Finally, better understanding of police attitudes and motivations should inform the effort to achieve greater deterrence through alcohol laws and penalties. Police apply the laws and may, for example, be less than enthusiastic about taking people's licenses because they believe most motorists will continue to drive with impunity. Police also may be indifferent to checkpoints because they think it is easier to find alcohol-impaired drivers through patrol activities. They may be reluctant to use passive alcohol sensors because they trust their ability to detect alcohol without them. To the extent that views such as these prevail, deterrence will be lessened. We know that law enforcement will be enhanced if there is strong political support for the enforcement, but there is much we could learn and benefit from in regard to the factors influencing police enforcement practices.

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APPENDIX C2A ENFORCEMENT OF DRINKING-DRIVING LAWS IN AN ERA OF REDUCED RESOURCES

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INTRODUCTION

The dramatic reduction in alcohol-related crashes which has occurred during the last 15 years has been a remarkable demonstration of the efficacy of the nation's highway safety program. This extended success in fighting drunken driving has led to the adoption of a challenging goal for the future; the reduction of alcohol involved crashes from the 16,000 experienced in 1994 to 11,000 in 2005 (Partners for Progress, 1995). Concern is rising, however that the era of progress is coming to an end because of changes in Federal, state and local governments and the shift of public attention to other societal problems. The current trend in both National and local politics is to reduce the involvement of government in social and health problems. A significant effort is being made to reduce taxes at all levels and local governments have the additional burden of reductions in state and Federal stipends. All of this suggests that the resources which can be applied by local agencies to the drinking driving problem will be reduced in the coming decade.

There are a number of factors which suggest that despite the declining resources, the nation can continue to make progress in the reduction of impaired driving. First, while there is considerable competition for the public's attention, drunk driving continues to be high on the list of public priorities. This was recently demonstrated in surveys conducted in two California cities and one South Carolina city as part of local community trauma reduction programs. In each of these three communities, respondents chose drunken driving as the number one problem over such other candidates as the drug problem, AIDS, the economy, and Bosnia. Secondly, while there is a trend toward reducing government involvement in most social and health problems, there is strong support for tough law enforcement. This is reflected in a reluctance to reduce police department budgets, thereby lessening the impact on the enforcement of impaired driving laws. Third, there is strong political support for family values which is reflected in the attachment of the zero tolerance provision to the National Highway System bill in 1995.

Finally, there is an infrastructure of support for drunk driving programs which has grown over the last 15 years of progress. Activist groups such a Mothers Against Drunk Driving have grown and become established elements of the national and local scene. The National Highway Traffic Safety Administration has funded the development of new technology and the training of police, prosecutors and judges. A broad "ALR" coalition of governmental and private organizations has been established to promote alcohol safety legislation. This paper examines the actions that can be taken to strengthen the enforcement of drunk driving laws in the light of these positive factors, without significant increases in the funding of police departments.

BACKGROUND

The passage of Driving Under the Influence (DUI) legislation has gotten out of sync with the enforcement of these laws by the police. For the first half of this century, drunken driving was defined in behavioral terms and the arresting officer had the burden of describing the driver's impairment sufficiently well to convince a jury that the individual was impaired. Once blood alcohol measurement came on the scene this method was simply tacked on to the end of the traditional procedures for collecting behavioral evidence. Only in the late 70's and 80's, when the states began to pass per se illegal laws did the BAC begin to take a more central place in DUI enforcement (Voas and Lacy, 1990). However defense lawyers were generally successful in keeping a focus on behavioral criteria by requiring the officer to demonstrate that he or she had probable cause to make the arrest. As a result the emphasis in police training has been placed on the signs of impaired driving (Harris, Howlet and Ridgeway, 1979) and on field sobriety tests to detect driver impairment (Tharp, Burns and Moskowitz, 1981) and little emphasis on the use of sobriety checkpoints and preliminary or passive breath test devices which reduce the reliance on behavioral signs of intoxication.

As a result of the success of activist groups in promoting drunk driving legislation, DUI laws have been enacted which are difficult if not impossible to enforce aggressively with the traditional methods based on observations of driver behavior. The current legislative trend is to lower the BAC limit for adults to .08 and to .02 for those under 21 years old. At these levels the observational methods which are effective for drivers with BACs above .10 are no longer effective. Most other industrialized nations have met this problem by adopting "Chemistry based" enforcement systems (Voas and Lacy, 1990) which are not principally dependent on observing impaired behavior. Perhaps the premier example of this is in Australia where the use of random testing has resulted in a significant reduction of the alcohol-related fatality rate (Homel, 1988). In the U.S. however, concerns with constitutional issues and the extensive investment in the training of officers in the use of visual detection methods have held back the exploitation of the per se illegal laws which have been enacted over the last two decades.

This hiatus between the modern drunk driving laws which feature low per se limits and the new breath test technology which is available to enforce them and the current DUI enforcement procedures provides an opportunity to increase the intensity of enforcement without large increases in resources by using the current laws and equipment more efficiently. These opportunities appear to fall into areas: Increased use of sobriety checkpoints; increased use of preliminary and passive sensors; and increased enforcement of zero tolerance laws for drivers under 21. Each of these opportunities is discussed below.

INCREASED USE OF CHECKPOINTS

There have been several evaluations of sobriety checkpoints which have demonstrated the effectiveness of this enforcement procedure (Voas, Rhodenizer and Lynn, 1985; Williams and Lund, 1984; Lacy, et al., 1986; Levy, Shea and Ash, 1989; Williams, Wells and Foss, 1995; NHTSA, 1995). However, in most jurisdictions this effective technique is used only infrequently, mostly on holidays such as the Fourth of July, Labor Day or New Years Eve. The principle reason for the limited application of this technique appears to be the high cost associated with bringing a together a large number of officers believed to be required to implement a checkpoint. An important study in California funded by the NHTSA (Stutster and Blowers, 1995) demonstrated that checkpoints conducted by as few as four officers can be as effective in reducing nighttime single vehicle crashes as larger operations which employ ten or more officers. Some jurisdictions such as West Sacramento have developed systems for using as few as two officers. This should open the way for much more frequent implementation of the checkpoint technique even in relatively small jurisdictions, particularly if adjacent departments join in implementing this enforcement procedure.

In Australia, random testing has proved to be particularly effective where it was widely and routinely applied. It has become the normal enforcement method. Similarly, checkpoints have been most effective where they have been used regularly on a routine basis as in Charlottesville, Virginia where they were mounted on Friday and Saturday night every week (Voas, Rhodenizer and Lynn, 1985). Mini-checkpoints could be mounted at least weekly in most jurisdictions by bringing four patrol officers to a predetermined location for one or two hours during an evening. The checkpoint equipment could be brought to the site and set up by reserve officers. Using this type of approach, a regular checkpoint element could be added to traditional drunk driving patrols. If effectively publicized, this could create a climate in which the driving public would expect to encounter checkpoints on a routine basis. This would increase the deterrence to driving after drinking particularly among those individuals who believe they can avoid detection by driving carefully when drinking.

INCREASED USE OF PRELIMINARY AND PASSIVE SENSORS

Detection of impairment in many drinkers is difficult. Studies in Scandinavian countries where a physician was required to examine individuals charged with impaired driving demonstrated that half of those over .10 BAC where judged to be impaired by these trained experts (AMA, 1976). It is not surprising therefore that breath tests of drivers interviewed at checkpoints but not detained by the police indicate that half of drivers with illegal BACs are missed in these operations (Jones and Lund, 1985; Ferguson, Wells, and Lund, 1993). A similar result was found for regular motor officers on patrol by Taubenslag and Taubenslag (1975), though Kiger, Lestina and Lund (1991) found a lower miss rate for special DUI patrol officers. These studies involved detection of adults in states with .10 and .08 laws. Detection of underage drivers at .02 BAC would obviously be significantly more difficult.

Despite this evidence that many over-the-limit drivers are avoiding detection when interviewed by the police, the use of breath sensing devices at the roadside has been limited. Passive sensors, which collect air from in front of the drivers face and are not believed to constitute a search under the fourth amendment, can be used at any time in the investigation without a requirement that the officer have reason to believe that the suspect has been drinking. Jones and Lund (1985) demonstrated that use of passive sensors at a checkpoint increased the apprehension of over the limit drivers by nearly 50%. Ferguson, Wells and Lund (1993) obtained similar results. Despite this demonstration of their effectiveness, passive sensors have received only limited use (Leaf and Preusser, 1996).

Preliminary breath testers have been available to the police for the last 20 years and are regularly in use in many departments. Safer and Chaloupka (1983) found that states with preliminary breath test laws had lower highway fatality rates. However, the doctrine in most departments is to use these units only after the officer has administered the field sobriety tests. Since most of the over the limit drivers who are missed by the police are not invited out of the car for sobriety testing, this procedure limits the potential impact of these units. One reason for not employing these units at an earlier point in the investigation is that they are believed to be a search under the fourth amendment and therefore require that the officer have reason to believe the person has been drinking to require the test. However, most courts have held that the evidence required to conduct a preliminary breath test is the same as that required to conduct a sobriety test. Thus, the officer could test the driver while still seated in his vehicle as soon as he had reason to believe that the individual had been drinking. A more aggressive use of the preliminary breath tester would reduce the time lost in sobriety testing of drivers not over the limit and would increase the detection of drivers who provide only borderline evidence of drinking.

Since many departments are already equipped with preliminary sensors, earlier use of these devices in the investigation of drinking drivers would increase apprehensions at little additional cost. The ability of passive sensors to detect over the limit drivers who show few if any indications of impairment should pay for themselves in a relatively short period if actively employed. The problem which must be overcome is the need to persuade department commanders and the patrol officers of the importance of these devices to effective enforcement of the new lower BAC limits. One area which has not been fully exploited is the potential of passive sensors to increase the perception of risk of apprehension among drinking drivers. If these potential offenders understand that if stopped by the police the officer has the means to sniff out the heavy drinker no matter how sober he appears, this should have a significant deterrent effect.

INCREASED ENFORCEMENT OF UNDERAGE DUI LAWS

There is strong general support for measures directed at decreasing the use of tobacco, alcohol and other drugs by youth. This is reflected in the wave of zero tolerance legislation that is sweeping through the country, aided by evidence that this type of legislation is effective in reducing alcohol-related deaths among young drivers (Hingson, Heeren and Winter, 1987). Currently there are 37 states with zero tolerance laws and with the impetus provided by the passage in 1995 of Federal legislation which penalizes states that do not enact such laws, all 50 states should soon have this law. Despite the public and official concern with underage drinking and driving, enforcement of DUI laws for drivers under 21 has been limited in comparison to the attention given to apprehending adult drivers (Voas and Williams, 1982; Preusser, Ulmer and Preusser, 1992). While the alcohol-related fatality rate for the under 21 age group has fallen over the last years to a greater extent than that of the adults, it is still high in relation to other age groups. Further, current demographic trends indicate that there will be a large increase in this age group during the coming decade. Thus, underage drivers remain an important target tor impaired driving programs.

The zero tolerance laws make it an offense to be in charge of a vehicle with any measurable amount of alcohol in the body. This should make these laws easy to enforce since any indication of drinking should provide the basis for requiring an evidential breath test. Further, some of these laws such as the one in California are purely administrative, which allows the officer to confiscate the license without booking the offender into the jail. This significantly shortens the time that the officer is off the road while dealing with a DUI action. In most cases, the officer also does not need to appear in court, though he may in some cases have to appear at a department of motor vehicles hearing. In California, despite the relative ease with which an officer could cite an underage driver under the new zero tolerance law, the total number of DUI related actions did not increase after the law became effective.

Pruesser, Ulmer, and Pruesser (1992) attributed the low apprehension rate of young drivers to the fact that they do their drinking in locations such as parks, rather than near bars and restaurants which are more heavily patrolled by the police and that they exhibit different driving behaviors than adults when drinking. They also noted that young drivers performed better on the sobriety tests. To these physical factors needs to be added the apparent low motivation of police officers to arrest or cite young persons. In most localities, taking a young person into custody requires the officer to locate the parents which may consume considerable time away from patrol activity. In addition, officers frequently come under criticism from parents and many question the extent to which the public supports the strict enforcement of zero tolerance and "use and lose" laws. Since special enforcement programs must be implemented if the police are to patrol in different areas and emphasize laws directed at drinking and driving by youth, the community must organize to make it clear to the department that it expects to have these laws vigorously enforced.

Increasing the emphasis on the enforcement of under age laws will also be important to the effectiveness of nighttime curfews for novice drivers; a significant component of the graduated licensing laws which are a high priority legislative objective for safety groups. If police departments and their patrol officers can be persuaded to give greater emphasis to underage DUI laws, It should be possible to significantly increase deterrence to driving after drinking by underage drivers at relatively low cost.

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APPENDIX C2B DISCUSSION COMMENTS Herb M. Simpson Traffic Injury Research Foundation of Canada

One of the implicit themes in the paper by Dr. Williams is that, where feasible, we should make better use of the programs and policies we already have at our disposal. This is a theme with which I can resonate and would like to pursue more fully.

It often strikes me as though we live in a world gone mad with the passage of new laws and regulations, without due regard for the fact that laws are only as good as their enforcement. Accordingly, if we do find ourselves in an era of diminished resources and are facing stiffer competition for those resources, we might well question whether adding new laws is the most sensible approach to take.

Perhaps at least equal consideration ought to be given simply to making better use of the laws we already have. Allan has suggested, for example, that we might look at ways for improving the efficiency and effectiveness of police surveillance—e.g., making checkstops more efficient by equipping the police with passive sensors or even equipping them with information such as the correlation between fatigue and drunk driving or the correlation between belt use and drunk driving to make their detection more efficacious.

But the efficient application of the law can envelope many more than those who are normally thought of as part of the enforcement cycle (i.e., the police, judiciary, courts, jails, parole). The application of existing laws can begin at a much more local level through such simple mechanisms as information dissemination, designed to increase public awareness.

A fundamental premise of general deterrence is that the public is aware of the threat—i.e., they are aware of the existence of the law. It is, of course, more complex than that - the public must believe that the threat is real and they must believe they stand a reasonable chance of the threat being applied to them if they transgress the rules. But, the fulcrum for that lever in the first place is awareness of the law.

Unfortunately, it is often assumed that the existence of a law and even its reasonably routine enforcement leads to widespread awareness of its existence, thereby creating the opportunity for general deterrence. Often, however, this belief is unfounded. Let me cite two illustrations from Canada. In 1985, the federal government's Department of Justice introduced amendments to the criminal code that significantly increased the minimum, mandatory penalties for drunk driving. Considerable publicity surrounded the announcement: a national advertising campaign; media events; a cross country tour; brochures; posters; pamphlets;