



# BETWEEN the Lines

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February 8, 2021 @ 2:00–3:00 p.m. (ET)

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## Impaired Driving: A New Perspective on a Perennial Problem

### Traffic Injury Research Foundation

*By Robyn D. Robertson, Hannah Barrett, Heather Woods-Fry, Carl Wicklund & Ward G.M. Vanlaar*



Impaired driving impacts urban and rural communities alike and has been a top road safety priority across the United States for decades. Criminal justice professionals in offices large and small are intimately aware of the substantial burden this social problem places on the limited resources of the criminal justice system. This is true whether they have worked within the system for decades or just recently joined its ranks. These professionals witness firsthand the devastating effects of this preventable problem on families and communities almost daily. In fact, in many courthouses impaired driving cases may account for upwards of 30% of caseloads (Robertson et al. 2009). Too many police officers, attorneys, judges and probation officers will tell you they recognize the familiar faces of impaired drivers as they are processed through the system again and again.

## Impaired Driving: A New Perspective on a Perennial Problem

This problem has persisted despite the emergence of a wealth of new research, amendments to impaired driving laws, and the development of new assessment tools, sanctions and alcohol monitoring technologies. In the past two decades, most jurisdictions have been guided by research and moved to implement many of these solutions to varying degrees. Considerable progress has been achieved, but the number of persons killed and injured by impaired drivers remains unacceptable. This has left many of those working in the DWI system asking themselves that age-old question...why?

The answer is simply the problem has changed since we first tackled it decades ago, and the pace of change has accelerated in recent years in response to social, legal and technological advances. As such, it's incumbent on us to take stock of current facts and consider whether the same approach utilized in years past is still relevant and effective, or whether it is time to re-evaluate our strategy and consider new ideas.

Professionals working with this population of offenders are searching for new ways to further reduce the problem, and to achieve gains faster. An assessment of the impaired driving problem today and how it has evolved is an important first step to strengthen existing strategies and practices. This assessment should be based on examination of current data combined with the latest research findings that provide insight into the characteristics and behaviors of impaired drivers. The second step involves a critical review of evidence-based interventions and the identification of those tools and approaches best-suited to each jurisdiction. Finally, consideration of emerging issues and how these may impact the problem and influence the use or effectiveness of strategies and interventions is necessary to achieve the desired outcomes.

This article describes the current situation and highlights how perspectives on this perennial problem have evolved in response to new research findings. It summarizes the latest data about the prevalence of the problem and the characteristics of offenders to provide a foundation for the discussion of effective interventions. An examination of emerging issues that will shape approaches to impaired driving and influence strategies to address it in the next few years is also shared along with a variety of educational resources and tools relating to each of these topics. These materials can help guide and inform the efforts of criminal justice professionals working to reduce impaired driving in their communities.

### How many people are killed in impaired driving crashes in the U.S.?

Generally, trends in the number of persons killed in impaired driving fatalities reveal significant progress has been achieved in reducing impaired driving in the past three decades. According to the National Highway Traffic Safety Administration (NHTSA), alcohol-impaired driving fatalities involving a driver with a blood alcohol concentration (BAC) of .08 or greater accounted for 28% of total motor vehicle crash (MVC) fatalities in 2019

### Constitutional Law Issues in Impaired Driving Cases

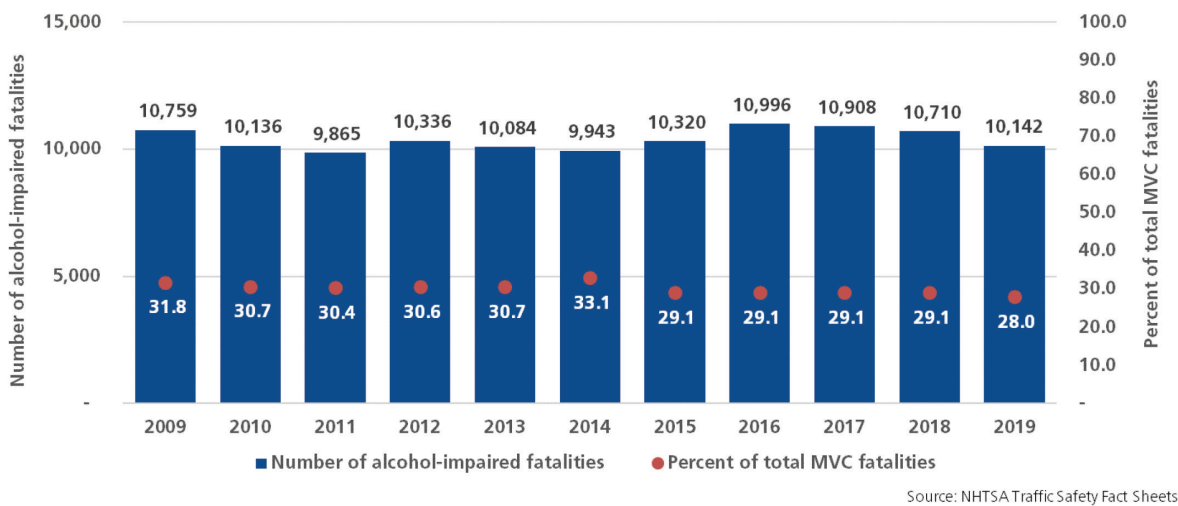
With support from the National Highway Traffic Safety Administration, the NTLC has published the [► \*Constitutional Law Issues in Impaired Driving Cases\*](#) monograph. This monograph addresses issues most commonly faced in impaired driving cases involving the Fourth, Fifth, Sixth, and Fourteenth Amendments to the United States Constitution. Not intended to replace the thorough research necessary for the proper handling of these important cases, it serves as a quick reference guide for prosecutors and law enforcement. This monograph was developed with contributions from the following Traffic Safety Resource Prosecutors: North Carolina's Ike Avery, Arizona's Beth Barnes, Kentucky's Tom Lockridge, Georgia's Jason Samuels, and Michigan's Ken Stecker. This monograph is available for free to download by clicking on the hyperlink above or from the NDAA website by clicking on Publications & Videos on the Resources tab.



(or 10,142 lives lost). This was a 5.3% decrease in alcohol-impaired driving fatalities compared to 2018, when the number of fatalities was 10,710 (29.1% of total MVC fatalities) (NCSA, 2020). Notably, the percent of alcohol-impaired driving fatalities of all driving fatalities in 2019 represents the lowest percentage since the beginning of data collection on alcohol in 1982.

In addition, the overall fatality rate decreased consistently during the past three years from a high in 2016. Although vehicle miles traveled (VMT) increased by 0.8% from 2018 to 2019, the estimated fatality rate per 100 million VMT decreased by 3.5% from 1.14 in 2018 to 1.10 in 2019 (NCSA, 2020).

Figure 1: Alcohol-impaired driving fatalities from 2009 to 2019



How has the approach to the impaired driving problem evolved?

For more than three decades there have been myriad efforts to prevent impaired driving and strengthen the DWI system to deter this high-risk behavior. In the 1980s and 1990s, these strategies involved passing tougher laws, harsher penalties, and putting in place stricter license reinstatement requirements. Enforcement was a critical feature of these tools and a greater emphasis was placed on persistent offenders who are more likely to be crash-involved, resulting in injuries and fatalities.

By the early 2000s, there was growing recognition that enforcement alone was not enough. Notably, concern among criminal justice professionals inspired a comprehensive review of the DWI system, funded by ➤ [Anheuser-Busch](#). It involved thousands of frontline practitioners and examined all phases of the criminal justice system (➤ [enforcement](#), ➤ [prosecution](#), ➤ [adjudication](#), ➤ [monitoring](#)). Study findings revealed common problems at all phases which resulted in impaired drivers “slipping through the cracks” (Simpson and Robertson 2001; Robertson and Simpson 2002a; 2002b; 2003a; 2003b). The recommendations emerging from it represented a major shift away from simply passing more and harsher laws, and instead focused attention on operational practices and improvements to close loopholes and make existing laws work better.

This work resulted in the formation of the ➤ [Working Group on DWI System Improvements](#) to advance study findings. This prestigious coalition represented diverse criminal justice leaders across the country and their unique perspective identified critical system needs as well as articulated the complex issues associated with the implementation of programs and policies. It also translated research into much-needed educational primers and guides for justice professionals on a diverse range of topics. This

Proceedings from annual meetings of the Working Group on DWI System Improvements have been consolidated to create a free training resource for professionals (➤ <https://dwiwg.tirf.ca/>). A complete list of publications is available at ➤ <https://dwiwg.tirf.ca/proceedings/>.

led to more attention being devoted to other facets of the impaired driving system, including prosecution, adjudication and supervision, which shared common problems. In addition, this research prompted greater attention to improve the implementation of countermeasures and ensure offenders were subject to programs and policies already in place.

In more recent years, traditional sanctions and countermeasures have been bolstered with more intensive and innovative strategies combining supervision and rehabilitation approaches such as problem-solving courts, new alcohol monitoring technologies, and many and varied treatment modalities. Evaluation of these approaches has demonstrated their effectiveness and resulted in the widespread adoption of these tools in most U.S. jurisdictions.

In addition to changes in laws and interventions, there have also been fundamental shifts in thinking about the impaired driving problem since 2000 which have influenced policies and programs. More attention has been devoted to first-time impaired drivers (first-time caught and likely not first-time driving impaired), many of whom are unlikely to re-offend but represent the large majority of impaired drivers; about 70% of those arrested (Rauch et al., 2010; Pilon, Jewell, & Wormith, 2015; Perreault, 2015). This has occurred as a result of research showing at least a portion of this population share many common characteristics with their repeat offender counterparts (Robertson et al., 2014a).

This knowledge has served to increase the use of validated risk assessment tools to ensure first and repeat offenders benefit from appropriate sentencing strategies. This approach has been driven, at least in part, by two important factors: stagnant and declining resources experienced in many offices as well as research showing over-servicing low-risk offenders produces worse outcomes (Robertson, Simpson, & Parsons, 2008; Gill, 2010; Vigilion & Taxman 2018; Walsh, Wells, & Gann, 2020). These tools are designed to provide much-needed guidance to facilitate the early identification of first offenders with the potential to become repeat offenders, allowing jurisdictions to more efficiently use their limited resources and improve outcomes.

During this time, criminal justice professionals have worked hard to keep pace with these changes as the impaired driving problem has evolved. Often they have faced competing priorities, limited resources, misinformation about the effectiveness of new programs and policies, and perhaps inconsistent political leadership. Despite these challenges, today, most jurisdictions have put in place, to varying degrees, many approaches needed to reduce the impaired driving problem.

But achieving further gains requires more strategic thinking that acknowledges the complex and heterogeneous nature of the problem. Better understanding of who drinks and drives, how often, and why, and also the characteristics of these offenders, is essential to refine existing strategies to address individual risks and needs in lieu of the traditional one-size-fits-all approach.

### How prevalent is self-reported impaired driving in the U.S.?

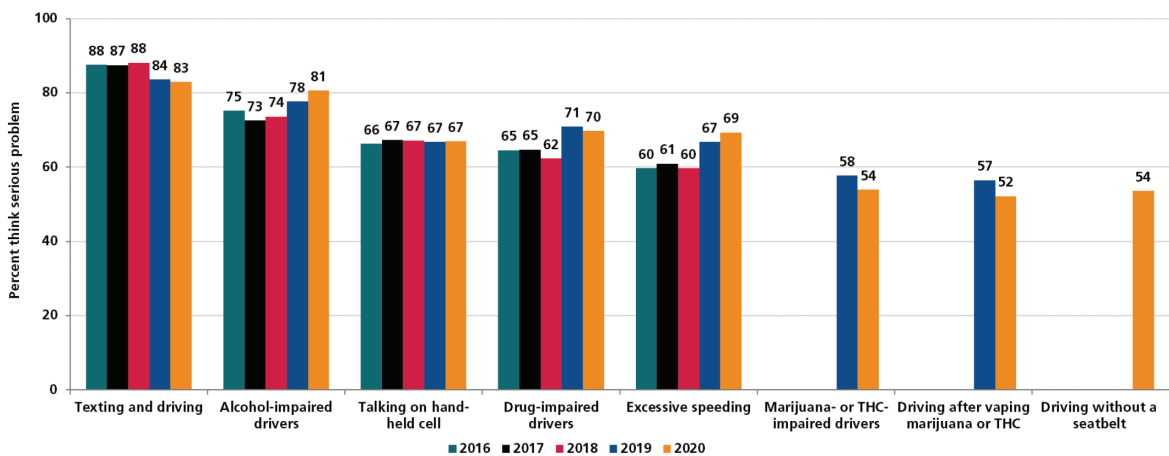
The ➤ [Traffic Injury Research Foundation USA, Inc.](#) (TIRF USA), with sponsorship from the Anheuser-Busch Foundation, has conducted six public opinion surveys spanning 2015 to 2020. This ➤ [annual poll](#) takes the pulse of the nation regarding the alcohol-impaired driving issue by means of an online survey of a random, representative sample of U.S. drivers aged 21 years or older. A total of 1,501 drivers completed the poll in September 2020 (results can be considered accurate within plus or minus 2.5%, 19 times out of 20) (Woods-Fry et al., 2020).



The prevalence of impaired driving is concerning (Figure 2) with 16.6% of U.S. drivers reporting driving when they thought they were over the illegal limit in the last 12 months. Although this finding represents a decline from the 1 in 5 drivers (or 20%) who reported doing this in 2019, still 2020 remains the second-highest percentage reported since 2015. Respondents were also asked how often they drove after drinking, and the percentage who did so often or very often also decreased significantly to 8% in 2020 as compared to 11.1% in 2019 (Woods-Fry et al., 2020).



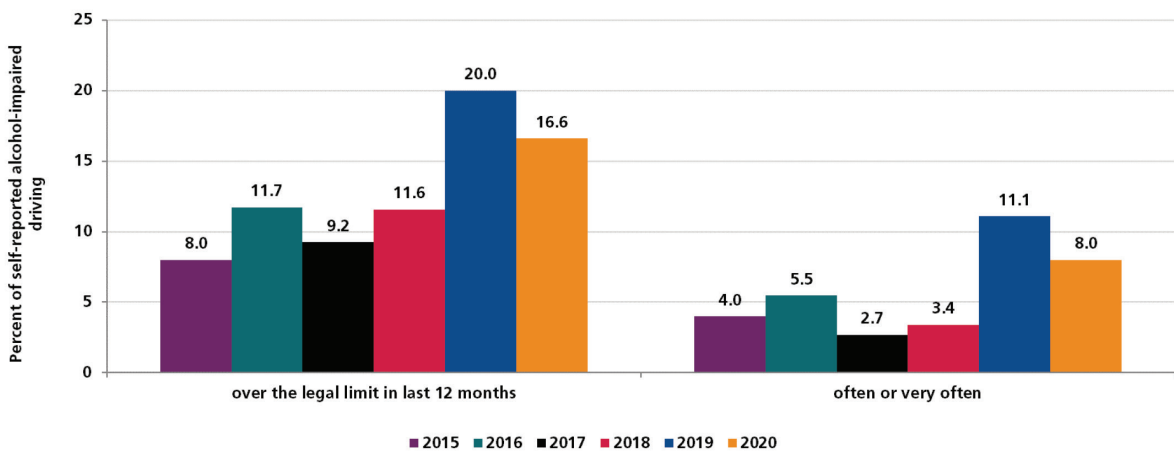
Figure 2: Percent of U.S. drivers self-reporting alcohol-impaired driving in 2015–2020



How prevalent is impaired driving compared to other risky driving behaviors?

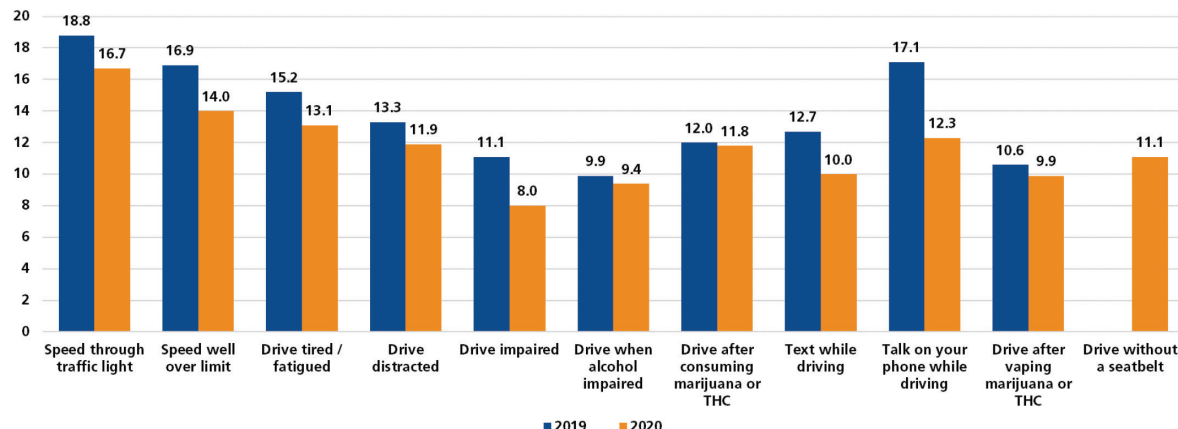
The prevalence of impaired driving is lower than many other risky driving behaviors, although alcohol continues to account for almost 30% of road fatalities (NCSA, 2020). Between 2015 and 2019, U.S. drivers self-reported impaired driving less often than other risky driving behavior examined in this survey as shown in Figure 3. Whereas approximately 1 in 10 (or 11.1%) of drivers admitted driving when impaired by alcohol in 2019, more drivers admitted speeding through a traffic light (18.8%), speeding well over the limit (16.9%), and driving distracted (13.3%) (Woods-Fry et al., 2020). Of concern, there have been significant increases in all unsafe driving behaviors monitored by this survey since 2015.

Figure 3: Percent of U.S. drivers who often or very often engage in dangerous driving behaviors in 2015–2019



In 2020, a broader range of risky behaviors was examined and compared to 2019 as appropriate. It revealed a decline in the prevalence of impaired driving as well as all other risky behaviors, however, the COVID-19 pandemic no doubt influenced these results and it is not clear whether these declines represent the beginning of a downward trend or not.

**Figure 4: Percent of U.S. drivers who often or very often engage in dangerous driving behaviors, 2019–2020**



### Why do people continue to drive impaired?

Approximately 1 in 3 drivers (or 31.7%) who self-reported driving impaired in 2020 did so because they believed they were “okay” to drive and this represents a decline from 2 in 5 drivers (or 39.4%) in 2019. Other common reasons drivers self-reported driving impaired in 2020 included:

- 8.6% believed they could drive carefully regardless (10.4% in 2019);
- 9.1% believed they would not be caught (compared to 9.8% in 2019);
- 11.9% thought there was no alternative to driving (compared to 9.6% in 2019)

Smaller percentages of drivers reported still other reasons including 8% who did not think about it, 7.9% who did not know why they drove while impaired, to 4.7% who said they were not driving very far (Woods-Fry et al., 2020).

When considering 16.6% of all U.S. drivers who drove when they thought they were over the legal limit in 2020 (13.5% five-year average), more than 40% (42.8% five-year average) of them believed they were okay to drive (Woods-Fry et al., 2020). This suggests they do not understand the impairing effects of alcohol on driving or the risk they pose to themselves and other drivers on the road. It may also indicate drivers are unaware they cannot accurately gauge their own level of impairment after they have been drinking. Research shows drivers consistently under-estimate their level of impairment after drinking and exhibit poorer driving performance (Laude, 2016; Matthews & Desmond, 2017). Studies indicate drivers perceive driving to be significantly less dangerous and they are more willing to drive after drinking as they cease drinking and their BAC begins to decline (Amlung, Morris and McCarthy, 2014). These results underscore the importance of educational campaigns designed to help drivers recognize they are not able to judge their own level of impairment or ability to drive after drinking.



### Who drives impaired?

Impaired drivers are a heterogeneous population representing all walks of life. The TIRF USA Road Safety Monitor poll also explored the characteristics of persons who reported driving when they thought they were over the illegal limit. Data were analyzed to explore relationships between people who reported driving while

they thought they were over the legal limit within the last 12 months and their sex, age, the distance they drove, the number of tickets issued, and whether they had previously been injured in a collision. Analysis of the aggregated data from the past five years revealed the following significant results (Woods-Fry et al., 2020):

- Males were 153% more likely than females to report driving while they thought they were over the legal limit.
- Older drivers were 4% less likely to report driving when they thought they were over the legal limit. Approximately 1 in 4 respondents (or 25.9%) aged 21 to 39 years reported this behavior, whereas among those aged 40 to 59 years approximately 13.5% and 5.9% of those over age 60 reported this.
- Drivers who received two or more tickets in the past 12 months were approximately 11 times more likely to report driving when they thought they were over the legal limit compared to those who received fewer than two tickets.
- Persons who had been injured in the past in a motor vehicle crash were 98% more likely to report driving when they thought they were over the legal limit compared to those who had not been injured before. One explanation for this finding may be that persons who drink and drive do not associate their crash with driving after drinking. This would be consistent with at least a portion of these drivers who admitted driving after drinking because they felt okay to drive.

Data regarding the characteristics of persons who drove after drinking often or very often were also analyzed with respect to sex, age, the distance they drive, the number of tickets issued, and whether they had previously been injured in a collision. Based on the aggregated data from the past five years, the following significant results were found, similar to those in the previous section (Woods-Fry et al., 2020):

- Males were 99% more likely than females to report driving impaired often or very often.
- Older drivers were 3.3% less likely to report driving impaired often or very often. In 2020, 11.4% of respondents aged 21 to 39 years reported this behavior, whereas among those aged 40 to 59 years approximately 7.6% and 2.9% of those over age 60 reported this.
- Persons who received two or more tickets in the past 12 months were 51% more likely to report driving impaired often or very often compared to those who received fewer than two tickets.
- Persons who had been injured in the past in a motor vehicle crash were 59% more likely to report driving impaired often or very often compared to those who had not been injured before, and this result may also be explained in the same way as the similar result reported above.

### What does research tell us about common characteristics of impaired drivers?

A comprehensive review of research studies also provides important insight into the [profile and characteristics of impaired drivers](#) (Robertson, Wood & Holmes, 2014a). On average, impaired drivers of both sexes are generally aged 20 to 40, with many offenders being in their 30s. Relative to the general population, impaired drivers of both sexes also are more likely to have less education and lower levels of employment and income; this finding is more pronounced among repeat offenders. Similarly, impaired drivers of both sexes are more likely to be single, separated, or divorced. Again, this finding is more pronounced among repeat offenders.

Alcohol-related diagnoses are very common among impaired drivers of both sexes. In particular, the age of onset of drinking and family history warrant attention. To reiterate, while such diagnoses are highly correlated with impaired driving offending, they are not necessarily a causal factor. Both male and female impaired drivers have higher levels of psychiatric symptoms relative to the general population so co-occurring disorders should not be overlooked during screening and assessment of this population. Moreover, recidivism rates for impaired driving among men and women of adult age appear similar following a first alcohol-related conviction.

There are also some important differences between male and female impaired drivers. Men appear to exhibit a higher degree of antisocial attitudes and behaviours relative to women, although research comparing these populations on this dimension is sparse. Conversely, women experience more severe psychological and mental health symptoms as well as report greater involvement in drugs. Men may be more defensive about alcohol problems and, in particular, repeat male impaired drivers may demonstrate a greater readiness for change.

In addition, younger males appear to have higher recidivism rates relative to females in this age category. Male impaired drivers also have more extensive histories of driving offenses and other criminal offences as well as more prior experience with impaired driving interventions.

To summarize, this research makes abundantly clear why interventions based upon simple theoretical models that emphasize distinct aspects of behavior, as opposed to a broader examination of the constellation of behaviours that are intimately linked to impaired driving, have failed to produce more dramatic results. This critical fact was succinctly captured in Wanberg et al. (2005) who stated “there is no simple cause and effect model that can explain, let alone predict, impaired driving conduct.” (p.20)

### What types of countermeasures do communities need to reduce impaired driving?

There is a wealth of research demonstrating the effectiveness of a wide range of impaired driving interventions and countermeasures. Some of the most recent and notable studies to review include:

- **Enforcement.** A systematic review and a meta-analysis demonstrated alcohol-related crashes could be reduced by 9% and 17% respectively through the use of sobriety checkpoints, and publicized programs reduce these crashes among young males aged 21–34 years (Guide to Community Preventive Services, 2012; Erke, Goldenbeld, & Vaa, 2009; Bergen et al. 2014) as reported in ► [NHTSA's Countermeasures That Work, 9th ed.](#) (Richard et al., 2018).
- **Ignition interlock programs and laws.** Research has shown alcohol ignition interlocks are one of the most proven and effective tools to prevent impaired driving, reduce repeat offenses, and reduce alcohol-related crashes (Willis et al. 2005; Kanable 2010; Elder et al. 2011; Fielder et al. 2013; McCartt et al. 2013; Voas et al 2013; Beck et al. 2015; Kaufman and Wiebe 2016; Vanlaar et al. 2017; McGinty et al. 2017; Teoh et al. 2018). Several recent evaluations of alcohol ignition interlock programs in ► [Minnesota](#), ► [Colorado](#), and an ► [analysis of the effectiveness of all offender interlock laws](#) have reported compelling results including:
  - In Colorado, the interlock program showed a longer-term reduction in recidivism of 14.7% for successful program participants compared to 21.3% for those who were not. Offenders who completed education, treatment, and probation services programs had a much lower, significant recidivism rate of 13.1% compared to 26.1% of offenders who failed to complete any of the three programs (Lucas, Le, Powell & Scopatz, 2018).
  - Results from the Minnesota interlock program evaluation revealed it reduced long-term risk by 39% and prevented more than 12,000 instances of impaired driving. Analyses revealed the more severe the impaired driving violations at the time of the arrest, the less likely offenders completed the program. When compared with second and subsequent offenders, first offenders were 13.1% less likely to recidivate (Le, Powell, Lucas and Scopatz, 2019).
  - The analysis of state laws by Teoh et al. (2018) by the Insurance Institute for Highway Safety examined the differences in three interlock laws by comparing the number of alcohol-impaired passenger vehicle drivers involved in fatal crashes between 2001–2014 in the United States across states and time. It demonstrated states with all-offender laws were effective in reducing impaired driving fatal crashes (16% fewer crashes with BAC 0.08+), compared to states with no law. However, states with repeat-offender laws were associated with a small benefit (3% reduction in crashes involving an impaired driver) compared to states with no law, and there was an additional benefit of including high-BAC offenders (8% reduction in impaired drivers in fatal crashes, compared with no law). These findings suggest it is important for states



to not only continue to require interlocks for all alcohol-impaired driving offenders but also for states to follow up with the non-installer offender population.

- **Marijuana use and interlock program participation.** A five-year longitudinal study of interlock offenders in New York suggested interlock offenders may decrease alcohol use on the program but increase their marijuana use (*i.e.*, the substitution effect). The study demonstrated there is a significant increase in marijuana use among drivers who decreased their alcohol use relative to drivers who do not decrease their alcohol use. These findings indicate there may be a need for supplemental interventions for drivers who are prone to substance substitution while the interlock device is installed. (Barrett & Robertson, 2019; Scherer et al., 2020).
- **DWI courts.** A 2012 meta-analysis of DWI courts involving 28 studies demonstrated these problem-solving courts may produce up to 50% lower recidivism rates when compared to traditional courts (Mitchell, Wilson, Eggers, & MacKenzie, 2012), however, more well-designed experimental studies are needed to draw definitive conclusions.

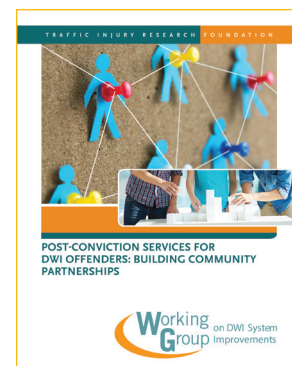
A comprehensive and unique ► [Michigan evaluation of five DWI courts using ignition interlocks](#) with five experimental groups matched with control groups revealed offenders in DWI/Sobriety Court not under interlock supervision had over three times the odds of failing out of their therapeutic court program relative to those participants in a DWI/ Sobriety Court that is using ignition interlocks. Interlock participants had lower impaired driving and criminal recidivism rates, fewer failed tests and were more likely to complete the DWI court. Notably, this study had a 97% participation rate with offenders installing interlocks.

- **Treatment.** Several ► [treatment interventions](#) have been evaluated for effectiveness with impaired drivers and have shown promising results, including motivational interviewing, screening and brief interventions and cognitive behavioral approaches (Robertson, Simpson & Parsons, 2008). A ► [comprehensive overview of the use and effectiveness of treatment](#) highlights various treatment models and describes important caveats and limitations associated with these interventions (Robertson et al. 2014c). In particular, cognitive behavioral approaches appear to be effective with persistent impaired drivers. Research has shown when participating in cognitive behavioural therapy (CBT), many impaired drivers do not have a positive urinalysis during the treatment program (Moore et al., 2008; Brown et al., 2009; Brown et al., 2010). Additionally, research has determined that recidivism rates and self-reported alcohol abuse among repeat impaired drivers who participate in cognitive behavioural approaches are lower when compared with repeat impaired drivers who did not participate in cognitive behavioural approaches (Brown et al., 2009; Brown et al., 2010). Finally, in a study on mandating treatment based on interlock performance, Voas et al. (2016) found strong support for the inclusion of Alcohol Use Disorder treatment for offenders in interlock programs with one-third lower DUI recidivism following time on the interlock compared to similar untreated offenders.

With this research in mind, jurisdictions are encouraged to review their impaired driving countermeasures currently in place and consider whether there is adequate evidence to support their continued use. Reliance on policies and programs that lack an evidence-base simply waste scarce resources.

Irrespective of the specific countermeasures utilized by jurisdictions, a comprehensive suite of tools is necessary and close attention to the proper implementation of them is essential. The delivery of these programs should be guided by good data and staff working in these programs should receive training and education regarding their use.

Strategies that strike a better balance between supervision and rehabilitation can increase accountability among offenders and help them overcome different and complex barriers to success. These barriers may include substance misuse, abuse or addiction, history of trauma, mental health issues, under- or unemployment, lack of a support network, inadequate living arrangements and insensitivity to gender identity, race and culture. For this reason, efforts to link offenders to ► [other community resources](#) (*e.g.*, housing, employment, education, healthcare, community services) should also be considered (Robertson et al., 2017).



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Of importance, some countermeasures may be more easily or completely implemented in urban as compared to rural jurisdictions as a result of having more infrastructure and resources as well as easier access. However, rural jurisdictions should be an important consideration in any discussion of countermeasures, and some [▶ examples of impaired driving interventions designed for rural jurisdictions](#) are available.

Finally, for those jurisdictions with many proven interventions in place, consideration should be given to the use of validated risk assessment tools that can help ensure the risks and needs of impaired drivers are addressed to prevent re-offending. An [▶ overview of validated risk assessment tools for impaired drivers](#) can aid discussions and decision-making (Robertson, Wood & Holmes, 2014b). A growing number of jurisdictions are using the [▶ Impaired Driver Assessment \(IDA\) tool](#) developed by the American Probation and Parole Association (APPA) with funding from NHTSA. Educational resources and training are available to help states utilize this valuable resource.

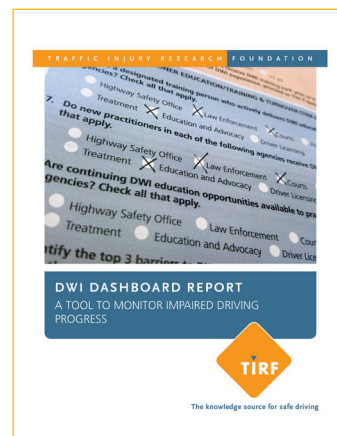
More information about these interventions is available from:

- [▶ American Probation and Parole Association](#)
- [▶ Association of Ignition Interlock Program Administrators](#)
- [▶ International Association of Chiefs of Police](#)
- [▶ National Center for DWI Courts](#)
- [▶ National Traffic Law Center](#)

Assistance and training are also available from [▶ state law enforcement liaisons](#) (LELs), [▶ Traffic Safety Resource Prosecutors](#) (TSRPs), [▶ Judicial Outreach Liaisons](#) (JOLs) and Probation Fellow.

### Are there free tools for states that can inform discussions about impaired driving strategies?

**Yes.** The [▶ DWI Dashboard online assessment tool](#), developed by TIRF and the DWI Working Group in 2013 with funding from Anheuser Busch, is a flexible online tool designed to capture information that jurisdictions can use to increase understanding of why they are or are not making more progress in reducing impaired driving prevalence, deaths and injuries. It was created using a broad theoretical model and based on existing research, expertise and practice relating to the wide array of factors that can, to varying extents, influence progress in reducing impaired driving. It includes traditional measures of impaired driving, the presence, characteristics and quality of proven countermeasures, and a diversity of both environmental and contextual measures. More importantly, the DWI Dashboard acknowledges and accounts for unique contextual and environmental factors (*i.e.*, the day-to-day challenges or barriers practitioners must overcome) which influence a state's progress. As such, it provides a holistic picture of the impaired driving issue by relying on the most important indicators that place progress in context and suggest opportunities for continuous improvement.



The Dashboard can be completed by a team of stakeholders. It examines 10 priority issues and acknowledges contextual factors within the state. It uses a two-tiered approach to first identify priority issues and then focus more attention on these areas to determine where and why gaps exist. Through a cooperative agreement with NHTSA, TIRF is able to provide [▶ free technical assistance](#) to help states use the tool and utilize findings from it. Results from the Dashboard can be used to identify priority issues and inform the development of a strategic plan to address gaps (Robertson, McKiernan & Holmes, 2015). Supporting resources are available, notably two strategic guides with templates, tools and examples of practice to guide the selection of improvements.

### How important is good data to addressing the problem?

► **Good data** are essential to provide researchers and policymakers with the information they need to determine the scope of the impaired driving problem and how best to deal with it. With good data it is possible to accurately determine the magnitude and characteristics of, or trends in the impaired driving problem. These data enhance the ability of legislators, policymakers and administrators to establish priorities regarding which programs and policies are most needed, and to allocate resources accordingly. The benefits of good data include identifying weaknesses in the DWI system, improving legislation and implementation of programs and policies, and demonstrating effectiveness. As such, good data can translate into better outcomes which reduce the burden of impaired drivers on the justice system (TIRF, 2010).

For more information about this topic, an ► [overview of important issues related to data collection, management and use](#) has been developed by the DWI Working Group as well as a comprehensive publication about ► [Performance Measures in the DWI System](#) (Robertson & Holmes, 2014).

Are there any emerging trends to watch for?

There are a variety of social, legal and technological developments which may potentially impact the enforcement of impaired driving laws and delivery of countermeasures.

- **Declining enforcement of impaired driving laws.** Police agencies have a broad mandate and are tasked with a growing number of competing priorities, particularly since 9/11. Impaired driving specifically and road safety generally represent just two of a much larger number of issues they deal with daily. In addition, recruitment and training of officers has been increasingly challenging in the past decade as resources have declined and many traffic units have been re-assigned to general patrol. The large majority of police agencies are small in size and deliver services in very large geographic areas. As a consequence, it has been more challenging for police services to consistently enforce impaired driving laws and this has been evidenced by a declining number of arrests, not only in the U.S. but in Canada and some European countries. Not only have resources declined, but many officers representing Baby Boomers are poised for retirement in the next decade.

This situation combined with recent, high-profile events related to use of force complaints have important implications for the ability of police agencies to continue to enforce impaired driving laws as consistently as has been done in years past. This may have important implications on the level of deterrence of impaired driving that can be achieved. As such, an important consideration for an impaired driving strategy is alternatives to increase the efficiency of enforcement efforts, and also harness prevention strategies and educational approaches designed to strengthen social norms.

- **Cycles of concern and complacency.** Some criminal justice practitioners across the country have noted that political leadership with respect to impaired driving issues has waned in recent years. In at least some jurisdictions, it has become more challenging to introduce new legislation or amendments to improve impaired driving laws and garner support. This situation may be the result of a combination of factors including declining fatalities, cuts to state budgets and agencies, changing political priorities, low awareness about the magnitude of the problem or a lack of data to demonstrate it warrants attention. ► [Cycles of concern and complacency](#) in road safety are not new, however Irrespective of the reason, concerted efforts are needed to re-prioritize impaired driving and road safety more generally. Ultimately, the lack of attention to the issue erodes the deterrent effects of programs and policies which are not perceived to be consistently enforced. More concerning, this can lead to increases in fatalities and injuries.
- **Polysubstance use among impaired drivers.** According to police officers across the country, many impaired drivers who are arrested have more than one impairing substance in their system. While this phenomenon is not new, greater recognition of it has important implications for enforcement strategies and countermeasures. Historically, impaired driving research has focused on the impairment by alcohol or impairment by drugs. Evaluations of the effectiveness of various interventions have relied on a similar approach. In other words, while much is known about effective strategies for drivers impaired by alcohol,

much less is known about what is effective with drug-impaired drivers, or drivers impaired by both substances. As such, much more work is need to increase understanding of what types of countermeasures are effective with polysubstance impaired drivers.

- **Emerging enforcement and alcohol monitoring technologies.** ➤ A variety of new technologies have come of age in the last decade with considerable potential to increase the enforcement of impaired driving laws as well as support both the supervision and rehabilitation of impaired driving offenders (TIRF, 2020a). These technologies include body cameras for police officers, ignition interlocks and continuous alcohol monitoring devices with enhanced features, various tracking and monitoring solutions that provide real-time location, home confinement capabilities, automated call services and kiosk check-in locations, some with remote alcohol sensing technologies. Understanding the benefits and limitations of these technologies is essential and careful attention to ➤ [critical implementation issues](#) is warranted. These technologies have significant implications for workload and data management strategies, however, they can greatly improve the efficiency of supervision and monitoring practices in the long-terms as well as help to identify high-risk populations. Discussion about the implementation of such technologies should include the use of step-up and step-down administrative responses to encourage, acknowledge and reinforce compliance as well as exploring ➤ [opportunities to link technology use to treatment](#) and rehabilitation efforts to improve outcomes (TIRF, 2020b).
- **COVID-19 pandemic.** Since the World Health Organization (WHO) declared a world-wide pandemic in March 2020 there has been a substantial decrease in vehicle miles traveled (VMT) and traffic volumes. However, this decrease in traffic volume has led to an increase in certain risky driving behaviors such as excessive speeding and impaired driving (Carter 2020; Thomas et al. 2020). Preliminary data also indicates there has been a decrease in overall crashes, but an increase in crash severity (Hughes et al. 2020). The TIRF USA Road Safety Monitor (2020) explored the effects of the COVID-19 pandemic on road safety, asking respondents about various self-reported unsafe driving behaviors including alcohol-impaired driving, speeding, distracted driving, drug-impaired driving, and restraint use. Specifically, respondents were asked how likely they were to engage in these risky behaviors during the COVID-19 pandemic, compared to their typical behavior before the pandemic.



In summary, the majority of drivers did not change their behavior, whereas a smaller proportion of drivers indicated they took fewer risks on the road during the pandemic. These drivers may have been more sensitive to safeguarding their own health. More concerning, a notable proportion of U.S. drivers indicated they were more likely to engage in risky driving behaviors during the pandemic, as compared to before.

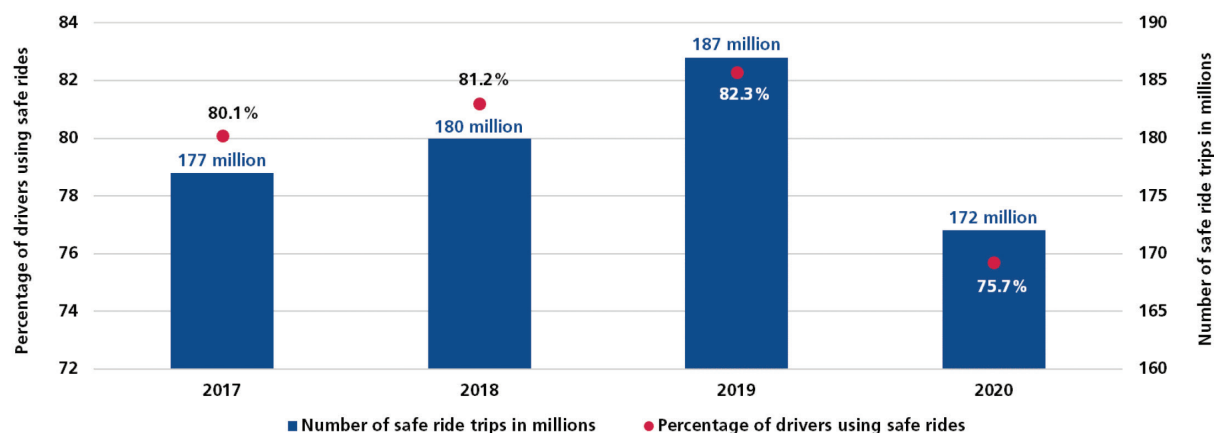
- Specifically, 7.6% of drivers indicated they were more likely to drive within 2 hours of consuming alcohol, and an equal proportion of drivers admitted to excessively speeding during the pandemic.
- More than 6% of U.S. drivers reported they were more likely to drive distracted, drive within 2 hours of using drugs, and to not wear a seatbelt. This corresponds to over 13.6 million licensed drivers reporting each of these risky driving behaviors as more likely during COVID-19.
- Drivers were more likely to regard alcohol-impaired driving and excessive speeding as serious problems in 2020, as compared to previous years. These findings might suggest U.S. drivers possibly observed these issues more frequently on their roads during the pandemic and thereby were more likely to report them as serious road safety issues in 2020.
- The proportion of respondents indicating they had been a designated driver, used a designated driver, used a taxi or public transportation or ridesharing in 2020





was 75.7% (Figure 5). This represents an 8% decrease from 82.3% in 2019. The COVID-19 pandemic may have affected the use of safe rides in 2020, as Vanlaar et al. (2020) demonstrated a decrease in the use of both public transit and ridesharing during the pandemic. It is possible this decrease in 2020 was due to the reticence to use a shared mode of transportation for fear of getting infected, however, continued monitoring of this indicator is necessary to determine if this decrease continues or whether it returns to pre-pandemic levels (Woods-Fry et al., 2020).

**Figure 5: Trends in the use of safe rides, 2017–2020**



## Conclusions

Road safety has become a much more complex problem with many emerging issues that compete for attention and limited resources. Road crashes are a leading cause of death and alcohol, by itself, remains one of the main contributors to crashes. Although more attention has been given to marijuana and prescription drugs in the past decade, it should not be overlooked many offenders impaired by other substances also have alcohol on board.

In addition, data showing there are fewer impaired drivers in comparison to drivers engaging in other risky behaviors such as speeding or distracted driving should be considered in context. It is important to understand the impairment of drivers persists throughout their entire driving trip and poses risk to every driver they pass on the road, whereas speeding or distraction may occur intermittently throughout a driving trip. Moreover, the risks of alcohol-impaired driving are well known and the potential for crash involvement is high.

The current focus on the impaired driving problem which includes all offenders with an emphasis on the early identification of high-risk first offenders and more efficient allocation of limited resources should be embraced and integrated into practice. The one-size-fits-all approach of the past is no longer appropriate because the problem has changed. Practitioners should look to new research regarding the importance of addressing the risks and needs of individuals, as well as balancing supervision and rehabilitation approaches to inform impaired driving strategies.

While it is acknowledged progress has been achieved reducing this perennial problem, we should not be lulled into complacency and lose focus on this priority. The prevalence of self-reported impaired driving remains a concern as well as the reasons drivers choose to engage in this risky behavior. New knowledge about the profile and characteristics of impaired drivers can guide prevention and intervention strategies. It is underscored that no one model can explain or predict impaired driving due to the complex interplay between individual characteristics, environment and context. Important factors to consider include individuals who believe they are okay to drive, a history of other traffic or criminal violations, and polysubstance use. In addition, sentencing strategies should include services related to mental health, trauma, history of treatment, and need for assistance with housing, employment or other such services as appropriate. As such, practitioners

are encouraged to adopt a more holistic view in the processing of these offenders to create the greatest likelihood they will not return to the justice system for a repeat offense.

Continued attention is also required to continue to strengthen countermeasures. Much has changed in the past decade and interventions increasingly involve risk assessments, individualized approaches, new technologies, and a more equitable balance between supervision and rehabilitation. Recent research studies contain new studies and can be used to further refine programs and policies. Important caveats to the delivery of impaired driving interventions are that sentences should be related to the offending and consideration should be given to the ability of offenders to actually comply with sentencing requirements (*i.e.*, avoid setting offenders up to fail). In this regard, cornerstones to the effectiveness of any impaired driving strategy include high-quality data and proper training and education for staff. Free educational resources on a broad range of impaired driving topics are available at ► <https://dwiwg.tirf.ca>.

Lastly, several emerging trends will influence the enforcement of laws and delivery of interventions including declining enforcement resources and mass retirement of aging Baby Boomers, complacency with respect to impaired driving, polysubstance use and COVID-19. Tracking these relevant issues can help practitioners to adjust policies and practices as these issues evolve in order to continue to be effective reducing impaired driving in their communities.

The most important reasons to prioritize impaired driving live and breathe in the communities in which you all work.

As a final thought, when politicians, agency administrators, colleagues, counterparts and community members ask why they should prioritize impaired driving, tell them why you do it every day. The most important reasons to prioritize impaired driving live and breathe in the communities in which you all work. Equally concerning, crashes deplete health care resources and undermine emergency preparedness plans. More concerning, the social costs of crashes is profound and the problem cannot be ignored. It poses a real risk to communities every day. Blincoe et al. (2015) estimated the economic cost of police-reported and unreported motor vehicle crashes in the U.S. totaled \$242 billion in 2010. This estimate increased more than threefold to \$836 billion in societal costs when the quality of life valuation was included in the calculations. Alcohol-involved crashes accounted for 22% of all economic costs totaling \$52 billion. Most of these costs (84% or \$44 billion) were in crashes involving a driver or non-occupant with a BAC of .08 or greater. In terms of societal costs, alcohol-positive crashes totaled \$236 billion, with 85% (or \$201 billion) occurring in alcohol-impaired crashes.

Road crashes are preventable. Our gratitude to all criminal justice professionals and road safety stakeholders whose work saves lives every day. The Traffic Injury Research Foundation is proud to support your efforts. If you are looking for research, data or educational resources, or are in need of technical assistance to strengthen your impaired driving system, please contact us at ► [tirf@tirf.ca](mailto:tirf@tirf.ca) or visit our website at ► [www.tirf.ca](http://www.tirf.ca).

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