

No. 11-1425

In the Supreme Court of the United States

STATE OF MISSOURI, PETITIONER,

v.

TYLER G. McNEELY, RESPONDENT.

*ON WRIT OF CERTIORARI TO
THE MISSOURI SUPREME COURT*

**BRIEF OF MOTHERS AGAINST DRUNK DRIVING
AS AMICUS CURIAE SUPPORTING PETITIONER**

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TABLE OF CONTENTS

	Page
Interest of Amicus Curiae.....	1
Summary of the Argument	2
Argument.....	3
A. Preventing Drunk Driving Is A Compelling State Interest, And Enforcement Is Key To Prevention.....	3
B. The Timely Measurement Of Blood Alcohol Is Crucial To The Enforcement Of Drunk Driving Laws.....	7
C. Retrograde Extrapolation Is Not A Valid Reason To Affirm The Judgment Below.....	9
Conclusion	12

TABLE OF AUTHORITIES

<u>Cases:</u>	<u>Page</u>
<i>Michigan Dept. of State Police v. Sitz</i> , 496 U.S. 444 (1990).....	4
<u>Other Authorities:</u>	
American Prosecutors Research Institute, <i>Alcohol Toxicology for Prosecutors</i> , at 20-24 (July 2003), available at < http://www.ndaa.org/pdf/toxicology_final.pdf >	10
American Prosecutors Research Institute, <i>Overcoming Impaired Driving Defenses</i> (Nov. 2003), available at < http://www.ndaa.org/pdf/overcoming_impaired_driving_defenses.pdf >.....	8
Bertelli, Anthony, <i>The Behavioral Impact of Drinking and Driving Laws</i> , Policy Studies Journal 36:4 (Nov. 19, 2008).....	5
Centers for Disease Control and Prevention, <i>Press Release: CDC report shows about 112 million annual incidents of people drinking and driving</i> (Oct. 4 2011), available at < http://www.cdc.gov/media/releases/2011/p1004_drinking_driving.html >	3
Cinquegrana, R.J., & Diana K. Lloyd, <i>Report to the Supreme Judicial Court</i> (Oct. 2012), available at < http://www.mass.gov/courts/sjc/docs/report-110112.pdf >	8

III

Deyle, Randall L., *First offender BACs as a predictor of DUI recidivism*, Colorado Department of Human Services (Feb. 2010), available at <<http://cospl.coalliance.org/fedora/repository/co:9524>>6

Dill, Patricia L., & Elisabeth Wells-Parker, *Court-Mandated Treatment for Convicted Drunk Drivers*, National Institute on Alcohol Abuse and Alcoholism (2006), available at <<http://pubs.niaaa.nih.gov/publications/arh291/41-48.htm>>7

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IV

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Administration, *Impaired Driving in the
United States*, available at <<http://www.nhtsa.gov/people/injury/alcohol/impaired-drivingusa/us.pdf>>3

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Driving Should Shift Focus, Some Experts
Assert*, N.Y. Times (Jan. 3, 1987), available
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from a meta-analysis of remedial
interventions with drink/drive offenders*,
Addiction 90:7 (July 1995)6

INTEREST OF AMICUS CURIAE¹

Mothers Against Drunk Driving (MADD) was founded in May 1980. Its mission is to stop drunk driving, support the victims of the violent crime, and prevent underage drinking. In pursuit of those objectives, MADD participates actively in public and private studies, legislative initiatives, and law-enforcement programs aimed at reducing the incidence of alcohol-related highway tragedies. MADD is one of the largest victim-services organizations in the United States. In 2011, for example, MADD served more than 63,000 victims and survivors of drunk-driving incidents.

In 2006, MADD launched a new “Campaign to Eliminate Drunk Driving.” One of the key aspects of this campaign is supporting law enforcement in their efforts to catch drunk drivers, keep them off the road, and discourage others from driving drunk. The strict enforcement of drunk driving laws, through arrest and prosecution, is essential to this effort.

The decision of the Missouri Supreme Court, if allowed to stand, threatens to hamper enforcement efforts against drunk drivers—and, as a result, could lead to more drunk driving and more tragic loss of life. This implicates the core mission of MADD.

¹ Pursuant to Supreme Court Rule 37.6, amicus curiae states that no counsel for any party authored this brief in whole or in part, and that no person or entity other than MADD or its counsel made a monetary contribution to the preparation or submission of this brief. Counsel of record for all parties have filed letters pursuant to Supreme Court Rule 37.3(a) reflecting consent to the filing of amicus curiae briefs.

SUMMARY OF THE ARGUMENT

Drunk driving remains one of the most pressing problems facing society today. Thousands of lives are lost every year due to drunk driving, and many more suffer serious injuries.

All of this is eminently preventable. One of the most effective methods of reducing drunk driving is the vigorous enforcement of drunk driving laws. But to obtain convictions, states need to be able to obtain timely blood alcohol content (BAC) readings of suspected drunk drivers. Any delay in obtaining a BAC reading not only risks the destruction of evidence that can never be recovered, but also opens a window that defendants can use to poke holes in a prosecution, by arguing that later BAC readings are flawed or insufficient to show impairment at the time of operation of the vehicle.

Additionally, there is no ready substitute for immediate testing. The respondent has suggested that the existence of retrograde extrapolation—a scientific technique that uses BAC data from one point in time to estimate the BAC at an earlier time—obviates any exigency regarding the collection of BAC evidence, but that argument is deeply flawed. Retrograde extrapolation is a method to interpret the evidence that is available—it does not lessen the need to obtain the best possible evidence of a crime. In this case, the best evidence is a BAC reading that is as close as possible to the point in time when the suspect was operating a vehicle, because any delay will lead to diminished evidence and reduce the likelihood of conviction.

ARGUMENT**A. Preventing Drunk Driving Is A Compelling State Interest, And Enforcement Is Key To Prevention**

Drunk driving remains one of our society's greatest problems. In 2010 alone, 10,228 people died as a result of drunk driving.² That is one person dead every 52 minutes. In addition, in 2002, the last time the government released this data, over 513,000 people were injured in drunk driving crashes—one almost every minute.³

Yet these disturbing numbers only scratch the surface of the drunk driving problem in the United States. According to the Centers for Disease Control and Prevention (CDC), Americans “drank too much and got behind the wheel about 112 million times in 2010—that is almost 300,000 incidents of drinking and driving each day.”⁴ Of these drunk driving incidents, only approximately 1.4 million arrests are made.⁵

² National Highway Traffic Safety Administration, *Fatality Analysis Reporting System (FARS) 2010*, available at <<http://www.fars.nhtsa.dot.gov/Trends/TrendsAlcohol.aspx>>.

³ National Highway Traffic Safety Administration, *Impaired Driving in the United States*, available at <<http://www.nhtsa.gov/people/injury/alcohol/impaired-drivingusa/us.pdf>>.

⁴ Centers for Disease Control and Prevention, *Press Release: CDC report shows about 112 million annual incidents of people drinking and driving* (Oct. 4 2011), available at <http://www.cdc.gov/media/releases/2011/p1004_drinking_driving.html>.

⁵ Federal Bureau of Investigation, *Uniform Crime Reports: Crime in the United States 2010: Table 29*, available at <<http://fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/tables/10tbl29.xls>>.

Beyond this lethal physical toll, the economic cost is substantial. It is estimated that the cost of alcohol-impaired motor-vehicle crashes reaches \$132 billion annually⁶—and that number does not even begin to measure the total economic impact of drunk driving, such as increased long-term health care costs and lost market output.

Indeed, this Court itself has long recognized the enormity of the drunk driving problem in the United States:

No one can seriously dispute the magnitude of the drunken driving problem or the States' interest in eradicating it. Media reports of alcohol-related death and mutilation on the Nation's roads are legion. The anecdotal is confirmed by the statistical. 'Drunk drivers cause an annual death toll of over 25,000 and in the same time span cause nearly one million personal injuries and more than five billion dollars in property damage.' For decades, this Court has 'repeatedly lamented the tragedy.' 'The increasing slaughter on our highways . . . now reaches the astounding figures only heard of on the battlefield.'

Michigan Dept. of State Police v. Sitz, 496 U.S. 444, 451 (1990) (citations omitted).

Fortunately, drunk driving has decreased from the 25,000 deaths per year mourned by the *Sitz* court

⁶ Mothers Against Drunk Driving, *Campaign to Eliminate Drunk Driving Fifth Anniversary Report to the Nation*, at 5 (Nov. 2011) available at <<http://www.talklikemadd.org/books/statereport/>>.

in 1990 to the 10,000 plus deaths that we suffer today.

One reason for this success is the enforcement of drunk driving laws. Enforcement of the laws, including both arrests and convictions, reduces the harm caused by drunk driving through several mechanisms.

First, the arrest and conviction of drunk drivers removes those drivers from the road, through imprisonment, license suspensions, or other penalties that restrict the operation of vehicles while impaired (such as ignition-interlock devices, which prevent an individual from starting his or her car without breathing into the device and recording a blood alcohol reading under the legal limit). Every drunk driver off the road is one less potential source of crashes, injuries, and deaths.

Second, the strict enforcement of drunk driving laws has a significant deterrent effect. Individuals who observe the consequences of driving drunk, including convictions and the resulting penalties, are less likely to drive drunk themselves. Indeed, a 2008 study determined that individuals were less likely to drink and drive if they perceived a higher probability of being stopped or arrested by law enforcement.⁷

And finally, the conviction of drunk drivers can reduce the possibility of that driver driving drunk in the future. The recidivism rate for drunk driving is extremely high—in one study, 17.8% of individuals convicted of a drunk driving offense were arrested

⁷ Anthony Bertelli, *The Behavioral Impact of Drinking and Driving Laws*, *Policy Studies Journal* 36:4, 545-569 (Nov. 19, 2008).

again for drunk driving within five years of their prior offense.⁸

One reason for this high recidivism rate is that individuals who drink and drive often have problems with alcohol generally—in one study, for example, 82% of individuals who had just been convicted of drunk driving for the first time were assessed as problem drinkers or alcoholics.⁹ As a result, however, convictions for drunk driving can provide one significant benefit in preventing future instances of drunk driving: court-ordered treatment. One study found that remediation treatment for alcohol abuse can by itself reduce drunk driving recidivism by 8-9%¹⁰, while another found that treatment combined with license suspension or revocation can reduce recidivism by as much as 50%.¹¹

This is unsurprising, as a drunk driving arrest and conviction presents individuals with a clarifying

⁸ Randall L. Deyle, *First offender BACs as a predictor of DUI recidivism*, Colorado Department of Human Services, at 5 (Feb. 2010), available at <<http://cospl.coalliance.org/fedora/repository/co:9524>>.

⁹ Matthew L. Wald, *Battle Against Drunken Driving Should Shift Focus, Some Experts Assert*, N.Y. Times (Jan. 3, 1987), available at <<http://www.nytimes.com/1987/01/03/us/battle-against-drunken-driving-should-shift-focus-some-experts-assert.html>>.

¹⁰ Elisabeth Wells-Parker, et al., *Final results from a meta-analysis of remedial interventions with drink/drive offenders*, *Addiction* 90:7, 907-926 (July 1995).

¹¹ Ralph K. Jones & John H. Lacey, *State of Knowledge of Alcohol-Impaired Driving: Research on Repeat DWI Offenders*, available at <<http://www.nhtsa.gov/people/injury/research/pub/Alcohol-ImpairedDriving.html>>.

event that forces them to recognize their problem with drinking and acknowledge the consequences of their actions. As researchers have noted, “most first-time offenders who entered a DUI program acknowledged that they needed to change both their drinking and their drinking-and-driving behavior, and indicated that they were trying to do so.”¹²

In sum, the severity of the drunk driving problem in this country cannot be underestimated. Allowing the decision below to stand will hamper efforts to combat drunk driving by interfering with the State’s ability to obtain convictions for drunk driving offenses, which is essential to the prevention of drunk driving.

B. The Timely Measurement Of Blood Alcohol Is Crucial To The Enforcement Of Drunk Driving Laws

Timely measurement of a defendant’s BAC is necessary to increase the chances of obtaining a drunk driving conviction. This is because any delay at all in obtaining BAC measurements is an opening that criminal defendants use to attack an otherwise valid drunk driving prosecution—and they often succeed in doing so.

An exhaustive study of drunk driving cases in Massachusetts identified delay in measuring BAC as a problem in obtaining drunk driving convictions: “There was general agreement among the prosecutors, judges, and defense lawyers we interviewed

¹² Patricia L. Dill & Elisabeth Wells-Parker, *Court-Mandated Treatment for Convicted Drunk Drivers*, National Institute on Alcohol Abuse and Alcoholism (2006), available at <<http://pubs.niaaa.nih.gov/publications/arh291/41-48.htm>>.

about the factors that can make [drunk driving] cases difficult to prove. . . . Breathalyzer test results can be attacked based on delay. . . .”¹³

As the study describes it, defense attorney “tactics often focus on the impact of delay on the evaluation of the test result, seeking to convince judges to give it little weight as evidence of the defendant’s blood alcohol level at the time of operation.”¹⁴ All of that explains one of the study’s most troubling findings: even breathalyzer results over the legal limit admitted at trial “sometimes do not result in convictions.”¹⁵

Indeed, this is also why an immediate *blood test* is so valuable. While defendants have achieved some success in leveling spurious attacks on breathalyzer data—including not just allegations of delay, but also unfounded attacks on the validity of breathalyzer analysis in general¹⁶—blood testing has avoided any serious legal challenge, because no one dares dispute its status as the most precise measure of BAC (after all, BAC stands for *blood* alcohol content).

¹³ R.J. Cinquegrana & Diana K. Lloyd, *Report to the Supreme Judicial Court*, at 7 (Oct. 2012), available at <<http://www.mass.gov/courts/sjc/docs/report-110112.pdf>>.

¹⁴ *Id.* at 36.

¹⁵ *Id.* at 8.

¹⁶ See American Prosecutors Research Institute, *Overcoming Impaired Driving Defenses*, at 18-21 (Nov. 2003), available at <http://www.ndaa.org/pdf/overcoming_impaired_driving_defenses.pdf>.

C. Retrograde Extrapolation Is Not A Valid Reason To Affirm The Judgment Below

Retrograde extrapolation is a technique by which a scientist can use a person's BAC measurement from one point in time to calculate what that person's BAC may have been at an earlier time, taking into account factors such as body weight and the time the individual consumed alcoholic beverages.

Retrograde extrapolation is used in many circumstances, but primarily as evidence of a defendant's BAC at the time of operation of a vehicle based on a later BAC measurement. The respondent has suggested that this use of retrograde extrapolation obviates any exigency in securing evidence of a person's BAC, but this is incorrect.

As noted above, pointing to delays in obtaining a BAC reading is a common defense tactic. Extensive reliance on retrograde extrapolation only exacerbates this problem, as it explicitly acknowledges the unavailability of timely BAC data, but nonetheless suggests that the best evidence is an earlier BAC measurement.

Indeed, the use of retrograde extrapolation does not *obviate* the need for a timely measurement of BAC—it *highlights* the need for a timely measurement. While the extent to which BAC rises and falls has been drastically overstated by many defense attorneys, it is true that—as with any predictive method—the greater the amount of time between the BAC measurement and the operation of the vehicle, the less accurate the results of retrograde extrapolation. And, conversely, by obtaining a BAC reading as close as possible to the time of operation, a more accurate picture can be drawn of the suspect's BAC at time of operation.

Also related to the use of retrograde extrapolation is the concept of peak alcohol concentration. Essentially, alcohol takes time to be absorbed and eliminated. After one consumes alcohol, the level of alcohol in the bloodstream rises based on several variables. At some point after consumption, the blood alcohol level “peaks,” representing the time at which there is the greatest level of impairment that will result from the amount of alcohol consumed by the individual (in the eyes of the law, which uses BAC as an approximation of impairment). After this peak, the levels begin to decrease at a rate that is again affected by several variables, including time of offense, time of test, test result, gender, weight, height, age, food consumption, drinking history, number of drinks, size of drinks, concentration of alcohol in the drinks, and timing of drinks.¹⁷

In the context of arresting and convicting drunk drivers, this means it is possible that someone whose blood alcohol was measured at one point in time may have actually had a lower *or* higher BAC at the time of operation, just through normal metabolic processes.

This potential discrepancy between BAC at time of measurement and time of operation has led some to oddly suggest that a timely measurement of BAC is completely unnecessary, because it may not result in useful evidence. But this is non-responsive to the issue of whether a timely BAC measurement is the

¹⁷ See American Prosecutors Research Institute, *Alcohol Toxicology for Prosecutors*, at 20-24 (July 2003), available at <http://www.ndaa.org/pdf/toxicology_final.pdf>.

best available evidence, regardless of what the BAC may have been at operation.

Consider: if a BAC measurement is taken immediately after an individual is stopped for suspected drunk driving, the results of the measurement can yield three possible scenarios: (1) the BAC measurement is an accurate indication of the level of impairment at time of operation, because little to no absorption or elimination has occurred between time of operation and time of measurement; (2) the BAC measurement is understating the level of impairment, because alcohol is being eliminated and thus the BAC measurement is lower at the time of measurement than at the time of operation; or (3) the BAC measurement is overstating the level of impairment, because alcohol is still being absorbed and thus the BAC measurement is greater at the time of measurement than at the time of impairment.

All three scenarios reveal a need for a timely BAC measurement. In scenario (1), obviously a timely measurement has yielded valuable evidence. Indeed, that is the ideal scenario for all participants, because the State avoids the concerns of scenario (2) and the suspect avoids the potential for scenario (3). The possibility of this scenario alone warrants an immediate measurement of BAC, as any delay risks the destruction of textbook evidence of a crime.

But both scenarios (2) and (3) also reveal a need for a timely BAC measurement.

In scenario (2), the damage has already been done: alcohol is being eliminated from the bloodstream at a rate that is dependent on several variables. While BAC at operation may be estimable through retrograde extrapolation, the amount of alcohol in the suspect's blood will never again be

measurable for certain. Moreover, as explained above, the more time that passes between operation and measurement, the less accurate the results of retrograde extrapolation.

Similarly, in scenario (3), alcohol is already being absorbed into the bloodstream. Waiting even more time to take a measurement does not solve the problem that the measurement will be greater than it was at the time of operation (until peak is reached and BAC begins to drop again, further complicating matters).

Thus, under any scenario, there is still a critical advantage to obtaining an immediate measurement of BAC. And, of course, it is impossible to know at the time of measurement which of the three scenarios is present. For that reason, an immediate BAC measurement is the only way to ensure that evidence is properly maintained, after which its relevance and value can be ascertained.

Thus, while the absorption and measurement of blood alcohol in the bloodstream is an admittedly complicated subject, this case does not force this Court to confront any of those complications or engage in any extensive scientific inquiry. Neither retrograde extrapolation nor the existence of varying peak alcohol levels affects the need for a timely measurement of BAC, because a timely measurement remains the best possible evidence to convict drunk drivers.

CONCLUSION

The decision of the Missouri Supreme Court should be reversed.

Respectfully submitted,

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