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BACKGROUNDER

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The Need to Treat Driving Under the Influence of Drugs as Seriously as Driving Under the Influence of Alcohol

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Abstract

After 40 years of education, prevention, and intervention by law enforcement authorities, American society has seen a significant decline in alcohol-related crashes and fatalities. But various drugs can also severely impair the brain, and drugged driving can be as deadly as drunk driving. It is time to address the complex problem of drugged driving and commit ourselves to keeping that preventable behavior from offsetting the reduction in morbidity and mortality that our efforts against drunk driving have produced. Reasonable steps can be taken to keep someone from maiming or killing innocent people by using drugs and driving. We should not let the perfect be the enemy of the good—certainly not where what is good and doable will save lives.

Driving Under the Influence of Alcohol (DUI or DUIA)

Ever since Noah became the first vintner,[1] Western society has known that alcohol impairs one's judgment. In the first century A.D., Flavius Josephus expresses the need to teach one's children to drink wine in moderation.

The disabling effect of alcohol is particularly evident and especially dangerous when a person gets behind the wheel of a multi-ton steel vehicle while under its influence.[2] Alcohol-impaired driving is dangerous to the driver, any passengers travelling with him or her, anyone else on the roadway, and pedestrians. Alcohol hampers attention, signal detection, reaction time, hazard perception, object-tracking skills, concentration, and hand-eye coordination.[3] Aggravating the impairing effects of alcohol are its abilities to reduce the perceived negative consequences of risk-taking and to "sneak up" on a driver by degrading his driving skills before he becomes aware of its effect.[4]

This paper, in its entirety, can be found at **http://report.heritage.org/bg3316**

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Key Points

- For 40 years, American society has dedicated itself to addressing the problem of drunk driving through education, prevention, and intervention by law enforcement authorities.
- As a result, we have witnessed a considerable decline in alcohol-related crashes and fatalities.
- Physicians, scientists, policymakers, and government officials also agree that driving while drugged is likewise a danger to drivers, passengers, pedestrians, and their families regardless of their views about drug legalization and regardless of where they live.
- We should now commit ourselves to an effort to keep that preventable behavior from offsetting the reduction in morbidity and mortality that we have seen from our efforts to stop drinking and driving.
- Reasonable steps can be taken to keep someone from maiming or killing innocent people by using drugs and driving. We should not let the perfect be the enemy of the good—certainly not where what is good and doable will save lives.

Drunk driving imposes severe costs on the parties injured or killed in an alcohol-induced motor vehicle collision, as well as on the nation as a whole. Approximately 29 people die every day in alcohol-impaired vehicle crashes: one every 50 minutes or more than 10,000 per year.[5] Using the most recent cost data, alcohol-induced morbidity and mortality costs the nation $44 billion per year,[6] which dwarfs the revenue earned from alcohol taxes.[7]

To address that problem, states long ago prohibited "driving under the influence" of alcohol or "driving while intoxicated," better known by their acronyms DUI or DWI.[8] Based on compendia of research on alcohol-impaired driving, the U.S. Department of Transportation arrived at two seminal conclusions:

- Evidence of impairment at blood alcohol concentrations (BACs) of 0.05 grams per deciliter (g/dL) and higher was found with respect to reaction time, tracking, concentrated attention, divided attention, information processing, vision, perception, and psychomotor performance and on various driver performance measures;[9] and

- Every state should consider adopting illegal per se laws at the 0.08 level for drivers aged 21 and older.[10]

In response, all 50 states and the District of Columbia have made it a crime to drive with a specific blood-alcohol concentration level of 0.08 g/dL.[11] Those laws deem a person intoxicated as a matter of law, regardless of whether he was impaired as a matter of fact, if his BAC level equals or exceeds that concentration.

The state and federal governments are not the only ones that have fought alcohol-impaired driving. The aggressive efforts of private organizations such as Mothers Against Drunk Driving have changed the societal attitude toward drunk driving.[12] What was once treated as an anodyne peccadillo or an occasion for humor[13] is now properly seen as a serious crime.[14]

Driving Under the Influence of Drugs (DUID)

Numerous substances aside from alcohol can also impair a person's driving skills, including a variety of illicit drugs as well as lawfully prescribed tranquilizers and soporifics (sleep-inducing drugs).[15] For that reason, states have made it a crime to drive under their influence.[16]

The problem of "drugged driving" or DUID is not a trivial matter. The National Highway Traffic Safety Administration conducted a roadside survey in 2013 and 2014 and discovered that 20 percent of drivers surveyed tested positive for potentially impairing drugs.[17] It is quite troubling to find that one out of every five drivers has used a drug that could adversely affect his ability to drive safely.

Three of the drugs that are particularly troublesome are benzodiazepines (minor tranquilizers); opiates (or opioids);[18] and marijuana. The following sections discuss the available evidence regarding their role in drug-impaired driving.[19]

Benzodiazepines. Two meta-analyses showed that benzodiazepines are associated with an elevated risk of traffic crashes and an increase in "accident driver-responsibility." Co-ingestion of benzodiazepines and alcohol was associated with a 7.7-fold increase in the accident risk.[20]

Opioids. Opioids, even when lawfully prescribed by a physician, can impair the skills and judgment necessary to handle a motor vehicle safely.[21] Given the rise in the nonmedical use of prescription drugs and use of illegal opioids and related analogues (for example, heroin and fentanyl) over the past decade, it should come as no surprise that over the past year, there have been numerous media reports of drivers being involved in wrecks where opiates or opioid drugs were involved.[22] As proof, a 2017 study published in the *American Journal of Public Health* found a sevenfold increase from 1975 to 2015 in the prevalence of opioids in the blood of drivers involved in fatal crashes in several states.[23] The reports also stated that hydrocodone, oxycodone, and morphine were the most commonly detected prescription opioids.[24]

Marijuana. Marijuana can also impair a driver's ability to handle a vehicle safely.[25] Given the decisions by various states over the past 20 years to authorize the medical or recreational use of marijuana, most of the discussion of driving under the influence of drugs (DUID) has focused on the impairing effect of its active ingredient, Δ^9-tetrahydrocannabinol or THC.[26] THC hampers the ability of drivers to process and respond to unexpected or rapidly changing driving scenarios quickly and effectively.[27]

Polydrug Use. The evidence also shows that people who use drugs, whether illicit or legal, often do not limit their intake to one particular drug.[28] Polydrug use is common, perhaps particularly in the case

of alcohol and marijuana.[29] Alcohol and marijuana are the two most frequently used substances that degrade a driver's ability to operate a vehicle. Their combination can have an additive (if not synergistic) effect on a driver, leaving him incapable of driving safely even though neither drug alone might impair his ability to handle a vehicle.[30] A person can be incapable of driving safely even though his BAC level is only 0.05 g/dL if he has also recently consumed marijuana and there is THC in his brain.

The result is this: Studies indicate that the combination of alcohol and THC can be impairing even though the amount of either drug consumed by itself might not cause the same degree of deterioration in an average driver's skills.[31] The extent of current polysubstance use, especially with a rising tide of marijuana and opioid use, is unknown. The last well-designed roadside tests for polysubstance use were performed in 2007.

Contemporary Problems: Opioid Abuse and State Marijuana Legalization Initiatives

State marijuana legalization measures have exacerbated the DUID problem.[32] In May 2016, the American Automobile Association Foundation for Traffic Safety concluded that after Washington State legalized marijuana, the proportion of fatal crashes involving drivers who had used that drug doubled.[33] A recent study by Smart Approaches to Marijuana (SAM) concluded that state marijuana legalization initiatives have contributed to increased risk of morbidity and mortality on their roadways.[34] "Drugged driving and motor vehicle fatalities have increased in states that have legalized recreational marijuana,"[35] SAM concluded. Relying on the data collected from the Fatality Analysis Reporting System, SAM further reported that approximately 50 percent of fatal crashes nationwide involved drivers who tested positive for THC.[36]

According to SAM, the numbers in Colorado were particularly troublesome. From 2013 to 2015, there was an increase of 88 percent in the number of Colorado drivers testing positive for marijuana.[37] The four-year averages before and after Colorado legalized marijuana in 2012 saw a 66 percent increase in marijuana-related traffic deaths.[38] Drivers, passengers, and other motorists were not the only parties at risk. Other states that legalized recreational marijuana also saw an increase in pedestrian fatalities.[39]

Admittedly, the evidence is not dispositive that recent drug use inevitably and invariably *causes* motor vehicle collisions; there is disagreement on that score.[40] For example, a recent study for the National Bureau of Economic Research concluded that there was no material difference between the marijuana-related, alcohol-related, and overall traffic fatality rates before and after the Colorado and Washington marijuana legalization initiatives went into effect.[41] Advocates of marijuana legalization use that study and others to argue that there is no proven causal relationship between the new state medical and recreational marijuana laws and an increase in highway morbidity or mortality. Inconsistencies of testing for other drugs if alcohol is found above the legal limit may confound attribution of crashes to other drugs in the system. Also, THC concentrations are rising rapidly; levels of cannabidiol, which can attenuate the florid pharmacological actions of THC,[42] are declining steeply, and traffic morbidity and mortality records of five to 10 years ago may not reflect this growing trend.[43]

But there are two other factors to consider. The first one is that different states are entitled to hold different opinions regarding their willingness to expose innocent parties to the risk of being injured or killed by a driver whose ability to operate a vehicle safely has been impaired by a lawful or illicit drug.[44] The second factor is that there is unanimity regarding a crucial moral judgment: No one should drive under the influence of any substance that could impair a motorist's ability to operate his vehicle safely. Numerous government authorities[45] and private experts[46] have recommended against anyone driving while under the influence of any impairing drug, illicit or legal. Even parties who advocate the liberalization of current federal and state marijuana laws recognize that no one should drive while impaired by marijuana.[47]

The Need to Treat DUID and DUIA as Posing Equally Serious Public Safety Risks

Unfortunately, there is no easy solution to the DUID problem. Nonetheless, some reasonable steps can be taken to reduce the risk of drug-involved collisions. Below is a list of proposals that should occasion a consensus among the parties interested in addressing this problem, as well as bipartisan support in the legislatures and elsewhere in government. Each one will take a step toward improving roadway safety. Each one deserves serious consideration at all levels of government.

There is a particular need for Congress to address this problem. Interstate highways have that name for a reason. People who drive while under the influence of marijuana do not limit their trips to states that have legalized that drug, nor do people who use potentially impairing prescription medications drive only within their home states. They cross state lines, sometimes several, sometimes far from home. The result is to put at risk residents of states who had no say over whether marijuana should be legalized or whether a person should have let someone else drive while he was using an impairing prescription drug. No one state or group of states can adequately address this problem. While any one state can adopt the proposals mentioned below, only Congress can address the matter nationally.

Interstate roadways are arteries of national commerce, and Congress can regulate the safety of travel along those roads under the Commerce Clause.[48] Congress therefore could direct the states to adopt these proposals.[49] But there is another option available to Congress: It can condition the receipt of at least a portion of federal highway funds on every state's compliance with these proposed safety measures.

Precedent exists for that approach. In the 1980s, Congress enacted legislation establishing a national minimum drinking age of 21 and penalizing states that decline to comply with that mandate by directing the withholding of a small portion of the highway funds that the state otherwise would receive.[50] The states argued that the statute interfered with their prerogative, granted by the Twenty-First Amendment,[51] to decide how to regulate the in-state consumption of alcohol and also imposed an "unconstitutional condition" on their receipt of federal funds, in violation of the Tenth Amendment.[52] In *South Dakota v. Dole*,[53] however, the Supreme Court of the United States upheld the constitutionality of that law. The Court ruled both that Congress has the authority to condition the receipt of a portion of federal highway funds on a state's compliance with a federal minimum drinking age requirement and that Congress's decision to impose that mandate did not violate the Tenth Amendment because it was a reasonable condition on the receipt of federal funds.[54]

The *South Dakota v. Dole* rationale would apply here. States that legalize the recreational or medical use of marijuana place at risk drivers, passengers, and pedestrians in other states. It is also reasonable to demand that states comply with the conditions noted below as a prerequisite to receipt of all federal highway funds for much the same grounds that the Court found persuasive in *South Dakota v. Dole*. Finally, such a condition would not trespass on the rights of drivers because driving under the influence of a drug is already unlawful in all 50 states and, in the case of drugs such as marijuana or heroin, the drug is contraband under federal law.

To be sure, the pharmacokinetics and pharmacodynamics of alcohol differ from opioids, marijuana, and other drugs. The result is that we cannot automatically apply to drugs other than alcohol the same countermeasures that we have adopted for alcohol itself. What we *can* do is treat impaired driving as a serious public safety problem regardless of the chemical structure of the compound that keeps someone from handling his vehicle safely. By so doing, we will demonstrate our commitment to lowering highway morbidity and mortality whatever the chemical agent might be that impairs safe driving.

How to Respond to the Public Safety Risks of DUID

What follows is a set of six proposals to address DUID. The common denominator is treating DUID in the same manner as DUI or DUIA. Although the procedures used in the case of alcohol-impaired driving cannot be transferred automatically to drug-impaired driving because of the different pharmacokinetics and pharmacodynamics of the two types of substances, these proposals can and should be used to address drug-impaired driving because they do not raise the problems posed by uncritical application to the very different context of DUIA protocols.

- **Proposal 1:** Apply to every driver under 21 years old who tests positive for any illicit or impairing drug, including marijuana and impairing prescription drugs, the same zero-tolerance standard specified for alcohol, the use of which in this age group is illegal.

- **Proposal 2:** Apply to every driver found to have been impaired by drugs, including marijuana, the same remedies and penalties that are specified for alcohol-impaired drivers, including administrative or judicial license revocation.

- **Proposal 3:** Test every driver involved in a crash that results in a fatality or a major traffic accident (including injury to pedestrians) for alcohol and impairing drugs, including marijuana, a panel of opioids, and prescription drugs.

- **Proposal 4:** Test every driver arrested for driving while impaired for alcohol and impairing drugs, including marijuana.

- **Proposal 5:** Use reliable oral fluid testing technology at the roadside for every driver arrested for impaired driving.

- **Proposal 6:** Develop national standardized testing, synchronize the testing with drug overdose testing, and develop a national database that collects the information for program and policy decisions.

States, as required by federal law, must have age 21 as the minimum drinking age. It is illogical to treat differently someone under that age who tests positive for heroin, other opioids, cocaine, methamphetamine, LSD, THC, or benzodiazepines, since they can impair a driver's ability to operate a vehicle and are illegal under federal law. If a state automatically suspends a driver's license for 30, 60, 90, or 180 days (or longer) if he is convicted of driving under the influence of alcohol, the state should use the same penalty for someone convicted of DUID. Polydrug use is sufficiently common that an arresting officer should test every driver involved in a crash resulting in a fatality or arrested for impaired driving not only for alcohol, but also for impairing drugs. The principal objection to testing for a wider range of drugs is financial, not legal, and the states can use federal highway funds for that purpose. Finally, the development of technology to perform roadside oral fluid testing (for example, with a buccal swab) would enable an arresting officer to obtain supportive (or nonsupportive) evidence of the presence of an impairing substance in an expeditious and relatively nonintrusive manner.[55] Together, those proposals would help address the problem that DUID poses for society.[56]

Obviously, drugs differ in important ways from alcohol and differ from each other. The pharmacodynamics (what drugs do to the body) and pharmacokinetics (how the body processes drugs) of drugs are not the same, and they also differ from the corresponding pharmacology of alcohol. That makes it difficult to apply standardized protocols and procedures to all problems attributable to psychoactive substances.[57] But the above proposals do not make that attempt. Instead, they seek to treat substances that impair brain function—alcohol and other drugs—alike for purposes of the law of impaired driving, not for medical or scientific purposes, and focus this effort insofar as they can on how these substances endanger highway safety.

Conclusion

The paterfamilias of television's Simpson family, Homer Simpson, once said, while holding a bottle of beer in his hand, "To alcohol! The cause of, and solution to, all of life's problems."[58] He was almost half-right. Alcohol is not the solution to any of life's problems, and while it does not cause all of them, it does cause many. One of them happens far too often on our roads. We have known for more than a century that combining alcohol and motor vehicles is always highly problematic and far too often fatal. For the past 40 years, however, American society has dedicated itself to addressing that problem through education, prevention, and, when necessary, intervention by law enforcement authorities. As a result, we have witnessed a considerable decline in alcohol-related crashes and fatalities.

With regret, we have learned that various drugs can also severely impair the brain and that drugged driving can be as deadly as drunk driving. Physicians, scientists, policymakers, and government officials agree that DUID is a danger to drivers, passengers, pedestrians, and their families regardless of their views about drug legalization and regardless of where they live. There is also a societal consensus that reasonable steps to reduce that danger do exist and can be effective.

Accordingly, it is time to address the complex problem of drugged driving. We should commit ourselves to an effort to keep that preventable behavior from offsetting the reduction in morbidity and mortality that we have seen from our efforts to stop drinking and driving. Each problem deserves the same commitment. No one action could altogether eliminate drinking and driving, and American society took what steps were available to reduce its incidence where possible. We should pursue the same course for DUID. Reasonable steps can be taken to keep someone from maiming or killing innocent

people by using drugs and driving. We should not let the perfect be the enemy of the good—certainly not where what is good and doable will save lives.

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Endnotes

1. Genesis 9:20-25 (KJV); *see also*, *e.g.*, Jerrold S. Meyer & Linda F. Quenzer, Psychopharmacology: Drugs, the Brain, and Behavior 266 (2d ed. 2018) (suggesting that mead might have been brewed by 8,000 B.C.).
2. *See*, *e.g.*, Consensus Dev. Panel, *Consensus Report: Drug Concentrations and Driving Impairment*, 254 J. Am. Med. Ass'n 2618, 2619 (1985) [hereafter *AMA Consensus Report*] ("Traditionally, ethanol has been the drug of greatest concern in relation to driving impairment. Ethanol is by far the most frequently documented drug in fatal motor vehicle accidents."); Eric J. Gouvin, *Drunk Driving and the Alcoholic Offender: A New Approach to an Old Problem*, 12 Am. J.L. & Med. 99, 100 (1986) (quoting a 1904 editorial from the *Quarterly Journal of Inebriety*) ("Inebriates and moderate drinkers are the most incapable of all persons to drive motor wagons. The general palsy and diminished power of control of both the reason and senses are certain to invite disaster in every attempt to guide such wagons.") (internal quotation marks omitted)).
3. *See*, *e.g.*, Robert L. DuPont, The Selfish Brain: Learning From Addiction 135 (Rev. ed., 2000); R. Andrew Sewell et al., *The Effect of Cannabis Compared with Alcohol on Driving*, 18 Am. J. on Addictions 185, 188 (2009).
4. *See*, *e.g.*, DuPont, *supra* note 3, at 134–36; Robert D. Budd et al., *Drugs of Abuse Found in Fatally Injured Drivers in Los Angeles County*, 23 Drug & Alcohol Dependence 153, 155 (1989).
5. Nat'l Highway Traffic Safety Adm'n, Dep't of Transp., Drunk Driving (2017) [hereafter NHTSA, Drunk Driving] (describing 2016 data), https://www.nhtsa.gov/risky-driving/drunk-driving.
6. *Id*.
7. *See* Paul J. Larkin, Jr., *Swift, Certain, and Fair Punishment—24/7 Sobriety and HOPE: Creative Approaches to Alcohol- and Illicit Drug-Using Offenders*, 105 J. of Crim. L. & Criminology 39, 42–43 (2016).
8. *See*, *e.g.*, Motor Vehicle Act of 1915, Cal. State Laws 1915 § 17, as amended by 1915 Cal Stat. 214 ("No person who is under the influence of intoxicating liquor and no person who is an habitual user of narcotic drugs shall operate or drive a motor or other vehicle on any public highway within this state."); An Act Relative to Automobiles and Motor Cycles, ch. 412, § 4, 1906 Mass. Acts 419, 422 (making the operation of an automobile or motorcycle "while under the influence of intoxicating liquor" a misdemeanor); Robert L. DuPont et al., *The Need for Drugged Driving Per Se Laws: A Commentary*, 13 Traffic Injury Prevention 31, 32 (2012) (summarizing state laws prohibiting alcohol-impaired driving); Robert B. Voas et al., *Prescription Drugs, Drugged Driving and Per Se Laws*, 19 Inj. Prevention 218, 218 (2014) ("Impaired driving laws date back to the early part of the 20th century when states first criminalized alcohol-impaired driving."). For an example of a current statute, see Va. Code Ann. § 18.2-266 (2017) ("It shall be unlawful for any person to drive or operate any motor vehicle, engine or train (i) while such person has a blood alcohol concentration of 0.08 percent or more by weight by volume or 0.08 grams or more per 210 liters of breath as indicated by a chemical test administered as provided in this article, (ii) while such person is under the influence of alcohol….").
9. *See* Herb Moskowitz & Christopher D. Robinson, Effects of Low Doses of Alcohol on Driving Related Skills: A Review of the Evidence, DOT HS 807 280 (July 1988). This large-scale literature review was conducted on the effects of alcohol on driving skills. Evidence of impairment at blood alcohol concentrations (BACs) of 0.05 g/dL and higher was found with respect to reaction time, tracking, concentrated attention, divided attention, information processing, vision, perception, and psychomotor performance and on various driver performance measures. In many of these functional areas, impairment was found to appear at BACs of 0.02 or 0.03. The study concluded that there is no "safe" limit of BAC, other than zero, for driving-related skills.
10. *See* Monroe B. Snyder, Nat'l Highway Traffic Safety Adm'n, Driving Under the Influence: A Report to Congress on Alcohol Limits, DOT HS 807 879 (Oct. 1992). This report was prepared in response to a congressional mandate to conduct a study to determine the BAC at or above which an individual who was operating a motor vehicle should be considered to be driving under the influence. The report discusses scientific literature on the influence of BAC on driver performance and crashes, reviews the existing BAC legislation, and discusses data on the expected institutional responses to alternative limits such as 0.08, 0.04, and 0.00 g/dL. The report concluded that all states should consider adopting illegal per se laws at the 0.08 level for drivers aged 21 and older.
11. *See* 23 U.S.C. § 163(a) (2012); Missouri v. McNeely, 569 U.S. 141, 160 & n.8 (2013); 23 C.F.R. § 1225.1 (2012); Nat'l Highway Traffic Safety Admin., U.S. Dep't of Transp., DOT HS 811 870, Alcohol-Impaired Driving 1 (2013).
12. *See* Barron H. Lerner, One for the Road: Drunk Driving Since 1900 (2012).
13. The 1981 film *Arthur* about the drunken life of the fictional character Arthur Bach is a classic example of that now-deplored mindset.
14. *See*, *e.g.*, Paul J. Larkin, Jr., *Liberalizing Marijuana Use and Improving Driving Safety: Two Contemporary Public Policies on a Collision Course*, Heritage Found. Legal Memorandum No. 156 (June 25, 2015), http://thf_media.s3.amazonaws.com/2015/pdf/LM156.pdf.
15. *See*, *e.g.*, Governors Highway Safety Ass'n, Drug-Impaired Driving: A Guide for States (Apr. 2017); Nat'l Highway Traffic Safety Adm'n, Dep't of Transp., Drugged Driving (2017) [hereafter NHTSA, Drugged Driving] ("Prescription drugs, over-the-counter medications, and illegal drugs may cause impairment alone or in combination with each other and/or with alcohol."), https://www.nhtsa.gov/risky-driving/drugged-driving; Marcelline Burns, Medical-Legal Aspects of Drugs 153 (2003) ("Without exception, all illicit drugs have the potential to impair the cognitive and behavioral skills that allow a person to engage in normal daily activities, such as driving and working."); Markku Linnoila, *Tranquilizers and Driving*, 8 Accid. Anal. & Prev. 15 (1976).
16. *See*, *e.g.*, Va. Code Ann. § 18.2-266 (2014) ("It shall be unlawful for any person to drive or operate any motor vehicle, engine or train…(iii) while such person is under the influence of any narcotic drug or any other self-administered intoxicant or drug of whatsoever nature, or any combination of such drugs, to a degree which impairs his ability to drive or operate any motor vehicle, engine or train safely, (iv) while such

person is under the combined influence of alcohol and any drug or drugs to a degree which impairs his ability to drive or operate any motor vehicle, engine or train safely, or (v) while such person has a blood concentration of any of the following substances at a level that is equal to or greater than: (a) 0.02 milligrams of cocaine per liter of blood, (b) 0.1 milligrams of methamphetamine per liter of blood, (c) 0.01 milligrams of phencyclidine per liter of blood, or (d) 0.1 milligrams of 3,4-methylenedioxymethamphetamine per liter of blood."); Robert B. Voas et al., *Prescription Drugs, Drugged Driving and Per Se Laws*, 19 Inj. Prevention 218, 218 (2014).

17. *See* Nat'l Highway Traffic Safety Admin, Dep't of Transp., DOT HS 811 415, Drug Involvement of Fatally Injured Drivers 1 (2010) ("Nationwide in 2009, 63 percent of fatally injured drivers were tested for the presence of drugs. Overall, 3,952 fatally injured drivers tested positive for drug involvement in 2009. This number represents 18 percent of all fatally injured drivers (Table 1) and 33 percent of those with known drug test results (Table 2) in 2009.").
18. Opiates are derivatives of the resin of poppy plants. When manufactured into morphine or codeine, they are used as painkillers. Opiates can also be manufactured into heroin, which is a Schedule I controlled substance and cannot be lawfully prescribed in the United States. *See* 21 U.S.C. § 841 (2012). Opioids are synthetic painkillers that are manufactured in a laboratory. Examples are OxyContin, Methadone, and Buprenorphine. Hereafter, the term "opioids" will be used to refer to both types of drugs.
19. Benzodiazepines, opiates, and cannabis do not exhaust the range of possibilities. Hallucinogens, such as lysergic acid diethylamide, better known as LSD, along with the "dizzying alphabet soup of chemical variations" on LSD and other hallucinogens, impair safe driving as well. DuPont, *supra* note 3, at 189; *see id*. at 187–96.
20. *See* Tharaka L. Dassanayake et al., *Effects of Benzodiazepines, Antidepressants and Opioids on Driving: A Systematic Review and Meta-analysis of Epidemiological and Experimental Evidence*, 34 Drug Safety 125 (2011).
21. *See, e.g.*, John Kaplan, The Hardest Drug: Heroin and Public Policy 176 (1983) ("Although, in the most crowded inner cities, it is likely that most addicts do not drive cars, there are many, perhaps a majority, in places such as California, who do. The difficulty here is that many addicts on heroin are not in good enough condition to drive safely.... Even though addicts who are taking stable doses of heroin will not be in good enough condition to drive just after their injection, and should they be delayed in traffic on the way to the clinic, the beginnings of withdrawal may make them a danger then."); Meyer & Quenzer, *supra* note 1, at 308–09 (describing the euphoric, dysphoric, and sedative effects of opium); Stanford Chihuri & Guohua Li, *Trends in Prescription Opioids Detected in Fatally Injured Drivers in 6 US States: 1995–2015*, 107 Am. J. Pub. Health 1487, 1487 (2017) ("Prescription opioids (e.g., oxycodone, hydrocodone, and methadone) are potent drugs...[and] can cause drowsiness, nausea, and impaired cognition and interfere with executive functioning. Hence driving under the influence of prescription opioids is a serious safety concern.") (footnote omitted).
22. *See, e.g.*, Shaddi Abusaid, *DA: Driver Under Influence of Pills Gets 15 Years for Fatal Wreck*, Marietta Daily Journal, Apr. 1, 2018, http://www.mdjonline.com/news/da-driver-under-influence-of-pills-gets-years-for-fatal/article_fa0ed6f0-36b4-11e8-8b1d-07e084fc513d.html; Andy Brownfield, *Motorist Receives Maximum Sentence in Hit-Skip that Killed OTR Business Owner*, Cincinnati Business Courier, Feb. 23, 2018, https://www.bizjournals.com/cincinnati/news/2018/02/23/motorist-receives-maximum-sentence-in-hit-skip.html; Bucks County District Attorney's Office, *Impaired Driver Who Killed 22-Year-Old Gets 17.5 to 40 Years,* Jan. 29, 2018, https://bucks.crimewatchpa.com/da/29567/post/impaired-driver-who-killed-22-year-old-gets-175-40-years; Chris Gadd, *Dye Guilty of Vehicular Homicide in Opioid-Influenced Dickson Co. Wreck*, Tennessean, Apr. 20, 2017, https://www.tennessean.com/story/news/local/dickson/2017/04/20/dye-guilty-vehicular-homicide-opioid-influenced-dickson-co-wreck/100696286/; Carl Hessler, Jr., *Bucks Man Awaits Fate for DUI Crash that Injured 2 in Hatfield*, The Mercury, March 14, 2018, *available at* http://www.pottsmerc.com/general-news/20180314/bucks-man-awaits-fate-for-dui-crash-that-injured-2-in-hatfield; Lynn Hulsey, *Driver in Crash that Blocked I-70 Used Fentanyl Earlier, Patrol Says*, Dayton Daily News, Aug. 11, 2017, https://www.daytondailynews.com/news/crime--law/driver-crash-that-blocked-used-fentanyl-earlier-patrol-says/4aQCIGf9uK1OP9RKHso3jO/new.html; Justin Kmitch, *Intoxicated Driver Sentenced to 11 Years in Fatal Burr Ridge Crash*, Daily Herald, Feb. 5, 2018, http://www.dailyherald.com/news/20180205/intoxicated-driver-sentenced-to-11-years-in-fatal-burr-ridge-crash; Kevin Martin, *Matthew Glaze of Elyria Guilty on All Counts in Fatal Crash*, The Morning Journal, Jan. 30, 2018, http://www.morningjournal.com/article/MJ/20180131/NEWS/180139855; Diane Pineiro-Zucker, *Opioid-Impaired Driver Gets up to 7 Years in Prison for Crash that Killed Phoenicia Woman*, Daily Freeman, Oct. 17, 2017, http://www.dailyfreeman.com/article/DF/20171017/NEWS/171019705; Tracey Read, *Eastlake Woman Admits Causing Wrong-Way Crash on Interstate 90 that Injured Three*, News Herald, Feb. 26, 2018, http://www.news-herald.com/article/HR/20180226/NEWS/180229559; Catalina Righter, *Man Pleads Guilty to Negligent Homicide Charge in Death of Unborn Baby*, Carroll Cnty. Times, Mar. 6, 2018, http://www.carrollcountytimes.com/news/crime/cc-bellusci-plea-20180306-story.html; Mindy Schack & Noelle Medina, *Virginia Anderson Sentenced to 7 Years for Fatal DUI Crash*, KRCRTV, June 22, 2017, http://krcrtv.com/news/shasta-county/virginia-anderson-sentenced-to-7-years-for-fatal-dui-crash; Jim Schultz, *Redding Man Sentenced to 15 Years to Life for Fatal Wreck*, Record Searchlight, Mar. 16, 2018, https://www.redding.com/story/news/local/2018/03/16/redding-man-sentenced-15-years-life-fatal-wreck/433980002/; Dispatch Staff, *Cops and Courts—Fine, Probation After Crash*, The Dispatch, Jan. 26, 2018, https://mdcoastdispatch.com/2018/01/25/cops-courts-january-26-2018/; Walt Zwirko, *Car Thief Gets 30 Years for Crash that Kills Son in Denison*, KTEN News, Mar. 12, 2018, http://www.kten.com/story/37707983/car-thief-gets-30-years-for-crash-that-killed-son-in-denison; Stephanie Weaver, *Mohnton Man Admits to Driving Under the Influence of Drugs*, Reading Eagle, Dec. 22, 2017, http://www.readingeagle.com/news/article/mohnton-man-admits-to-driving-under-the-influence-of-drugs.
23. *See* Chihuri & Li, *supra* note 21, at 1491 ("During 1995 to 2015, there has been a 7-fold increase in the prevalence of prescription opioids detected in drivers who died within 1 hour of the crash in California, Hawaii, Illinois, New Hampshire, Rhode Island, and West Virginia.").
24. *Id*. at 1490, 1491.
25. The psychoactive ingredient in marijuana is Δ^9-tetrahydrocannabinol (THC), although other cannabinoids also have pharmacological effects. An intoxicating dose of THC is extremely small: just 100–200 micrograms (μg). THC affects receptors in the brain in regions involved in

cognition, memory, reward, pain perception, and motor coordination. The THC content in marijuana varies according to phenotype, soil, climate, and cultivation technique. The highest concentration of THC is in the flowering top of the female plant. *See*, *e.g.*, British Med. Ass'n, Therapeutic Uses of Cannabis 7, 10–11 tbl.1 (1997) [hereafter British Med. Ass'n]; Leslie L. Iversen, The Science of Marijuana 27–65, 189 (2d ed. 2008); Wayne Hall & Louisa Degenhardt, *Adverse Health Effects of Non-Medical Cannabis Use*, 374 Lancet 1383, 1383–84 (2009); Richard L. Hawks, *The Constituents of Cannabis and the Disposition and Metabolism of Cannabinoids*, *in* Nat'l Inst. on Drug Abuse, U.S. Dep't of health & Human Servs. The Analysis of Cannabinoids in Biological Fluids, 125, 125–26 (Richard L. Hawks ed., 1982), *available at* http://archives.drugabuse.gov/pdf/monographs/42.pdf; Zlatko Mehmedic et al., *Potency Trends of Δ^9-THC and Other Cannabinoids in Confiscated Cannabis Preparations from 1993 to 2008*, 55 J. Forensic Sci. 1209, 1209 (2010.).

26. *See*, *e.g.*, British Med. Ass'n, *supra* note 25, at 66 ("Impairment of psychomotor and cognitive performance, especially in complex tasks, has been shown in normal subjects in many tests. Impairments include slowed reaction time, short term memory deficits, impaired attention, time and space distortion, impaired coordination. These effects combine with the sedative effects to cause deleterious effects on driving ability or operation of machinery." (citations omitted)); AAA, Found. for Traffic Safety, Prevalence of Marijuana Involvement in Fatal Crashes: Washington, 2010–2014 (2016); AAA, Found. for Traffic Safety, Cannabis Use Among Drivers Suspected of Driving Under the Influence or Involved in Collisions: Analysis of Washington State Patrol Data (2016); Burns, *supra* note 15, at 153 ("Without exception, all illicit drugs have the potential to impair the cognitive and behavioral skills that allow a person to engage in normal daily activities, such as driving and working."); DuPont, *supra* note 3, at 144; Iversen, *supra* note 25, at 96, 163; Robin Room et al., Cannabis Policy: Moving Beyond Stalemate 15, 18–19 ("Better-controlled epidemiological studies have recently supplied credible evidence that cannabis users who drive while intoxicated are at increased risk of motor vehicle crashes[.]"); D. Mark Anderson et al., *Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption*, 56 J. of L. & Econ. 333 (2013); Alan W. Jones et al., *Driving Under the Influence of Cannabis: A 10-Year Study of Age and Gender Differences in the Concentrations of Tetrahydrocannabinol in Blood*, 103 Addiction 452, 457 (2008) ("[C]annabis is an illicit drug used by people for the primary purpose of 'getting high' and escaping from reality, and this is not compatible with performing skilled tasks such as driving...."); Robert L. DuPont et al., *Marijuana-Impaired Driving: A Path Through the Controversies*, *in* Contemporary Health Issues on Marijuana (Kevin Sabet & Kevin Winter eds., 2018) (forthcoming); C. Heather Ashton, *Pharmacology and Effects of Cannabis: A Brief Review*, 178 Brit. J. Psychiatry 101, 104 (2001) ("Numerous studies have shown that cannabis impairs road-driving performance and have linked cannabis use with increased incidence of road traffic accidents."); Michel Bédard et al., *The Impact of Cannabis on Driving*, 98 Canadian J. Pub. Health 6, 8–9 (2007); Stephanie Blows et al., *Marijuana Use and Car Crash Injury*, 100 Addiction 605, 610 (2005) ("This population-based case-control study suggests that habitual marijuana use is associated with a 10-fold increase in the risk of car crash injury."); Franjo Grotenhermen et al., *Developing Limits for Driving Under Cannabis*, 102 Addiction 1910, 1912 (2007); Wayne Hall, *What Has Research Over the Past Two Decades Revealed About the Adverse Health Effects of Recreational Cannabis Use?*, 110 Addiction 19, 21 (2014) (finding that over the past decade, better-designed epidemiological studies and meta-analyses have found that cannabis users who drive while intoxicated increase the risk of motor vehicle crashes two to three times); Hall & Degenhardt, *supra* note 25, at 1384–85; Rebecca L. Hartman & Marilyn A. Huestis, *Cannabis Effects on Driving Skills*, 59 Clinical Chemistry 478, 478 (2013); Herbert Moskowitz, *Marihuana and Driving*, 17 Accident Analysis & Prevention 323, 341 (1985) ("Clearly, marijuana is a substance which produces serious behavioral toxicological effects. Any situation in which safety both for self and others depends upon alertness and capability of control of man–machine interaction precludes use of marijuana."); Ed Wood, *Skydiving Without a Parachute*, 4 J. Addiction Med. & Therapy 1020 (2016); *see generally* Paul J. Larkin, Jr., *Medical or Recreational Marijuana and Drugged Driving*, 52 Am. Crim. L. Rev. 453, 476–77 (2015)(collecting studies). *But see* Nat'l Highway Traffic Safety Admin., DOT HS 812-355, Drug and Alcohol Crash Risk: A Case-Control Study 67 (2016) (finding no significant increase in crash risk attributable to marijuana).

27. *See*, *e.g.*, Nat'l Inst. on Drug Abuse, Marijuana 10, 12–13 (Apr. 2017) [hereafter Nat'l Inst., Marijuana] ("THC also disrupts functioning of the cerebellum and basal ganglia, brain areas that regulate balance, posture, coordination, and reaction time. This is the reason people who have used marijuana may not be able to drive safely."); Letter from Director Nora D. Volkow, in *id.* at 3 ("Because marijuana impairs short-term memory and judgment and distorts perception it can...make it dangerous to drive."); U.S. Dep't of Health & Human Servs., Nat'l Inst. on Drug Abuse, DrugFacts: Drugged Driving 2 (2013), http://www.drugabuse.gov/sites/default/files/drugfacts_druggeddriving_2014.pdf ("Considerable evidence from both real and simulated driving studies indicates that marijuana can negatively affect a driver's attentiveness, perception of time and speed, and ability to draw on information obtained from past experiences."); World Health Org., Cannabis: A Health Perspective and Research Agenda 15 (1997).

28. *See* Chihuri & Li, *supra* note 21, at 1487 ("Currently, about one third of fatally injured drivers in the United States test positive for nonalcohol drugs, including prescription opioids, and 20% test positive for 2 or more drugs.") (footnote omitted).

29. *See* Jonathan P. Caulkins et al., RAND Corp., Considering Marijuana Legalization: Insights for Vermont and Other Jurisdictions 44 (2015) ("The descriptive statistics concerning overlap in use are clear. Marijuana users are much more likely than are nonusers to drink and to abuse alcohol. For example, current marijuana users are five times as likely as nonusers to meet DSM-IV criteria for alcohol abuse or dependence (26 percent versus 5 percent); that is, one in four current marijuana users is a problem drinker (calculated using 2012 NSDUH data using the SAMHSA online tool). Indeed, simultaneous use is common. The national household survey asks people what, if any, other substances they used the last time they drank alcohol. Among the 15.4 million people who used both alcohol and marijuana at some time in the past 30 days, 54 percent reported using marijuana along with alcohol the last time they drank, a proportion that rises to 83 percent among daily or near-daily marijuana users."); *see also*, *e.g.*, George F. Koob et al., Drugs, Addiction, and the Brain 283–84 (2014); Room et al., *supra* note 26, at 17–19; Larkin, *supra* note 26, at 473–80 & nn. 87–109.

30. *See*, *e.g.*, British Med. Ass'n, *supra* note 25, at 73 (noting the "additive effect" when marijuana and alcohol are combined); Mitch Earleywine, Understanding Marijuana: A New Look at the Scientific Evidence 201–11 (2002) ("Driving after consuming alcohol, particularly in combination with cannabis, is extremely dangerous and ill-advised. Thus, users who wish to reduce the drug's harm should never operate a

motor vehicle during intoxication."); Eugene W. Schwilke et al., *Changing Patterns of Drug and Alcohol Use in Fatally Injured Drivers in Washington State*, 51 J. Forensic Sci. 1191, 1195 (2006) ("Combined marijuana and alcohol use are a concern in the driving population because of the marked synergism demonstrated between these two drugs, particularly in inexperienced users[.]") (citation omitted); *see generally* Larkin, *supra* note 26, at 478–79 & n.105 (collecting studies so concluding).

31. *See, e.g.*, Stanford Chihuri et al., *Interaction of Marijuana and Alcohol on Fatal Motor Vehicle Crash Risk: A Case-Control Study*, 4 Injury Epidemiology 8 (2017) (online); Guohua Li et al., *Role of Alcohol and Marijuana Use in the Initiation of Fatal Two-Vehicle Crashes*, 27 Annals of Epidemiology 342 (2017). *But cf.* Julian Santaella-Tenorio et al., *US Traffic Fatalities, 1985–2014, and Their Relationship to Medical Marijuana Laws*, Am. J. Pub. Health (Jan. 11, 2017) (finding a decrease in traffic fatalities in states with medical marijuana laws).

32. *See, e.g.*, Robert L. DuPont, Inst. for Behav. & Health, Implement Effective Marijuana DUID Laws to Improve Highway Safety (Oct. 12, 2016); Johannes E. Ramaekers, *Driving Under the Influence of Cannabis: An Increasing Public Health Concern*, J. Am. Med. Ass'n (Mar. 26, 2018), file:///C:/Users/Larkinp/AppData/Local/Temp/jama_Ramaekers_2018_vp_180013.pdf.

33. Tamara Johnson, Am. Auto. Ass'n NewsRoom*, Fatal Road Crashes Involving Marijuana Double After State Legalizes Drug* (May 10, 2016), http://newsroom.aaa.com/2016/05/fatal-road-crashes-involving-marijuana-double-state-legalizes-drug.

34. As the report summarized: "The number of drivers in Colorado intoxicated with marijuana and involved in fatal traffic crashes increased 88% from 2013 to 2015 (Migoya, 2017). Marijuana-related traffic deaths increased 66% between the four-year averages before and after legalization (National Highway Traffic Safety Administration [NHTSA], 2017).
Driving under the influence of drugs (DUIDs) has also risen in Colorado, with 76% of statewide DUIDs involving marijuana (Colorado State Patrol [CSP], 2017).
Washington State experienced a doubling in drugged driving fatalities in the years following legalization (T. Johnson, 2016).
In Oregon, 50% of all drivers assessed by drug recognition experts (DRE) in 2015 tested positive for THC (OLCC, 2015)." Smart Approaches to Marijuana, Lessons Learned from Marijuana Legalization in Four U.S. States and DC 7 (Mar. 2018).

35. *See id.* at 35.

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.* ("While many factors contribute to pedestrian fatalities, it turns out that states that legalized marijuana for medical and/or recreational use saw a 16.4 percent surge in such deaths in the first six months of 2017 compared to the first six months of 2016, while non-legal states saw a drop of 5.8 percent in pedestrian fatalities over the same time (Boudette, 2018).").

40. *See, e.g.*, NHTSA, Drugged Driving, *supra* note 15; D. Mark Anderson et al., *Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption*, 56 J.L. & Econ. 333, 335, 345, 359–60 (2013); Michael N. Bates & Tony A. Blakeley, *Role of Cannabis in Motor Vehicle Crashes*, 21 Epidemiological Rev. 222, 231 (1999) (finding insufficient proof that marijuana alone or in combination with alcohol increases the risk of traffic fatalities or injuries); Alfred Crancer, Jr., et al., *Comparison of the Effects of Marijuana and Alcohol on Simulated Driving Performance*, 164 Science 251, 254 (1969) (showing that marijuana users had more speeding errors but did not have a greater number of braking, signaling, steering, or total errors than control group); Scott V. Masten & Gloriam Vanine Guenzburger, *Changes in Driver Cannabinoid Prevalence in 12 U.S. States After Implementing Medical Marijuana Laws*, 50 J. Safety Res. 35, 45 (2014) ("Increased prevalence of cannabinoids among drivers involved in fatal crashes was only detected in a minority of the states that implemented medical marijuana laws. The observed increases were one-time changes in the prevalence levels, rather than upward trends, suggesting that these laws result in stable increases in driver marijuana prevalence. The reasons that changes in prevalence were detected in some states but not in others are unknown, but one factor may be differences between states in drug testing practices and regularity."); Mark J. Neavyn et al., *Medical Marijuana and Driving: A Review*, 10 J. Med. Toxicology 269, 272–76 (2014); Ole J. Rafaelson et al., *Cannabis and Alcohol: Effects on Simulated Car Driving*, 179 Science 920, 923 (1973) (showing that marijuana use increased braking time but did not adversely affect other driving skills); R. Andrew Sewell et al., *The Effect of Cannabis Compared with Alcohol on Driving*, 18 Am. J. on Addictions 185, 186, 188 (2009); *see generally* Larkin, *supra* note 26, at 474–76 & nn.92–97 (collecting studies).

41. *See* Benjamin Hansen et al., Early Evidence on Recreational Marijuana Legalization and Traffic Fatalities, NBER Working Paper 24417 (Mar. 2018), http://www.nber.org/papers/w24417.pdf.

42. Nadia Solowij et al., *Therapeutic Effects of Prolonged Cannabidiol Treatment on Psychological Symptoms and Cognitive Function in Regular Cannabis Users: A Pragmatic Open-Label Clinical Trial*, 3 Cannabis & Cannabinoid Res. 21 (2018).

43. Mahmoud A. ElSohly et al., *Changes in Cannabis Potency Over the Last 2 Decades (1995–2014): Analysis of Current Data in the United States*, 79 Bio. Psychiatry 613 (2016).

44. *See* Gregg v. Georgia, 428 U.S. 153, 175 (1976) (lead opinion) ("In a democratic society, legislatures, not courts, are constituted to respond to the will and consequently the moral values of the people.") (citation and internal punctuation omitted).

45. *See, e.g.*, Heidi King, Deputy Dir., Nat'l Highway Safety Admin., *DUID: A Vision for the Future* (Feb. 27, 2018), https://www.nhtsa.gov/speeches-presentations/duid-vision-future; *Planes, Trains, and Automobiles: Operating While Stoned: Hearing Before the Subcomm. on Operations of the H. Comm. on Oversight and Government Reform*, 113th Cong. (2014). Each of the expert witnesses who testified at the hearing acknowledged that drugged driving is an important public policy issue and poses a danger to road and highway safety. *See id.* at 9 (statement of Hon. Christopher Hart, Acting Chairman, National Transportation Safety Bd.); *id.* at 24–25 (statement of Jeffrey P. Michael, Assoc. Adm'r of Research &

Program Development, National Highway Traffic Safety Admin., U.S. Dep't of Transp.); *id.* at 42 (statement of Patrice M. Kelly, Acting Dir., Office of Drug & Alcohol Policy and Compliance, U.S. Dep't of Transp.); *id.* at 44 (statement of Ronald Flegel, Dir., Division of Workplace Programs, Center for Substance Abuse Prevention, Substance Abuse & Mental Health Services Admin., U.S. Dep't of Health & Human Servs.); *see also* Nat'l Highway Traffic Safety Admin., U.S. Dep't of Transp., DOT HS 808 939, Marijuana, Alcohol and Actual Driving Performance 4–15 (1999).

46. *See, e.g.*, Inst. of Med., Marijuana and Medicine: Assessing the Science Base 4 (Janet E. Joy et al. eds., 1999); Nat'l Inst. on Drug Abuse, U.S. Dep't of Health & Human Servs., DrugFacts: Drugged Driving 2 (2013) ("Considerable evidence from both real and simulated driving studies indicates that marijuana can negatively affect a driver's attentiveness, perception of time and speed, and ability to draw on information obtained from past experiences."); World Health Org., Cannabis: A Health Perspective and Research Agenda 15–16 (1997); Jonathan P. Caulkins et al., Marijuana Legalization: What Everyone Needs to Know 33 (2d ed. 2016); Room et al., *supra* note 26, at 18–19 ("Better-controlled epidemiological studies have recently supplied credible evidence that cannabis users who drive while intoxicated are at increased risk of motor vehicle crashes.... A convergence of fallible evidence thus suggests that cannabis use increases the risk of motor vehicle crashes 2–3 times....").
47. *See* Earleywine, *supra* note 30, at 214 ("Obviously, no one should operate dangerous machinery of any kind under the influence of a mind-altering drug."); Paul Armentano, *Should Per Se Limits Be Imposed for Cannabis? Equating Cannabinoid Drug Concentrations with Actual Driver Impairment: Practical Limitations and Concerns*, 35 Humboldt J. Soc. Relations 35 (2013) (criticizing zero tolerance and per se rules for measuring driving under the influence of marijuana but assuming that no one should drive while impaired by it).
48. The Commerce Clause states that Congress has the authority "[t]o regulate Commerce with foreign Nations, and among the States, and with the Indian Tribes." U.S. Const. art. I, § 8, cl. 3.
49. Congress may prevent interstate commerce from being used to circulate items deemed dangerous or immoral. *See, e.g.*, United States v. Lopez, 514 U.S. 549, 558 (1995) ("Congress may regulate the use of the channels of interstate commerce" and also "is empowered to regulate and protect the instrumentalities of interstate commerce, or persons or things in interstate commerce, even though the threat may come only from intrastate activities[.]").
50. *See* 23 U.S.C. § 158 (2012).
51. *See* U.S. Const. amend. XXI, § 2 ("The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.").
52. *See* U.S. Const. amend. X ("The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.").
53. 483 U.S. 203 (1987).
54. *Id.* at 208–12.
55. There is a difference between buccal swab testing conducted at a roadside stop and blood testing conducted after someone has been taken into custody. Reliable roadside testing can allow a police officer to obtain evidence supporting or inconsistent with the presence of an impairing substance in the driver's system. Later blood or urine testing can provide valuable confirmation for judicial or administrative proceedings.
56. For examples of other proposals, see Governors Highway Safety Ass'n, *supra* note 15; Office of Nat'l Drug Control Policy, National Drug Control Strategy 2010, at 24 (July 2010); Larkin, *supra* note 26, at 483–508.
57. *See, e.g.*, Larkin, *supra* note 26, at 483–515.
58. *See* https://www.youtube.com/watch?v=hUVwR0rw5fk.