

# Assessing the Feasibility of Evaluating the Legal Implications of Marijuana Per Se Statutes in the Criminal Justice System

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April 2019

**Title**

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Assessing the Feasibility of Evaluating the Legal Implications of Marijuana Per Se Statutes  
in the Criminal Justice System  
*(April 2019)*

**Authors**

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## Foreword

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Driving under the influence of cannabis is becoming a major traffic safety concern, especially as more states consider legalization. Several U.S. states have established per se laws, which place quantitative limits on the concentration of cannabis in drivers; however, relatively little is known regarding the impact of these per se laws on the criminal justice system as well as judicial outcomes.

This report gathered information from six states that have implemented a per se limit for cannabis, in order to assess the feasibility of conducting an analysis of judicial outcomes. In addition to conducting a review of the scientific literature, key state officials provided input regarding the quality, availability, and linkages between current state-level data. Information presented in this report should be a useful resource for traffic safety advocates and practitioners.

C. Y. David Yang, Ph.D.

Executive Director

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## **Executive Summary**

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The legalization and decriminalization of cannabis is occurring at a rapid pace for both medical and recreational use. In total, 31 states have legalized medical cannabis, along with Washington, D.C.; Guam, and Puerto Rico (NCSL, 2018). This legalization trend creates numerous potential public health challenges, but traffic safety may be particularly impacted. One critical concern is developing effective policy related to driving under the influence of cannabis (DUIC). Yet, only limited research exists on the effects of many impaired-driving policies as they specifically relate to cannabis, including the establishment of an illegal per se concentration of cannabis.

Currently, six states have per se laws with non-zero tolerance limits for cannabis. While intended as an effective legal countermeasure to cannabis-impaired driving, it is unclear how the establishment of non-zero tolerance per se limits affects the criminal justice system. This is largely due to the limitations of commonly used drugged-driving data sources, as well as the necessary linkage of these data to judicial outcomes, to appropriately assess these effects. Thus, the objective of this research is to assess the feasibility of studying the effect of non-zero-tolerance per se limits for cannabis on the legal system. The effects of these laws on judicial outcomes (e.g., convictions) are of particular interest.

The research herein was conducted using a literature review, as well as guided discussions with key state-level officials. The literature review focused on available data sources, data dictionaries, state legislation, and research on per se concentrations for cannabis and driving. Structured interviews were then conducted with representatives and stakeholders in each of the six states with non-zero tolerance per se limits for cannabis presence in drivers (Illinois, Montana, Nevada, Ohio, Pennsylvania, and Washington). The project sought to understand, for each state, what data is currently linked or would need to be linked in order to track outcomes of cases from the arrest through the disposition of the case, and what data processes would need to be enacted to link these data (i.e., whether records would need to be manually linked using case identifiers).

Each state examined in this study has its own unique policy, data systems, and potential for integration and so separate feasibility assessments are provided for each. In general, the ideal analytic approach requires data that specifically tracks all individuals arrested for per se violations throughout the entire legal process (including dropped or reduced charges and across all dispositions) from the time of arrest through the final disposition of the case. Furthermore, these data should differentiate cannabis-related offenses (specifically per se violations due to THC) from other types of impaired driving. This requires high-quality data across three general domains: law enforcement, toxicology, and judicial outcomes. The report discusses each in turn.

## Introduction

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### Background

The legalization and decriminalization of cannabis is occurring at a rapid pace for both medical and recreational use. In total, 31 states have legalized medical cannabis, along with Washington, D.C.; Guam, and Puerto Rico (NCSL, 2018). These include nine states, and D.C., that allow recreational adult usage (NCSL, 2018). This legalization trend creates numerous potential public health challenges, but traffic safety may be particularly impacted. One critical concern is developing effective policy related to driving under the influence of cannabis (DUIC). These DUIC policies rely on the coordination and support of law enforcement, toxicology, prosecutors, judges, and the public. Yet, only limited research exists on the effects of many impaired-driving policies as they specifically relate to cannabis.

One of the key debates of DUIC policy is the establishment of an illegal per se concentration of cannabis. Per se laws for cannabis place quantitative limits on the concentration(s) of  $\Delta$ -9-tetrahydrocannabinol (THC) and/or its metabolites in drivers. This approach follows the traditional alcohol-impaired-driving model whereby drivers at a certain blood alcohol concentration (BAC) or higher are, by virtue of their BAC, legally considered too impaired to operate a motor vehicle. For most states this specific per se BAC is .08 g/dL.

It should be noted that THC is the primary psychoactive component in cannabis. Metabolites refer to the byproduct of the body breaking down (i.e., metabolizing) a drug into a different substance. States may include THC or other metabolites (described below) in their state laws and may even establish different per se levels based upon whether THC or a metabolite is being tested. There are varying research reports regarding the precise detection windows of THC and THC metabolites. However, this detection window varies based upon frequency of use, type of drug test, and other individual characteristics. Moreover, metabolites will be detectable for a significantly longer time window than THC. The metabolites will likely also be present long after an individual is no longer impaired.

For many illicit drugs, some states establish zero tolerance laws for driving. These states have established that any detectable concentration of a drug<sup>1</sup> in a driver's system may be acceptable evidence of driver impairment. As cannabis moves from an illicit substance at the state level to a medically and/or recreationally legal drug (it remains a Schedule I controlled substance at the federal level), new challenges arise with similar zero tolerance policies. For example, it may be viewed that if an individual is taking small amounts of cannabis for medical treatment, then it would be unfair to prosecute this individual for impaired driving. Thus, similar to alcohol per se levels, many states seek to determine a specific concentration of cannabinoids (THC or metabolites) in a driver's system whereby it can be determined whether the driver is impaired.

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<sup>1</sup> Herein, "drugs" refers to drugs other than alcohol.

Currently, six states have per se laws with defined concentrations for cannabinoids. This is in contrast to zero tolerance states where driving with any concentration of THC or a metabolite automatically constitutes an impaired-driving offense in and of itself. While intended as an effective legal countermeasure to cannabis-impaired driving, it is unclear how the establishment of non-zero tolerance per se limits affects the criminal justice system. This is particularly relevant in consideration of research that indicates cannabinoid per se limits may not be an accurate means of assessing driver physiological impairment (e.g., Logan, Kacinko, & Beirness, 2016).

Accordingly, it is critical to understand the effects of non-zero tolerance per se limits for cannabinoids in drivers on the overall criminal justice system. These effects can be examined in three different ways. First is the impact from a law enforcement perspective, such as changes in the number of drivers undergoing drug testing and the likelihood of receiving a DUIC citation. Next is the impact from a toxicology perspective, such as changes in toxicology testing, standards, and frequency of drug testing. Last is the impact on the judicial system, including likelihood of convictions based on THC concentrations above or below the per se limit and the effect on plea bargaining, lowering of offenses, or final sentencing. To date, no such investigation has been fully performed. This is largely due to the limitations of commonly used drugged-driving data sources, as well as the necessary linkage of these data to judicial outcomes, to appropriately assess these effects. Thus, the present effort examined the feasibility of conducting an analysis of this kind using existing data sources.

The research herein was conducted using a literature review, as well as guided discussions with key state-level officials. The literature review focused on available data sources, data dictionaries, state legislation, and research on per se concentrations for cannabis and driving. Structured interviews were then conducted with representatives and stakeholders in each of the six<sup>2</sup> states with non-zero tolerance per se limits for cannabis presence in drivers (Illinois, Montana, Nevada, Ohio, Pennsylvania<sup>3</sup>, and Washington).

### **Per Se Laws in the Six Study States**

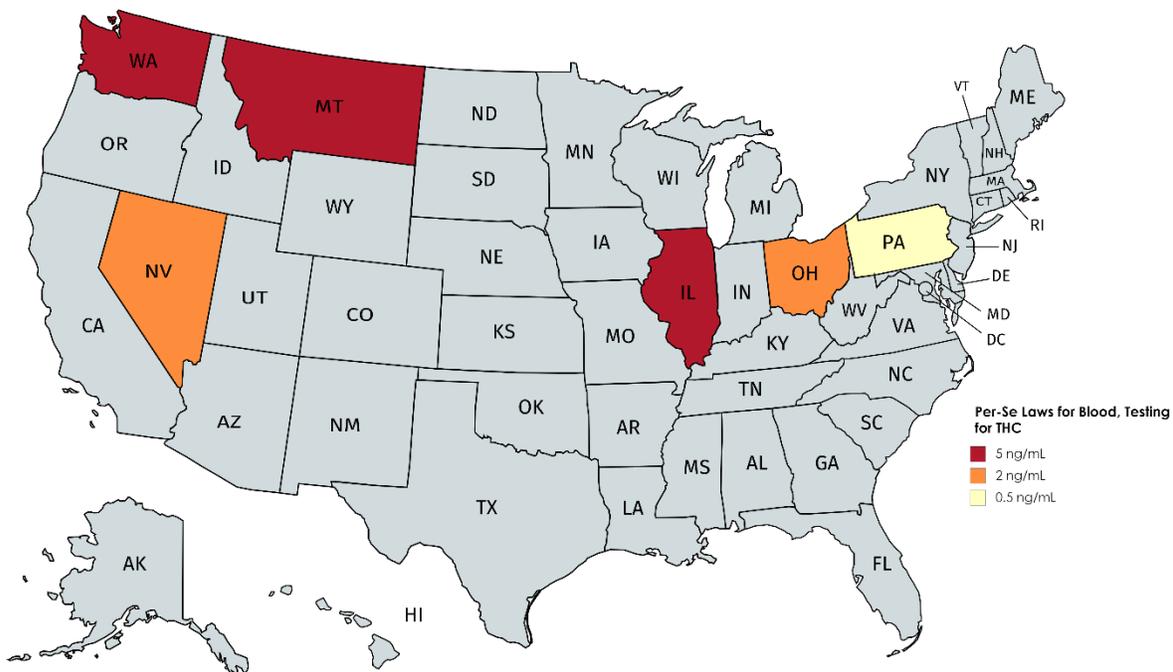
Several states have implemented a per se limit for THC or metabolites in blood, urine, and other bodily fluids (e.g., oral fluid). Figure 1 presents the six study states and their respective per se limits of THC or its metabolites in blood. (Testing using other matrices is omitted in the figure for concision.) All of the study states have a standard policy for blood tests. Ohio and Illinois specify whether blood tests should be performed on whole blood (i.e., it contains an anticoagulant to keep it in a liquid state that allows testing of the entire blood sample including red cells, white cells, platelets, and plasma), serum (i.e., the clear yellowish liquid portion of blood that is separated from the particulate matter [red cells, white cells, platelets, etc.] through centrifugation after the blood is allowed to clot), or

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<sup>2</sup> Colorado's law specifies permissible inference of impairment when THC presence is above 5 ng/ml.

<sup>3</sup> Pennsylvania is a zero tolerance state according to the DUI law as written; however, for the purposes of this project, it is being considered a non-zero tolerance per se state as the Pennsylvania Department of Health sets per se limits, which essentially reflect threshold levels based on laboratory validations.

plasma (i.e., the clear yellowish liquid portion of blood that is separated from the particulate matter through centrifugation from blood that is collected with an anticoagulant present), while the others do not. Illinois, Montana, and Washington only test for THC, while Nevada, Ohio, and Pennsylvania also test for THC metabolites, including 11-hydroxy-THC (THC-OH) and 11-Nor-9-carboxy-THC (THC-COOH). Each of the study states tests for either THC and/or its metabolites in blood. Illinois, Nevada, and Ohio also include language that frames testing protocol for urine and other bodily fluids.



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*Figure 1. Map showing the six study states and their respective per se limits.*

Table 1 describes the per se laws in each of the six study states. All items are presented using the terminology and language expressed within the laws themselves. A more detailed presentation of the per se laws in each state can be found in Appendix A.

Table 1. Summary of per se laws in the six study states.

State	Test Type	Drug or Compound that is Specified in the State Law	Per Se Concentration (ng/mL)
<i>Illinois</i>	Whole Blood	Delta-9-THC	$\geq 5$
	Other Bodily Substance		$\geq 10$
<i>Montana</i>	Blood	Delta-9-THC	$\geq 5$
<i>Nevada</i>	Blood	Delta-9-THC	$\geq 2$
		11-OH-THC	$\geq 5$
<i>Ohio</i>	Whole Blood, Blood Serum, Plasma	Marihuana	$\geq 2$
		Metabolite	$\geq 50$
		Metabolite <i>with Other Drugs or Alcohol</i>	$\geq 5$
	Urine	Marihuana	$\geq 10$
		Metabolite	$\geq 35$
		Metabolite <i>with Other Drugs or Alcohol</i>	$\geq 15$
<i>Pennsylvania</i>	Blood	Delta-9-THC	$\geq 0.5$
		11-Hydroxy-Delta-9-THC (THC-OH)	$\geq 1$
		11-Nor-9-Carboxy-Delta-9-THC (THC-COOH)	$\geq 1$
<i>Washington</i>	Blood	THC	$\geq 5$

## Implications of Per Se Laws

The ultimate goal of per se laws is to identify a specific cannabinoid concentration that directly corresponds to an unsafe level of impairment. Yet, the scientific evidence of impairing effects of THC on driving performance and crash risk is not clear or uniform. After examining data from the Standardized Field Sobriety Test (SFST) battery and Drug Recognition Expert (DRE) evaluations, Logan, *et al.* (2016) found that several quantitative limits for THC concentrations in bodily fluids were not reliably associated with impairment. That is, when quantitative THC concentrations were relied upon as indicators of impairment, a large number of drivers were misclassified. Both false positives and false negatives were observed. Additional considerations for the use of per se limits include the potential to capture individuals who have been passively exposed to THC (Cone *et al.*, 2015).

In addition, there is a time lag between peak THC concentration in bodily fluids and subjective impairment. Generally, peak THC blood (plasma) concentrations occur five to eight minutes after smoking cannabis and decrease rapidly over time (Harder & Rietbrock, 1997). However, impairment begins about five minutes after inhalation, with maximum impairment occurring approximately 20 minutes after the peak blood THC concentration (Grotenhermen, 2003; Huestis, 2005; O’Kane, Tutt, & Bauer, 2002). Thus, low THC concentrations do not necessarily exclude impairment, and THC concentrations measured following a crash or traffic stop may be low because of delays in blood collection.

It is also possible, although scientific research is still needed in this area, that the development of tolerance in frequent users could decrease the extent of any potential impairment to driving performance. However, these individuals’ bodily fluids would likely show THC or metabolite concentrations that violate the per se law. Thus, there is a significant lack of scientific support for a per se law for THC or its metabolites. The lack of convergence of scientific evidence regarding a specific concentration of THC that can be linked to driver impairment makes an investigation of the effects of these non-zero tolerance per se limits even more critical.

## Objective

The objective of this research is to assess the feasibility of studying the effect of non-zero tolerance per se limits for cannabinoids on the legal system. The effects of these laws on judicial outcomes (e.g., convictions) are of particular interest. There are a number of ways this type of analysis could be conducted. For example, this could include examining changes in conviction rates for DUIC before and after the implementation of a state’s non-zero tolerance per se laws. It could also include comparing the conviction rates of the state that has non-zero tolerance per se limits with comparison states that have different policies (e.g., zero tolerance or no legislated per se concentration). Such an analysis could also examine judicial outcomes based upon different concentrations of THC in a driver’s system.

For example, the analysis could assess how drivers are treated in the legal system if they are below the per se THC concentration.

All of these aforementioned analytic approaches would provide valuable insight into the efficacy of these policies. However, all analyses are dependent upon the availability and quality of state-level data. The goal of this research was to evaluate the feasibility of these data for conducting such analyses. An ideal analysis would allow for tracking an individual from the time of arrest through the final disposition of the case. Additionally, it would link law enforcement, toxicology, and judicial records.

### **Overall Data Collection Approach**

There are three key components to this feasibility assessment: (1) data quality, (2) data linkage and (3) data availability. Data quality involves ensuring each of the data elements are collected at a quality level where robust and accurate conclusions can be drawn. For example, states that do not record information on the initial charge would not allow examining if an individual was originally charged under the per se code but the offense was dropped to a lesser offense such as possession. Quality would also include information on the state's toxicological procedures (e.g., whether quantifiable levels of THC can be determined and recorded). Data linkage refers to the ability to associate key data elements from within a state to fully assess outcomes. This is described in greater detail below. Data availability refers to the prospects of data sharing within the state and to outside entities (e.g., researchers). This is particularly important due to the sensitivity and protections of the information involved.

In addition to information on state-level data, procedural information is also critical to interpreting the usability of state data. As an example, states with non-zero tolerance per se statutes also have sections of their statute that allow charging a driver with impaired driving outside of the per se statute. Specifically, instead of a prosecutor charging a driver with the subsection of the impaired-driving code related to the per se concentration, the prosecutor may instead use a different subsection where a specific level of a drug is not required.

A high-quality policy analysis in this domain requires the ability to track individual cases from the arrest through the final disposition of the case. This allows tracking a case to see if any charges were changed, if cases were dropped and the overall conviction rate. Additionally, quantitative toxicology data must be linked into these records to evaluate how specific cannabinoid concentrations correlate with judicial outcomes. Thus, the focus on data quality and integration depends on these three distinct state-level systems: (1) law enforcement, (2) toxicology, and (3) judicial outcomes. A simplified version of these state data systems is depicted below in Figure 2.

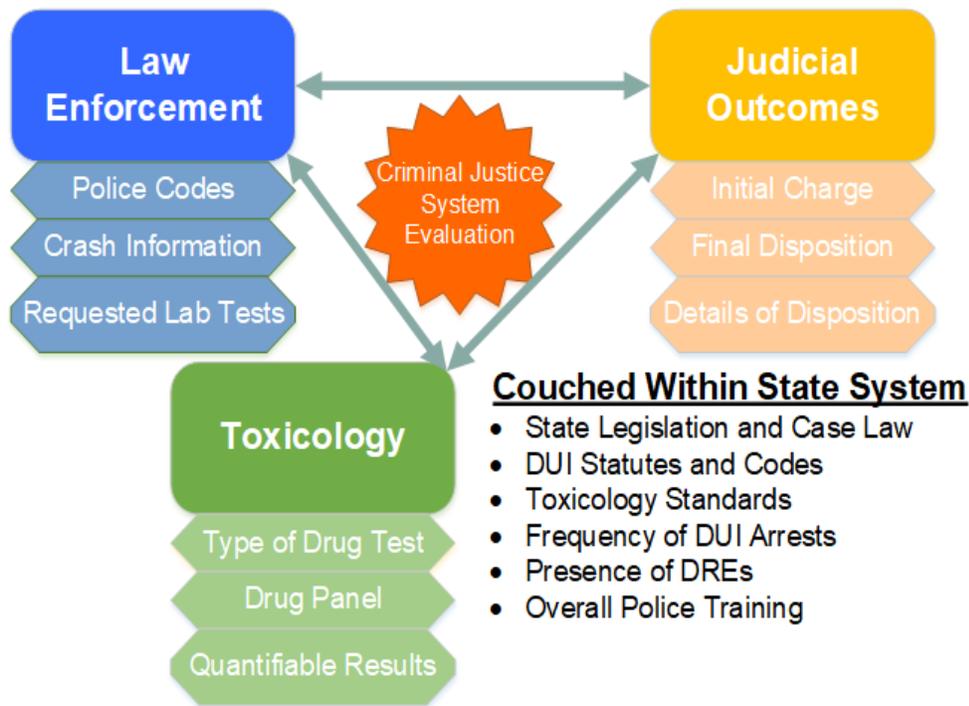


Figure 2. Examples of data integration needs for criminal justice system evaluation.

This graphic depicts how tracking the effects of impaired-driving policies requires working with law enforcement, judicial outcomes, and toxicology results. These records are often contained in entirely different systems across different agencies. Furthermore, these distinct data systems (e.g., judicial data) are often not standardized or maintained at the state level. Often, local jurisdictions maintain these data, and the linkage process would therefore need to occur at this local level. Additionally, these data systems must be interpreted within each state’s and local jurisdiction’s environment, which includes various policies, standard procedures, police training, and toxicology capabilities. Each of these critical data categories must be evaluated in order to determine whether an analysis of effects of per se laws is possible.

Following from Figure 2, the complexities of state data systems can be demonstrated using the following hypothetical scenario: Imagine trying to assess if an individual at a THC concentration of 3 ng/mL experiences different outcomes in a state with a 5 ng/mL per se limit as compared with a state without a THC per se limit. A full analysis would require tracking an individual from their arrest (i.e., from police records), getting THC concentrations from associated toxicology data, and obtaining the final disposition from court records. A failure to obtain properly linked data from any of these three systems drastically limits the ability to investigate the effects of this policy.

Understanding these fundamental elements and challenges of state data systems, the data collection for this effort focused on gaining greater insight into state data systems from the literature review and learning specific data management practices from key leaders within the study states.

## Literature Review

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Literature on the effects of non-zero tolerance per se concentrations for cannabis on the legal system is limited in breadth. Indeed, filling this gap was one of the driving forces for conducting the present research. Accordingly, the literature review was not designed to evaluate the body of literature on per se limits, but rather to gain information on state data systems, data quality, data linkage, and the feasibility of conducting later analyses on the effects of these policies using available state data. This also resulted in a particular focus on “grey literature,” which includes the extensive body of knowledge outside of peer-reviewed journals. Peer-reviewed journals were considered and included, but the literature review followed a more comprehensive approach that included data dictionaries, data documentation, government reports, and manuals.

Virginia Tech library resources were utilized to search for relevant literature on (a) past research related to the topic and (b) information that could inform necessary steps (e.g., data integration) to conduct the analyses. The first area of focus provided information on what previous researchers had done to investigate per se limits. The second area of focus was broader and concentrated on anything related to key state data systems in the areas of law enforcement, toxicology, and judicial outcomes. Accordingly, literature in the second area of focus did not need to specifically relate to per se levels or cannabis, but needed to directly address the topic or processes needed to perform the potential evaluation of non-zero tolerance per se levels for THC. Due to the broad scope of the second focus area, not all identified literature (e.g., everything related to toxicological testing of THC) was included in the review.

The literature review was organized based upon these focus areas. The first section details empirical research on the effects of per se laws. The second section focuses on data management and integration. During the course of conducting this feasibility assessment, a highly relevant report on the effects of THC laws on judicial outcomes was released (Bui & Reed, 2018). This report details a similar effort that was undertaken in Colorado to link multiple databases to investigate the impact of drug-impaired-driving policy on judicial outcomes. Due to the relevance and quality of this report, a special section was added to highlight this study and its findings.

## Empirical Research

As noted above, very few studies have attempted to quantify the impact of per se laws on drugged-driving arrests, convictions, or other outcomes related to traffic safety. Anderson & Rees (2015) found that traffic fatalities decreased 11% following the implementation of per se laws for drugged driving. However, after controlling for factors unique to each state (e.g., mean age of the driving population, unemployment rate, texting bans), this decrease in fatalities was no longer statistically significant. This study also spanned all per se laws, including those related to drugs other than cannabis. In addition, this study used data from the Fatality Analysis Reporting System (FARS). FARS has very limited drugged-driving data, although Anderson & Rees (2015) also did not attempt to make conclusions regarding

drugged-driving fatalities in particular. Additional studies are needed, including those using other sources of data, to validate these results. Furthermore, studies are also needed that control for different types of per se laws (e.g., types of drugs, quantitative limit, etc.).

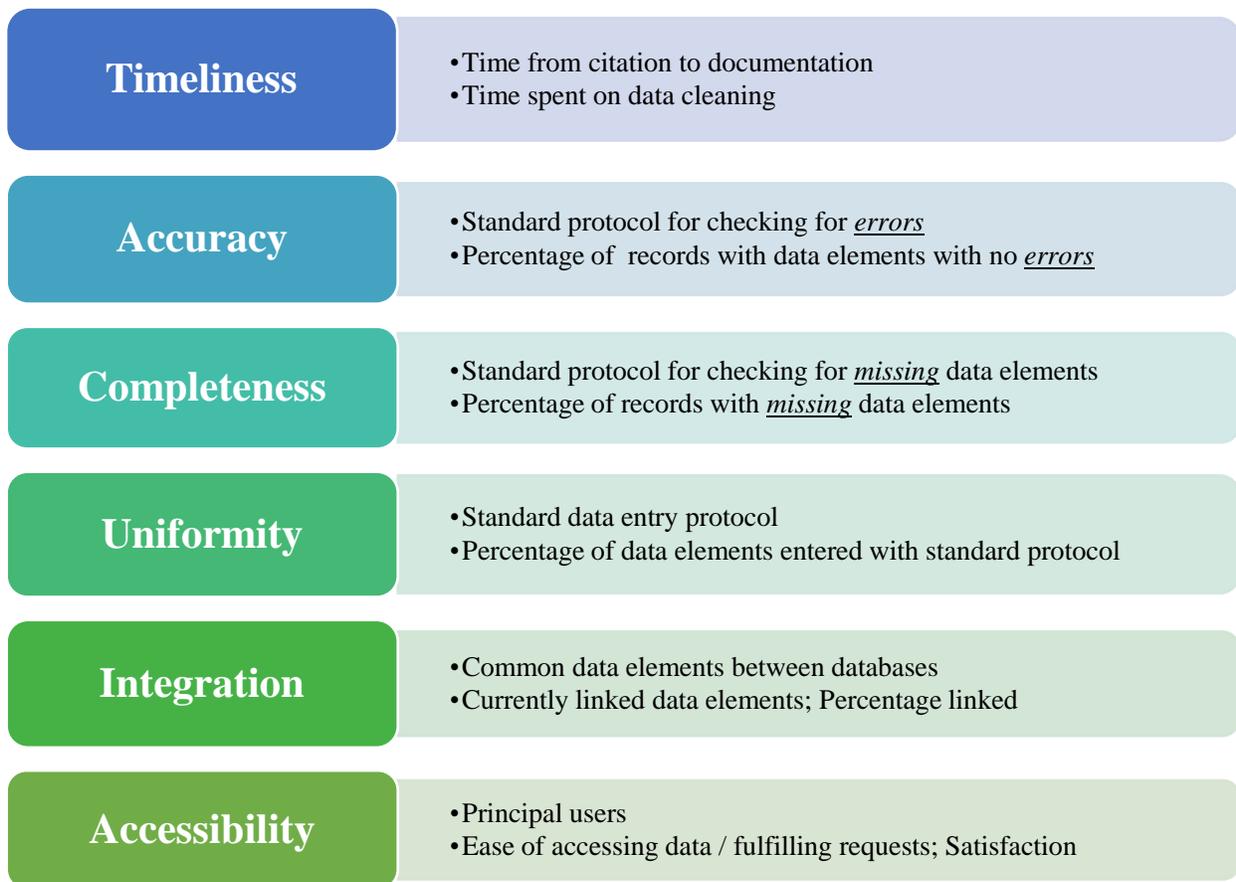
In Europe, multiple studies have shown an increase in the number of impaired-driving arrests following the implementation of per se laws (Jones, 2005; Steentoft, Simonsen & Linnet, 2010; Vindenes *et al.*, 2014). This increase is an important variable to control for when studying the implications of per se laws, as any increase in the presence of drugs in drivers resulting in convictions under per se laws must be considered in light of any increase in surveillance of drugged driving and resulting arrests. A full analysis of the effects of per se laws also requires extending beyond arrest records and into judicial records.

## **Data Management and Integration**

For states to track cases from citation/arrest to final disposition, data integration is absolutely critical. It is especially important to understand current data integration capabilities, requirements, barriers, and methods of improvement. The necessary data and records to achieve effective data integration are complex, vary across multiple state systems and jurisdictions, and are rarely linked with the necessary data elements from each system to provide effective evaluation. There are many approaches to managing these diverse systems.

### **Guidelines for Drugged-Driving Data Integration**

Over the past several decades, a great deal of research has followed NHTSA's 1976 report to document general requirements for database linkage. NHTSA and the Governors Highway Safety Association (GHSA) identified six vital measures for the evaluation of a traffic records database (NHTSA, 2011). These six elements comprise the following: (1) timeliness, (2) accuracy, (3) completeness, (4) uniformity, (5) integration and (6) accessibility. Figure 3 presented below illustrates these six core elements, which guided the initial development and framework for data collection.



*Figure 3. Six core elements that guide development of data systems and data collection according to NHTSA and GHSA (NHTSA, 2011).*

Database integration is predicated upon electronic records, because of their ease of retrieval and management within a common system (Wilszowski, *et al.*, 2011; Raaen, 2017).

Transferring records to electronic form is one of the biggest hurdles for states that have not already transitioned to electronic databases. There are states that manage a combination of paper and digital records, and even localities with smaller agencies or courts that rely solely on hard copies.

One exemplary model for data linkage related to impaired driving is the Model Impaired Driving Records Information System (MIDRIS). This model was designed to show how impaired-driving data tracking systems could be implemented to integrate components of law enforcement, state driver licensing agencies, and the courts. In particular, NHTSA conducted a demonstration study describing this model records management system in four states (Alabama, Iowa, Nebraska and Wisconsin) (Greer, 2011). This project has shown how impaired-driving tracking and adjudication can be linked among these disparate data systems. This project helped significantly expand linkage efforts in these states and highlighted opportunities for improvement and expansion of existing state data systems (Greer, 2011).

A huge success from MIDRIS was support for advances in the Traffic and Criminal Software (TraCS) system in Iowa (Greer, 2011). With an electronic system like TraCS, database administrators can create forms that require data-entry validation criteria in order to successfully move forward with completing an entry. A unique benefit of this particular electronic system is the utility of a barcode scanner. In the field, an officer can scan a driver's license, and this information auto-populates the form, preventing many errors (Iowa DOT, 2018). Another notable accomplishment from MIDRIS resulted in the development of data standards for all criminal-related data in Iowa, with a central data broker to manage the data and all data movement among different agencies (Greer, 2011). The components that made MIDRIS successful are outlined in Figure 4.

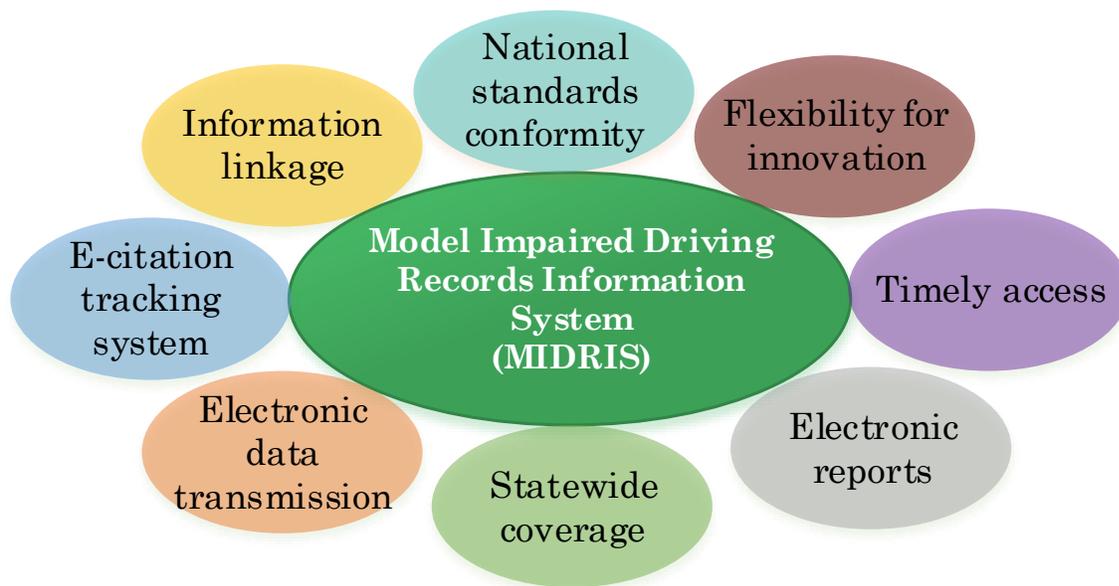


Figure 4. The components of MIDRIS (Greer, 2011).

This research highlighted a model for integrating multiple complex databases. The states with MIDRIS improvements may have the potential to perform broader evaluations on the effects of non-zero tolerance per se limits for cannabis because of their enhanced data network. Unfortunately, the states known to use MIDRIS do not overlap with the current states with non-zero tolerance per se concentrations for THC. Furthermore, the focus of MIDRIS is largely on alcohol-impaired driving. Additional resources and effort would be required to integrate non-alcohol-specific drugged-driving offenses.

**Key Data Linkage Elements**

Having a common data element, such as a unique case identifier, that can serve as the link between databases is vital for database integration. Specifically, a common identifier across multiple databases can be used to make sure the appropriate information is associated with a common case or individual. There are six core areas that are likely to contain elements that could be linked in the context of impaired driving, including: crash, vehicle, driver,

roadway, citation and adjudication, and injury surveillance (US DOT & NHTSA, 2011). These elements are detailed in Table 2 below.

*Table 2. Six core state-traffic-records data systems and interdependency between systems.*

<b>Core systems</b>	<b>Elements within core data systems</b>	<b>Commonly linked variables</b>
<b><i>Crash</i></b>	Law enforcement officer crash reports	Crash with EMS response linked to EMS file
<b><i>Vehicle</i></b>	Vehicle registration	Vehicle registration linked to driver file
<b><i>Driver</i></b>	Licensed driver and driver history	Driver in crash linked to adjudication file
<b><i>Roadway</i></b>	Roadways within the state	Bridge inventory linked to roadway basemap
<b><i>Citation/Adjudication</i></b>	Traffic citations, arrests, and final disposition of charges	DWI citation linked to adjudication file
<b><i>Emergency Medical Services (EMS)/Injury Surveillance</i></b>	Motor vehicle-related injuries and deaths	EMS response linked to trauma file

Common citation and adjudication data elements of select states have previously been identified by GHSA and NHTSA (NHTSA, 2011). Many states collect offender-related elements such as name, driver's license number, age, and sex in both citation and adjudication records. Likewise, citation number is recorded by the issuing agency in citation databases and courts in adjudication databases. In its report, *Feasibility of Collecting Traffic Safety Data from Law Enforcement Agencies*, NHTSA echoed the feasibility of states collecting citation information (Wiliszowski, *et al.*, 2011). These elements influence the structure of questions aimed at illustrating critical data elements

that are collected, and possibly linked, across all 50 states and D.C. Interdependent examples among the six core systems are listed in Table 2.

In addition to a common linking variable (e.g., unique case identifier), there are numerous other areas where standardization is critical. Standardized data definitions and categories are vital to database integration. If two states, or two localities within a state, join data elements that are labeled the same way but defined differently, the link is meaningless. Likewise, standard protocols are critical. The *State Court Guide to Statistical Reporting* (Schaufler, Genthon, Holt, LaFountain, Strickland, & Allred, 2017) outlines basic data reporting protocol for state courts.

The body of literature related to data management and integration provided significant insight into (a) the current status and quality of state data, (b) challenges to data integration, and (c) potential opportunities and key strategies for data integration. Much of this research focused on previous data integration efforts such as MIDRIS. This body of literature informed which data would need to be linked for analyses, the necessary processes to integrate these data, and specific elements that would be necessary for this linkage. This information helped the research team develop better questions for state officials regarding their state's data.

## **Building Upon the Colorado Model**

A recent study from Colorado provides a framework for policy analyses in the six non-zero tolerance per se limit states for THC and highlights the potential challenges and limitations (Bui & Reed, 2018). This report linked toxicology and case filings related to Driving Under the Influence (DUI) in order to better understand DUI cases around cannabis. This study provides first-of-its-kind information on DUI cases, the drugs involved (including alcohol), and the resulting judicial outcomes of those cases.

It should first be noted that Colorado has a unique “permissible inference” law related to cannabis-impaired driving. The updated 2013 impaired-driving statute (C.R.S., 42-4-1301 (6)(a)(IV)) states, “If at such a time the driver’s blood contained five nanograms or more of Delta 9-tetrahydrocannabinol per milliliter in whole blood, as shown by analysis of the defendant’s blood, such fact gives rise to a permissible inference that the defendant was under the influence of one or more drugs.” While this seems similar on its face to a per se concentration, the legal implications are quite distinct. The Colorado permissible inference law essentially amounts to a jury instruction that jurors may consider when deciding on a DUI case. Most notably, permissible inference laws are seen as weaker than per se laws for that reason.

The report examined 2016 data in Colorado to link case filings, charges, and toxicology. Out of 27,244 case filings with at least one DUI charge, and 97,066 total charges associated with these cases, there was linked information on case disposition and toxicology for 16,806 case filings. Toxicology was primarily available for alcohol, and only 3,946 of the total cases were screened for cannabinoids. Some of the results indicated that DUI conviction rates were highest for cases that had a THC confirmation test at or above the permissible inference

level. These cases also had a dismissal rate (9.7%) that was just less than half the dismissal rate of cases below the permissible inference level (20.0%). Interestingly, conviction rates for cases with and without toxicology results were approximately the same (89.4% versus 85.7%, respectively).

This report uncovered a number of challenges that are directly relevant to the feasibility assessment of this research. One major takeaway from this report is how challenging it can be to link these sources of data. As noted above, this type of analysis involves independent data systems with strong data protections, a lack of standardization, and ownership across different agencies. Other issues involved inconsistencies in toxicology testing across cases, challenges linking all cases, and multiple case filings for the same case. Since this is the only directly comparable study to the present effort, specific additional challenges raised by the Bui & Reed (2018) report will be discussed in the conclusion in reference to the findings from the six study states.

## **Structured Interviews Regarding Data Availability in the Six Study States**

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The primary objective of this project was to assess the feasibility of evaluating the legal effects of cannabinoid per se statutes on the criminal justice system. While a few attempts had been made to link the judicial data necessary to measure effects of drugged-driving policy on the judicial system, these early results have not provided full answers (e.g., Bui & Reed, 2018). There are many challenges to obtaining the data necessary for such an investigation (e.g., linking data across various state systems), and this project sought to understand the feasibility of conducting such an analysis. In particular, the most helpful data will track an individual from the time of arrest through the disposition of the case. To achieve this, linked data across numerous databases and state agencies is required. As each study state presents unique strengths and challenges, individual state feasibility reports were created. In conducting this research, the team used the objectives below as a framework for evaluating each of the six study states (Illinois, Montana, Nevada, Ohio, Pennsylvania, and Washington):

1. Identify state officials and other partners who can provide an accurate assessment of the current status of drugged-driving data systems.
2. Establish what data is currently linked or would need to be linked in order to track outcomes of cases from the arrest through the disposition of the case.
3. Document what data processes would need to be enacted to link these data (i.e., whether records would need to be manually linked using case identifiers).
4. Identify what judicial system effects can be examined within the current data systems.
5. Provide a feasibility assessment of using these state data to effectively evaluate the legal implications of non-zero tolerance per se limits for cannabis.

A vital piece of this project required identifying and coordinating with state and local representatives from stakeholder organizations, such as state highway traffic offices and state DOTs. Potential personnel of interest were identified by conducting web searches focusing on these organizations. Discussions were held by phone, or emails were exchanged, with this initial list of people, which often resulted in recommendations to target other individuals or agencies that were more relevant or helpful for the purposes of the project. As a result of these initial consultations, the list was narrowed to incorporate a variety of state officials in the six study states who had knowledge of each of the three areas required to evaluate the criminal justice system (i.e., law enforcement, toxicology, judicial outcomes). State officials included traffic safety resource prosecutors, judicial outreach liaisons, law enforcement liaisons, and program directors, among others. The team examined existing data systems within the study states, evaluated what steps would be needed to link any data sources necessary for an evaluation of per se laws and judicial outcomes, and evaluated the overall feasibility of performing an evaluation using these data.

From the meetings with state contacts, information was collected and categorized according to three categories: law enforcement data, toxicology data, and judicial data within each state. The information gathered and analysis of each state are detailed in the section below. A guide to acronyms used in each state to describe impaired-driving offenses, including DUIC, is presented in Table 3. This list of acronyms helps with interpreting state-specific statutes and processes.

*Table 3. Terms used to refer to impaired-driving offenses, including DUIC.*

<b>State</b>	<b>Terms Used to Describe Impaired-Driving Offenses</b>
<b>Illinois</b>	Driving Under the Influence (DUI; any type of impairment)
<b>Montana</b>	Driving Under the Influence (DUI)
<b>Nevada</b>	Driving Under the Influence (DUI; any type of impairment)
<b>Ohio</b>	Operating a Vehicle while under the Influence (OVI; any type of impairment) Marijuana-Impaired Driving (MID) Drug-Impaired Driving (DID; drugs other than marijuana)
<b>Pennsylvania</b>	Driving Under the Influence (DUI; alcohol impairment) Driving Under the Influence of Drugs (DUID; drug impairment)
<b>Washington</b>	Driving Under the Influence (DUI; any type of impairment)

Table 4 presents a summary of information regarding law enforcement, toxicology, and judicial outcomes gathered from the interviews with representatives from each of the study states. A more detailed description of each state’s laws and processes related to DUI is presented in the sections that follow. Flow charts for each state’s process for handling DUI cases were also created based on the information garnered from state representatives. The flow chart for each state is presented at the end of each individual state section.

*Table 4. Brief points related to law enforcement, toxicology, and judicial outcomes data from each of the study states.*

<b>State</b>	<b>Law Enforcement</b>	<b>Toxicology</b>	<b>Judicial Outcomes</b>
<b>Illinois</b>	<p><b>Statute:</b> One charge for DUI-alcohol and DUI-drugs</p> <ul style="list-style-type: none"> <li>• A DUI is further categorized by different statutes (A1-A7). Statute A7 is the per se law for THC. A4 is a general drug-impairment statute (which can also include cannabis).</li> </ul> <p><b>Data Storage:</b> Illinois Secretary of State Office</p>	<p><b>Lab:</b> Prior to September 2018 the state toxicology lab did not have facilities to quantitatively test for THC and samples were sent out of state. Upgraded lab can now test for per se concentrations.</p> <p><b>Matrix:</b> Blood is required for quantitative testing for THC</p>	<p><b>Database:</b> No state-level common database</p> <p><b>Data Storage:</b> Maintained by jurisdiction</p> <ul style="list-style-type: none"> <li>○ Peoria County - links court, jail, and attorney, and toxicology can be added to record</li> </ul>
<b>Montana</b>	<p><b>Statute:</b> Separate charges for DUI-alcohol and DUI-drugs</p> <p><b>Data Storage:</b> Montana Department of Justice Motor Vehicle Division (MVD)</p>	<p><b>Lab:</b> Single state toxicology lab, Montana State Crime Laboratory, with a satellite office in another county</p> <p><b>Matrix:</b> Blood and urine are tested; blood is used for every DUI</p> <ul style="list-style-type: none"> <li>• Takes an average of 30 days to get results</li> </ul>	<p><b>Database:</b> All courts are now utilizing a common database</p> <p><b>Data Storage:</b> Maintained by Montana Highway Patrol and Department of Justice (Bureau of Crime Control)</p>
<b>Nevada</b>	<p><b>Statute:</b> Separate charges for DUI-alcohol and DUI-drugs</p> <p><b>Data Storage:</b> Nevada Citation and Accident Tracking System (NCATS), maintained by the Nevada Department of Public Safety</p>	<p><b>Lab:</b> 3 different toxicology labs, categorized by region</p> <p><b>Matrix:</b> Blood is required for quantitative testing for THC and metabolites</p>	<p><b>Database:</b> Common database used by the state, Nevada Criminal Justice Information System (NCJIS).</p> <p><b>Data Storage:</b> Maintained by the Administrative Office of the Courts (AOC)</p>
<b>Ohio</b>	<p><b>Statute:</b> One charge for DUI-alcohol and DUI-drugs: Operating a Vehicle while under the Influence (OVI)</p> <ul style="list-style-type: none"> <li>• Cases involving marijuana are further designated</li> </ul>	<p><b>Lab:</b> Several toxicology labs are used throughout the state, depending on the agency.</p>	<p><b>Database:</b> No state-level common database</p> <ul style="list-style-type: none"> <li>• About 60-70 court systems accept eCitations; the remaining (~100)</li> </ul>

	<p>as Marijuana-Impaired Driving (MID)</p> <p><b>Data Storage:</b> Ohio Department of Public Safety Crash Database</p> <ul style="list-style-type: none"> <li>• Use mostly eCitations when apprehending drivers</li> </ul>	<p><b>Matrix:</b> Blood and urine are tested; urine is usually what is tested.</p>	<p>use computer-generated paper citations</p> <p><b>Data Repository:</b> Varies by individual jurisdiction</p> <ul style="list-style-type: none"> <li>• Currently no linkages between the different citation and adjudication systems in the state</li> </ul>
<b>Pennsylvania</b>	<p><b>Statute:</b> Separate charges for DUI-alcohol and DUI-drugs</p> <ul style="list-style-type: none"> <li>○ DUID charges: <ul style="list-style-type: none"> <li>• Schedule I</li> <li>• Schedule II</li> <li>• Schedule III</li> <li>• Metabolites</li> </ul> </li> </ul> <p><b>Data Storage:</b> Pennsylvania Department of Transportation</p>	<p><b>Lab:</b> No standard protocol for toxicology throughout the state. About 50-60% of agencies use NMS labs; others use county crime labs and medical labs.</p> <p><b>Matrix:</b> Varies by lab</p>	<p><b>Database:</b> The Unified Judicial System (UJS) is a statewide system that contains all criminal complaints, regardless of outcome, plus final disposition of case.</p> <p><b>Data Storage:</b> Maintained by the Administrative Office of PA Courts (AOPC)</p>
<b>Washington</b>	<p><b>Statute:</b> One charge for DUI-alcohol and DUI-drugs</p> <p><b>Data storage:</b> Washington State Department of Licensing</p>	<p><b>Lab:</b> Single toxicology lab in the state</p> <p><b>Matrix:</b> Blood</p>	<p><b>Database:</b> Common database used by the state, Judicial Information System (JIS), which is organized by police code.</p> <ul style="list-style-type: none"> <li>• Some counties are not using this state system.</li> </ul> <p><b>Data Storage:</b> Maintained by the Administrative Office of Courts (AOC)</p>

The following sections provide feasibility assessments by state. Each state has its own unique policy, data systems, and potential for integration. Thus, separate background and feasibility assessments and the corresponding flow charts are provided below to reflect each state. These state sections provide greater information on the data collection and management process for impaired-driving enforcement, toxicology, and judicial outcomes. The integration of these systems is also discussed. Finally, a feasibility assessment and flow chart is provided for each state.

# Illinois

## *Statute*

In Illinois, the per se law for cannabis has been in effect since July 2016 and falls under the same DUI statute as alcohol impairment. The DUI statute is broken into seven sections. Sections 1 and 2 relate specifically to alcohol. Sections 3-7 are designated for drugs; however, there are specific differences between these sections based on the impairing substance. Section 3 relates specifically to drivers found to be under the influence of any intoxicating compounds outlined in the Use of Intoxicating Compounds Act (720 ILCS 690/1), which does not include THC. Section 4 is essentially the catch-all for drugged-driving charges, as it applies to any drug or combination of drugs that impair driving. The majority of drug DUIs are charged under Section 4; however, the type of drug is not specified in Sections 3, 4, or 5 so it is not possible to tell whether the impairing drug was cannabis, opiates, or other drugs based solely upon knowing an individual was charged under these sections. Section 5 covers drivers found to be under the influence of a combination of alcohol and drugs or intoxicating compounds. Section 6 focuses specifically on the presence of any amount of a controlled substance, as outlined in the Illinois Controlled Substances Act (720 ILCS 570/100); intoxicating compound or methamphetamine, as listed in the Methamphetamine Control and Community Protection Act, in the person's system. While THC is a controlled substance, it does not fall under the Controlled Substances Act; rather, it is covered by the Cannabis Control Act; thus, Section 6 of the DUI statute does not include cannabis-impaired driving.

Section 7 is the cannabis per se law, which is the newest addition to the statute. This requires toxicology testing capable of measuring the specific concentration of THC in the blood; plus, the sample must be taken within two hours of the driver being in control of a vehicle. Sections 6 and 7 do not require impairment to be proven as they are based on toxicology data. Impairment must be proven in court for drivers charged under Sections 3, 4, and 5. Evidence of impairment would include law enforcement observations and DRE evaluations; however, since the Standardized Field Sobriety Testing (SFST) battery has not been validated for drugs, these tests alone are not considered as evidence of drug impairment by most judges in Illinois, or the United States as a whole.

## *Law Enforcement Testing and Citation Data*

In the state of Illinois, drug testing may not be performed if a driver's BAC is above .08 g/dL. The cost of testing for drugs is typically deemed to outweigh any benefit that additional evidence from drug tests would provide. A BAC above .08 g/dL provides sufficient evidence for a DUI charge under Sections 1 or 2 (i.e., alcohol-specific sections) of the DUI statute. An additional drug charge under the other sections does not add additional sanction and the alcohol charge would already cover the impaired-driving violation. However, if the driver is deemed impaired, but their BAC is below .08 g/dL, drug testing may be conducted. The decision on whether drug testing will be performed is typically at the discretion of the arresting officer, or the DRE officer if one was called and/or available (see flow chart below). Law enforcement data are maintained by the Office of the Secretary.

### ***Toxicology Testing and Procedures***

At the time of the evaluation, Illinois used a combination of a state toxicology laboratory and multiple private or county-run laboratories to perform drug testing on impaired-driving suspects. Only one of the state labs in Illinois, the Illinois State Police Springfield Forensic Science Laboratory, has the ability to quantify nanograms per milliliter (ng/mL) in blood samples, and this is a very recent development as of September 2018. Prior to this upgrade, all the state-run toxicology labs used testing procedures that did not produce quantitative concentrations on THC cases; thus, only positive or negative results were reported. Therefore, when quantitative drug concentrations were sought for per se violations, testing had to be completed by a private laboratory. In these cases, testing would typically be performed by either NMS Laboratories in Pennsylvania or the University of Illinois at Chicago. However, sending a sample to an out-of-state and/or private lab for testing is more costly, particularly because an expert witness from the toxicology laboratory must travel to testify in the impaired-driving case. Lack of funds to bring in expert witnesses to testify at trial may have resulted in DUI cannabis cases being pled down to a reckless driving charge or dismissed altogether. As a result, a driver could be charged with Section 4 and not Section 7 to avoid the need for quantified THC levels, which would impact the ability to study the effects of the per se law.

### ***Judicial Processing and Court Data***

The Office of the Illinois Secretary of State maintains driver's license data; thus, administrative sanctions related to suspension or revocation of a driver's license are noted in the driver record, including the date the sanction takes effect and the date the driver is eligible for reinstatement of driving privileges. When an offender is convicted of a DUI, the driver record would be updated to indicate the date the final adjudication was made, the jurisdiction where it occurred, and the statute and section under which the offender was convicted. For an administrative sanction to be removed — for example, if the charge is dropped or lowered to a non-DUI offense (i.e., one not requiring suspension of the driver's license), a specific court order is required to rescind the statutory summary suspension. Sometimes this is included as part of a plea agreement, but often it is not. Hence, when a prosecutor or police officer sees the administrative sanction on the offender's driving record without any further disposition, this raises many questions in regard to the original DUI charge. For example, was the DUI charge dismissed? Was the person found not guilty? Was the charge amended/reduced? Is the charge still pending?

In Illinois, all cases enter the court system through the Office of the Circuit Clerk. There is one circuit clerk per county and this position acts as the court's official record keeper. Judicial records are stored and maintained by the circuit clerk at a county level. From here, cases move to the circuit court, where most cases in Illinois, including DUI cases, are heard. The state of Illinois is currently in the process of implementing an e-filing system for Illinois Circuit Courts; however, this was only mandated for civil cases at the time of the evaluation. Prior to the introduction of mandatory e-filing, counties used any number of different Electronic File Manager (EFM) programs and case management systems. Thus, mandatory statewide e-filing ensures consistency, efficiency, and fairness via the use of a

unified statewide system. The circuit court is divided into 24 circuits incorporating one to 12 counties per circuit. Each circuit court may include a number of problem solving, or specialty courts.

The purpose of specialty courts, including DUI courts and DUI/drug courts, is to help low-level criminal defendants suffering from an underlying problem, such as a mental health, social or substance abuse issue, from becoming repeat offenders. These specialty courts are designed primarily to assist people who have committed nonviolent felony crimes. Specialty courts involve teams of people from within the court system (e.g., prosecutors, social workers, case managers) and organizations outside of the court system (e.g., treatment providers, community partners) to ensure the individual receives sufficient counseling, treatment, interventions, and supervision. Specialty court judges are personally involved in many aspects of the process in order to monitor the case and ensure compliance with the rules of the program. The vast majority of DUI cases seen in Illinois DUI specialty courts are alcohol-related, with only 1 to 2 percent of these cases being drug-related (e.g., approximately 12 cases per year). In an effort to understand these kinds of offenses, the Peoria City DUI court is currently working with Bradley University (in Peoria) to analyze recidivism data.

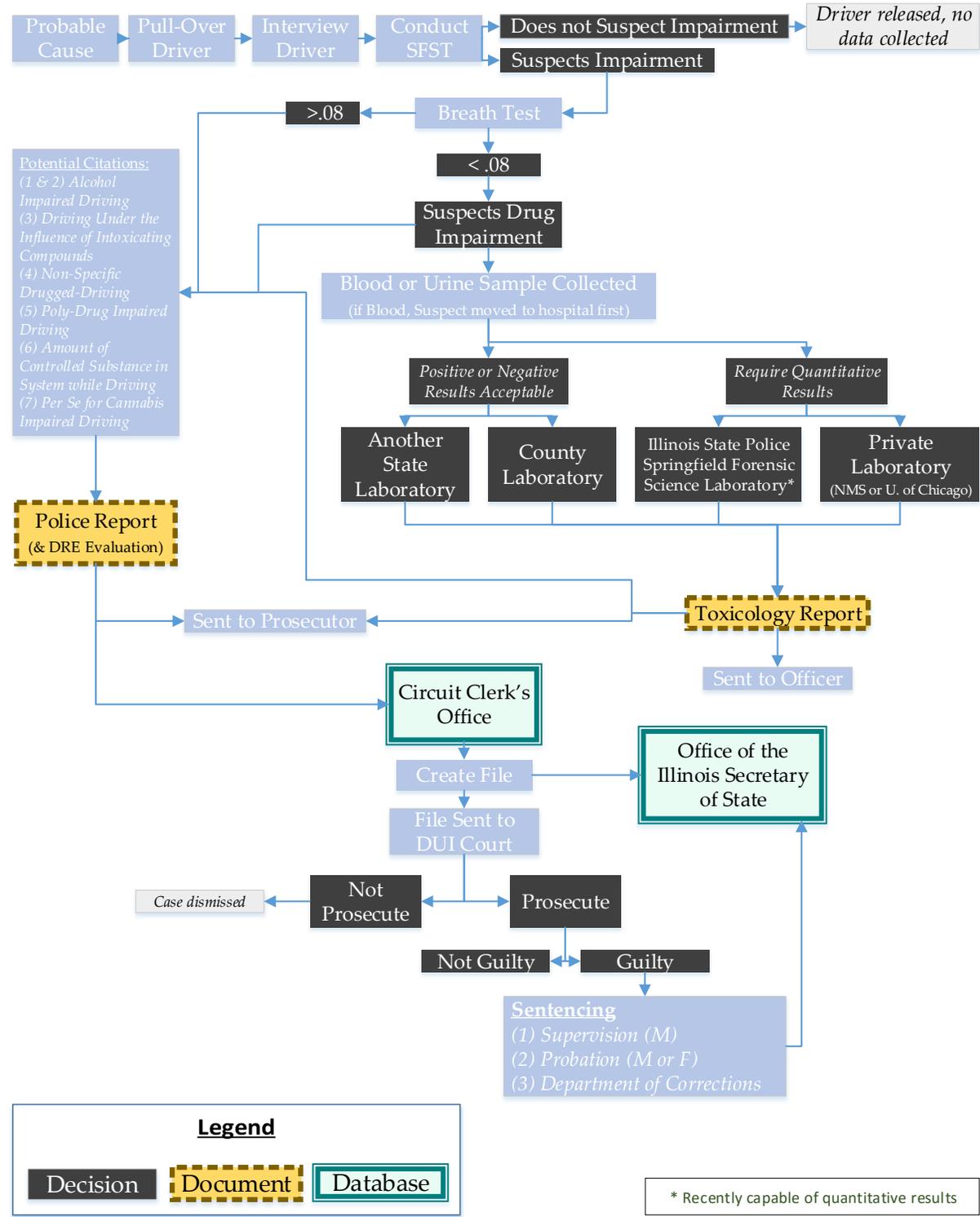
### **Feasibility Assessment of Illinois**

The situation in Illinois is interesting because the per se law for cannabis was introduced despite the fact that the state-run toxicology lab did not, until very recently (i.e., September 2018), have the facilities to quantitatively test for THC in blood or urine. This meant the samples had to be sent to private labs for testing, which was largely cost prohibitive. Additionally, some prosecutors in Illinois may not have a comfortable understanding of what the THC concentrations are or what the relationship is to impairment. As a result, Section 7 of the DUI statute relating specifically to per se concentrations of THC has not been widely used and law enforcement officers typically resort to writing a drug DUI under Section 4, which covers all drugs. Unfortunately, this means it is not possible to determine what drug the driver was under the influence of, as the DUI would not specify cannabis, opiates, cocaine, etc. Thus, it is not readily feasible to evaluate the legal implications of cannabis per se laws in Illinois using state data in its current form. More specific information about the impairing drug is needed to adequately assess the status of cannabis-related driving offenses in the state of Illinois.

Narrowing the focus to a county level, rather than state level, highlighted an additional finding of interest. In Peoria County, Illinois, data from the court, jail, and attorney's office are fully integrated into a single electronic system called Odyssey. The system has been in service for approximately four years and electronically tracks offenders through all stages of the judicial system. Toxicology information is not routinely included in this database, as it requires additional steps to upload this information. A software company called Tyler Technologies implemented the system in Peoria County and, at the time of this report, has an ongoing contract for system upkeep. On-site IT staff look after the day-to-day aspects of running the system and are also responsible for running queries and generating reports. Accessing these data would require data sharing agreements to be put in place, as well as

manually uploading toxicology reports. Unfortunately, there are 102 different counties in Illinois and there is no uniform procedure for storing and sharing reports or records; thus, while Peoria County uses a fully integrated electronic system, the majority of others still do not. Additionally, the number of drug-related DUI cases is relatively low in this single county, which may be due to lack of drug testing in cases where the driver's BAC is over .08 g/dL or the inability, until recently, of the state-run toxicology laboratory to quantitatively test for THC in blood samples. Regardless, there are multiple issues with the data and data systems, particularly at the state level, available in Illinois that make it a difficult state in which to effectively evaluate the legal implications of non-zero tolerance per se limits for THC.

# Flow of Drug Impaired Driving Data in Illinois



## Montana

### *Statute*

In Montana, there is a separate statute for drugged driving that distinguishes it from other types of impaired driving (e.g., alcohol, fatigue). DUIC also falls under a distinct offense code, enabling it to be distinguished from other types of impaired driving, including impairment by alcohol or other drugs. Drivers can be charged separately with driving under the influence of cannabis or showing concentrations of THC above the per se limit (i.e., 5 ng/mL). That is, the existence of a separate per se limit offense for cannabis does not preclude the prosecution of a case that is based upon other evidence of impairment. It would simply be charged with the general impaired-driving code, rather than the per se section. THC is the only substance subject to a per se law (besides alcohol). The presence of metabolites of THC in blood is not considered evidence of impairment, but metabolites are targeted in the initial drug screen prior to quantifying THC concentrations (see below).

### *Law Enforcement Testing and Citation Data*

Following citations for DUIC, citation data is entered electronically by law enforcement agencies and then sent to the Department of Justice (see flow chart below). The data is then transferred to the Bureau of Crime Control within the Highway Patrol. The Bureau of Crime Control maintains these data using a case management system called FullCourt Enterprise.

In 2013, procedures were altered to require that officers only test for drugs in drivers with a BAC lower than .10 g/dL. During the same time period, legislation was implemented that deemed implied consent for drug testing was automatically provided from any suspected impaired drivers. This legislation allowed samples for blood testing to be more easily obtained. This change occurred during the same year that the per se law became effective. Therefore, it may significantly confound an analysis that compares DUIC outcomes before and after the per se law was implemented. Currently, if a DRE is called to conduct an evaluation, then a drug test is automatically performed on the blood sample. However, drug tests may be administered in drivers suspected of drug-impaired driving who also show BACs lower than .10 g/dL, even if a DRE is not called.

### *Toxicology Testing and Procedures*

There is a single state crime laboratory with a primary location in Missoula, Montana, that performs all toxicology testing for DUI cases. There is a second location of this state crime laboratory in Billings, Montana. This satellite office serves many administrative functions but does not perform toxicology testing. Utilizing a single state-run laboratory provides an advantage for studying DUIC because data can be aggregated and examined from a single source. In addition, this laboratory compiles an annual report of drug presence in drivers charged with DUI and DUID (Montana Forensic Science Division, Toxicology Section, 2017). This toxicology report also includes results of urinalysis testing from the Department

of Corrections probation and parole system. The information below was gathered through discussions with state officials, as well as a review of the annual toxicology report.

Blood is used as the testing matrix for impaired-driving cases. Urine is used for post-mortem individuals, or for monitoring drug presence in individuals undergoing probation or parole. The standard drug screen panel that is used includes a wide variety of legal and illegal drugs including many prescription and over-the-counter drugs. The toxicology laboratory tests for THC in blood using an enzyme linked immunosorbent assay (ELISA) for screening purposes, with carboxy-THC as the target analyte (cutoff concentration of 10 ng/mL). For confirmation testing, a liquid chromatography tandem mass spectrometry (LC/MS/MS) analysis is used with a cutoff of 1 ng/mL. Prior to 2017, the cutoff concentration for THC was less sensitive and could not detect amounts below 3 ng/mL. The improved testing cutoff requires 2018 data to be interpreted with caution, as it contains toxicology results that were obtained from using both testing cutoff values. Obtaining the cutoffs used for individual drivers would be necessary to combine or compare 2018 data with other years. It is unclear whether this would be possible. Regardless of its associated limitations, the improved sensitivity is a strength of future DUIC data collected by the state of Montana.

The crime laboratory completed testing for nearly 3,500 DUI cases in 2017, of which 284 showed positive test results for THC. The mean concentration of THC in positive samples was 7.8 ng/mL and ranged from 1.0 - 47.0 ng/mL. Fifty-four percent of THC-positive cases showed THC concentrations at or above the 5-ng/mL limit. The latency between sample collection and the delivery of results from the toxicology laboratory has varied widely in recent years. In 2017, test results for drugged-driving cases took a median of 43 days to be returned, and 95 percent of those cases were completed within 90 days. According to the annual report, this turnaround time for result delivery is in line with the national average, though the national average is not provided.

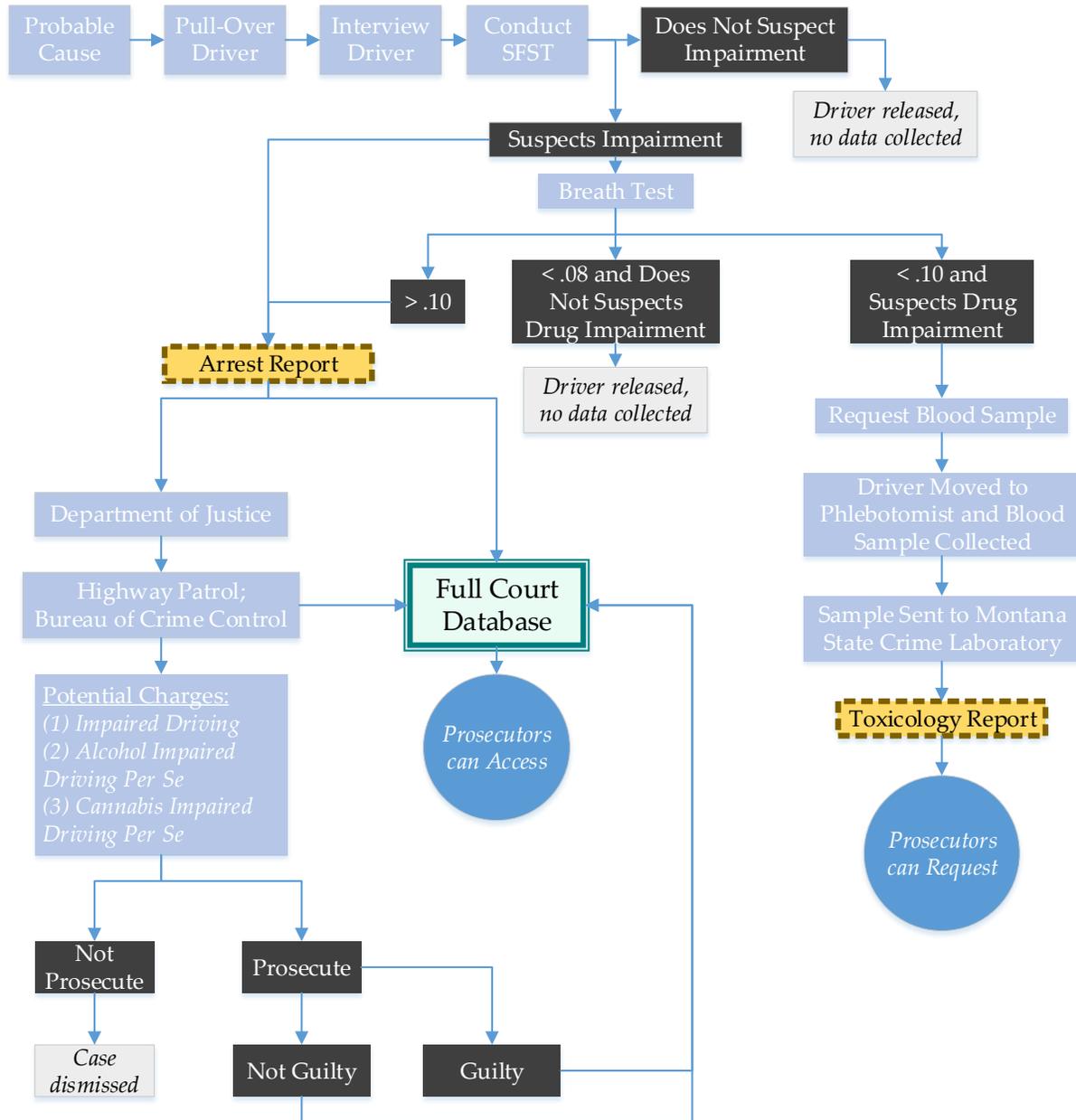
### ***Judicial Processing and Court Data***

Judicial data is maintained in an electronic reporting system maintained by the Department of Justice that unifies Montana's 92 courts. This system is called FullCourt Enterprise. The implementation of FullCourt is relatively new (June 2017) and allows for complete case management, jury management, drug court management, integration with police records management systems or other agencies, document imaging, and fee management and collection. This system also offers a feature called FullCase for county and district attorney offices. FullCase allows for unified case management, research management and storage, and is integrated with FullCourt. Unfortunately, Montana does not record toxicology or DRE data in FullCourt. However, the case prosecutor may request this data from the toxicology laboratory if needed. FullCase also enables a number of county/city offices to be directly connected to its prosecutor module, enabling more streamlined access. For example, Hardin in Big Horn County and Lewiston in Fergus County are localities where smaller-scale analyses of the effects of per se laws on judicial outcomes could potentially be conducted.

## **Feasibility Assessment of Montana**

The collection of the detailed toxicology data on DUIC cases by Montana indicates that a feasible protocol for compiling and analyzing such toxicology data has already been developed by the state. It is important to note that both improvements to testing cutoffs and changes in officer protocols for drug testing either render certain data years incomparable with one another or require data to be interpreted with caution. However, the overall availability of these data shows that an analysis incorporating per se laws in Montana may be feasible. In addition, some information on judicial outcomes is already submitted to the crime laboratory by virtue of the agency that submitted it (e.g., whether an individual sample was provided from an individual under probation and parole, or whether a sample was submitted as part of the arrest process for impaired driving). As a next step, additional information about the case might be submitted along with the drug sample from a given agency and associated with the results. Additionally, it seems promising to link toxicology data with the judicial information contained in the FullCourt system at a minimum, and then link original arrest reports if this proves feasible. It is also possible that many of the police reports could be amended with toxicology results, which could provide some of the necessary data linkages. Finally, some smaller localities may present more feasible opportunities for data linkage, as compared with conducting a full-state analysis.

## Flow of Drug Impaired Driving Data in Montana



## Nevada

### *Statute*

At the time of the evaluation, Nevada used blood as the testing matrix for quantifying cannabis presence, as blood is the only reliable matrix to test for Delta-9 THC at the low level specified in the Nevada per se law (i.e., 2 ng/mL). Nevada originally allowed urine testing but added a separate section of the impaired-driving law to specify the blood testing and THC limits. Additionally, the per se law incorporates marijuana metabolites (i.e., 11-OH-THC), which are limited to less than 5 ng/mL in blood. Similar to other states, drivers can be prosecuted for impaired driving with marijuana impairment, even if they have not violated the per se law. Unfortunately, it may not be possible to differentiate between cases involving per se violations from those involving DUIC without per se violations because they are not coded as such in the state data.

### *Law Enforcement Testing and Citation Data*

When an officer suspects drug impairment, a blood sample is typically requested. A DRE may or may not be called in these cases. Part of the DRE evaluation protocol requires DRE officers to administer a preliminary breath test (PBT). If the driver's BAC is over .15 g/dL, the evaluation typically stops due to potential masking of drug symptoms by alcohol. If the driver has a BAC reading on the PBT below .08 g/dL, the evaluation would typically continue, especially if the officer suspects the driver is impaired by a drug other than alcohol. Drugs other than alcohol are investigated at times (at the officer's discretion and if other drugs are suspected) if the BAC reading is between .08 and .15 g/dL. If the DRE or officer believes there is probable cause, the driver will be arrested and taken to the police station or hospital for a blood test. When a drug test is to be administered, the officer must specify drug classes to be included. Obtaining a blood sample either requires consent from the driver or a warrant. This warrant may be completed electronically or via phone. Some agencies in rural areas have developed a method for contracting ambulance providers to obtain the service of a phlebotomist. Therefore, the time required to obtain a blood sample after an arrest likely varies widely depending upon the distance from a phlebotomist or the ease with which one may be reached.

### *Toxicology Testing and Procedures*

To process drug tests for DUIC cases, Nevada utilizes three toxicology laboratories (see flow chart below). These laboratories are located near the population centers in Nevada. As noted above, the state originally used a combination of urine and blood as drug-testing matrices. However, as of July 2017, Nevada now relies solely upon on blood tests for investigating potential violations of the per se statute. Although this practice has improved the quality of current data (as positive urine results only reflect cannabis use sometime in the past but blood concentrations may reflect recent use), drugged driving data obtained prior to July 2017 may not be directly comparable to data obtained after that date. This is because comparisons between blood and urine matrices will yield different results, and it is difficult to fully know if the subsample of drivers tested using blood prior to July 2017

accurately represents the full sample of drivers tested across all matrices. Another caveat to interpreting data in Nevada involves laboratory protocol differences. The toxicology laboratories may have different testing policies depending on alcohol concentrations present in the blood sample. Additionally, different drug panels may be in use at the individual laboratories; thus, the data gathered from each of the three laboratories in Nevada would likely be very heterogeneous and may not be directly comparable.

### ***Judicial Processing and Court Data***

Once blood samples are collected and submitted for drug testing, an officer will indicate “Results Pending” in the arrest report. This arrest report is sent to the district or city attorney office and kept in a standard Nevada central repository. Both arrest and disposition data in Nevada are located in the Nevada Criminal Justice Information System (NCJIS). This database is maintained by the Administrative Office of the Courts (AOC). Arrest data would show specific information regarding what the arrest was for and whether the arrest was related to drugs or alcohol, such as DUI first offense, alcohol or DUI first offense, drugs. The disposition data should state the final resolution to the case, such as dismissed, guilty, or not guilty. All reporting is based on the Nevada Offense Codes (NOCs), which are regulated by the Department of Public Safety. Arrests related to drugged-driving and alcohol-impaired-driving cases are documented using unique offense codes. However, the offense codes do not allow for distinguishing between drug types and are not related to the actual law or statute. Therefore, it is not possible to determine whether a drugged-driving case involved cannabis or another drug. This is the primary limitation for utilizing these data to assess THC laws. Specifically, even though these data systems are linked, the data are not provided at a level of specificity to allow an analysis specifically focused on THC or the per se violation.

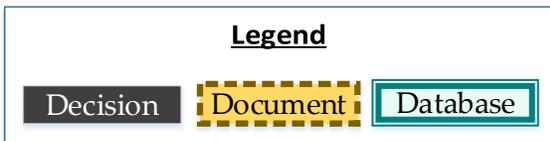
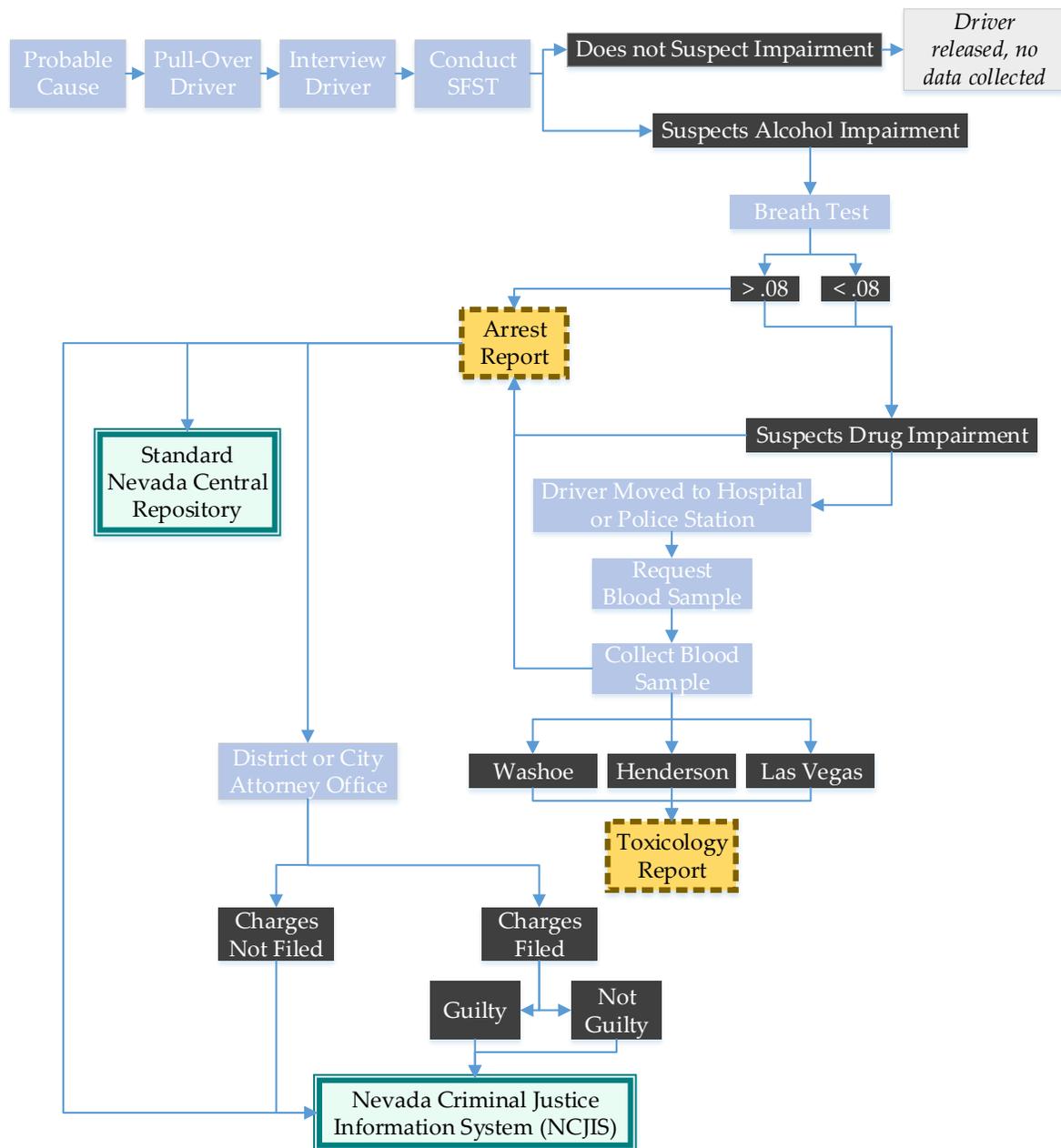
### **Feasibility Assessment of Nevada**

Due to the potential differences in drug testing protocols across laboratories, the most feasible analysis for Nevada would be one focused on individual counties or localities, or an analysis restricted to data from a single laboratory. The resulting data would then create a snapshot of the effects of per se laws on DUIC and its outcomes. The disadvantage of such an analysis would be the lack of representativeness at the state level.

Data in Nevada present other disadvantages to analyzing the effects of per se laws on DUIC and its outcomes. Impaired driving (and specifically, DUIC) is an offense for which a driver can be charged with or without the per se violation. Based on the current analysis, it was unclear whether case data are clearly delineated in a manner that can distinguish whether the per se law was invoked. In addition, much of the data on impaired driving may not clearly delineate the drug involved in the offense (with the exception of distinguishing between alcohol and other drugs). One potential way of overcoming this obstacle would be to link toxicology data to offense/conviction data, but an assumption would need to be made about the nature of the offense rather than viewing the actual offense data. For example, a researcher would need to assume that a drug test that was positive for THC and showed presence above 2 ng would have been charged as a per se DUIC. It was not clear that this

assumption would always be correct. Therefore, it is unclear whether the analysis would be feasible in Nevada as a whole, but individual jurisdictions or laboratories may yield valuable insight.

## Flow of Drug Impaired Driving Data in Nevada



# Ohio

## *Statute*

Ohio's per se limit for cannabis presence in drivers is 2 ng/mL in blood and 10 ng/mL in urine. Specifically, Ohio's per se law lists "marihuana" as the substance, indicating that any part of the cannabis plant is prohibited in drivers at these levels. In particular, presence of THC metabolites over legal concentrations (see Table 1) also constitutes a violation of the per se law. There is one charge for Operating Vehicle under the Influence (OVI), which covers alcohol and drug-impaired driving. However, if the OVI is related to drugs then the offense is further classified as either Marijuana-Impaired Driving (MID), which is designated for DUIC charges; or Drug-Impaired Driving (DID), which is designated for impairment due to other drugs. Within each of these offense designations, there is a section related to impairment (charge title A1) and a separate section for exceeding the per se limit (charge title A1A). Thus, the per se violation (A1A) cannot exist without the accompanying impairment violation (A1). However, marijuana-impaired-driving cases are likely to easily be distinguished from other impaired-driving cases within Ohio's offense data, due to the separate offense designation for marijuana-impaired driving.

## *Law Enforcement Testing and Citation Data*

When an officer suspects impairment, the driver is first tested for alcohol (see flow chart below). If the driver exceeds a BAC of .08 g/dL, a drug test is not typically administered. If the driver's alcohol concentration is below .08 g/dL and drug impairment is suspected, then a drug test using either blood or urine is ordered. To pursue a blood test, officers must procure a warrant and transport the driver to a hospital where the sample can be collected. As this process results in substantial delays (and potentially significant metabolism of any drugs present in the driver), urine tests are used more frequently than blood tests. Blood tests are conducted more frequently in severe cases (e.g., fatal crashes).

When required, DRE evaluations are typically completed following an arrest in a controlled setting such as a jail or police station. It is uncommon for DREs to be called directly to traffic stops, as samples for toxicology testing can be arranged to be collected prior to the DRE evaluation by the arresting officer. This ensures that the drug test reflects drug concentrations as close to the time of driving as possible. The drug test is then conducted using the panel from the laboratory that the law enforcement agency uses (which varies). DREs have the ability to submit comments on the toxicology submission that describe any relevant statements made by the suspect, and they list the drug category that was called during the evaluation.

## *Toxicology Testing and Procedures*

The state crime laboratory is managed by the Ohio State Highway Patrol and conducts most drug-impaired driving toxicology testing in Ohio, but there are laboratories within hospitals and private laboratories that may also be utilized. Laboratory selection is dependent upon agency discretion (e.g., cost or resources required). For example, a law

enforcement agency may send samples to their own lab within their department or within their jurisdiction. In other cases, a law enforcement agency may negotiate laboratory testing with a private company. Although many different laboratories may be used, all toxicology samples from DRE evaluations are sent to the state's crime laboratory.

It is often not possible to obtain quantitative values of drug concentrations due to the types of drug tests used. This holds regardless of whether urine or blood is used as the testing matrix. This precludes use of the per se charge and necessitates the use of the impairment charge (without per se, i.e., title A1). Results require approximately one to two months from sample collection to be returned to the law enforcement agency. In impaired-driving cases involving one or more fatalities or serious injuries, this process may be expedited. Following completion, toxicology reports are transferred to officers and prosecutors directly from the laboratory but do not reside in the same database as law enforcement or judicial data. These reports are stored digitally on the state server.

### ***Judicial Processing and Court Data***

The majority of drug-impaired driving cases result in plea bargains before going to trial. When impairment charges (without violation of a per se law) do not result in plea bargains, the trial relies heavily upon testimony and evidence provided by law enforcement officers, including those with ARIDE or DRE training. When violations of the per se law are charged, the case relies heavily upon toxicology results that may require several months to complete and often arise from urine tests. Also, drivers cannot be convicted of per se violations (title A1A) without also being convicted of the initial impairment violation (title A1). For these reasons, few drivers are charged with per se violations. This small sample of per se violations could create limitations for examining the effects of per se laws in Ohio.

All citation and charge data (regardless of whether a crash occurred) are stored electronically in the Ohio Department of Public Safety's crash database. This database includes whether a toxicology test was conducted but does not contain the toxicology results themselves. DUIC cases can be isolated from other types of impaired-driving cases due to the unique MID offense code. However, judicial outcomes cannot currently be reliably linked to original arrests and charges. For judicial outcomes, there is no single statewide adjudication database; however, some local courts may have linked data that would be appropriate for evaluating effects of per se laws on judicial outcomes. The Traffic Records Coordinating Committee (TRCC) has also recently developed a strategic plan to assess data linkage, including that related to drugged driving. Goals include improving the guidelines for data management, improving the data dictionary, and creating a quality control program for the citation and adjudication data systems.

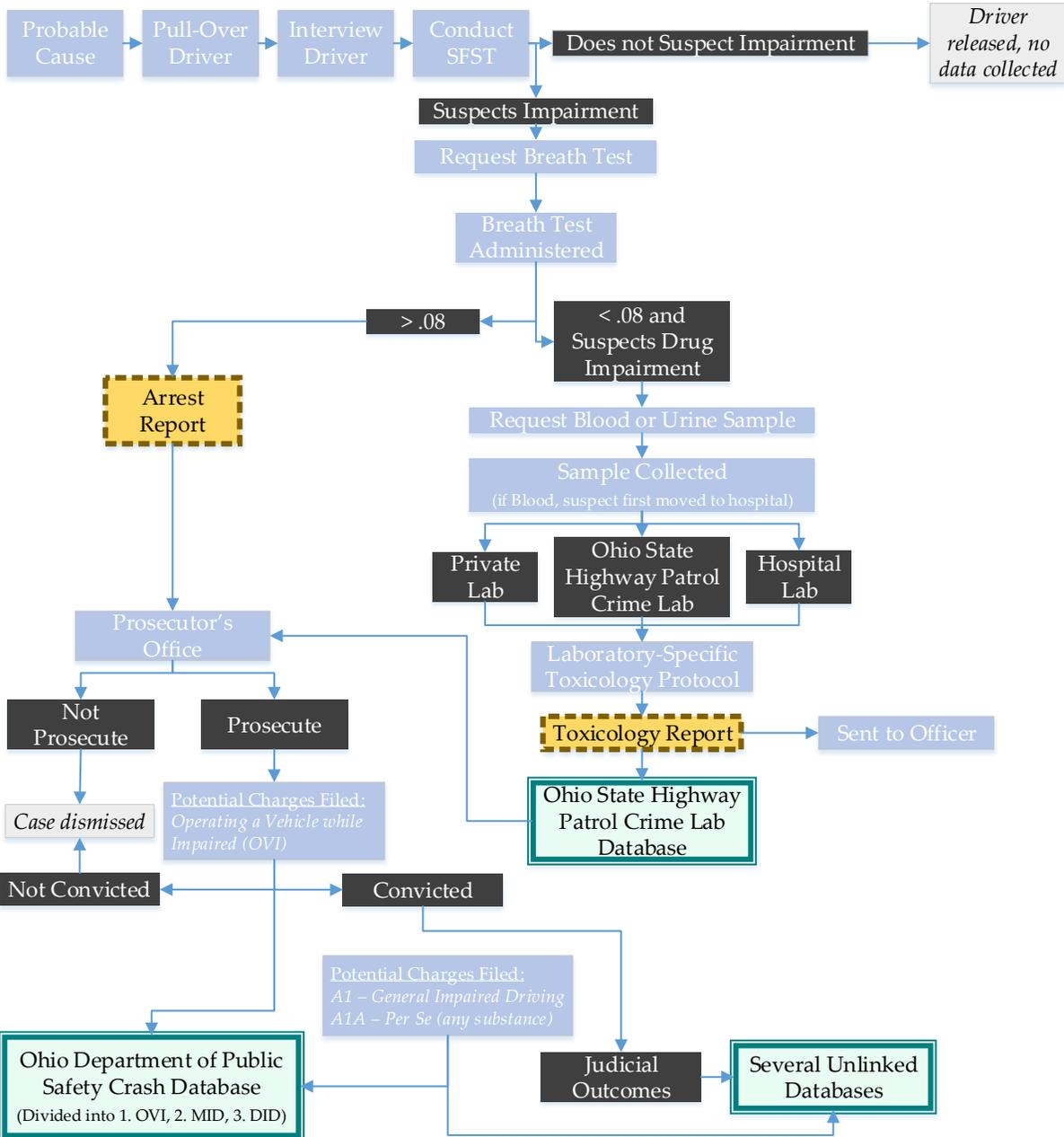
### **Feasibility Assessment of Ohio**

The unique offense code for DUIC in Ohio (MID) presents one advantage of this state's data for use in analyzing effects of per se laws for THC on traffic safety outcomes. While the law is not often used as expected (individuals are often charged with the initial impairment violation alone, rather than with the per se component added), the ability to separate MID

cases may still prove useful for some analyses. One other disadvantage of potential analyses concerns the lack of quantitative drug concentrations.

Finally, as most impaired-driving cases result in plea bargains before going to trial, it is important to consider the original charge as part of the case data, rather than rely on the final case disposition information alone. Thus, linking original arrest data from law enforcement with judicial data is critical. This linkage is not currently feasible for all cases, but as the Ohio TRCC works through its strategic plan, it is expected that Ohio's data management and linkage processes will improve further and eventually allow this process.

## Flow of Drug Impaired Driving Data in Ohio



# Pennsylvania

## *Statute*

Pennsylvania is unique in that it is both a non-zero tolerance THC per se limit and zero tolerance state. Accordingly, Pennsylvania may appear classified differently depending upon the source. In Pennsylvania, the DUI statute itself is zero tolerance as it relates to cannabis and nonprescribed Schedule II and Schedule III controlled substances.

Interestingly, however, the Pennsylvania Department of Health sets per se limits, which essentially reflect threshold levels based on laboratory validations. Thus, despite being a zero tolerance state for cannabis, Pennsylvania currently sets its per se limit for Delta-9 THC presence in drivers at 0.5 ng/mL. In essence, the non-zero tolerance per se level is set at the lowest detectable level of THC, thus making Pennsylvania a zero tolerance state, practically speaking. This per se level also applies to users of medical marijuana, the use of which was signed into law in 2016.

DUI charges in Pennsylvania distinguish between alcohol and drugs, as well as general impairment and per se. Offenders are typically charged with general impairment in addition to specific DUID charges for drugged driving, which are based on the category, or schedule, of the drug(s) present. Categories include Schedule I, Schedule II or III, and metabolites. Cannabis is a Schedule I drug, meaning an offender who tests positive for THC would be charged with a per se violation involving a Schedule I drug and metabolites. Unfortunately, for the purposes of this study, the Schedule I charge is not further stratified by the type of drug (e.g., heroin, LSD, cannabis) so it is not possible to specifically investigate cannabis-impaired-driving cases based on what the offender was charged with.

## *Law Enforcement Testing and Citation Data*

As in other states, the decision on whether to pursue a drug or alcohol test, or to call in a DRE, is typically at the discretion of the arresting officer (see flow chart below). A DRE evaluation is not always performed and will depend on the decision made by the officer and/or the availability of a DRE at the time. If the officer suspects drugs but does not call a DRE (or one is not available), a blood sample will be requested. All drivers have the right to refuse a blood test and a breath test; however, doing so results in administrative sanctions, such as driver's license suspension. This administrative sanction for refusal remains on the driver's history regardless of whether there is a criminal conviction resulting from the DUI/DUID criminal complaint.

There are roughly 20,000 to 25,000 DUID charges in Pennsylvania each year, but less than 10% (approximately 2,000 cases) involve a DRE evaluation. The majority of DUID charges do not go to trial, with approximately 70% of cases redirected to alternative punishment programs. In these cases, no conviction is recorded. However, all criminal complaints, regardless of the outcome of the case (i.e., probable cause not found, not guilty verdict, dismissal of charges, etc.), are recorded in the Unified Judicial System (UJS) database. The disposition of the case is also reported to the UJS, once the case is resolved. The UJS, which is maintained by the Administrative Office of Pennsylvania Courts (AOPC), is a statewide

system that contains docket information for all criminal cases at both the magisterial and court of common pleas levels. The Pennsylvania Commission on Sentencing tracks sentencing information once the case has reached final disposition. Every criminal case in Pennsylvania is assigned a unique Offense Tracking Number (OTN). This number does not change, regardless of where the case may be in the judicial process; thus, the use of OTNs would allow for a case to be tracked from the time an offender is charged through to the final disposition of the case. The Pennsylvania DOT also maintains driver's license data and information related to driver history. Administrative sanctions, such as driver's license suspension due to refusal of a blood or breath test, are recorded in the PennDOT database. This database also comprises information related to: 1) the initial charges that were filed, 2) the charges from the preliminary hearing, and 3) the final disposition of the case. The PennDOT database does not contain toxicology results.

### ***Toxicology Testing and Procedures***

At the time of evaluation, Pennsylvania used an array of toxicology laboratories for drug testing, with some counties maintaining their own labs. The large number of laboratories makes it difficult to acquire specific details on toxicology protocols and standards for the state as a whole. Thus, any number of elements related to testing equipment and procedures, standard drug panels used, or even toxicologist training and qualifications could impact the outcomes of an analysis of the effects of per se laws in Pennsylvania. The lack of a state-run testing facility means the majority (approximately 50-60%) of law enforcement agencies in Pennsylvania use a privately owned facility called National Medical Services (NMS) Labs for toxicology testing. NMS Labs offers a range of tests over numerous different classes and categories, including DUI/DUID Toxicology (NMS, 2018). Since NMS Labs is not a state-run testing facility, the cost to run toxicology tests on DUID samples may impact the volume of samples that can be submitted, particularly for small counties that may lack adequate funding to run potentially expensive toxicology testing.

In Pennsylvania, as in many other states, drug testing does not always occur for offenders if they are found to have a BAC above 0.08g/dL. Testing appears to vary by county and is likely due to funding limitations and the cost associated with pursuing additional drug testing when the offender has already returned a positive result for alcohol. There is no consistent method or protocol for deciding which offenders are drug tested and the decision is usually made by the arresting officer or the DRE, if one was called.

### ***Judicial Processing and Court Data***

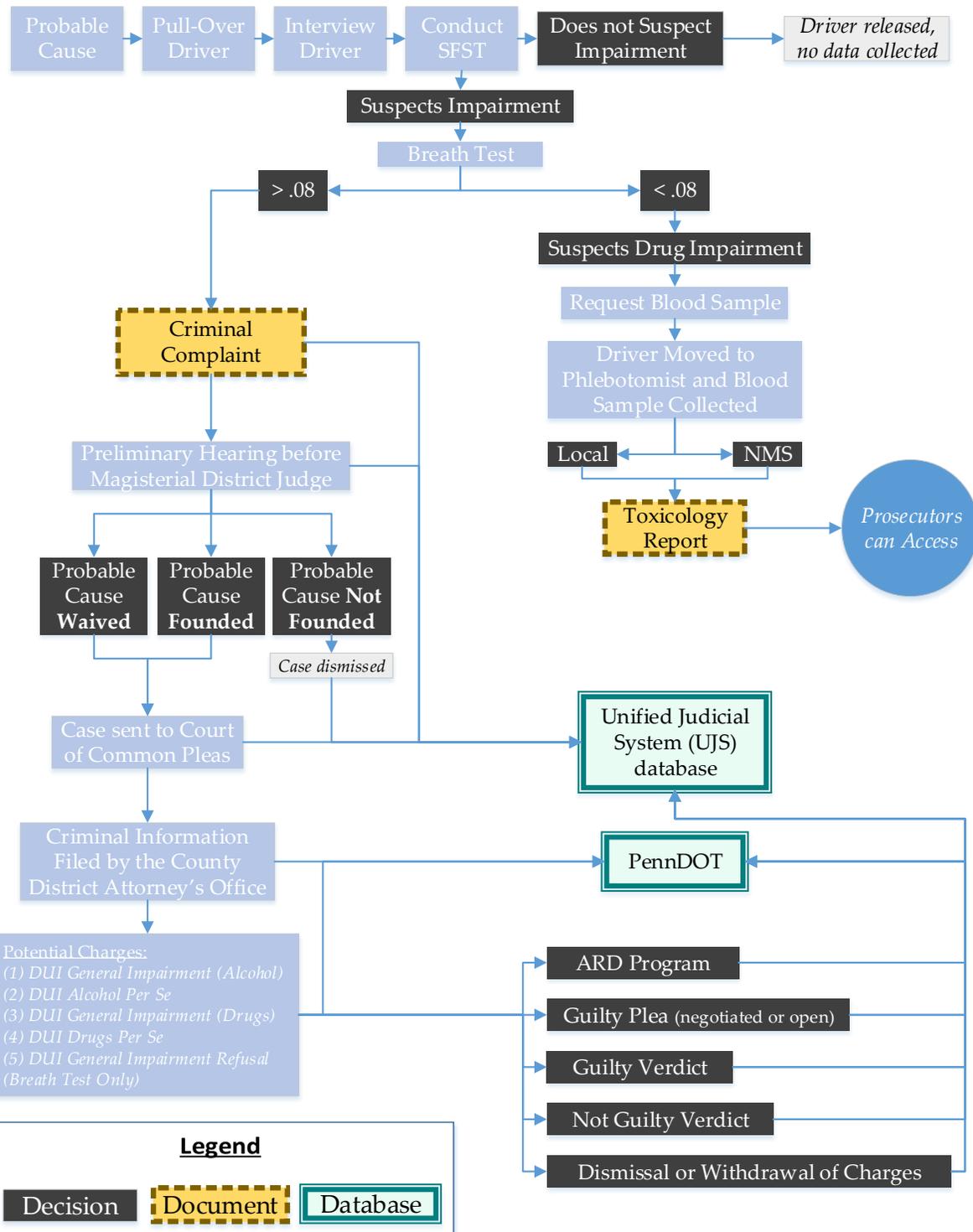
Prosecutors typically have access to the toxicology report, but it depends on the contract that is in place with the toxicology lab. As mentioned previously, the majority of DUID cases do not go to trial. Instead they are assigned to a county-level drug/DUI specialty court to participate in a rehabilitative treatment program. Drug court teams are usually led by a judge and include prosecutors, defense counsel, treatment providers, probation officers, law enforcement and court coordinators who work together to support and monitor a participant's recovery. There are currently 26 accredited drug and DUI problem solving courts in Pennsylvania.

## Feasibility Assessment of Pennsylvania

Pennsylvania law enforcement agencies have access to a prominent toxicology laboratory, although it is a privately run facility so the testing may be cost prohibitive for smaller counties. Interestingly, Pennsylvania is a zero tolerance state for cannabis according to the DUI statute; however, the Department of Health also sets per se limits that are based on threshold levels reliably detected by toxicology laboratories. As a result, the per se THC level in Pennsylvania is set so low (i.e., 0.5ng/mL) that the presence of any detectable amount of THC in the blood is sufficient to be charged with DUID. This essentially means Pennsylvania is a zero tolerance state, which makes it difficult to assess the legal implications of non-zero per se laws for THC. Specifically, it would be highly improbable to see marijuana-impaired-driving charges for an individual below the per se level. It would essentially be reported as a negative THC result on the toxicology report.

As with other states, drug testing generally does not take place if the driver's BAC is over .08 g/dL, and there is no standard protocol to determine which drivers are drug tested and which are not. These factors alone result in an unknown number of cannabis-impaired driving cases never being identified and charged with drug-impaired driving, specifically. Standard testing protocols and drug testing regardless of BAC would need to be introduced to fully capture the necessary data to address the issues at hand. However, despite the potential issues with the data, it may be feasible to assess the legal impact of non-zero tolerance per se limits for THC in Pennsylvania using the UJS. If toxicology reports could be reliably linked with the information in the UJS database, this would mitigate the lack of specific drug-related information in the charge data. For example, DUID Schedule I charges could be identified in the UJS, then linked with toxicology reports to determine if Delta-9 THC was identified in each case. Given that the majority of DUID cases in Pennsylvania end up in an alternative punishment/treatment program, the number of cases that go to trial may be small.

# Flow of Drug Impaired Driving Data in Pennsylvania



# Washington

## *Statute*

The per se limit for cannabis presence in drivers in Washington is 5 ng/mL of THC. No other compounds (i.e., metabolites of THC) are included in the statute. Washington uses blood as the testing matrix in impaired-driving cases.

There is a single impaired-driving offense that can be charged for DUIC in Washington, but it contains four prongs: (1) being “impaired/affected by” alcohol, marijuana or any other drug; (2) being under the combined influence of any drugs; (3) showing a BAC above .08 (per se for alcohol); and (4) showing THC presence above the per se concentration of 5 ng/mL (per se for cannabis). Separate offenses from the impaired-driving offense exist and can be charged in addition to that offense (e.g., reckless driving). However, the per se law is not one of these distinct offenses. Most DUIC offenses fall under the first, “impaired/affected by” prong, but the fourth prong can also be charged if toxicology results show a drug concentration above the per se level. Therefore, the prongs in the impaired-driving statute are not separate offenses. Rather, they are different ways of proving the crime of DUIC in court.

## *Law Enforcement Testing and Citation Data*

Possible drug impairment will be investigated if a breath test rules out alcohol as the source of impairment, or if the officer suspects combined impairment by alcohol with other drugs (see flow chart below). This usually involves a DRE evaluation in addition to a blood draw. Blood draws may also be sought in cases of driver refusal of the breath test. To obtain blood samples, officers are required to do one or both of the following, depending on jurisdiction: procure a warrant (or obtain consent, if allowed in that jurisdiction), or proceed under an “exigent circumstance” exception to the warrant requirement. Still, the phlebotomist may refuse to draw blood under certain circumstances (e.g., some hospitals have restrictive policies that require both a warrant and consent from the driver).

Unfortunately, the time required to gather a warrant and subsequently draw blood from drivers may result in skewed statewide data that over-represents drug-negative drivers. At times, this is due to the heavy workload of the hospitals that perform blood draws. This time lag may result in metabolism of a significant amount of any drugs that may have been consumed. In addition, drivers requiring medical attention may be administered treatment that interferes with drug levels (e.g., saline administration for hydration that simultaneously dilutes drugs in the blood). Therefore, any available data may not accurately reflect actual THC levels at the time of an impaired-driving offense. It is also likely that drivers who voluntarily take a drug test are more likely to test negative for drugs. Data may resultantly reflect a higher number of drug-negative drivers.

## ***Toxicology and Testing Procedures***

As stated above, Washington relies upon blood as the matrix for drug testing. Washington utilizes a centralized state toxicology laboratory for all impaired-driving testing. This is the Washington State Patrol (WSP) Toxicology Laboratory, which is distinct from the WSP Crime Laboratory. The WSP Toxicology Laboratory has a single location that handles testing for all impaired-driving cases, in addition to some other types of cases (e.g., rape cases). In contrast, the Washington State Patrol Crime Laboratory handles other types of cases (e.g., processing DNA tests) and has several locations.

The WSP Toxicology Laboratory uses a 1 ng/mL cutoff for THC in blood. Although Washington's toxicology laboratory once had the fastest drug-test turnaround time in the nation (approximately two weeks), rapid expansion of the number of specimens obtained has resulted in delays in processing drug tests. Laboratory personnel may also be requested to testify for cases, further limiting their availability to process drug tests.

## ***Judicial Processing and Court Data***

Once toxicology results for an impaired-driving case have been compiled by the laboratory, they are sent to the investigating agency or officer. These results will then appear on the police report. Typically, the arresting officer awaits the test results before determining whether to forward the arrest report to the prosecutor and Department of Licensing (DOL; see below). A full police report is then filed with a prosecutor's office, which includes toxicology results after they are received. The DOL receives the toxicology results, the arrest report, the amended charge (if applicable), and any relevant dates. Some caveats may also exist when attempting to link or compare cases from the arrest report to the toxicology report. For example, the case may be filed within the city or county prosecutor's office, and this is at the officer's discretion. Each prosecutor's office uses different case management systems. This may create difficulties with linking arrest data to judicial data.

The prosecutor's office receives the full police report and reviews it. Then, the prosecutor's office may overrule the officer and send the report to a different agency, change the charges, or decide not to file the case at all. In some cases, the officer can direct-file charges rather than requiring prosecutor review first. Most, but not all, prosecutor's offices allow this to occur.

Judicial personnel have access to several items related to the defendant's history, which may represent one area where toxicology data are linked to offense/conviction data. The accessible information depends on the type of hearing that a judge is presiding over at a given time. For misdemeanor hearings, a statewide repository allows judges to see a defendant's criminal history. For felony hearings, the National Crime Information Center (NCIC) database may contain relevant data. Individuals must have clearance to access this database and typically include judges, prosecutors, or probation officers.

The Pre-Sentence Investigation (PSI) or Pre-Sentence Report (PSR) is created by a sentencing court's probation officer. While this report is not in the NCIC database, it contains the full criminal history of a defendant and can be accessed with discretion from

the sentencing court. Requests for access to these reports are normally carried out when significant factual questions arise about the case (e.g., whether the defendant has had prior offenses or sanctions). This data includes nationwide criminal history but does not typically contain toxicology data. However, the processing of judicial data depends heavily on whether a case was direct-filed by an officer or referred to a prosecutor's office, after which charges are issued by the prosecutor. Cases that are referred to prosecutor's offices (rather than direct-filed) and that are subsequently dismissed would only exist in the case management system used by the specific prosecutor's office. These cases would not be contained in any other judicial databases.

With the exception of the toxicology information that may be contained in the PSR, drug-test results are not linked to judicial data. Most district-level court records are tracked statewide through the Judicial Information System (JIS). Seattle is the only city that does not use the JIS, as it has its own system for this purpose. However, all courts (including Seattle) must report all case information to both the DOL and the Administrative Office of the Courts (AOC) (though much of the information contained in the AOC database originates from the JIS). Tribal agencies are an exception and do not report their case data to the state. At the time of the present evaluation, a state representative commented that DOL would be one of the most likely sources to possess data linking arrest, toxicology, and judicial data. An additional data system is the Superior Court Management Information System (SCOMIS), which is used mostly in felony (or superior) courts. The JIS and SCOMIS can be accessed by prosecutors, judges, and defense attorneys.

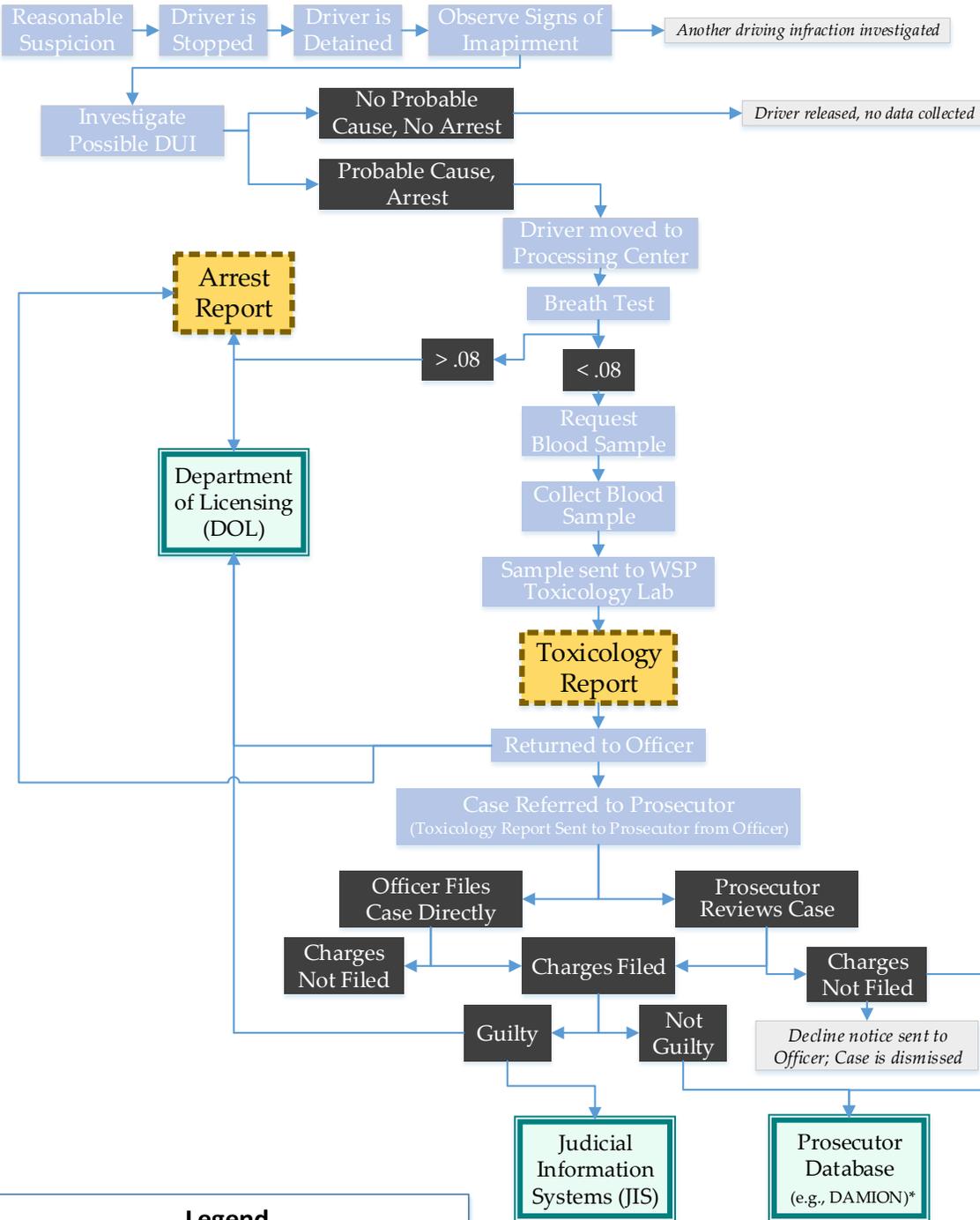
As noted above, cases that are referred to prosecutor's offices and then dismissed would not be included in the JIS. Only the dismissed cases that were directly filed by an officer will be included in the JIS. A similar issue exists with cases that are reduced from one charge to a lesser one (e.g., from DUI to reckless driving). These cases may not be consistent between law enforcement and prosecutor systems because the documents necessary for the change in charges are filed by the prosecutor. These cases will exist in a separate judicial management system. In addition to this difference, the JIS presents a limitation to analyzing DUIC because the data are organized by offense code. Unfortunately, offense codes in Washington do not distinguish between the types of drugs involved in a case. Furthermore, some counties, such as Spokane and King counties, do not use the JIS. Therefore, a smaller-scale analysis using a subset of data from representative counties may be more feasible than a large-scale analysis of the entire set of drugged-driving cases from Washington. However, manual coding of DUIC cases may be needed due to the lack of distinction between drugs within offense codes for impaired driving.

### **Feasibility Assessment of Washington**

The ability to track an individual from the original citation through the disposition of the case is one important component of the analysis of per se laws in both Washington and the other study states. Tracking individual cases is possible in Washington, but the data necessary to do so are likely not publicly available. For direct-file cases, tracking an individual is possible even if the charge is amended because the citation number will be the same. For cases that are not direct-filed, the agency number assigned by law enforcement

will still be referenced, but it may be more difficult to link data for these cases. One approach suggested by a state contact was to obtain electronic police reports (which contain the toxicology results) and then link these to the JIS. Washington is moving to an electronic DUI citation system (through an expansion of the existing citation system called Statewide Electronic Collision and Ticket Online Records, or SECTOR), which may eventually make obtaining electronic police reports more streamlined.

# Flow of Drug Impaired Driving Data in Washington



\*if at any point a case is dismissed, it will only be stored here

## Conclusion

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The goal of this research was to assess the feasibility of evaluating the effects of non-zero tolerance per se laws for THC presence in drivers on judicial outcomes. Currently, six states meet this policy criteria (though Pennsylvania's law is effectively a zero tolerance law). This research examined if there was potential for the existing data within these states to be used to perform such future policy analyses. Only one similar research attempt has been performed (i.e., Bui & Reed, 2018), yet the effects of these policies are increasingly important as the broader cannabis legalization climate shifts. This report was generated from an examination of the literature and information regarding data within these states, as well as guided conversation with key state officials.

The ideal analytic approach requires data that specifically tracks all individuals arrested for per se violations throughout the entire legal process (including dropped or reduced charges and across all dispositions) from the time of arrest through the final disposition of the case. Furthermore, these data should differentiate cannabis-related offenses (specifically per se violations due to THC) from other types of impaired driving. This requires high-quality data across three general domains: law enforcement, toxicology, and judicial outcomes. Additionally, these data must be linked or linkable in order to track the individual through every stage of the legal process. Some of the necessary data capabilities and known data limitations are discussed in detail below. Analysis feasibility is dependent upon addressing known limitations in these areas.

### Quality of Independent Sources of Data

One of the primary considerations for performing a feasibility assessment is the overall quality of each independent data system (i.e., law enforcement, toxicology, and judicial). Additionally, broader challenges to the accessibility, maintenance, and consistency of these data are critical. An assessment of each of these areas is discussed below.

#### Law Enforcement Data

This refers to the initial stage of available data related to law enforcement involvement (e.g., citation or arrest data). Key data in this domain will identify that an individual was specifically arrested for a violation of the cannabis per se law. This initial set of data is necessary to understand how many individuals were initially charged with a per se offense in order to evaluate the prosecution and conviction rate of states with per se laws.

Across the six study states a few notable challenges emerged with these data. The first major challenge is *inconsistency in detecting drivers with cannabis in their system*. Law enforcement is well-equipped with the tools and experience to detect alcohol-impaired drivers but faces greater challenges detecting cannabis-involved drivers. This is particularly true when the driver does not have alcohol and cannabis in his or her system. While the combination of cannabis paired with other drugs, particularly alcohol, may make it easier to identify an impaired driver, it produces additional significant data challenges.

Because the ultimate charge and sentencing in most states are not impacted by having multiple substances in a driver's system, an officer may only pursue alcohol-impaired driving offenses. Thus, *in instances of polydrug use, a driver may not be arrested for a cannabis-impaired driving offense*, including a per se violation. This results in incomplete data on cannabis-impaired driving.

## Toxicology Data

The next critical data source is toxicology. It is not only important to understand how toxicology results impact impaired-driving cases, but also to know the precise levels of THC in relation to a state's per se laws. Several key factors detailed below impact the overall quality, completeness, and reliability of toxicology data for use in analyses.

***Comprehensiveness of the Drug Panel.*** A lack of consistency with overall drug testing procedures and protocols plagues many datasets and analyses (e.g., Berning and Smither, 2014 for FARS). This broad inconsistency in drug testing procedures is also highly impactful when considering the feasibility of policy analyses related to per se laws. One key area to highlight is lack of consistency in drug panels across a state. Most notably for these analyses, some jurisdictions will not test for THC (and other drugs) unless specifically requested by an officer (cf. Bui & Reed, 2018). Thus, the missing data on THC and other drugs can impact the ultimate decision to prosecute a driver for impaired driving and the final disposition of the case.

***Drug Matrix Used for Testing.*** Many state per se laws accounted for the matrix used for drug testing. The most common matrices in these states were blood and urine. During the course of the study, one state even changed from primarily using urine for cannabis drug testing to requiring blood (i.e., Nevada). This change is logical because urine drug testing is primarily used to detect the inactive metabolite of cannabis as opposed to the psychoactive component (i.e., THC) using blood. Furthermore, the detection windows of cannabis metabolites in urine are significantly longer than the detection window of THC in blood, making it more challenging for law enforcement to use toxicology results to make an inference of impairment.

The usage of different matrices across and even within states creates issues with the consistency of cannabis toxicology data. Some study states (i.e., Ohio) even have different per se levels based upon the matrix used. Although this practice is designed to overcome the limitations of urine testing for cannabis, analyses of per se levels within these states would likely need to account for judicial outcome differences specific to the matrix used. For example, it is possible that cases relying on blood per se levels versus urine per se levels would have different strategies for prosecution and different success rates.

***Drug Testing Cutoffs.*** As a part of their standard operating procedures, toxicology laboratories will establish and publicize cutoff levels for various compounds. These cutoff values are effectively the smallest amount of a compound a toxicology laboratory can reasonably detect. Any readings below that threshold would not be considered outside of possible detection errors. Clearly, a state would need to have toxicology procedures available with testing thresholds below the per se level. Otherwise, a toxicology laboratory

would not be able to effectively test around the per se level, which would significantly impact the feasibility of per se analyses.

At the time of this assessment, the state of Illinois had state run laboratories that had cutoff levels for testing above their state's per se level for THC. This meant that the state had to send toxicology samples to outside laboratories (most often NMS laboratories) to provide effective drug testing for cannabis-impaired-driving cases. This may result in inconsistent drug testing and prosecution of impaired-driving cases specific to cannabis. In order to prosecute one of these cases, the jurisdiction would have to spend significantly more time and resources to have a sample sent to a private laboratory for analysis. It should be noted that during the time of the present study, the state toxicology laboratory for Illinois revised its standard operating procedures to lower its THC testing threshold below the state's per se THC level.

***Drug Testing May Stop at Certain BAC Thresholds.*** Many states, including the study states, will not perform drug testing if a driver's BAC is over a certain threshold. BAC thresholds commonly reported to the research team were .08 g/dL and .10 g/dL. The reason given for not performing drug testing above these BACs is that the toxicology result already provides sufficient evidence of impaired driving due to alcohol. Because very few states have separate charges and sentencing for having alcohol plus other drugs in one's system, there is limited legal benefit to provide additional evidence of drug presence beyond the already established alcohol result. This again may impact the quality and completeness of drug data for policy analyses.

***Reporting of Toxicology Results.*** The lack of clear and consistent reporting of toxicology results can create tremendous challenges. Specific toxicology data is necessary to truly evaluate the effects of per se laws at different THC concentrations. Unfortunately, even if toxicology data are obtained, it can be challenging to interpret due to inconsistencies across laboratories and missing information. For example, the cutoff values and drug panel may not be provided in standard toxicology reports. Furthermore, many toxicology reports only report positive results. If THC levels are not provided in the results, then it is unclear if no THC was detected or if THC was not included as a part of the drug panel.

***Missing Context Surrounding Toxicology Results.*** Toxicology details are critical to interpreting toxicology results and understanding the specifics of an impaired-driving case. A primary example is the time between the collection of the biological sample and time of arrest. Due to the metabolism of drugs in a driver's system, the time between driving and collection of the sample provides a critical context to the prosecution of per se cases. Yet, this information is often not readily available using existing data sources.

## **Judicial Outcomes Data**

Judicial data comprises information related to the prosecution and final outcome of a case. Ideal data in this area will also contain information on changes in the case. This includes changes in charges, dropped cases, and cases that are pled down. It also requires data on charge specificity that allows for identifying cases that specifically deal with THC per se laws.

A number of key issues regarding judicial outcome data emerged from the study states. First, *it is difficult to track charge sequences and changes from initial filings to final disposition in these data*. Some changes are never recorded, and often only the final disposition of the case is known. Drawing upon the research conducted on state data from Colorado, it is clear that this is a frequent and important consideration. That study found a total of 22,410 charges that were specifically related to driving under the influence. Of these driving under the influence charges, 53.5% of these were not amended, 34.9% were amended to a lesser charge, and 11.6% were amended to more severe charges (possibly due to the discovery of prior DUI convictions; Bui & Reed, 2018). Thus, it is critically important to understand the flow of the cases to understand the effects of per se legislation.

Another key challenge is *the decentralization of judicial outcome data within states*. Judicial outcome data is usually stored at the local (e.g., judicial district) level and there is not a statewide database of judicial offenses. This creates lack of consistency and ease of access to these data. It should be noted some state databases are created to track DWI convictions for sentencing purposes, but these databases do not usually separate impaired-driving offenses with the necessary detail for analyses.

### ***Other Critical Data Quality Factors***

*Data ownership and availability.* The range of data necessary for this analysis are highly sensitive and often cannot feasibly be used if they are de-identified (some identifying information may be necessary for data linking). This not only creates challenges for outside researchers but can also be a challenge for state officials. For example, toxicology data is often “owned” by the law enforcement agency and not by the toxicology laboratory. This creates challenges for accessing this data if it is not fully implemented into available judicial and law enforcement data systems. Indeed, the state of Colorado had to pass a new legislative bill to allow for the accessing and merging of these data sources.

*Multiple Impaired-Driving Charge Options.* One of the most interesting findings across many study states was the lack of central importance given to the state’s per se laws by experts. Per se laws were discussed as one option for convicting impaired drivers, but that there were other charge options that were often preferable. Specifically, many states are able to charge a driver with a general impaired-driving offense (i.e., not per se, but based upon observed driver impairment) and/or a per se violation. Either charge falls under the same impaired-driving statute and thus does not impact the sentencing. Many state officials indicated that the tendency was to charge the driver with the general impaired-driving offense, rather than per se, specifically. One reason given for this decision was that toxicology results, which would be critical for charging under per se, are often not available until after a decision would need to be made to charge and prosecute an impaired-driving case. As a result, an officer would arrest an individual under the general impaired-driving statute (i.e., not per se). If toxicology results later came back above the per se limit, then the original charge could be amended to add the per se violation. This could be thought of as several prongs under the overall impaired-driving statute, of which per se laws are only one.

This creates numerous significant challenges for examining the specific effects of the per se laws on judicial outcomes. First, since impaired-driving cases can be funneled into some combination of per se and non-per se offenses, it is incredibly difficult to isolate the specific effects of per se laws. This is particularly true if the common method for charging impaired driving is not from the per se section of the code. This also creates a system where cases that proceed under the per se statute may be atypical cases that may not be ideal for evaluating the broad effects of these policies. For example, cases that are not charged per se because toxicology comes back below the level may still be put forward under the non-per se statute. In general, this difficulty manifests because it is challenging to determine how per se laws affect the overall impaired-driving prosecution. In addition, toxicology, law enforcement, and other case characteristics heavily influence whether a THC per se violation is specifically charged. These same characteristics would also likely be related to case outcomes, which would bias analyses of the THC per se violation cases. Thus, it would be impossible to determine if judicial outcomes were the result of the policy or the types of cases processed through the per se statute.

*Specificity of Recording Impaired-Driving Offenses.* It was noted in the section directly above that per se impaired-driving statutes are often only one way that drivers can be charged for impaired driving. It is also often true that in the actual records (both citation and judicial outcomes databases) that the specific drug, or combination of drugs, is not provided. Indeed, these offenses are often just listed as impaired driving. This results in many of these records omitting that a case was processed under the per se statute for cannabis. Even when records allow for differentiating alcohol from other drug-related impaired-driving offenses, it is usually not recorded that cannabis was the specific drug or that a per se statute was used. It should be noted that some states are beginning to allow for marijuana-impaired-driving offenses to be noted on the police report, but this is rare and still does not show a per se violation. Thus, these existing records often cannot be used to specifically examine per se THC cases.

The team considered that toxicology data could possibly be paired with police reports to infer the nature of the case (i.e., if it were a likely marijuana per se case), but this adds a certain degree of uncertainty to the analyses. It would also remain highly challenging to do with the current state of data and data system linkage across law enforcement, toxicology, and judicial databases.

*Tracking Broader Changes in the State Environment (equal enforcement).* Longitudinal data relies upon no major changes to the adjudication of drug-impaired-driving offenses. This can manifest in a number of ways if policy changes also correspond to fundamental changes in the state's legal environment.

One way this can manifest is through changes in law enforcement. For example, officers may become better trained or more sensitive to non-alcohol drug-impaired driving. This includes potential increases in officers receiving ARIDE or DRE training. Officers with this training may become better at detecting when a driver is impaired by cannabis, which could lead to an increase in impaired-driving convictions. Alternatively, if law enforcement becomes more sensitive to detecting cannabis impairment among drivers, then the

additional charges of cannabis-impaired driving may actually be more difficult to successfully prosecute, potentially resulting in a lower conviction percentage.

It is also possible that increases in training and experience with prosecuting cannabis-impaired-driving cases may better prepare law enforcement for collecting evidence and documenting these types of cases. Similarly, prosecutors may develop additional experience and training to more effectively prosecute these cases. This could lead to an increase in convictions and a higher conviction rate.

Another area where broad environmental changes can occur is in the domain of toxicology. If new toxicology standards and practices develop in a state, then this can have a significant impact on the prosecution of drug-impaired-driving cases. Some of these changes may appear relatively minor, such as the Washington State Patrol Toxicology Laboratory changing its detection threshold for THC from 2 ng/mL to 1 ng/mL. Yet, even these changes can be highly meaningful for prosecutions related to cannabis-positive driving. Other toxicology challenges can be quite profound. For example, the state of Illinois added the capability for their state lab to test at their state's per se limit. This means that per se violations in the state would no longer need to be prosecuted by having toxicology samples sent to an outside laboratory.

### **Data Linkage Challenges**

In addition to the overall quality, completeness, and specificity of the individual data systems described above, the key challenge to the feasibility of assessing the effects of non-zero per se laws for THC is the linking of these data systems. The underlying need of effective analyses in this domain is to track an individual from the time of arrest through the final disposition of the case. At a minimum, this requires linking data from law enforcement (citation/arrest records), toxicology, and judicial outcomes. However, there is also a need to be able to track any changes in the case, including changes to any charges. Changes to charges are not always noted within these data systems, and data can be expunged at each stage if charges are dropped or if the driver is not prosecuted. This creates highly challenging data needs in order to conduct proper analyses in this area.

Discussions with the six study states revealed that none of these states currently had a comprehensive statewide data system that linked each of these domains. All states expressed that the linking would be highly involved and complex. At a minimum, researchers would need to have access to all three primary data domains with a common identifier (e.g., name, Social Security number, etc.) to perform the linking. The analysis from Colorado (i.e., Bui & Reed, 2018) revealed a strategy whereby state officials were given permission to perform the linking for analyses to handle issues with linking using this sensitive, identifying data.

While the Colorado example provides a blueprint for one method of performing data linking, it also revealed some challenges. As one example, these researchers found a significant number of duplicate cases for judicial charges when performing this linkage. This likely resulted from cases being erroneously filed twice, DUI misdemeanors being re-

filed as felonies, duplicate tickets being received from law enforcement, and charges from one case being consolidated to a different case (Bui & Reed, 2018).

Other results from Colorado are indicative of the challenges and lost data when performing these linkages. As noted earlier, their analyses of 2016 state data examined 27,244 case filings with at least one DUI charge and 97,066 total charges associated with these cases. Approximately, 93.7% of these cases had reached a disposition at the time of their analyses. Slightly over one-third of cases (34.6%) could not be linked to a toxicology result. The 17,824 cases that could be linked to toxicology primarily included information on alcohol. Only 3,946 cases were screened for the presence of cannabinoids. And just less than half of these cases ( $n = 1,369$ ) tested positive for THC at or above Colorado's legal 5 ng/mL permissible inference level (Bui & Reed, 2018).

These findings from the present study states and from Colorado in Bui & Reed (2018) highlight the many challenges with data linking. However, Colorado does provide one model for performing such analyses.

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## Appendix: State Per Se Laws

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### Illinois Impaired-Driving Laws

The following law is accurate in Illinois as of November 2018.

(625 ILCS 5/11-501) (from Ch. 95 1/2, par. 11-501)

Sec. 11-501. Driving while under the influence of alcohol, other drug or drugs, intoxicating compound or compounds or any combination thereof.

(a) A person shall not drive or be in actual physical control of any vehicle within this State while:

(1) the alcohol concentration in the person's blood, other bodily substance, or breath is 0.08 or more based on the definition of blood and breath units in Section 11-501.2;

(2) under the influence of alcohol;

(3) under the influence of any intoxicating compound or combination of intoxicating compounds to a degree that renders the person incapable of driving safely;

(4) under the influence of any other drug or combination of drugs to a degree that renders the person incapable of safely driving;

(5) under the combined influence of alcohol, other drug or drugs, or intoxicating compound or compounds to a degree that renders the person incapable of safely driving;

(6) there is any amount of a drug, substance, or compound in the person's breath, blood, other bodily substance, or urine resulting from the unlawful use or consumption of a controlled substance listed in the Illinois Controlled Substances Act, an intoxicating compound listed in the Use of Intoxicating Compounds Act, or methamphetamine as listed in the Methamphetamine Control and Community Protection Act; or

(7) the person has, within 2 hours of driving or being in actual physical control of a vehicle, a tetrahydrocannabinol concentration in the person's whole blood or other bodily substance as defined in paragraph 6 of subsection (a) of Section 11-501.2 of this Code. Subject to all other requirements and provisions under this Section, this paragraph (7) does not apply to the lawful consumption of cannabis by a qualifying patient licensed under the Compassionate Use of Medical Cannabis Pilot Program Act who is in possession of a valid registry card issued under that Act, unless that person is impaired by the use of cannabis.

(b) The fact that any person charged with violating this Section is or has been legally entitled to use alcohol, cannabis under the Compassionate Use of Medical Cannabis Pilot Program Act, other drug or drugs, or intoxicating compound or compounds, or any combination thereof, shall not constitute a defense against any charge of violating this Section.

(c) Penalties.

(1) Except as otherwise provided in this Section, any person convicted of violating subsection (a) of this Section is guilty of a Class A misdemeanor.

(2) A person who violates subsection (a) or a similar provision a second time shall be sentenced to a mandatory minimum term of either 5 days of imprisonment or 240 hours of

community service in addition to any other criminal or administrative sanction.

(3) A person who violates subsection (a) is subject to 6 months of imprisonment, an additional mandatory minimum fine of \$1,000, and 25 days of community service in a program benefiting children if the person was transporting a person under the age of 16 at the time of the violation.

(4) A person who violates subsection (a) a first time, if the alcohol concentration in his or her blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, shall be subject, in addition to any other penalty that may be imposed, to a mandatory minimum of 100 hours of community service and a mandatory minimum fine of \$500.

(5) A person who violates subsection (a) a second time, if at the time of the second violation the alcohol concentration in his or her blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, shall be subject, in addition to any other penalty that may be imposed, to a mandatory minimum of 2 days of imprisonment and a mandatory minimum fine of \$1,250.

(d) Aggravated driving under the influence of alcohol, other drug or drugs, or intoxicating compound or compounds, or any combination thereof.

(1) Every person convicted of committing a violation of this Section shall be guilty of aggravated driving under the influence of alcohol, other drug or drugs, or intoxicating compound or compounds, or any combination thereof if:

(A) the person committed a violation of subsection (a) or a similar provision for the third or subsequent time;

(B) the person committed a violation of subsection (a) while driving a school bus with one or more passengers on board;

(C) the person in committing a violation of subsection (a) was involved in a motor vehicle accident that resulted in great bodily harm or permanent disability or disfigurement to another, when the violation was a proximate cause of the injuries;

(D) the person committed a violation of subsection (a) and has been previously convicted of violating Section 9-3 of the Criminal Code of 1961 or the Criminal Code of 2012 or a similar provision of a law of another state relating to reckless homicide in which the person was determined to have been under the influence of alcohol, other drug or drugs, or intoxicating compound or compounds as an element of the offense or the person has previously been convicted under subparagraph (C) or subparagraph (F) of this paragraph (1);

(E) the person, in committing a violation of subsection (a) while driving at any speed in a school speed zone at a time when a speed limit of 20 miles per hour was in effect under subsection (a) of Section 11-605 of this Code, was involved in a motor vehicle accident that resulted in bodily harm, other than great bodily harm or permanent disability or disfigurement, to another person, when the violation of subsection (a) was a proximate cause of the bodily harm;

(F) the person, in committing a violation of subsection (a), was involved in a motor vehicle, snowmobile, all-terrain vehicle, or watercraft accident that resulted in the death of another person, when the violation of subsection (a) was a proximate cause of the death;

(G) the person committed a violation of subsection (a) during a period in which the

defendant's driving privileges are revoked or suspended, where the revocation or suspension was for a violation of subsection (a) or a similar provision, Section 11-501.1, paragraph (b) of Section 11-401, or for reckless homicide as defined in Section 9-3 of the Criminal Code of 1961 or the Criminal Code of 2012;

(H) the person committed the violation while he or she did not possess a driver's license or permit or a restricted driving permit or a judicial driving permit or a monitoring device driving permit;

(I) the person committed the violation while he or she knew or should have known that the vehicle he or she was driving was not covered by a liability insurance policy;

(J) the person in committing a violation of subsection (a) was involved in a motor vehicle accident that resulted in bodily harm, but not great bodily harm, to the child under the age of 16 being transported by the person, if the violation was the proximate cause of the injury;

(K) the person in committing a second violation of subsection (a) or a similar provision was transporting a person under the age of 16; or

(L) the person committed a violation of subsection (a) of this Section while transporting one or more passengers in a vehicle for-hire.

(2)(A) Except as provided otherwise, a person convicted of aggravated driving under the influence of alcohol, other drug or drugs, or intoxicating compound or compounds, or any combination thereof is guilty of a Class 4 felony.

(B) A third violation of this Section or a similar provision is a Class 2 felony. If at the time of the third violation the alcohol concentration in his or her blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, a mandatory minimum of 90 days of imprisonment and a mandatory minimum fine of \$2,500 shall be imposed in addition to any other criminal or administrative sanction. If at the time of the third violation, the defendant was transporting a person under the age of 16, a mandatory fine of \$25,000 and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(C) A fourth violation of this Section or a similar provision is a Class 2 felony, for which a sentence of probation or conditional discharge may not be imposed. If at the time of the violation, the alcohol concentration in the defendant's blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, a mandatory minimum fine of \$5,000 shall be imposed in addition to any other criminal or administrative sanction. If at the time of the fourth violation, the defendant was transporting a person under the age of 16 a mandatory fine of \$25,000 and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(D) A fifth violation of this Section or a similar provision is a Class 1 felony, for which a sentence of probation or conditional discharge may not be imposed. If at the time of the violation, the alcohol concentration in the defendant's blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, a mandatory minimum fine of \$5,000 shall be imposed in addition to any other criminal or administrative sanction. If at the time of the fifth violation, the defendant was transporting a person under the age of 16, a mandatory fine of

\$25,000, and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(E) A sixth or subsequent violation of this Section or similar provision is a Class X felony. If at the time of the violation, the alcohol concentration in the defendant's blood, breath, other bodily substance, or urine was 0.16 or more based on the definition of blood, breath, other bodily substance, or urine units in Section 11-501.2, a mandatory minimum fine of \$5,000 shall be imposed in addition to any other criminal or administrative sanction. If at the time of the violation, the defendant was transporting a person under the age of 16, a mandatory fine of \$25,000 and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(F) For a violation of subparagraph (C) of paragraph (1) of this subsection (d), the defendant, if sentenced to a term of imprisonment, shall be sentenced to not less than one year nor more than 12 years.

(G) A violation of subparagraph (F) of paragraph (1) of this subsection (d) is a Class 2 felony, for which the defendant, unless the court determines that extraordinary circumstances exist and require probation, shall be sentenced to: (i) a term of imprisonment of not less than 3 years and not more than 14 years if the violation resulted in the death of one person; or (ii) a term of imprisonment of not less than 6 years and not more than 28 years if the violation resulted in the deaths of 2 or more persons.

(H) For a violation of subparagraph (J) of paragraph (1) of this subsection (d), a mandatory fine of \$2,500, and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(I) A violation of subparagraph (K) of paragraph (1) of this subsection (d), is a Class 2 felony and a mandatory fine of \$2,500, and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction. If the child being transported suffered bodily harm, but not great bodily harm, in a motor vehicle accident, and the violation was the proximate cause of that injury, a mandatory fine of \$5,000 and 25 days of community service in a program benefiting children shall be imposed in addition to any other criminal or administrative sanction.

(J) A violation of subparagraph (D) of paragraph (1) of this subsection (d) is a Class 3 felony, for which a sentence of probation or conditional discharge may not be imposed.

(3) Any person sentenced under this subsection (d) who receives a term of probation or conditional discharge must serve a minimum term of either 480 hours of community service or 10 days of imprisonment as a condition of the probation or conditional discharge in addition to any other criminal or administrative sanction.

(e) Any reference to a prior violation of subsection (a) or a similar provision includes any violation of a provision of a local ordinance or a provision of a law of another state or an offense committed on a military installation that is similar to a violation of subsection (a) of this Section.

(f) The imposition of a mandatory term of imprisonment or assignment of community service for a violation of this Section shall not be suspended or reduced by the court.

(g) Any penalty imposed for driving with a license that has been revoked for a previous violation of subsection (a) of this Section shall be in addition to the penalty imposed for any subsequent violation of subsection (a).

(h) For any prosecution under this Section, a certified copy of the driving abstract of the

defendant shall be admitted as proof of any prior conviction.

(Source: P.A. 98-122, eff. 1-1-14; 98-573, eff. 8-27-13; 98-756, eff. 7-16-14; 99-697, eff. 7-29-16.)

## Montana Impaired-Driving Laws

The following law is accurate in Montana as of November 2018.

Montana Code Annotated 2017: Title 61 Motor Vehicles, Chapter 8 Traffic Regulation, Part 4 Driving Under Influence of Alcohol or Drugs

61-8-411. Operation of noncommercial vehicle or commercial vehicle by person under influence of delta-9-tetrahydrocannabinol.

(1) It is unlawful and punishable as provided in 61-8-442, 61-8-722, 61-8-723, and 61-8-731 through 61-8-734 for any person to drive or be in actual physical control of:

(a) a noncommercial vehicle upon the ways of this state open to the public while the person's delta-9-tetrahydrocannabinol level, excluding metabolites, as shown by analysis of the person's blood, is 5 ng/ml or more; or

(b) a commercial motor vehicle upon the ways of this state open to the public while the person's delta-9-tetrahydrocannabinol level, excluding metabolites, as shown by analysis of the person's blood, is 5 ng/ml or more.

(2) Absolute liability, as provided in 45-2-104\*, is imposed for a violation of this section.

History: En. Sec. 1, Ch. 153, L. 2013.

## Nevada Impaired-Driving Laws

The following law is accurate in Nevada as of November 2018.

### NRS: CHAPTER 484C - DRIVING UNDER THE INFLUENCE OF ALCOHOL OR A PROHIBITED SUBSTANCE

NRS 484C.110 Unlawful acts; affirmative defense; additional penalty for violation committed in work zone or pedestrian safety zone. [Effective until the date of the repeal of the federal law requiring each state to make it unlawful for a person to operate a motor vehicle with a blood alcohol concentration of 0.08 percent or greater as a condition to receiving federal funding for the construction of highways in this State.]

1. It is unlawful for any person who:

- (a) Is under the influence of intoxicating liquor;
- (b) Has a concentration of alcohol of 0.08 or more in his or her blood or breath; or
- (c) Is found by measurement within 2 hours after driving or being in actual physical control of a vehicle to have a concentration of alcohol of 0.08 or more in his or her blood or breath, to drive or be in actual physical control of a vehicle on a highway or on premises to which the public has access.

2. It is unlawful for any person who:

- (a) Is under the influence of a controlled substance;
- (b) Is under the combined influence of intoxicating liquor and a controlled substance; or
- (c) Inhales, ingests, applies or otherwise uses any chemical, poison or organic solvent, or any compound or combination of any of these, to a degree which renders the person incapable of safely driving or exercising actual physical control of a vehicle, to drive or be in actual physical control of a vehicle on a highway or on premises to which the public has access. The fact that any person charged with a violation of this subsection is or has been entitled to use that drug under the laws of this State is not a defense against any charge of violating this subsection.

3. It is unlawful for any person to drive or be in actual physical control of a vehicle on a highway or on premises to which the public has access with an amount of any of the following prohibited substances in his or her blood or urine that is equal to or greater than:

	Urine	Blood
Prohibited substance	Nanograms per milliliter	Nanograms per milliliter
(a) Amphetamine	500	100
(b) Cocaine	150	50
(c) Cocaine metabolite	150	50
(d) Heroin	2,000	50
(e) Heroin metabolite:		
(1) Morphine	2,000	50
(2) 6-monoacetyl morphine	10	10
(f) Lysergic acid diethylamide	25	10

(g) Methamphetamine	500	100
(h) Phencyclidine	25	10

4. It is unlawful for any person to drive or be in actual physical control of a vehicle on a highway or on premises to which the public has access with an amount of any of the following prohibited substances in his or her blood that is equal to or greater than:

Prohibited substance	Blood	
	Nanograms per milliliter	
(a) Marijuana (delta-9-tetrahydrocannabinol)		2
(b) Marijuana metabolite (11-OH-tetrahydrocannabinol)		5

If consumption is proven by a preponderance of the evidence, it is an affirmative defense under paragraph (c) of subsection I that the defendant consumed a sufficient quantity of alcohol after driving or being in actual physical control of the vehicle, and before his or her blood or breath was tested, to cause the defendant to have a concentration of alcohol of 0.08 or more in his or her blood or breath. A defendant who intends to offer this defense at a trial or preliminary hearing must, not less than 14 days before the trial or hearing or at such other time as the court may direct, file and serve on the prosecuting attorney a written notice of that intent.

6. A person who violates any provision of this section may be subject to any additional penalty set forth in NRS 484B.130 or 484B.135.

(Added to NRS by 1969 1485; A 1971. 2030; 1973 587, 1277, 1501; 1975 788; 1981 1924; 1983 1068; 1993 539; 3415; 2001 172; 2003 2559, 3245; 2015 1580; 2017, 303) (Substituted in revision for NRS 484.379)

## Ohio Impaired-Driving Laws

The following law is accurate in Ohio as of November 2018.

4511.19 Operating vehicle under the influence of alcohol or drugs - OVI.

(A)

(1) No person shall operate any vehicle, streetcar, or trackless trolley within this state, if, at the time of the operation, any of the following apply:

(a) The person is under the influence of alcohol, a drug of abuse, or a combination of them.

(b) The person has a concentration of eight-hundredths of one per cent or more but less than seventeen-hundredths of one per cent by weight per unit volume of alcohol in the person's whole blood.

(c) The person has a concentration of ninety-six-thousandths of one per cent or more but less than two hundred four-thousandths of one per cent by weight per unit volume of alcohol in the person's blood serum or plasma.

(d) The person has a concentration of eight-hundredths of one gram or more but less than seventeen-hundredths of one gram by weight of alcohol per two hundred ten liters of the person's breath.

(e) The person has a concentration of eleven-hundredths of one gram or more but less than two hundred thirty-eight-thousandths of one gram by weight of alcohol per one hundred milliliters of the person's urine.

(f) The person has a concentration of seventeen-hundredths of one per cent or more by weight per unit volume of alcohol in the person's whole blood.

(g) The person has a concentration of two hundred four-thousandths of one per cent or more by weight per unit volume of alcohol in the person's blood serum or plasma.

(h) The person has a concentration of seventeen-hundredths of one gram or more by weight of alcohol per two hundred ten liters of the person's breath.

(i) The person has a concentration of two hundred thirty-eight-thousandths of one gram or more by weight of alcohol per one hundred milliliters of the person's urine.

(j) Except as provided in division (K) of this section, the person has a concentration of any of the following controlled substances or metabolites of a controlled substance in the person's whole blood, blood serum or plasma, or urine that equals or exceeds any of the following:

(i) The person has a concentration of amphetamine in the person's urine of at least five hundred nanograms of amphetamine per milliliter of the person's urine or has a concentration of amphetamine in the person's whole blood or blood serum or plasma of at least one hundred nanograms of amphetamine per milliliter of the person's whole blood or blood serum or plasma.

(ii) The person has a concentration of cocaine in the person's urine of at least one hundred fifty nanograms of cocaine per milliliter of the person's urine or has a concentration of cocaine in the person's whole blood or blood serum or plasma of at least fifty nanograms of cocaine per milliliter of the person's whole blood or blood serum or plasma.

(iii) The person has a concentration of cocaine metabolite in the person's urine of at least one hundred fifty nanograms of cocaine metabolite per milliliter of the person's urine or has

a concentration of cocaine metabolite in the person's whole blood or blood serum or plasma of at least fifty nanograms of cocaine metabolite per milliliter of the person's whole blood or blood serum or plasma.

(iv) The person has a concentration of heroin in the person's urine of at least two thousand nanograms of heroin per milliliter of the person's urine or has a concentration of heroin in the person's whole blood or blood serum or plasma of at least fifty nanograms of heroin per milliliter of the person's whole blood or blood serum or plasma.

(v) The person has a concentration of heroin metabolite (6-monoacetyl morphine) in the person's urine of at least ten nanograms of heroin metabolite (6-monoacetyl morphine) per milliliter of the person's urine or has a concentration of heroin metabolite (6-monoacetyl morphine) in the person's whole blood or blood serum or plasma of at least ten nanograms of heroin metabolite (6-monoacetyl morphine) per milliliter of the person's whole blood or blood serum or plasma.

(vi) The person has a concentration of L.S.D. in the person's urine of at least twenty-five nanograms of L.S.D. per milliliter of the person's urine or a concentration of L.S.D. in the person's whole blood or blood serum or plasma of at least ten nanograms of L.S.D. per milliliter of the person's whole blood or blood serum or plasma.

(vii) The person has a concentration of marihuana in the person's urine of at least ten nanograms of marihuana per milliliter of the person's urine or has a concentration of marihuana in the person's whole blood or blood serum or plasma of at least two nanograms of marihuana per milliliter of the person's whole blood or blood serum or plasma.

(viii) Either of the following applies:

(I) The person is under the influence of alcohol, a drug of abuse, or a combination of them, and the person has a concentration of marihuana metabolite in the person's urine of at least fifteen nanograms of marihuana metabolite per milliliter of the person's urine or has a concentration of marihuana metabolite in the person's whole blood or blood serum or plasma of at least five nanograms of marihuana metabolite per milliliter of the person's whole blood or blood serum or plasma.

(II) The person has a concentration of marihuana metabolite in the person's urine of at least thirty-five nanograms of marihuana metabolite per milliliter of the person's urine or has a concentration of marihuana metabolite in the person's whole blood or blood serum or plasma of at least fifty nanograms of marihuana metabolite per milliliter of the person's whole blood or blood serum or plasma.

(ix) The person has a concentration of methamphetamine in the person's urine of at least five hundred nanograms of methamphetamine per milliliter of the person's urine or has a concentration of methamphetamine in the person's whole blood or blood serum or plasma of at least one hundred nanograms of methamphetamine per milliliter of the person's whole blood or blood serum or plasma.

(x) The person has a concentration of phencyclidine in the person's urine of at least twenty-five nanograms of phencyclidine per milliliter of the person's urine or has a concentration of phencyclidine in the person's whole blood or blood serum or plasma of at least ten nanograms of phencyclidine per milliliter of the person's whole blood or blood serum or plasma.

(xi) The state board of pharmacy has adopted a rule pursuant to section 4729.041 of the Revised Code that specifies the amount of salvia divinorum and the amount of salvinorin A

that constitute concentrations of salvia divinorum and salvinorin A in a person's urine, in a person's whole blood, or in a person's blood serum or plasma at or above which the person is impaired for purposes of operating any vehicle, streetcar, or trackless trolley within this state, the rule is in effect, and the person has a concentration of salvia divinorum or salvinorin A of at least that amount so specified by rule in the person's urine, in the person's whole blood, or in the person's blood serum or plasma.

## Pennsylvania Impaired-Driving Laws

The following law is accurate in Pennsylvania as of November 2018.

Title 75 Chapter 38 Driving After Imbibing Alcohol or Utilizing Drugs, § 3802. And § 1547(c)(4), amended by P.L. 120, No. 24

### CHAPTER 38

### DRIVING AFTER IMBIBING ALCOHOL OR UTILIZING DRUGS

§ 3802. Driving under influence of alcohol or controlled substance.

(a) General impairment.--

(1) An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the individual is rendered incapable of safely driving, operating or being in actual physical control of the movement of the vehicle.

(2) An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is at least 0.08% but less than 0.10% within two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle.

(b) High rate of alcohol.--An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is at least 0.10% but less than 0.16% within two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle.

(c) Highest rate of alcohol.--An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is 0.16% or higher within two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle.

(d) Controlled substances.--An individual may not drive, operate or be in actual physical control of the movement of a vehicle under any of the following circumstances:

(1) There is in the individual's blood any amount of a:

(i) Schedule I controlled substance, as defined in the act of April 14, 1972 (P.L.233, No.64), known as The Controlled Substance, Drug, Device and Cosmetic Act;

(ii) Schedule II or Schedule III controlled substance, as defined in The Controlled Substance, Drug, Device and Cosmetic Act, which has not been medically prescribed for the individual; or

(iii) metabolite of a substance under subparagraph (i) or (ii).

(2) The individual is under the influence of a drug or combination of drugs to a degree which impairs the individual's ability to safely drive, operate or be in actual physical control of the movement of the vehicle.

(3) The individual is under the combined influence of alcohol and a drug or combination of

drugs to a degree which impairs the individual's ability to safely drive, operate or be in actual physical control of the movement of the vehicle.

(4) The individual is under the influence of a solvent or noxious substance in violation of 18 Pa.C.S. § 7303 (relating to sale or illegal use of certain solvents and noxious substances).

(e) Minors.--A minor may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the minor's blood or breath is 0.02% or higher within two hours after the minor has driven, operated or been in actual physical control of the movement of the vehicle.

(f) Commercial or school vehicles.--An individual may not drive, operate or be in actual physical control of the movement of a commercial vehicle, school bus or school vehicle in any of the following circumstances:

(1) After the individual has imbibed a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is:

(i) 0.04% or greater within two hours after the individual has driven, operated or been in actual physical control of the movement of a commercial vehicle other than a school bus or a school vehicle.

(ii) 0.02% or greater within two hours after the individual has driven, operated or been in actual physical control of the movement of a school bus or a school vehicle.

(2) After the individual has imbibed a sufficient amount of alcohol such that the individual is rendered incapable of safely driving, operating or being in actual physical control of the movement of the vehicle.

(3) While the individual is under the influence of a controlled substance or combination of controlled substances, as defined in section 1603 (relating to definitions).

(4) While the individual is under the combined influence of alcohol and a controlled substance or combination of controlled substances, as defined in section 1603.

(g) Exception to two-hour rule.--Notwithstanding the provisions of subsection (a), (b), (c), (e) or (f), where alcohol or controlled substance concentration in an individual's blood or breath is an element of the offense, evidence of such alcohol or controlled substance concentration more than two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle is sufficient to establish that element of the offense under the following circumstances:

(1) where the Commonwealth shows good cause explaining why the chemical test sample could not be obtained within two hours; and

(2) where the Commonwealth establishes that the individual did not imbibe any alcohol or utilize a controlled substance between the time the individual was arrested and the time the sample was obtained.

(May 11, 2006, P.L.155, No.36, eff. imd.)

2006 Amendment. Act 36 amended subsec. (g)(1). See the preamble to Act 36 in the appendix to this title for special provisions relating to legislative intent.

Cross References. Section 3802 is referred to in sections 102, 1534, 1539, 1541, 1543, 1547, 1552, 1553, 1554, 1556, 1575, 1586, 1611, 3326, 3327, 3716, 3732, 3732.1, 3733, 3735, 3735.1, 3755, 3803, 3804, 3805, 3806, 3807, 3811, 3812, 3814, 3815, 3816, 3817, 6506 of this title; sections 6105, 7508.1 of Title 18 (Crimes and Offenses); section 5502 of Title 30 (Fish);

section 8137 of Title 35 (Health and Safety); sections 933, 1515, 1725.3, 1725.5, 3571, 3573 of Title 42 (Judiciary and Judicial Procedure).

§

## Minimum Levels of Controlled Substances or Their Metabolites in Blood to Establish Presence of Controlled Substance

[47 Pa.B. 4045]

[Saturday, July 22, 2017]

Under 75 Pa.C.S. § 1547(c)(4) (relating to chemical testing to determine amount of alcohol or controlled substance), the Department of Health (Department) is publishing a notice of the minimum levels of Schedule I, nonprescribed Schedule II and nonprescribed Schedule III controlled substances or their metabolites that must be present in a person's blood for the test results to be admissible in a prosecution for a violation of 75 Pa.C.S. § 1543(b)(1.1), § 3802(d)(1), (2) or (3) or § 3808(a)(2) (relating to driving while operating privilege is suspended or revoked; driving under influence of alcohol or controlled substance; and illegally operating a motor vehicle not equipped with ignition interlock).

Testing for controlled substances in blood is normally a two-step process. The first step involves screening of the blood using a relatively rapid and inexpensive procedure to presumptively determine whether a specimen contains a controlled substance or a metabolite of a controlled substance. The second step utilizes an alternate procedure to confirm the presence of the controlled substance or metabolite that was presumptively detected by the screening procedure. Confirmatory analyses employed to substantiate the presence of a controlled substance or metabolite are also used to determine the concentration of the controlled substance or metabolite. A limit of quantitation (LOQ) for a controlled substance or metabolite is the lowest concentration that a laboratory can reliably determine. A laboratory's LOQ for each controlled substance or metabolite will depend upon the equipment and procedures the laboratory employs for confirmatory testing.

Laboratories that operate in this Commonwealth and perform analyses of blood to determine controlled substance content must be approved by the Department in accordance with 28 Pa. Code § 5.50 (relating to approval to provide special analytical services) and be listed in notices published in the Pennsylvania Bulletin. The minimum levels listed in this notice were developed by reviewing the LOQs reported by the laboratories approved by the Department to analyze blood for controlled substances or their metabolites. Laboratories are not required to have LOQs for controlled substances or their metabolites that are equal to or below minimum levels listed. The levels listed are intended to establish the lowest reportable results admissible in a prosecution.

Not all approved laboratories will have proficiency testing results at the minimum levels listed in this notice. Approved laboratories and their individual proficiency testing results may be reviewed on the Bureau of Laboratories' web site at [www.minimumlevels.health.pa.gov](http://www.minimumlevels.health.pa.gov).

The Department recognizes that testing may be conducted for controlled substances and metabolites not listed in this notice. When this testing is necessary, interested parties should contact the laboratory performing the test to inquire as to that laboratory's specific method of testing, the equipment used and any policies or procedures employed by that laboratory to ensure that the test results are valid. In subsequent notices, the Department

will revise, as needed, the minimum levels of controlled substances or metabolites already included in this notice and add new controlled substances or metabolites when warranted.

Class Substance	Schedule	Minimum Quantitation Limits (nanograms/milliliter)
<b>Amphetamines</b>		
Amphetamine	II	2.5
Methamphetamine	II	2.5
Methylenedioxyamphetamine (MDA)	I	2.5
Methylenedioxymethamphetamine (MDMA, Ecstasy)	I	2.5
<b>Analgesics</b>		
Methadone	II	1
<b>Cannabinoids</b>		
Delta-9-THC (THC)*	I	0.5
11-Hydroxy-Delta-9-THC (THC-OH)	I	1
11-Nor-9-Carboxy-Delta-9-THC (THC-COOH)	I	1
<b>Cocaine</b>		
Cocaine	II	1.5
Benzoylcegonine	II	0.5
<b>Hallucinogens</b>		
Phencyclidine	II	0.25
<b>Opiates</b>		
Codeine	II	1
Hydrocodone	II	1
Hydromorphone	II	1
6-Monoacetylmorphine	II	0.25
Morphine	II	1
Oxycodone	II	1
<b>Sedatives/Hypnotics</b>		
Amobarbital	II	40
Pentobarbital	II	30
Secobarbital	II	25

\*THC = tetrahydrocannabinol

## Washington Impaired-Driving Laws

The following law is accurate in Washington as of November 2018.

Title 46 Revised Code of Washington (RCW) Motor Vehicles RCW Dispositions, Section on Reckless Driving, Driving Under the Influence, Vehicular Homicide and Assault  
RCW 46.61.502

Driving under the influence.

(1) A person is guilty of driving while under the influence of intoxicating liquor, marijuana, or any drug if the person drives a vehicle within this state:

(a) And the person has, within two hours after driving, an alcohol concentration of 0.08 or higher as shown by analysis of the person's breath or blood made under RCW 46.61.506; or

(b) The person has, within two hours after driving, a THC concentration of 5.00 or higher as shown by analysis of the person's blood made under RCW 46.61.506; or

(c) While the person is under the influence of or affected by intoxicating liquor, marijuana, or any drug; or

(d) While the person is under the combined influence of or affected by intoxicating liquor, marijuana, and any drug.

(2) The fact that a person charged with a violation of this section is or has been entitled to use a drug under the laws of this state shall not constitute a defense against a charge of violating this section.

(3)(a) It is an affirmative defense to a violation of subsection (1)(a) of this section, which the defendant must prove by a preponderance of the evidence, that the defendant consumed a sufficient quantity of alcohol after the time of driving and before the administration of an analysis of the person's breath or blood to cause the defendant's alcohol concentration to be 0.08 or more within two hours after driving. The court shall not admit evidence of this defense unless the defendant notifies the prosecution prior to the omnibus or pretrial hearing in the case of the defendant's intent to assert the affirmative defense.

(b) It is an affirmative defense to a violation of subsection (1)(b) of this section, which the defendant must prove by a preponderance of the evidence, that the defendant consumed a sufficient quantity of marijuana after the time of driving and before the administration of an analysis of the person's blood to cause the defendant's THC concentration to be 5.00 or more within two hours after driving. The court shall not admit evidence of this defense unless the defendant notifies the prosecution prior to the omnibus or pretrial hearing in the case of the defendant's intent to assert the affirmative defense.

(4)(a) Analyses of blood or breath samples obtained more than two hours after the alleged driving may be used as evidence that within two hours of the alleged driving, a person had an alcohol concentration of 0.08 or more in violation of subsection (1)(a) of this section, and in any case in which the analysis shows an alcohol concentration above 0.00 may be used as evidence that a person was under the influence of or affected by intoxicating liquor or any drug in violation of subsection (1)(c) or (d) of this section.

(b) Analyses of blood samples obtained more than two hours after the alleged driving may be used as evidence that within two hours of the alleged driving, a person had a THC concentration of 5.00 or more in violation of subsection (1)(b) of this section, and in any case

in which the analysis shows a THC concentration above 0.00 may be used as evidence that a person was under the influence of or affected by marijuana in violation of subsection (1)(c) or (d) of this section.

(5) Except as provided in subsection (6) of this section, a violation of this section is a gross misdemeanor.

(6) It is a class B felony punishable under chapter 9.94A RCW, or chapter 13.40 RCW if the person is a juvenile, if:

(a) The person has three or more prior offenses within ten years as defined in RCW 46.61.5055; or

(b) The person has ever previously been convicted of:

(i) Vehicular homicide while under the influence of intoxicating liquor or any drug, RCW 46.61.520(1)(a);

(ii) Vehicular assault while under the influence of intoxicating liquor or any drug, RCW 46.61.522(1)(b);

(iii) An out-of-state offense comparable to the offense specified in (b)(i) or (ii) of this subsection; or

(iv) A violation of this subsection (6) or RCW 46.61.504(6).

[ 2017 c 335 § 1; 2016 c 87 § 1; 2013 c 3 § 33 (Initiative Measure No. 502, approved November 6, 2012); 2011 c 293 § 2; 2008 c 282 § 20; 2006 c 73 § 1; 1998 c 213 § 3; 1994 c 275 § 2; 1993 c 328 § 1; 1987 c 373 § 2; 1986 c 153 § 2; 1979 ex.s. c 176 § 1.]

#### NOTES:

Rules of court: Bail in criminal traffic offense cases—Mandatory appearance—CrRLJ 3.2.

Intent—2013 c 3 (Initiative Measure No. 502): See note following RCW 69.50.101.

Effective date—2011 c 293 §§ 1-9: See note following RCW 46.20.385.

Effective date—2006 c 73: "This act takes effect July 1, 2007." [ 2006 c 73 § 19.]

Effective date—1998 c 213: See note following RCW 46.20.308.

Short title—Effective date—1994 c 275: See notes following RCW 46.04.015.

Legislative finding, purpose—1987 c 373: "The legislature finds the existing statutes that establish the criteria for determining when a person is guilty of driving a motor vehicle under the influence of intoxicating liquor or drugs are constitutional and do not require any additional criteria to ensure their legality. The purpose of this act is to provide an additional method of defining the crime of driving while intoxicated. This act is not an acknowledgment that the existing breath alcohol standard is legally improper or invalid." [ 1987 c 373 § 1.]

Severability—1987 c 373: "If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected." [ 1987 c 373 § 8.]

Severability—1979 ex.s. c 176: "If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected." [ 1979 ex.s. c 176 § 8.]

Business operation of vessel or vehicle while intoxicated: RCW 9.91.020.

Criminal history and driving record: RCW 46.61.513.

Operating aircraft recklessly or under influence of intoxicants or drugs: RCW 47.68.220.

Use of vessel in reckless manner or while under influence of alcohol or drugs prohibited:

RCW 79A.60.040.