

# DREs and Case Outcomes: A Case Study Examination of the Role of DRE Evaluations and Involvement in Spokane, WA

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Funding provided by the Washington Traffic Safety Commission



This report is the second of a two-part research series regarding DRE officers.

Access the full quantitative report here:

<https://bit.ly/2VwphIr>

Access the full qualitative report here:

<https://bit.ly/3wMOOeR>

Access the qualitative executive summary here:

<https://bit.ly/3vPxNje>

## Introduction

DRE training provides a set of advanced impairment detection tools for identifying drivers under the influence of substances other than or in addition to alcohol. Research has yet to examine the effects of DRE officers and DRE evaluations on DUI case outcomes.

## Research Questions

- How does DRE involvement affect the final disposition of DUI cases?
- How and when are DRE evaluators and evaluations used in DUI cases?

## Methods

- Multivariate analysis to examine whether DRE involvement and DRE evaluations predict guilty case outcomes

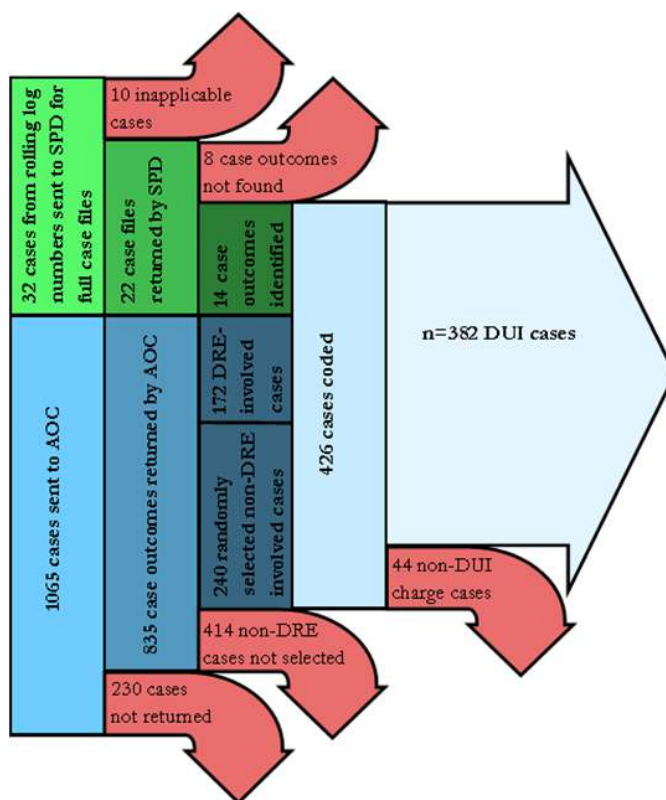
## Sample

- 382 DUI cases handled by the Spokane Police Department from 2015 to 2017, with case outcome data from the Washington State Administrative Office of the Courts
- Sample included a total of 158 cases involving a DRE and 21 incidents involving a full DRE evaluation

## Variables

- Dependent Variable: Conviction (Yes/No)
- Primary Independent Variables: heavy DRE involvement (Yes/No) and full DRE evaluation (Yes/No)
- Control Variables: positive toxicology report,  $\geq 1$  witness,  $\geq 1$  victim, BAC level, DWLS charge, hit and run charge, age, race, and sex

## Case Selection Process



## Main Findings

- Neither DRE involvement or a full DRE evaluation increased the likelihood of a conviction. Other factors, described below, were more salient predictors of conviction.
- Witnesses: Having at least one witness increased the odds of conviction by 106.3%\*
- Driving with a Suspended License: The odds of DUI conviction increases by 297.8% if the driver was concurrently charged with driving while license suspended (DWLS)\*

\*Controlling for other variables

## Full Technical Results

An extensive exploration and interpretation of these results are outlined in the full quantitative report.

*Logistic Regression Model Using DRE Involvement to Predict Toxicology Report*

Variable	Toxicology Positive Report		At Least 1 Witness Present		Hit and Run	
	Coefficient / Standard Error	Odds Ratio	Coefficient / Standard Error	Odds Ratio	Coefficient / Standard Error	Odds Ratio
DRE Involvement	<b>1.046**</b> (.406)	2.846	<b>-.694**</b> (.261)	.500	-.169 (.499)	.844
Toxicology Positive Report	-	-	<b>1.382**</b> (.406)	<b>1.416</b>	-.096 (.681)	.844
At least 1 witness	<b>1.115*</b> (.452)	<b>3.049</b>	-	-	.157 (.659)	1.170
At least 1 victim	.442 (.835)	1.555	<b>3.884**</b> (.765)	<b>48.597</b>	<b>3.028**</b> (.645)	<b>20.650</b>
BAC	<b>-.386**</b> (.047)	.680	.018 (.019)	1.018	-.006 (.033)	.033
Driving with a Suspected License	-.806 (.501)	.447	-.124 (.324)	.883	.818 (.596)	2.266
Hit and Run	-.107 (.956)	.898	.348 (.638)	1.416	-	-
Age	-.004 (.018)	.996	.018 (.012)	1.018	-.012 (.022)	.988
White	-.778 (.512)	.459	.344 (.313)	1.410	-.460 (.569)	.631
Female	.913+ (.469)	2.490	.432 (.269)	1.541	<b>-1.492 *</b> (.679)	.225
Intercept	1.279 (.801)	3.593	<b>-2.110**</b> (.579)	.121	<b>-2.599*</b> (1.046)	.074
Pseudo R-Squared	.787		.333		.309	
AUC	.956		.776		.817	

*Conviction Means by DRE Evaluation Controlling for Other Factors*

	Conviction Mean for DRE Sample	Conviction Mean for non-DRE Sample	t-value
Matched Sample	.286	.353	.599
Total Sample	.286	.330	.422

### Additional Notable Findings

DRE involvement was correlated with a 184.6% increase in producing a positive toxicology report (controlling for other variables). This may be related to DREs coming into contact with an overwhelming number of .000 BACs on Portable Breath Tests. 26.4% of cases heavily involving DREs had .000 BAC results, while only 2.6% of non-DRE cases had .000 BAC results.

### Research Limitations

Limitations to this research include 1) a diminished sample size due to data delay issues arising from a lack of centralized data regarding DREs, 2) a lack of generalizability as the data come from a single location (Spokane), 3) the inability to distinguish between dropped and amended court cases, and 4) the relatively small number of full DRE evaluations.

### Recommendations

1. Improve data tracking for the DRE program.
2. Conduct a statewide analysis of the DRE program and its potential effects on case outcomes in the State of Washington.
3. Disaggregate the “Amended/Dropped” category in the courts data for Washington to better determine if DREs have different effects on different types of case outcomes.
4. Ensure that police investigatory efforts do not overemphasize toxicology or DRE evidence at the expense of other forms of evidence.