

Frequently Asked Questions about the Social Ecology of Drinking and Driving

Component Director: Paul J. Gruenewald, Ph.D.

Drinking and driving continues to be one of the leading sources of death related to alcohol use in the United States. In 2004, there were 16,885 alcohol-related fatalities, representing about 39% of all traffic fatalities for that year. While significant progress has been made toward reducing these fatalities over the past 20 years, in recent years the number and percentage of alcohol related crashes have plateaued. These deaths are not only tragic, but have huge economic costs. Annual costs related to driving after drinking have been estimated at \$51 billion.

Among the reasons for the persistence of drunken driving in the US is that the characteristics of social situations in which people drink encourage drinking and driving. The commercial interests of businesses that sell alcohol and the social interests of social hosts who serve alcohol lead to situations in which problem drinking may be maintained or encouraged. Drinkers tend to seek places where others like themselves use alcohol, reinforcing one another's problem behaviors whenever drinking in these places. Since people often drive to drinking locations, impaired driving is the result.

Research has examined how the location and type of alcohol outlets affects problem drinking and impaired driving. Some frequently asked questions about the relationship between alcohol outlets and impaired driving are discussed below.

What individual factors influence the decision to drink and drive?

A variety of factors influence whether an individual driver will drive while impaired. For example, males and younger drivers drink and drive more often than females and older drivers.¹ Some researchers have found that people with certain personality characteristics such as hostility and aggressive driving, impulsivity, tolerance of deviance, low sense of self control and sensation seeking are more likely to drink and drive.²

What factors of drinking locations influence the decision to drink and drive?

While these individual characteristics tend to be associated with drinking and driving, the characteristics of the places in which people live and socialize can also have an influence. The characteristics of the places people drink tend to be especially influential in whether they drive after drinking heavily. If drivers drink in a place (such as a bar) where heavy drinking is acceptable and even encouraged, they are more likely to drink enough to become impaired – and to drive. This is particularly true in drinking locations where there are strong social relationships among drinkers – for example a bar where people know each other or interact with each other and can therefore influence each other.³

How does the number of outlets and their location influence drinking and driving?

When there are many alcohol outlets (such as bars, restaurants, and stores that sell alcohol) people are likely to drink more because it is so convenient to drink. When people are driving to and from these outlets, more alcohol related crashes can occur.⁴ This is particularly true when

there are many outlets such as bars that are close together, where the drinking takes place away from home.⁵

How does the number and type of outlets interact with personal characteristics to influence decisions about drinking and driving?

Researchers have studied different types of people and where and how much they tend to drink. Heavy drinkers are more likely to drink outside the home in situations in which they are much more likely to drive after drinking.⁶ The settings where these heavy drinkers drink are likely to include other heavy drinkers.

Research has shown that in areas where there are many bars and other places where people can drink outside their homes, there is much more drinking and driving. Not surprisingly, people who drink in these settings away from home are much more likely to report driving while impaired.

Our ongoing research examines these relationships in more detail. We think that when drinkers have many different drinking locations to choose from, they are more likely to find locations that match their personal preferences. This can create more opportunities for heavy drinkers to drink among other heavy drinkers, encouraging more alcohol consumption, more drinking away from home – and driving after drinking. We think this is one mechanism by which a higher number of conveniently located alcohol outlets leads to more impaired driving.

What other information is available about the effects of alcohol outlets on alcohol problems?

A large number of alcohol outlets located close together is associated with other problems, including crime and violence and child abuse and neglect. For more information, see <http://resources.prev.org/documents/AlcoholViolenceGruenewald.pdf>

¹ Dang, Jennifer N. "Statistical Analysis of Alcohol-Related Driving Trends, 1982-2005." Washington, DC: National Highway Traffic Safety Administration, 2008.

² Iverson, H. and Rundmo, T. (2002) *Pers. and Ind. Diff.*, 33, 1251-1263

Bingham, C.R. and Shope, J.T. (2004) *Jrnl. of Adol. Res.*, 19, 205-223.

Bingham, C.R., Elliot, M.R. and Shope, J.T. (2006) Social and behavioral characteristics of young adult drink/drivers adjusted for level of alcohol use. In press, *Alc.: Clin. & Exp. Res.*

³ Ahlin, E.M., Rauch, P.L., et al., (2002) Social bonds as predictors of recidivism. In D.R. Mayhew and C. Dussault (Eds.), *Procs. of the 16th Intl. Conf. on Alc., Drugs, and Traffic Safety*, 177-184. Montreal, Canada.

⁴ Escobedo, L.G. and Ortiz, M. (2002) *Acc. Anal. & Prev.*, 34, 689-694.

Jewell, R.T. and Brown R.W. (1995) *App. Econ.*, 27, 759-765.

⁵ Gruenewald, P.J., Millar, A., et al (1996) *Addiction*, 91, 967-983.

Treno, A.J., Gruenewald, P.J., et al (2006b) The Sacramento Neighborhood Alcohol Prevention Project. In press, *Jrnl. Stud. Alc.*

⁶ Gruenewald, P.J., Mitchell, P.R. and Treno, A.J. (1996) *Addiction*, 91, 1637-1649.