compounds of such person's blood if arrested as evidenced by the issuance of a Uniform Traffic Ticket for any violation of the Illinois Vehicle Code or a similar provision of a local ordinance, with the exception of equipment violations contained in Chapter 12 of this Code, or similar provisions of local ordinances. The test or tests shall be administered at the direction of the arresting officer. The law enforcement agency employing the officer shall designate which of the aforesaid tests shall be administered. A urine test may be administered even after a blood or breath test or both has been administered. Compliance with this Section does not relieve such person from the requirements of Section 11-501.1 of this Code.

New Hampshire – Probable Cause to Believe Motorist Caused the Accident is Sufficient

265:93 Blood Testing of Certain Motor Vehicle Fatalities. – When a collision results in death or serious bodily injury to any person, all drivers involved, whether living or deceased, and all deceased vehicle occupants and pedestrians involved shall be tested for evidence of alcohol or controlled drugs. A law enforcement officer shall request a licensed physician, registered nurse, certified physician's assistant, or qualified medical technician or medical technologist to withdraw blood from each driver involved if living and from the body of each deceased driver, deceased occupant or deceased pedestrian, in accordance with RSA 611:6, II, for the purpose of testing for evidence of alcohol content or controlled drugs; provided that in the case of a living driver the officer has probable cause to believe that the driver caused the collision.

In most States that have not adopted a reduced standard for BAC testing in fatal/serious injury crashes, test submission is mandatory in these crashes. Some of these States require that a court order or search warrant be obtained. In other States, mandatory testing has statutory authorization.

Louisiana

§666A. When a law enforcement officer has probable cause to believe that a person has violated R.S. 14:98, R.S. 14:98.1, or any other law or ordinance that prohibits operating a vehicle while intoxicated, that person may not refuse to submit to a chemical test in any case wherein a traffic fatality has occurred or a person has sustained serious bodily injury. Serious bodily injury means bodily injury which involves unconsciousness, protracted and obvious disfigurement, or protracted loss or impairment of the function of a bodily member, organ, or mental faculty, or a substantial risk of death. The law enforcement officer shall direct that a chemical test be conducted in such circumstances. A physician, registered nurse, qualified technician, or chemist shall perform a chemical test in accordance with the provisions of R.S. 32:664 when directed to do so by a law enforcement officer. In all other cases, a person under arrest for a violation of R.S. 14:98, R.S. 14:98.1, or other law or ordinance that prohibits operating a vehicle while intoxicated may refuse to submit to such chemical test, after being advised of the consequences of such refusal as provided for in R.S. 32:661(C).

In Delaware, where submission to a test is mandatory when there is probable cause, the law specifically requires to make a written report with the reasons they did *not* have probable cause.

2740 (b) The testing shall be required of a person when an officer has probable cause to believe the person was driving, operating or in physical control of a vehicle in violation of § 4177 or § 2742 of this title or a local ordinance substantially conforming thereto and was involved in an accident which resulted in a person's death. In the event of a fatal accident if the officer does not believe that probable cause exists to require testing, then the officer shall file a written report outlining the reasons for that determination.

Hospital Personnel and Records

Oregon -- Conducting BAC Tests for Law Enforcement—Elimination of Liability

813.160 (2) In conducting a chemical test of the blood, only a duly licensed physician or a person acting under the direction or control of a duly licensed physician may withdraw blood or pierce human tissue. A licensed physician, or a qualified person acting under the direction or control of a duly licensed physician, shall not be held civilly liable for withdrawing any bodily substance, in a medically acceptable manner, at the request of a peace officer.

Connecticut -- Obtaining Medical Specimens Via Search Warrant

14-227 (j) Seizure and admissibility of medical records of injured operator.

Notwithstanding the provisions of subsection (b) of this section, evidence respecting the amount of alcohol or drug in the blood or urine of an operator of a motor vehicle involved in an accident who has suffered or allegedly suffered physical injury in such accident, which evidence is derived from a chemical analysis of a blood sample taken from or a urine sample provided by such person after such accident at the scene of the accident, while en route to a hospital or at a hospital, shall be competent evidence to establish probable cause for the arrest by warrant of such person for a violation of subsection (a) of this section and shall be admissible and competent in any subsequent prosecution thereof if: (1) The blood sample was taken or the urine sample was provided for the diagnosis and treatment of such injury; (2) if a blood sample was taken, the blood sample was taken in accordance with the regulations adopted under subsection (d) of this section; (3) a police officer has demonstrated to the satisfaction of a judge of the Superior Court that such officer has reason to believe that such person was operating a motor vehicle while under the influence of intoxicating liquor or drug or both and that the chemical analysis of such blood or urine sample constitutes evidence of the commission of the offense of operating a motor vehicle while under the influence of intoxicating liquor or drug or both in violation of subsection (a) of this section; and (4) such judge has issued a search warrant in accordance with section 54-33a authorizing the seizure of the chemical analysis of such blood or urine sample. Such search warrant may also authorize the seizure of the medical records prepared by the hospital in connection with the diagnosis or treatment of such injury.

Maine -- Medical Personnel Authorized to Report Impaired Driving

29-A 2405. Optional reporting of drivers operating under the influence of intoxicating liquor or drugs1. Persons who may report. If, while acting in a professional capacity, a medical or osteopathic physician, resident, intern, emergency medical services person, medical examiner, physician's assistant, dentist, dental hygienist, dental assistant or registered or licensed practical nurse knows or has reasonable cause to believe that a person has been operating a motor vehicle, hunting or operating a snowmobile, all-terrain vehicle or watercraft while under the influence of intoxicants and that motor vehicle, snowmobile, all-terrain vehicle or watercraft or a hunter has been involved in an accident, that person may report those facts to a law

enforcement official.

- (1) Persons who may report. If, while acting in a professional capacity, a medical or osteopathic physician, resident, intern, emergency medical services person, medical examiner, physician's assistant, dentist, dental hygienist, dental assistant or registered or licensed practical nurse knows or has reasonable cause to believe that a person has been operating a motor vehicle, hunting or operating a snowmobile, all-terrain vehicle or watercraft while under the influence of intoxicants and that motor vehicle, snowmobile, all-terrain vehicle or watercraft or a hunter has been involved in an accident, that person may report those facts to a law enforcement official.
- (2) Immunity from liability. A person participating in good faith in reporting under this section, or in participating in a related proceeding, is immune from criminal or civil liability for the act of reporting or participating in the proceeding.

Oregon Health care provider notification of blood alcohol level; content of notice.

676.260 (1) If a health care provider who is providing medical care in a health care facility immediately after a motor vehicle accident to a person reasonably believed to be the operator of a motor vehicle involved in the accident, becomes aware, as a result of any blood test performed in the course of that treatment, that the person's blood alcohol level meets or exceeds the percent specified in ORS 813.010, the health care provider may notify, as soon as is reasonably possible, any law enforcement officer or agency.

- (2) The notice shall consist of the name of the person being treated, the blood alcohol level disclosed by the test and the date and time of the administration of the test.
- (3) Nothing contained in ORS 40.225 to 40.295 affects the authority to report imposed by this section, and the health care provider shall not be considered to have breached any duty under ORS 40.225 to 40.295 owed to the person about whom the report is made. Reporting or failing to report is not a violation of any ethical or moral duty.

Appendix G. AGENDA OF THE SOUTH CAROLINA NCADD STATE TESTING OF HIGHWAY FATALITIES REVIEW FORUM, APRIL 8, 2003

1. Greetings and Introductions	Max Young, Office Hwy Safety Lt. David Eagerton, SLED Gary Watts, President SC Coroner's Assn. Jim Beck, Nationwide Insurance
2. Overview & Meeting Objectives	John Moulden, Harold Watson – NCADD
3. FARS Overview:	Ken Rutland, Kathy Silks, Erick Moran, Myra Wootson, NHTSA
4. Review of the FARS Process & Discussion	
• Fatal Crash Investigation: on-scene process, accident report preparation, sample collection	DPS, Coroners, Law Enforcement, FARS, NCADD, NHTSA
 Determining BAC: receiving sample, analysis, reporting, local variations 	Coroners, SLED, DPS, state FARS analyst, NCADD, NHTSA
 Integrating BAC data into accident report, preparation of FARS forms, reporting to NHTSA FARS 	Police, missing data, DPS, state FARS analyst
 Collection of state data, analysis, imputation of missing BAC data, report preparation 	Ken Rutland, Kathy Silks, Erick Moran, Myra Wootson
5. Review of issues & recommendations	John Moulden, Max Young, David Eagerton, Gary Watts, Ken Rutland, all participants
6. Meeting follow-up, next steps and commitments	John Moulden, Max Young, David Eagerton, Gary Watts, Ken Rutland, all participants



