Toxicological Investigation of Drug Impaired Driving

TSRP Survey

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Toxicological Investigation of Drug Impaired Driving

TSRP Survey

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Contents:

Introduction .........................................................................................................................1

Basic Information

  Toxicology Labs Providing DUID Testing .................................................................2

Toxicology Laboratories

  Approximate Turnaround Time for Alcohol Analysis ...........................................3
  Approximate Turnaround Time for Drug Analysis ..................................................5
  Satisfaction with Turnaround Time .................................................................7
  Satisfaction with Ability to Answer Questions .....................................................10
  Satisfaction with Availability for Training ..........................................................11
  Satisfaction with Scope and Sensitivity of Testing ...........................................12
  Satisfaction with Availability for Trial Appearance ...........................................13

Testimony Support

  Toxicology Personnel for Testimony .................................................................14
  Satisfaction with Testimony Provided by Toxicology Experts ............................15
  Toxicologist’s Ability to Answer Technical Questions ..................................16
  Toxicologist’s Training in Testimony Skills for Court ......................................17

Testimony Outcome

  Affect of Toxicology Testimony on Trial Outcomes .............................................18
  Impact of Bullcoming v. New Mexico or Melendez-Diaz ..................................19
  Additional Input on Toxicology Support for DUID Litigation ..........................20
Introduction:

A survey was conducted to poll United State’s traffic safety resource prosecutors (TSRPs) with the purpose of gathering information about the needs of the traffic safety community regarding drug testing and testimony in DUID/DRE cases. TSRPs from each state were surveyed to identify, from the prosecutor’s perspective, areas of need in available testing resources, expertise for trial or preparation, meeting court imposed deadlines, and other service factors.

Contact lists were acquired for TSRPs through the Forensic Toxicology Council. All TSRPs were contacted via e-mail to initiate communication, confirm contact information, and verify their eligibility to participate in a survey regarding laboratory services in DUID cases. To create the survey, SurveyMonkey™, an online web survey instrument, was utilized. The survey was designed to establish factors corresponding to laboratory drug testing that can have an effect in drug analysis and the use of results in the court system. The survey was reviewed by the NSC CAOD committee who incorporated feedback to improve and confirm the final survey. The final surveys were sent out through SurveyMonkey™ to TSRP participants, followed by a second e-mail a week later containing a link to the survey to participants who had not responded. The survey remained open for approximately three weeks. There were seventeen received survey responses used for analysis out of sixty-eight potential respondents.
What toxicology labs in your area provide DUID testing for your cases? Please provide information:

A total of twenty-four names of toxicology laboratories were provided by the respondents. Of these, eight of the laboratories were added to a current list of toxicology laboratories to be contacted for a separate toxicology laboratory survey. These new contacts can be seen in the Appendix.
What is the approximate turnaround time from toxicology labs in regards to ALCOHOL analysis:

![Bar chart showing the number of responses for turnaround time from toxicology labs for alcohol analysis in terms of days.](image)

**Figure 1:** Number of responses for turnaround time from toxicology labs for alcohol analysis in terms of days.

![Pie chart showing the percentage of responses to the turnaround time from toxicology labs for alcohol analysis in terms of days.](image)

**Figure 2:** Percentage of responses to the turnaround time from toxicology labs for alcohol analysis in terms of days.
A total of sixteen answers resulted in responses ranging from three days to two hundred forty weeks. The distribution of data (Figure 1) shows the number of responses in a three week bin. The values that were above fifty-one days are turnaround times of one hundred twenty (reported twice), one hundred eight, and two hundred forty days. The average turnaround time calculated to be just above fifty-four days with a median of twenty-one days. The distribution also shows that in the majority of circumstances, the turnaround time is within thirty days (Figure 2).
What is the approximate turnaround time from toxicology labs in regards to DRUG analysis:

**Figure 3:** Number of responses for the turnaround time from toxicology labs for drug analysis in terms of weeks.

- **0-25 Days:** 7 respondents
- **26-50 Days:** 4 respondents
- **51-75 Days:** 2 respondents
- **76-100 Days:** 1 respondent
- **101-125 Days:** 1 respondent
- **126-150 Days:** 1 respondent
- **>151 Days:** 5 respondents

**Figure 4:** Percentage of responses to the turnaround time from toxicology labs for drug analysis in terms of days.

- **0-25 Days:** 44%
- **26-50 Days:** 6%
- **51-75 Days:** 6%
- **76-100 Days:** 6%
- **101-125 Days:** 13%
- **126-150 Days:** 12%
- **>151 Days:** 13%
A total of sixteen answers resulted in responses ranging from seven to four hundred eighty days. The distribution of data (Figure 3) shows the number of responses in a twenty-five day bin. The values that are above one hundred fifty-one days are turnaround times of one hundred eighty and four hundred eighty days. The average turnaround time calculated to be just over eighty-four days with a median of forty-five days. The data also shows that a large proportion of respondents (44%) indicated that the turnaround time from toxicology labs occurs between zero and twenty-five days (Figure 4).
How satisfied are you with the following aspects in regards to toxicology laboratory support?

Turnaround time; 1-10 (10 being very satisfied):

![Pie chart showing percentages of satisfaction ratings]

- 53% for Ratings 1-4
- 23% for Ratings 5-7
- 24% for Ratings 8-10

**Figure 5:** Percentage of responses to satisfaction in regards to the turnaround time from toxicology labs.
Figure 6: Correlation between turnaround times for alcohol analysis in terms of days and the satisfaction ratings respective to the data set.
Figure 7: Correlation between turnaround times for drug analysis in terms of days and the satisfaction ratings respective to the data set.

A total of seventeen responses yielded results that show that the majority (53%) are satisfied with the turnaround times of their toxicology labs (Figure 5). The satisfaction ratings were interpreted to indicate high satisfaction with ratings of 8 – 10, satisfaction with ratings of 5 – 7, and less satisfaction with ratings of 1 – 4. This data can be correlated with the data in the previous two questions asking for turnaround times for alcohol and drug analysis (Figure 6 & Figure 7). As expected, a quicker turnaround time typically led to a higher satisfaction rating. Trends show that when turnaround times started to exceed about one hundred days, the satisfaction ratings dropped significantly.
How satisfied are you with the following aspects in regards to toxicology laboratory support?

Ability to answer your questions; 1-10 (10 being very satisfied):

A total of seventeen responses yielded results that show that the majority (82%) are very satisfied with a toxicologist’s ability to answer questions for the TSRPs (Figure 8). The satisfaction ratings were interpreted to indicate high satisfaction with ratings of 8 – 10, satisfaction with ratings of 5 – 7, and less satisfaction with ratings of 1 – 4.
How satisfied are you with the following aspects in regards to toxicology laboratory support?

Availability for Training; 1-10 (10 being very satisfied):

Figure 9: Percentage of responses to satisfaction in regard to the availability of toxicologists for training.

A total of seventeen responses yielded results that show that the majority (70%) are very satisfied with a toxicologist’s availability for training (Figure 9). The satisfaction ratings were interpreted to indicate high satisfaction with ratings of 8 – 10, satisfaction with ratings of 5 – 7, and less satisfaction with ratings of 1 – 4.
How satisfied are you with the following aspects in regards to toxicology laboratory support?

Scope and Sensitivity of Testing; 1-10 (10 being very satisfied):

Figure 10: Percentage of responses to satisfaction in regard to the scope and sensitivity of testing provided by toxicology labs.

A total of seventeen responses yielded results that show that the majority (65%) are very satisfied in regards to the scope and sensitivity of the testing provided by toxicology labs (Figure 10). The satisfaction ratings were interpreted to indicate high satisfaction with ratings of 8 – 10, satisfaction with ratings of 5 – 7, and less satisfaction with ratings of 1 – 4.
How satisfied are you with the following aspects in regards to toxicology laboratory support?

**Availability for Trial Appearance; 1-10 (10 being very satisfied):**

![Pie Chart]

**Ratings 1-4**

**Ratings 5-7**

**Ratings 8-10**

**Figure 11:** Percentage of responses to satisfaction in regard to a toxicologist’s availability for trial appearance.

A total of seventeen responses yielded results that show that the majority (53%) is very satisfied in regards to a toxicologist’s availability for trial appearance (Figure 11). The satisfaction ratings were interpreted to indicate high satisfaction with ratings of 8 – 10, satisfaction with ratings of 5 – 7, and less satisfaction with ratings of 1 – 4.
Do you use toxicology personnel for testimony:

All seventeen responses to this question were a “yes”. This indicates that all TSRPs use toxicology personnel for testimony.
Are you satisfied with the testimony provided by toxicology experts:

There were sixteen responses to “yes” for this question. However, there were some concerns or limitations mentioned. The mentioned concerns were the lack of availability of toxicologists due to Bullcoming, surrogate or assistant analysts can’t be used for testifying, lack of understanding on SFST (Standardized Field Sobriety Test), and that the quality of testimony is variable.
Do you feel toxicologists have enough training to answer technical questions in court:

To this question, there were sixteen “yes” responses and one “no” response. It was mentioned that the core functions are adequately covered, but there is concern in that a toxicologist generally does not have the time to research a topic prior to testimony to address specific challenges or inquiries.
Do you feel toxicologists have enough training in testimony skills for court:

There were fourteen “yes” responses and three “no” responses to this question. Concerns to this question involve either being unaware of specific training in regards to testimony, or, also that there is limited training by the TSRPs, but there is not regular training on this topic.
How often does toxicology testimony affect trial outcomes:

Figure 11: Number of responses for the percentage of times toxicology testimony affects trial outcome.

A total of fifteen responses resulted in a broad range from ten to one hundred percent. The data yielded results that indicate that trial outcomes are affected by toxicology testimonies on average 63% of the time with a median of 70% (Figure 11). These results are opposed to the expectation that there would be a tighter range in the higher percentages along with a higher average of toxicology testimony affecting trial outcome.
Have trials in your jurisdiction been impacted by *Bullcoming v. New Mexico* or *Melendez-Diaz*:

A total of seventeen responses resulted in eleven “yes” responses and six “no” responses. To those who answered yes, it was asked how the trials were impacted. It varies from case to case and between jurisdictions, but it appears that prosecutors have seen an increase in appearance of analysts as expert witnesses. However, there can be a delay in getting the analyst to testify as he/she can be booked for months or an analyst may no longer be employed and a substitute analyst cannot be used. Often times, the defense uses *Bullcoming or Melendez-Diaz* as a trial tactic hoping that an analyst wouldn’t be able to appear in court, or the defense, prosecutors, and judges may be confused by the new confrontation clause requirements.
Do you have any additional input on toxicology support for DUID litigation:

Final comments once again bring up the concerns of a toxicologist’s availability for court. Once again, turnaround time and availability varies between regional, state, and local labs, but the concern lies in the amount of testing an analyst has to do. An analyst easily gets backed up and overworked because he/she is being sent to testify in court. It has been suggested that more resources are needed, including a system involving telephonic or video real time testifying to save money and time. Another opinion brought up is that the prosecutors need to be trained by a toxicologist to know what exactly a toxicologist can provide for the prosecution in a DUID case. Not all prosecutors understand drug and alcohol testing have different limitations, and this can sometimes affect the manner in which a prosecutor goes about prosecuting DUID cases. It is suggested that if toxicologists can directly inform prosecutors about what can and cannot be done by a toxicology lab in a DUID case, there will be a greater impact versus just getting training from TSRPs.