

Standard Title Page — Report on State Project

715

Report No. VTRC 92-R9	Report Date May 1992	No. Pages 25 pages	Type Report: Period Covered: April 1988 – December 1989	Project No. : 9279-062-940			
			Contract No. :				
Title and Subtitle <i>Virginia's Program to Combat Drug-Related DUI: 1988-1989</i>			Key Words DRT DUI DUID Drug-Impaired Driving Drug-Related DUI Drug Recognition Drug Recognition Technician Traffic Safety				
Author(s) Jack D. Jernigan							
Performing Organization Name and Address: Virginia Transportation Research Council Box 3817, University Station Charlottesville, Virginia 22903-0817							
Sponsoring Agencies' Names and Addresses <table border="0" style="width:100%"> <tr> <td style="width:33%"> Virginia Department of Transportation 1401 E. Broad Street Richmond, Virginia 23219 </td> <td style="width:33%"> University of Virginia Charlottesville Virginia 22903 </td> <td style="width:33%"> Department of Motor Vehicles P.O. Box 27412 Richmond, Virginia 23269 </td> </tr> </table>					Virginia Department of Transportation 1401 E. Broad Street Richmond, Virginia 23219	University of Virginia Charlottesville Virginia 22903	Department of Motor Vehicles P.O. Box 27412 Richmond, Virginia 23269
Virginia Department of Transportation 1401 E. Broad Street Richmond, Virginia 23219	University of Virginia Charlottesville Virginia 22903	Department of Motor Vehicles P.O. Box 27412 Richmond, Virginia 23269					
Supplementary Notes None							
Abstract <p>Beginning on April 1, 1988, a revision to Virginia law gave police officers the authority to require an individual suspected of driving under the influence (DUI) of drugs to submit a blood sample to be tested for drug content. Concurrent with the implementation of the revised law, Virginia initiated a pilot Drug Recognition Technician (DRT) Program, which concentrates on training police officers to detect the signs of impairment consistent with seven broad categories of drugs. This study is an evaluation of the impact of the revised law and the DRT program on arrests and convictions for drug-related DUI in 1988 and 1989.</p> <p>The researcher concludes that both the revised law and the DRT program have been effective in increasing the number of arrests and convictions for drug-related DUI. However, even when drugs were detected in a suspect's blood sample, generally less than 70% of the cases resulted in a DUI conviction. When neither drugs nor alcohol was detected in the blood sample, less than 25% of the cases resulted in a DUI conviction.</p> <p>The researcher recommends that possible legislative changes be studied to determine if there are ways to increase the probability of conviction in cases of drug-related DUI.</p>							

VIRGINIA'S PROGRAM TO COMBAT DRUG-RELATED DUI: 1988-1989

**Jack D. Jernigan
Senior Research Scientist**

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

**Virginia Transportation Research Council
(A Cooperative Organization Sponsored Jointly by the
Virginia Department of Transportation and
the University of Virginia)**

Charlottesville, Virginia

**May 1992
VTRC 92-R9**

SAFETY RESEARCH ADVISORY COMMITTEE

- W. H. LEIGHTY, Chairman, Deputy Commissioner, Department of Motor Vehicles
- J. D. JERNIGAN, Executive Secretary, Senior Research Scientist, VTRC
- J. L. BLAND, Chief Engineer, Department of Aviation
- R. J. BREITENBACH, Director, Transportation Safety Training Center, Virginia Commonwealth University
- MAJ. J. K. COOKE, Assistant Chief of Law Enforcement, Department of Game and Inland Fisheries
- S. H. COOPER, Director of Rail and Public Transportation, VDOT
- M. L. EDWARDS, Executive Assistant, Office of the Secretary of Transportation
- W. S. FELTON, JR., Administrative Coordinator, Commonwealth's Attorneys' Services and Training Council
- P. D. FERRARA, Ph.D., Director, Division of Forensic Sciences, Department of General Services
- D. R. GEHR, Assistant Commissioner for Operations, VDOT
- LT. COL. L. A. GRAHAM, Director, Bureau of Field Operations, Department of State Police
- J. T. HANNA, Assistant Professor, Transportation Safety Training Center
- T. A. JENNINGS, Safety/Technology Transfer Coordinator, Federal Highway Administration
- B. G. JOHNSON, Supervisor, Driver Education, Department of Education
- SGT. P. J. LANTEIGNE, Operations & Tactics Bureau, Virginia Beach Police Department
- W. T. McCOLLUM, Executive Director, Commission on VASAP
- S. D. McHENRY, Director, Division of Emergency Medical Services, Department of Health
- MAJ. R. P. MINER, Commander, Traffic Division, Fairfax County Police Department
- COMM. S. E. NEWTON, Patrol Division, Albemarle County Police Department
- J. T. PHIPPS, Director, Roanoke Valley ASAP
- J. A. SPENCER, ESQ., Assistant Attorney General, Office of the Attorney General
- E. W. TIMMONS, Director of Public Affairs, Tidewater AAA of Virginia
- A. R. WOODROOF, ESQ., Manakin-Sabot, Virginia

ABSTRACT

Beginning on April 1, 1988, a revision to Virginia law gave police officers the authority to require an individual suspected of driving under the influence (DUI) of drugs to submit a blood sample to be tested for drug content. Concurrent with the implementation of the revised law, Virginia initiated a pilot Drug Recognition Technician (DRT) Program, which concentrates on training police officers to detect the signs of impairment consistent with seven broad categories of drugs. This study is an evaluation of the impact of the revised law and the DRT program on arrests and convictions for drug-related DUI in 1988 and 1989.

The researcher concludes that both the revised law and the DRT program have been effective in increasing the number of arrests and convictions for drug-related DUI. However, even when drugs were detected in a suspect's blood sample, generally less than 70% of the cases resulted in a DUI conviction. When neither drugs nor alcohol was detected in the blood sample, less than 25% of the cases resulted in a DUI conviction.

The researcher recommends that possible legislative changes be studied to determine if there are ways to increase the probability of conviction in cases of drug-related DUI.

VIRGINIA'S PROGRAM TO COMBAT DRUG-RELATED DUI: 1988-1989

Jack D. Jernigan
Senior Research Scientist

INTRODUCTION

In 1987, the Virginia General Assembly enacted a substantial revision to the law that prohibited driving under the influence (DUI) in the Commonwealth. Although drug-related and alcohol-related DUI had been illegal in Virginia under §18.2-266 of the Code of Virginia, the implied consent statute, §18.2-268, allowed blood or breath to be tested for the concentration of only alcohol, not other drugs. One consequence of having no provision to test for the presence of drugs was that a conviction for drug-related DUI was relatively uncommon. Between 1973 and 1984, there was an average of only 11 convictions for drug-related DUI per year in Virginia (Paltell & Booz, 1985).

A key provision of the revised law, which went into effect April 1, 1988, is that police officers have the authority to require that an individual suspected of drug-related DUI submit a blood sample to be tested for drug content even if an evidentiary breath test for alcohol has been administered. The results of the blood test can be used in court to corroborate an officer's testimony that the suspect had been using drugs and as a supplement to the officer's testimony of the evidence of the suspect's impaired behavior. However, drugs other than alcohol are so chemically complex, and their effects so varied among individuals, that there is no way scientifically to relate blood drug concentration to blood alcohol concentration (BAC) or to impairment. Hence, in a drug-related DUI case, the officer's testimony concerning the suspect's behavior is critical because there is no presumptive or per se level of concentration that establishes impairment.

In preparing for the implementation of the revised DUI law, the Department of Motor Vehicles (DMV) and the Virginia State Police (VSP) established the Task Force to Combat the Impaired Driver, which is composed of representatives of local police departments, the Office of the Attorney General, the National Highway Traffic Safety Administration, and a number of state agencies. The task force initially decided to supplement the revised law with a pilot Drug Recognition Technician (DRT) Program, which was modeled after a program developed by the Los Angeles Police Department.

The DRT program is an intensive training program that concentrates on the identification of impaired drivers and the physiological symptoms consistent with impairment by seven broad categories of drugs. DRT candidates receive 56 hours of classroom training and at least 40 hours of field training. In addition, DRT candidates must successfully complete 15 instructor-monitored evaluations in order to be certified as a DRT. The program was initially implemented in the Charlottesville

and Virginia Beach police departments and the VSP and has since been expanded to include the counties of Henrico and Prince William and the cities of Chesapeake and Norfolk.

Since the implementation of the revised DUI law, the task force has provided ongoing oversight to Virginia's efforts to combat drug-related DUI with the intent of making Virginia's program as effective as possible. Toward this end, the task force asked the Virginia Transportation Research Council (VTRC) to evaluate Virginia's program to combat drug-related DUI. The task force further requested that the VTRC make recommendations regarding the future direction of the drug-related DUI program in general and the DRT program in particular.

PURPOSE AND SCOPE

This report is a part of an ongoing investigation and is provided to document the outcome of arrests made in 1988 and 1989. This report is also provided so that the task force may assess the accomplishments and shortcomings of the program and make changes to enhance its overall effectiveness.

The primary objective of the study was to determine the effectiveness of Virginia's program to combat drug-related DUI, particularly the DRT program, in increasing the number of arrests and convictions for drug-related DUI. The scope of this evaluation was limited to the drug-related DUI program implemented in the Commonwealth. Specifically, these data do not address the potential effectiveness of the DRT program as it might be implemented in other states. That is, the DRT program is itself limited by the laws of the Commonwealth, which may differ from the laws of other states. Further, arrests examined in this investigation represent only arrests in which an officer requested and collected a blood sample to be tested for drug content. Because alcohol-related and drug-related DUI cases are charged under the same statute, there is no way to separate them in the absence of a chemical test. Thus, if an officer did not request a blood sample, or if the suspect refused to provide one, there was no way for the case to be detected in the data base used in this study.

METHODOLOGY

Whenever a DUI suspect submits a blood sample to be tested for drug content, the sample is sent to the Division of Forensic Science (DFS) for analysis. In fact, the DFS is the only central location through which information on drug-related DUI cases flows. The DFS keeps such information as the suspect's name, the arresting officer's name and police agency affiliation, the jurisdiction of the arrest, the results of the chemical test, and whether a DRT was involved in the case. Thus, through DFS data, it is possible to track drug-related DUI cases back to arrest and forward to resolution.

The DFS agreed to release its data to the VTRC, which is bound by contract not to release the data in such a manner that any individual case can be identified. However, these records do not provide data on the cases for which the suspect refused to submit a blood sample. Although it is desirable to investigate such refusals, there is no way to identify them from any central location since alcohol-related and drug-related DUI cases are charged under the same statute. Additionally, without a chemical test, there is no reliable evidence on which to separate the two types of DUI cases. Moreover, even if the two DUI charges were separated in the Code of Virginia, an officer or a court would, in the absence of a breath or blood test, likely suspect alcohol impairment rather than drug impairment. Therefore, a number of drug-related DUI cases, both those that result in a conviction and those that do not, would not be identified if the suspect refused to provide a blood sample. Given these problems, the researcher and the task force agreed that locating adequate data on refusals was not feasible.

One problem with using the records provided by the DFS is that the laboratory is not given notice of the resolution of a case. Thus, the DFS data do not include information concerning whether the Commonwealth's Attorney decided to prosecute the case or whether the court rendered a guilty verdict. In order to work around this problem, efforts were made to track the case through at least one of two avenues. Beginning in the summer of 1990, court records were checked to ascertain the ultimate resolution of each case. Obviously, only cases that had been resolved and were of record in the local Office of the Clerk of the Court could be tracked. In some cases, the arresting officer was questioned about the resolution of the case. When an arresting officer was questioned, he or she was also asked about what happened in the trial (if there was a trial) and the reasons for the verdict rendered.

The data were then analyzed to determine the overall DUI conviction rate. In addition, a conviction rate was determined for the percentage of cases resulting in a conviction on a charge other than DUI.

Next, the conviction rate for cases in which there was a DRT or a DRT candidate involved (DRT cases) was compared with the conviction rate for cases in which no DRT was involved (non-DRT cases). Using analysis of variance (ANOVA) and a confidence level of $p < .05$, the researcher compared the monthly DUI conviction rates for DRT and non-DRT cases. In addition, DRT and non-DRT cases were compared by the agency that submitted the case and by the results of the chemical analysis.

Virginia, like many states, established a legal threshold of alcohol impairment at 0.10% BAC. That is, a BAC of 0.10% or higher for an evidentiary breath or blood test is considered per se evidence of impairment. Hence, the vast majority of cases in which the suspect is found to have a BAC of 0.10% or higher (called high-BAC cases) results in a DUI conviction. Additionally, because alcohol impairment and drug impairment are charged under the same statute, the presence or absence of drugs in a suspect's system adds little to high-BAC cases because a DUI conviction is highly probable given the results of the blood or breath test for alcohol. Therefore, high-BAC cases may bias conviction data because they are primarily alcohol-related and not drug-related cases.

To control for the potential conviction rate bias of considering high-BAC cases in the analysis, the researcher compared DUI conviction rates for cases in which the suspect either had no alcohol confirmed present in his or her system or had a BAC of less than 0.10% (called low-BAC cases). In effect, this strategy ensured that conviction rates would not be elevated simply because a greater number of high-BAC cases were processed through the drug testing laboratory. ANOVA was then used to test the significance of the difference between DRT and non-DRT cases in the monthly DUI conviction rate.

Because PCP was determined to be associated with a relatively high conviction rate and virtually all PCP cases were submitted by non-DRTs, conviction rates were compared for low-BAC non-PCP cases (i.e., low-BAC cases in which PCP was not detected). ANOVA was then used to test the significance of the difference between DRT and non-DRT cases in the monthly DUI conviction rate.

The reasons given for the final resolution of the cases were also examined in light of the defendant's plea. Based on the results of the data analysis, actions that might be taken to enhance the effectiveness of Virginia's efforts against drug-related DUI were recommended.

ANALYSIS

Arrests for Drug-Related DUI

Between April 1, 1988, and December 31, 1989, the DFS received 1,036 blood samples to be tested for drugs. Table 1 shows that 193 (19%) of the samples received were for DRT cases.

Table 2 shows a breakdown of the results of the tests that were administered by the DFS for the 1,036 blood samples. Ten of the samples were not suitable for

Table 1
DRUG-RELATED DUI CASES PROCESSED THROUGH
THE DIVISION OF FORENSIC SCIENCE

Agency	DRT ¹	Non-DRT ²	Total
Charlottesville	77%	23%	13
Henrico	52%	48%	50
Virginia Beach	70%	30%	124
VSP	23%	77%	205
Other	3%	97%	644
Total	19%	81%	1,036

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 2
LABORATORY RESULTS COMPILED BY
THE DIVISION OF FORENSIC SCIENCE

Laboratory Result	N
More than one drug detected	146
One drug detected	
Marijuana	131
PCP	135
Cocaine	76
Other	65
No drugs detected	
No drugs, BAC > 0.10%	195
No drugs, BAC 0.01% -0.09%	134
No drugs, no alcohol	144
Not suitable for analysis	10
Total	1,036

analysis for reasons such as coagulation of the blood or a broken blood vial. The reader is cautioned that “no drugs detected” does not mean that no drugs were present. Because of the rigorous scientific methodology the DFS must use to eliminate false positive readings, drugs may or may not be present in samples reported in this category.

All Drug-Related DUI Cases of Record

Table 3 shows the breakdown of conviction rates by agency. (Appendix Table A-1 displays the raw data.) For the 161 cases of record in which a DRT was consulted, 47% resulted in a DUI conviction and an additional 11% resulted in some other type of conviction. (Typically, a conviction on some other charge was on a reduction of the DUI charge to reckless or improper driving.) In the 619 cases of record that did not involve a DRT, 57% resulted in a DUI conviction and an additional 18% in a conviction on some other charge.

Table 4 shows a comparison of conviction rates by laboratory results. (Appendix Table A-2 displays the raw data.) In general, non-DRT cases had a higher conviction rate in cases in which the laboratory detected no drugs other than or in addition to alcohol and in cases in which PCP or an “other” drug (with or without the presence of alcohol) was detected. DRT cases, on the other hand, had a higher conviction rate in cases in which the single drug of marijuana or cocaine (with or without the presence of alcohol) was detected. When more than one drug other than or in addition to alcohol was detected, DRT and non-DRT cases had similar conviction rates.

Table 3
CONVICTION RATE BY AGENCY

Agency	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
Charlottesville (N: DRT = 9; Non-DRT = 2)	78%	0%	100%	0%
Henrico (N: DRT = 25; Non-DRT = 18)	48%	16%	56%	22%
Virginia Beach (N: DRT = 73; Non-DRT = 32)	45%	5%	44%	13%
VSP (N: DRT = 40; Non-DRT = 99)	48%	15%	51%	17%
Other (N: DRT = 14; Non-DRT = 468)	36%	21%	59%	18%
Total (N: DRT = 161; Non-DRT = 619)	47%	11%	57%	18%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 5 shows the resolution of the 780 cases of record by the defendant's plea. A plea of guilty or nolo contendere almost always resulted in a DUI conviction. Obviously, a plea bargain most often resulted in a conviction on a non-DUI charge, usually reckless or improper driving. However, a plea of not guilty was less likely to result in a DUI conviction than in a conviction on another charge or no conviction at all. The greatest percentage of DUI or other convictions resulted from a not guilty plea for DRT cases. DUI convictions in non-DRT cases were most often the result of a guilty plea, and other convictions were most likely to result from a plea bargain.

Perhaps one reason for the differences in conviction rates between DRT cases and non-DRT cases is that non-DRT cases were more likely to be high BAC cases. Thus, as seen in Table 4, the relatively higher conviction rate for high-BAC cases, even when other drugs were not detected, would function to increase the conviction rate of non-DRT cases relative to DRT cases. Of the 780 cases of record, 588 were low-BAC cases. When one considers only these low-BAC cases, not only do the DRT and non-DRT groups become more similar, but the real effect of the revised law on

Table 4
CONVICTION RATE BY LABORATORY RESULT

Laboratory Result	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
More than one drug detected (N: DRT = 19; Non-DRT = 92)	63%	21%	64%	14%
One drug detected				
Marijuana (N: DRT = 32; Non-DRT = 72)	75%	3%	54%	24%
PCP (N: DRT = 3; Non-DRT = 90)	67%	0%	73%	11%
Cocaine (N: DRT = 16; Non-DRT = 37)	63%	6%	43%	22%
Other (N: DRT = 17; Non-DRT = 36)	41%	6%	50%	28%
No drug detected, BAC > 0.10 (N: DRT = 11; Non-DRT = 142)	82%	0%	87%	9%
No drug detected, BAC 0.01–0.09 (N: DRT = 32; Non-DRT = 67)	22%	19%	25%	36%
No drug or alcohol detected (N: DRT = 28; Non-DRT = 79)	14%	11%	16%	16%
Not suitable for analysis (N: DRT = 3; Non-DRT = 4)	33%	33%	0%	50%
Total (N: DRT = 161; Non-DRT = 619)	47%	11%	57%	18%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 5
CASE RESOLUTION BY DEFENDANT'S PLEA

Defendant's Plea	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Not guilty	33	32	10	61	68	25
Guilty or nolo contendere	3	25	0	1	230	8
Plea bargain	0	1	6	0	7	62
Plea unknown or no trial	32	18	1	96	46	15
Total	68	76	17	158	351	110

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

drug-related DUI can be evaluated in absence of the confounding effect of Virginia's per se BAC of 0.10%.

Low-BAC Cases of Record

Table 6 shows conviction rates by agency for the 588 low-BAC cases of record. (Appendix Table A-3 displays the raw data.) DRT cases had a conviction rate of 40% for DUI and a conviction rate of 13% for other charges. Non-DRT cases had a conviction rate of 46% for DUI and a conviction rate of 21% for other charges. However, the difference in DUI conviction rates between DRT and non-DRT cases was not statistically significant.

Table 7 shows the conviction rate by drug type for the 588 low-BAC cases of record. (Appendix Table A-4 displays the raw data.) In general, DRT cases resulted in a higher conviction rate when only marijuana or cocaine (with or without the presence of alcohol) was detected. Non-DRT cases had a higher conviction rate when PCP, an "other" drug, or more than one drug was detected other than or in addition to alcohol. As shown in Table 4, cases in which no alcohol or other drug was detected only occasionally resulted in a DUI conviction.

Table 8 shows the resolution of the 588 low-BAC cases of record by the defendant's plea. Similar to the data presented in Table 5 for all cases, Table 8 shows that virtually all guilty pleas resulted in a DUI conviction and the vast majority of plea bargains resulted in a conviction on some other, generally lesser, charge. However, for both DRT and non-DRT cases when only low-BAC cases are considered, a not guilty plea was only about half as likely to result in a DUI conviction as it was to result in either no conviction or some other type of conviction. For DRT cases,

Table 6
CONVICTION RATE BY AGENCY: BAC < 0.10%

Agency	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
Charlottesville (N: DRT = 7; Non-DRT = 0)	71%	0%	0%	0%
Henrico (N: DRT = 18; Non-DRT = 10)	33%	22%	20%	40%
Virginia Beach (N: DRT = 58; Non-DRT = 22)	36%	7%	27%	18%
VSP (N: DRT = 37; Non-DRT = 86)	43%	16%	45%	19%
Other (N: DRT = 13; Non-DRT = 337)	38%	23%	48%	21%
Total (N: DRT = 133; Non-DRT = 455)	40%	13%	46%	21%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

the greatest percentage of DUI and other convictions resulted from a not guilty plea. For non-DRT cases, the majority of DUI convictions were the result of a guilty plea and the majority of other types of convictions were the result of a plea bargain.

Another way to look at the data is to make the samples as comparable as possible. Just as submitting a large number of high-BAC cases would function to increase the overall conviction rate for cases submitted to the DFS, submitting a large number of PCP cases would have a similar effect. As seen in previous tables, PCP is associated with the highest conviction rate of all the categories of drugs detected. Further, PCP cases were submitted almost exclusively from Northern Virginia, where there were no DRTs through most of 1988 and 1989. Thus, virtually no PCP cases involved a DRT. So, to make the samples more comparable, the researcher chose to control further for the effect of PCP cases on conviction rates by considering low-BAC non-PCP cases separately.

Table 7
CONVICTION RATE BY LABORATORY RESULT: BAC < 0.10%

Laboratory Result	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
More than one drug detected (N: DRT = 14; Non-DRT = 90)	57%	29%	63%	14%
One drug detected				
Marijuana (N: DRT = 25; Non-DRT = 62)	68%	4%	48%	26%
PCP (N: DRT = 3; Non-DRT = 84)	67%	0%	73%	11%
Cocaine (N: DRT = 13; Non-DRT = 34)	69%	8%	38%	24%
Other (N: DRT = 15; Non-DRT = 35)	33%	7%	49%	29%
No drug detected, BAC 0.01–0.09 (N: DRT = 32; Non-DRT = 67)	22%	19%	25%	36%
No drug or alcohol detected (N: DRT = 28; Non-DRT = 79)	14%	11%	16%	16%
Not suitable for analysis (N: DRT = 3; Non-DRT = 4)	33%	33%	0%	50%
Total (N: DRT = 133; Non-DRT = 455)	40%	13%	46%	21%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 8
CASE RESOLUTION BY DEFENDANT'S PLEA: BAC < 0.10%

Defendant's Plea	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Not guilty	32	21	10	58	38	25
Guilty or nolo contendere	2	20	0	1	142	5
Plea bargain	0	1	6	0	7	51
Plea unknown or no trial	29	11	1	93	21	14
Total	63	53	17	152	208	95

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Low-BAC Non-PCP Cases of Record

Table 9 shows the results of the agency comparisons in the 452 low-BAC non-PCP cases of record. (Appendix Table A-5 displays the raw data.) Most interesting is the overall conviction rate. For DRT cases, the overall DUI conviction rate was 39%, with an additional 13% resulting in convictions on other charges. For non-DRT cases, 35% resulted in a DUI conviction and 25% in some other type of conviction. However, the difference between the DUI conviction rate in DRT and non-DRT cases is not statistically significant.

Table 10 shows that DRT cases and non-DRT cases had similar DUI conviction rates in multiple-drug cases. Thus, when controlling for sample differences in conviction rates resulting from the presence of PCP and high-BAC samples, some of the apparent differences between DRT and non-DRT cases are negated.

Table 11 shows the resolution of the low-BAC non-PCP cases. The patterns are quite similar to those in Table 8 for low-BAC cases. A guilty plea most often results in a DUI conviction, and a plea bargain almost always results in a non-DUI conviction. Further, the greatest percentage of DUI or non-DUI convictions in DRT cases resulted from a not guilty plea. The greatest percentage of DUI convictions in non-DRT cases resulted from a guilty plea, and the greatest percentage of non-DUI convictions resulted from a plea bargain. In fact, 33% of the low-BAC non-PCP DRT cases in which a defendant pleaded not guilty resulted in a DUI conviction, but only about 26% of such non-DRT cases resulted in a DUI conviction.

Table 9
CONVICTION RATE BY AGENCY: BAC < 0.10%, NO PCP

Agency	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
Charlottesville (N: DRT = 7; Non-DRT = 0)	71%	0%	0%	0%
Henrico (N: DRT = 18; Non-DRT = 10)	33%	22%	20%	40%
Virginia Beach (N: DRT = 58; Non-DRT = 22)	36%	7%	27%	18%
VSP (N: DRT = 36; Non-DRT = 65)	42%	17%	35%	22%
Other (N: DRT = 9; Non-DRT = 2277)	33%	33%	37%	26%
Total (N: DRT = 128; Non-DRT = 324)	39%	13%	35%	25%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 10
CONVICTION RATE BY LABORATORY RESULT: BAC < 0.10%, NO PCP

Laboratory Result	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
More than one drug detected (N: DRT = 12; Non-DRT = 43)	58%	33%	56%	19%
One drug detected Marijuana (N: DRT = 25; Non-DRT = 62)	68%	4%	48%	26%
Cocaine (N: DRT = 13; Non-DRT = 34)	69%	8%	38%	24%

continues

Table 10 (continued)

Laboratory Result	DRT ¹		Non-DRT ²	
	DUI Conviction	Other Conviction	DUI Conviction	Other Conviction
Other (N: DRT = 15; Non-DRT = 35)	33%	7%	49%	29%
No drugs detected, BAC 0.01–0.09 (N: DRT = 32; Non-DRT = 67)	22%	19%	25%	36%
No drugs or alcohol detected (N: DRT = 28; Non-DRT = 79)	14%	11%	16%	16%
Not suitable for analysis (N: DRT = 3; Non-DRT = 4)	33%	33%	0%	50%
Total (N: DRT = 128; Non-DRT = 324)	39%	13%	35%	25%

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table 11
CASE RESOLUTION BY DEFENDANT'S PLEA: BAC < 0.10%, NO PCP

Defendant's Plea	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Not guilty	32	21	10	53	28	25
Guilty or nolo contendere	2	17	0	1	70	3
Plea bargain	0	1	6	0	4	39
Plea unknown or no trial	27	11	1	75	12	14
Total	61	50	17	129	114	81

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

DISCUSSION

In terms of the absolute number of convictions for drug-related DUI cases in the Commonwealth, the revisions to Virginia's impaired driving law appear to have had a positive impact. Between 1973 and 1984, there was an average of 11 drug-related DUI convictions per year in Virginia (Paltell & Booz, 1985). In the first 21 months after the implementation of the 1988 revision, there were at least 261 low-BAC drug-related DUI convictions. This translates into a post-revision average of at least 149 drug-related DUI convictions per year. Hence, drug-related DUI convictions unquestionably increased after passage of the revised law.

Further, the DRT program appears to have had a positive impact on the absolute number of DUI arrests and convictions. In each pilot DRT jurisdiction, DRTs account for only a small minority of all field officers. However, in Charlottesville, Henrico, and Virginia Beach, DRTs were involved in the majority of drug-related DUI arrests and convictions. Likewise, even though DRTs were not involved in the majority of the VSP's drug-related DUI cases, it must be noted that DRTs constitute only a minute portion of the VSP's field forces. Further, statewide, DRTs were involved in 20% of the low-BAC drug-related DUI convictions. Thus, the special emphasis placed on drug-related DUI arrests through the DRT program had the positive benefit of increasing the absolute number of arrests and convictions for drug-related DUI in the Commonwealth.

However, when conviction rates are considered, we see that improvements can still be made in Virginia's efforts to combat drug-related DUI. For low-BAC cases, DRT cases had a DUI conviction rate of 40% and non-DRT cases had a DUI conviction rate of 46%. Even when drugs were detected in the suspect's blood sample, generally less than 70% of the cases resulted in a DUI conviction. Moreover, when no drugs were detected, both DRT and non-DRT low-BAC cases generally resulted in a DUI conviction less than 25% of the time. Thus, one area that needs improvement is the DUI conviction rate for cases of drug-related DUI.

Another area of difficulty concerns the plea by the defendant. When the defendant entered a plea of not guilty, DRT cases were associated with a higher DUI and non-DUI conviction rate than were non-DRT cases. However, a greater proportion of non-DRT cases than DRT cases resulted in a defendant's plea of guilty to the DUI charge. Further, a plea bargain almost always resulted in a non-DUI conviction, such as for reckless or improper driving. Thus, regardless of whether or not a DRT is involved, there appears to be a need to increase the overall conviction rate by increasing the strength of drug-related DUI cases and increasing the certainty of a DUI conviction.

RECOMMENDATIONS

1. Because the DRT program appears to have had a positive impact on increasing the absolute number of arrests and convictions for drug-related DUI, Virginia should continue its implementation of the DRT program on a pilot basis.

2. The task force and the DMV should consider expanding the DRT program, but only on a limited basis until more data are gathered and analyzed.
3. To increase the strength of cases of drug-related DUI, thereby lessening the need for a plea bargain to a reduced, non-DUI charge and increasing the probability of a DUI conviction, the DMV, the Commission on VASAP, and the task force should continue a rigorous program to train enforcement personnel in detecting and documenting signs of impairment. In addition, Commonwealth's Attorneys and judges should be provided all information possible to increase their understanding of the reliability of a trained officer's observations in detecting impaired behavior.
4. The VTRC should investigate ways in which the impaired-driving law of the Commonwealth might be changed to increase drug-related DUI convictions, particularly in light of a finding of drugs by the DFS. This investigation should include the possibilities of providing for a per se charge of drug-related DUI based on a positive drug test and ways of encouraging a plea of guilty to the drug-related DUI charge, including ways to encourage a plea bargain to result in a DUI conviction rather than a non-DUI conviction.
5. The task force and the VTRC should continue to monitor and evaluate the effectiveness of Virginia's program to combat drug-related DUI.

REFERENCE

Paltell, E., & Booz, M. (1985). *Combating the drug-impaired driver: A prescription for safer highways* (VTRC Report No. 86-R20). Charlottesville: Virginia Transportation Research Council.

ACKNOWLEDGMENTS

The initial set of data used to conduct this study were collected and compiled by the Division of Forensic Science (DFS) of the Virginia Department of General Services. The author gratefully acknowledges the contributions and diligence of the DFS and, in particular, the work of Paul Ferrara, Phyllis Sione, and Randall Edwards. The author also expresses his appreciation to the employees of the Research Council who aided in supplementing the data provided by the DFS. The author expresses his gratitude to Janice Alcee, Jon Black, Melissa Lanni, and Peter Wendzel, who spent countless hours traveling to conduct interviews with police officers and troopers and sifting through court records; Amy Monfalcone, Jane Mold, and Emily Vermillion, who developed the code book and the data files; and Cole Wilson, who aided in the initial stages of this study. Finally, the author thanks the court and enforcement personnel, without whose cooperation this study would not have been completed.

Appendix
TABLES OF RAW DATA



Table A-1
CASE RESOLUTION BY AGENCY SUBMITTING CASE

Agency	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Charlottesville	2	7	0	0	2	0
Henrico	9	12	4	4	10	4
Virginia Beach	36	33	4	14	14	4
VSP	15	19	6	32	50	17
Other	6	5	3	108	275	85
Total	68	76	17	158	351	110

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table A-2
CASE RESOLUTION BY LABORATORY RESULT

Laboratory Result	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
More than one drug detected	3	12	4	20	59	13
One drug detected						
Marijuana	7	24	1	16	39	17
PCP	1	2	0	14	66	10
Cocaine	5	10	1	13	16	8
Other	9	7	1	8	18	10
No drugs detected						
No drugs, BAC > 0.10	2	9	0	6	123	13
No drugs, BAC 0.01–0.09	19	7	6	26	17	24
No drugs, no alcohol	21	4	3	53	13	13
Not suitable for analysis	1	1	1	2	0	2
Total	68	76	17	158	351	110

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table A-3
CASE RESOLUTION BY AGENCY SUBMITTING CASE: BAC < 0.10%

Agency	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Charlottesville	2	5	0	0	0	0
Henrico	8	6	4	4	2	4
Virginia Beach	33	21	4	12	6	4
VSP	15	16	6	31	39	16
Other	5	5	3	105	161	71
Total	63	53	17	152	208	95

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table A-4
CASE RESOLUTION BY LABORATORY RESULT: BAC < 0.10%

Laboratory Result	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
More than one drug detected	2	8	4	20	57	13
One drug detected						
Marijuana	7	17	1	16	30	16
PCP	1	2	0	14	61	9
Cocaine	3	9	1	13	13	8
Other	9	5	1	8	17	10
No drugs detected						
No drugs, BAC 0.01–0.09	19	7	6	26	17	24
No drugs, no alcohol	21	4	3	53	13	13
Not suitable for analysis	1	1	1	2	0	2
Total	63	53	17	152	208	95

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table A-5
CASE RESOLUTION BY AGENCY SUBMITTING CASE: BAC < 0.10%, NO PCP

Agency	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
Charlottesville	2	5	0	0	0	0
Henrico	8	6	4	4	2	4
Virginia Beach	33	21	4	12	6	4
VSP	15	15	6	28	23	14
Other	3	3	3	85	83	59
Total	61	50	17	129	114	81

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

Table A-6
CASE RESOLUTION BY LABORATORY RESULT: BAC < 0.10%, NO PCP

Laboratory Result	DRT ¹			Non-DRT ²		
	No Conviction	DUI Conviction	Other Conviction	No Conviction	DUI Conviction	Other Conviction
More than one drug detected	1	7	4	11	24	8
One drug detected						
Marijuana	7	17	1	16	30	16
Cocaine	3	9	1	13	13	8
Other	9	5	1	8	17	10
No drugs detected						
No drugs, BAC 0.01–0.09	19	7	6	26	17	24
No drugs, no alcohol	21	4	3	53	13	13
Not suitable for analysis	1	1	1	2	0	2
Total	61	50	17	129	114	81

¹DRT = Drug recognition technician involved.

²Non-DRT = No drug recognition technician involved.

