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COMMISSION ON CONFINEMENT AND TREATMENT OF DWI RECIDIVISTS

FINAL REPORT

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COMMISSION ON CONFINEMENT AND TREATMENT OF DWI RECIDIVISTS FINAL REPORT

Index

I

SUMMARY OF COMMISSION REPORT AND RECOMMENDATIONS

I. SUMMARY OF COMMISSION REPORT AND RECOMMENDATIONS

A. Executive Summary

The Commission recommends that a combination of increased repeat DWI offender apprehension efforts, intensive probation, long term incarceration in local detention facilities, and court ordered **adequate** treatment be used to protect the public from the repeat DWI offender and decrease the likelihood that these individuals will continue to drink and drive. The Commission recommends that a state-wide DWI offender tracking system be created so the courts and the legislature can assess the effectiveness of these and previously adopted DWI control measures.

Because most alcohol related traffic fatalities involve a driver who has never been arrested for DWI before, the Commission strongly recommends that, with the availability of sufficient resources, increased apprehension efforts should be directed at all DWI offenders and the treatment and control methods identified in this report should be used with all convicted DWI offenders.

The cost of implementing the Commission's recommendations should be paid for by offender reimbursement and state funding. State funding can be obtained through an increase in the state alcohol tax. The Commission believes that it is appropriate to increase the state alcohol tax to fund the repeat DWI offender programs because a significant portion of such tax increase would be born by the 10% of the people who consume 60% of the alcohol sold in Minnesota.

The criminal justice and treatment issues presented to the Commission are discussed in parts V and VI of this report. These two areas were addressed by the criminal justice and treatment subcommittees created by the Commission. The full Commission has adopted and endorsed the subcommittee reports. The core recommendations of the subcommittees are that, rather than adopting a felony DWI or utilizing the civil inebriacy commitment process, the repeat DWI offender should receive a gross misdemeanor sentence of one to three years.

If the offender is not classified as "hard core," unamenable to treatment or unsafe for an intensive probation supervision program, all but 45 days of the sentence should be stayed. The 45 days of

incarceration should be served in some type of minimum security facility such as a work release program.

All repeat DWI offenders should be assessed to determine their level of abuse of alcohol and their treatment needs. Entrance into and completion of the recommended level of treatment should be a condition of probation. Treatment participation should be closely monitored. It is believed that the vast majority of the repeat DWI offender population has limited or no insurance to cover the costs of chemical dependency treatment. Consequently, treatment will have to be provided as part of the intensive probation program. This is in fact the case with the Anoka County Repeat DWI Offender Intensive Probation Program.

Aftercare and long term participation in support groups should be part of the intensive probation program. It is also believed by the Commission that treatment and aftercare provided as part of an intensive probation program can be provided at significantly lower cost than similar programs provided by hospital based or free standing treatment programs. By providing the components of treatment, aftercare and participation in a long term, monitored support group as part of the intensive probation program, non-compliance can be detected and acted on immediately by the probation staff. This significantly increases the protection of the public.

The treatment sub-committee identified significant weaknesses in the present treatment programs that DWI offenders are currently being sent to by the courts. A central recommendation of the Commission is that court ordered treatment for **all** DWI offenders should meet the standards set out in detail in the recommendations. These include being abstinence based, having a sufficient number of contact days and hours, and providing a variety of types of contacts.

Repeat DWI offenders who are "hard core" because they are not amenable to treatment, not amenable to participation in an intensive probation program or fail to comply with the conditions of an intensive probation program, including successful completion of treatment, should be required to serve their full jail sentence. The vast majority of these individuals will be able to serve their sentence in a minimum security facility such as a work release program. The long term incarceration of this hard core group should contribute to the protection of the public.

A significant benefit of the use of gross misdemeanors and intensive probation is that the incarceration and or probation program is done in the local community whenever possible. This allows offenders to work and contribute to the support of their family and also make reimbursement for treatment, probation and incarceration costs.

A key recommendation of the Commission is that, given limited resources, law enforcement apprehension efforts should be targeted on the repeat DWI offender. Law enforcement apprehension resources are being spread thinner every year because of budgetary constraints and expanding categories of serious crime such as domestic violence and drugs. Because of shrinking law enforcement resources, there is less likelihood today that a repeat DWI offender will be arrested than there was ten years ago. Increased law enforcement efforts targeting the repeat DWI offender must also be implemented to accomplish any meaningful protection of the public. Rather than waiting for a repeat DWI offender to be arrested as part of the normal patrol activities of law enforcement officers, efforts should be made to actually go out and look for them using the repeat offender database created by the 1992 legislature.

B. Cost of Implementing Commission Recommendations

The estimated cost of implementing the Commission's recommendations at different DWI offender levels, using 1992 DWI incident data, is set forth below:

1. First and subsequent offenders: $74,703,573
   (32,180 offenders) 25,000

   Increased apprehension, prosecution and public defense expenditures, first and second time offender receiving no more than ten days incarceration entirely offender paid, third time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation for non hard-core repeat offenders, hard core offenders serving minimum of one year in jail, treatment for 60% of offender population, creation and maintenance of DWI tracking system.

2. Second and subsequent offenders: $67,269,650
   (14,012 offenders) 15,000

   Increased apprehension, prosecution and public defense expenditures, second time offender

receiving ten days incarceration entirely offender paid, third time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation for non hard-core repeat offenders, hard core offenders serving minimum of one year in jail, treatment, and creation and maintenance of DWI tracking system.

3. Third and subsequent offenders: $35,847,187 (7,113 offenders)

   Increased apprehension, prosecution and public defense expenditures, third time offender receiving 30 days incarceration partially paid for by offender, fourth time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation and treatment for non hard-core offenders, hard-core offenders serving minimum of one year in jail, and creation and maintenance of DWI tracking system.

4. Fourth and subsequent offenders: $14,791,475 (3,000 offenders)

   Increased apprehension, prosecution and public defense expenditures, fourth time offender receiving 45 days of incarceration partially paid for by offender, fifth time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation and treatment for non hard-core offenders, hard core offenders serving minimum of one year in jail, and creation and maintenance of DWI tracking system.

C. Alcohol Tax Increase Revenues Compared to Cost of Implementing Commission Recommendations

The Commission believes that an increase in the state tax on alcohol should be the source of the additional funding needed to implement the commission's recommendations. The following chart indicates the revenue that would be raised by the different alcohol tax increases and compares these revenues to the costs of implementing the Commission's recommendations at different DWI offender levels.

TAX INCREASE	TOTAL INCREASED REVENUE	OFFENDER CONVICTION LEVEL	DWI PROGRAM COSTS
1 cent/drink	$19,158,000	4+ (3,000 offenders)	$14,791,475
2 cents/drink	$38,270,000	3+ (7,113 offenders)	$35,847,187
3 cents/drink	$57,385,000	3+ (7,113 offenders)	$35,847,187
4 cents/drink	$76,497,000	2+ (14,012 offenders)	$67,269,650
5 cents/drink	$95,610,000	1+ (32,180 offenders)	$74,703,573

II

COMMISSION RECOMMENDATIONS, LEGISLATIVE AND POLICY RECOMMENDATIONS

II. COMMISSION RECOMMENDATIONS, LEGISLATIVE AND POLICY RECOMMENDATIONS

A. Legislative Recommendations

1. New gross misdemeanors for driving after cancellation and driving after revocation.

Adoption of new gross misdemeanor(s) for driving after cancellation and revocation of driver's license.

a. Gross misdemeanor if cancellation is because person is deemed to be inimical to public safety pursuant to Minn. Stat. 171.04(8). (Third alcohol related driving incident within five years or four alcohol-related incidents on driving record of offender).

b. Gross misdemeanor driving after revocation if person has three prior alcohol-related revocations on record in 15 years or four prior alcohol-related revocations on record.

2. Consecutive sentences for DWI, DAC/DAR, and refusal convictions.

Amendment of Minn. Stat. 609.035 to overrule State v. Simon, which prohibits consecutive sentences in gross misdemeanor DWI and gross misdemeanor refusal conviction cases. Specifically allow consecutive sentences for convictions of gross misdemeanor DWI, gross misdemeanor driving after cancellation or revocation and gross misdemeanor implied consent refusal arising out of same behavioral incident.

3. Mandatory minimum sentence.

Amendment of mandatory sentencing language of Minn. Stat. 169.121 so that person convicted of a fourth DWI in 15 years or five DWIs in lifetime must be sentenced to at least 45 days of incarceration before being eligible to be paroled or released on probation. Incarceration must be in jail or work release facility unless there is a medical reason why person's health would be threatened in jail. In such case, person must be sentenced to electronic or other verifiable form of home arrest.

4. Mandatory intensive probation.

Amendment of Minn. Stat. 169.121 to require that a person convicted of a fourth DWI in 15 years or five DWIs in their lifetime and given a probationary sentence must be placed in an intensive probation program, meeting the standards set forth in Minn. Stat. 169.1265, for the first year of probation.

Intensive probation program elements:

a. Offender limited to working, attendance at program facility or home detention.

b. Participation in treatment, aftercare or ongoing monitored support group.

c. Periodic (initially daily) testing for the presence of drugs and alcohol.

d. Offender can decrease intensity and number of contacts with program based on compliance with probation conditions.

e. Offender subject to immediate increase in intensity and number of contacts with program if offender violates conditions of program or probation.

f. Offender required to reimburse court or county running program.

5. Rigorous conditions of release for individuals charged with repeat DWI violations.

Prior to conviction, persons charged with their fourth DWI violation in 15 years or their fifth DWI in their lifetime, if released conditionally on other than maximum bail, must be subject to conditions of release that include but are not limited to:

a. Enforcement of plate impoundment from vehicle used at time of arrest, if not impounded by police at time of arrest.

b. Weekly, in person, reporting to an agent of the court.

c. Random weekly alcohol breath tests and urine analysis.

d. Reimbursement to court or county for total cost of the above conditions of release.

6. Increase quality of chemical use assessments.

Amendment of Minn. Stat. 169.126 subd. 4 to require that an assessment must include consideration of the offender's prior driving record, criminal conviction record and the person's alcohol concentration from the incident that resulted in the conviction resulting in the assessment.

7. Require court ordered treatment programs to meet certain standards.

Amendment of Minn. Stat. 169.121 subd. 3b to require that, if a person is convicted of violating the DWI laws a fourth time in 15 years, a fifth time in their lifetime or the gross misdemeanor driving after cancellation or revocation laws and ordered into treatment, the treatment program shall have at least the following minimal components:

a. Recognizes chemical dependency as the primary disease for treatment.

b. Defines the primary goal of treatment as total abstinence from all mood-altering chemicals. Secondary treatment goals should include ongoing participation in a mutual-help recovery program and improved quality of life.

c. The treatment program should provide clearly individualized treatment by a multidisciplinary team of professionals within a structured program, and address the multi-faceted effects of chemical dependency.

d. Provide treatment at a level of intensity appropriate to the client's severity of illness and to the setting. Standard guidelines established by Rule 25 should be used to make this determination. Study as to the feasibility of national guidelines such as the criteria published by the American Society for Addiction Medicine should be undertaken.

e. Inpatient/residential treatment provided as a result of a court order should meet licensing

standards of the Minnesota Department of Human Services. However, minimum service standards for licensed programs must be exceeded in order to provide the most effective treatment for this group. At a minimum, the program should provide:

(1) A length of stay of at least 24 days.

(2) At least six hours of group activity per day, including two to three group therapy sessions daily and two to three educational sessions daily.

(3) Individual sessions at least three times per week with professional staff.

(4) Three hours of family sessions, in addition to a family support program, to ensure that family issues are addressed and that family information is available to the treatment staff.

(5) An opportunity for recreation and relaxation.

(6) Compliance with these standards through a certification process in order to qualify for court-ordered referrals.

f. Outpatient treatment should, at a minimum, provide:

(1) At least 55 contact hours of primary treatment services with intensity of at least nine to twelve hours per week for a duration of four to six weeks.

(2) Nine hours of individual counseling with professional staff.

(3) Two hours of family sessions, in addition to a family support program, to ensure that family issues are addressed and that family information is available to the treatment staff.

(4) Compliance with these standards through a certification process in order to qualify for court-ordered referrals.

g. Primary treatment (inpatient/residential or outpatient) should be followed by a highly

structured aftercare component. Aftercare programs should:

(1) Offer three hours of group therapy and one hour of individual counseling per week for the first several months after treatment.

(2) Perform drug testing.

(3) Decrease the frequency of monitored contact over a period of at least a year.

(4) Meet these standards through a certification process in order to qualify for court-ordered referrals.

h. Introduce the offender to an abstinence-based mutual help group such as Alcoholics Anonymous or Rational Recovery and promote attendance at such a group.

8. Require reimbursement by offender for costs of pretrial release supervision, incarceration, treatment and intensive probation.

Amendment of Minn. Stat. 169.121 to require that any offender convicted of violating the DWI laws a fourth time in 15 years, a fifth time in their lifetime, or the gross misdemeanor DAC or DAR laws, and sentenced to any combination of incarceration, treatment in lieu of incarceration and/or probation, shall be required to reimburse the court or county incurring the expense of incarceration, treatment or probation for all or a part of such expense, depending on the offender's ability to pay. Reimbursement can be either through monetary payment or community service.

9. State to reimburse counties and courts for costs of incarceration, treatment and intensive probation of repeat offenders.

Counties and the state incurring expenses for the apprehension, prosecution, public defense, incarceration, treatment or probation supervision of person's convicted of violating the DWI laws a fourth time in 15 years, a fifth time in their lifetime or violating the gross misdemeanor DAC or DAR laws shall be entitled to receive reimbursement from an Alcohol Abuse, Apprehension, Adjudication, Incarceration, Probation supervision, Treatment and Prevention fund for

costs incurred for apprehension, prosecution, public defense, incarceration, treatment or probation of the offender and not recovered from the offender in the following amounts:

a. Apprehension: $ 50.00

b. Prosecution: $100.00

c. Public defense: $100.00

d. Incarceration: $ 25.00 per day

e. Treatment:
   Inpatient - $ 20.00 per day
   Outpatient - $ 10.00 per day

f. Intensive probation: $10.00 per day for each day offender in an intensive probation program, as set forth in recommendation number 4, has face-to-face contact with probation staff.

10. Increase tax on alcohol to fund costs of apprehension, prosecution, public defense, incarceration, treatment, intensive probation and tracking of repeat DWI offenders.

Increase the tax on alcoholic beverages to recover state and local criminal justice, treatment and other costs related to the apprehension, prosecution, public defense, adjudication, incarceration, probation supervision, and treatment of individuals convicted of a fourth violation of the DWI laws within 15 years or a fifth violation of the DWI laws within their lifetime.

An appropriation equal in amount to the amount raised by any alcohol tax increase should be made to an Alcohol Abuse, Apprehension, Adjudication, Incarceration, Probation Supervision, Treatment and Prevention Fund. State and local units of government would be eligible to receive reimbursement from this fund for repeat DWI offender activities related to:

a. Apprehension.

b. Prosecution.

c. Public defense.

d. Incarceration, treatment and probation of repeat DWI offenders.

e. Creation and maintenance of DWI tracking system.

11. Create a DWI tracking system to track DWI offenders.

Create a DWI tracking system that tracks and integrates information regarding the charging, prosecution, conviction, sentencing, treatment and driver's license records of persons charged with violating the state's DWI laws.

12. Increase efforts of identifying, tracking and apprehending repeat DWI offenders.

a. Amendment of the statutory requirement that the Department of Public Safety maintain a list of repeat DWI offenders so that the list reflects the most current address of the offender as obtained from the court or police records of the offender's most recent arrest.

b. Reimburse local communities for apprehension and prosecution efforts targeting repeat DWI offenders.

13. Municipal prosecutors should retain prosecutorial responsibility for repeat DWI offenders.

14. Felony repeat DWI offender law should not be adopted.

The expanded gross misdemeanor DWI sentencing jurisdiction and intensive probation programs should be adopted by the legislature and given three to four years to be implemented by state and local government. If, after that time, the involvement of repeat DWI offenders in alcohol related traffic fatalities has not decreased, the legislature should then consider the adoption of a felony repeat offender DWI law.

15. Inebriacy commitment laws should not be expanded and applied to repeat DWI offenders.

B. Policy Recommendations

1. Increase apprehension, prosecution, public defense, incarceration, treatment and probation

supervision efforts for all DWI offenders funded by revenue raised by increased tax on alcohol.

2. Law enforcement agencies should prioritize existing DWI enforcement resources focusing on identifying, seeking out and arresting repeat DWI offenders.

3. Provide increased training to police officers on the structure and implementation of existing repeat DWI offender plate impoundment laws.

4. Use minimum security work release type facilities for incarceration sentences for first and second time repeat DWI offenders and require such offenders to pay for entire cost of such "incarceration".

5. Increase training of judges in areas of alcohol abuse, effective treatment alternatives and appropriate sentencing.

6. Judges should implement appropriate sentencing of repeat offenders utilizing existing sentencing authority to impose and execute significant sentences for repeat offenders unamenable to treatment or probation.

7. Judges should order any DWI offender into a treatment program meeting the standards set forth in recommendation number VII above when treatment needs are identified by chemical use assessment.

8. Judges should respond quickly and appropriately to repeat offender probation violations.

III

COMMISSION ON THE TREATMENT AND CONFINEMENT OF DWI RECIDIVISTS

III. COMMISSION ON THE TREATMENT AND CONFINEMENT OF DWI RECIDIVISTS

A. Creation and Purpose

The Commission on the Treatment and Confinement of DWI Recidivists was created by statutory amendment to Minnesota's DWI law, Minnesota Statutes § 169.121, by the 1992 legislature.

The Commission was created because of the legislature's concerns about the increasing involvement by repeat DWI offenders in alcohol related traffic fatalities and injuries. Many repeat DWI offenders come into the criminal justice system with four, five, six or even more prior DWI convictions. The public is naturally concerned, if not outraged, when DWI offenders with this type of prior DWI conviction history become involved in an alcohol related traffic fatality, injury or property damage accident. When a repeat DWI offender becomes involved in an alcohol related accident while awaiting trial on a pending DWI, there is even greater concern and outrage. It is this concern that resulted in the legislature creating the Commission.

The Commission was directed to present to the chairs of the committees on the judiciary and health and human services in the senate and house of representatives a specific proposal to provide for the effective treatment, or if treatment is unsuccessful, for confinement for a period of up to five years, to protect society from those who have violated the DWI laws a fourth time within five years or a fifth or subsequent time. The recommendation shall include a means of committing these individuals to treatment, including the potential for confinement as a sanction for leaving or failing treatment, using alcohol or drugs or re-offending.

The Commission was directed to make specific determinations concerning the following:

1. Whether the offenders should be confined through a civil commitment process, through the criminal justice system, or through a system that combines features of the civil and criminal systems.

2. What types of treatment programs hold the most promise for changing the behavior of those with entrenched chemical dependency problems.

3. What types of correctional programs, including intensive supervision, hold the most promise for changing the behavior of those with entrenched chemical dependency problems.

4. The best way to allocate the costs of treatment and confinement among the offender, local governments and the state.

5. If a criminal justice system approach is selected, whether imposing a felony penalty or a gross misdemeanor penalty on offenders with the DWI history described above would be more effective in giving a high priority to the repeat DWI cases within prosecutors' offices, and whether probation officers who supervise gross misdemeanants would be better suited to supervise repeat DWI offenders than would probation officers who supervise felons.

6. If a civil commitment approach is selected, whether changes are needed in the civil commitment laws and recommendations for making those changes.

7. What secure treatment facilities are available, including private, state and locally owned facilities.

8. The feasibility of using innovative treatment approaches, such as the use of pharmacologic agents, including deterrent chemicals, in the control of those who are unsuccessful in treatment programs.

9. The need for culturally appropriate chemical dependency treatment programs.

10. The characteristics and treatment and incarceration history of the typical fourth-time DWI offender.

B. Organization and Membership

The Commission, selected equally by the House of Representatives and the Senate, was chosen to represent Legislators, the Commissioners of Human Services, Public Safety and Corrections; experts in chemical dependency treatment; researchers in matters relating to the driving while intoxicated laws; county commissioners; local corrections officials; the sentencing guidelines commission; city and county attorneys; defense attorneys, private chemical

dependency treatment providers; and other interested parties.

The following people were appointed to the Commission:

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The Commission first met in September 1992. Steve Simon was chosen by the Commission as its chairperson. The Commission divided into criminal justice and treatment sub-committees to investigate and address the questions presented to it by the legislature. Roger Battreal was chosen as chair of the criminal justice sub-committee and Jane Nakken was chosen as chair of the treatment sub-committee. The membership of the subcommittees was as follows:

Criminal Justice	Treatment
Roger Battreal	Jane Nakken
Jenny Walker	Steve Simon
Kathy Burke-Moore	Representative Phil Carruthers
Dana Baumgartner	Norm Hoffman
Ron Wiberg	Bob Haven
Tom Gilbertson	Ron Wiberg
Senator John Marty	Wayne Raske
Senator Tom Neuville	Al Fredrickson
Mark Jaeger	Jerry Soma
Doug Franzen	Clyde Rogers
Jan Krochesky	
Representative Doug Swenson	

The Commission sub-committees met frequently throughout the fall of 1992 and early winter of 1993. The full Commission met periodically to review the work of the sub-committees.

The Commission completed its work and adopted its recommendations and this report in March of 1993.[1]

The Chairperson of the Commission met with the Conferences of Chief Judges of the Minnesota trial courts to obtain their input on the issues that the Commission was directed to address.

The Commission also sought advice from an experienced attorney who practices in the field of mental health commitment.

The Commission recommendations were presented to the long standing Minnesota Criminal Justice System DWI Task Force for evaluation and assessment. The DWI Task Force includes representatives from law enforcement and the judiciary, two areas which were not represented on the Commission. The DWI Task Force, with several clarifying comments that were included in the final Commission recommendations, unanimously approved the Commissions recommendations.

It became apparent to the Commission and both sub-committees that there are significant gaps in the data about Minnesota's DWI population. A great deal is known about the driving records of repeat DWI offenders and their involvement in alcohol-related traffic fatalities.[2] Significantly, what is lacking is **readily available** information from the court system about sentencing (ordered and actually executed) and treatment (ordered and actually completed). Absent this data, it was difficult for the sub-committees and the full Commission to make definitive conclusions about what has and has not worked in the past with this population. Unless a DWI tracking system is created, as recommended by the Commission,[3] it will be impossible to evaluate the effectiveness of any of the Commission recommendations adopted by the legislature dealing with repeat DWI offenders.

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[1] Ray Lewis, Research Analyst for Minnesota Planning, Criminal Justice Statistical Analysis Center, and Chris Turner, Legislative Analyst for the Office of Senate Counsel and Research, provided invaluable assistance to the Commission. The work of the Commission and this report could not have been completed without their assistance. Ray Lewis prepared the analysis of the Anoka County repeat DWI offender population as a consultant under contract with the Commission.

[2] Incapacitation Alternatives for Repeat DWI Offenders. Stephen Simon, Journal of Alcohol, Drugs and Driving, (1992).

[3] See The Minnesota DWI Offender Tracking System concept paper in Appendix C to this report.

IV

REPEAT DWI OFFENDER STATISTICS

IV. REPEAT DWI OFFENDER STATISTICS

A. Repeat DWI Offender Arrest and Accident Statistics

In Minnesota, repeat DWI offenders are involved in approximately 35% of all alcohol-related traffic fatalities.[4] The repeat DWI offender involvement in fatality rate was 24.6% in 1984.[5] This had increased to 37% by 1990. In 1980, of all persons arrested for DWI, 29.9% were repeat DWI offenders. By 1992 this repeat DWI offender rate had increased to 43.5%.[6]

What this means is that in 1992, of all license revocations for DWI, 43.5% had been arrested previously for DWI. The total number of DWI offenders arrested each year peaked in the late 1980s and has been decreasing since then. Prior to the stop of a driver suspected of DWI, the stopping officer does not know if the driver has ever been arrested for DWI before. Consequently DWI arrest data can be considered a sample of the DWI driving population on the roads. These statistics indicate that drivers capable of making choices about drinking and/or driving after drinking are responding to tougher DWI laws adopted by the legislature, the tougher sentences handed out by the courts, and the media attention on the problem of drinking and driving and either drinking less or staying out of a vehicle after they drink.

However, the continuing large number of repeat DWI offenders on the roads and highways of this state, as shown by their increasing percentage of all DWI arrests, indicates that all of the legislative, court and media activities have little effect on this population. As of 1989, 93,816 people in Minnesota had been arrested for two or more DWIs. In that same year, only 6,618 DWI offenders from that population were arrested. These repeat DWI offender arrests represent only seven percent of all repeat DWI offenders with two

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[4] The statistics summarized in this section are from Incapacitation Alternatives For Repeat DWI Offenders, Steve Simon, Journal of Alcohol, Drugs and Driving, June 1992.

[5] Id.

[6] Driver and Vehicle Services Division, Minnesota Department of Public Safety. See Appendix D.

or more prior DWI arrests.[7] Research indicates that repeat DWI offenders do not fear arrest for DWI.[8] In fact, the more they are arrested for DWI, the less they perceive the likelihood of a subsequent DWI arrest.[9]

This population is drinking and driving almost daily. With such daily drunk driving, they know from their own experience that the likelihood of being stopped for DWI is extremely small.[10] Consequently, because of their dependency-based need to drink on a daily basis and their need to drive to work and to obtain alcohol, they continue to drink and drive on a daily basis. Their increasing involvement in alcohol-related fatalities is a sad and tragic end result of these factors.

Only a small percentage of the repeat DWI offender population is arrested each year. The Commission is charged with dealing with offenders convicted of their fourth DWI offense within five years. Fourteen lives would be saved over a four-year period through a traditional criminal justice system model of specific deterrence through long-term felony incarceration of these DWI offenders if the state incarcerated 3,000 convicted DWI offenders who had three prior alcohol-related arrests or convictions **each year** for a period of four years.[11]

This would mean that by the end of the fourth year, approximately 12,000 people would be incarcerated in prison, jail or a minimum security work release facility. To save 26 lives over that same four-year period, the state would have to annually convict and

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[7] Incapacitation Alternatives For Repeat DWI Offenders, Steve Simon, Journal of Alcohol, Drugs and Driving, June 1992.

[8] Id.

[9] Id.

[10] Research from many countries indicates that one of the most effective activities a given state or country can do to reduce alcohol-related traffic fatalities is to increase the DWI arrest rate. Without a fear of apprehension, drinking drivers have little fear of penalties no matter how harsh. See Ross, (1992), Confronting Drunk Driving, Yale Press.

[11] Incapacitation Alternatives for Repeat DWI Offenders, Journal of Alcohol, Drugs and Driving (1992).

incarcerate approximately **6,000** convicted repeat DWI offenders who had two prior alcohol related incidents on their record.[12] The cost of incarcerating such large numbers of offenders would be prohibitive. **The reason for the relatively low savings in lives is because of the small percentage of repeat DWI offenders arrested in any given year.**

Sixty-three percent of drivers involved in alcohol-related traffic fatalities involve an individual who, while probably driving under the influence of alcohol many times, had never been arrested for DWI prior to the crash that took their own or someone else's life. Research has shown that increasing the apprehension rate for **all** DWI offenders is one of the most cost effective actions a community can take to reduce the incidence of DWI and the rate of alcohol related traffic fatalities.[13]

The basic concept that this research confirms is that without a fear of apprehension on the part of a drinking driver, they do not fear punishment. Not fearing apprehension and consequently not fearing punishment, the drinking driver will continue to drive after drinking. The number of people arrested for DWI peaked in the late 1980s and has since declined significantly because of the lack of law enforcement resources available for DWI patrols. 42,586 driver's licenses were revoked for drinking and driving offenses in 1986. By 1992 the number had decreased to 32,180.

With local and state taxes at levels that are difficult to increase, and with an expanding number of serious crimes that law enforcement must deal with, such as domestic violence and drugs, law enforcement cannot allocate to DWI enforcement efforts the same amount of resources today that they did in the 1980s. As with law enforcement, prosecution, public defense, judicial, probation and treatment resources which are also funded by local and state taxes have not kept pace with the expanding population and increasing number of serious crimes.

These statistics must be kept in mind by policy makers and the legislature when considering what steps to take to deal with the repeat DWI offender. These statistics

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[12] Id.

[13] Confronting Drunk Driving, H. Laurence Ross, Yale Press (1992).

are a reality the Commission considered in its examination of the problem of the repeat DWI offender.

B. Characteristics of Repeat DWI Offender Population

1. **Introduction:** It is difficult, if not impossible, to obtain cumulative data on the sentencing and treatment aspects of DWI offenders in Minnesota. Anoka county, which originated the intensive probation program that is the model for many of the Commission's recommendations, does keep statistics on the repeat DWI offenders going through its court system. This data base was made available to the Commission and a staff member prepared the following analysis. The Commission believes that the repeat DWI offenders in the Anoka court system are, to a great extent, representative of repeat DWI offenders throughout the state.

2. **Anoka county "hard core" repeat DWI offenders:**

   The following narrative and statistics provide a picture of "hard-core" DWI offenders in Anoka County. This group of 125 offenders represents the population of drivers with at least four alcohol-related administrative driver's license revocations within five years or five or more revocations on record. These offenders' characteristics are probably similar to all offenders statewide, but the sentencing and treatment histories represent what the model county does for/to the worst offenders.

   The information about this population was assembled from three data sources. These include the driver's license record, the cover sheet of the chemical use assessment done prior to sentencing and the county criminal history record. The last two were provided by the Anoka County Corrections Department. The driver's license record was provided by the Department of Public Safety, Driver and Vehicle Services Division.

   Anoka County was chosen for this intensive study because they had records available to identify specific DWI offenders. Creating a random sample of offenders from driver license records, court or treatment records was found to be expensive, time consuming or impossible. The Legislative Commission's short time frame to produce recommendations made these approaches unworkable.

These "hard core" DWI offenders were identified through the use of 1991 Chemical Use Assessments. The 2,191 Chemical Use Assessments completed in Anoka County were the basis for this report and provided a basis for statewide projections. Of the 2,191 assessments in Anoka County, 242 drivers with four or more alcohol-related license revocations were selected for further analysis. Only 15% of the 138 drivers with four alcohol-related revocations on record had four revocations recorded within five years. These 117 four-time DWI offenders are not included in the analysis.

The Driver and Vehicle Services Division reported 32,180 alcohol-related driver's license revocations in 1992. These revocations cannot be used as a count of offenders because individual's licenses revoked for multiple offenses within the same year may be double counted. However, assuming that each revocation represents a single individual allows a maximum estimate of individuals eligible. Multiplying the statewide 1,719 "fourth on record" license revocations in 1992 by Anoka's 15% rate yields 269 revocations statewide. Adding the 269 to the 1,544 revocations with five or more offenses provides a statewide estimate of 1,813 revocations meeting the criteria of four offenses in five years or five or more on record.

Anoka County had a rate of 88 DWI arrests per 10,000 population compared to a statewide average of 76 per 10,000 in 1991. Generalizing Anoka's higher arrest rate to the statewide statistics would tend to inflate the number of offenders eligible as well as the recidivism rate.

a. Caveats and limitations of the data.

Although these offenders were sentenced and assessed in 1991 in Anoka County, the driving incidents did not necessarily happen in that year. Any overlap should be consistent over years, i.e. the number of 1990 arrests resulting in 1991 assessments should be comparable to 1991 arrests resulting in 1992 assessments. The completeness of the sampling method is supported by the 2,186 Anoka County DWI arrests in 1991.

The completeness and accuracy of this data varies by the source of data. Most of the self-reported

information obtained from the chemical use assessment cover sheet could not be verified through other sources. For example, prior chemical dependency treatment history is considered private medical information by statute and therefore not available to verification for this analysis. Questions about what a prior CD treatment consisted of, at what level of intensity, for what duration, and with what effect cannot be definitively answered with the data available.

Data from the driver's license record does not include DWI arrests or license revocations which occurred in other states but did not result in a DWI criminal conviction. Data from the probation records usually does not include non-DWI offenses that occurred outside Anoka County. The sentencing data does not reflect actual days served in jail or work release, but rather the pronounced executed sentence without adjusting for any "good time" reduction. The pronounced sentence could be modified at subsequent hearings based on technical violations of conditions of probation, subsequent offenses, or at the offender's request. Finally, probation records may not include offenders sentenced to straight jail time and not given probation.

Some of the data and subsequent insights from this study have not been available from previous research on repeat DWI offenders in Minnesota. Other examples beside prior CD treatment include: level of education, household membership, public defender representation, drinking locations, occupation and hourly wages. The findings and implications of this study should be integrated with the knowledge base available for statewide policy making as well as day to day operations of agencies concerned with reducing the level of drinking and driving.

The cohort of "hard-core" DWI offenders described may not include the most dangerous offenders. These would include drivers arrested in Anoka County, but who fled before a court disposition and assessment. Although a warrant may be out for their arrest, they continue to be a danger to the public.

b. Key findings.

All percentages are of 125 offenders and are rounded to the nearest whole number unless noted.

(1) Demographics

96% white males, average age of 34, although the range was 20 to 70 years.

42% were single, 39% separated or divorced, 18% were married.

29% had children at home (age of children often unknown).

28% have less than 12 years of education, another 16% had a GED.

32% were living with a spouse or significant other, 26% were living with a parent or parents and 16% alone.

Most were employed in blue-collar or service industries and earned $8 - $10 per hour when employed.

(2) Driving incident leading to conviction.

80% were drinking beer or beer and mixed drinks.

78% had their driver's license cancelled at the time.

62% refused the alcohol test.

51% had been drinking in a bar.

50% had DL cancelled and refused the test.

13% were validly licensed.

(3) Drinking and driving rates.

42% had another driving offense after the 1991 disposition. The average length of time between disposition and the DL record check was 17 months.

39% received another DWI between the revocation which led to the 1991 disposition

and the 1992 drivers license check. The average time to failure was 9.3 months with a range of 2 days to 29.7 months.

28% received another DWI after the disposition. The average time was 7.2 months with a range of 22 days to 18 months.

14% were arrested for driving after withdrawal after the disposition.

(4) Chemical dependency treatment rates.

84-86% had chemical dependency treatment prior to the tracking offense.

87% assessed as chemical abusers or chemically dependent.

48% completed court ordered treatment after disposition.

38% had completed the Department of Public Safety's rehabilitation requirements.

32% completed Anoka's Repeat Offender Program.

22% had been in treatment three or more times.

(5) Prior criminal history.

66% reported some lifetime drug use.

62% had previous non-traffic criminal convictions.

15% had felony level convictions. These 19 offenders accounted for 182 criminal convictions.

(6) Probation and sentencing.

92% had two years probation at disposition.

82% had a maximum one-year sentence imposed to jail (24) or Huber (79).

38% or more had a public defender.

26% were sentenced to two months or less executed jail or workhouse.

25% had other subsequent charges pending at disposition; of these over half were for another DWI.

23% had satisfied the sentence and were no longer on probation.

13% absconded and had active warrants for arrest.

13% took more than one year from offense to disposition; of these half took more than two years to disposition.

6% were sentenced to house arrest or electronic surveillance.

5% had a one year executed sentence to jail or the workhouse.

c. Anoka county repeat DWI offenders assessed in 1991 with four alcohol-related driver's license revocations within five years or five or more on record. All percentages are of the 125 offenders.

	N=125	Percent
Gender: Female	5	4.0
Race: Minority	5	4.0
Age:		
Average	34	
Range	20-70	
Standard deviation		9.2
Living with:		
Parent	32	25.6
Alone	21	16.8
Significant other	19	15.2
Spouse	21	16.8
Friend	15	12.0
Sibling	9	7.2
Child	4	3.2
Unknown/Other	4	3.2
Educational level:		
Less than 12 years	35	28.0
12 years	44	35.2
GED	20	16.0
12+ years	24	19.2
Unknown	2	1.6
Marital status:		
Single	53	42.4
Separated	14	11.2
Married	22	17.6
Divorced	35	28.0
Widowed	1	0.8
Children at home: yes	36	28.8
Military service: yes	35	28.0
Public defender: yes (Identified as PD clients) Note: Likely higher since representation was unknown for most offenders.	48	38.4

	N=125	Percent
Alcohol concentration test result:		
Refused	78	62.4
.10 - .15	23	18.4
.16+	24	19.2
Charges pending:		
Any charges (includes DWI)	31	24.8
DWI	17	13.6
Previous non-traffic criminal convictions:		
No	47	37.6
Yes	78	62.4
Number of criminal convictions:		
1	27	21.6
2	18	14.4
3	11	8.8
4	13	10.4
5+	9	7.2
Felony convictions:		
1	14	11.2
2	3	2.4
3+	2	1.6
Driving after withdrawal convictions:		
Yes	73	58.4
Lifetime drug use:		
Yes	83	66.4
Rule 25 assessment:		
At risk (level 1)	3	2.4
Chemical abuse (level 2)	43	34.4
Chemical dependency (level 3)	66	52.8
Missing	13	10.4
Prior CD treatments:		
None	20	16.0
One	38	30.4
Two	38	30.4
Three	20	16.0
Four +	7	5.6
Unknown	2	1.6

Note: Treatment listed in the same year as the arrest was not counted as a prior treatment.

Number of drinking locations prior to arrest:		Percent of 125
1	95	76.0
2	16	12.8
3	9	7.2
Unknown	5	4.0

First drinking location prior to arrest:		Percent of 125
Bar	51	40.8
Home	23	18.4
Friends/Party	20	16.0
Relatives	9	7.2
Other	12	9.6
Work	5	4.0
Unknown	5	4.0

Second drinking location prior to arrest:		Percent of 25
Bar	14	56.0
Relatives	4	16.0
Friends/Party	3	12.0
Other	4	16.0

Third drinking location prior to arrest:		Percent of 9
Bar	7	77.8
Relatives	2	22.2

Beverage of choice prior to arrest		Percent of 126
Beer	84	67.2
Spirits	19	15.2
Beer/spirits/wine	16	12.8
Wine	1	0.8
Unknown	6	4.8

d. Occupation and hourly wages for Anoka repeat DWI offenders.

AFDC	
Asbestos removal	
Assembler	6.50
Assembly	4.50
Auto body	10.00
Auto body	11.25
Auto mechanic	6.00
Auto parts/floor sanding	11.00
Auto repair	9.00
Auto sales	
Bridge worker	12.64
Cabinet maker	12.50
Car sales	10.60
Carpenter X 5	10.00
Carpenter	16.00
Carpenter	18.75
Carpet layer	8.00
Cement finisher	12.50
Cement finisher	15.00
Cleaning	6.00
Clerical	8.50
CNA	7.50
Construction	7.50
Construction X 2	8.00
Construction	9.00
Construction	12.00
Cook	4.90
Disabled	
Drywall	6.80
Drywall	7.00
Elec-helper	10.85
Elec Tech	9.40
Electronic technician	
Elec/mech tech	10.60
Eng Inspector	14.32
Farmer	
Firefighter	6.00
Floor sander	12.00
Forklift operator	15.00
Framer	6.00
General assistance	
Grinder	8.70
Grounds keeper	5.00
Heavy equip operator	14.00
Home remodeling	6.00
Housewife/mother	
Human services tech	10.00
Janitorial	5.50
Labor	5.00
Labor	8.25
Labor	10.00
Laborer	4.25
Laborer X 3	
Landscaper	11.50
Line clearance	17.88
Machinist	12.50
Machinist	13.87
Maintenance	8.00
Meat cutter	15.00
Medical leave	
News carrier/engine	10.00
Nursing assistant	4.50
Office worker	
Painter	
Painter	6.00
Painter	10.00
Painter	16.00
Painter pt	15.00
PCA	7.25
Prefinisher	8.00
Printer	16.00
Property management	12.00
Recycler	6.00
Restaurant mgr	9.60
Retired farmer	
Retired mechanic	
Roofing	12.00
Sales	4.50
Sheetrock finisher	
Ship/receiving	8.00
Siding subcontractor	
Soc. Sec. disability	
Student Brown Inst.	
Tech	5.00
Telemarketing	5.00
Tool & die	
Tool & die	12.50
Transmission	10.00
Unemployment	7.50
Union Official	22.00
Utility	10.00
Veh maintenance	
Warehouse	6.00
Warehouse	7.50
Welder	10.00
Work comp claim	3.50

e. Recidivism data for Anoka repeat DWI offenders with four alcohol-related revocations in five years or five or more on record.

Subsequent driving offense after disposition, 53 of 125 were arrested for a driving offense, 42.4% failure rate for driving offenses.

Thirty-five had a subsequent implied consent revocation or DWI, 28%. Thirty-five offenders accounted for 46 offenses.

Eighteen had a driving after revocation conviction after disposition. (Two had a DAR and implied consent in separate incidents).

Time from disposition to subsequent DWI average of 7.2 months for 35 offenders.

Time from tracking incident (TI) to subsequent DWI average of 9.3 months for 49 offenders. Note: 15 offenders had another DWI offense between the arrest that led to the disposition and the disposition.

County of offense before and after tracking incident (TI): 58% of DWI arrests immediately before TI were not in Anoka County, 57% of the DWI arrests after the TI were not in Anoka County.

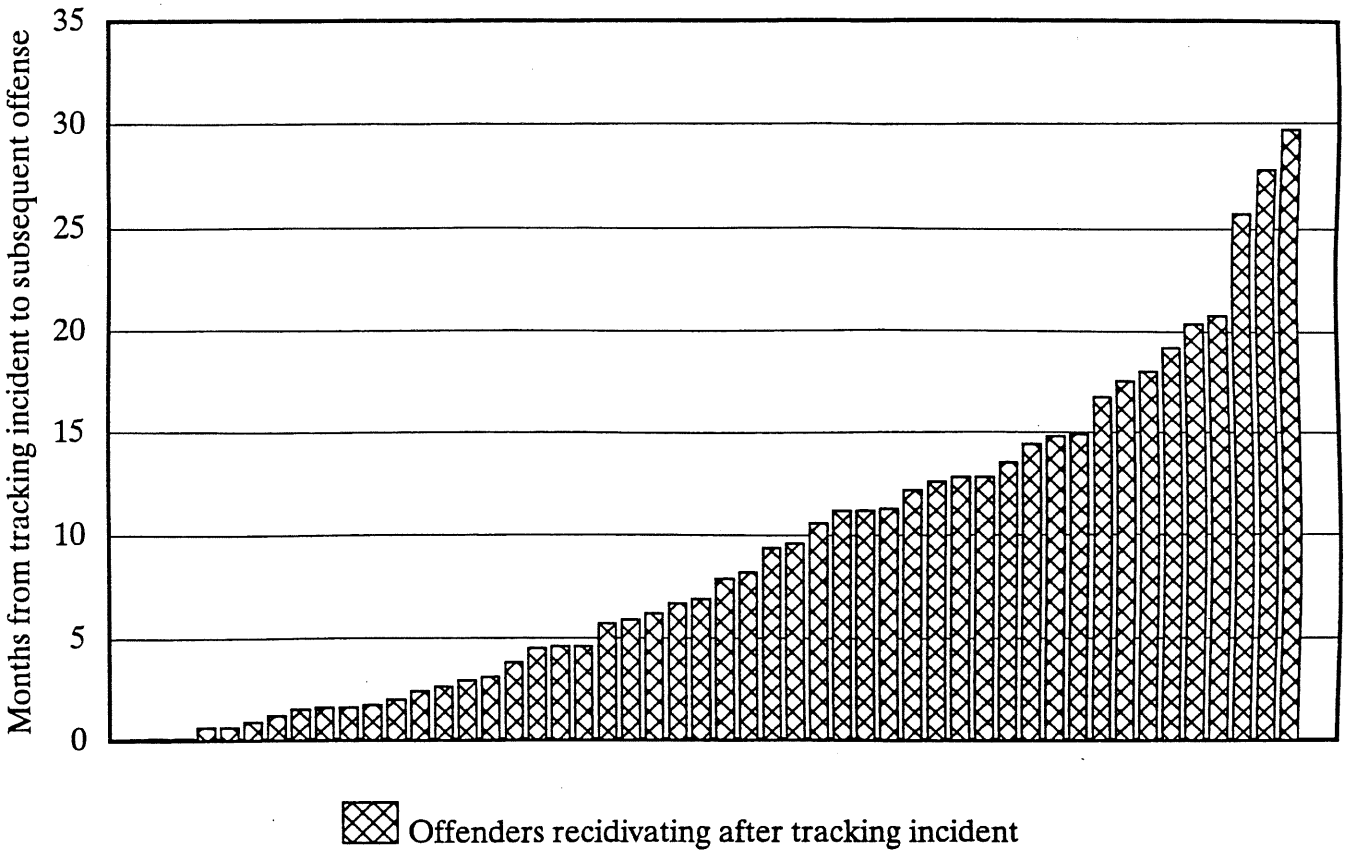
DRIVER'S LICENSE STATUS AT TRACKING INCIDENT

Cancelled	98	78.4%
Valid	16	12.8%
Revoked	7	5.6%
Other	4	3.2%

MONTHS EXPOSURE FROM DISPOSITION TO RECORD CHECK

Average	17.2
Minimum	10.7
Maximum	22.2
S.D.	3.5
Average for recidivism	17.5
Average for non-recidivism	17.0

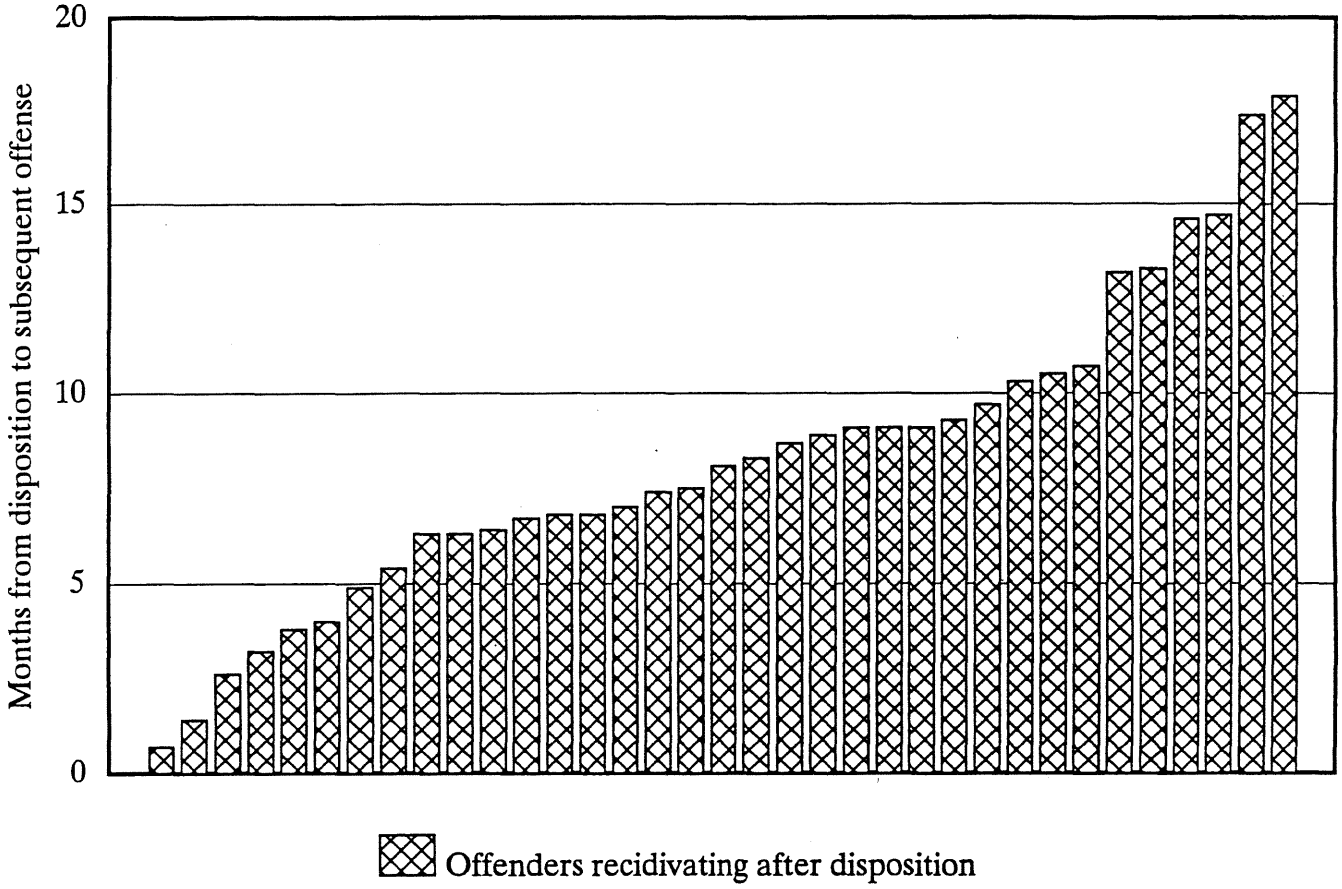
MONTHS FROM TRACKING ARREST TO SUBSEQUENT OFFENSE
FOR ANOKA REPEAT DWI OFFENDERS



N=49
Includes 35 recidivating after disposition

N =	49 repeat offenders
Avg. time =	9.3 months
SD	7.6 months
Minimum =	2 days
Maximum =	29.7 months

MONTHS FROM DISPOSITION TO SUBSEQUENT
FOR ANOKA REPEAT DWI OFFENDERS



N=35

N =	35 repeat offenders
Avg. time =	7.2 months
SD	4 months
Minimum =	22 days
Maximum =	18 months

NUMBER OF OFFENDERS AND RECIDIVISM RATES
BY NUMBER OF PRIORS AT DISPOSITION

Offenses	Offenders	% Off	Recid #	% Rate by Offenses
4 in 5 years	20	16.0	3	15.0
5	47	37.6	10	21.3
6	25	20.0	10	40.0
7	11	8.8	3	27.3
8	5	4.0	3	60.0
9	8	6.4	3	37.5
10	5	4.0	0	0.0
11	2	1.6	1	50.0
12	2	1.6	2	100.0

Note: Offenders with four offenses in five years made up 16% of the 125 repeat offenders. Three of these 20 recidivated.

AGE AT FIRST IMPLIED CONSENT

Average	24.2
Minimum	16.0
Maximum	53.9
S.D.	7.2

DPS REHABILITATION REQUIREMENTS

Completed prior to TI	48
Completed after TI	6
(2 recidivated after rehab)	
Completed twice	4

TIME TO FAIL REHAB

First Rehab	
Average	25.3 months
Minimum	13 days
Maximum	11 years
S.D.	2.27 years
Second Rehab	
Average	21.1 months

YEARS BETWEEN 1ST AND 3RD OFFENSE

Average	4.4
Minimum	0.5
Maximum	15.0
S.D.	2.8

ALCOHOL CONCENTRATION TEST RESULT FOR TRACKING INCIDENT

Refused	78	62.4%
Tested	47	37.6%
Average AC		0.17%

ANOKA REPEAT DWI OFFENDER SENTENCING DATA FROM INITIAL DISPOSITION IN 1991

Note: Percentages of all 125 offenders tracked.

Time from tracking incident to disposition:		
One year or more	16	12.8%
Two years or more	8	6.4%
Average when less than a year 4.1 months		
Offender status as of 10/31/92:		
Sentence satisfied (no longer on probation)	29	23.2%
Active warrants	16	12.8%
Client died	1	.8%
Length of probation:		
Two years	115	92.0%
Under two years	9	7.2%
Unknown	1	.8%
Frequently used sentencing conditions:		
No alcohol or drug violations	83	66.4%
No al/drug driver license offense	58	46.4%
No same or similar offenses	52	41.6%
No violations	12	9.6%
Law abiding/good behavior	6	4.8%
Restitution	5	4.0%
Follow recommendations	3	2.4%
Jail sentence imposed:		
1 year	24	19.2%
8 months	1	0.8%
3 months	7	5.6%
1 month	1	0.8%
Jail sentence executed:		
1 year	2	1.6%
11 months	1	0.8%
8 months	1	0.8%
6 months	5	4.0%
5 months	3	2.4%
4 months	5	4.0%
3 months	2	1.6%
2 months	3	2.4%
1 month or less	3	2.4%
All stayed	8	6.4%
Total with jail sentence executed	33	26.4%
Huber sentence imposed:		
1 year	79	63.2%
8 months	1	0.8%
3 months	3	2.4%

Huber sentence executed:

1 year	5	4.0%
9 months	3	2.4%
8 months	2	1.6%
6 months	9	7.2%
5 months	7	5.6%
4 months	29	23.2%
3 months	11	8.8%
2 months	7	5.6%
1.5 months	3	2.4%
1 month or less	9	7.2%
Total with Huber sentence executed	85	68.0%

Electronic surveillance and house arrest:

House arrest	2	1.6%
Electronic surveillance	5	4.0%
Total other sentence alternatives	7	5.6%

Note: executed jail and Huber do not show reductions for good time.

Fine imposed:

$3,000	32	25.6%
$2,000	9	7.2%
$1,500	8	6.4%
$1,000	9	7.2%
$ 750	1	0.8%
$ 700	5	4.0%
$ 400	1	0.8%
Option	4	3.2%
Total with fine imposed	69	55.2%

Average fine imposed was $2,100

Fine executed:

$3,000	1	0.8%
$2,000	4	3.2%
$1,600	1	0.8%
$1,500	10	8.0%
$1,000	31	24.8%
$ 800 - $875	3	2.4%
$ 750	18	14.4%
$ 700	5	4.0%
$ 600	10	8.0%
$ 500	11	8.8%
$ 400	6	4.8%
$ 300	1	0.8%
$ 200	3	2.4%
Waived	7	5.6%
Total with a fine executed	111	88.8%

Average fine executed was $895

Community service		
400+ days	6	4.8%
300 - 320 days	5	4.0%
200 - 240 days	6	4.8%
100 - 160 days	5	4.0%
10 - 60 days	5	4.0%

Note: Most clients can work off part of the fine and/or program fees through community service.

CD treatment ordered = 75		Percent of 75
CD treatment:		
Completed	36	48.0%
Failed	29	38.7%
Unknown	10	13.3%

Aftercare ordered = 54		Percent of 54
Aftercare completion:		
Completed	23	42.6%
Failed	23	42.6%
Unknown	8	14.8%

Monitored AA ordered = 32		Percent of 32
Monitored AA completion:		
Completed	20	62.5%
Failed	7	21.9%
Unknown	5	15.6%

Community AA ordered = 40		Percent of 40
Community AA completion:		
Completed	25	62.5%
Failed	10	25.0%
Unknown	5	12.5%

ROP ordered = 31		Percent of 31
ROP completion:		
Completed	10	32.3%
Failed	19	61.3%
Unknown	2	6.5%

Note: ROP is the Anoka County Repeat Offender Program.

Note: Some offenders had been involved in the various programs, but had not completed them at the time the probation records were checked.

NUMBER OF CRIMINAL CONVICTIONS FOR REPEAT DWI OFFENDERS IN ANOKA COUNTY

Driving Offenses	
DWI	91
GM DWI	62
AGG DWI	46
Careless	16
Driving after revocation	74
Driving after cancelation	13
Driving after suspension	8
Give false info	11
Esc/Flee	7
Hit and run	7
No insurance	6
Misc moving	7
Speed	7
Open bottle	3
Illegal plates	3

Person Offenses	
Assault	34
Disorderly/Disturb	20
Obstruct	4
Viol ex parte/Domestic	4
Harassing communications	2

Property Offenses	
Worthless Check/Forgery	10
Larceny	9
Shoplifting	7
Theft	7
Prop damage	5
Stolen prop	2
Trespass	2

Drug/Liquor Offenses	
MJ possession	5
Liquor poss	2

Felony Offenses	
Vehicle theft	6
Burglary	5
Theft	4
Possess stolen prop	2
Prop damage	2
Weapons	2
Robbery	1
Narcotics	1
Crim sex	1
Arson	1
Trespass	1

V

CRIMINAL JUSTICE

SUBCOMMITTEE REPORT

V. REPORT OF THE CRIMINAL JUSTICE SUBCOMMITTEE

The portions of the commission's charge which were examined by the criminal justice subcommittee were:

A. Whether DWI offenders who have violated the DWI laws a fourth time within five years or a fifth or subsequent time lifetime) should be confined through a civil commitment process, through the criminal justice system, or through a system that combines features of the civil and criminal systems?

1. **Conclusion.** The Subcommittee has concluded that such offenders should be confined through the criminal justice system.

2. **The civil commitment alternative.** The civil commitment process has gained significant attention in recent years, primarily due to the increasing usage of "psychopathic personality"[14] commitments pursuant to §526.10. Less visible, but far more significant in numbers, are conventional civil commitments under Chapter 253B (The Civil Commitment Act.)

   The length of time that an individual may be involuntarily confined pursuant to a commitment order is established by statute and also must meet the constitutional requirements of the due process clause since involuntary confinement constitutes a significant deprivation of liberty.[15] As to individuals who are "psychopathic personalities" as defined in §526.09, the commitment order may

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11 This term is defined in Section 526.09 as "the existence in any person of such conditions of emotional instability, or impulsiveness of behavior, or lack of customary standards of good judgment, or failure to appreciate the consequences of personal acts, or a combination of any such conditions, as to render such person irresponsible for personal conduct with respect to sexual matters and thereby dangerous to other persons".

[15] The United States Supreme Court has held in a number of cases, e.g. Addington v. Texas, 441 U.S. 418 (1979); Jackson v. Indiana, 406 U.S. 715 (1972); Humphrey v. Cady, 405 U.S. 504 (1972); In Re Gault, 387 U.S. 1 (1967) and Sprecht v. Patterson, 386 U.S. 605 (1967), that an involuntary civil commitment constitutes a significant deprivation of liberty that requires due process protection.

effectively confine the person for the remainder of their life since no course of treatment may exist which can dissipate the danger that these persons represent to others.[16] These "commitments for life" are feasible, both practically and economically, because the number of offenders fitting the "psychopathic personality" definition are very limited.

However, repeat DWI offenders are legion in contrast, as some 3,000 Minnesotans have their license revoked each year for their fourth or more DWI of record.[17] In addition to the significantly larger numbers of offenders, the repeat DWI offender is very different in profile from the "psychopathic" individual. While the latter individual may never be effectively treated for their disorder, the repeat DWI offender's alcoholism is a treatable disease, and after 30 - 60 days of treatment (which presumptively would have to be administered in the "least restrictive setting") the repeat DWI offender would be eligible for a release into the community.[18]

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[16] The Eighth Circuit Court of Appeals in Bailey v. Gardebring, 940 F.2d 1150, 1153 (8th Cir., 1991) in a case involving an appeal from a commitment under Sections 526.09-526.10, cited Addington, supra for the proposition that a state may confine people who pose a threat to themselves and others until the danger has dissipated.

[17] DWI and implied Consent License Revocation data from the Department of Public Safety (which may double count some DWI offenses) for the years 1986 to 1991 indicates that the number of individuals with four or more DWI/Implied Consents of record were: (1) 1991 to 2983, (2) 1990 to 3455, (3) 1989 to 2984, (4) 1988 to 2884, (5) 1987 to 2914 and (6) 1987 to 2769.

[18] It is not feasible to determine which offenders will " relapse" or how long the individual's sobriety will last after release from treatment, but is it not constitutionally permissible to continue the individual's confinement (based upon a civil commitment) because of the possibility that the person may relapse once they are released into the community. As the Supreme Court noted in Addington, supra in a civil commitment state power is not exercised in a punitive sense. Thus, any attempt to continue the commitment-based confinement based on the person's record or the chance that they might relapse would almost assuredly be determined by the courts to be

Thus, repeat DWI offenders, if committed, would be eligible for release in a time frame that would result in a far shorter period of confinement than is possible or normative within the existing criminal justice system. Therefore, the Subcommittee has concluded that the civil commitment process is not a viable alternative to (nor could it be effectively used in conjunction with) the criminal justice system, for repeat DWI offenders. Since the Subcommittee has rejected the civil commitment approach, we have not attempted to identify any changes in the commitment process as it pertains to the repeat DWI offender.

B. What type of correctional programs, including intensive supervision, hold the most promise for changing the behavior of those with entrenched chemical dependency problems?

1. **Conclusion:** The Subcommittee has concluded that correctional programs which include intensive probation supervision hold the most promise for controlling and/or modifying the behavior of repeat DWI offenders.

2. **Correctional programs.** The Subcommittee believes that significant time served in a correctional setting is essential to repeat DWI offenders. However, given the cost of "bricks and mortar", confinement, and the profile of the average repeat DWI offender, (chemically dependent with an [often well-founded] belief that they can offend frequently without being caught, but well-behaved while institutionalized), the Subcommittee believes that alternatives must be developed to long-term incarceration, which will address the dual objectives of punishment and protection of the public, while not unnecessarily expending scarce public resources.

   It is our conclusion that <u>intensive probation supervision</u> when used in conjunction with electronic monitoring, home arrest and work-release programs, represents the most effective alternative to "bricks and mortar" confinement, while still addressing the public's desire for punishment and protection.

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constitutionally impermissible.

In a state which often serves as the "Minnesota model" for the rest of the country as to creative programming, Anoka County serves as the model for the rest of Minnesota as to how intensive probation supervision can be utilized for repeat DWI offenders. The elements of Anoka's Repeat Offender Program (ROP) served as the basis for §169.1265 pilot programs of intensive probation for repeat DWI offenders, which was enacted by the 1991/1992 legislatures. As laid out in that statute, the key elements of an intensive probation supervision program are:

> Subd. 2. **Goals.** The goals of the DWI repeat offender program are to protect public safety and provide an appropriate sentencing alternative for persons convicted of a violation of §169.129, or of repeat violations of §169.121, who are considered to be of high risk to the community.
>
> Subd. 3. **Program elements.** ... [the] program must contain the following elements:
>
> a. An initial assessment of the offender's chemical dependency, based on the results of a chemical use assessment conducted under §169.126, with recommended treatment and aftercare, and a requirement that the offender follow the recommended treatment and aftercare;
>
> b. Several stages of probation supervision, including:
>
> (1) a period of at least 30 days' incarceration in a local or regional detention facility;
>
> (2) a period during which an offender is, at all times, either working, on home detention, being supervised at a program facility, or traveling between locations;
>
> (3) a period of home detention; and
>
> (4) a period of gradually decreasing involvement with the program;

c. Decreasing levels of intensity and contact with probation officials based on the offender's successful participation in the program and compliance with its rules;

d. A provision for increasing the severity of the program's requirements when an offender offends again or violates the program's rules;

e. A provision for offenders to continue or seek employment during their period of intensive probation;

f. A requirement that offenders abstain from alcohol and controlled substances during the probation period and be tested for such use on a routine basis; and

g. A requirement that all or a substantial part of the costs of the program be paid by the offenders.

The Subcommittee recommends that each Minnesota county, individually or in conjunction with other counties, should be required to establish intensive probation supervision programs for repeat DWI offenders that contain the elements outlined in §169.1265. At the minimum, such programming should be implemented for individuals who have been convicted of their fourth violation of §169.121 and/or §169.129 within five years or their fifth "lifetime", and if resources become available, intensive probation supervision should be utilized on the second or third conviction within five years and the third or fourth "lifetime."

The Subcommittee further recommends that the mandatory sentencing provisions of §169.121 be amended to provide that a person convicted of their fourth violation of §169.121 and/or §169.129 within five years or their fifth "lifetime" must be sentenced to serve at least 45 days of incarceration (with good time this would ensure that the offender serves 30 days of actual time) before being eligible to be paroled or released on probation. It should also be mandated that such sentence is served in a jail or work release facility unless the person's health would be threatened by incarceration in such a facility, in which case the person would then be sentenced to serve a minimum of 45 days utilizing electronic

monitoring or other verifiable form of home arrest.

C. What is the best way to allocate the costs of treatment and confinement among the offender, local governments and the state?

1. **Conclusion.** The Subcommittee concluded that to the greatest extent possible, utilizing a "means-based" test, the offender should contribute to the cost of confinement, home arrest, work-release, intensive probation supervision and other confinement-related expenses. However, the economic profile of the repeat DWI offender is such that significant costs will remain. Given the substantial monies already being expended by local units of government for arrest, prosecution, confinement and probation supervision of DWI offenders, the state must become a "partner" in the funding mechanism in order to implement the Commission's recommendations.

2. **Allocation of costs.** The Subcommittee believes that to implement the recommendations of the Commission, specifically the state-wide implementation of intensive probation supervision programming, the state will need to fund that portion of intensive supervision costs that cannot be recovered from the offender. Funding should also be provided by the state to assist local units of government with incarceration expenses for repeat DWI offenders. If feasible, the state should also provide funding to support enhanced apprehension efforts for DWI offenders.[19]

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[19] The Subcommittee appreciates the need to minimize the need for state dollars in the current fiscal environment, but based on responses from local corrections/probation staff, it is clear that state funding will be necessary if counties are to implement intensive probation supervision programs. The subcommittee also discussed the need, if monies become available, to assist local units of government with the already substantial incarceration costs being incurred for DWI offenders. [A 1988 study by House Research staff and the Legislative Auditor, revealed that 36% of local jail space was being utilized for incarceration (presentence and postsentence) for DWI offenders.]

The Subcommittee also discussed the need for funds that can be provided to the State Patrol and local law enforcement agencies for enhanced DWI enforcement efforts.

a. **Intensive probation supervision.** In estimating the amount of state funding needed for intensive probation supervision programs, the Subcommittee has used as its starting point the numbers cited, supra, in footnote 4 as to the number of individuals with four or more DWI/Implied Consents of record. During the period 1986 to 1991, the mean number of offenders has been 2998. As was discussed in that footnote, some portion of these offenders are double-counted.[20] The Subcommittee also recognizes that a certain portion of the repeat offender population will receive executed rather than probationary sentences, or will otherwise "opt out" of intensive supervision programming.[21]

The repeat DWI offender is a "risk-taker" whose behavior is influenced by the perception that the chances of apprehension for driver's license (since few if any 4th+ offenders will have valid licenses) or alcohol-related violations is minimal. With the demands being made on law enforcement agencies for vigorous enforcement of the domestic abuse and narcotics laws -- and domestic abuse, drunk driving and narcotics sales all "peak in the late evening and early morning hours" -- it has become increasingly difficult to focus enforcement efforts on the DWI offender.

[20] Multiple driver's license records may be maintained due to different and/or false names used by the offender and additionally some offenders are arrested for more than one DWI in a given calendar year. The Subcommittee reduced the "repeat offender pool" by 500 offenders in the first year based on these factors.

[21] Offenders with very lengthy records are likely to be sentenced to serve far more that the 45 day mandatory minimum jail sentence and a portion of the remaining offender population will consist of individuals who will demand execution of their sentence rather than participate in intensive supervision programming and/or will violate the conditions of the intensive probation program so frequently/quickly that they will spend little time as active participants. The Subcommittee reduced the "offender pool" by an additional 500 offenders based on these considerations.

Thus, we have projected that 2000 offenders will be eligible for intensive probation supervision services in the first full year that such programming is mandated. Based on data from CCA/DOC sources and the experience of Anoka County with its ROP program, the Subcommittee anticipates that the average daily cost of an intensive probation supervision program will be $10 per day for each of the 2000 participants. A "worst-case" scenario (no monetary recovery from the offender) would result in first-year program costs of $3,000,000.[22] A more probable scenario (50% of the costs are recovered from the offender) would reduce the first-year program cost to $1,500,000.[23]

In the second and third years[24] program costs will consist of funding for new program participants (the $1.5 to $3 million amount projected above) and ongoing expenses for those offenders who are completing their period of probation and whose frequency of contact with the program is being reduced. Our expectation is that program costs for

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[22] This estimate is based on 150 "face-to-face" meetings between the offender and program personnel during the calendar year -- reimbursement will not be provided for days on which probation personnel have no contact with the offender.

[23] One issue for legislative consideration is whether monies recovered from the offender should be offset in full against the $10 or whether the county should be permitted to keep 10-15% as a "processing/collection" fee. If the offender monies are offset "in full" in the reimbursement formula, this may actually lower the incentive for counties to seek reimbursement from the offenders, whereas a formula that provides that only 85-90% of the offender monies are offset may result in more money being collected from the offender and thus reduce, rather than increase state expenditures.

[24] Section 609.135 authorizes a probationary period of up to three years for gross misdemeanor DWI offenders and our projections are based on the expectation that judges will take advantage of the full probationary period as to those offenders with four or more prior alcohol-related traffic offenses.

second and third-year program participants will be 75% lower than first-year costs (due to a reduction in face-to-face contacts and the "loss" of some offenders who will commit new offenses or engage in other conduct that leads to a violation of their probation), which would require an expenditure of $375,000 (50% offender recovery) to $750,000 (no offender recovery) for individuals in the second and third years of an intensive probation supervision program.

The Subcommittee recommends that initial budgeting be based on the "worst-case" scenario -- no recovery of costs from the offender -- so as to ensure that adequate monies are available (intensive supervision is the "linchpin" of the Subcommittee's correctional recommendations). This would require funding of $3,000,000 in the first year, $3,750,000 in the second year and $4,500,000 in the third year. If as expected, 50% or more of the program costs can be recovered from the offender, (in the form of actual dollar payments) there will be a "surplus" at the end of the budgetary period, (since counties could only receive reimbursement for costs not recovered from the offender, see footnote 23, supra), and appropriate adjustments can be made in future appropriations based on actual versus projected cost data.[25]

b. **Incarceration costs.** The Subcommittee further recommends that counties should be reimbursed for incarceration costs for fourth and subsequent DWI offenders in an amount not to exceed $25 per day. Our Subcommittee anticipates that adoption of the Commission's recommendations -- an additional gross misdemeanor applicable to DWI offenders, authorization for consecutive sentencing and intensive probation supervision programs -- will result in additional periods of

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[25] Program costs could also be impacted by increased/decreased apprehension rates and/or errors in the estimation of offenders who are "double-counted" in the DPS data or who will be non-participants in intensive probation programming due to executed sentences and/or probationary violations.

incarceration for repeat DWI offenders. Since any increase in costs will have a substantial fiscal impact on local units of government, the Subcommittee believes that the state should shoulder part of the fiscal burden.[26]

Obviously, a number of repeat DWI offenders are currently serving substantial workhouse sentences for those offenses, and those expenses are currently being funded by local units of government. The data available to the Subcommittee and Commission were not sufficient to quantify the current "baseline" of incarceration (see fn. 6) expenditures for DWI offenders with four or more prior offenses. Thus, our funding recommendation is based upon projections as to the increased "incarceration" expenditures that would result from adoption of the Commission's recommendations.

A "worst-case" scenario (500 offenders serving 365 days in jail and making no reimbursement for their incarceration expenses) would result in $4,562,500 in state expenditures.[27] The better case scenario (25% recovery of costs from offenders) assumes that 50% of the offenders will be serving their sentences in a work-release facility and will be able to make an average payment of $12.50 per day to the county. The

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[26] A December 1992 survey by the subcommittee of CCA counties revealed a range of $35 to $75 per day for "bricks and mortar" incarceration and $10 to $40 per day for "work release" prisoners. Thus, a "reimbursement" cap of $25 per day would, in most instances, represent only partial reimbursement for incarceration costs. Additionally, as with intensive probation supervision, the Subcommittee recommends that the offender should be required to reimburse the county for such incarceration expenses (using a "means based test") and that any offender recovery should be applied to the $25 per day state contribution.

[27] This scenario assumes that the 500 offenders who have been "excluded" from the intensive probation supervision projections serve an actual 365 days in a jail or workhouse setting (a mix of offenders serving less than 365 days and others who serve more than 365 days due to imposition of consecutive sentences).

latter scenario reduces the state's expenditures to $3,421,875. From a budgetary perspective, an appropriation of $4,000,000 per year -- the mid-point between these two scenarios -- should be sufficient to ensure that the state is assisting counties with the additional incarceration costs that would result from adoption of the Commission's recommendations.[28]

c. **Other funding issues.** The Criminal Justice Subcommittee also discussed three other criminal justice system funding issues, vis a vis the DWI offender:

(1) The Commission recommendations (new gross misdemeanors, legislation to facilitate consecutive sentencing and intensive probation supervision programs) will have an impact on public defender costs. It must be anticipated that the changes in penalties and the more "proactive" delivery of probation services, will result in additional court hearings, particularly additional probation violation hearings. Since a significant percentage of the repeat offender population will be eligible for court-appointed counsel, any increased demand for defense services will impact on the budgetary needs of the Board of Public Defense. The Subcommittee

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[28] In this instance, whatever amount of money that is appropriated will be expended and in fact will have to be "allocated" out among the counties. Since it will not be possible to distinguish between incarceration costs that would have been incurred without any change in the DWI laws and the additional costs that would result from adoption of the Commission's recommendations, county requests for reimbursements will significantly exceed the recommended appropriation of $4,000,000. What appropriation of this sum will do is create a county/state partnership in funding incarceration costs for these offenders, which seems appropriate since the alternative -- a felony DWI -- would necessitate increased DOC funding far greater than this $4,000,000 appropriation.

recommends that an additional $250,000[29] be provided to the Board to offset any additional need for defense services that would result from adoption of the Commission's recommendations.

(2) For prosecuting attorneys, especially in the metropolitan area, repeat DWI offenders constitute a significant segment of their caseload. The legislative emphasis on victim's rights and the need for additional resources for domestic abuse prosecutions has meant that almost every prosecuting attorney within the state is experiencing increased demands for services that exceed available resources. Thus, the Subcommittee is recommending that prosecuting attorneys should be able to apply for "prosecutorial reimbursement" at the rate of $100 per repeat DWI offender (the same funding base as recommended for the Board of Public Defense). Based on the projection of 2500 repeat DWI offenders, this would require the appropriation of $250,000 annually that could be disbursed to the local units of government that are responsible for these prosecutions.

(3) The Commission and Subcommittee focus has been on costs, penalties and programming as they pertain to the repeat DWI offender. However, without the initial arrest, no repeat DWI offenders would come into the criminal justice system. As was discussed in footnote 19, supra, tough and effective DWI enforcement has suffered with the need to divert law enforcement resources into domestic abuse and narcotics enforcement. Therefore, the Subcommittee recommends that $500,000 be appropriated annually to assist the State Patrol and local law enforcement agencies with the costs of DWI

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[29] This would provide the Board with the equivalent of an additional $100 in funding for each of the projected 2500 offenders in the repeat DWI offender population.

enforcement. These funds should be allocated to agencies who will utilize these monies for DWI roadblocks, increased DWI enforcement during holidays and other high-accident/high-risk periods, and for programs that will attempt to specifically target the repeat DWI offender e.g. usage of the §171.043 "hot list" of offenders whose licenses have been cancelled as inimical to public safety).

d. **Summary.** If the Subcommittee's funding recommendations were to be implemented, local units of government would still be responsible for 90%+ of the costs of DWI apprehension, prosecution and incarceration. By becoming a "partner" with local units of government (total expenditures of less than $10,000,000 annually) in supporting new programming (intensive probation supervision and ancillary incarceration costs) and with funding for the arrest, defense and prosecution of repeat DWI offenders, state government can ensure that Minnesota redoubles its efforts to make Minnesota one of the worst, if not the worst state in the country in which to "drink and drive."

D. If a criminal justice system approach is selected, whether imposing a felony penalty or a gross misdemeanor penalty on offenders with the DWI history described above would be more effective in giving a high priority to the repeat DWI cases within prosecutors' offices and whether probation officers who supervise gross misdemeanants would be better suited to supervise repeat DWI offenders than would probation officers who supervise felons?

1. **Conclusion.** A gross misdemeanor penalty offers greater assurance of high priority treatment for repeat DWI offenders. The majority of these offenders reside within the seven-county metro area, where these cases are prosecuted by municipal attorneys who have both experience and expertise in DWI prosecutions and who treat such offenses as among the most important cases being handled by them. While metro area county attorneys could be expected to do their utmost to prosecute DWI cases, (should a felony DWI be enacted), such cases would be competing with homicides, aggravated assaults, burglaries, child

abuse, narcotics and sexual assault cases for scarce prosecutorial resources.

The high caseloads experienced by metro area county attorneys were a major reason for the 1984 legislation which shifted the responsibility for gross misdemeanor prosecutions from counties to the cities within the seven-county metro area. If a felony DWI were to be enacted, this would negate many of the "benefits" that caseload shift provided for metro area county attorneys, and which has enabled them to focus additional resources on narcotics and sexual assault prosecutions. Thus, if the felony versus gross misdemeanor issue is evaluated from the perspective of the ability of the prosecuting entity to provide priority to such offenses (without diverting resources from other significant prosecutorial responsibilities) a felony DWI should not be enacted.

The second query, "Who should supervise the repeat DWI offender?", appears to be a non-issue. Almost all Minnesota counties have eliminated, or are in the process of eliminating, distinctions between felonies, gross misdemeanors and misdemeanors as to the delivery of probation services (the only exception being probation officers who focus on sexual offenders and who work in pretrial release programs).

2. **Felony DWI versus gross misdemeanor DWI -- which is the best sanction?**

   a. **Felony DWI -- is it feasible?** After extensive discussion, the Subcommittee concluded that, at this time, the enactment of a felony DWI provision applicable to repeat DWI offenders is not appropriate.[30]

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[30] The Subcommittee's "rejection" of a felony DWI is based on the belief that mandatory intensive probation supervision programs and the revamping of the gross misdemeanor penalty structure that is being recommended by the Commission will have a significant impact on the repeat offender population. If these recommendations are enacted into law and have not had the desired impact on the repeat DWI offender (some three to five years will probably be needed to assess the impact of these changes) then the legislature may wish to consider enactment of a felony DWI that is applicable to the "high end" offender, with six to

In its discussions of a felony DWI, the Subcommittee identified several areas of concern as to the effectiveness of a felony DWI penalty:

(1) Experience and expertise in DWI prosecution is critical to the effective implementation of Minnesota's DWI laws. Under Minnesota law, all DWI offenses except for those prosecuted under §609.21 (Criminal Vehicular Homicide) are prosecuted by the attorney who is responsible for prosecuting misdemeanor DWI offenses. In practical terms, this means that such offenses are prosecuted by the municipal attorneys in the seven-county metro area [31] and in the larger outstate cities and by the county attorney in the rest of Minnesota.[32]

Data on 1990 DWI arrests indicates that 57.7% of the DWI offenders were arrested in the seven-county metro area and an additional 7% were arrested in three Greater Minnesota counties where larger municipalities are likely to be handling most DWI prosecutions.[33] Thus, creation

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eight prior DWI offenses.

[31] Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties.

[32] In many counties in Greater Minnesota, the local units of government have contracted with the County Attorney as to prosecution services. In other instances, due to the small population of the cities, towns and villages, the county attorney is required by law to provide prosecution services on their behalf.

[33] A 1991 study by the Department of Public Safety reported that 37,534 DWI arrests were made in Minnesota in 1990. 21,655 (57.7%) of these arrests were in the seven-county metro area and an additional 2,647 arrests (7.0%) were in the counties of Clay (Moorhead), St. Louis (Duluth, Grand Rapids and Hibbing) and Stearns (St. Cloud). In the seven-county metro area and in these larger Greater Minnesota cities, the municipal prosecutor, in addition to handling DWI prosecutions, is also responsible for handling most gross misdemeanor offenses, as part of an effort by the legislature in the 1980s to reduce caseloads in the largest

of a felony DWI would mean that in most instances the prosecutorial responsibility would be shifted from municipal attorneys, who have experience and expertise in DWI prosecution, to county attorneys with staff attorneys who are far less knowledgeable in DWI-related issues.

(2) The Subcommittee also discussed the likely sentencing implications of a felony DWI. All members agreed that if a felony DWI were enacted, it should be expected that the Sentencing Guidelines Commission would designate such an offense as an "above-the-line" felony. Thus, the presumptive guidelines sentence would be a probationary sentence, with a maximum of one year of executed time that could be served as a condition of probation.

(3) While few felony DWI offenders would receive an executed prison sentence at the time of initial sentencing, a significant number of these offenders would return to court during their probationary period either on a "probation violation" or because they re-offended. If judges were then to impose an executed prison sentence, the impact on the state prison system would be substantial, necessitating additional capital and operating expenditures.

The Subcommittee's concerns as to the effectiveness and impact of a felony DWI resulted in an attempt to determine what, if anything, could be done to further strengthen the existing statutory scheme as to repeat DWI offenders. As was discussed earlier, the Subcommittee concluded that intensive probation supervision programs would be of substantial benefit in modifying and controlling the repeat DWI offender, within the framework of the existing sentencing structure (in which

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county attorney offices.

most, if not all, repeat DWI offenders are prosecuted for gross misdemeanor offenses).

b. **The existing statutory scheme -- can it be improved?** Our assessment of the existing statutory scheme focused on three issues: (1) length of probation, (2) creation of additional gross misdemeanor offenses that would impact the repeat DWI offender and (3) consecutive sentencing issues and the repeat DWI offender. We also evaluated several additional proposals for modifying the existing statutes applicable to the DWI offender.

(1) **Length of probation.** The 1992 Legislature (Chapter 570, Article 1, Section 25) amended §609.135 to provide that offenders who are being sentenced for a gross misdemeanor violation of §169.121 or §169.129 may be on probation for up to three years and that the last year of the probationary period shall be unsupervised unless the court finds that the defendant needs supervised probation for all or part of the last year. The Subcommittee concluded that a three-year probationary period is sufficient as to repeat DWI offenders, especially when coupled with intensive probation supervision programs.

(2) **New gross misdemeanor offenses.** Current Minnesota law provides for three gross misdemeanor offenses which may be applicable to repeat DWI offenders: (1) Driving While Under the Influence, §169.121, (2) Refusal to Submit to Testing, §169.121 subd. 1a, and (3) Aggravated Driving Violations, §169.129.[34] Repeat DWI offenders who fall within the Commission's charge (fourth offense within five years or

[34] The Aggravated Violations gross misdemeanor has two elements: (1) the person must be under the influence of alcohol or test at or above the legal limit, i.e. be in violation of §169.121, and (2) the person's right to drive must be cancelled or revoked due to prior alcohol-related driving offenses, i.e. be in violation of §171.24.

fifth of record) will normally qualify for charging under the gross misdemeanor DWI and gross misdemeanor Aggravated Violations provisions (the offender's decision as to chemical testing will determine whether they are also charged with that offense), since few, if any, of them will not have a qualifying conviction and a cancelled or revoked license.

This statutory scheme has evolved over a number of years (the Aggravated Violations gross misdemeanor was enacted in 1978, the Driving While Under The Influence gross misdemeanor in 1982, and the Refusal of Testing gross misdemeanor in 1989). In our review of this statutory scheme, the criminal justice Subcommittee identified one additional gross misdemeanor which could be enacted into law that would impact upon the repeat DWI offender population. Currently a repeat DWI offender, who rarely, if ever, has a valid driver's license, faces the same misdemeanor penalty for driving after revocation, cancellation or suspension, that is applicable to an offender's with far less serious records.

The Subcommittee recommends that a new statute be adopted, or that existing law (§171.24) be amended so as to provide for a gross misdemeanor penalty for offenders who:

(a) Drive After Cancellation, where the offender's license has been cancelled due to prior alcohol-related traffic incidents [35]; or

(b) Drive After Revocation when the offender's license is currently under revocation due to a prior alcohol-related incident and the

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[35] §171.04 (8) and the administrative regulations promulgated by the Commissioner of Public Safety serves as the authority for the denial of driving privileges to repeat DWI offenders.

offender has four or more alcohol-related license revocations within the past five years or five prior alcohol-related license revocations of record.

As well as being an additional gross misdemeanor charge that a repeat DWI offender would face when arrested on a new DWI, this gross misdemeanor would be applicable any time the offender is driving a motor vehicle (whether or not they have been drinking).[36] By providing for a significantly tougher potential sentence for driving with a revoked or cancelled license, whether or not the offender has been drinking, this new gross misdemeanor sends a message to both prosecutors and judges that the legislature expects these offenders to be prosecuted to the fullest extent of the law any time they are unlawfully driving a motor vehicle. Within the framework of a new DWI prosecution, the increase in penalty from misdemeanor to gross misdemeanor for the driver's license violation means that the only repeat DWI offenders who will not be convicted of at least one gross misdemeanor offense will be those offenders who are able to convince the trier of fact that they were not driving the motor vehicle.

3. **Consecutive sentencing and repeat DWI offenders.** Current Minnesota law (§609.035) prohibits a court from imposing more than one sentence if an individual's conduct constitutes more than one offense. The legislature has exempted certain offenses from that statutory prohibition (§609.251, §609.585, §609.21 subd. 3 and 4,

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[36] If the legislature increases the penalty for driving after cancellation or revocation from a misdemeanor to a gross misdemeanor, consideration should also be given to amending §609.135 subd. 2 so that the sentencing court (see above discussion on length of probation) may stay any sentence for a period that will include up to three years of probation.

§609.2691 and §609.856) [37] and the appellate courts have also "carved out" an exception where more than one victim has been harmed as a result of the offender's criminal conduct, even where the conduct was part of "one behavioral incident."

The Minnesota Court of Appeals, State v. Simon, 485 N.W.2d 719 (Minn. App. 1992) held that the gross misdemeanor offenses of refusing testing and driving while under the influence were not part of the "same behavioral incident" (the standard that Minnesota's courts use in determining whether §609.035 bars multiple sentences) and that a sentencing court could therefore impose consecutive sentences for those offenses. In an order which was initially unpublished (issued on July 16, 1992) and which has now been published as 493 N.W.2d 528, the Minnesota Supreme Court reversed Simon, supra, and held that the offenses of driving while under the influence and refusing testing were part of one behavioral incident.

The criminal justice Subcommittee recommends that the legislature amend §609.035, thereby overturning the Supreme Court's decision in Simon, supra, by adding the gross misdemeanor crime of refusal to submit to testing to the statutory exceptions under that statute. Additionally, if the gross misdemeanor driving after cancellation/revocation recommendation is adopted by the legislature, that offense should also be incorporated into the statutory exceptions under §609.035.

If adopted, this recommendation would mean that repeat DWI offenders would face potential consecutive sentences of two years (assuming conviction of a gross misdemeanor under §169.121 or §169.129 and of a gross misdemeanor license violation) in most instances and three years (if they also refused testing) in some instances.[38] Thus, a sentencing judge would be able to impose both a lengthy executed sentence and a substantial

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[37] Kidnapping, Burglary, Criminal Vehicular Homicide, Crimes Against Unborn Children and Use of Police Radios During the Commission of A Crime.

[38] §609.15 provides that a person sentenced on a series of gross misdemeanors may be sentenced to consecutive terms that total a maximum of three years.

stayed time, as contrasted to the current post-Simon sentencing environment in which a judge is forced to strike a difficult balance between incarceration and probation.

E. Additional Issues. Over the course of the Subcommittee's meetings, several additional proposals were discussed which are being recommended for adoption into law:

1. The Subcommittee recommends that §629.41 et seq be amended to require that repeat DWI offenders (as defined by the Commission's charge), must, if conditionally released on other than maximum bail ($12,000), be subject to conditions of release that include, but are not limited to the following:

   a. Plate impoundment of the vehicle being driven at the time of their arrest, if not impounded by police at the time of arrest;

   b. Weekly, in person, reporting to an agent of the court;

   c. Random (at least once a week) breath and urine tests. The offender should be required to reimburse the court or county for all costs associated with this pretrial conditional release program.

2. An agency or agencies should be designated to create a DWI tracking system that integrates information regarding the charging, prosecution, conviction, sentencing (including treatment requirements) and driver's license records of persons charged with violating the state's DWI laws.

3. Amend §171.043 [39] to require that the list of offenders with license privileges that have been cancelled as "inimical to public safety" (due to alcohol related incidents) should incorporate the most current address of record for the offender.

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[39] This statute was enacted by the 1992 Legislature as part of the 1992 Omnibus DWI bill and requires the Department of Public Safety to maintain a "hot list" of offenders whose licenses have been cancelled as inimical to public safety and provide that list on a monthly basis to local law enforcement agencies.

Since these offenders do not have valid licenses, they have no reason to provide a current address to the licensing authorities. In order to provide meaningful address data to law enforcement agencies, it will be necessary to utilize the address provided at the time of arrest (which will be on the implied consent forms submitted to the Public Safety Department) or the address provided to the court at the time of the offender's most recent court appearance.

4. The POST Board should evaluate the training currently being provided to law enforcement personnel to insure that police officers are adequately trained as to existing provision of Minnesota's DWI laws (with particular attention to plate impoundment) and any new DWI legislation that is enacted in subsequent sessions.

5. The district courts and prosecuting attorneys should be encouraged to "fast-track" cases involving repeat DWI offenders so that the cases can be tried or resolved as quickly as possible. The repeat Dwi offender needs to know that they face "swift and sure" sanctions for their illegal conduct, [40] both pre-trial and post-conviction (in the event of probation violations).

6. Local units of government should be encouraged to utilize alternative sanctions for first and second time DWI offenders (with recovery of costs from the offender or community service/sentence-to-serve work in lieu thereof) so that additional correctional resources will be available to sentencing courts in cases involving the fourth, fifth and subsequent alcohol-related incidents.

F. Summary

The Criminal Justice Subcommittee believes that enactment into law of the recommendations made by the Subcommittee will further enhance Minnesota's already comprehensive DWI laws. Through strengthened gross

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[40] This is a high-risk population and the repeat DWI offender often is arrested for new DWI and/or driver's license offenses while awaiting trial on an earlier offense. A "fast-track" approach when coupled with a structured conditional release program and intensive probation supervision (post-conviction) should provide much greater control over the repeat DWI offender.

misdemeanor sanctions, intensive probation supervision, lengthier periods of incarceration and a "modest" investment in the infrastructure needs of the criminal justice system, the Legislature and the Governor's Office will be addressing the public desire for "punishment and protection" for those offenders who engage in the most frequent and flagrant violation of Minnesota's DWI laws.

VI

TREATMENT SUBCOMMITTEE REPORT

VI. TREATMENT SUBCOMMITTEE REPORT

A. Introduction

The Treatment Subcommittee of the Commission on the Confinement and Treatment of Recidivist DWI Offenders was charged with addressing the following issues:

1. What types of treatment and correctional programs hold the most promise for changing the behavior of those with entrenched chemical dependency problems?

2. What is the best way to allocate costs of treatment among the offender, local governments and the state?

3. What secure treatment facilities are available, including private, state and locally owned facilities?

4. What is the feasibility of using innovative treatment approaches such as the use of pharmacologic agents, including deterrent chemicals, in the control of those who are unsuccessful in treatment programs?

5. What is the need for culturally specific treatment programs?

This section of the report contains the Subcommittee's findings and recommendations in response to these questions.

B. Effective Treatment

Types of treatment and correctional programs holding the most promise for changing the behavior of those with entrenched chemical dependency problems.

1. Recommendations

Court and corrections officials should be educated to the fact that court-ordered treatment is successful.

Treatment should be delivered in conjunction with legal sanctions. Sanctions-only options offered should be severe enough to make treatment preferable to the offender.

Involvement of the court and correctional system in monitoring treatment and aftercare participation for at least a year is recommended.

Chemical use assessments must be done according to Minnesota Statutes, §169.126 and Minnesota Rules, Chapters 7408 and 9530 (Rule 25). Use of standardized assessment and level of care criteria is important to evaluation efforts. (See Appendix E-1 for Rule 25 Definitions of Alcohol Problem Levels.)

Treatment should be court-ordered for all offenders found to be in need of treatment according to Rule 25 standards. If treatment is not so ordered, (1) the court must enter into the record the reason for this variance, and (2) the court must execute at least half the maximum sentence for all offenses for which there are convictions.

When the court orders chemical dependency treatment for an offender, the treatment delivered should meet the following requirements:

a. Recognizes chemical dependency as the primary disease for treatment.

b. Defines the primary goal of treatment as total abstinence from all mood-altering chemicals. Secondary treatment goals should include ongoing participation in a mutual help recovery program and improved quality of life.

c. The treatment program should provide clearly individualized treatment by a multidisciplinary team of professionals within a structured program, and address the multi-faceted effects of chemical dependency.

d. Provide treatment at a level of intensity appropriate to the client's severity of illness and to the setting. Standard Guidelines established by Rule 25 should be used to make this determination. Study as to the feasibility of national guidelines such as the criteria published by the American Society for Addiction Medicine should be undertaken.

e. Inpatient/residential treatment provided as a result of a court order should meet licensing standards of the Minnesota Department of Human Services. However, minimum service standards for licensed programs must be exceeded in order to provide the most effective treatment for this group. At a minimum, the program should provide:

(1) Length of stay of at least 24 days.

(2) At least six hours of group activity per day, including two to three group therapy sessions daily and two to three educational sessions daily.

(3) Individual sessions at least three times per week with professional staff.

(4) Three one-hour sessions of conjoint family counseling in addition to a family support program, to ensure that family issues are addressed and that family information is available to the treatment staff.

(5) Opportunity for recreation and relaxation.

(6) Be accountable to meet these standards through a certification process in order to qualify for court-ordered referrals.

f. Outpatient treatment should provide, at a minimum:

(1) At least 55 contact hours of primary treatment services with intensity of at least 9 to 12 hours per week for a duration of 4 to 6 weeks.

(2) Nine hours of individual counseling with professional staff.

(3) Three one-hour sessions of conjoint family counseling in addition to a family support program to ensure that family issues are addressed and that family information is available to the treatment staff.

(4) Be accountable to meet these standards through a certification process in order to qualify for court-ordered referrals.

Note: Combination inpatient-outpatient treatment may be developed by pro-rating the amount of service offered at each level of care.

g. Primary treatment (inpatient/residential or outpatient) should be followed by a highly structured aftercare component. This service may be freestanding -- that is, not necessarily connected with a primary treatment program -- to ensure availability across the state. This will require a new funding mechanism. Aftercare programs should:

(1) Offer three hours of group therapy and one hour of individual counseling per week for the first several months after treatment.

(2) Perform drug testing.

(3) Decrease the frequency of monitored contact over a period of at least a year.

(4) Be accountable to meet these standards through a certification process in order to qualify for court-ordered referrals.

h. Introduces the offender to an abstinence-based mutual help group such as Alcoholics Anonymous or Rational Recovery and promotes attendance at such a group.

i. Policy Recommendations

In addition to the characteristics listed above, treatment programs should:

(1) Have a well-trained and experienced multidisciplinary staff, with low staff turnover.

(2) Demonstrate their effectiveness with quality assurance, treatment outcome and patient follow-up studies.

(3) Have interest in working with the State of Minnesota to provide a managed continuum of care to assist chemically dependent DWI offenders in long-term recovery. Are willing to share information, within the guidelines of patient confidentiality, in a timely and cooperative manner.

(4) Have a reasonable and competitive schedule of charges.

2. Discussion

The fourth-time recidivist DWI offender has a serious drinking problem, and can be assumed to be alcoholic. Alcoholism is a chronic and progressive disease which affects cognitive functioning and decision-making as well as physical and emotional health, resulting in irrational and dangerous behavior including driving while intoxicated. One of the primary symptoms of the disease is denial; rare is the alcoholic who recognizes that treatment is needed. Virtually no alcoholic enters a treatment program without significant pressure from family, employer or the court. Alcoholism is treatable in spite of this denial; treatment is successful with the majority of persons who receive it.

a. What are the "success" rates for effective treatment programs?

Minnesota's treatment programs are among the most effective in the nation. Recent media reports criticizing the validity of high treatment success rates may have obscured the fact that the majority of persons completing treatment remain abstinent for the first year, and a significant additional group is found to be currently abstinent and engaged in recovery activities one year after treatment. More than 80% of those sober at one year post-treatment continue in their abstinence through a second year. (There is no follow-up data available past two years post-treatment).

b. What is the effectiveness of court-ordered treatment?

Court-ordered treatment has been demonstrated in a number of studies to produce treatment outcomes as good as or slightly better than those found for non-court-ordered patients. Studies of DWI offenders completing private treatment programs consistently find abstinence rates of close to 78% at six months and 62% at one year post-treatment.[41] [42] One such study found DWI offenders more likely than non-court-ordered patients to complete treatment (90% completion in outpatient setting).[43]

Minnesota Department of Human Services data on DWI offenders receiving public funding for treatment find six-month abstinence rates of 60-65%.[44] Two factors which might account in part for this lower recovery rate may be shorter treatment episodes and the fact that this group is financially less stable, having an average annual income of $2,500.[45]

c. What factors limit the effectiveness of treatment in solving Minnesota's DWI recidivism problem?

Several factors were identified:

(1) **Lack of swift and consistent response** by legal system, losing the "window of openness" created by the crisis. The

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[41] Hoffmann et al., Comparison of Court-Referred DWI Arrestees with Other Outpatients in Substance Abuse Treatment. J. of Studies on Alcohol, Vol. 48, No. 6, November 1987, p. 591-594.

[42] Spicer, J. and Owen, P. Finding the Bottom Line. Hazelden. Center City, MN.

[43] Hoffmann et. al., Comparison of Court-Referred DWI Arrestees with Other Outpatients in Substance Abuse Treatment. J. of Studies on Alcohol, Vol 48, No. 6, November 1987, p. 591-594.

[44] Minnesota Department of Human Services Chemical Dependency Division, DAANES Database. See Appendix 2.

[45] Minnesota Department of Human Services Chemical Dependency Division, Research News, October 1992.

average time from arrest to sentencing in Minnesota is 157 days.

(2) **Anecdotal evidence form counties indicates that chemical dependency assessment results are sometimes altered to indicate need for less expensive responses** if financial resources for treatment are not apparent.

(3) **Failure of the court to order treatment.** Despite the common belief that DWI offenders in Minnesota all receive treatment, this is far from true. While information in available data systems does not provide a clear picture, the data we did find pertaining to this issue was surprising. DAANES data show that, statewide, 33% of persons in treatment with two DWIs in the previous six months (persons likely to be multiple repeat offenders) had no previous treatment. Only 36% of these twice-in-six-months offenders were referred to treatment by the court. (See Appendix E-2)

(4) **Funding problems.** Some offenders have health insurance or another form of health care plan; however, many of these plans refuse to cover chemical dependency treatment if it is court ordered. Some qualify for assistance from the Minnesota Chemical Dependency Consolidated Treatment Fund (a single offender must have an annual income of under $6,000 and the average recipient has an income of $2,500). The largest number of DWI offenders seem to be in a group ineligible for treatment under either of these systems.

(5) **Adequacy of the treatment delivered appears to be declining.** Virtually all health care payors in Minnesota are seeking to cut costs by reducing the amount of treatment provided to the chemically dependent, sometimes providing as little as ten contact hours of treatment. While there are no outcome studies available on such treatment, all members of the

Subcommittee agreed that such under treatment adversely affects success rates.

Failure to order treatment is a serious gap in the system. We have discussed the fact that treatment works. Recovery rates post-treatment are highest for those intervened with earlier, rather than later, in their drinking progression. The effectiveness of treatment declines with increased chronicity; the likelihood of recovery declines with longer and more serious drinking history and consequences. Treatment is most likely to be successful with those offenders identified as alcoholic and referred to treatment after a first or second-time offense. Failure to order adequate treatment for an alcoholic not only exposes the public to continued drunk driving behavior, but slightly reduces the chances that treatment will work in the future.

Two points should be emphasized:

(1) DWI Clinics are not treatment. These are educational classes which are aimed at first-time offenders. They are not effective at producing abstinence in the chemically dependent offender, nor are they intended as treatment.

(2) Court-ordered attendance at community Alcoholics Anonymous meetings is not treatment. The quality of many A.A. groups is adversely affected by referral of large numbers of coerced offenders, and use of these groups threatens to "shoot the horse that brought us." Anonymity also works against effective monitoring of whether an offender actually attends meetings; "getting one's card signed" is a procedure easily forged and nearly impossible to verify.

While providing chemical dependency treatment to offenders early in their DWI careers will not totally solve the problem of recidivism among offenders, there is strong evidence it will reduce the recidivism problem. There is a group of alcoholics who exhibit a need for a very long-term but low intensity level of

care. This group, while unable to maintain sobriety on their own, are willing to live in a supervised setting. Still another group of recidivist DWI offenders are criminal personalities who are unwilling, even when sober, to modify their behavior. For the good of society, they should receive long term incarceration.

d. What is meant by "treatment"?

Treatment is a constellation of services which may be delivered in a variety of settings; counties should be encouraged to utilize available resources in creative ways to meet the treatment needs of their DWI offenders.

While at one time the term "chemical dependency treatment" served a useful descriptive purpose, this is no longer the case in Minnesota. The variety of services provided under this label is too broad to be meaningful. "Chemical dependency treatment" is used to describe services ranging from ten hours of outpatient counseling to several months in a residential setting, to sessions of acupuncture. Services currently falling into the definition of "treatment" include:

Detoxification
Family or individual counseling
Alcohol problems lectures
Alcohol/drugs self use analysis
Outpatient treatment
Comb. inpatient/outpatient treatment
Inpatient treatment
Extended care
Follow-up or aftercare
Relapse prevention training
Self-help support groups

See Appendix E-3 for the definitions of various levels of treatment as defined by the Minnesota Department of Human Services. While the list presented is not exhaustive, it represents the most used and most evaluated forms of treatment.

After a review of the research on treatment effectiveness, the Commission has defined a minimum set of services which should be

provided as chemical dependency treatment when treatment is recommended as a result of a court-ordered assessment.

Counties are encouraged to explore a variety of means of providing acceptable treatment. Referrals may be made to private treatment programs or regional treatment centers, or programs run by the counties themselves. Some counties, such as Anoka and St. Louis, operate outpatient treatment programs in correctional settings, providing structured living in addition to the treatment components usually found in outpatient treatment. Using this model in combination with a work release program for those sentenced under the Huber Law results in success for many. (See Appendix E-4).

e. **What is a realistic number of treatment experiences that a chemically dependent individual should receive?**

Legal sanctions should become more severe with each repeat DWI. Treatment should not be an "easy out" for the offender. The choice between sanctions only and treatment plus sanctions should favor the treatment decision somewhat, however, to induce the offender to make this choice. The Commission is confident that, with the addition of corrections sanctions which support continuing abstinence, the problem of recidivism can be reduced.

The Commission finds that treatment should remain an option for the DWI offender at any point. Treatment recommendations should be based on assessment of individual needs. The fact that treatment failed to achieve the desired results the first time only slightly diminishes the chances that it will work on a subsequent occasion. The research demonstrates that adequate treatment programs (see discussion of treatment) result in a majority of offenders adopting a sober lifestyle after one treatment episode, the success rate remains nearly as good for second and third treatments.

It can be argued that treatment remains a cost-effective alternative for the

recidivist, both compared to incarceration and to doing nothing. Note that, currently, Rule 25 does not allow for more than one extended care treatment episode annually. This limitation and others placed on multiple treatments may serve to stretch the funds to more recipients, but may not result in the best response to the chronically chemically dependent person. Extended placement in structured programs can be a cost-effective way to deal with chronic recidivists who seem to be unable to stay sober and out of trouble without the structure that such programs provide, with costs being a fraction of incarceration.

Legal consequences for the criminal behavior of driving while intoxicated should be clear. This is not only a matter of law, but of enforcement and court practices. The alcoholic will rarely be deterred from driving drunk by the threat of consequences. He will, however, take the problem and the crime more seriously in the light of a response that is swift and consistent.

f. Types of correctional programs, including intensive supervision, holding most promise for changing the behavior of those with entrenched chemical dependency problems.

The Commission believes that correctional programs with the following characteristics would significantly contribute to successful chemical dependency treatment outcomes by offenders required to participate in such programs. Two programs currently in existence and incorporating these characteristics are the Anoka County Repeat Offender Program and the Messabi Work Release Program. Treatment programs in jails, workhouses or other custody facilities are of limited effectiveness without requiring offenders in such programs to participate in intensive probation programs after release from the custody facility.

Intensive Probation Program characteristics:

(1) Offender limited to working and attendance at program facility or home detention.

(2) Participation in treatment, aftercare or ongoing monitored support group.

(3) Periodic (initially daily) testing for the presence of drugs and alcohol.

(4) Offender can decrease intensity and number of contacts with program based on compliance with probation conditions.

(5) Offender subject to immediate increase in intensity and number of contacts with program if offender violates conditions of program or probation.

(6) Offender required to reimburse court or county running the program.

C. Allocating Costs

Best ways to allocate costs of treatment and confinement among the offender, local governments and the state.

1. Legislative Recommendations

Require offenders, who are able, to pay for a portion of their treatment.

Create a fund to reimburse counties for a portion of their expense in incarcerating or treating DWI offenders. An increase in the liquor tax is recommended as a source of revenue.

2. Policy Recommendations

Require health-care plans (insurance and HMOs) to provide for court-ordered treatment recommended in accordance with a Rule 25 assessment. Treatment provided should meet the standards specified in this report.

Restore full funding to the Consolidated Chemical Dependency Treatment Fund.

3. Discussion

The average costs and lengths of stay for persons in chemical dependency treatment funded through the Consolidated Chemical Dependency Treatment Fund in fiscal year 1992 are as follows:

Type of Placement	CCDT Fund Payments	CCDT Fund Units of Service	CCDT Fund Cost Per Placement
Inpatient Primary	$170/day	24 days	$4,056
Outpatient Primary	$20/hour	67 hours	$1,334
Extended Care Program (Residential)	$91/day	56 days	$5,275
Halfway House	$49/day	60 days	$2,959

Costs of treatment for DWI offenders in the Anoka County Repeat Offender Program and Messabi Work Release Programs are lower. See Appendix E-4.

The cost of providing treatment to DWI offenders need not be borne entirely by the state. The treatment committee has several recommendations in regard to funding:

a. **Strengthen the state's mandates for chemical dependency treatment in health care plans.** Most health care plans in Minnesota currently provide inadequate coverage for chemical dependency treatment. In the name of managed care, they have drastically reduced the amount of treatment delivered to levels far below those demonstrated as resulting in sobriety for most patients. Furthermore, they have produced no follow-up studies to support the effectiveness of the treatment they are providing, which rarely meets the criteria described by the Commission as adequate treatment. Some health-care plans disallow coverage for any court-ordered treatment. Treatment is health care, and ought to be provided in an effective manner by health-care plans. (It is an interesting observation that rates of DWI recidivism have climbed as the number of treatment days provided through health plans has declined.)

b. **Consolidated Chemical Dependency Treatment Fund.** Many counties may continue to find that their best option for providing treatment is to refer the offender to programs licensed by the Minnesota Department of Human Services, often relying on the Consolidated Fund to pay for treatment. The Fund is able to serve only the very poor; additional funding is needed.

c. **Charging the offender for a portion.** Offenders could be charged a portion of the cost of their treatment. This is being done successfully in Anoka and St. Louis

counties with offenders who are on work release or are in aftercare.

d. **A tax on liquor** could be used to create a fund to assist counties with the cost of dealing with DWI offenders. Counties could collect a per diem of $20 per day for each offender incarcerated or placed in residential treatment setting; $10 per session for those in outpatient treatment or aftercare; and $2 per session for those attending monitored self-help groups.

D. Secure Treatment

Secure treatment facilities are available, including private, state and locally owned facilities.

1. Recommendation

No new secure treatment beds are recommended. Use of minimum security settings is encouraged in most cases, freeing secure beds and jail space for incorrigible or violent offenders.

2. Discussion

There are approximately 30 locked treatment beds in Minnesota, located at Moose Lake and Fergus Falls Regional Treatment Centers.

Additionally, there are some "outpatient" treatment programs operated in locked correctional settings. The Commission wishes to stress that there are a small minority of offenders who need to be in a locked setting. These offenders can be treated in chemical dependency programs run by county jails. Minimum security settings, with the structure and sober environment they provide, are effective with all but a few; and costs for minimum security programs are far less than for jails and prisons. In Anoka County, for example, the cost per day in a minimum security work release program is $25 versus $75 for jail incarceration.

Even in non-secure treatment settings, DWI offenders respond to structure and tend to complete treatment programs. According to DAANES data on recidivist offenders treated in 1990 through consolidated Treatment Fund:

a. Of 118 treated in primary inpatient treatment programs, 5 (4%) left without completing the programs.

b. Of 238 treated in outpatient primary treatment programs, 16 (7%) failed to complete the programs.

c. Of 22 treated in extended residential care programs, 7 (30%) left before completing the programs.

d. Of 59 treated in halfway houses, 5 (8.5%) left the program without completing.

Some of these offenders who do well in treatment settings relapse quickly when they complete treatment; board and lodging situations suit some of these persons. A long-term resident at one such program told a Subcommittee member, "This is a real nice place. I been in treatment in a lot of states, and most treatments are nice. The problem is, most of them make you leave." Providing care for this man indefinitely is probably no more costly, at less than $800 per month, than dealing with the crises which result each time he is discharged.

E. Innovative Treatment Approaches

What is the feasibility of using innovative treatment approaches such as the use of pharmacological agents, including deterrent chemicals, in the control of those who are unsuccessful in treatment programs?

1. Recommendation

Programs dealing with DWI offenders should be encouraged to experiment with the use of adjunctive treatment therapies and controls. Results of the studies should be shared in order to assure optimum results from treatment efforts.

2. Discussion

The research literature indicates that Minnesota Model treatment is the most effective approach that has been studied to date. While most chemical dependency treatment available in Minnesota is based on the Minnesota Model, other methods are used, often as additions to a treatment program or aftercare plan.

Antabuse Therapy

Disulfiram (trade name "Antabuse") is a drug that has been in use for two decades as an aid to persons having difficulty maintaining abstinence from alcohol. The effect of disulfiram is to arrest the body's processing of alcohol at a chemical point where the effects are extremely uncomfortable and cause the person to feel very ill. The chemical has been found to be very effective when used in combination with supportive therapy and services, for clients experiencing difficulty in controlling the impulse to consume alcohol.

The drug is less effective when used without supportive services because the person need only refrain from taking disulfiram for a period of a few days in order to return to alcohol use without a drug reaction.

The major benefit of disulfiram therapy is that the person is unlikely to drink in the community while taking the drug, thereby allowing some people to participate in non-residential services who otherwise would need institutionalization in order to remain sober.

The negative aspect of the drug includes side effects for some individuals, contraindication for persons with serious medical conditions that increase the health risk of a chemical reaction to alcohol, and the chemical is specific to alcohol abuse and will not interact with other mood altering chemicals the person may be taking. This is a therapy that has no residual effect. In other words, if the person stops taking the drug, the person returns to whatever the non-drug level of risk for relapse is. This last factor is why most programs will advise that disulfiram be used in conjunction with other therapies.

Acupuncture

Acupuncture therapy is direct stimulation of nerves through the insertion of thin needles at carefully selected points of the body in order to attain medical effects. While acupuncture has been a standard part of medical care in the Orient for thousands of years, the medical efficacy of

this technique has been recognized in the Western medical community only over the past 20 years. Western research has confirmed that acupuncture induces changes in brain chemistry, helping to explain why patients report positive effects from this therapy for chronic pain and for chemical abuse problems. Acupuncture has been used for treatment of chronic stage alcoholics in New York for 20 years, and has been an adjunct therapy in some treatment centers in Minnesota for the past decade. Research conducted in Minnesota indicates that acupuncture reduces the urge to drink for chronic stage alcoholics.

The major benefit of this therapy is that it offers a way to reduce the craving for the effects of alcohol in a positive, painless procedure that does not involve the use of any drugs. Since there are no drugs involved, this therapy is available to people who have other medical conditions that preclude drug therapies. Acupuncture is also thought to have the effect of reducing craving for a variety of other drugs, though this is still a matter for research. In the Orient, acupuncture has long been part of standard detoxification therapy for persons with opiate addictions. A significant limitation of this therapy is that its positive effect is short lived. Acupuncture usually takes place several times per month in order to maintain the reduction of the urge to consume alcohol. If the person discontinues the therapy, the person will return to the non-acupuncture level of risk for relapse into alcohol abuse in a few days to a few weeks.

Naltrexone

Naltrexone is a drug used to treat narcotic addictions. Used with alcoholics in experimental settings, it has been found to block the "high" alcoholic feel after consuming alcohol and to also reduce an alcoholic's craving to drink. Studies have been conducted with this new use of naltrexone at Yale University and the University of Pennsylvania. In the Yale study, only 39% of the patients taking Naltrexone resumed drinking compared to a 79% rate of drinking resumption by patients who only received counseling. The studies emphasize that the drug should be the sole treatment for alcoholism. While further studies are currently being conducted, long-term studies

of the effectiveness of the drug must also be done.

Other control mechanisms

Other technological procedures and devices can provide a supportive function to treatment efforts while offering control tools to help ensure public safety. These include:

a. Alcohol and drug testing through urinalysis, breathalyzer or blood testing.

b. Breath alcohol ignition interlock devices to prevent drunk driving. (See Appendix E-5)

c. Electronic monitoring to enforce house arrest.

F. Cultural and Gender Specific Treatment

What is the need for culturally and gender appropriate chemical dependency treatment programs?

1. Recommendation

Offenders should be referred to culturally and gender appropriate treatment programs, and the need for additional programs should be addressed.

2. Discussion

According to Minnesota Crime Information, approximately 94% of DWI arrestees during the years 1989 to 1991 were white. Of the remaining 6%, less than 3% of arrestees are Black, less than 3% are Indian, less than 2.5% are Hispanic, and .3% are Asian.[46] See Appendix D.

While percentages are small, the situation is significant, with many minority persons in need of culturally specific treatment. The availability of gender specific treatment is an issue which should be addressed, since the number of women arrested for DWI offenses is increasing annually.

Chemically dependent persons are known to have better treatment outcomes when treated in culturally specific

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[46] Minnesota Department of Public Safety, DWI Arrests by Race and Youth: 1989 to 1991. Unpublished.

and gender specific programs. While there are a number of programs in the state, it is unclear whether the available treatment programs could accommodate the need if all appropriate offenders were to be referred to treatment. It is strongly suspected that the number of available beds would need to be expanded.

A list of programs available for special populations, including special cultural considerations, is included in Appendix E-6. However, the list does not distinguish between programs which are "culturally sensitive" (seek referrals of minorities) and those which are "culturally specific" (designed and governed by minorities to specifically address the needs of their culture). There are approximately 20 programs in the state which meet the second description, according to the director of one such program. This is an important distinction.

Use of inpatient treatment can solve geographic availability problems when they are present. Attention must be paid, however, to the availability of culturally specific aftercare, which is not readily available across the state.

VII

COST OF IMPLEMENTING COMMISSION RECOMMENDATIONS

VII. COST OF IMPLEMENTING COMMISSION RECOMMENDATIONS

The Commission recommends that state and local government be reimbursed for repeat offender criminal justice system activities related to apprehension, prosecution, public defense, incarceration, intensive probation, and treatment. Without new sources of revenue, the state and local communities have no resources to implement the Commission's recommendations.

The following cost projections indicate what amounts should be reimbursed to state and local units of government for implementing the Commission's recommendations. The cost projections do not include any reimbursement by offenders for participation in any of the programs the Commission is recommending. To the extent that amounts remain in the reimbursement fund at the end of a year, they could be made available in the subsequent year for DWI enforcement efforts targeting a larger pool of DWI offenders than the fourth-time offender.

Because the cost estimates are very conservative,[47] the Commission believes that even with offender reimbursement, all amounts in the fund will be distributed. The Commission recommends that state and local levels of government be eligible to receive reimbursement up to the listed amounts for each activity. Reimbursement should be for actual costs incurred reduced by amount recovered from the offender. The state or local unit of government will have to absorb incurred costs in excess of offender recovery and/or reimbursement by the state reimbursement fund.

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[47] See Part VI of this report, Treatment Subcommittee Report, discussion of cost range for various types of chemical dependency treatment.

A. Reimbursement Rates

Apprehension:	$ 50.00	
Prosecution:	$100.00	
Public defense:	$100.00	
Incarceration:	$ 25.00	per day
Treatment:		
Inpatient	$ 20.00	per day
Outpatient	$ 10.00	per day

Intensive probation: $ 10.00 per day for each day offender, in intensive probation program, as set forth in Commission recommendation number 4, has face-to-face contact with probation staff.

B. Annual Reimbursable Costs for Repeat DWI Offender Criminal Justice System Activities Applied

Apprehension:	$50.00 per offender					$500,000
Prosecution:	$100 per offender					$250,000
Public Defense:	$100 per offender					$250,000
	Offenders		Days		Per Day	Total
Incarceration						
Long term	500	x	365	x	$25	$4,562,500
Short term	2000	x	45	x	$25	2,225,000
Intensive probation	2000	x	150	x	$10	$3,000,000
Treatment						
Primary	1250	x	30	x	$20	$750,000
Relapse	1250	x	14	x	$20	$350,000
Aftercare	2500	x	50	x	$10	$1,250,000
Monitored support	2500	x	52	x	$ 2	$260,000
Second year costs for incarceration, treatment, and intensive probation						$1,000,000
Sub-total						$14,397,500
Administration Costs (1% of sub-total)						$143,975
Creation and maintenance of DWI offender tracking system						$250,000
Total annual state and local costs eligible for reimbursement						$14,791,475

Apprehension reimbursement costs include efforts targeting the repeat DWI offender and general patrolling which results in the arrest of a repeat DWI offender.

Treatment cost estimates are based on the assumption that 1250 offenders (half of offender population of 2,500) will need primary treatment and 1250 offenders will need relapse treatment. Relapse treatment is similar to primary treatment but of shorter duration. 250 offenders in each group will be receiving the recommended level of treatment in a long-term incarceration facility. Of the remaining 2000 offenders, 1,000 will need primary treatment, 1000 will need relapse treatment, and all 2000 will receive the recommended level care as part of the intensive probation program they are in.

C. Cost of Implementing Commission Recommendations

The estimated cost of implementing the Commission's recommendations at different DWI offender levels, using 1992 DWI incident data, is set forth below:

1. First and subsequent offenders (32,180 offenders) $74,703,573

   Increased apprehension, prosecution and public defense expenditures, first and second time offender receiving no more than 10 days incarceration entirely offender paid, third time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation for non-hard core repeat offenders, hard core offenders serving minimum of one year in jail, treatment for 60% of offender population, and creation and maintenance of DWI tracking system.

2. Second and subsequent offenders (14,012 offenders) $67,269,650

   Increased apprehension, prosecution and public defense expenditures, second time offender receiving 10 days incarceration entirely offender paid, third time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation for non-hard core repeat offenders, hard core offenders serving minimum of one year in jail, treatment, and creation and maintenance of DWI tracking system.

3. Third and subsequent offenders (7,113 offenders) $35,847,187

   Increased apprehension, prosecution and public defense expenditures, third time offender receiving 30 days incarceration partially paid for by offender, fourth time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation and treatment for non-hard core offenders, hard core offenders serving minimum of one year in jail, and creation and maintenance of DWI tracking system.

4. Fourth and subsequent offenders (3,000 offenders) $14,791,475

   Increased apprehension, prosecution and public defense expenditures, fourth time offender receiving 45 days of incarceration partially paid

for by offender, fifth time and greater repeat offender incarceration length based on number of prior DWIs, intensive probation and treatment for non-hard core offenders, hard core offenders serving minimum of one year in jail, and creation and maintenance of DWI tracking system.

D. Funding Sources for Implementation of Commission Recommendations

Local communities are currently paying for a significant portion of the cost of apprehension, prosecution, incarceration, probation and treatment of misdemeanor and gross misdemeanor DWI offenders. One recent analysis of state and local criminal justice system expenditures determined that in 1987, Minnesota cities, counties and the state expended in excess of $250,000,000 **directly** related to crimes involving alcohol.[48] These expenditures are obviously even larger today. In comparison to these criminal justice system alcohol-abuse related expenditures, in 1991 Minnesota excise taxes collected in Minnesota on alcohol totalled approximately $55,000,000.[49] Cities and counties as well as the state are in chronic fiscal crisis. Municipal, county and state governments **cannot** afford to significantly increase their expenditures in any area including law enforcement.

However, without a funding source, few of the Commission's recommendations can be implemented.[50] The Commission believes the appropriate funding source for reimbursing state and local government for implementing the Commission's recommendations is from a user fee (tax) on alcohol. The Commission believes that individuals who consume criminal justice system

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[48] See, The Cost of Alcohol Abuse to the Minnesota Criminal Justice System. Minnesota Criminal Justice System DWI Task Force (1988), Appendix E.

[49] Minnesota Department of Revenue data.

[50] John Berglund, Lobbyist for the Minnesota Licensed Beverage Dealers Association, acknowledged at a meeting of the Criminal Justice and Family Law Subcommittee of the House Judiciary Committee of the Minnesota House of Representatives on March 12, 1993, that more resources are needed to increase DWI enforcement efforts. Mr. Berglund was quoting the Chairperson of this Commission, Steve Simon, who has consistently called for increasing the taxes on alcohol to fund increased DWI enforcement efforts.

resources (law enforcement, prosecution, judicial, public defense, the courts, incarceration, probation and treatment) because of excessive alcohol consumption should pay for those resources rather than citizens who do not abuse alcohol. It is difficult, if not impossible, to collect any significant percentage of the costs of apprehension, prosecution, adjudication, incarceration and treatment from DWI offenders after they have been convicted. A more rational way to collect these costs is to adopt a user fee on the substance, alcohol, used by DWI offenders which, because of their excessive use and abuse, causes them to "consume" local and state criminal justice system resources. 10% of the people who drink, consume over 50% of all alcohol consumed.[51] To drink that much, these people are drinking approximately 14 drinks a day.[52] Moderate drinking is defined as two drinks per day every day of the week.[53] "Heavy drinkers" make up most if not all of the repeat DWI offender population.

The Commission concludes that neither local property taxes nor state income taxes should be increased to fund the implementation of the Commission's recommendations. The Commission further concludes that an increase in the tax on alcohol, a "user fee", should be adopted to fund the implementation of the Commission's recommendations. Because of the consumption patterns discussed above, the Commission believes a "user fee" on alcohol would fall almost entirely on the "heavy drinker", and consequently is a fair and just funding system to increase the traffic safety protection of the driving public.

A tax increase, or a "user fee" of one cent a drink on all alcohol sold would generate $19,158,000. This would be enough additional revenue to fund the implementation of the Commission's recommendations. If this one cent "user fee" or tax increase were adopted, a "moderate drinker" (14 drinks a week) would pay $7.28 more a year in alcohol taxes. The heavy drinker (98 drinks a week), the person who is the repeat DWI offender, would pay $50.96 more a year in alcohol taxes. The Commission also recommends that the "user

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[51] See, The Cost of Alcohol Abuse to the Minnesota Criminal Justice System. Minnesota Criminal Justice System DWI Task Force (1988), Appendix E.

[52] Id.

[53] Id.

fee" concept should be used to raise additional revenues to fund increased criminal justice system efforts directed at all DWI offenders.

E. Alcohol Tax Increase Revenues Compared to Cost of Implementing Commission Recommendations

The Commission believes that an increase in the state tax on alcohol should be the source of the additional funding needed to implement the Commission's recommendations. The following chart indicates the revenue that would be raised by the different alcohol tax increases, and compares these revenues to the costs of implementing the Commission's recommendations at different DWI offender levels. The projected revenues are based on total 1991 alcoholic beverage sales in Minnesota. The amounts do not reflect the possible reduction in sales that might occur due to price increases.

TAX INCREASE	TOTAL INCREASED REVENUE	OFFENDER CONVICTION LEVEL	DWI PROGRAM COSTS
1 cent/drink	$19,158,000	(3,000 4+ offenders)	$14,791,475
2 cents/drink	$38,270,000	(7,113 3+ offenders)	$35,847,187
3 cents/drink	$57,385,000	(7,113 3+ offenders)	$35,847,187
4 cents/drink	$76,497,000	(14,012 2+ offenders)	$67,269,650
5 cents/drink	$95,610,000	(32,180 1+ offenders)	$74,703,573

VIII

APPENDICES

A. Incapacitation Alternatives For Repeat DWI Offenders

B. Reports on Alcohol Consumption, Societal and Criminal Justice System Costs of Alcohol Abuse And Alcohol Tax Rate Revenues

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APPENDIX A

INCAPACITATION ALTERNATIVES FOR REPEAT DWI OFFENDERS

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Incapacitation Alternatives for Repeat DWI Offenders

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ABSTRACT

This paper addresses the implications of the adoption of a long-term, recidivist-based, felony DWI offense. A review of DWI recidivism and the involvement of repeat DWI offenders in alcohol-related fatalities in Minnesota is presented. An analysis of the number of repeat DWI offenders who would have to be incarcerated in order to save different numbers of lives is discussed. A review of existing felony, recidivist-based, DWI statutes is presented.

It concludes with a discussion of emerging non-custody, long-term intensive supervision and extended probation programs that are attempting to decrease the involvement of repeat DWI offenders in alcohol-related traffic fatalities.

Introduction

"Lock them up and throw away the key." This call, or a variation of it, is being presented to legislatures throughout the United States with increasing frequency in regard to DWI offenders who continue to be re-arrested for that offense. An increasing number of researchers are concluding that the hard core DWI offender is not deterred by the threat or imposition of even lengthy jail or prison sentences (Nichols and Ross, 1990). As the number of prior offenses increases for a DWI offender, the criminal justice system and the public becomes less concerned about rehabilitation and more concerned about "protecting the public" by long-term prison sentences. The number of states with recidivist-based felony DWI statutes appears to be increasing, going from fifteen in 1990 to eighteen in 1991.[1]

Recidivism, actual injury, or death have been, and are currently, the jurisprudential basis for DWI enhancement statutes. Some commentators advocate an enhancement system based not on recidivism, but on alcohol concentration level or the degree of endangerment exhibited by the offender's driving conduct if there was no actual injury or accident (Jacobs, 1990). However, the primary legislative focus for enhancement purposes continues to be the recidivism of the DWI offender. Publicized alcohol-related traffic fatalities

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[1]"A Review of Felony DWI Statutes Throughout The United States" [an unpublished report of a review conducted by the Minnesota Criminal Justice System DWI Task Force in 1990, 190 Law Center, 229 19th Avenue South, Minneapolis, Minnesota 55455] is the source of the information in this paper regarding existing felony DWI statutes and sentencing practices pursuant to them.

involving repeat DWI offenders inevitably generate public outcry and the question of why a long felony-type sentence was not imposed for these individuals prior to their being in the injury-producing accident.

An increasing number of DWI offenders arrested each year are repeat offenders (Rogers, 1990). Courts and legislatures are taking an increasingly tougher posture in regard to the repeat offender and calling for expanded sentencing authority. There is growing public and legislative frustration with the DWI offender who has a high number of prior DWI arrests and continues to be re-arrested for DWI. What the public and legislatures do not keep in perspective is that the early DWI convictions of these high number repeat DWI offenders seldom, if ever, resulted in any punishment or treatment other than license revocation. These individuals, most of whom were and are chemically dependent, did not view a license revocation as a serious impediment to driving. They continued to drive even though they drove safer (Nichols and Ross, 1990).

TABLE 1

Prior Alcohol-related Incidents of Minnesota Drivers (Within Ten Years of 1989)

3,127,029	Individuals in Minnesota with driver's licenses
247,711	Individuals with prior alcohol-related incidents
155,895	Individuals with one prior alcohol-related incident
54,931	Individuals with two prior alcohol-related incidents 22% recidivism rate
36,885	Individuals with three or more alcohol-related incidents 15% recidivism rate
	Total recidivism rate for the ten-year period is 37%

There appears to be a crystalizing belief on the part of the public that if we could lock up enough of these DWI offenders who continue to drink and drive long enough, we would save lives. Without good data and information about the nature of DWI recidivism, the involvement of DWI recidivists in alcohol-related fatalities, and the costs of long-term incarceration compared to the costs of alternative long-term non-custodial incapacitation, it is difficult for state legislatures to make good policy decisions when considering whether or not to adopt a felony DWI statute. This paper will attempt to integrate information from these areas so that better legislative and judicial decisions can be made about the repeat offender.

DWI Recidivism

This paper will use Minnesota DWI statistics as a basis for the discussion of recidivism. Minnesota has been able to identify and track its arrested or charged drinking driver population since 1976 with an accuracy in excess of .99%.[2] Minnesota has had administrative *per se* license revocation since 1978.[3] A review of Minnesota Department of Public Safety drivers' license data in regard to challenges to administrative *per se* revocations, indicates that less than 1% of all drivers who are identified as a drinking driver via the administrative license revocation process for refusing or failing the alcohol concentration test are successful in challenging that revocation.[4] Minnesota also performs alcohol concentration tests on over 80% of drivers killed in traffic accidents. Thus, an analysis of Minnesota's drinking driver population will give very accurate data on recidivism and involvement in alcohol-related fatalities. Because of the ability to accurately identify this population, trends and relationships between factors derived from the Minnesota DWI population should be significant for the rest of the country.

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[2]Unpublished information provided by Rolly Hunter, Chief Driver Evaluator, Driver and Vehicle Services, Minnesota Department of Public Safety, Transportation Building, St. Paul, Minnesota 55303.
[3]Minn. Stat. 169.123, Subd. 4.
[4]Rolly Hunter (see footnote 2).

Over three million (3,127,029) people in Minnesota had driver's licenses in 1988. Eight percent (247,711) of these drivers had one or more DWI-related incidents on their record. This population consists of all first and multiple offenders from 1980 to 1988 and those individuals who were multiple offenders prior to 1980. Of the drivers with DWI-related incidents on their record, 155,895 (63%) had only one DWI-related incident on their record; 54,931 (22%) had two DWI incidents on their record; and, 36,885 (15%) had *three or more* DWI incidents on their record. Table I summarizes this data.[5]

DWI recidivism in Minnesota shows an *apparent* increase from 1980 to 1988. The rate of recidivism in 1980 was 29.9% and in 1988 it was 41.1%. However, this rate increase may not mean that more individuals are becoming repeat offenders. It may mean that the police are arresting more repeat offenders because there are fewer first-time offenders on the road. The DWI arrest rate has remained fairly constant.[6] When the police stop a suspected drinking driver, they do not know, prior to stop, if the driver is a first or a repeat offender.

Other than the slight increase in the use of "random sampling" DWI road blocks, the police arrest criteria or "sampling methods" of the drinking driving population have remained the same over the past ten years. Therefore, it can be argued that those individuals capable of making choices are choosing to avoid driving after drinking, or are drinking less before they drive because they responded to the "tougher" DWI laws and the focus of the media on the dangers of drunk driving. Thus, there are *fewer* first offenders on the road for the police to arrest. The repeat offender, who has a high probability of being chemically dependent and is less capable of making choices about drinking and driving, continues to drive after drinking and thus represents an increasingly larger percentage of the drinking drivers on the road.

TABLE 2

Period Between Prior Alcohol-related Incident and Alcohol-related Fatality Occurring in 1989

Number of Fatalities	Year of Prior Incident	Percentage of All Alcohol-related Driver Fatalities
6	1989	8%
17	1988	22%
13	1987	17%
15	1986	19%
7	1985	9%
5	1984	6%
3	1983	4%
3	1982	4%
4	1981	5%
3	1980	4%
1	1979	1%
1	1971	1%

Repeat Offenders and Fatalities

In 1984, 24.6% of drinking drivers involved in fatal crashes had one or more prior alcohol-related incidents on their record. This percentage increased to 34.4% in 1989. The time, in years, between the prior incident and

[5]The recidivism data in this section is from an unpublished report on some preliminary analysis in the Vanhon database on DWI offenders by Allan Rogers, Research Analyst, Office of Traffic Safety, Minnesota Department of Public Safety, Transportation Building, St. Paul, Minnesota 55155.

[6]Allan Rogers (see footnote 5).

1989 is shown in Table 2.[7] The percentage of repeat offenders involved in fatalities in Minnesota is approximately twice the national average (U.S. Department of Transportation, 1989). Because of the completeness of Minnesota's DWI-related driver's license records, and assuming no major regional differences, the Minnesota rate is very likely the true national rate. It is this statistic that is one of the driving forces for the adoption of felony DWI statutes throughout the country. However, this statistic must be compared to the annual arrest data for repeat offenders in order to determine if long-term prison sentences would significantly reduce the involvement of repeat offenders in alcohol-related traffic fatalities.

The data in Table 2 could be used to argue for felony sentences of three or four years, based on the premise that if the repeat offenders had been incarcerated pursuant to a long-term felony sentence the last time they were convicted of DWI, then they would not have been involved in the fatality. An examination of the fatality data for individuals who had been arrested within four years prior to their fatality indicates that only 51% had two or more prior alcohol-related arrests at the time of their last arrest prior to fatality.[8] If this group of repeat offenders had received a four-year felony sentence after their last arrest, twenty-six lives would have been saved. However, since there would have been no way of predicting which individuals with two or more prior alcohol-related arrests in each of the four prior years would be involved in a fatality in the fourth year, all individuals arrested in each of the four years would have had to have been incarcerated for four years to save the twenty-six lives. Because only a small percentage of the at-risk, repeat-offender population is ever arrested in a given year (see Table 3), such Draconian measures would still not prevent the involvement in fatalities by repeat offenders who have one less than the critical number of prior convictions that a felony DWI statute would be based on, and thus, while in the at-risk population, they would not be subject to the long-term incarceration that would have physically incapacitated them from driving.

Annual Arrest Rates of Repeat DWI Offenders

For the purposes of this analysis it will be assumed that a felony DWI statute would apply to a third and subsequent DWI offense or incident.[9] In 1989 there were 93,816 drivers at risk of being arrested a third or subsequent time for DWI in Minnesota (see Table 1). In that year a total of 6,619 people who had two or more DWI convictions or alcohol-related revocations on their record *were actually arrested.* This represents less than 7% of the total at-risk population. Table 3 shows the breakdown of the number at risk actually arrested.[10]

TABLE 3

Individuals Arrested in 1989 in Minnesota with Two or More Alcohol-related Arrests on Their Record

At Risk	
93,816	Individuals with two or more prior alcohol-related incidents of record
Arrested	
3,635	Two prior alcohol-related incidents
1,623	Three or more alcohol-related incidents
734	Four prior alcohol-related incidents
626	Five *or more* alcohol-related incidents

(Percentage of drivers at risk in 1989 for third or subsequent arrest actually *arrested* in 1989 is 7%.)

[7]R. Lewis, DWI Recidivism In Minnesota Fatal Crashes: 1984, 1988, 1989, Unpublished report, 1990, Driver and Vehicle Services, Minnesota Department of Public Safety.

[8]R. Lewis (see footnote 7).

[9]New York, Oklahoma, and Missouri's felony DWI statutes apply to a second and subsequent DWI offense.

[10]Information regarding 1989 arrest rates for repeat DWI offenders is from Driver and Vehicle Services, Minnesota Department of Public Safety.

Assuming that all the repeat offenders arrested in a given year were incarcerated for up to four years, it is readily apparent that few fatalities would be prevented for that year by incarcerating all those at risk and arrested during that year. If a four-year felony statute applied to individuals arrested and convicted again, after two or more prior alcohol-related arrests, and assuming that an equal number of offenders in this at-risk group were arrested and convicted each of the four years, at the end of the fourth year there would be 26,476 more individuals in prison. This number, 26,476, represents 29% of the at-risk population and would result in a theoretical saving of 26 lives.

If only individuals with three or more prior alcohol-related incidents were incarcerated for four years after their re-arrest and conviction, and assuming an equal number of this at-risk group were arrested and convicted each year, there would be 11,936 more individuals in prison at the end of four years. This represents 13% of the at risk population and would result in a theoretical saving of 14 lives.

If only individuals with four or more prior alcohol-related incidents were incarcerated for four years after their re-arrest and conviction, and assuming that an equal number of this at-risk group were arrested and convicted each year, there would be 5,444 more individuals in prison at the end of four years. This would result in the theoretical saving of 7 lives.

If only individuals with five or more alcohol-related incidents on their record were incarcerated for four years after their rearrest and conviction, and assuming that an equal number of this at-risk group were arrested and convicted each year, there would be 2,508 more individuals in prison. This would result in the theoretical saving of 3 lives.

These figures assume that there would be little or no general deterrence in the years following the first year's arrests. As the number of prior incidents of an offender increases, it is likely that the effect of general deterrence for that individual would decrease and evidence of this dynamic has been found (Votey and Shapiro, 1985). To put these numbers in perspective in relation to the capacity of the Minnesota prison system, in 1989 Minnesota's total prison population was 3,103. Table 4 summarizes this data.

Assuming that for each of the above at-risk groups general deterrence was 100% effective and there were no arrests in the three years following the first year of re-arrest, there would still be between 6,619 and 6,627 more individuals in prison at the end of four years.

TABLE 4

Cumulative Prison Population of Repeat Offenders If Incarcerated for Four Years After Arrest

Prior Arrests	Arrested Each Year	Number in Prison at End of Four Years	Lives Saved
2+	6,619	26,476	26
3+	2,984	11,936	14
4+	1,361	5,444	7
5+	627	2,508	3

Felony DWI Statutes Throughout the United States[11]

As of May, 1991, eighteen states currently have a felony DWI statute. They are Arizona, Arkansas, Florida, Idaho, Illinois, Iowa, Louisiana, Michigan, Mississippi, Missouri, Nevada, New York, Oklahoma, South Dakota, Texas, Utah, and Virginia. Maximum sentences allowed by law by those states' felony DWI laws

[11]See footnote 1.

run from six months to ten years. Information is not available from most of the states concerning the length of actual sentences imposed on persons convicted of felony DWI. Sentencing information, where it is available, about the actual sentence length imposed and ordered served, is illustrative of the tremendous disparity between maximum allowable and actual sentence lengths. Table 5 describes these differences.

TABLE 5

Maximum Sentence Compared to Actual Sentence for Repeat DWI Offenders

State	Maximum Sentence Allowed by State Law	Actual Sentence (Average)
Florida	10 years	31 months
Louisiana	5 years	6 months
Mississippi	5 years	1.5 months
New York	4 years	10 months
Oklahoma	5 years	7–11 months

Economic and Space Limitations on the Use of Prison for Repeat DWI Offenders

A review of United States prison statistics indicates that as of June, 1990, there were approximately 755,425 people in prison in this country. We have an incarceration rate of 289 people in prison for every 100,000 people in the country (Tonry, 1990a). State prisons are at 127% of capacity. Three additional new 500-bed prisons must be built each week because of the increasing demand for more prison space (Tonry, 1990b). A new 500-bed prison cost 25 million dollars to build and once built it costs $12,000 to $24,000 a year to maintain one inmate in prison (Baer, 1991). The jail situation is just as bad. It costs $43,000 per bed to build a new jail, and $9,500 to $17,000 per inmate per year to operate one (U.S. Department of Transportation, 1986).

Incapacitation Alternatives for Repeat DWI Offenders

The limited effectiveness in the saving of lives by the long-term incarceration of repeat DWI offenders, combined with the lack of existing space to incarcerate them and the tremendous cost of building new prison or jail space, should be a compelling argument against the adoption of felony-type, lengthy prison sentences. However, such rational arguments will unlikely diminish public demand for the adoption of additional penalties and control measures for repeat offenders who continue to be re-arrested for DWI and who continue to be involved in alcohol-related fatalities.

Recent developments in alternative sentencing for felons and for repeat DWI offenders that do not involve long-term incarceration in prison or jail show significant potential for answering the public's concerns about repeat DWI offenders. These alternative sentencing programs for convicted non-DWI felons were developed because of the lack of prison space and the recognition that incarceration in prison does not contribute to general or specific deterrence other then the period of incapacitation that exists while the offender is in prison. For an extensive discussion of the area of alternative sentences see Morris and Tonry (1990).

These programs are based on three main concepts or goals:

(1) Protection of the public through supervision of the offender;
(2) Sanctions or punishment for the offender so that the offender is held accountable for his actions; and,

(3) Treatment and/or education for the offender to provide the offender with the resources to deal with addiction, unemployment or lack of education (Larivee 1991).

An analysis of some of these programs indicates a recidivism rate while in the program of between 1% and 3% (Morris and Tonry, 1990). Recently, alternative sentencing programs based on these concepts have been designed and implemented specifically for the repeat DWI offender population. An early and limited version of a program of this type in Maryland, described by Voas and Tippetts (1989), combined the use of a short-term (one to four weeks) DWI diagnostic and treatment custody facility and a Drinking Driver Monitor Program that involved weekly contacts with a "Monitor".

The DWI facility involves an intensive therapy and diagnostic process with the goal of developing an individualized outpatient treatment program for the offender. Offenders are charged a daily fee ($33.86) for participation in the facility. Inmates in the DWI facility are referred to the Drinking Driver Monitoring Program for long-term weekly follow up, monitoring and counseling to confirm AA attendance, abstinence and support. Some repeat offenders are ordered directly into the Monitor program by the courts. Monitors can require the offender to submit to a breath alcohol test if they suspect that the offender has been drinking. An evaluation of these programs indicates that multiple offenders assigned to one or both of these programs have one-half the rate of recidivism of multiple offenders who were not assigned to either program. Individuals sentenced to these programs also had a longer period of time before they were re-arrested for a subsequent DWI.

The Maryland program would be considered a limited version of the typical alternative sentence program that has been implemented for felons. The Maryland program was based on a study by Reis (1983), who found that multiple DWI offenders placed in a year-long therapy and after-care program had a lower rate of recidivism than offenders who did not receive such treatment.

Anoka County Repeat DWI Offender Program[12]

An alternative sentencing program for the repeat DWI offender in Anoka County, Minnesota, incorporates the three principles of supervision, sanctions and treatment in a very sophisticated manner. It provides a significantly high degree of supervision of offenders for a period of up to two years. It is flexible and responsive enough to be able to maintain an offender at a level of supervision specifically warranted by the performance and program compliance of the offender. The Anoka program was created in 1987 in response to the concerns the judges had in that county about how to deal with the repeat DWI offender who continues to be re-arrested. There was no available jail space for the long-term housing of these offenders who were subject to incarceration for up to one year upon a conviction for a repeat DWI offense. There were no county funds available for the construction of a new custody facility to incarcerate these offenders, and there were only limited funds for the operation of a non-custody program for these offenders. Minnesota did not and does not have a recidivist-based felony DWI law.

The program takes offenders who have a minimum of three DWI convictions. Convicted repeat DWI offenders in Minnesota are subject to a Gross Misdemeanor jail sentence of one year, all or a portion of which can be suspended or stayed for up to two years.[13] Offenders sentenced to this program receive the maximum one-year sentence with approximately nine months of the sentence suspended on the condition that the offender participate in and complete the repeat-offender program.

It is significant to note that some offenders sentenced to this program request an execution of their full jail sentence and spend their sentence period in jail rather than in the program. These individuals perceive the repeat-offender program as harsher than jail.

The repeat-offender program has four stages, each one less intrusive and restrictive than the prior one. In addition to the three basic principles of supervision, sanctions and treatment, the program is designed so that offenders move gradually from complete external control and supervision to complete independence and internal control.

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[12]Information regarding the Anoka County Repeat DWI Offender Program was obtained from Jerry Soma, Minnesota Corrections Department, Anoka County Courthouse, Anoka, Minnesota 55303.

[13]Minn. Stat. 609.03(2), Minn. Stat. 609.135, Subd. 2(2).

Stage One consists of a jail sentence served in a minimum security work release facility. The program recommends that the jail sentence for this stage should be between 60 and 90 days. An analysis of program data indicates that 73% of the offenders at this stage received a sentence between 30 and 119 days. This is a custody facility and offenders are only allowed out of the facility for work. Offenders who are not employed spend forty hours a week working for a county work crew.

Program staff believe very strongly that a front end period of incarceration is essential for the success of the program. Offenders are able to detoxify and are shown that there is real penalty for their law violation. It is during this stage that the offenders are assessed to determine if they are chemically dependent and, if so, what their treatment needs are. After this assessment is completed the offenders are required to begin participation in AA or other counseling available at the facility.

Stage Two of the program begins after the offender completes the jail sentence. The offender is now permitted to sleep at home (house arrest), but spends all other times either working or at the program facility. It is important to note here that because the program does not require a custody type facility or an overnight stay, the type of facility or structure that the program can operate in can be quite varied. Unused schools, community buildings or any building with the necessary space can be utilized. The Anoka program occupies an unused building at a facility that previously was the regional state mental hospital. This flexibility represents a tremendous cost saving compared to the construction and staffing of a prison or jail. While at the facility, the offender is fed the appropriate meal and participates in treatment, AA or other appropriate groups. The offenders are also required to maintain the facility and work on community service projects.

There are several supervision methods utilized. Daily breath tests are required using portable breath testing devices similar to those used by police officers for roadside breath screening. Offenders can also be required to furnish urine samples if program staff suspect drug use other than alcohol. The offenders are called daily at home by a staff person to verify that they are at their residence. Random home visits are conducted to observe the offenders in their homes. Breath tests are also given during these visits.

The supervision and the hours of the program, every evening and all day and evening during the weekend, contribute to the protection of the public because the offender is effectively denied access to alcohol or a motor vehicle other than the late hours of the evening when he or she is at home to sleep. It should be noted that in Minnesota all DWI offenders are subject to a mandatory license revocation if they fail or refuse to submit to an alcohol concentration test when requested by a police officer. This revocation cannot be stayed or shortened by a court. Thus offenders in the program have no driving privileges and must find their own transportation to and from work and the program. Program staff indicate this may be a problem and would like to obtain a bus to provide transportation for offenders to their place of work, residences and the program facility.

Offenders are required to spend a minimum of two months in this stage of the program. Flexibility exists so that an offender can be kept longer in this stage if it is determined that he or she needs a longer period of a high degree of supervision or additional time in treatment. Offenders whose progress is satisfactory, and who have successfully completed the treatment recommended by the assessment process in Stage One, are allowed to move to Stage Three of the program. Violation of the terms or rules of the program such as late or non-attendance, consumption of alcohol or law violations can result in all, or a portion, of the offender's suspended sentence being executed and requiring the offender to serve all or a portion of his or her remaining sentence in jail.

In *Stage Three* of the program the offenders are no longer on house arrest and are free to move about the community. However, they are still required to be at the facility after work and week-ends. When at the facility, they continue to participate in AA, after-care, or other groups. During this stage the number of days that they are required to be at the facility is gradually reduced to one day a week. This is the transition stage where the offender is learning how to deal with increasing independence. The rate of reduction in program involvement is tailored to the needs of each offender. This is one of the most significant and powerful aspects of the program.

Violations of the rules or terms of the program during this stage can result in increasing the number of days that the offender is required to be at the facility, or execution of all or a portion of the suspended sentence and requiring the offender to serve time in jail.

There is less protection of the public during this stage, but the offender is still subject to breath testing when at the facility. Because they have successfully moved to this stage the offenders have shown that they have been able to refrain from the use of alcohol and remain law abiding. Thus they should need less supervision and should be less of a public safety threat. Offenders are in this stage for a minimum of five months. Successful completion of this stage results in the offender being moved to the fourth and final stage of the program.

Stage Four of the program consists of traditional probation where the offender has minimal contact with program staff and is not required to be at the facility. This stage lasts for the remainder of the offender's probationary period. Violations of the terms of probation during this stage can result in a return to a previous stage of the program, or the execution of all or a portion of the suspended sentence.

An important part of the Anoka program is the requirement that offenders pay for a portion of the cost of the program. Offenders in Stage Two of the program pay $9.00 per day and offenders in Stage Three of the program pay $6.00 per day. In 1990 these fees resulted in the recovery of 60% of the costs of operating the program.

One hundred and ninety eight persons have entered the program since it began. Of that number, 44 have failed to complete it and only 7.5% have been convicted of a new DWI offense. This recidivism rate compares to the statewide 41% recidivism rate for 1988.

Conclusions

The number of repeat DWI offenders arrested each year in Minnesota is in the tens of thousands. The involvement of repeat DWI offenders in alcohol-related fatalities is over thirty percent.

The public demand for long prison sentences for repeat DWI offenders is growing. However, the country's prisons are all overcrowded and it is prohibitively expensive to build and maintain new prisons.

A solution to the problem of the repeat DWI offender maybe the development and use of long-term, alternative-sentencing programs based on the Anoka County model. This program provides reasonable protection of the public through supervision, sanctions through loss of freedom, and treatment and or education to deal with the offender's underlying chemical dependency problems. Because it does not utilize the long-term use of a custody or overnight facility the space and staffing costs are significantly lower than a prison or a jail.

Existing alternative-sentencing programs appear to reduce DWI recidivism. Long-term recidivism and fatality studies for offenders completing these programs must be undertaken in order to determine if these programs do, in fact, reduce the involvement of repeat DWI offenders in alcohol-related traffic fatalities.

Addendum

Incapacitation Alternatives for Repeat DWI Offenders

A consideration of the discussion of the concepts and information from this paper presented at the conference leads to the following policy issues:

1. In light of the large and growing population of repeat DWI offenders, the small percentage of the repeat DWI offender population arrested each year, and the small number of alcohol-related fatalities generated by the repeat DWI offender population, *should society impose any limitation of freedom, other than a driver's license revocation, on arrested and convicted repeat DWI offenders?*

2. *Should additional resources be allocated to developing more accurate predictors of future involvement of repeat DWI offenders in fatality-producing, alcohol-related crashes?*

3. Assuming that significant limitations of freedom over convicted repeat DWI offenders will be adopted and imposed,

   (a) *What degree of limitation of freedom or incapacitation for repeat DWI offenders is acceptable to the public?*

   (b) *What is a reasonable period of time for society to maintain these limitations?*

4. In light of the limited effectiveness of chemical dependency treatment, *should the criminal justice system force or order repeat DWI offenders into treatment?*

5. *Should convicted repeat DWI offenders be required to pay all or a portion of the costs of the incapacitation system they would be subject to?*

REFERENCES

Baer, B. (1991). When Prison Isn't Punishment Enough. *Criminal Justice, 6(1):* 2–8. ABA Section on Criminal Justice Editorial Offices, 750 N. Lake Shore Drive, Chicago, IL 60611.

Jacobs, J. (1990). Toward a jurisprudence of drunk driving recidivism. *Alcohol Drugs and Driving, 6(3–4):* 205–11.

Larivee, J. (1991). Day Reporting In Massachusetts: Supervision, Sanction and Treatment. *Overcrowded Times, 2(1):* 7–8.

Morris, M. and Tonry, M. (1990). *Between Prison and Probation.* New York: Oxford University Press.

Nichols, J. and Ross, H.L. (1990). The effectiveness of legal sanctions in dealing with drinking drivers. *Alcohol, Drugs and Driving, 6(2):* 33–60.

Reis, R.E. (1983) The findings of the comprehensive Driving-Under the Influence of Alcohol Offender Treatment Demonstration Project. *Abstracts and Reviews In Alcohol and Driving, 4(1).*

Tonry, M. (Ed.) (1990a). More prisoners. *Overcrowded Times, 1(5):* 1 [from U.S. Department of Justice, Bureau of Justice Statistics Press Release, October 7, 1990].

Tonry, M. (Ed.) (1990b). Prisoners in America—Another Record Increase. *Overcrowded Times, 1(3):* 1 [from U.S. Department of Justice, Bureau of Justice Statistics, Document NCJ 122716, National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850].

U.S. Department of Transportation (1986). *The Drunk Driver and Jail—The Drunk Driver and the Jail Problem.* Washington, DC: National Highway Traffic Safety Administration.

U.S. Department of Transportation (1989). *A Decade of Progress, Fatal Accident Reporting System.* Washington, DC: National Highway Traffic Safety Administration.

Voas, R. and Tippetts, S. (1989) *The Impact of Treatment and Monitoring On Prince George's County DWI's.* National Public Services Research Institute, DTNH-22-88-C-05125. Washington, DC: National Highway Traffic Safety Administration.

Votey, H.L. and Shapiro, P. (1985). Cost effectiveness of alternative sanctions for control of drunken driving: the Swedish case. In: S. Kaye and G.W. Meier (Eds.), *Proceedings of the Ninth International Conference on Alcohol, Drugs and Traffic Safety, San Juan, Puerto Rico.* Washington, DC: National Highway Traffic Safety Administration (Department of Transportation HS-806-814).

APPENDIX B

REPORTS ON ALCOHOL CONSUMPTION, SOCIETAL AND CRIMINAL JUSTICE SYSTEM COSTS OF ALCOHOL ABUSE AND ALCOHOL TAX RATE REVENUES

RECOMMENDATION TO THE LEGISLATURE FOR LEGISLATIVE ACTION #10

The Minnesota Criminal Justice System DWI Task Force recommends to the legislature that it shift the cost of drunken driving law enforcement, estimated to be more than $35,000,000 annually, from the general taxpayer who now bears that expense to the consumer of alcoholic beverages by enacting the following:

1. A special excise tax based on the alcohol content, regardless of the form of the beverage, e.g. 5 cents per half ounce of alcohol in distilled spirits, 5 cents per half ounce of alcohol in beer and 5 cents per half ounce of alcohol in wine.

2. Appropriate a share of the proceeds to a fund from which governmental units would be reimbursed on a per-service-rendered basis, i.e. a specific amount for each DWI arrest, prosecution, court proceeding, chemical use evaluation, public defender representation when required as well as alcohol-related driver license actions, chemical testing, prevention and education, and other supplementary drunken driver control measures.

This recommendation is based on the following findings of the task force:

1. The main barrier to deterrence of drunken driving is the state's inability to act against more than a very small percentage of drunk drivers who are on our streets and highways at any given time. Individuals who drive after drinking too much alcohol believe that the chance of being caught is slight or non-existent.

2. Significant increases in the costly DWI control efforts are almost out of the question unless a method of financing is found without additional burdens on the local general taxpayer.

3. The tax formula expressed would raise more than $121,000,000 annually and thus could be the source of funding to meet other alcohol-related problems, including alcoholism prevention and treatment, detoxification centers, battered spouse and child abuse programs, sexual assault and other victim services as well as other societal costs related to heavy drinking and alcohol abuse.

4. A 1989 Minnesota survey found that 82% of the public favored increases in alcoholic beverages taxes to pay for drunk driver control rather than increases in other fees or taxes.

LEGISLATIVE ISSUES IN RAISING THE ALCOHOL EXCISE TAX

The fundamental question facing the legislature on this issue will be to weigh the criminal justice, health, and reduced productivity costs associated with excessive alcohol consumption against the loss of jobs in the production, distribution, and sales of alcohol associated with reduced consumption.

The key issues for the Minnesota legislature will be:

1) What is the cost of alcohol abuse including both direct governmental expenditures and indirect private and public costs? Who is paying for these costs now, and how? How much is passed on through property, sales, and income taxes, as well as increased insurance premiums and higher prices?

2) What effect would a tax increase have on per capita consumption of alcohol? How different is the price elasticity for alcoholic beverages for individuals with different levels of income and patterns of consumption?

3) What effect would a reduction in the per capita alcohol consumption have on the frequency and distribution of alcohol problems? What effect would a reduction have on the producers, distributors, and sellers of alcoholic beverages?

4) How much would the increased alcohol tax raise? How would the funds generated by a tax be distributed and for what purpose?

Alcohol costs are generated in many areas. Costs in some areas can be specifically determined, some can be estimated, and some cannot be counted. The frequency of DWI offenses and crashes, liquor law violations, and some health problems, such as fetal alcohol syndrome, which would not occur without alcohol involvement can be specified. Alcohol involvement in crime, health care costs, mortality, reduced productivity, lost employment, domestic and child abuse, and fires can be estimated. The pain and suffering of victims of alcohol related crimes and injuries as well as the personal relationships damaged by alcohol abuse are immense, but immeasurable.

It cannot be argued that alcohol consumption directly causes the harm and resulting social and economic costs, but it can be assumed that a given percentage of alcohol related events would not have occurred if alcohol had not been consumed. This view assumes that alcohol is a precipitating factor rather than a causal factor in the chain of events leading to the harm and associated costs.

In addition to raising funds, some research has shown that an increase in the cost of alcohol will decrease per capita consumption of alcohol, and in turn reduce other alcohol related problems. While individual costs and benefits from this policy will be small, the aggregate net benefit at the societal level will be substantial.

THE COST OF ALCOHOL ABUSE TO THE MINNESOTA CRIMINAL JUSTICE SYSTEM

The cost of processing alcohol related cases through the criminal justice system in Minnesota, from arrest, adjudication, incarceration, and treatment is estimated to be over $264 million dollars for 1987. State and local governments pay 87% of all costs for criminal and civil justice through property, income and sales taxes.

1) Law Enforcement- Although law enforcement agencies do more than arrest criminals, arrests are one indicator that can be used to measure enforcement activity. Minnesota law enforcement agencies recorded 34,664 DWI arrests in 1987, slightly over 1 out of every 5 arrests made that year. Liquor law violations and other alcohol related arrests account for 45-50 percent of all arrests.

	1987 Budget	% alcohol	alcohol costs
City police departments	$240,000,000	33	$80 million
County Sheriffs	$ 91,239,839	25	$22.8 million
*St.Patrol (patrol only)	$ 18,395,000	95	$17.5 million

[* funded by MN Trunk Highway fund]

2) Prosecution and Public Defenders- City and county prosecutors' budgets are difficult to determine since they are classified in other public safety costs or included with general government costs in reports to the state auditor.

	1987 Budget	% alcohol	alcohol costs
Public Defense	$7,643,582	33	$2.9 million
Court appointed Attorney	$4,637,611	33	$1.5 million

3) Adjudication and treatment- A conservative estimate is that half of all criminal cases appearing in the courts are alcohol related. Felonies, gross misdemeanors, misdemeanors and other minor crimes make up 39% of the court's workload. Implied consent cases make only 2% of civil cases, they are the most likely civil case to go to trial. The percentage of alcohol related cases among probate, family and juvenile cases is unknown.

	1987 Budget	% alcohol	alcohol costs
Minnesota Courts	$104,450,407	25	$26.1 million
Court ordered tx (1988)	$8,714,144	74.2	$6.5 million

4) Incarceration- DWI offenders served approximately 34% of all jail days and accounted for 39% of all offenders in Minnesota in 1988. Repeat DWI offenders accounted for three quarters of the jail days. The percentages are higher for the 7 county metropolitan area: 46% of all offenders and 38% of all jail days.

	1987 Budget	% alcohol	alcohol costs
County Corrections	$ 95,979,769	50	$48 million
MN Dept. Corrections	$118,140,000	50	$59 million

The $264 million cost estimate below does not include costs for city or county prosecutors, or the Attorney General's Office.
ESTIMATED ALCOHOL RELATED CRIMINAL JUSTICE COSTS = $264.3 MILLION+++

Other Studies of Minnesota Alcohol Costs

A Minnesota Council on Health study in 1978 estimated the total cost of alcohol and drug abuse problems and social responses to be $929 million in 1976. A 1985 Minnesota Department of Health study estimated alcohol costs in 1983 to be between $1.4 to $2.1 billion. Some of the costs can be compared in the table below.

Minnesota alcohol related costs. (in millions of dollars)

	1976	1983
Alcohol related deaths (lost wages)	$340	$320
Medical care (includes CD treatment)	$259	$206-374
Motor vehicle crashes (property damage and insurance only)	$35.8	$40
Driving and liquor law offenses	$11	$51

MINNESOTA DRINKING PATTERNS

1987 pop. = 4,245,870 - 957,825 under age 15 = 3,288,045 age 15 or more

3,288,045 age 15 or more - 1,078,479 who abstain (32.8%) = 2,209,566 drinkers age 15+

1987 Minnesota Alcohol Consumption

	Beer	Wine	Spirits	TOTAL
1) Volume	98,593 (K)	8,256 (K)	7,689 (K)	114,538 (K)
2) Ethanol	4,437 (K)	1,065 (K)	3,183 (K)	8,685 (K)
3) Gal. per capita	1.3	.32	.94	2.57
4) Adjusted per capita ethanol consumption				3.91

Volume and ethanol in thousands of gallons, per capita consumption in gallons of ethanol based on population age 14 and over, and adjusted for 32.8% abstainers. A standard drink, (12 ounces beer, 5 ounces wine, or 1.5 ounces spirits), contains a 1/2 ounce of ethanol.

Studies have shown that 10% of the drinking population consumes half of the alcohol consumed. This group of around 221,00 people would consume 4,342,000 gallons of ethanol per year. This amounts to nearly 20 gallons per person, or about 14 drinks per day. The remaining 90% of drinkers consume the same amount of alcohol, but at a rate of 2.2 gallons of ethanol per person or slightly over one and a half drinks per day.

A nickel-a-drink tax increase will raise $111 million dollars. The heavy drinking 10 percent would each pay $256 more per year with a nickel-a-drink tax increase, while the 2 million other drinkers would pay $28 per person in increased taxes. Moderate drinkers may not oppose an increase since it will not cost them a great deal of money. If all drinkers drank moderately, 2 drinks per day, the total amount of alcohol consumed in Minnesota would decrease 27 percent.

The Minnesota Dept. of Health's Behavioral Risk Factor Survey has shown no significant changes in self-reported drinking patterns from 1984 through 1987. The following percentages of respondents reported consuming: 1) five or more drinks on an occasion, 2) an average of 60 or more drinks per month, and 3) driving after having too much to drink. A 1989 University of

Minnesota (Twin Cities) survey also shows a high rate of "at risk" drinking patterns by college students.

Minnesota Behavioral Risk Factor Survey: 1985 and 1987

	1985 males & females	1987 males	1987 females	1989 U.of MN
1) Acute drinking	23.3%	32.4%	13.1%	24%
2) Chronic drinking	6.6%	11.7%	2.2%	
3) DWI	6.8%	9.7%	3.1%	11%

MINNESOTA ALCOHOL RELATED REVENUE

Sales Tax: Alcohol is taxed at 2.5% per dollar at on and off sale outlets in addition to the 6% State sales tax. In calendar year 1987, Minnesota collected $83,959,589 in alcohol related sales taxes. Municipal profits: 327 city owned on and off sale liquor stores transferred $8,074,416 in profits to other government funds in 1987. Excise Tax: Minnesota collected $54,576 in alcohol excise taxes in FY 1987 and $55,745,000 in FY 1988. Minnesota excise taxes were last increased for all categories of alcohol on June 1, 1987. The excise tax equals about 1 percent of the total state government expenditure for 1987.

ESTIMATED TOTAL REVENUE COLLECTED IN 1987: $147,779,000
(excise tax, sales tax, and liquor store profits)

Projected Alcohol Tax Revenue

An average priced six pack of beer @ $3.50 would go up 30 cents or 10% with a 5 cent increase in the excise tax. The 6% Minnesota sales tax and the 2.5% alcohol sales tax will add another 3 cents to the price of a six pack of beer for a total price increase of 33 cents. The best overall estimates of the price elasticity of alcohol are typically more than 0.4 but less than 1.0. With this estimate, 10% increase in beer prices would result in a 4% decline in consumption. The actual price, including excise and sales taxes, of typical bottle of liquor would increase $1.23, while a typical bottle of wine would increase 33 cents. Therefore an increase in the excise tax will result in a small decrease in consumption and a net increase in revenue.

The 8.5% sales tax would be applied to the higher prices of alcoholic beverages to raise an additional $9.4 million dollars. The $111 million in increased excise taxes and the additional sales tax account for a total of $120.4 million in new resources.

The legislature has created several designated funds in the past few years. In Minnesota, special Revenue Funds accounted for 18 percent of general fund and special revenue fund expenditures combined in FY 1988 compared to 9 percent in 1984. 33 of 49 states earmark liquor tax revenues, and 20 of those 33 dedicate some of the receipts to local government. Minnesota does not earmark any portion of the alcohol excise tax.

MINNESOTA DATA SOURCES AND BIBLIOGRAPHY

Carter/Locey & Associates. "The Economic Cost of Chemical Abuse in Minnesota." The Minnesota Council on Health. January, 1978.

The Green Book 1989. Fiscal Facts for Minnesotans. Minnesota Taxpayers Association. March 1989.

Harrold, Roger and David Dorman. "1989 Alcohol and Drug Survey." University of Minnesota-Twin Cities Summary Report. November, 1989.

Lehnertz, Mary Jane. Jail Usage in Minnesota: 1988. House Research Department. April 5, 1989.

Minnesota Center for Survey Research. "1989 Minnesota State Survey: Results and Technical Report 90-4. January 31, 1990.

Minnesota Sales and Use Data- Liquor sales and Liquor Taxes. Minnesota Department of Revenue. Alcohol, Tobacco & Special Taxes Division. 1988.

Minnesota State Epidemiology Work Group Proceedings. Chemical Dependency Program Division. Minnesota Department of Human Services. April, 1989.

Parker, David, et. al. "Review and Cost of Alcohol Abuse in Minnesota." Minnesota Department of Health. Minneapolis. 1985.

Rankin Jayne S. "Dedicated Special Revenue." and "Earmarking State Revenue." Minnesota House of Representatives. Research Department. December 1988.

"Revenues, Expenditures, and Debt of the Cities in Minnesota in 1987." and "Revenues, Expenditures, and Debt of the Counties in Minnesota in 1987." Report of the State Auditor of Minnesota. 1989.

Report of the Supreme Court Task Force on financing of the trial courts. January 6, 1989.

Sharon Brooks, Gerald Williams, Frederick Stinson, John Noble. "Surveillance Report # 13: Apparent Per Capita Alcohol Consumption, National, State, and Regional Trends. 1977-1987." CSR, Incorporated, Division of Biometery and Epidemiology. National Institute on Alcohol Abuse and Alcoholism. Sept. 1989.

1988 Minnesota Annual Report on Crime, Missing Children, and Bureau of Criminal Apprehension Activities. Criminal Justice Information Systems Section. Department of Public Safety. 1989.

1987 Minnesota Health Statistics. Minnesota Department of Health. 1989.

1989 Biennial Report. Chemical Dependency Program Division. Minnesota Department of Human Services. 1989.

ESTIMATED ALCOHOL INVOLVEMENT IN 1988 MINNESOTA CRIME AND ARRESTS

Offense	# offenses reported (1*)	# arrests (1*)	% al. related (2)	Estimated # alcohol related arrests
PART I CRIMES				
Murder	123	81	53%	43
Rape	1,333	599	40%	240
Aggravated Assault	6,952	4575	43%	1,985
Robbery	4,079	808	38%	307
PART II CRIMES (less serious)				
DWI	30,917	32,827 (3)	100%	32,827
Liq. Laws	10,025	9,242	100%	9,242
Simple Assault	32,346	21,440	45%	9,648
Burglary	39,154	4,720	47%	2,218
Larceny	119,520	26,859	38%	10,206
Auto Theft	14,603	3,383	46%	1,556
Forgery	4,947	2,098	38%	797
Arson	1,236	301	67%	202
Other sex	5,795	2,269	41%	930
Family/Child	4,468	2,343	33%	773
TOTAL	419,936	175,271	40%	70,974

Narcotics Sale	1,866	
Narcotics Possession	4,814	4% of Minnesota arrests in 1988 were directly drug related
TOTAL	6,680	

1. From the Minnesota Department of Public Safety's publication, Minnesota Crime Information-1988. It is an annual report of criminal activity, arrests, and clearances compiled by the Bureau of Criminal Apprehension from data submitted by individual law enforcement agencies. *St. Paul Police Department does not report Part II (less serious) crimes or arrests.

2. The percentage of crimes that are alcohol related are from a 1977 special report for the National Institute of Alcohol Abuse and Alcoholism which reviewed 27 studies on drinking and criminal behavior. Another 1982 review of studies included 6 additional studies published after the 1977 report. The estimates are based on arrest reports, BAC tests, and self reports of drinking at the time of the event.

3. From DPS's 1988 Crash Facts.

PRESENT MINNESOTA ALCOHOL EXCISE TAX RATE PER DRINK

Distilled Spirits $5.03 per gallon

128 ounces/1.5 oz. per drink= 85.3 drinks per gallon
$5.03 per gallon/85.3 drinks = $0.059 per drink

Beer

$4.60 per 31 gallons over 3.2% alcohol.
31 gallons = 3,968 fluid ounces.
3,968/12 oz. per serving = 330.6 drinks.
$4.60/330.6 = $0.014 per drink.

$2.40 per 31 gallons 3.2% alcohol or less.
$2.40/330.6 = $0.007 per drink.

Wine

14% alcohol or less @ $0.30 per gallon.
128 oz./ 5 ounce servings = 25.6 drinks per gallon.
$0.30/25.6 = $0.012 per drink.

14-21% alcohol @ $0.95 per gallon,
$0.95/25.6 = $0.037 per drink.

24% + alcohol @ $3.52 per gallon,
$3.52/25.6 = $0.138 per drink.

Sparkling wine @ $1.82 per gallon,
$1.82/25.6 = $0.071 per drink.

Cigarettes

Cigarettes taxed at $0.38 per pack,
$0.38 per pack/20 cigarettes = $0.019 per cigarette.

ks because:

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a 90 percent of DWI arrests involve

men and 22 percent of women admit to
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men and 8 percent of women admit to
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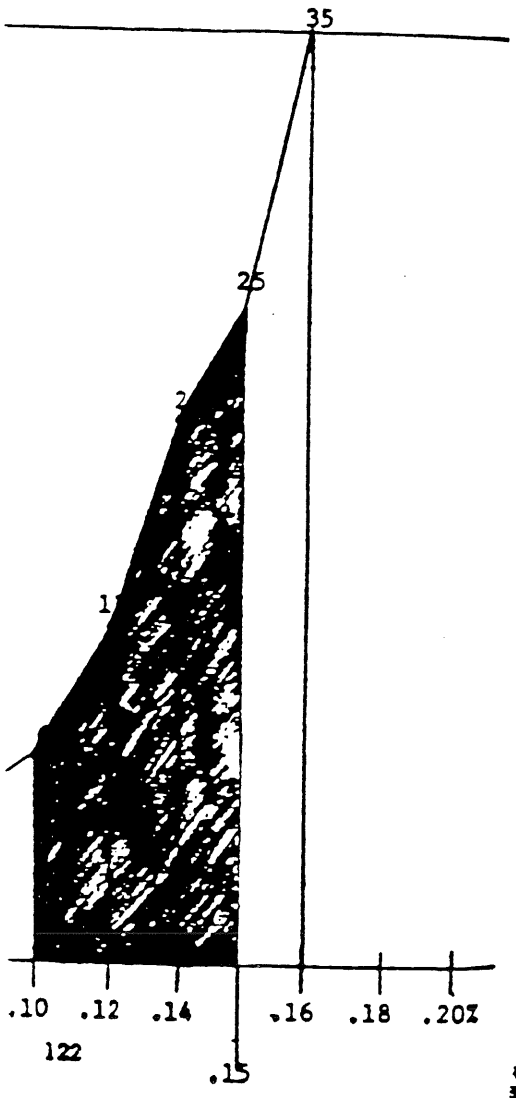
using a crash increases dramatically
below).



ALCOHOL IN OTHER ARRESTS

Various research studies show different but high rates of involvement by alcohol in other offenses.

Example: In December 1969, the Los Angeles Police Department checked the alcohol-involvement of all incidents requiring police intervention and of all arrests:

19.4% of all incidents involved alcohol

71.9% of all arrests involved alcohol

The degree of alcohol-involvement for different categories of arrests was as follows:

Drunk and under the influence	93.7%
Disturbance	82.4%
Burglary and Theft	49.7%
Traffic violation and accident	67.3%
Family and neighborhood dispute	92.3%
Assault with a deadly weapon	78.5%
Miscellaneous	64.7%
All arrests	71.9%

In violent crimes against the person, various studies report the following degrees of alcohol-involvement:

Murders	64%
Assaults	41%
Forcible rape	34%
Other sex crimes	29%

Source unknown

1) The 1977 Survey of Inmates of State Correctional Facilities was the first survey to ask correctional inmates about their alcohol and drug use. The study, conducted by the Bureau of the Census, interviewed 12,000 randomly selected inmates in state prisons throughout the country. The inmates were assured complete confidentiality.

Relevant findings:

Prisoners tended to drink far more than the general population. Almost half the inmates averaged an ounce or more of ethanol each day, as compared to 1/10th of persons age 18 and older of the none-inmate population. While about one-third ofthe general public abstains from alcohol use, only 1/6th of the inmates did.

Almost one half of the inmates claimed they had been drinking just before they committed their crimes. MOre than three-fifths of those drinking before the crime described themselves as drinking very heavily, and nearly three fifths became "pretty loaded" or "very drunk" Rapists and assaulters were most apt to be drinking prior to the offense; forgers and larcenists the least.

NOTE -- FROM THE SURVEY

"...It is tempting to point to very heavy drinking as the proximate cause of many crimes shince 30% of the offenders admitted to such large consumptions prior to their offense. The survey strongly suggests, however, that for many offenders these are typical daily drinking levels."

Therefore, it is reasonable to assume that there were many periods when these inmates were drunk, but did not commit crimes , since many described themselves as drinking a great deal, most days.

Source: Prisoners and ALcohol, Bureau of Justice Statistics in Illegal Drugs and Alcohol -- America's Anguish, Information Aids, Plano, TX, 1985

Statistical Compendium on Alcohol and Health. Feb. 1981
US Dept of Health + Human Services DHHS (ADM) 81-1115

Table 2-11. PROPORTION OF PRISON OFFENDERS DRINKING AT TIME OF CRIME AND PROPORTION DRINKING MODERATELY TO HEAVILY AT TIME OF CRIME BY OFFENSE (MEN ONLY)

Offense	Percent Drinking at Time of Crime	Percent Drinking Moderately or Heavily at Time of Crime	
		Moderately	Heavily
Crimes against Person:			
Homicide:			
Murder	53	10	24
Attempted Murder	48	9	23
Manslaughter	55	11	23
Kidnapping	55	8	34
Sex	57	10	34
Assault:			
Aggravated	62	12	30
Simple and Undetermined	59	11	29
Robbery with Weapon	39	9	20
Robbery without Weapon and Undetermined	41	10	19
Crimes against Property:			
Burglary	47	9	27
Larceny	38	7	23
Motor Vehicle Theft	46	11	31
Forgery	38	12	21
Arson	67	9	39
All Other Crimes	30	8	12
TOTAL	43	9	23

Note: Total Unweighted N = 8711; Total Weighted n = 184,949

Source: National Institute on Alcohol Abuse and Alcoholism. Alcohol, Casaulties and Crime, by Aarens, M.; Cameron, T.; Roizen, J.; Roizen, R.; Room, R.; Schneberk, D.; and Wingard, D. Rockville, Md.: the Institute,1977. p. 370.

100-k

Table 1. Type I Studies: Alcohol in the Event

Casualty	No. of Studies Total	New[1]	Range	Interquartile Range
Accidents (Nontraffic)				
Fatal				
Industry	2	(0)	9-40	—
Aviation	17	(5)	1-63	14-32
Drowning	19	(4)	4-83	34-62
Fire	15	(3)	12-83	30-54
Falls	7	(3)	10-50	21-48
Nonfatal				
Industry	13	(-)	7-47	12-23
Burns	4	(1)	17-61	—
Falls	5	(-)	13-63	23-56
Traffic Accidents				
Fatal				
Drivers	26	(3)	35-64	42-53
Passengers	7	(2)	16-49	25-27
Pedestrians	20	(4)	21-62	31-44
Drivers				
Single-vehicle	17	(1)	51-72	54-63
Multi-vehicle	12	(1)	18-51	24-37
Responsible drivers				
All fatal	7	(1)	45-82	63-73
Multi-vehicle only	2	(-)	31-44	—
Nonresponsible drivers	3	(-)	7-12	—
Nonfatal drivers	3	(-)	6-25	—
Crime				
Arrested Populations				
Homicide offenders	14	(3)	28-86	36-70
Assault offenders	8	(2)	24-72	37-48
Robbery offenders	5	(2)	7-72	12-64
Sex offenders	7	(2)	13-63	31-50
Homocide victims	28	(2)	14-87	47-64
Assault victims	11	(-)	4-79	45-58
Robbery victims	4	(-)	12-69	—
Sex victims	4	(1)	6-48	—
Prison populations				
Offenders	27	(6)	14-100	26-50
Suicide				
Attempters	15	(7)	15-64	25-44
Completers	20	(6)	0-80	20-37
Family Abuse				
Marital violence	7	(3)	21-50	44-48
Child abusers	3	(-)	0-34	—
Child molesters	8	(1)	19-49	32-34

[1] New studies are those not included in the Aarens et al. (1977) review.

Table 2. Type II Studies: Drinking History of Persons in the Event

Casualty	No. of Studies Total	New	Range	Interquartile Range
Accidents (Nontraffic)				
Fatal				
Aviation	1	(1)	8	—
Fire	2	(-)	26-53	—
Falls	1	(-)	44	—
Nonfatal				
Burns	1	(-)	44	—
Traffic Accidents				
Accidents	9	(2)	7-48	22-40
DWIs	9	(-)	3-78	20-69
Crime				
Homicide victims	1	(-)	26	—
Prison populations				
Offenders	39	(9)	6-66	22-43
Suicide				
Attempters	22	(2)	1-33	11-24
Completers	21	(2)	2-48	10-24
Family Abuse				
Marital violence	4	(3)	46-93	—
Child abusers	11	(4)	3-69	24-50
Child molesters	12	(1)	7-67	18-49

As the tables also show, casualty areas differ in the ratio of new studies to old. (A few of the "new" studies reported here are not, in fact, studies carried out since the original report; rather, they are studies that made their way into the English language literature in the period between 1977 and 1980.) Several U.S. studies made cross-casualty comparisons, and contributed estimates to a number of casualty areas (Haberman and Baden 1978; Hudson 1976; Jordan 1977). In several areas, new studies make up a very substantial proportion of studies in our series: e.g., Type I studies: aviation, criminal offenders (prison populations), suicide attempts and fatalities; Type II studies: criminal offenders (prison populations); Type III studies: suicides. Just under half of the 125 or so estimates reported here are found in new studies carried out in the United States. This varies markedly across casualty areas. New U.S. work on alcohol and criminal behavior has been especially limited.

Figures 1 through 4 and tables 1, 2, and 3 show the ranges of findings for the three major types of studies. It must be kept in mind that these studies are predominantly from industrialized countries. U.S. studies have been given special emphasis; in some cases—e.g., research on drinking and criminal behavior—the data are drawn rather heavily from the Scandinavian countries and Finland, which have a long

T-001

Minnesota Tax Handbook

A Profile of State and Local Taxes in Minnesota

1987 Edition

MINNESOTA DEPARTMENT OF REVENUE
Tax Research Division

January 1988

Fiscal Year 1988
Minnesota State Tax Collections
Net After Refunds

	FY 1988 Collections	
	Amount	% of Total
Individual income tax	$2,625,287,000	43.00%
Reciprocity	18,421,000	.30
Corporation franchise tax	410,994,000	6.73
Estate, inheritance, and gift taxes	13,234,000	.22
General sales and use tax	1,678,540,000	27.49
Motor vehicle excise tax	235,927,000	3.86
Motor fuels excise taxes*	391,684,000	6.42
Alcoholic beverage taxes	55,745,000	.91
Cigarette tax	150,207,000	2.46
Tobacco products tax	5,671,000	.09
Controlled substances tax	291,000	**
Charitable gambling and pull tab taxes	15,347,000	.25
Pari-mutuel taxes	6,099,000	.10
Telephone and telegraph gross earnings taxes	99,906,000	1.64
Taconite railroad and other gross earnings taxes	1,453,000	.02
Insurance premiums taxes	126,765,000	2.08
Hazardous waste tax	1,361,000	.02
Solid waste tax	3,062,000	.05
Mining occupation taxes	2,927,000	.05
Mineral royal taxes	2,437,000	.04
Motor vehicle registration tax	251,235,000	4.12
Airflight property tax	7,536,000	.12
Aircraft registration tax	1,522,000	.03
Total State Tax Collections	$6,105,651,000	100.00%

*Includes highway, aviation, railroad, and barge
**Less than .005%

ALCOHOLIC BEVERAGE TAXES

Minnesota Statutes, Section 297C.02

Tax Base: Distilled spirits, beer, malt beverages, wines, and premixed alcoholic beverages manufactured or received for sale in Minnesota.

Rates:

Beer: Alcohol by Weight	Tax per Barrel of 31 Gallons
3.2% or less	$2.40
More than 3.2%	$4.60

	Tax	
	Per Liter	Per Gallon
Distilled Spirits	$1.33	$5.03
Wine: Alcohol by Volume		
14% or less	$ .08	$ .30
14% to 21%	.25	.95
21% to 24%	.48	1.82
More than 24%	.93	3.52
Sparkling wine	.48	1.82

Credits: Small brewers receive a credit of $4 per barrel on the first 25,000 barrels produced each year for sale within Minnesota. To qualify, the brewer must have manufactured less than 100,000 barrels in the preceding year.

Exemptions: Wine for sacramental purposes. Wine or beer made at home. Alcoholic beverages sold to food processors. Beer served on the premises of a brewery at no charge.

Special Provision: Separate tax of 1 cent for each bottle or container of distilled spirits and wine. Tax is paid by the wholesaler at the time of removal from inventory for sale, delivery, or shipment.

Revenue

Collections:	Distilled Spirits	Beer	Wine
F.Y. 1986	$36,513,000	$11,408,000	$3,585,000
F.Y. 1987	$38,619,000	$12,321,000	$3,636,000

Disposition: State General Fund

Administration

Agency: Minnesota Department of Revenue

Who Pays: Wholesalers, distributors, or manufacturers upon acquisition for sale within Minnesota.

Payment Dates: 18th day of month following the month in which sale is made. Accelerated payment of one-half of June liability due June 18th for those with May liability of $1,500 or more.

History of Major Changes

1934 – Enacted at rates of: $1 per barrel of 3.2% beer and $2 per barrel of strong beer; 60 cents per gallon of liquor; and rates for wine varying from 10 cents to 60 cents per gallon.
1937 – Liquor tax increased to $1 per gallon on liquor over 24%.
1947 – Increased rates of tax.
1959 – 3.2% beer taxed at $1.60 per barrel.
– Strong beer taxed at $3.20 per barrel.
– Liquor surtax of 15% imposed.
1969 – Additional tax on liquor from $.04 to $.75 per gallon depending on alcoholic content.
1971 – Distilled spirits from $2.50 to $4.53 per gallon. 3.2% beer from $1.60 to $2 per barrel. Strong beer from $3.20 to $4 per barrel.
– Wine taxes increased.
1973 -- Distilled spirits reduced from $4.53 to $4.39 per gallon.
-- Minnesota brewers' credit enacted.
1976 -- Minnesota brewers' credit amended.
1979 -- Sparkling wine reduced from $3.08 to $1.50 per gallon.
1980 – Minnesota vintners wine taxed at $.17 per gallon.
1985 – Preferential rates for Minnesota vintners repealed.
– Minnesota brewers' credit repealed.
– Small brewers' credit enacted.
1986 – Accelerated June payment enacted. Payment dates changed
1987 – Rates increased: distilled spirits from $4.39 to $5.03 per gallon; all categories of wine -- lowest rate from 27 cents to 30 cents per gallon and highest rate from $3.08 to $3.52 per gallon; 3.2% beer from $2.00 to $2.40 per barrel and strong beer from $4.00 to $4.60 per barrel.
– Payment dates changed.

100-P

Comparison With Other States

	Distilled Spirits Per Gallon	Beer Per Barrel (31 Gallon)	Wine Per Gallon		
			14% or Less	More Than 14%	Sparkling
California	$2.00 ≤ 100 proof $4.00 > 100 proof	$1.24	$ .01	$ .02	$ .30
Illinois	$ 2.00	$ 2.17	$ .23	$ .60	$ .23
Iowa	15% of price	$ 5.89	15% of price	15% of price	15% of price
Michigan	12% - 13% of price[a]	$ 6.30	$ .51[b]	$ .76[b]	$ .51
MINNESOTA	$ 5.03	$2.40 ≤ 3.2% $ 4.60 strong	$ .30	$ .95 - $ 3.52	$ 1.82
New York	$ 1.00 ≤ 24% $ 4.09 > 24%	$ 1.70	$ .12	$ .12	$ .33 - $ .66
North Dakota	$ 2.50	$ 2.48 bulk $ 4.96 bottles and cans	$ .50[c]	$ .60[c]	$ 1.00
South Dakota	$ 3.93	$5.18 ≤ 3.2% $ 8.50 strong	$ .93	$ 1.45 - $ 2.07	$ 2.07
Texas	$ 2.40	$ 6.00	$ .204	$ .408	$ .516
Wisconsin	$ 3.25	$ 2.00	$ .25	$ .45	$ .25

[a] 12% rate applies to on-sale. 13.85% applies to off-sale.
[b] Rates change at 16% rather than 14%. Lower rate for Michigan - produced wine.
[c] Rates change at 17% rather than 14%.

The Cost

of

Alcohol and Drug Problems

to the

Department of Human Services

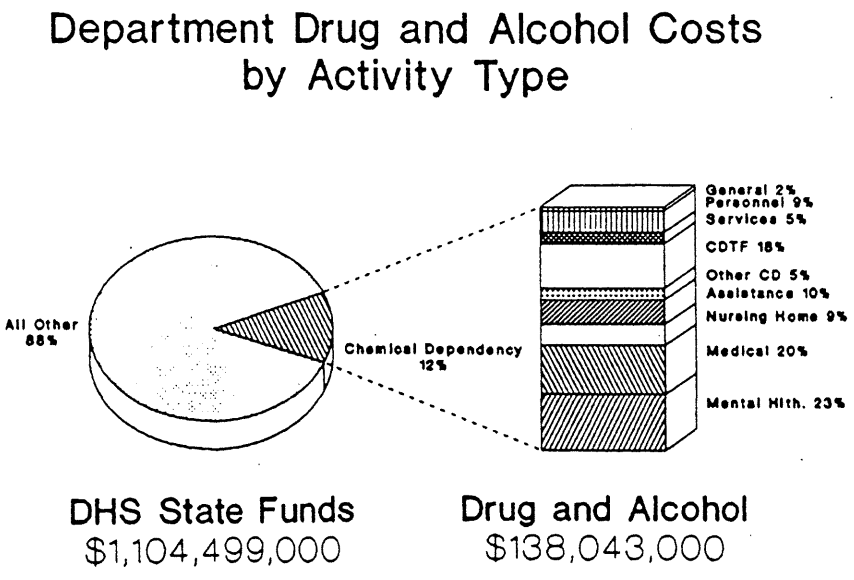
Chemical Dependency Program Division
St. Paul, Minnesota
December, 1989

The Cost of Chemical Dependency To Human Services: Brief Report

The purpose of this short study is to arrive at a reasonable estimate for the cost of alcohol and other drug problems to all of the Department of Human Services budgets. The method was to obtain information on alcohol and drug costs from all cost centers in the Department, as requested in the attached memo. The reports from the divisions of the Department were then analyzed to assure that funds were not reported twice in arriving at a figure for Department costs. Costs are stated in 1989 funds.

1. State Budget Costs.

The report shows that alcohol and drug problems accounted for $138,043,000 of state funds appropriated by the Legislature to the Department, or 12.5% of the entire state appropriated budget for State Fiscal Year 1989. Of this amount, social services provided for related social problems, such as child neglect and abuse, vulnerable adult services, and services to adolescent parents (listed as "Services" in the chart below) account for 4.6% of the cost. 10% of the cost is the state share of income maintenance programs of all types (listed as "Assistance" in the chart below). 20% of the expenditures were due to medical needs that would not have occurred or would have been less expensive to treat if chemical abuse problems were not present. 8.8% of expenditures are the state share of costs due to nursing home services provided due to alcohol or drug abuse problems. 22.9% is spent on mental



health services for people with mental health and chemical abuse problems. 18.2% is spent through the Consolidated Chemical Dependency Treatment Fund on chemical dependency treatment services, and an additional 5% represents grant and administrative activities of the Chemical Dependency Program Division ("CDPD" in the chart above). 8.8% is allocated as the cost that chemical dependency presents to the Department of Human Services in its role as an employer, based on estimates in the literature of drug and alcohol costs in the workplace. Finally, 1.6% of the cost is an allocation of those department functions that serve all department activities generally, according to the

V. RESULTS OF STATE AGENCY SURVEY

With the assistance of the Chemical Dependency Interdepartmental Coordinating Committee (see section VI below) a survey was completed in the fall of 1988 by all state agencies with drug and alcohol-related activities or programs. The survey asked for information on the agency's current alcohol and drug-related programs and budgets; any new requests (either budget or policy-related) that would be submitted to the 1989 Legislature; and any unmet needs that they had identified that are not now being addressed.

This section of the Biennial Report summarizes the information received. It should be noted that the information was current as of December, 1988, and that changes occurred in some of these programs and budgets as a result of the 1989 legislative session (see Section VIII for a summary of the major changes).

A. Current State Agency Drug and Alcohol Programs and Budgets

Exhibit Q summarizes the current drug and alcohol-related programs of the various state agencies as reported in the 1988 survey, as well as their current annual budget.

EXHIBIT Q

1988 State Agency Drug and Alcohol Programs and Budgets

Agency	Program/Activity	Annual Budget
Administration	State Employee Assistance Program (EAP)	$40,000
Corrections	Treatment programs for chemically dependent offenders at Oak Park Heights, Stillwater, St. Cloud, Lino Lakes, Shakopee, Sauk Center, and Red Wing	$876,028
Education	Federal Drug Abuse Prevention Program (Drug-Free Schools and Communities Act)	$2,218,177
	State Aids to School Districts	$1,996,360
	Total (Education)	$4,214,537
Health	Non-Smoking Programs	$1,000,000
	Minnesota Institute for Addiction and Stress Research	$200,000
	Total (Health)	$1,200,000
Human Services	Grants for prevention, treatment, special populations, American Indian programs, training, Research/ Evaluation, Administration	$4,815,500 ($1,768,500 State, $3,047,000 Federal)

Exhibit Q (cont.)

Agency	Program/Activity	Annual Budget
	Consolidated Chemical Dependency Treatment Fund	$39,853,700 ($26,216,300 State, $3,750,000 Federal $9,887,400 County)
	Total (Human Services)	$44,669,200
Jobs and Training	Job Training and Placement	$1,500,000
Public Safety	Alcohol Screenings and Chemical Use Assessments for DWI offenders	$1,431,000
State Planning	Anti-Drug Abuse Funds	
	- Narcotics Control	$2,078,000
	- Community-Based Prevention	$1,418,760
	Total (State Planning)	$3,496,760
University of Minnesota	Research	$4,237,054
	Service (counseling, EAP services, treatment)	$495,989
	Training	$369,500
	Total (University of Minnesota)	$6,102,543
GRAND TOTAL	(All State Agencies)	$63,530,068

B. 1989 Budget Requests for Drug or Alcohol Programs by State Agencies

Exhibit R presents new requests for funding submitted by state agencies in their 1990-91 biennial budget requests, as these were identified in December, 1988.

1990 POPULATION, ALCOHOL RELATED TRAFFIC DEATHS AND INJURIES, DWI ARRESTS, LIQUOR VENDORS, AND LIQUOR SALES BY COUNTY.

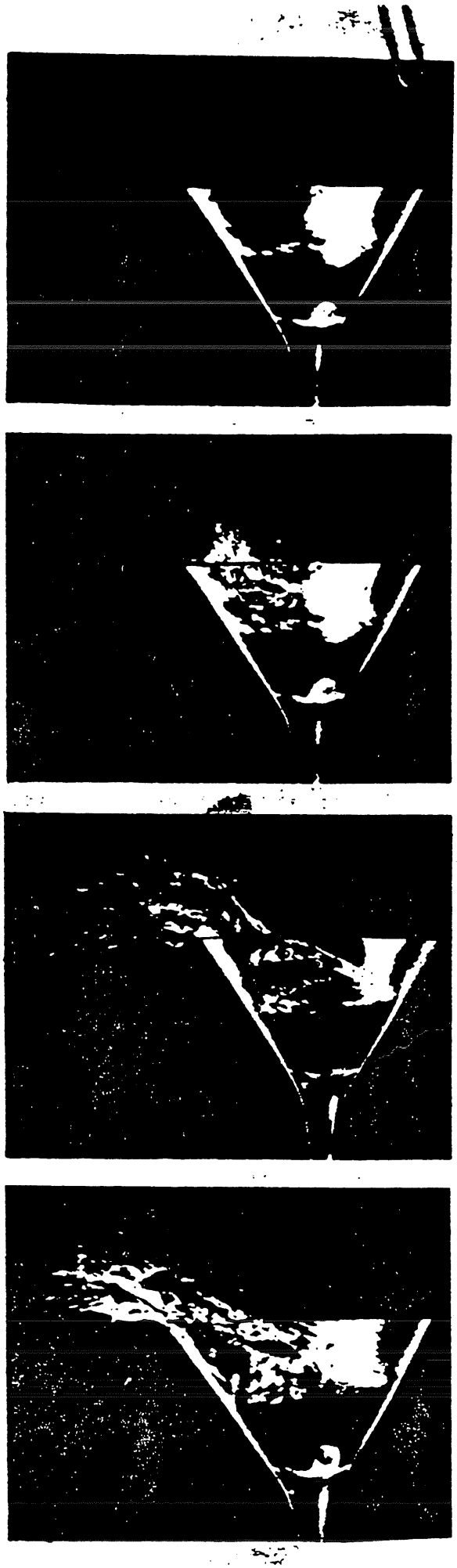
COUNTY	POPULATION	ALCOHOL RELATED TRAFFIC DEATHS	ALCOHOL RELATED TRAFFIC INJURIES	DWI ARRESTS	LIQUOR VENDORS	LIQUOR SALES
AITKIN	12,425	2	23	28	43	$3,499,640
ANOKA	243,641	16	384	2,226	127	$41,895,680
BECKER	27,881	4	73	277	48	$6,104,000
BELTRAMI	34,384	3	76	374	56	$8,845,520
BENTON	30,185	9	50	151	45	$5,932,080
BIG STONE	6,285	1	15	26	13	$955,440
BLUE EARTH	54,044	0	75	446	76	$14,546,680
BROWN	26,984	2	34	180	48	$6,276,920
CARLTON	29,259	5	56	169	61	$6,312,880
CARVER	47,915	4	106	406	72	$9,122,400
CASS	21,791	4	84	180	65	$5,812,840
CHIPPEWA	13,228	2	27	39	19	$2,602,760
CHISAGO	30,521	2	68	410	45	$5,560,560
CLAY	50,422	3	61	690	59	$9,460,000
CLEARWATER	8,309	0	16	76	16	$1,629,880
COOK	3,868	1	11	39	34	$3,109,160
COTTONWOOD	12,694	1	14	42	14	$1,476,400
CROW WING	44,249	4	84	484	129	$16,891,640
DAKOTA	275,227	12	256	2,898	233	$61,740,080
DODGE	15,731	0	23	65	19	$2,134,240
DOUGLAS	28,674	2	51	192	51	$8,421,360
FARIBAULT	16,937	0	17	94	30	$3,116,880
FILLMORE	20,777	0	23	82	57	$3,232,960
FREEBORN	33,060	0	28	302	52	$5,872,200
GOODHUE	40,690	0	64	538	58	$7,538,320
GRANT	6,246	0	7	59	12	$990,880
HENNEPIN	1,032,431	21	1,511	10,563	872	$348,559,760
HOUSTON	18,497	2	34	223	39	$2,305,440
HUBBARD	14,939	3	54	128	32	$3,002,760
ISANTI	25,921	1	50	135	12	$2,927,960
ITASCA	40,863	6	96	299	82	$9,352,080
JACKSON	11,677	1	21	55	20	$1,610,800
KANABEC	12,802	2	28	150	14	$1,933,400
KANDIYOHI	38,761	4	67	424	44	$7,678,760
KITTSON	5,767	0	6	39	14	$996,520
KOOCHICHIN	16,299	3	67	220	48	$7,373,560
LAC QUI PA	8,924	5	11	14	15	$1,353,800
LAKE	10,415	1	10	54	16	$2,209,280
LAKE OF WO	4,076	0	4	28	22	$1,725,440
LE SUEUR	23,239	0	47	82	62	$5,365,040
LINCOLN	6,890	0	0	13	11	$758,400
LYON	24,789	1	31	235	38	$5,032,320
MCLEOD	32,030	2	67	300	38	$5,916,200
MAHNOMEN	5,044	1	18	74	14	$788,680
MARSHALL	10,993	2	23	36	16	$1,567,480
MARTIN	22,914	0	32	122	37	$4,989,240
MEEKER	20,846	0	32	162	17	$2,579,040
MILLE LACS	18,670	4	53	151	34	$4,407,320
MORRISON	29,604	6	54	278	68	$5,632,120
MOWER	37,385	2	38	217	64	$6,834,800
MURRAY	9,660	0	9	12	14	$1,411,000
NICOLLET	28,076	0	32	172	35	$4,262,000
NOBLES	20,098	0	14	141	31	$2,931,120
NORMAN	7,975	0	2	54	11	$1,016,800
OLMSTED	106,470	5	147	764	99	$24,282,720
OTTER TAIL	50,714	5	78	344	77	$8,324,680
PENNINGTON	13,306	0	24	108	13	$3,441,440
PINE	21,264	3	72	146	32	$4,353,640
PIPESTONE	10,491	0	18	96	15	$1,562,320
POLK	32,498	3	67	252	51	$8,459,520
POPE	10,745	1	17	68	18	$1,928,520
RAMSEY	485,765	19	674	3,232	506	$148,701,760
RED LAKE	4,525	0	9	36	10	$753,960
REDWOOD	17,254	0	14	86	39	$3,033,320
RENVILLE	17,673	2	28	87	27	$3,100,200

RICE	49,183	3	72	460	53	$9,537,840
ROCK	9,806	0	10	11	14	$1,214,400
ROSEAU	15,026	1	12	168	17	$2,389,640
ST. LOUIS	198,213	6	327	975	387	$49,798,000
SCOTT	57,846	4	121	795	81	$16,379,640
SHERBURNE	41,945	5	79	495	29	$6,824,360
SIBLEY	14,366	2	13	71	28	$1,994,280
STEARNS	118,791	2	226	982	218	$33,325,840
STEELE	30,729	4	30	205	38	$5,698,760
STEVENS	10,634	0	9	55	14	$1,776,000
SWIFT	10,724	0	10	48	15	$2,044,120
TODD	23,363	4	41	187	37	$3,661,480
TRAVERSE	4,463	0	3	17	12	$547,440
WABASHA	19,744	2	47	141	48	$3,628,280
WADENA	13,154	0	23	62	21	$2,501,480
WASECA	18,079	3	17	93	38	$3,100,840
WASHINGTON	145,896	9	180	1,535	145	$25,138,280
WATONWAN	11,682	0	14	67	20	$1,625,480
WILKIN	7,516	0	9	37	14	$1,028,280
WINONA	47,828	1	125	380	108	$9,142,680
WRIGHT	68,710	6	110	616	71	$12,851,160
YELLOW MED	11,684	1	9	61	18	$1,131,480
MINNESOTA	4375099	235	6,762	37,534	5515	$1,090,884,360

DATA SOURCES: 1990 CENSUS, OFFICE OF TRAFFIC SAFETY, STATE PATROL BUREAU OF CRIMINAL APPREHENSION, DEPARTMENT OF REVENUE.

RAY LEWIS
DPS-DVS
12/17/91

REVIEW AND COST OF ALCOHOL ABUSE IN MINNESOTA



Minnesota Department of Health

July 1985

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EXECUTIVE SUMMARY

This report examines the costs incurred as a result of alcohol abuse and alcoholism. The application of cost figures to the problem of alcohol abuse is not an attempt to transform human values into dollars. It is an attempt to illustrate the magnitude of problems associated with alcohol abuse. The scope of the problem can be seen by examining alcohol-related death, injury, and disability and their associated costs. In 1983, 1,100 deaths in Minnesota were attributable to alcohol abuse. This represented 3% of total statewide mortality.

We estimated the cost of alcohol abuse by analyzing its involvement in multiple areas: health care (treatment and support), mortality, reduced productivity, lost employment, motor vehicular crashes, driving and liquor law offenses, child abuse, fetal alcohol syndrome, and fires. Some costs such as unreported, nonfatal injuries, the suffering of the victims of alcohol-related crimes and injuries, and personal relationships broken by alcohol abuse cannot be estimated. We concluded that alcohol abuse cost Minnesota between $684 million and $1.95 billion in 1983 (Table 1, Figures 1 and 2). This represents between 1.4% and 4.0% of all personal income in Minnesota during that year.

This report does not claim a causal relationship between alcohol and specific events. For example, in the section on crime it is not argued that alcohol caused the crime, rather it is our assumption that a given percentage of crime would not have occured had there not been prior use of alcohol. We recognize that alcohol acts as a precipitating factor in a causal chain of events.

In the measurement of overall alcohol consumption, the distinction between abusers and non-abusers is difficult to quantify. Whenever possible the term alcohol abuse is used to refer to all misuse of alcohol regardless of degree. It may refer to a single episode of misuse such as driving while impaired by alcohol or it may refer to addictive use of alcohol, i.e. alcoholism.

CHAPTER OVERVIEWS

* **Chapter I: Drinking Patterns in Minnesota**

  This chapter examines the patterns of alcohol use and consumption in Minnesota. Based on state and national data an estimated 10% - 15% of Minnesotans over 14 years of age abuse alcohol. Men abuse alcohol more often than women. An estimated 35% of the population never drinks. In 1983 the average per capita purchase by those over 14 years of age was 9.75 liters of ethanol. This converts to slightly over 130 liters of alcoholic beverages sold per year to those over 14 years of age. (In this report we use the word alcohol to refer to all alcohol-containing beverages. The term ethanol refers to the absolute alcohol contained in those beverages.)

* **Chapter II: Alcohol-Attributable Deaths in Minnesota**

Alcohol abuse was linked to 1,100 deaths in 1983. These deaths were the result of injuries (57%), digestive diseases (23%), mental disorders (14%), cancers (5%), heart disease (less than 1%), and infectious diseases (less than 1%).

* **Chapter III: Economics of Alcohol Abuse**

The guidelines used in economic calculations in this report are similar to those developed by the Research Triangle Institute (Harwood, et al., 1984) and the U.S. Public Health Service (Hodgson and Meiners, 1979). These costs are either direct or indirect. Direct costs are the value of resources that could have been allocated elsewhere in the absence of disease. Indirect costs are the value of lost productivity and idle resources.

* **Chapter III.A: Alcohol-Attributable Direct Health Care Costs**

Direct health care costs are the costs of personal health care expenditures resulting from the prevention, diagnosis, and treatment of alcohol-related disease and injury. These costs totaled **$211 million in 1983.** This comprises approximately 4% of all personal health care expenditures in Minnesota.

* **Chapter III.B: Alcohol-Attributable Indirect Mortality Costs**

Indirect mortality costs are the estimated costs of lost income and productivity resulting from premature death due to alcohol-related disease and injury. The estimated value of lost earnings from the 1,100 alcohol-related deaths was **$321 million in 1983.**

* **Chapter III.C: Employment Losses to Industry**

Alcohol has been shown to be related to increased short and long term absenteeism resulting from injuries and illness. It has been estimated that 10% of American workers have employment problems related to alcohol. Short term employment losses totaled $111 million, but are included as part of the reduced productivity estimate. Long term employment losses totaled **$72 million in 1983.**

* **Chapter III.D: Reduced Productivity**

Reduced productivity is the largest single cost attributable to alcohol abuse. It is estimated that alcohol abusers are 14% to 21% less productive than non-abusers. This reduced productivity cost Minnesotans between $630 million and $945 million in productivity losses from employed workers. If the imputed value of housekeeping services is included, these losses ranged between $796 million and $1.19 billion in 1983. This range of values is presented in a

separate column of Table 1 and should be considered separately because of the magnitude of the estimates. Productivity losses secondary to alcohol abuse have not been extensively studied.

* Chapters III.E - III.I:

In 1983 there were 280 motor-vehicular fatalities and 9,652 collisions and injuries related to alcohol abuse. These events cost $128 million. To avoid duplication, when medical and lost income costs were excluded from this estimate, the remaining costs of property and insurance losses totalled $40 million. There were 41,311 liquor law and driving while intoxicated offenses costing $51 million. Property damage from alcohol-related fires cost $3 million. An estimated 26.6% of child abuse cases were attributed to alcohol abuse. These cases cost approximately $17 million. Two-hundred children were born with fetal alcohol syndrome. This represents the single most preventable cause of birth defects and cost $42 million in 1983.

* Appendices:

The appendices examine the degree to which alcohol contributes to the following illnesses and events: cancer, pancreatitis, cirrhosis, suicide, and homicide. Costs relating to these problems are calculated in Section III.A through III.D.

AMERICAN JOURNAL OF Public Health reprint

The Social and Economic Costs of Alcohol Abuse in Minnesota, 1983

DAVID L. PARKER, MD, MPH, JAMES M. SHULTZ, MS, LOIS GERTZ, RUTH BERKELMAN, MD, AND PATRICK L. REMINGTON, MD, MPH

Abstract: Alcohol abuse in the State of Minnesota has an impact on health, health care resources, and the economy. Alcohol abuse was related to 3.3 per cent (1,150) of deaths in Minnesota in 1983; of these, almost one-third were the result of fatal injuries. Alcohol abuse contributed to 12 per cent (33,909) of all years of potential life lost, two-thirds of which were secondary to injury. The estimated cost of alcohol abuse ranged from $1.4 billion to $2.1 billion, representing from 2.8 per cent to 4.3 per cent of all personal income of Minnesotans, from 32 per cent to 50 per cent of State expenditures, and from 26 to 39 times the alcohol excise tax revenues generated in 1983. Alcohol-related direct medical care costs were estimated to be at least $216 million, 3.8 per cent of Minnesota medical costs for 1983. Costs of reduced on-the-job productivity and short-term absenteeism related to alcohol abuse were estimated to be between $630 million and $1.2 billion. The documentation of the costs of alcohol abuse is an important step in the campaign to reduce alcohol-related deaths, morbidity, and health care costs. (*Am J Public Health* 1987; 77:982–986.)

Introduction

The consequences of alcohol abuse are significant, not only in terms of adverse health effects and health care costs, but also in terms of lost earnings and decreased productivity. Nevertheless, these consequences are not inevitable and public health interventions have reduced morbidity and mortality associated with alcohol abuse.[1] Before planning interventions intended to reduce the burden of alcohol abuse, policy makers must be aware of the nature and extent of the problem.

In 1984, the Governor of Minnesota, recognizing alcohol abuse as a potentially preventable public health problem, directed the Minnesota Department of Health to determine the economic and social impact of alcohol abuse on the state. We examined three areas of alcohol-related disease impact: mortality costs, including years of potential life lost; morbidity costs; and social costs.[2]

Methods

Alcohol-related mortality and associated economic costs were determined from a literature review and unpublished data from the Minnesota Departments of Health, Public Safety, Natural Resources, Human Services, and the Minnesota State Fire Marshal. Data from these departments were used to determine the total number of alcohol-related deaths and deaths by diagnostic category[3] in 1983. National data were used when state and regional data were unavailable.*

The number of alcohol-related motor vehicular deaths was derived from two data sources compiled by the Minnesota Department of Public Safety: autopsies done on those fatally injured in a motor vehicular crash, and police accident reports. Those with a blood alcohol concentration of 0.05 g/dl or greater at autopsy were considered alcohol-related.[4] Blood alcohol concentration was obtained on 72 per cent of those fatally injured in 1983. When no blood alcohol concentration was available, a death was considered alcohol-related if the police accident report indicated that, in the opinion of the reporting officer, the victim was impaired by alcohol at the time of the motor vehicular crash.

Deaths due to drownings and watercraft accidents were obtained from a review of data compiled by the Minnesota Department of Natural Resources. Deaths were considered alcohol-related if the report of the investigating officer indicated the presence of alcohol at the accident scene. We considered all deaths with no indication of alcohol use (affirmative or negative) to be unrelated to alcohol.

To determine the number of alcohol-related deaths from causes other than those due to motor vehicular crashes, drownings, and watercraft accidents, disease-specific alcohol-attributable percentages were derived from a review of the literature and applied to all deaths in specific diagnostic categories. The alcohol-attributable percentage was considered that portion of the disease caused by alcohol.[5] The number of alcohol-related deaths was determined by multiplying the disease-specific alcohol-attributable percentage by the number of deaths in each category (Table 1).[6–22]

Years of potential life lost were calculated using life expectancies taken from life tables for Minnesota. For those who died as a result of drowning or motor vehicular crashes, years of potential life lost were calculated for each event and summed. For those who died from all other causes, alcohol-attributable percentages were applied in five-year intervals.

Indirect mortality costs are the estimated costs of lost income and productivity resulting from premature death due to alcohol-related disease and trauma. The human capital method for valuing life and the standard procedures for calculating the present value of future earnings and household services were used.[23] A 4 per cent discount rate was used to convert projected future earnings into current-valued dollars.[24,25]

For each alcohol-related diagnosis, alcohol-related indirect mortality costs for lost earnings were calculated by five-year age increments as follows[23]:

Number of deaths × Present value of future earnings × Alcohol attributable % = Cost of lost future earnings. These costs were summed for all diagnoses.

Alcohol-related costs secondary to medical care (often referred to as direct costs)[25] include personal health care expenditures for the prevention, detection, treatment, and rehabilitation of alcohol-related diseases (hospital costs, physician fees, medication costs, nursing home costs, dental services, and other health care charges), and nonpersonal

*Readers wishing to reproduce all or part of these results may obtain a complete report by writing the first author, Dr. David L. Parker.

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TABLE 1: THE COST OF ALCOHOL ABUSE IN MINNESOTA IN 1983

CATEGORY OF COST	VALUE (in dollars) EXCLUDING PRODUCTIVITY LOSSES	VALUE (in dollars) INCLUDING PRODUCTIVITY LOSSES
DIRECT COSTS		
Treatment	$ 200,000,000	$ 200,000,000
Support	11,000,000	11,000,000
INDIRECT COSTS		
Mortality	320,000,000	320,000,000
Morbidity		
reduced productivity		630,000,000 - 1,194,000,000
employment losses (long-term)		72,000,000
RELATED COSTS (Direct & Indirect)		
Motor Vehicular Crashes (property and insurance only)	40,000,000	40,000,000
Driving and Liquor Law Offenses	51,000,000	51,000,000
Child Abuse	17,000,000	17,000,000
Fetal Alcohol Syndrome	42,000,000	42,000,000
Fires (property damage only)	3,000,000	3,000,000
RANGE OF TOTAL COSTS	**$684,000,000**	**$1,386,000,000 - 1,949,000,000**

TABLE 1—Alcohol-Related Mortality, Minnesota, 1983

Diagnostic Category/Diagnoses	Total Deaths	% Alcohol-Related	Alcohol-Related Deaths	Selected References
Injuries	2047	31	638	
Motor vehicular crashes	558	50	280	*
Accidental falls	309	41	127	6, 7
Suicide	443	26	115	7, 8
Injuries caused by fires	72	42	30	9, 10
Homicide	76	42	32	6, 7, 8
Drownings	60	30	18	*
Alcohol Poisoning	9	100	9	**
Watercraft Injuries	23	35	8	*
Other alcohol-related injuries	172	11	19	11, 12
All other injuries	325	0	0	
Digestive Diseases	1132	22	251	
Alcoholic cirrhosis	140	100	140	**
Other cirrhosis	194	50	97	11, 12, 13
Acute pancreatitis	29	41	12	14, 15
Chronic pancreatitis	3	67	2	15, 16
All other digestive diseases	766	0	0	
Neoplasms	7399	2	153	
Cancer of esophagus	104	75	78	17, 18
Cancer of oral cavity	100	47	47	17, 19, 20
Cancer of larynx	45	49	22	17, 19, 20
Cancer of liver	39	15	6	19, 21
All other cancers	7111	0	0	19, 22
Mental Disorders	263	22	57	
Alcoholic psychoses	5	100	5	**
Alcoholism	44	100	44	**
Alcohol abuse	8	100	8	**
All other mental disorders	206	0	0	
All Other Diagnostic Categories	23,060	1	11	
Alcoholic cardiomyopathy	9	100	9	**
Respiratory tuberculosis	8	25	2	11, 12
Other diagnoses	23,043	0	0	
TOTALS	33,901	3	1110	

*Minnesota surveillance data.
**Alcohol-related by definition.

costs such as health insurance administration costs, research, and medical facilities construction costs (see Appendix).

To provide a range of estimates, two methods were used to calculate personal medical costs, i.e., one using morbidity and the other mortality data. A third method was used to calculate nonpersonal costs (see Appendix).[2,6-30]

Six categories of alcohol-related social costs were considered: 1) reduced productivity; 2) motor vehicular-related property damage and insurance; 3) incarceration; 4) fires; 5) fetal alcohol syndrome; and 6) child abuse.

The estimate for reduced productivity reflects both excess short-term absenteeism[31,32] and on-the-job reductions in productivity[11,33] due to alcohol abuse. The estimated decrease in on-the-job productivity ranges from 14 per cent to 21 per cent.[11,33,34] The 14 per cent estimate was derived by Berry and Boland and adjusted for sociocultural differences.[33,34] The 21 per cent estimate was derived from multivariate analysis of the National Institute on Alcohol Abuse and Alcoholism survey data[35] on alcohol use and controlled for age, gender, race, marital status, education, and occupation.

The number of workers in each cohort was obtained from the Minnesota Department of Labor.[36] The proportion of workers in each age-gender cohort with alcohol abuse problems was derived by the Research Triangle Institute from the 1979 National Household Survey on Alcohol Abuse. Four symptoms were found to be related to decreased productivity: binge drinking, tardiness or absence from work due to hangover, alcohol-related marital problems, and arrests for drinking and driving.[11] Earnings, wage supplements, and imputed household value, were estimated for each age-gender cohort. Part-time workers were assumed to work half-time.[23,37,38]

For each age-gender cohort, the following calculations for reduced productivity were made:

Number of people in the work force × Proportion of workers with alcohol abuse problems × Earnings × Productivity decrease attributable to alcohol = Cost of alcohol-related reduced productivity

Four estimates of alcohol-related productivity losses were computed: lost income due to alcohol abuse was estimated at both 14 per cent and 21 per cent of on-the-job productivity and these percentages were applied to two income estimates, including and excluding imputed household value.[11,33,34] Costs were then summed for all age-gender cohorts. Additional costs due to long-term disability from alcohol-induced illness, trauma, and residential treatment for alcoholism were extrapolated from national data.[11]

Alcohol-related motor vehicular crashes were grouped into five categories, i.e., those with: a death, incapacitating injury, non-incapacitating injury, possible injury, and property damage only.[4] For each category, wage losses, medical expenses, insurance and property damage costs were calculated.[39] Alcohol-related property and insurance costs were summed separately to avoid duplicating medical and mortality costs presented previously.

The number of driving-while-intoxicated and liquor-law offenses, as well as the cost per offense, was obtained from the Minnesota Department of Public Safety. This cost estimate included police patrol, processing, and prosecution, but not incarceration (personal communication, Minnesota Department of Public Safety). The per diem incarceration cost for these offenses was averaged for all counties based on the number of days served per offense and the county cost per day. These figures were obtained from the Minnesota Department of Corrections and from site visits to regional workhouses.

The State Fire Marshal attributed $41 million in property damage to residential and lodging fires in 1983.[40] It was estimated that 7.1 per cent of these fire losses could be attributed to alcohol involvement.[10]

The annual number of cases of fetal alcohol syndrome was estimated by applying the national rate of three fetal alcohol syndrome cases per 1,000 live births[41] to the number of births in Minnesota (65,559) in 1983. This estimate included both full and partial expression of fetal alcohol syndrome characteristics. Using this estimate, approximately 200 Minnesota children were born with full or partial fetal alcohol syndrome.

Factors considered in determining the costs of fetal alcohol syndrome included the type and cost of lifetime diagnosis, treatment, care, and services of the most common birth defects associated with fetal alcohol syndrome[11,12] as applied to prevailing Minnesota rates for care and service in 1983 (unpublished data, Minnesota Department of Public Welfare, 1983).

The cost of social services to the group defined as families experiencing child abuse or neglect was estimated to be $64 million in 1983. Based on previously reported studies of alcohol-associated child abuse, alcohol was estimated to be involved in 27 per cent of these cases.[42]

TABLE 2—Alcohol-Related Years of Premature Life Lost (YPLL) in Minnesota, 1983

ICD Code No.	Diagnostic Category	Male YPLL		Female YPLL	
		Years	Per Cent	Years	Per Cent
001–139	Infectious Diseases	15	1	11	1
140–239	Neoplasms	1,681	7	635	7
290–319	Mental Disorders	1,062	4	402	4
390–459	Circulatory System	182	1	28	1
520–579	Digestive System	3,402	14	2,298	24
E800–999	Injuries	17,929	74	6,264	65
TOTAL		24,271	100	9,638	100

TABLE 3—The Cost of Alcohol Abuse in Minnesota, 1983

Category of Cost	Value of Losses (in 1983 US dollars)
Mortality Costs (Indirect)	320,000,000
Medical Care Costs (Direct)	
Treatment	195,000,000–383,000,000
Support	11,000,000
Social Costs (Direct and Indirect)	
Reduced productivity employment losses	630,000,000–1,194,000,000
Long-term disability	72,000,000
Motor Vehicular Crashes (Property and insurance only)	40,000,000
Driving and Liquor Law Offenses	51,000,000
Fires (Property damage only)	3,000,000
Fetal Alcohol Syndrome	42,000,000
Child Abuse	17,000,000
Total Costs (Without employment and long-term disability losses)	679,000,000–847,000,000
Total Costs (With employment and long-term disability losses)	1,381,000,000–2,113,000,000

Results

Of the 33,901 deaths in Minnesota in 1983, 1,110 (3.3 per cent) were alcohol-related (Table 1). Fatal injuries accounted for 638 (57.5 per cent) of statewide alcohol-related deaths (Table 1). Of the 558 motor vehicular fatalities reported to the Minnesota Department of Public Safety, 280 (50 per cent) were alcohol-related. Blood alcohol concentration was over 0.05 g/dl for 155 (55 per cent), and 125 (45 per cent) were reported by police as intoxicated.

Of the 60 drowning deaths, 18 (30 per cent) were alcohol-related. Similarly, of the 23 watercraft deaths, 8 (35 per cent) were alcohol-related. This assumed there was no alcohol involvement in drowning and watercraft deaths for which there was no information on alcohol use (Table 1).

There were age- and gender-specific differences in the rate of alcohol-related mortality. The greatest number of deaths occurred in people over 55 years of age. However, the proportion of alcohol-related deaths was highest for adolescents and young adults. There were over 350 alcohol-related deaths per 1,000 persons who died between 15 and 24 years of age compared to fewer than 10 per 1,000 deaths for those 75 and older.

Overall, there were an estimated 289,139 person-years of potential life lost from all causes in Minnesota in 1983. Alcohol contributed to 33,090 (12 per cent) of these years of potential life lost. The major contributor to alcohol-related death was injury which accounted for 7 per cent of all years of potential life lost and 68 per cent of alcohol-related years of potential life lost in Minnesota (Table 2).

The estimated 1,110 alcohol-related deaths for 1983 represented the equivalent of $320 million in lost future earnings in present valued (1983) dollars (Table 3).

In 1983, Minnesota health care costs were estimated at $5.7 billion.[27] According to the mortality comparison method, alcohol-related medical care costs were $363 million (6.4 per cent), and by the morbidity comparison method, alcohol-related costs ranged from $195 million to $288 million (3.4–5.1 per cent) of total health care costs.

Using data compiled by the Chemical Dependency Program Division of the Minnesota Department of Public Welfare, it was estimated that $107 million of these medical costs resulted from alcohol and combined alcohol/drug abuse treatment costs. Alcohol-related support costs which include the costs of program and health insurance administration, research, and medical facilities construction were estimated at $11 million.

Estimates for reduced productivity ranged from $630 million, using a 14 per cent reduction in productivity and without including imputed household value, to $1.19 billion, using a 21 per cent reduction in productivity and including imputed household value. These calculations were adjusted for age, gender, and employment rates.

Property damage and insurance costs from alcohol-related motor vehicular crashes were estimated at $40 million. In addition, there were 41,311 driving-while-intoxicated and liquor-law offenses accounting for 33 per cent of all arrests and 193,000 days of incarceration. Each arrest cost an estimated $1,052, and each day of incarceration $38. The combined cost for these offenses was $51 million. Alcohol-related fires cost an estimated $3 million. Approximately 200 children were born with fetal alcohol syndrome. Care for these children was estimated at $42 million, and alcohol abuse contributed to an estimated $17 million of the known cost of child abuse.

Our study shows that the total cost of alcohol-related problems in Minnesota was between $1.4 and $2.1 billion for 1983. To put this figure in perspective, it represents between 2.8 per cent and 4.3 per cent of personal income (i.e., non-farm income was approximately $49.4 billion). This amount also represents between 26 and 39 times the revenues generated by excise taxes on alcohol for 1983 (i.e., $53.3 million), and is an amount equivalent to between 32 and 50 per cent of all state expenditures for 1983 (i.e., $4.24 billion). Low-range summary estimates of $206 million for medical costs represent 3.8 per cent of personal health care expenditures for Minnesota in 1983.

Minnesota and national alcohol-related cost estimates are similar in both methodology and the distribution of costs. The low-range summary estimate of $206 million (3.8 per cent) for medical costs corresponds to the national figure of $9.5 billion, representing 4.3 per cent of 1980 US personal health care expenditures ($219.4 billion).[12] Minnesota indirect mortality costs of $320 million contributed between 15 and 23 per cent of alcohol costs; national costs associated with alcohol-related mortality ($14.5 billion) represented 16.2 per cent of total costs. The productivity loss estimate coupled with long-term disability costs represented between 50 per cent and 60 per cent of Minnesota costs and approximately 61 per cent of national cost estimates.

Discussion

Cost-of-illness studies provide a comprehensive framework for estimating alcohol-related costs. The Minnesota

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survey again emphasizes that a study of alcohol related costs should not be restricted to medical costs attributed to alcohol abuse but should include productivity losses and societal costs in order to gain a better perspective on the true costs of alcohol abuse.

Sources of error in the computation of alcohol-related costs include:

- imprecision in alcohol-attributable percentage estimates for both morbidity and mortality;
- incomplete data on the patterns of medical care utilization by level of habitual alcohol consumption;
- the coarse aggregation of economic data into large disease categories; and
- error in underlying assumptions such as the discount rate and imputed household value.

Estimates of alcohol-attributable percentages for both morbidity and mortality from alcohol-related diagnoses need refinement. The two components of the attributable risk calculation—prevalence and relative risk—are inadequately measured due to inconsistent definitions of alcohol abuse and inconsistent measures of alcohol consumption. For a number of diagnoses, relative risk data are based upon clinical case or autopsy series rather than epidemiologic investigations. When relative risk data exist they are rarely age- and gender-specific. Finally, for the calculation of direct health care treatment costs, the proportion of cases attributable to alcohol is presented as a range, often of great breadth.

Application of mortality ratios (alcohol-related deaths/total deaths) to the problem of alcohol abuse appears to be insufficient to estimate costs, since most of the costs of alcohol abuse arise from nonfatal disease and injury. Use of morbidity ratios (alcohol-related patient days/total patient days) may provide a partial solution, allowing estimates of costs to reflect actual use of inpatient services. However, two limitations remain:

- patient days must be multiplied by the best available attributable-risk estimates (and those estimates are poor); and
- morbidity ratios for inpatient hospitalization are imperfect measures of other medical care utilization

It became apparent during this study that surveillance data on alcohol abuse and alcoholism are inadequate despite the fact that these problems have a large social and economic impact. Although this report evaluated many social problems, there is no measure of alcohol as a cause of pain and suffering. The documentation of the consequences of alcohol abuse is an important step toward reducing alcohol-related morbidity and mortality. To aid state-based cost estimates, data collected by state agencies on motor vehicular crashes, fires, injuries, violence, divorce, child abuse, and other anti-social behaviors should include the role of alcohol involvement. Finally, alcohol should be included on death certificates as an underlying or contributing cause of unnatural death when the physician feels it was contributory.

This report on alcohol-related morbidity was patterned after an earlier report on smoking generated by the Minnesota Department of Health in 1983 and released in 1984.[27] This earlier report was distributed to state legislators and, in response, the 1985 legislative assembly passed the Omnibus Nonsmoking and Disease Prevention Act.[43] This Act funded statewide smoking intervention curricula for Minnesota youths, promoted nonsmoking campaigns and intervention efforts, and raised state excise taxes on cigarettes. Similarly, the report on alcohol-related morbidity and mortality has recently been distributed to all state legislators. In recent months it has been used to support legislation regarding an increase in excise taxes on alcohol and an increase in the legal drinking age. In addition, the report has been used in budget hearings related to alcohol treatment and prevention. In order to direct public health interventions and educate policy makers, more resources are needed to improve the type and quality of data collected.

APPENDIX

The computations of personal medical and nonpersonal medical support costs were made in the following manner:

Mortality Comparison Method

For each disease, alcohol-related costs were calculated by multiplying the ratio of alcohol-related deaths to total deaths (as determined previously) by the estimated 1983 health care costs within six diagnostic groups (infectious diseases, injuries, digestive diseases, cancers, mental disorders, and diseases of the heart).[26,27] Costs by diagnostic group were obtained by distributing estimated total 1983 Minnesota health costs[28] according to the distribution of 1980 US health care costs obtained from the National Center for Health Statistics.[29] All costs were summed.

Morbidity Comparison Method

Because a large share of alcohol-related use of medical services is for nonfatal injury and illness, a "morbidity comparison" calculation was used. In this method, patient days for alcohol-related diagnoses were determined using hospitalization data from the Commission on Professional and Hospital Activities. These data divide all diagnoses into approximately 400 categories and provide tabulations of episodes of care and average lengths of stay for a large sample of US hospitals.[30] For alcohol-defined diagnoses such as alcoholism, all patient days were considered alcohol-attributable. For other alcohol-related diagnoses, patient days were multiplied by low, middle, and high estimates of alcohol attributable percentages.[11] Alcohol-attributable patient days were computed as (episodes of care) × (average length of stay) × (alcohol-attributable per cent). Total patient days were computed as (episodes of care) × (average length of stay).

Minnesota 1983 health-care costs were distributed among diagnostic groups as described in the mortality comparison method, based on 1980 national cost data. For each disease category, the following sequence of calculation was made:

Alcohol-related patient days ÷ Total patient days × Health care costs for the diagnostic group = Cost of alcohol-related patient days

The costs for each diagnostic group were then summed to produce total alcohol-related costs. This final step was performed separately for the low, middle, and high range estimates.

Medical Support Costs

Alcohol-related medical support costs were comprised of block grant and National Institutes of Health (NIH) funding for alcohol research and a prorated estimate of health insurance and program administration costs. For the latter, it was assumed that alcohol contributed to 3.8 per cent of costs, the lower limit of alcohol-related medical care costs.

REFERENCES

1. Reed DS: Reducing the costs of drinking and driving. *In* Moore MH, Gerstein DR (eds): Alcohol and Public Policy: Beyond the Shadow of

Prohibition. Washington DC: National Academy Press, 1981.
2. Parker DL, Shultz JM, Gertz L: Review and Cost of Alcohol Abuse in Minnesota. Minneapolis: Minnesota Department of Health, 1985.
3. US Department of Health and Human Services: International classification of diseases 9th Rev. Clinical Modification. Vol. 1. Washington, DC: GPO, 1980.
4. Minnesota Department of Public Safety: Crash Facts. St Paul: MDPS, 1983.
5. Schlesselman JJ: Case-Control Studies Design, Conduct, Analysis. New York: Oxford University Press, 1982.
6. Abel E, Zeidenberg P: Alcohol and violent death—Erie County, New York, 1973–1983. MMWR 1984; 33:226–227.
7. Haberman PW, Baden MM: Alcoholism and violent death. Q J Stud Alcohol 1974; 35:221–231.
8. Berkelman RL, Herndon JL, Callaway JL, Stivers R, Howard LB, Bezjak A, Sikes RK: Fatal injuries and alcohol. Am J Prev Med; 1985; 1:21–28.
9. Berl WG, Halpin B: Human fatalities from unwanted fires. Fire J 1979; 73:105–123.
10. Johns Hopkins University: Fire problems program. Annual Summary Report, July 1, 1972–June 30, 1973. Laurel, MD: Applied Physics Laboratory, 1973.
11. Harwood HJ, Napolitano DM, Kristiansen RL, Collins JF: Economic costs to society of alcohol and drug abuse and mental illness: 1980. Research Triangle Park, NC: Research Triangle Institute, 1984.
12. Cruze A, Harwood H, Kristiansen P, Collins J, Jones D: Economic costs of alcohol and drug abuse and mental illness: 1977. Research Triangle Park, NC: Research Triangle Institute, 1981.
13. Hyman MM: "Alcoholic," "unspecified" and "other specified" cirrhosis mortality: A study in validity. J Stud Alcohol 1981; 42:336–343.
14. Jacobs ML, Dagget WM, Civette JM: Acute pancreatitis: Analysis of factors influencing survival. Ann Surg 1977; 185:43–51.
15. Copenhagen Pancreatitis Study Group. Copenhagen pancreatitis study: Interim report. Scand J Gastroenterol 1981; 16:305–312.
16. Murat TT, Morgan A: Pancreatitis. I. Review of 733 cases of pancreatitis from three Seattle hospitals. Northwest Med 1968; 67:374–378.
17. Rothman K, Keller A: The effect of joint exposure to alcohol and tobacco on risk of cancer of the mouth and pharynx. J Chronic Dis 1972; 25:711–716.
18. Lowenfels AB: Alcoholism and the risk of cancer. Ann NY Acad Sci 1975; 252:366–373.
19. Rothman KJ: The proportion of cancer attributable to alcohol consumption. Prev Med 1980; 9:174–179.
20. Flanders WD, Rothman KJ: Interaction of alcohol and tobacco in laryngeal cancer. Am J Epidemiol 1982; 115:371–379.
21. Breedon JH: Alcohol, alcoholism and cancer. Med Clin North Am 1984; 68:163–177.
22. Dean G, MacLennan R, McLoughlin H, Shelley E: Causes of death of blue collar workers at a Dublin brewery, 1954–1973. Br J Cancer 1979; 40:581–589.
23. Rice DP, Hodgson TA, Kopstein AN: The economic costs of illness: A replication and update. Health Care Financ Rev 1985; 7:61–80.
24. Hodgson TA, Meiners MR: Cost of illness methodology: A guide to current practices and procedures. Milbank Mem Fund Q 1982; 60:429–462.
25. Hodgson TA, Meiners MR: Guidelines for cost of illness studies in the Public Health Service. Bethesda: Public Health Service, 1979.
26. Shultz JM: Perspectives on the economic magnitude of cigarette smoking. NY State J Med 1985; 85:302–306.
27. Minnesota Department of Health: The Minnesota plan for nonsmoking and health: Report and recommendations of the technical advisory committee on nonsmoking and health. Minneapolis: MDH, 1984.
28. Dowd B: Presentation and analysis of selected health care cost data. Minneapolis: University of Minnesota, Center for Health Services Research, 1984.
29. Hodgson TA, Kopstein AN: Health care expenditures for major diseases in 1980. Health Care Financ Rev 1984; 5:1–12.
30. Commission on Professional and Hospital Activities: Length of stay by diagnosis, North Central Region, 1981. Ann Arbor: CPHA, 1982.
31. Thorpe JJ, Perrett JT: Problem drinking: A follow-up study. AMA Arch Indust Health 1959; 19:24–32.
32. Pell S, D'Alonzo CA: Sickness absenteeism of alcoholics. JOM 1970; 12:198–210.
33. Berry RE, Boland JP: The Economic Cost of Alcohol Abuse. New York: Free Press, 1977.
34. Luft HS: The impact of poor health on earnings. Rev Econ Stat 1975; 57:43–57.
35. Clark W, Midanik L: Alcohol use and alcohol problems among US adults: Results of the 1979 National Survey. *In:* Alcohol and health monograph I. U.S. Department of Health and Human Services, National Institute on Alcohol Abuse and Alcoholism, DHHS Pub. No. (ADM) 82-1190, 1982.
36. Minnesota Department of Economic Security: Rev Labor Econ Conditions 11; August 1984.
37. US Department of Labor, Bureau of Statistics: Employment and earnings 31; May, 1984.
38. US Department of Labor, Surv Curr Bus, Table 1.11, July 1983.
39. National Safety Council: Estimating costs of accidents, 1983. Chicago: National Safety Council Bulletin, 1983.
40. Minnesota Department of Public Safety: 1983 Annual Report: State Fire Marshal. St. Paul: MDPS, 1984.
41. Clarren SK, Smith DW: The fetal alcohol syndrome. N Engl J Med 1978; 298:1063–1067.
42. Minnesota Department of Human Services: Minnesota Child Maltreatment Report. St. Paul: MDHS, 1977, 1978; 1979, 1980.
43. Shultz JM, Moen ME, Pechacek TF, Harty KC, Skubic MA, Gust SW, Dean AG: The Minnesota plan for nonsmoking and health: The Legislative Experience. J Public Health Policy 1986; 7:300–313.

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Fact Sheet

Alcoholic Beverage Excise Taxes

Presently, excise taxes are imposed on a specified volume rather than on alcoholic content or a "per drink" criteria. Present rates are as follow.

Distilled Spirits	$ 1.33/liter
Table Wine	$ 0.08/liter
Sweet Wine	$ 0.25/liter
Sparkling Wine	$ 0.48/liter
Strong Beer	$ 4.60/barrel (31 gallons)

When broken down per drink, the rates are as follow.

Distilled Spirits	$ 0.059/drink
Table Wine	$ 0.014/drink
Sweet Wine	$ 0.044/drink
Sparkling Wine	$ 0.085/drink
Strong Beer	$ 0.014/drink

Based on 1991 consumption, a per drink tax on alcoholic beverages would raise the following revenue.

Projected New Revenue
(in thousands)

Beverage	1 cent	2 cents	3 cents	4 cents	5 cents
Spirits	6,256	12,528	18,800	25,072	31,344
Strong Beer	9,929	19,771	29,613	39,454	49,296
3.2 Beer	24	47	71	94	118
Table Wine	1,180	2,385	3,590	4,795	6,000
Sweet Wine	70	142	215	288	360
Champagne	117	237	358	478	598
TOTAL	**17,576**	**35,110**	**52,647**	**70,181**	**87,716**
9 percent sales tax[1]	1,582	3,160	4,738	6,316	7,894
GRAND TOTAL	**19,158**	**38,270**	**57,385**	**76,497**	**95,610**

For comparitive purposes, total alcohol excise taxes paid in 1991 were approximately $55 million.

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[1] 6.5 percent general sales tax plus a 2.5 percent additional tax on retail (on-sale and off-sale) purchases.

Alcoholic Beverage Excise Taxes

Comparison of Five State Area
(ranked highest to lowest)

Beer		Liquor	
South Dakota	$ .025	Minnesota	$ .059
Iowa	.018	South Dakota	.046
North Dakota	.015	Wisconsin	.038
Minnesota	.014	North Dakota	.029
Wisconsin	.006	Iowa[2]	n/a

Table Wine		Sparkling Wine	
Iowa	$ .082	South Dakota	$ .097
South Dakota	.044	Minnesota	.085
North Dakota	.047	Iowa	.082
Minnesota	.014	North Dakota	.047
Wisconsin	.012	Wisconsin	.012

From a revenue standpoint, the important figures above are the rates on beer and liquor, which account for 94 percent of Minnesota excise tax revenue (26 and 68 percent respectively).

Special Alcohol Taxes

In addition to the excise tax, Minnesota imposes an additional sales tax of 2.5 percent on all alcoholic beverages. North and South Dakota also impose comparable special taxes. North Dakota imposes a 2 percent sales tax on all alcoholic beverages, while South Dakota imposes a 2 percent wholesale tax on all beverages except beer. Wisconsin and Iowa have no comparable special taxes.

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[2] Iowa has a state liquor monopoly with a 50 percent mark-up on spirits. It is likely that the implicit monopolistic tax is, at least, equal to Minnesota's tax.

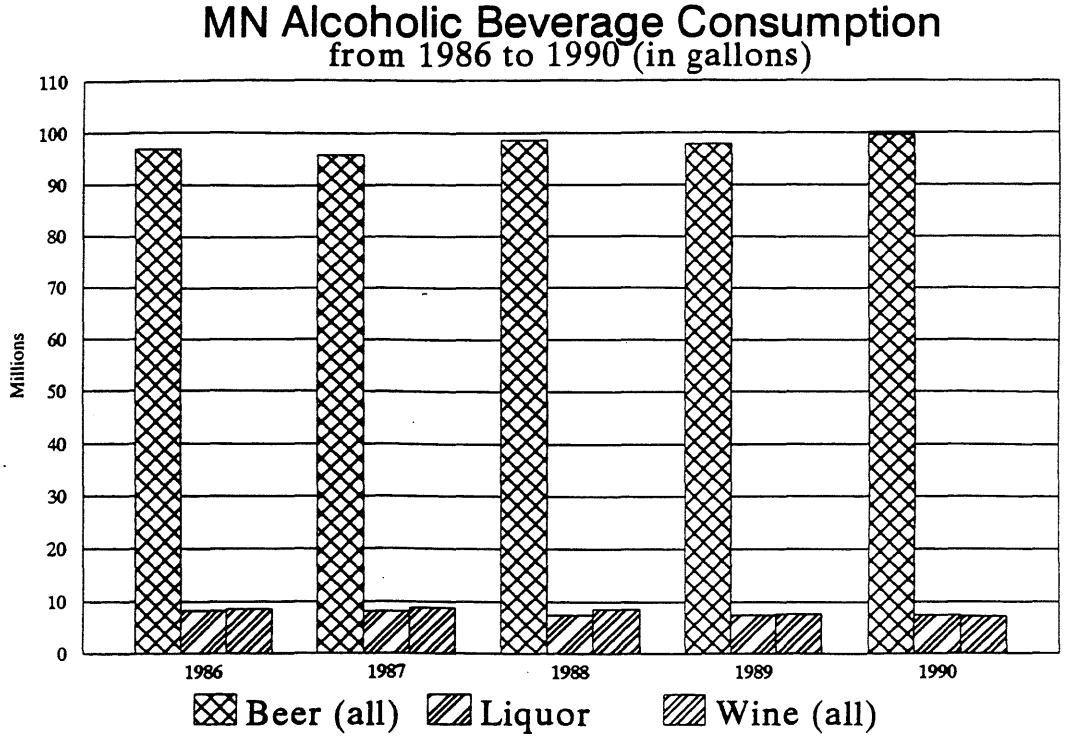
Alcoholic Beverage Consumption
(gallons)

Year	Beer (all)	Liquor	Wine (all)
1986	96,873,295	8,179,408	8,475,747
1987	95,904,669	8,074,115	8,770,707
1988	98,664,196	7,486,412	8,473,982
1989	97,824,127	7,465,210	7,658,586
1990	99,624,359	7,495,606	7,155,719

1986 to 1990 consumption trends:

Beer -- 2.8 percent increase
Liquor -- 9.4 percent decrease
Wine -- 15.6 percent decrease

The overall trend in liquor and wine consumption has been a gradual decline. Beer consumption, on the other hand, has actually increased since 1986.



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The Taxes of Sin

Do Smokers and Drinkers Pay Their Way?

Willard G. Manning, PhD; Emmett B. Keeler, PhD; Joseph P. Newhouse, PhD; Elizabeth M. Sloss, PhD; Jeffrey Wasserman, PhD

We estimate the lifetime, discounted costs that smokers and drinkers impose on others through collectively financed health insurance, pensions, disability insurance, group life insurance, fires, motor-vehicle accidents, and the criminal justice system. Although nonsmokers subsidize smokers' medical care and group life insurance, smokers subsidize nonsmokers' pensions and nursing home payments. On balance, smokers probably pay their way at the current level of excise taxes on cigarettes; but one may, nonetheless, wish to raise those taxes to reduce the number of adolescent smokers. In contrast, drinkers do not pay their way: current excise taxes on alcohol cover only about half the costs imposed on others.

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POOR health habits, such as smoking and heavy drinking, carry costs not only for smokers and heavy drinkers, but for everyone else as well. Concern about these costs has prompted not only health-promotion efforts, but also proposals to increase both federal and state excise taxes on cigarettes and alcohol. For such taxes to be at an economically efficient level, they must at least cover the costs to others that arise from smoking and heavy drinking. We term the costs to others *external* costs, in contrast to those borne by the smoker or heavy drinker, which we term *internal* costs.

Some external costs are obvious, for example, the damage caused by drunk driving and passive smoking; others are more subtle, for example, the higher medical costs of smokers that are financed by health insurance premiums and payroll taxes. Such premiums and payroll taxes are the same for smokers and nonsmokers (unlike individual life insurance premiums). As a result, nonsmokers may subsidize smoking.

Our purpose in this article is to quantify external costs. Earlier estimates of the costs of smoking and drinking[1,2] (Office of Technology Assessment, unpublished data, 1985) are not suitable for analysis of taxes because they do not always distinguish between internal and external costs, nor do they calculate the lifetime costs of poor health habits.

METHODS

External Costs and Their Estimation

We illustrate our conceptual framework in terms of smoking, but the same principles apply to our analyses of drinking.

Table 1 illustrates the division between the internal and external costs of smoking. In the case of alcohol abuse, we also consider the costs of motor-vehicle accidents and criminal justice.

One goal of an economically efficient tax on smoking or tobacco is to have the smoker bear the costs that he imposes on others when deciding whether or how much to smoke. Costs imposed on other family members, however, are difficult to classify as internal or external because it is not clear whether those costs would, in any event, be taken into account by the smoker. If they would be, then they are internal costs. Although our base-case estimates classify such costs as internal, we show the effect of treating certain costs borne by other family members as external.

A simple example that considers only medical costs may clarify the division between internal and external cost. Suppose a worker has a group health insurance policy that pays 75% of his medical bills, and suppose that smoking a pack of cigarettes per day raises medical bills by $6000. The amount the worker pays, $1500 ($0.25 \times 6000 = 1500$), is a component of internal costs. Because the smoker does not pay higher premiums that reflect his or her higher costs, the remainder of the cost, $4500, is a component of external costs.

To estimate external costs, we should not contrast the medical and other expenses of smokers to nonsmokers, because nonsmokers differ from smokers in other ways that affect the various components of cost such as medical expenses. For example, according to the 1983 National Health Interview Survey (NHIS), those who never smoke are 1.5 times more likely than current smokers to have more than a high school education. Rather, we contrast smokers to a hypothetical group of "nonsmoking smokers," people who are like smokers in age, sex, education, drinking habits, and several other ways described herein, except that they have never smoked.[3] To test how sensitive our estimates are to differences between smoking and not smoking, however, we also contrast medical and other costs of smokers to those of actual nonsmokers.

Our methods estimate lifetime costs by tracking expenditures for two hypothetical cohorts of men and women from age 20 years to death. One cohort smokes; the other does not. We develop life tables for each cohort showing the probability of surviving to each age from age 20 years. These tables come from applying estimates of the relative risk of smoking to the 1980 life tables of the US population.[4] Relative risk was estimated by applying the 1984 Centers for Disease Control health risk appraisal program[5] to the ever smokers in our sample twice—once with their actual smoking status and once with their smoking status changed to "never smoked."

In judging any policy that has long-term effects, it is important to discount future costs, thereby making costs that occur at different times commensurate. A dollar received today is worth more than a dollar received 15 years from now (even without inflation). A current dollar can be invested and earn interest so that at the end of 15 years it will be worth more than $2 (at 5%). Because the proper rate of discount is controversial, we have computed results for rates that span the range between 0% and 10%.

The expected net external costs per pack are the sum of the immediate costs

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per pack and the cumulating lifetime costs per pack. We assume that the costs of fires, motor-vehicle accidents, and criminal justice are immediate; ie, each cigarette or ounce of ethanol has a certain probability of causing such costs in the immediate period after purchase, but once the cigarette is smoked or the alcohol consumed, the probability drops quickly to zero. For such costs, we divide estimated national annual costs by the annual packs (or excess ounces). The cumulative net lifetime external costs are given by the following:

$$\sum_{t=20}^{95} \delta^{t-20} \times P(A|H)_t \times C(H)_t$$

$$-\sum_{t=20}^{95} \delta^{t-20} \times P(A|NH)_t \times C(NH)_t,$$

where δ indicates the annual discount factor $(1/[1+r])$ if r is the discount rate; $P(A|H)$, the probability of surviving from age 20 years to at least age t years, conditional on smoking; $C(H)$, the annual costs minus taxes and premiums for smokers of age t; $P(A|NH)$, the probability of surviving from age 20 years to at least age t years, conditional on not smoking; and $C(NH)$, the annual costs minus taxes and premiums for smokers of age t years if they had never smoked.

The external costs come from collectively financed programs, including health insurance, pensions, sick leave, disability insurance, and group life insurance. These programs are financed by taxes and premiums that do not differentiate between smokers and nonsmokers. Because smokers have shorter life expectancies, they will pay less of the taxes and premiums that finance these programs. To simplify the calculation of how much smokers and nonsmokers pay annually to finance these programs, we assume that each pays the same proportion of earnings, where the proportion is just enough to finance these programs.[6] The discounted, expected lifetime costs per pack are calculated by dividing the lifetime costs by the expected number of packs smoked in a lifetime.

In estimating the external costs of smoking and drinking, we relied on self-reported consumption. Because people underreport their consumption, we have corrected for the difference between actual and reported use. The reported number of packs per day was multiplied by 1.5, and reported alcohol consumption was multiplied by 2.5.[7,8] Our figures for pension income have been corrected for a 21% rate of underreporting.[9]

Our estimates are based on data from a number of sources. The primary source for those under age 60 years is The RAND Corporation's Health Insurance Experiment (HIE), because of its detailed information regarding habits and the medical reasons for the utilization of medical care.[10,11] Because persons aged 62 years or older at the time of enrollment were excluded from the HIE sample of 5809 persons, we used data regarding persons greater than age 59 years from a 1983 supplement to the NHIS. It included information regarding health habits, health care use, and work loss in a sample of 22 418 persons. In addition, we compared the 1983 NHIS results for nonelderly persons with those from the HIE. We have inflated all cost data to 1986 dollars using the consumer price index.

We estimated differences in spending for medical care services between those with and without each habit. Such differences, of course, may or may not be caused by the habit. We addressed this ambiguity in two ways. First, we controlled for the confounding characteristics described in the next section. Second, although our base-case estimates include all medical services except maternity services and well care, we examined their sensitivity to considering only costs that arise from diagnoses thought to be directly related to smoking and excessive drinking, such as cancer of the lung and cirrhosis of the liver.

In addition to medical expense, we estimated the difference in days lost from work between persons with and without each habit, controlling for the confounding variables described herein. The collectively financed cost of days lost from work was computed by multiplying the daily wage by 0.38, the employers' average share of the cost of work loss through covered sick leave.[12]

When estimating the cost of drinking, we controlled for smoking status, and conversely. Had we not done so, we would have attributed some of the costs of smoking to drinking if smokers tend to drink heavily. We classified persons as former cigarette smokers, current cigarette smokers, current pipe or cigar smokers, and never smokers based on their responses to a smoking history questionnaire filled out at the time of enrollment in the study. We classified persons as abstainers, former drinkers, and current drinkers based on responses to the same questionnaire. We collapsed information regarding the current drinkers' consumption of beer,

Table 1.—Costs of Smoking

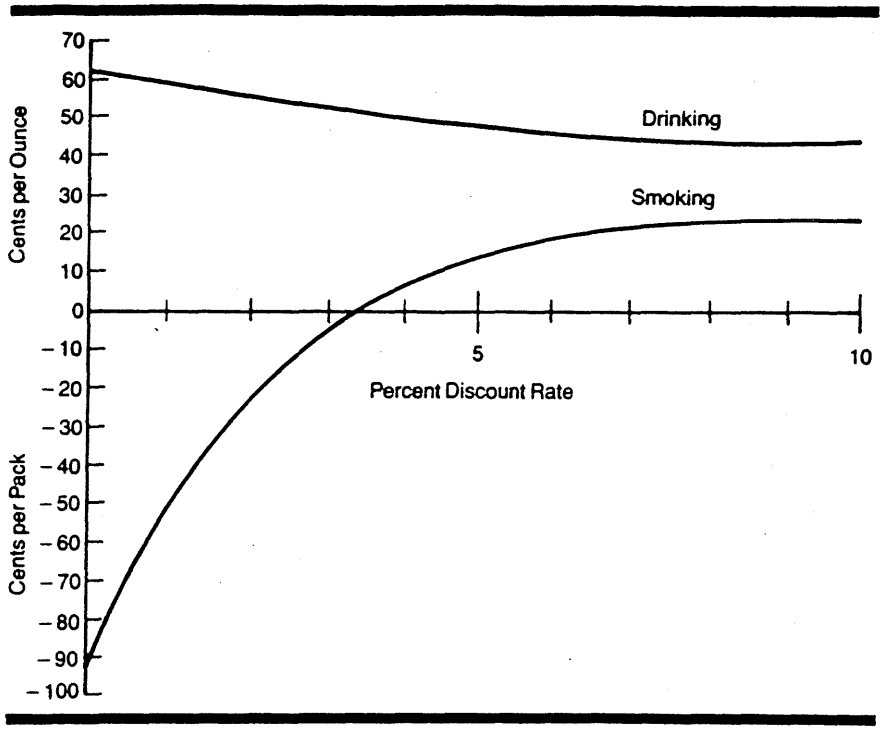
Type	Internal	External
Premature death	Smoker and family*	Coworkers and others*
Pain and suffering	Smoker and family*	Coworkers and others*
Medical costs	Copayments	Insurance reimbursements
Sick leave	Uncovered sick loss†	Covered sick loss†
Disability	Foregone income not replaced by disability insurance	Disability insurance
Group life insurance	Negligible	Death benefit
Pension	Defined-contribution plans	Social Security and defined-benefit plans
Wages	Foregone disposable income	Taxes on earnings
Other costs	Property loss due to fires paid by person	Insured property loss due to fires
Tobacco products	Cigarette purchases	. . .‡

*Premature mortality and suffering among family members and coworkers is caused by passive smoking. We classify costs borne by other family members as internal costs.
†By *covered*, we mean subject to some kind of insurance or income-replacement plan.
‡Excise taxes on cigarettes could be considered negative external costs. If they are so defined, the object of our exercise would be to determine if external costs were zero, rather than equal to the current excise tax.

Table 2.—External Costs per Pack of Cigarettes*

External Costs	Discount Rate 0%	5%	10%
Costs per pack, $			
Medical care†	0.38	0.26	0.18
Sick leave	0.01	0.01	0.01
Group life insurance	0.11	0.05	0.02
Nursing home	−0.26	−0.03	0.00
Retirement pension‡	−1.82	−0.24	−0.02
Fires	0.02	0.02	0.02
Taxes on earnings to finance above programs, $	−0.65	−0.09	−0.02
Total net costs per pack, $§	−0.91	0.15	0.24
Life expectancy at age 20 y per pack, min	−137	−28	−6

*The number of packs of cigarettes are corrected for underreporting. Costs (in 1986 dollars) per pack are calculated by dividing by the discounted number of packs smoked.
†Includes all but maternity, well, and dental care.
‡Includes disability insurance.
§The sum of costs minus taxes on earnings, eg, costs at 5% equals $0.15 = 0.26 + 0.01 + 0.05 - 0.03 - 0.24 + 0.02 - (-0.09)$.



External costs of poor health habits at alternative discount rates.

Table 3.—Sensitivity of External Costs (in 1986 Dollars) per Pack to Assumptions at 5% Discount Rate

External Costs	Base Case*	All Data From National Health Interview Survey	Comparison With Never Smoker	Lower Bound†	Total Costs‡
Costs per pack, $					
Medical care	0.26	0.26	0.30	0.15	0.36
Sick leave	0.01	0.05	0.04	0.01	0.03
Group life insurance	0.05	0.05	0.06	0.05	0.05
Nursing home	−0.03	−0.03	−0.02	−0.03	−0.03
Retirement pension§	−0.24	−0.24	−0.20	−0.38	−0.24
Fires	0.02	0.02	0.02	0.02	0.02
Taxes on earnings per pack, $	−0.09	−0.09	−0.09‖	−0.05	−0.93¶
Total net costs per pack, $#	0.15	0.20	0.28‖	−0.15	?**

*Effect of changing current and former smokers to never smokers, with other characteristics held constant.
†Narrow definition of medical effects, with no effects of smoking on early retirement.
‡Includes internal costs.
§Includes disability insurance.
‖Value shown is nonsmoking smokers' differential; never smokers actually pay $0.51 cents more earnings tax than smokers per pack because of higher earning rates, but it is implausible that their higher earning rates are causally related to smoking, and we have assumed they are not.
¶Earnings, not taxes on earnings.
#Sum of costs minus taxes on earnings.
**Loss of life and pain and suffering by smoker and family not included; see text.

wine, and spirits into a single variable—monthly consumption of ethanol in ounces. Within the category of current drinkers, *heavy drinkers* include those who report an average of two or more drinks daily (five or more actual drinks daily, with allowance for underreporting). Because light drinking may not be harmful, we calculate the cost per ounce in excess of two reported drinks per day.[13-16] Thus, the drinking analogue of nonsmoking smokers are "controlled" heavy drinkers; ie, we estimate the effect of hypothetically reducing the consumption of those with more than two reported drinks per day to two reported drinks per day.

Our base-case analysis also controlled for health insurance coverage, age, sex, race, education, the use of seat belts, family income, exercise, self-assessed measures of physical, mental, and general health, and family size. We included education and seat belt use to measure attitudes that may differ between those with varying health habits—attitudes that may affect work loss and use of medical services independently of smoking and drinking.

Pensions and Other Costs

In addition to the costs of medical care and work loss, we calculated the other components of cost shown in Table 1. Data regarding pension and disability payments by age, sex, and education status come from the *Current Population Survey*. That survey is also the source of earnings data, which we use to calculate taxes to finance the programs. Our estimate of annual property loss from fires that are associated with cigarette smoking is $340 million (in 1986 dollars).[2] Because of fire insurance, we have assumed these costs are entirely external, but our estimates are not sensitive to this assumption.

Our estimates of certain annual external costs of alcohol abuse are as follows: property damage from motor-vehicle accidents, $3.6 billion, and from fires, $507 million; criminal justice, $3.1 billion; and social programs, $54 million.[16]

It is extremely difficult, and to some distasteful, to place a dollar value on the innocent lives lost due to fires, passive smoking, or drunk driving. Nevertheless, it is often necessary, implicitly or explicitly, to place a value on lives lost when judging the merits of alternative policies, for example, policies leading to air pollution control or increased automobile safety. For this analysis, we include an explicit value for the lost lives to avoid the systematic undercounting of the costs to society that would occur if we included only the differences in use of medical care, sick leave, etc.

To define a value for innocent lives lost because of fires, passive smoking, and drunk driving, we used a method based on the willingness to pay for a small change in the probability of surviving.[17] This yields a value of $1.66 million per life (around $10 per hour, using years of life expectancy discounted at 5%), considerably more than the value of lost earnings. We believe earnings are an inappropriate measure of the value of life, in part, because they attribute a relatively low value to those who are out of the labor force.[18]

RESULTS

Smoking

External Costs per Pack of Cigarettes.—If costs are not discounted, each pack of cigarettes increases medical costs by $0.38, but saves $1.82 in public and private pensions due to a 137-minute reduction in life expectancy. Overall, there is a net savings of $0.91 per pack in undiscounted costs (Table 2).

Results change markedly if costs are discounted at 5%, largely because pension costs change from −$1.82 (at 0%) to −$0.24 (at 5%) per pack. Pensions are received late in life, so discounting dramatically decreases the differential between smokers and nonsmoking smokers. Using a 5% discount rate, the

total external costs per pack are $0.15, and they rise to $0.24 per pack at a 10% discount rate. The main reason these results are so much lower than, for example, the estimate from the Office of Technology Assessment of $2.17 per pack (unpublished data, 1985) is our exclusion of changes in lifetime earnings from smoking, which are internal costs.

Sensitivity of Costs to Assumptions.—Clearly, the magnitude of any subsidy from nonsmokers to smokers is sensitive to the discount rate, especially below 5% (Figure). Table 3 shows the effect of varying other assumptions. For comparison, the first column repeats the results from Table 2 for a 5% discount rate. To test how sensitive the results are to the data source selected, we used NHIS data for young as well as old persons (Table 3, column 2). Medical costs per pack do not change, but covered sick leave costs rise to $0.05 per pack, and the total net costs rise from $0.15 to $0.20 per pack.

To test how sensitive the results are to different assumptions about how smoking affects health, we contrast smokers with actual never smokers, rather than nonsmoking smokers (Table 3, column 3). The results are relatively insensitive to this modification also; external costs rise to $0.28 per pack. This figure probably overstates the true costs because it treats all the differences between smokers and never smokers, except wages, as causally related to smoking, whereas smokers may have different patterns of medical use and retirement for reasons unrelated to smoking. As another test, we restricted medical costs to those arising from diagnoses thought to be related to poor health habits; medical costs fell $0.11 (Table 3, column 4). The estimates described herein assumed that a cohort of nonsmoking smokers would retire in a manner similar to people who never smoked. However, we also computed effects on taxes and pensions, assuming that the pattern of retirement among nonsmoking smokers would be the same as among smokers; ie, quitting would not affect age of retirement (Table 3, column 4). Combining these assumptions leads to a lower boundary of −$0.15 (at a 5% discount rate) on costs per pack.

Finally, the last column in Table 3 gives total costs; that is, it includes the portion of costs that are financed by the person. It does not, however, include the costs of premature mortality and suffering, which is why a question mark appears in the lower right corner of the table.

Other Costs of Smoking.—Our estimates of the costs of smoking in Table 2 do not include the adverse effects of passive smoking on those outside the smoker's family. Passive smoking causes an estimated 2400 lung cancer deaths per year, and it has also been linked to reduced lung function among children of smokers, a higher incidence of respiratory problems for children and others, as well as the displeasure of consuming unwanted cigarette smoke.[19] Most of these costs are within the family and are internal or external costs depending on the extent to which the smoker considers the welfare of others in his family when he smokes. The figures in Table 2 assume that such costs are internal. If, however, we treat the costs of the 2400 deaths as entirely external and use an estimate of willingness to pay for lower mortality of $1.66 million per life,[17] external costs per pack would rise $0.14.

Because deaths in smoking-related fires are also almost entirely within the family, we have treated the costs as internal and did not include them in our estimates. However, if we were to treat the costs of such deaths as external, some 1600 people in 1984 (J. Hall, oral communication, Aug 13, 1987), we would increase the external costs of cigarettes by $0.09 per pack of cigarettes.

The smoker loses 28 discounted minutes of life expectancy (at a 5% discount rate) for each pack smoked (Table 2), which accounts for $0.93 of discounted wages (many of the lost minutes occur when not working). Using our estimated willingness to pay for lower mortality of $10 per hour, the 28 minutes is worth approximately $5. Although we consider the $5 an internal cost, it may nonetheless be relevant to an economically efficient tax, a point we will come to later.

Table 4.—External Costs of Heavy Drinkers per Excess Ounce*

External Costs	Discount Rate 0%	5%	10%
Medical and pension costs per excess ounce, $			
Medical care†	0.26	0.10	0.05
Sick leave	0.06	0.05	0.04
Group life insurance	0.02	0.02	0.02
Nursing home	−0.01	‡	‡
Retirement pension§	−0.04	0.03	0.02
Taxes on earnings, $	−0.35	−0.06	−0.02
Net medical and pension costs per excess ounce, $	0.63	0.26	0.15
Motor-vehicle accidents and criminal justice costs per excess ounce, $			
Lives of nondrinkers	0.58	0.58	0.58
All other costs‖	0.35	0.35	0.35
Total net costs per excess ounce, $¶	1.56	1.19	1.08
Life expectancy at age 20 y per excess ounce, min	−20	−8	−4

*Costs (in 1986 dollars) per excess ounce are calculated by dividing by the discounted number of excess ounces.
†Excludes maternity, well, and dental care, and medical care costs to others caused by drunk driving.
‡Indicates figure is less than 0.005.
§Includes disability insurance.
‖The $0.35-cent figure includes certain internal costs, such as the property damage in motor-vehicle accidents paid by the alcoholic driver in deductibles or other copayments and higher premiums but excludes the external costs associated with the effects of alcoholism on spouses and children (eg, their use of insured mental health services) and those associated with the increased risk of alcoholism for these dependents.
¶Sum of costs minus taxes on earnings.

Heavy Drinking

External Medical and Pension Costs per Excess Ounce of Alcohol.—Using undiscounted values, each excess ounce of alcohol, ie, those consumed in excess of two reported drinks per day, has external medical and pension costs of $0.63 and causes a loss of 20 minutes of life expectancy (Table 4, column 1). At a 5% discount rate, external medical and pension costs per excess ounce fall to $0.26. In contrast to smoking, heavy drinking increases all categories of costs (at a 5% discount rate), even pensions, because the large effects of early retirement, which triggers pension and disability payments, outweigh the shorter life of drinkers. At a 10% rate of discount, medical and pension costs fall to $0.15 per excess ounce.

Before discussing the other costs of drinking shown in Table 4, we describe the sensitivity of our estimates of medical and pension costs to different assumptions (Table 5). For convenience, the first column of Table 5 repeats the results from Table 4 for a 5% discount rate. Medical and pension costs are not sensitive to the source of data (Table 5, column 2), nor do they change much if we compare heavy drinkers with actual abstainers and light drinkers rather than hypothetical controlled drinkers (cutting back to two reported drinks per day among those consuming more than that amount) (Table 5, column 3), nor do they change when drinking is not treated as a cause of disability retirement (Table 5, column 4).

Restricting medical costs to those arising from diagnoses thought to be related to poor health habits makes virtually no difference to our estimates (Table 5, column 4), implying that the

Table 5.—Sensitivity of Medical and Pension Costs (in 1986 Dollars) per Excess Ounce of Ethanol to Assumptions, 5% Discount Rate

Costs	Base Case*	All Data From National Health Interview Survey	Abstainers and Light Drinkers	Lower Bound†	Total Costs‡
Medical and pension costs, $					
Medical care per excess ounce§	0.10	0.11	0.07	0.11	0.16
Sick leave	0.05	‖	0.10	0.05	0.13
Group life insurance	0.02	0.01	0.04	0.02	0.02
Nursing home	‖	‖	−0.01	‖	‖
Retirement pension¶	0.03	0.05	−0.15	−0.05	0.03
Taxes on earnings, $	−0.06	−0.06	−0.14#	−0.03	−0.64**
Net medical and pension costs per excess ounce, $††	0.26	0.23	0.20	0.15	?
Life expectancy at age 20 y per excess ounce, min	−8	−7	−19	−8	−8

*Effect of changing heavy drinker to controlled drinker, with other characteristics held constant.
†Narrow definition of medical effects, with no effect on early retirement.
‡Includes internal costs.
§Excludes maternity, well, and dental care.
‖Indicates figure is less than 0.005.
¶Includes disability insurance.
#We have used the earnings of abstainers and light drinkers to compute taxes. These earnings are considerably higher than for drinkers, even after controlling for education. To the extent that these earnings differences are not caused by drinking, we should use drinkers' earnings; in that case, the −0.14 figure would be −0.03.
**Earnings, not taxes on earnings.
††Sum of costs minus taxes on earnings.

medical costs shown in the first column are largely due to differences in medical use that are related to habits. In contrast, the external costs of smoking are sensitive to the definition of relevant medical costs, suggesting that the broader definition of smoking effects may overstate medical costs and total external costs.

Other External Costs.—Although our estimates include the additional probability that a drinker will be killed in a traffic accident, they do not account for the deaths of innocent bystanders and nondrinking passengers in such accidents. The Department of Transportation estimates that about 7400 of the 22 400 people who died in alcohol-related traffic accidents in 1985 were not drinking.[1] Based on a willingness to pay for a human life of $1.66 million and the estimated volume of drinking from the 1983 NHIS, the value of the 7400 lost lives is $0.58 per excess ounce of ethanol (Table 4, bottom). This figure is low because it does not include medical, disability, and suffering costs of surviving nondrinking victims of alcohol-related accidents. On the other hand, the figure is high to the extent that not all drinking-related accidents are caused by alcohol.

In addition, there are annually $7.2 billion of other costs described previously herein, principally costs of the criminal justice system and property damage in alcohol-related motor-vehicle accidents. These costs add another $0.35 per excess ounce.

Sensitivity of Results

Although $0.15 per pack of cigarettes and $1.19 per excess ounce of alcohol are our best estimates of the external economic costs of smoking and heavy drinking, the values are sensitive to four factors: discount rate, value assigned to lives lost in drunk driving–related accidents, amount of underreporting, and treatment of persons who die of causes related to passive smoking and fires.

Discount Rate.—The sensitivity to the discount rate is more pronounced with smoking, where the estimated external costs would be almost $0.20 lower per pack if we used a 3% rather than a 5% discount. The sensitivity of drinking costs to discounting is much less. For smoking, consumption starts early, but deaths come much later than in the case of drinking. The shorter the time between consumption and death, the less sensitive the estimates are to discounting.

Dollar Value of Life.—Because the assumed value of life is on the low end of estimated values, our estimates of drinking costs are conservative.

Underreporting.—Assuming that the reported level of consumption were closer to the actual level of consumption would raise our estimates of the external cost, because we would inflate the level of reported packs and ounces by a smaller factor when computing costs per pack and ounce. For example, had we assumed respondents reported 60% of their actual alcohol consumption, we would only have multiplied reported ounces by 1.67 (100/60) rather than 2.5 (100/40) to estimate actual ounces, and the estimated cost per excess ounce would be 50% (2.5/1.67 = 1.5) higher. In the case of alcohol, our cost estimate is conservative because the 40% figure we used is at the low end of the estimates found in the literature.[8]

Within-Family Costs.—We ignored costs of $0.23 per pack associated with deaths caused by passive smoking and fires because we assumed they were in the family and taken into account by the smoker. Defining these costs as external would more than double our estimated external cost of smoking.

Our estimates are relatively insensitive to other assumptions. Because the external costs of drinking are dominated by costs associated with drunk driving, such costs are relatively insensitive to discounting (Figure). The choice of data used to estimate effects (HIE vs NHIS) has little effect on the results.

Our estimates of the external costs of alcohol were made per excess ounce, but excise taxes apply per ounce, not per excess ounce. Forty percent of total consumption represents ounces in excess of two reported drinks per day (five actual drinks per day, given our estimate of underreporting). To convert our figures per excess ounce to figures per ounce, one should multiply them by 0.4, reducing the estimated cost of $1.19 per excess ounce to $0.48 per ounce.

Our estimate of the external cost of smoking, $0.15 per pack, is well below the current average (state plus federal) excise and sales taxes of $0.37 per pack ($0.32 of the $0.37 are excise taxes).[20] However, the $0.37 tax rate approximately equals the estimated external cost of $0.38 if we were to treat all lives lost to passive smoking and fires as external costs. By contrast, our estimate of the external cost of alcohol, $0.48 per ounce, is well above the current average (state plus federal) excise and sales taxes of $0.23 per ounce.[21] (The average excise tax is taken across distilled spirits, wine, and beer, where the excise taxes are $0.25, $0.03, and $0.09 per ounce of ethanol, respectively.) Thus, smokers probably pay enough taxes to cover the net costs they impose on others, but heavy drinkers do not.

We noted in the introduction that economically efficient excise taxes should at least cover external costs. By this criterion, taxes on alcohol are too low; whether cigarette taxes are high enough depends on one's appraisal of three other arguments for taxation of cigarettes and alcohol. (Each of these arguments would further strengthen the case for increasing alcohol taxes.)

The first argument takes cognizance of the regret expressed by most smokers and their attempts to quit. Smoking tends to start in adolescence or early adulthood, at a time when individuals are not well informed and may not appreciate the consequences of their actions.[22] Cigarettes (and alcohol) are addictive, so it is more difficult to quit than to avoid starting the habit. Because over 85% of smokers begin smoking before age 20 years[22] and some evidence

suggests that the proportion of those under 20 years of age who smoke is sensitive to taxes,[22,24] higher taxes may decrease the number of individuals who become addicted.

Some may see this argument as paternalistic, but it is not, if judged by the tastes of the individual attempting to quit; those tastes arguably determine the economically efficient tax. If the loss in life expectancy of 28 minutes per pack is relevant to economic efficiency because of later regret, an economically efficient tax would be on the order of $5 per pack, the estimated value of the 28 minutes.

A second and related reason to tax cigarettes is that many adults do not appreciate the risks. Despite the warning labels on cigarettes, 20% to 25% of adult smokers say they do not know the risks of smoking.[22] A higher tax would deter initiation of smoking, thus compensating for any undervalued risk.

A third reason to tax addictive commodities is that such taxes are likely to lead to a relatively small change in behavior among those already addicted. Suppose, for example, there were no external costs, no ignorance, and no regret associated with smoking. From the point of view of raising revenue, it may still be wise to tax cigarettes because it is preferable to tax items for which behavior does not change; there is less induced inefficiency.[25] This argument could also justify higher cigarette taxes than at present.

Despite the uncertainties surrounding our estimates, in the case of alcohol, the difference between the actual tax and external costs is so large that, in our view, a strong case can be made for an increase in federal alcohol taxes. The tax increase should occur at the federal level, not the state level, to prevent bootlegging across state lines. The case is especially strong for raising taxes on beer and wine, which, as noted previously herein, are much lower (per ounce of ethanol) than taxes on distilled spirits. Strategies such as banning advertising or promoting negative advertising may be complementary.[22]

To the degree that external costs of alcohol abuse stem from people who drink in bars and restaurants and then drive home while intoxicated, there is a case for an additional tax on alcohol sold by the drink. We have not tried to ascertain what proportion of external costs stem from alcohol consumed in bars and restaurants relative to that consumed in homes.

Ideally, society would tax drunk drivers to force them to pay the external costs of drunk driving rather than tax alcohol. To some extent, society does so with fines, suspension of driving licenses, jail sentences, and civil liability. However, the present legal system does not make, nor could it reasonably make, drunk drivers bear fully the external costs of their actions, especially in those cases where there is a loss of innocent lives.[26] For example, liability insurance partially shields drunk drivers.

We close by considering two arguments against higher excise taxes. First, tobacco and alcohol taxes constitute a larger proportion of the income of the poor than of the well-to-do.[27,29] However, alcohol and tobacco taxes each supply only 1% of federal revenues. As a result, rather small changes in the individual income tax structure could readily compensate for the effect of increased excise taxes on the distribution of income, if that were deemed desirable. Drinkers and smokers would still pay more, but low-income individuals, as a group, need not pay more.

Second, light drinkers may argue that they impose few or no external costs, but would unfairly pay a higher tax burden. There are two responses. First, suppose that a given amount of revenue to finance government expenditure must be raised from various taxes, including excise taxes on alcohol. As a group, persons whose consumption of alcohol is below the population average of 1.7 reported drinks (over four actual drinks) per day will benefit from shifting more of the tax burden to alcohol taxes and away from other taxes (eg, payroll taxes). In fact, of adults who drink, three fourths drink less than this amount. Second, to the degree that higher taxes deter alcohol abuse, the resulting decrease in external costs will offset increases in the tax burden of light drinkers.

Because excise taxes must be proportional to consumption and because the external costs of smoking and drinking are not proportional to consumption, there will not be, in practice, a tax that does not leave someone subsidizing someone else. The task of determining how such subsidies will flow falls to our political institutions. We hope our estimates contribute to more informed decisions.

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References

1. US Dept of Transportation: *Drunk Driving Facts*. National Highway Traffic Safety Administration, 1986.
2. Luce BR, Schweitzer SO: Smoking and alcohol abuse: A comparison of their economic consequences. *N Engl J Med* 1978;198:569-571.
3. Leu RE: Anti-smoking publicity, taxation, and the demand for cigarettes. *J Health Econ* 1984; 3:101-116.
4. *Vital Statistics of the United States, 1980*. Hyattsville, Md, National Center for Health Statistics, 1984.
5. *CDC Health Risk Appraisal User Manual*. Atlanta, Centers for Disease Control, 1984.
6. Pechman JA: *Federal Tax Policy*, ed 3. Washington, DC, Brookings Institution, 1977.
7. Warner KE: Possible increases in the underreporting of cigarette consumption. *J Am Stat Assoc* 1978;73:314-318.
8. *Fifth Special Report to the US Congress on Alcohol and Health From the Secretary of Health and Human Services*. US Dept of Health and Human Services, 1983.
9. Money income of households, families, and persons in the United States: 1984, in *Current Population Reports, Consumer Income, Series P.60*. US Dept of Commerce, Bureau of the Census, 1986, vol 151, pp 165-170.
10. Newhouse JP: A design for a health insurance experiment. *Inquiry* 1974;11:5-27.
11. Brook RH, Ware JE, Davies-Avery A, et al: Overview of adult health status measures fielded in RAND's Health Insurance Study. *Med Care* 1979;17(suppl):1-131.
12. Price DN: Cash benefits for short-term sickness: Thirty-five years of data, 1948-1983. *Soc Secur Bull* 1986;49:5-38.
13. Marmot MG, Rose G, Shipley MJ, et al: Alcohol and mortality: A u-shaped curve. *Lancet* 1981; 1:580-583.
14. Dyer AR, Stamler J, Paul O, et al: Alcohol consumption and 17-year mortality in the Chicago Western Electric Company study. *Prev Med* 1980;9:78-90.
15. Klatsky AL, Friedman GD, Siegelaub AB: Alcohol and mortality: A ten-year Kaiser-Permanente experience. *Ann Intern Med* 1981;95:139-145.
16. Harwood HJ, Napolitano DM, Kristiansen PL, et al: *Economic Costs to Society of Alcohol and Drug Abuse and Mental Illness*. Research Triangle Park, NC, Research Triangle Institute, 1984.
17. Shepard DS, Zeckhauser RJ: Survival versus consumption. *Management Sci* 1984;30:423-439.
18. Howard RA: Life and death decision analysis, in *Proceedings: Second Lawrence Symposium on Systems and Decision Analysis*. Berkeley, University of California Press, 1978.
19. *The Health Consequences of Involuntary Smoking: A Report to the Surgeon General*. US Dept of Health and Human Services, 1986.
20. *The Tax Burden on Tobacco*. Washington, DC, Tobacco Institute, 1985.
21. *Public Revenues From Alcohol Beverages*. Washington, DC, Distilled Spirits Council of the United States, 1985.
22. Warner KE: *Selling Smoke: Cigarette Advertising and Public Health*. Washington, DC, American Public Health Association, 1986.
23. Lewit EM, Coate D, Grossman M: The effects of government regulation on teenage smoking. *J Law Econ* 1981;24:545-570.
24. Wasserman J: *Excise Taxes, Regulation, and the Demand for Cigarettes*, publication P-7498-RG. Santa Monica, Calif, The RAND Corporation, 1988.
25. Ramsey F: A contribution to the theory of taxation. *Econ J* 1927;37:47-61.
26. Maull KI, Kinning LS, Hickman JK: Culpability and accountability of hospitalized injured alcohol impaired drivers: A prospective study. *JAMA* 1984;252:1880-1883.
27. Toder EJ: Issues in the taxation of cigarettes, in *The Cigarette Excise Tax*. Cambridge, Mass, Harvard University Press, 1985, pp 65-87.
28. Rock SM: Measurement of tax progressivity: Application. *Public Finance Q* 1983;11:109-120.
29. Harris JE: Increasing the federal excise tax on cigarettes. *J Health Econ* 1982;1:117-120.

IMPACT OF ALCOHOL EXCISE TAX INCREASES ON FEDERAL REVENUES, ALCOHOL CONSUMPTION AND ALCOHOL PROBLEMS

BY
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FEBRUARY 1989

100-pp

SUMMARY

Excise taxes are levied on all types of alcoholic beverages by the federal government. Although these taxes are sometimes derided as "sin taxes," there are good reasons why alcoholic beverages bear what should be called "user fees" or "health taxes."

Federal excise taxes on beer and wine have not been increased since 1951. Today, those taxes (adjusted for inflation) are only one-fifth as high as they were from 1934 through 1951. And even though the tax on distilled spirits was raised slightly in 1985, it is still at only 70 percent of its 1934-1951 level.

Failure to index excise taxes to inflation is one reason the price of alcoholic beverages has fallen in recent decades relative to other consumer goods. The stable tax rates and low prices have also led to increases in both consumption and alcohol-related problems. Because excise taxes have not kept pace with inflation, the federal government lost about $12 billion dollars between 1981 and 1988, and well over $100 billion since 1951. Furthermore, alcohol problems directly or indirectly cost the federal government $23 billion a year. That is far greater than the $5.7 billion collected annually in alcohol excise tax revenues.

By raising alcohol excise taxes, Congress could reduce both the budget deficit and alcohol-related problems. Tax (and price) increases would be particularly effective in slashing alcohol consumption by young people. That, in turn, would reduce drinking-and-driving fatalities, the number one cause of death among 16 to 24 year-olds.

According to public opinion surveys, the American people strongly support increases in alcohol excise taxes. Leading economists, business executives, and health and consumer organizations have called for increases as well.

This report examines five scenarios for increasing the alcohol excise tax. Adjusting tax rates for inflation since 1951 would generate $11 billion a year in new revenues. Adjusting rates for inflation since 1972 would bring in about $6 billion a year.

Raising beer and wine taxes to the liquor rate would yield almost $5 billion a year in increased revenues; furthermore, it would save over $5 billion in reduced costs of alcohol-related problems.

Correcting tax rates for inflation since 1951 and then raising beer and wine tax rates to the liquor rate would increase revenues by $23 billion a year, drop consumption 23 percent, and save almost $32 billion in decreased costs attributable to alcohol problems.

This report recommends that:

* a new tax rate be set to correct for the inflation that has occurred since 1972;

* all beverages be taxed equally, according to their alcohol content, by raising the taxes on beer and wine to the new distilled-spirits rate;

* alcohol tax rates be adjusted annually to keep pace with inflation;

* some of the new revenues be used for alcohol education and treatment, as well as to bolster social and health programs designed to benefit people with low incomes.

That plan would generate over $15 billion annually in new revenues and lead to a 13 percent decrease in alcohol consumption. The decline in drinking would reduce the costs of alcohol-related problems by about $18 billion a year.

I. ALCOHOL: THE BEVERAGES, PROBLEMS, AND TAXES

Alcoholic beverages are among a small group of products and services on which federal excise taxes are levied. Although the taxes are sometimes derided as old-fashioned "sin taxes," there are good reasons why two products -- alcoholic beverages and cigarettes -- bear what should be called "user fees" or "health taxes."

Alcohol Problems and Costs

Alcohol is a factor in approximately 100,000 deaths each year, according to the Department of Health and Human Services.[1] While the tragedies of drinking and driving are well-known, alcohol is also related to half or more of all drownings, child and spouse abuse, rapes, and homicides. Alcohol affects practically every organ in the body and, in sufficient quantity, causes brain damage, liver cirrhosis, birth defects, heart disease, and cancers of the liver, mouth, throat, esophagus, and larynx. The harm alcohol causes in the form of broken families, ruined careers, and school failure is incalculable.

According to studies sponsored by the Office of Technology Assessment and the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), in 1983 alcohol problems cost society $117 billion.[2] That sum includes:

Direct Costs	
treatment and support	$14.9 billion
motor vehicle crashes	2.7 billion
crime	2.6 billion
other	3.7 billion
SUB-TOTAL	23.9 billion
Indirect Costs	
mortality	$18.1 billion
reduced productivity	65.6 billion
incarceration	3.0 billion
other	6.1 billion
SUB-TOTAL	$92.8 billion
TOTAL	$116.7 billion

The Department of Health and Human Services estimates that alcohol will cost society $136 billion by 1990 and $150 billion by 1995.[3] Those dollar costs include health care costs, reduced productivity, and social welfare programs. It is no wonder that alcohol abuse and alcoholism is considered by many experts to be the number-one drug problem in America.[4]

Alcohol's Financial Cost to the Federal Government

While alcohol problems afflict individuals, families, and employers, they also generate huge expenses for the federal government. No comprehensive study of those

costs has been conducted, but we estimate that direct and indirect costs to the federal government amount to $23 billion dollars a year.[5] That estimate includes:

a) treatment of sickness and injuries through Medicare, Medicaid, Indian Health Service, Department of Defense, and health insurance premiums for federal employees; budget of National Institute on Alcohol Abuse and Alcoholism (NIAAA)	$6.1 billion
b) lost personal income tax revenue due to reduced productivity in the private sector	$17.2 billion
TOTAL	$23.3 billion

The $23 billion in costs of alcohol problems to the federal government is substantially higher than the $5.7 billion that the government collects annually in the form of excise taxes.

History of Alcohol Excise Taxation

During much of America's history, excise taxes on alcoholic beverages provided a substantial percentage of the federal government's revenues. In recent years, though, alcohol taxes have provided a vanishingly small percentage of revenues:[6]

Year	Alcohol tax revenues as percent of all federal revenues
1900-1910	80%
1941	11
1951	5
1987	0.7

Alcohol taxes provide a much smaller portion of government revenues in the United States than in most other developed nations, according to the Brewers Association of Canada's 1986 "International Survey: Alcoholic Beverage Taxation and Control Policies." As Table 1 indicates, alcohol taxes provided from 0.9 to 22.3 percent of national and local government revenues in a wide variety of nations. The figure for the United States was 1.0 percent.[7]

The low level of taxation is also reflected in the percentage of price accounted for by taxes. According to the Brewers Association of Canada, taxes on beer in the United States accounted for 16 percent of the price (for home consumption), whereas the average for 25 nations was 37 percent. For distilled spirits the U.S. rate was 45 percent, as compared to an average of 61 percent for 25 nations.[8]

Utilization of Excise Taxes to Decrease Alcohol-Related Diseases and Injuries

Using an Alcohol Related Disease Impact (ARDI) software package, 1991 estimates were calculated by the Dept. of Health for alcohol-related death, injury, and disability. For that year, 1,580 deaths were caused by alcohol abuse: 41% were the result of injuries (including acts of violence), 18% were due to cardiovascular and respiratory diseases, 17% were caused by cancers, 16% involved digestive diseases, and 6% related to mental disorders.

Costs associated with alcohol abuse for 1991 were estimated as follows: $179,000,000 for direct health care costs (excluding FAS); $45,000,000 for neonatal and long-term care of individuals with FAS; $1,285,000,000 for lost income and productivity due to premature death and disability; and, $228,000,000 for non-health sector costs associated with crime (including incarceration), motor vehicle property damage, fire destruction, and social service administration. The total estimated costs for 1991 were $1,737,000,000 or $393 for each Minnesota resident.

It is estimated that 22 infants are born in Minnesota each year with Fetal Alcohol Syndrome and approximately 10 times that number are born with Fetal Alcohol Effects. In utero exposure to alcohol is the most preventable cause of mental retardation.

Alcohol use is a major contributing factor associated with motor vehicle crashes in Minnesota. In 1990, 37,458 DWI arrests were made and 45 percent (235) of all traffic fatalities were alcohol-related. In addition, 6,762 alcohol-related crash injuries occurred and 3,771 alcohol-related property damage crashes occurred. The total cost of alcohol-related crashes in 1990 was estimated at $227 million including wage losses, medical expenses, insurance administration and motor vehicle property damage.

Price elasticity (the relationship between price increase and subsequent change in demand for a product) varies depending on the type of alcoholic beverage. The Minnesota Department of Revenue has estimated a price elasticity of -0.278 for beer, -0.571 for distilled spirits, and -0.680 for wine. In order to achieve a 5% decrease in consumption for each category of alcoholic beverage, excise taxes on beer would need to be increased from 8 to 38 cents per six pack; excise taxes on wine would need to be increased from 12 to 39 cents per liter; and, excise taxes on distilled spirits would need to be increased from $1.33 to $1.97 per liter. The 5% decrease in consumption could be maintained if the method of taxation was changed to an ad valorem tax. This would mean that beer would be taxed at 22.8% of wholesale price, wine at 13.6% of wholesale price, and distilled spirits at 27.0% of wholesale price.

Heavy drinks are less likely to change their behavior due to price increases than moderate or occasional drinkers. However, if a 5% consumption reduction resulted in even a modest 1% decrease in health care and other costs, $8.5 million could be saved each year.

Proposal to Decrease Alcoholic Beverage Consumption by 5%

Alcoholic beverage excise taxes could be increased by the amounts indicated below in order to accomplish a 5 percent overall reduction in consumption. In order to maintain that reduction over time, it would be necessary to change the method of taxation from an amount per unit/volume to an ad valorem tax.

Current state excise tax on beer:
8 cents per six pack which is equivalent to 4.8% of wholesale price.

Proposed change in state excise tax:
22.8% of wholesale price which is equivalent to 38 cents per six pack.

Impact on state excise and sales tax revenue (millions of $):

	FY '94	FY '95	FY '96
Additional Excise:	$48.2	$50.1	$52.2
Additional Sales:	2.8	2.9	3.0
Total Increase:	$51.0	$53.0	$55.2

Current state excise tax on wine:
12 cents per liter which is equivalent to 3.8% of wholesale price.

Proposed change in state excise tax:
13.6% of wholesale price which is equivalent to 39 cents per liter.

Impact on state excise and sales tax revenue (millions of $):

	FY '94	FY '95	FY '96
Additional Excise:	$8.0	$8.1	$8.6
Additional Sales:	0.3	0.3	0.3
Total Increase:	$8.3	$8.4	$8.9

Current excise tax on distilled spirits:
$1.33 per liter which is equivalent to 18.2% of wholesale price.

Proposed change in state excise tax:
27.0% of wholesale price which is equivalent to $1.97 per liter.

Impact on state excise and sales tax revenue (millions of $):

	FY '94	FY '95	FY '96
Additional Excise:	$19.0	$20.9	$23.7
Additional Sales:	2.1	2.9	3.8
Total Increase:	$21.1	$23.8	$27.5

Federal Excise Taxes on Alcoholic Beverages

Beer:

$18.00 per 31 gallon barrel
$ 1.28 per case
$ .32 per six pack

Wine:

$ .28 per liter ($1.07 per gallon) if 14% or less alcohol
$ .41 per liter ($1.57 per gallon) if between 14% and 21%
$ .83 per liter ($3.15 per gallon) if between 21% and 24%

Distilled Spirits:

$ 3.57 per liter ($13.50 per gallon)

Utilization of Excise Taxes to Decrease Alcohol Related Diseases and Injuries

Impact of Alcohol on Mortality:

* 1,580 deaths, representing 4.5 % of all Minnesota deaths in 1991, were alcohol related:
  - 650 (41%) were due to injuries, including acts of violence, associated with alcohol use.
  - 281 (18%) were due to cardiovascular and respiratory diseases.
  - 260 (17%) were due to cancers.
  - 250 (16%) were due to digestive diseases.
  - 101 (6%) were related to mental disorders.

Impact of Alcohol on Health Care and Other Costs:

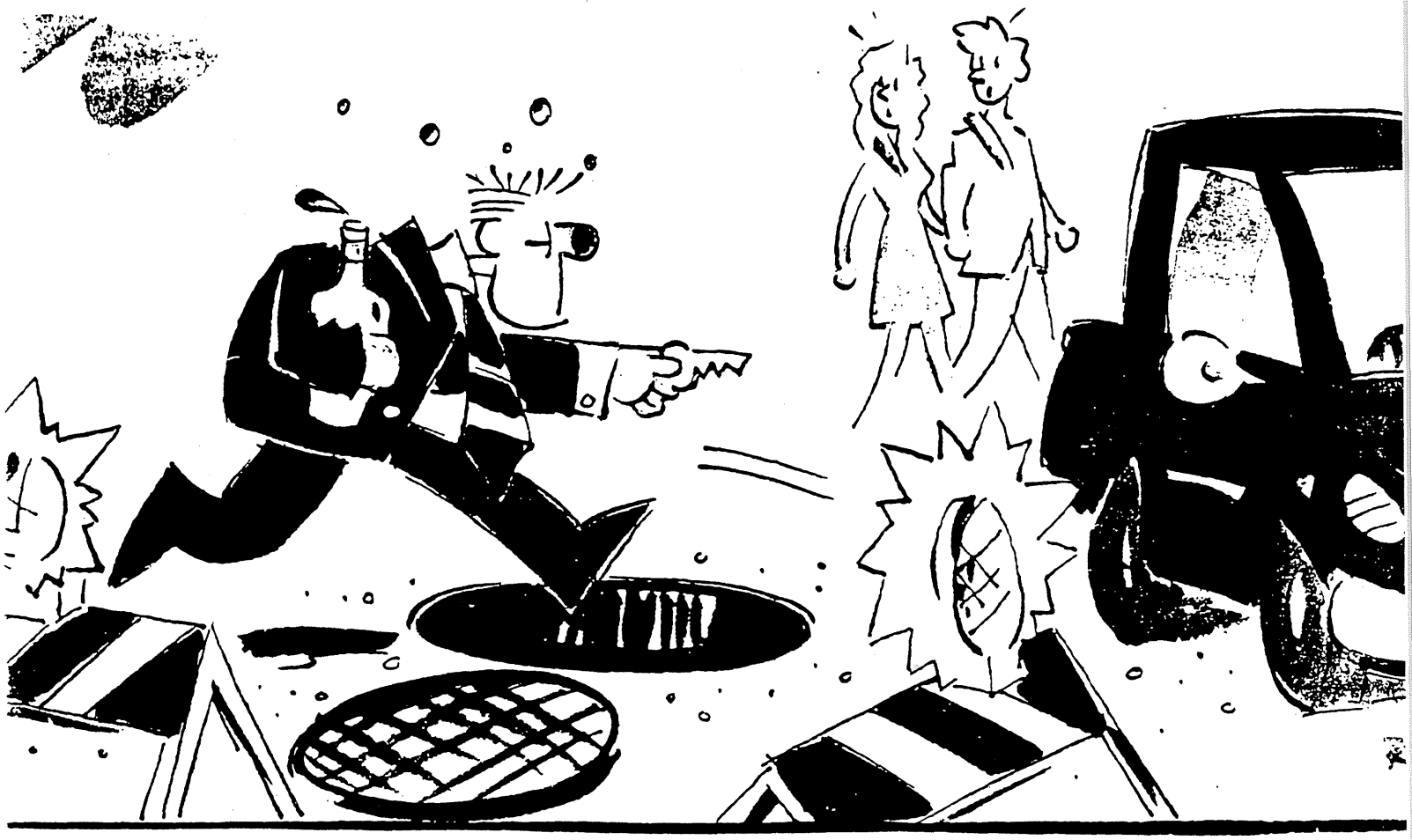
* $179,000,000 in 1991 Minnesota estimated direct health care costs associated with alcohol-related diseases, excluding Fetal Alcohol Syndrome (FAS).
* $45,000,000 in 1991 Minnesota estimated costs associated with neonatal and long-term care of individuals with FAS.
* $1,285,000,000 in 1991 Minnesota estimated lost income and productivity due to premature death or disability associated with alcohol-related diseases.
* $228,000,000 in 1991 estimated Minnesota non-health sector costs associated with alcohol-related crime (including incarceration), motor vehicle property damage, fire destruction, and social service administration.

* $1,737,000,000 in 1991 Minnesota total estimated costs.
  - $393 per Minnesota resident for the year.

Impact of Increasing Excise Taxes by the Equivalent of 30 Cents per Six Pack of Beer, 27 Cents Per Liter of Wine, and 64 Cents Per Liter of Distilled Spirits; and, Changing to an Ad Valorem Method of Taxation.

* 5% reduction in consumption of beer, wine and distilled spirits achieved.
  - Ad valorem tax maintains consumption reduction.

* It is not possible to assume a proportional decrease in costs because heavy drinkers are less likely to change their behavior due to price increases than moderate or occasional drinkers. However, if a 5% consumption reduction resulted in even a modest 1% cost decrease:
  - $8.5 million per year would be saved in health care costs, lost income and productivity costs, and costs associated with Fetal Alcohol Syndrome.



THE SIGNIFICANT 'OTHER'

CAR CRASHES AREN'T THE ONLY WAY DRINKING LEADS TO INJURY

Of all the statistics related to consumption of alcohol, one is especially familiar: the toll in injury and death from motor vehicle crashes involving drinking drivers. In 1991, the number of motor vehicle fatalities involving alcohol exceeded 21,000—about half of all the traffic deaths in the United States.

What often escapes attention is that even more Americans die from other kinds of alcohol-related injuries—in falls, fires, drownings, shootings, and cases of child abuse, battering, rape and suicide. The exact number isn't known because, unlike drinking and driving, the role of alcohol in these injuries and deaths is often overlooked by those who deal with them or neglected in record-keeping.

The Trauma Foundation, based at San Francisco General Hospital, is calling for more research into "other" alcohol-related injuries in order to design and evaluate countermeasures. How some communities are mounting new efforts aimed at reducing non-vehicle injuries linked to alcohol use will be treated in a future issue of *Prevention File*.

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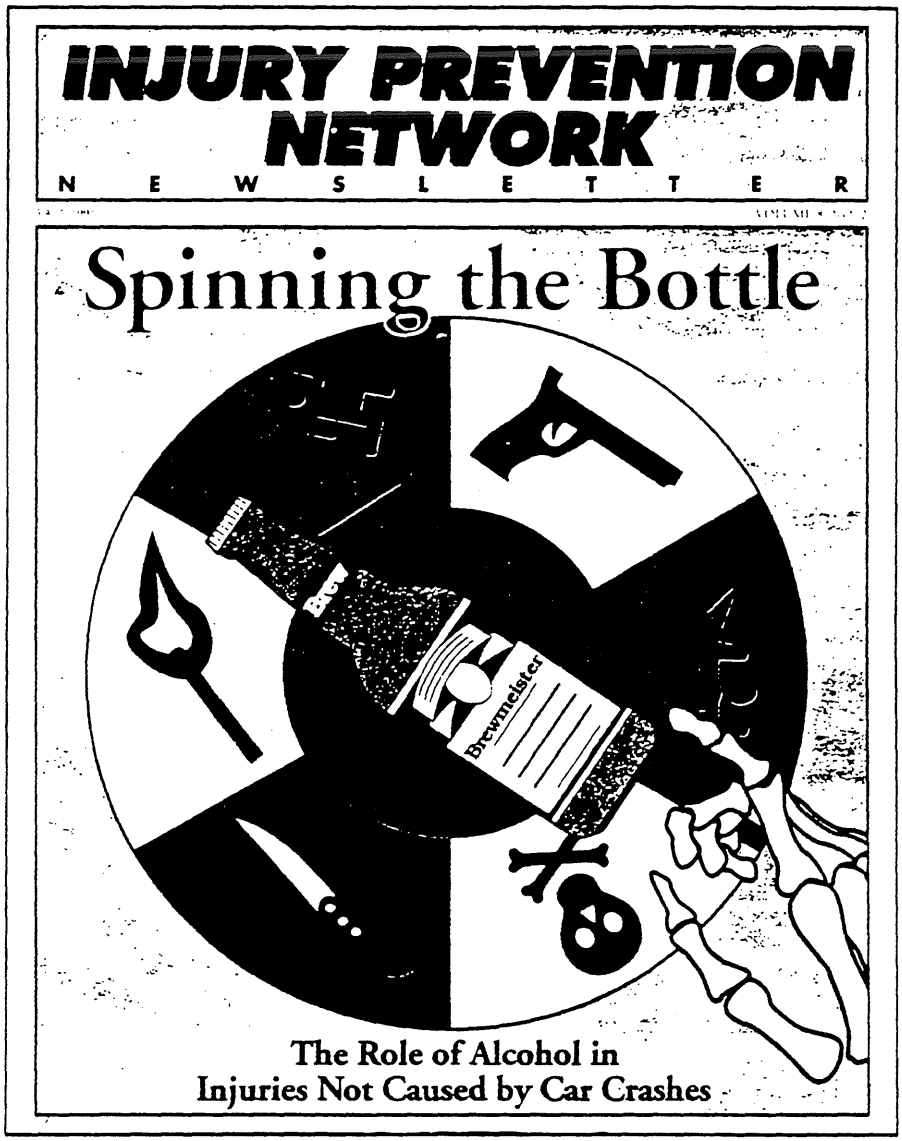
There is much to be learned, starting with the magnitude of the problem, a question which now must be answered on the basis of limited evidence.

Researchers at the Trauma Foundation in San Francisco and two California-based Injury Prevention Centers funded by the Centers for Disease Control have surveyed the scattered studies on "other" alcohol-related trauma. Their findings were published in the Fall 1991 issue of the Trauma Foundation's *Injury Prevention Network Newsletter*.

Approximately 23,530 alcohol-related trauma deaths annually have causes other than motor vehicle crashes, say the authors, Julie Peterson of the Southern California Injury Prevention Research Center, Karen Hughes of the Trauma Foundation, and Elizabeth McLoughlin of the San Francisco Injury Prevention Research Center.

Their report points out that alcohol involvement in trauma cases is hard to measure and often overlooked. Policies vary from one emergency room to another on whether patients are tested for alcohol. Blood tests may be administered many hours after an injury occurs and thus reveal little or nothing about involvement with alcohol. The injured person may not have been drinking, but was hurt in an incident caused by someone who was drinking but whose blood alcohol concentration (BAC) was not measured.



Newsletter cover depicts variety of alcohol-related injuries.

Despite gaps in the data, there is a basis for these conclusions about alcohol and injuries:

- Heavy drinking doubles the risk of fatal injury. A study reported in 1988 found that persons who engaged in "binge" drinking—that is, who consumed five or more drinks of alcohol per occasion—were nearly twice as likely to die from injuries than persons who drank less.
- A Minnesota study led to an estimate that 41 percent of deaths resulting from unintentional falls involved alcohol. A Finnish study of 313 emergency room patients who had suffered falls found that 60 percent had measurable amounts of alcohol in their blood.
- A study in Maryland found alcohol involved in 47 percent of drownings of persons 15 years of age and older. A California study of drownings turned up an alcohol connection in 41 percent of the cases. According to the National Transportation Safety Board, alcohol is involved in an estimated 67 percent of boat-related drownings.
- Maryland researchers studying 398 fatal fires found that 40 percent

> **Approximately 23,830 alcohol-related trauma deaths annually have causes other than motor vehicle crashes.**

of fire victims had positive blood alcohol concentrations, and 85 percent were legally intoxicated. A variety of similar studies show alcohol involvement in fire fatalities ranging between 39 and 58 percent.

• A study in upstate New York reported there was alcohol in the blood of 33 percent of persons who committed suicide, and led the authors to suggest that alcohol contributes to impulsive suicides (those with no prior attempts or who left no note). The National Council on Alcoholism and Drug Dependence has estimated that alcohol is involved in half of all suicides.

• At a trauma center in Orange County, California, 52 percent of the people injured in fights and 49 percent of those treated for stab wounds had positive BACs. Interestingly, a Los Angeles study found that people killed with knives and other cutting weapons had been drinking 59 percent of the time, while this was true for only 44 percent of those who were shot to death.

• There has been scant research on the connection alcohol and rape, but one study found that more than half of convicted rapists had been drinking at the time of their offense.

• The relationship between drinking and cases of battering is complex, but there is ample evidence that alcohol is a significant factor. A review of the research shows that many abused wives consider their husbands to have alcohol problems. One study of complaints to police found that 43 percent of the offenders were intoxicated, but in as many cases both the offender and victim were intoxicated. Only rarely was only the victim intoxicated.

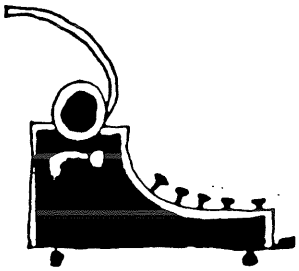
Calculating the cost to society of the alcohol/injury connection outside of traffic crashes is also difficult. It was estimated in 1985 that injuries in the "other" category were draining the economy of $15.7 billion a year—mainly in medical costs, lost productivity from disability and premature death, and criminal justice costs. The costs to society from alcohol use are far greater than the amount realized from federal excise taxes on alcoholic beverages.

The authors of the Injury Prevention Network report urge that prevention advocates seek to reduce the injury toll by supporting changes in the way alcoholic beverages are priced, promoted, sold and consumed. "We have a lot to learn from the experience and strategies of the anti-smoking movement," they write. "The significant changes related to smoking in the last twenty-five years result primarily from environmental modifications, including no-smoking sections in restaurants, higher tobacco taxers, and equal time in the media for information about the risks of smoking."

Copies of the "Spinning the Bottle" issue of the Injury Prevention Newsletter are available from the Office for Substance Abuse Prevention, 5600 Fishers Lane, Rockville, MD 20857. Subscriptions to the newsletter are available for $20 a year from the Trauma Foundation, Building One, Room 311, San Francisco General Hospital, San Francisco, CA 94110.

BOOZE AND THE BUDGET

The Center for Science in the Public Interest has told Congress how to strike a blow for safety and reduce the federal budget deficit at the same time. The government could raise $16 billion a year in new revenue simply by making an inflation adjustment in federal excise taxes on alcoholic beverages and taxing the alcohol in beer and wine at the same rate as the alcohol in distilled spirits. The resulting higher prices would lead to cutbacks in consumption and fewer alcohol-related injuries. CSPI pointed out that the 1988 Surgeon General's Workshop on Impaired Driving concluded that among all options available, raising alcohol taxes could have the greatest long-term effect in reducing alcohol-related crashes.



Moderate Alcohol Use Threat to Liquor Industry

By Robert L. Hammond

Vignettes and victims, histories and heroes of the alcohol scene reported by contributing editor, Robert L. Hammond.

MODERATE USE. . . of alcohol is the goal of the liquor industry, according to official statements of industry leaders and numerous public relations campaigns.

But could the liquor industry survive economically, if moderate alcohol use became the pattern of American drinking practices?

We think not, and here is our reasoning ... First, we accept the definition of moderate drinking from the 1981 report from the National Institute on Alcohol Abuse & Alcoholism (NIAAA) to the U.S. Congress on Alcohol and Health.

Based on national survey data, the NIAAA defines moderate drinking as the consumption of from 0.22 to 0.99 ounces of ethanol (absolute alcohol) per day. The NIAAA survey data indicates that 24 percent of the Drinking Age Population (DAP), those 14 years of age and older, are moderate drinkers.

The same survey data shows 33 percent of the Drinking Age Population are abstainers, 34 percent are light drinkers and 9 percent are heavy drinkers.

Light drinkers, in the NIAAA model, are those who consume from 0.01 to 0.21 ounces of ethanol per day, and the heavy drinkers down 1.0 ounces or more of ethanol per day.

Based on the NIAAA survey data, that would mean that in 1981 the total consumption of alcoholic beverages by light and moderate drinkers would be 32 percent of the beer, wine and liquor sales in the U.S. if we figured that each category of drinkers consumed the upper limits of that category ... light drinkers consuming 0.21 ounces of ethanol per day and moderate drinkers downing 0.99 ounces of ethanol per day.

That would leave the balance of 68 percent of all the alcohol consumed by the final category of heavy drinkers, or 68 percent of all the beer, wine and liquor downed by just 9 percent of the Drinking Age Population!

Obviously that would mean that many of those heavy drinkers would be at dangerous levels of alcohol consumption, dangerous to themselves and dangerous to society.

Now, what if that ideal of "moderation" would be achieved ... First, consider the total who are of legal age for alcohol consumption, 157.5 million. (Surely the liquor industry would not want those under the legal age to imbibe!)

Subtract the abstainers (33 percent) and you are left with 105.5 million legal drinkers. If each were to consume the upper limits of the NIAAA's definition of moderation (0.99 ounces per day), that would mean a whopping 40 percent *decrease* in the sale of beer, wine and distilled spirits, based on 1981 sales figures.

The only conclusion we can come to is that in order to maintain their present sales level, the liquor industry would have to move a large number of abstainers into the

alcohol use category, and then substantially increase average daily alcohol intake among those who used their products.

The public relations arm of the liquor industry can retaliate with "liars figure and figures lie," but think about it . . . How could the brewers, vintners and distillers survive if prevention and treatment programs ever cut into the large numbers of those who consume alcohol at dangerous levels?

That's why we don't feel warm and wonderful all over when we see liquor industry representatives appointed to committees and task forces designed to reduce excessive alcohol use.

Robert L. Hammond, executive director of the Alcohol Research Information Service, edits the quarterly Bottom Line on Alcohol in Society *and the twice-monthly newsletter,* Monday Morning Report. *For subscription information write: 1120 E. Oakland Avenue, Lansing, MI 48906.*

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APPENDIX C

MINNESOTA DWI OFFENDER TRACKING SYSTEM CONCEPT PAPER

MINNESOTA DWI OFFENDER TRACKING SYSTEM CONCEPT PAPER

This concept paper provides a vision for integrating DWI-related data which is currently being collected by various state agencies. The purpose of creating a central data depository is to make better public policy decisions in order to reduce the DWI problem in Minnesota. The system described below should be viewed as an ideal developed without regard to feasibility, cost, priority or time frame. This model must be refined and expanded through discussions with data providers, data owners, data users and policy makers.

The ideal tracking system would follow individuals identified as DWI offenders by an administrative driver's revocation through both the criminal and administrative sanctioning processes. Various levels of information are recorded about actions during the stages of arrest, prosecution, adjudication, sentencing, probation, treatment and corrections. This data would then be combined and be available for analysis.

Administrative license actions are a separate track as well as a means of measuring outcomes such as recidivism. The concept behind this proposal for a DWI offender tracking system is to download yearly data from four criminal justice databases and match each record with a driver's license record. The information would be converted from an existing mainframe operational data format to PC-sized databases for easier and less costly analysis.

A primary concern in creating this tracking system is ensuring the confidentiality and data privacy of specific individuals while at the same time being able to link separate records from different stages in the sanctioning process. Several potential methods of integrating the data while deleting specific identifying information are available. One method is described below.

Briefly, each case downloaded from a criminal justice database would contain an encrypted identification number, specific to each database, instead of a name. The agencies would then provide a separate list of names, dates of birth, and encrypted identification numbers to the agency responsible for driver license records. The list of names would then be run against the drivers license records to identify cases that have the same name and date of birth. Every time a matching name and date of birth is found, the encrypted ID of the agencies' database will be matched with the driver's record encrypted ID while the name and date of birth would be deleted.

A file of cases with matching ID's from the driver's license record would be created and forwarded to the central data depository. Downloading the active files for a single year would relieve the criminal justice agencies from interference with daily operations and responsibility for analysis, but would freeze the picture rather than provide an ongoing description of the system.

Linking this series of "snapshots" from various agencies would allow tracking of individuals who traveled through the criminal justice system within a single year. Individuals who took more than a year to travel the system could be tracked by combining several years of data. Once a system for downloading yearly data is developed and a method for matching individuals across databases is written, it could then be replicated at lower costs in future years.

The centralized data depository would be responsible for rearranging the five databases from a case by case format to an individual level format and matching across databases using encrypted ID.

Validating and analyzing the data would be a separate task. Overall project cost items would include salary for research analysts and support, programming, computer equipment and separate computer time to run and verify downloading programs.

A critical point in moving this concept to reality is the formation of an advisory group of data owners, users and policy makers. This group should be formed to explore potential methods, estimate costs and develop time frames. The support of policy makers and executives from the key agencies is necessary to begin developing cost projections or creating time lines.

APPENDIX D

DWI LICENSE REVOCATION AND ARREST DATA

DWI Administrative Revocations by Prior Incidents

	1986	1987	1988	1989	1990	1991	1992
First Incident	23,527	22,778	20,424	21,062	22,804	19,656	18,168
Second Incident	9,118	7,733	6,989	7,317	7,899	7,139	6,899
Third Incident	3,303	3,758	3,530	3,635	4,129	3,805	3,778
Fourth Incident	1,492	1,607	1,558	1,623	1,864	1,695	1,791
Fifth Incident	606	695	654	734	877	716	827
Sixth or more	671	612	672	627	714	572	717
Total Revocations With prior incidents	15,190	14,405	13,403	13,936	15,483	13,927	14,012

Cummulative revocations by number of priors

Four or more	2,769	2,914	2,884	2,984	3,455	2,983	3,335
Five or more	1,277	1,307	1,326	1,361	1,591	1,288	1,544
Sixth or more	671	612	672	627	714	572	717

DWI arrests and total alcohol-related driver license revocations

	1986	1987	1988	1989	1990	1991	1992
DWI arrests	36,390	34,664	32,827	34,562	37,261	33,574	NA
DWI License Revocations Administrative	38,717	37,183	33,827	34,998	38,287	33,583	32,180

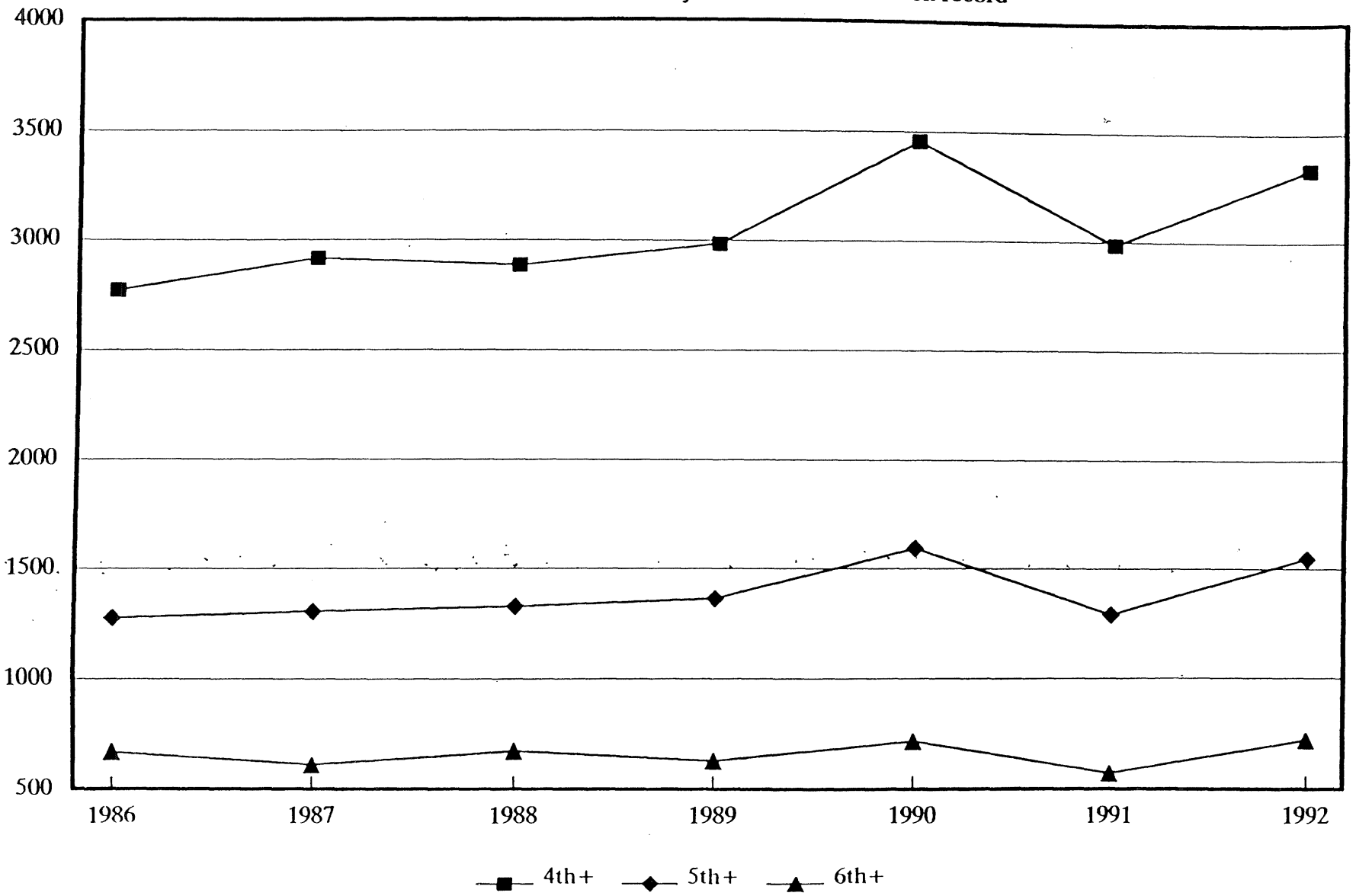
Note: Monthly counts of administrative license actions, the basis for these statistics, may include multiple counts for individuals revoked for separate incidents within the same year.

Data source: DPS/DVS handout to Legislative Commission, November 23, 1992 updated with December 1992 Year-to-date monthly statistics.

Prepared by: MN Planning, Criminal Justice Center

Alcohol–related driver license revocations: 1986–1992

Administrative actions by number of incidents on record



Data source: Driver & Vehicle Services
Prepared by: Minnesota Planning, CJSAC

Gross Misdemeanor DWI arrests leading to conviction: 1985–1988

Number of GM DWI cases reported by year and race

RACE	1985	1986	1987	1988
White	4,287	4,591	4,574	4,819
Black	64	92	97	124
Indian	147	165	192	207
Asian	9	3	4	7
Unknown	3	3	4	8
Total	4,510	4,854	4,871	5,165

Percent of GM DWI cases reported by year and race

RACE	1985	1986	1987	1988
White	95.1%	94.6%	93.9%	93.3%
Black	1.4%	1.9%	2.0%	2.4%
Indian	3.3%	3.4%	3.9%	4.0%
Asian	0.2%	0.1%	0.1%	0.1%
Unknown	0.1%	0.1%	0.1%	0.2%
Total	100%	100%	100%	100%

Original data is from the Offender–Based Transaction Statistics (OBTS) data base, which is a subset of the criminal history file. Data is missing on offenders who do not have a positive identification from a fingerprint card on file at the Bureau of Criminal Apprehension. Between a third and half of the convicted gross misdemeanor cases are missing.

Data Source: Minnesota Gross Misdemeanor Arrests Leading to Conviction: 1985–1988. MN Planning, Criminal Justice Statistical Analysis Center.

Ray Lewis
October 15, 1992

DWI ARRESTS BY RACE AND YOUTH: 1989 TO 1991

DWI ARREST BY RACE: 1989 TO 1991

	TOTAL ALL AGES			PERCENT BY RACE		
	1989	1990	1991	1989	1990	1991
WHITE	32,851	35,060	31,533	95.0%	94.2%	93.9%
BLACK	791	1,078	977	2.3%	2.9%	2.9%
INDIAN	810	948	959	2.3%	2.5%	2.9%
ASIAN	110	124	105	0.3%	0.3%	0.3%
TOTAL	34,562	37,261	33,574			

DWI ARREST BY ETHNICITY: 1989 TO 1991

	TOTAL ALL AGES			PERCENT BY ETHNICITY		
	1989	1990	1991	1989	1990	1991
NON-HISPA	33,914	36454	32718	98.1%	97.8%	97.5%
HISPANIC	648	807	856	1.9%	2.2%	2.5%
TOTAL	34,562	37,261	33,574			

DWI ARREST BY YOUTH: 1989 TO 1991

	UNDER 18 YEARS			OVER 18 YEARS		
	1989	1990	1991	1989	1990	1991
WHITE	651	586	419	32,200	34,474	31,114
BLACK	4	7	0	787	1071	977
INDIAN	10	14	23	800	934	936
ASIAN	1	1	2	109	123	103
TOTAL	666	608	444	33,896	36,602	33,130

DATA SOURCE: MINNESOTA CRIME INFORMATION: 1989, 1990. 1991. BCA

Ray Lewis
October 13, 1992

APPENDIX E

TREATMENT APPENDICES

APPENDIX E-1

RULE 25 DEFINITIONS OF ALCOHOL PROBLEM LEVELS

Chemical use assessments must be done according to Minnesota Statutes, §169.126 and Minnesota Rules, Chapters 7408 and 9530.

Level 0: No apparent problem.

Level 1: Risk status. While demonstrating no current pattern of pathological use, the individual's behavior suggests that he or she is at risk of developing future problems associated with chemical use as evidenced by two or more of the following:

1. Family or peer group glamorizes chemical use or tolerates chemical use related deviance.

2. Time, money and relationships are predominantly associated with chemical use.

3. At least two instances of blackouts.

4. A history of alcoholism in one or more of the biological parents.

Level 2: Chemical abuse. Chemical abuse includes inappropriate and harmful patterns of chemical use that are linked to specific situations in a client's life such as loss of a job, death of a loved one, or sudden change in life circumstances. Chemical abuse does not involve a pattern of pathological use, but it may progress to pathological use. Inappropriate and harmful use means use of a chemical which exceeds social or legal standards of acceptability, the outcome of which is characterized by three or more of the following:

1. Weekly use to intoxication.

2. Inability to function in a social setting without becoming intoxicated.

3. Driving after consuming sufficient chemicals to be considered legally impaired under Minnesota Statutes, §169.121, whether or not an arrest takes place.

4. Excessive spending on chemicals that results in an inability to meet financial obligations.

5. Loss of friends due to behavior while intoxicated.

6. Chemical use that prohibits one from meeting work, school, family or social obligations.

Level 3: Chemical dependency. A pattern of pathological use accompanied by the physical manifestations of increased tolerance to the chemical or chemicals being used or withdrawal syndrome following cessation of chemical use. Pathological use means the compulsive use of a chemical characterized by three or more of the following:

1. Daily use required for adequate functioning.

2. An inability to abstain from use.

3. Repeated efforts to control or reduce excessive use.

4. Binge use, such as remaining intoxicated throughout the day for at least two days at a time.

5. Amnesic periods for events occurring while intoxicated.

6. Continuing use despite a serious physical disorder that the individual knows is exacerbated by continued use.

APPENDIX E-2

DWI OFFENDERS IN THE 1991 DAANES TREATMENT DATABASE

MINNESOTA DEPARTMENT OF HUMAN SERVICES, SEPT. 4, 1992, RUN SELF REPORT DATA SIX MONTHS BEFORE AND AFTER TX ADMISSION

	NO REVOCATION N=11,693 %	REVOCATION EVER N=8,052 %	1 DWI N=5,191 %	2+ DWI N=666 %
Gender				
Male	63.0	82.0	85.2	82.3
Race				
White	70.9	83.6	87.4	80.1
Black	15.9	5.4	2.9	8.4
Native	10.1	8.6	7.0	8.6
Other	3.2	2.5	2.8	2.9
Age				
18 - 24	24.1	13.2	18.0	19.8
25 - 34	35.7	44.1	47.0	45.3
35 - 44	24.1	27.6	23.6	23.9
45 - 54	8.8	10.0	7.7	7.1
55+	7.4	5.2	3.7	3.9
Living with				
Parent	13.3	13.3	18.9	16.9
Alone	22.2	25.0	21.3	23.1
Spouse/kids	20.1	21.1	21.5	19.5
Spouse/part	16.6	16.3	14.3	16.4
Friend	9.3	10.1	10.3	10.2
Relatives	5.2	4.4	5.6	5.0
Kids	6.9	4.3	4.7	4.4
Others	6.3	5.5	3.6	4.4
Education level				
No diploma	28.0	22.4	21.7	23.2
High school	61.5	69.8	71.8	68.1
College grad	10.6	7.8	6.5	8.6

	NO REVOCATION N=11,693 %	REVOCATION EVER N=8,052 %	1 DWI N=5,191 %	2+ DWI N=666 %
Marital status				
Single	48.4	42.7	48.4	42.6
Separated	7.6	8.0	5.9	7.9
Married/cohabit	24.5	22.8	23.3	21.3
Divorced	17.0	24.9	21.0	23.0
Widowed	2.5	1.6	1.4	1.5
Court referral				
Yes	13.0	22.4	46.5	36.3
Under court jurisdiction				
Yes	25.6	41.8	73.8	69.2
Employment				
FT employed	32.4	40.7	53.0	41.3
PT employed	7.6	6.8	6.6	6.7
Looking for work	14.5	18.7	16.2	16.9
Unemployed	21.3	16.7	11.5	16.9
Retired/disabled	8.2	6.8	3.5	5.7
Drug of choice				
Alcohol only	42.9	53.7	64.3	53.2
Drugs only	5.5	2.3	0.4	1.1
Alc & drugs	51.6	44.1	35.3	44.7
Drinking frequency				
Weekly	36.3	35.9	42.3	40.7
Daily	34.7	34.2	20.7	30.2
# hospital medical admis				
None	76.9	80.6	87.4	81.7
# detox admis				
None	62.9	50.1	62.1	50.8
Prior CD treatments				
None	41.5	28.1	43.1	32.5
One	25.1	25.0	26.6	23.8
Two	13.4	17.4	14.2	18.0
Three +	20.0	29.4	16.0	25.8

	NO REVOCATION N=11,693 %	REVOCATION EVER N=8,052 %	1 DWI N=5,191 %	2+ DWI N=666 %
Consolidated CD fund				
Yes (1?)	51.4	54.5	50.8	56.4
No (2?)	48.6	45.5	49.0	43.6
Care level				
Inpatient	35.2	30.2	16.4	24.6
Outpatient	37.8	43.9	70.8	41.6
Inpatient comb	3.3	3.0	1.7	2.0
Outpatient comb	3.8	3.6	2.1	11.6
Halfway house	13.6	13.4	6.9	15.0
Extended care	6.3	6.0	2.2	5.3
Reason for discharge				
Completed	59.1	68.0	80.1	71.8
Against staff advice	29.8	23.0	13.9	19.5
Other	11.1	9.0	6.0	8.8
Abstinent all 6 months				
Yes	62.2	65.3	70.9	60.5
# inpatient psych admis				
None	89.0	93.4	96.9	93.5
Three	7.4	9.8	6.8	8.1
Four	4.6	6.3	3.6	6.9
Five	8.0	13.3	5.6	10.8

APPENDIX E-3

CHEMICAL DEPENDENCY TREATMENT MODALITIES AS DESCRIBED BY THE MINNESOTA DEPARTMENT OF HUMAN SERVICES

Detoxification Centers

In 1971 Minnesota decriminalized public drunkenness and legislatively mandated the establishment of detoxification centers by the counties as an alternative to criminal justice processing of persons intoxicated in public. Presently there are 30 centers operating in the state, ranging in size from one to 96 beds (prior to the closing of Hennepin County's detoxification center in 1993).

The model of services used in the state is termed Sub-Acute Detoxification. This refers to a setting where minimal medical services are provided on site and where counseling and evaluation/referral services are available to every admission. The purpose of the detoxification center is to:

1. Offer medically safe detoxification through the provision of counties' medical supervision and administration of low-dosage medications to ease withdrawal symptoms where they exist;

2. To evaluate the individual's relationship to chemicals to determine the possible need for chemical dependency treatment or other social services; and

3. To provide referral services designed to access the individual to community resources the person needs.

Typically, there is a consulting relationship between the center and a licensed attending physician and at least one licensed nurse on staff. The bulk of direct client care services are provided by detoxification technicians who are trained at the center. Differences between individual centers in the state regarding staffing and program content relate to whether or not the facility is part of a hospital, and to facility size. Larger facilities have counseling components on staff, usually have a physician coming into the facility on a regular basis, and have nurses on staff. Smaller facilities generally have a nurse who is on duty during the day and available during off hours for emergencies, and use counselors from the county chemical dependency system or elsewhere for counseling services. In many mid-sized centers, the director of the detox is

qualified as a counselor and provides that service to all clients.

In general, there are three categories of services. One is the health observation of the person during the acute phase of intoxication. This is usually done by technicians after an initial health assessment that is done either by a nurse or a technician, depending on staff available.

This observation usually includes periodic visual checks and checking of standard vital signs for abnormalities. Each center has a relationship with a physician, which includes standing orders regarding procedures for patients who exhibit abnormal vital signs. The second service is basic personal care including provisions of meals, cleaning the person and the person's clothing and providing protection of the person and the person's belongings (many of the centers which do not confine clients still have secure access so others cannot come into the facility). The third service centers around the counseling component and involves the diagnosis of the client's relationship to chemicals, the assessment of the individual's other problems, and the determination of the individual's service needs. This is provided to some degree at all centers, but not always by members of the detox staff.

In addition to the above, other services are also provided. Perhaps the most common addition is drug and alcohol informational lectures, films or tapes. Another is the cooperation between a detox center and another chemical dependency service in the area, especially for special populations. There is also a relationship between the center and the Alcoholics Anonymous community in many parts of the state. The intent of all these services is to inform the client, in the hope that this or some other effort arrives at a successful intervention for the client.

Primary Residential Freestanding Facilities

Freestanding primary residential treatment programs are non-hospital based programs which provide a range of intensive rehabilitative services within a structured residential living environment. Residential treatment programs allow clients to separate themselves from mood-altering drugs and from the physical and mental complications caused by a dysfunctional living environment. Through an intensive treatment regiment and structured living environment, clients are able to assess and modify their behaviors related to chemical use and develop the personal and social skills necessary to successfully re-enter the community.

Primary Residential Hospital-Based Facilities

Hospital-based primary residential treatment programs provide intensive rehabilitative services within a highly structured therapeutic living environment. Residential treatment programs in the hospital setting provide clients with intensive medical and psychological therapies which enable clients to modify their behaviors related to chemical use and develop the personal and social skills necessary to successfully re-enter the community.

Primary Residential Regional Treatment Centers

State Regional Treatment Centers provide a range of intensive rehabilitative services to both primary and extended care clients within a structured therapeutic living environment. The programs at State Regional Treatment Centers allow clients to separate themselves from mood altering drugs and from the physical and mental complications caused by a dysfunctional living environment. Through an intensive treatment regimen and structured living environment, clients are able to assess and modify their behaviors related to chemical use and develop the personal and social skills necessary to successfully re-enter the community.

Halfway House

Halfway houses are transitional residential living facilities for clients who have completed primary treatment but who are not completely prepared to re-enter the community. Through a supportive environment, clients are provided rehabilitative services which assist them with the difficulties encountered while re-entering the community.

Extended-Care Facilities

Extended-care facilities provide long-term residential treatment services within a structured living environment to severely chemically dependent clients who have had prior treatment experiences. Extended care facilities allow clients to separate themselves from mood-altering drugs and from the physical and mental complications caused by dysfunctional living environment. Through a long-term treatment program, clients gradually modify their behavior related to chemical use and develop the personal and social skills necessary to successfully re-enter the community.

Board and Lodging Facilities

Board and lodging facilities have been established to serve the needs of the chronic alcoholic who is essentially homeless, indigent and a recidivist of established treatment programs. The purpose of board and lodging facilities is to provide humane care, basically food and shelter, within a warm, safe environment that involves some personal responsibility and communal activities with the intent of improving the client, both physically and socially, from the devastation caused by chronic alcoholism.

Non-Residential Freestanding Treatment Facilities

Freestanding non-residential treatment programs provide a range of rehabilitative services to less severely dependent clients who are able to remain in the community. Non-residential programs enable clients to receive the treatment services necessary to assess and modify their behaviors related to chemical use while still functioning in the community.

Non-Residential Hospital-Based Treatment Facilities

Hospital-based non-residential treatment programs provide a range of intensive rehabilitative services to less severely dependent clients who are able to remain in the community. Non-residential programs enable clients to receive the treatment services necessary to assess and modify their behaviors related to chemical use while still functioning in the community.

APPENDIX E-4

MODELS FOR INNOVATION IN COURT-ORDERED TREATMENT: ANOKA COUNTY CORRECTIONS AND MESSABI WORK RELEASE

How the Court Works in Anoka County

First DWI -- no jail. Repeat offender booked in 4 to 5 hours, leave in jail or release on "104", police officer sets court date for 3 to 4 weeks after date of arrest if released. Rule 5 hearing, bail and public defender assigned. Fourteen days later pre-trial omnibus hearing, pleas for hearing or jury trial. Jury trial often 6 weeks later (can be even later due to "financial jurisdiction"). 15 trials per day are scheduled -- only 1% end up in jury trial, the rest are plea-bargained. Arrest to trial calendar is 2 to 3 1/2 months if no continuances, may be 4 to 5 months. Average time in Minnesota is 157 days arrest to sentencing.

Corrections gets involved on trial day, does Rule 25 type assessment prior to plea bargain, resulting in sentencing recommendations. Rule 25 assessment done for funding purposes. In Anoka County, Rule 25 and Rule 25 type assessments are done by same assessor. 1800 to 2000 arrests per year in Anoka County, 600 to 700 are gross misdemeanor. Over half incarcerated are DWI, DAR. Work release in non-secure facility costs $25 per day, $10 paid by offender. Jail costs $75 per day. 15 to 25 persons are on electronic monitoring.

Of eligible offenders, 1/3 choose to do jail time rather than participate in ROP, approximately 1/3 begin ROP but fail to complete the program, and 1/3 complete the program.

Anoka County Repeat Offender Program (ROP)

Basic characteristics of Anoka County Repeat Offender Program include:

1. Offender limited to working, attendance at program facility or home detention.

2. Required participation in treatment, aftercare or ongoing monitored support group.

3. Periodic (initially daily) testing for the presence of drugs and alcohol.

4. Offender can decrease intensity and number of contacts with program based on compliance with probation conditions.

5. Offender subject to immediate increase in intensity and number of contacts with program if offender violates conditions of program or probation.

6. Offender required to reimburse court or county running the program.

Messabi Work Release Program, March 1993

The Messabi Work Release Program is located in Duluth, Minnesota and began providing program services in March 1984. The program was developed in response to local issues and needs, particularly the crowding of the St. Louis County Jail caused in part by the strengthening of DWI legislation by the Minnesota Legislature in the 1982 session.

Since the inception of the Messabi Program, more than 1,650 persons have received services from the program. For calendar year 1992, approximately 45% of all referrals into the program were directly related to alcohol consumption and drug use/abuse, resulting in DWI traffic, drug related offenses, plus violation of probation offenses.

The Messabi Program contracts to provide services to all Huber clients for the St. Louis County Jail through Arrowhead Regional Corrections. The Minnesota Department of Corrections utilizes the program as a re-entry point for its inmates being released from DOC institutions such as State Work Release, levels I and II, and State Supervised Release. The Federal Bureau of Prisons also utilizes the Messabi Program as a re-entry point for inmates from federal institutions, federal district court commitments, to obtain chemical dependency services and, on a time-to-time basis, for pre-trial clients. County and district courts in St. Louis County and other Minnesota Counties utilize the facility for both straight sentencing and for probationary offenders.

The benefits of the program are evident in several directions. Clients in the program benefit through increased awareness of their inappropriate use of chemicals and through early intervention. Clients are faced with recognizing their using patterns, and thus have the opportunity to avoid demonstrated outcomes of inappropriate chemical use -- broken families, lost jobs, impaired health, accidents, etc. The community benefits when these clients

maintain their employment and are able to support themselves and their families, contributing to the tax base and the economy of the area. The community also benefits through an increase in public safety and additionally because approximately 50% of the program costs are paid by the users of the services.

The already existing jail system also benefits from the work release/Huber system because the Messabi Program helps to ease overcrowding and does not tie up expensive and secure jail space with clients who do not need that type of setting. County and state governments benefit because clients participate in the cost of their treatment.

For calendar year 1992, the client profile is as follows:

1. Average age was 32, with a range of 18 to 73.

2. 86% male; 14% female.

3. 93% residential; 7% non-residential.

4. 84% Caucasian; 11% Native American; 4% Black.

5. Overall length of stay for all referrals -- 60 days; alcohol and drug related referrals -- 45 days; range for all referrals is 2 to 371 days.

6. 86% of the persons going through the program have not recidivated after 1 year from discharge.

The Messabi Work Release Program provides a structured program in a supervised and secure 24-hour non-jail setting. The following services are available to persons sentenced to the facility as work release referrals, as well as to those systems which contract for supervised re-entry services:

1. Chemical dependency treatment.

2. DWI education.

3. Female specific programming (female staff), both inpatient and outpatient.

4. Family counseling.

5. GED and continuing education supervision.

6. Urinalysis collecting point for Arrowhead Regional Corrections, Minnesota Department of Corrections and Federal Bureau of Prisons.

7. Job site visits and work verifications.

8. Electronic monitoring, both radio frequency and a passive wristband system.

Programming occurs throughout the week, but is concentrated in the evening and on weekends as most clients are available during these hours. All chemical dependency services are provided under a Minnesota Department of Human Services Rule 43 outpatient treatment license.

The primary objective of the chemical dependency treatment program is total abstinence from all mood-altering substances. The treatment philosophy is carried out under the A.A. philosophy, reality therapy and the disease concept approach. A holistic approach is incorporated into the treatment model with specific groups on assertiveness, alternatives and anger. Group programming occurs approximately 20 hours per week.

A major asset in the model is that all services can be provided either residentially or non-residentially. A client may be involved in one or more of the program services available, providing a wide range of flexibility and/or structure depending on the needs of the individual.

Step up or step down measures can be utilized for offenders or re-offenders. Those who successfully complete probations but who re-offend may be placed on electronic monitoring, in residence, or residence with treatment, as opposed to just a jail option. Further positive changes in behavior can be met with reductions in structure. Thus, positive consequences for positive behavior and negative consequences for negative behavior.

Treatment plans and goals are individualized for each person. The representatives of the referral agency and the client are involved in developing the treatment plan together with the program case worker.

Discharge occurs when the program has been successfully completed or when the court-ordered sentence has been fully served -- whichever comes first. Clients who are referred by the MN-DOC or the Federal Bureau of Prisons are discharged when the specific period of time sentenced to the Messabi Program expires.

In 1993, the cost was about $5,000 for eight weeks of incarceration and treatment. The client pays approximately $1,200 of this cost.

APPENDIX E-5

BREATH ALCOHOL IGNITION INTERLOCK DEVICE AND DEPARTMENT OF PUBLIC SAFETY REQUIREMENT FOR REHABILITATION

Breath Alcohol Ignition Interlock Device

A BAIID is a breath alcohol sensing instrument mounted in a vehicle which connects to the ignition system in a way that prevents the vehicle from starting if the driver's alcohol concentration exceeds the calibrated setting on the BAIID.

To start a vehicle equipped with a BAIID, the driver must blow a sample of breath into a flexible tube for analysis by the BAIID. The BAIID then measures the alcohol level in the breath sample. If the breath sample contains an amount of alcohol that is at or above the calibrated setting, the BAIID will prevent the vehicle from starting. If the alcohol level is lower than the calibrated setting, the BAIID will allow the vehicle to start. The BAIID also records data related to the breath sample.

The purpose of the pilot ignition interlock program required under Minnesota Statutes, §171.305, is to test the effectiveness of this relatively new technological DWI countermeasure. The program will provide an additional method and incentive for certain high risk DWI offenders to become relicensed following license cancellation for repeated alcohol- and substance-abuse related driving incidents. The law allows repeat DWI offenders to be relicensed following a reduced rehabilitation period of required abstinence on the condition they agree to drive only a motor vehicle equipped with a functioning and certified ignition interlock device.

Department of Public Safety Requirement for Rehabilitation

According to Minnesota Rules, part 7503.1700, subpart 1, rehabilitation is required following license cancellation for an administrative license revocation based on a third alcohol or controlled substance incident within five years, three alcohol-related driving incidents and a special review conducted within ten years of the third incident, or four or more of these incidents on record.

The rehabilitation requirements listed in Minnesota Rules, part 7503.1700, subpart 2, include: successful completion of treatment for chemical dependency following the last documented date of use of alcohol or a controlled substance

and a provision of evidence of the treatment; regular participation and evidence of participation in a generally recognized abstinence-based support group for a minimum of three months; abstinence and documentation of abstinence from alcohol and controlled substances for prescribed time periods; and a rehabilitation interview with a driver improvement specialist at one of the Department's driver evaluation offices.

Drivers who have completed rehabilitation following cancellation must continue to maintain abstinence from alcohol to retain their driving privileges under Minnesota Rules, parts 7503.1300, subpart 3, and 7503.1700, subpart 6. Additional rehabilitation and longer documented abstinence periods are required following consumption of alcohol or controlled substances after completing rehabilitation. The period of documented abstinence required by Minnesota Rules, part 7503.1700, subpart 5, before relicensing is one year for the first rehabilitation, three years for the second rehabilitation, six years for the third rehabilitation, and double the latest rehabilitation period for subsequent rehabilitations. Participation in the ignition interlock program would reduce the required abstinence time before becoming eligible for regaining driving privileges by one-half under Minnesota Statutes, §171.305, subd. 5. Lifelong abstinence is still required to retain driving privileges.

The following table shows the number of DWI offenders in Minnesota who were relicensed following completion of rehabilitation during the last three years. However, not all of the DWI offenders eligible for relicensing following completion of the requirements of Minnesota Statutes, §171.305, subd. 5, would choose to enroll in the ignition interlock program.

NUMBER OF DWI OFFENDERS RELICENSED FOLLOWING REHABILITATION

	1989	1990	1991	Abstinence Required
1st rehabilitation	1,287	1,590	1,650	1 year
2nd rehabilitation	144	183	204	3 years
3rd rehabilitation	3	11	12	6 years
Total	1,434	1,784	1,866	

APPENDIX E-6

CHEMICAL DEPENDENCY TREATMENT PROGRAMS FOR SPECIAL POPULATIONS IN MINNESOTA

American Indian

Aa-Ba-Ka-Wisiwin
Ahnji-Be-Mah-Diz Center Leech Lake Halfway House
American Indian Services Inc.
Bois Forte RBC
Brainerd Regional Human Service Center
Fon Du Lac Chemical Dependency Counseling
Grand Portage Chemical Dependency Program
Indian and Free (Drug Program)
Indian Health Board of Minneapolis Social Center
Indian Health Services
Juel Fairbanks
Leech Lake RBC
Lower Sioux Indian Community
Mash-Ka-Wisen
Minneapolis American Indian Center
Minnesota Chippewa Tribe
Minnesota Indian Women's Resource Center
New Visions Treatment Center
Prairie Island Community Center
Red Lake Alcohol Rehabilitation Program
Red Lake Halfway House
St. Paul American Indian Center
Thunderbird Halfway House
White Earth CD Outpatient
Wren Halfway House

Black

Institute on Black Chemical Abuse (I.B.C.A.)
New Beginnings Center
Turning Point Halfway House

Dual Disability - MI/CD

Aamethyst House
Amethyst Outpatient
Anthony Louis Center South
Behavioralcare Network
Bradley Center - Willmar Regional Treatment Center
Central Minnesota Mental Health Center
Chain of Lakes Halfway House
Changes - Group Health

Cook County CD Outpatient Program
Counseling Clinic
Counseling Clinic La Crescent
Create
Dayton House - People Inc.
Divine Redeemer Adolescent Intervention Unit
Eden Residential Extended Care - Men
Eden Residential Extended Care - Women
Fairview Deaconess Extended Care Program
Fairview Deaconess Halfway House Program
Family Recovery Program - Immanuel
Family Therapy and Recovery Center
Free Spirit Inc.
Gables
Glenmore Recovery
Golden Valley Health Center
Hazelden/Fellowship Club
Hazelden Foundation
Hazelden Pioneer House
Health East - St. Joseph's
Hiawatha Valley Mental Health Center
Hutchinson Community Hospital
Illusions
Irene Whitney Center
Kelly Institute
Koochiching Counseling Center
Lakeview Chemical Dependency Unit
Mayo Clinic Adolescent Program
Mayo Clinic/Rochester Methodist
MI/CD Outpatient Treatment Program-Center for Alcohol and Drug
Minnesota Chemical Dependency Program for Hearing Impaired Youth
Muscala Chemical Health Clinic
Neighborhood CD Program
New Connection Programs
Northland Counseling Center
Northland Recovery Center
Omegon, Inc.
Pine Shores
Port Rehabilitation Center
Prodigal House
Program for Addictions Recovery - Upper Mississippi Mental Health Center
Queen Health Care Center
Range Treatment Center
St. Cloud Hospital
St. Francis Medical Center - Hope Unit
St. Paul Ramsey Medical Center
St. Peter Regional Treatment Center
Sherburne House
Sioux Valley Hospital

Sunrise Recovery Center
University of Minnesota Hospitals
Veterans Affairs Medical Center - Minneapolis
Way 12 Halfway House
Wayside House, Inc.
Wellness Center of Fargo/Moorhead
West Suburban Counseling Clinic
Willmar Regional Treatment Center - MI/CD Pilot Project
Winona Counseling Clinic

Elderly

Bridgeway Treatment Center
St. Cloud Hospital
St. John's Regional Health Center
St. Mary's Riverside Medical Center
University of Minnesota Hospitals

Hearing Impaired

Minnesota Chemical Dependency Program for Hearing Impaired Youth

Hispanic

Centro Cultural Chicano
Chemical Abuse Service Agency (CASA)
Chicanos/Latinos Unidos En Servicios (CLUES)
Hispanos en Minnesota

Men

Ahnji-Be-Mah-Diz Center, Leech Lake Halfway House
American Indian Services, Inc.
Anoka Metro Regional Treatment Center
Arrigoni House East
Chain of Lakes Halfway House
Cochran Halfway House
Dayton House - People, Inc.
Douglas Place, Inc.
Eden Day Program
Eden Residential Extended Care
Focus XII Halfway House
Golden Valley Health Center
Green House
Guest House
House of Hope
Howard Friese Halfway House
Laek Venoah Community

Lakes Region Halfway House
Moose Lake Regional Treatment Center Extended Care
Northeast Regional Correction Center
Nuway House, Inc.
Passage Home Extended Care
Passage Home Halfway House
Prodigal House
Progress Valley I
Salvation Army Harbor Light Halfway House
Salvation Army Harbor Light the Beacon
Sherburne House
Thunderbird Halfway House
Transformation House
Twelfth Step House

Physically Disabled

Bridgeway Treatment Center
Center for Human Environment
Dayton House - People, Inc.
Hazelden/Fellowship Club
Hazelden Pioneer House

Women

Adapt of Minnesota
Addictions and Stress
Amethyst Outpatient
Anoka Metro Regional Treatment Center
Bradley Center - Willmar Regional Treatment Center
Break Free
Cardinal Recovery Center
Chrysalis - A Center for Women
Chrysalis East
Counseling Clinic
Counseling Clinic La Crescent
Create
District Memorial Hospital
Eden Day Program
Eden Residential Extended Care
Fairview Deaconess Extended Care Program
Fairview Ridges Hospital
Fairview Southdale
Family Recovery Program - Immanuel St. Joseph's Hospital
Family Therapy and Recovery Center
Focus Unit - St. Joseph's
Fountain Center
Free Spirit, Inc.
Freedom Reigns Recovery Program - Tree of Life
Gables

Gateway Center
Golden Valley Health Center
H.E.R.S. Women's Prevention Program
Hawthorne Institute
Hazelden Foundation
Hazelden Pioneer House
Hazelden Women's Outpatient Program
Health East - St. Joseph's
Hennepin County Outpatient Program
Hiawatha Valley Mental Health Center
Illusions
Irene Whitney Center
Journey Home Extended Care
Journey Home Halfway House
Kelly Institute
Koochiching Counseling Center
Lakes Counseling Center
Lakes Region Chemical Dependency
Lakeside Treatment Center
Leech Lake RBC
Marty Mann Halfway House
Mash-Ka-Wisen
Messabi Treatment- St. Louis County Jail Program
Minnesota Indian Women's Resource Center
Mission Lodge
Moose Lake Regional Treatment Center - Liberalis
Muscala Chemical Health Clinic
Mustangs Chemical Dependency
Norhtland Counseling Center
Northland Recovery Center
Omegon, Inc.
Port Rehabilitation Center
Pride Institute
Progress Valley Ii
River Ridge Nonresidential Treatment Center
River Ridge Treatment Center
Riverplace Counseling Center
St. Cloud Hospital
St. John's Regional Health Center
St. Mary's Riverside Medical Center
St. Paul Ramsey Medical Center
St. Peter Regional Treatment Center
Serenity House
Sunrise Recovery Center
Triumph Life Center
Turning Point Inpatient Services
Turning Point, Inc. - Demand Program
Twin Town Treatment Center
University of Minnesota Hospitals
Wayside House, Inc.
Wellness Center of Fargo/Moorhead
West Suburban Counseling Clinic

White Earth CD Outpatient
Wren Halfway House

Youth

Adapt of Minnesota
Addictions and Stress
Adolescent Treatment Center of Winnebago
Agape Halfway House
Anthony Louis Center
Anthony Louis Center South
Arrowhead
Bradley Center - Willmar Regional Treatment Center
Break Free
Cardinal Recovery Center
Center
Children are People
Community Intervention
Counseling Associates of Bemidji
Counseling Center
Dellwood Recovery Center
District Memorial Hospital
Divine Redeemer Adolescent Intervention Unit
Eden Youth Program
Fairview Deaconess Adolescent Program at Riverside
Fairview Deaconess Extended Care Program
Fairview Deaconess Halfway House Program
Fairview Maplewood Adolescent
First Step Center
Genesis Adolescent
Golden Valley Health Center
Hawthorn Institute
Hazelden Foundation
Illusions
Indian and Free (Drug Program)
Irene Whitney Center
Journey Home Halfway House
Juel Fairbanks
Koochiching Counseling Center
Lakes Counseling Center
Lakes Region Chemical Dependency
Lakeview Chemical Dependency Unit
Linley House
Mayo Clinic Adolescent Program
New Connection Programs
Northland Counseling Center
Northland Recovery Center
Northwest Recovery Center
Omegon, Inc.
On Belay House
Prevention Alliance

Program for Addictions Recovery - Upper Mississippi Mental Health Center
Project Charlie (Edina and Richfield Public Schools)
Recovery Plus - Litchfield Young People Program
Red Lake Alcohol Rehabilitation Program
Red Lake Halfway House
St. Cloud Hospital
St. Francis Medical Center - Hope Unit
Sherburne House
Southern Minnesota Chemical Dependency Services
Stafford Chemical Dependency Treatment Center
Triumph Life Center
Trident Extended Care
Turning Point, Inc. - Demand Program
Wellness Center of Fargo/Moorhead
White Earth CD Outpatient

APPENDIX F

COMMISSION RESOURCE MATERIAL AND BIBLIOGRAPHY

BIBLIOGRAPHY

Minnesota Reports

Anoka County Corrections Department. Anoka County Repeat Offender Program for Drunk Drivers. Program description and statistics. 1990-1991.

Harrison, Patricia and Hoffmann, N. Chemical Dependency Inpatients and Outpatients: Intake Characteristics and Treatment Outcomes. Chemical Dependency Program Division. Minnesota Department of Human Services. January 1983-January 1986.

Hoffmann, Norman, et at. Comparison of Court-Referred DWI Arrestees With Other Outpatients in Substance Abuse Treatment. Journal of Studies on Alcohol. Vol. 48, No. 6, pp. 591-594, 1987.

Hoffmann, Norman and Harrison, P. Relapse: Conceptual and Methodological Issues. Journal of Chemical Dependency Treatment. Clinical Topics for the Practitioner. Vol. 2, No. 2, pp. 27-51, 1989.

Kincannon, James. An Analysis of 2000 Alcohol/Drug Problem Assessments: What do Client's Responses Tell Us? Proceedings of the State Epidemiology Work Group. October 1989.

Mathews-Larson, Joan and Parker, R. Alcoholism Treatment with Biochemical Restoration as a Major Component. International Journal of Biosocial Research. Vol. 9, No. 1, pp. 92-106, 1987.

McFarlane, Janna. The Relationship Between Multiple Alcohol Related Traffic Offenses and Other Serious Criminal Convictions. M.S. Thesis for St. Cloud State University. May 1990.

Metropolitan Council. Curbing Drug and Alcohol Abuse: At What Cost? September 1992.

Minnesota Department of Human Services Chemical Dependency Division, DAANES Database.

Minnesota Department of Human Services Chemical Dependency Division, Research News, October 1992.

Minnesota Department of Public Safety. Minnesota Rules Chapter 7409: Rules Relating to Vehicle Ignition Interlocks. Notice of Intent to Adopt Rules Without a Hearing. August 25, 1992.

Minnesota Planning. Treatment Programs for Local Offenders: Survey of Probation Officers, Parole Officers and Corrections Officials. April 1992.

Minnesota Planning & Minnesota Department of Public Safety. Minnesota DWI Facts At-A-Glance. May 1992.

Office of the Legislative Auditor. Sentencing and Correctional Policies. Program Evaluation Division. June 1991.

Rogers, Alan. Preliminary Report of DWI Recidivism from the Vanhon Database. Minnesota Department of Public Safety. 1990.

Simon, Stephen. Incapacitation Alternatives for Repeat DWI Offenders. Alcohol, Drugs and Driving. Vol. 8, No. 1, pp. 51-60. 1992.

Spicer, J. and Owen, P. Finding the Bottom Line. Hazelden. Center City, MN.

Stearns County ISAT Program. (Intensive Supervision and Treatment). Program description and offender profile, 1991.

MacDonald, Scott and Pederson L. The Characteristics of Alcoholics in Treatment Arrested for Driving While Impaired. British Journal of Addiction. Vol. 85, pp. 97-105, 1990.

Liskow, Barry et al. Antisocial Alcoholics: Are There Clinically Significant Diagnostic Subtypes? Journal of Studies on Alcohol. Vol. 52, No. 1, pp. 62-69, 1991.

McMillen, David, et al. Personality Traits and Behaviors of Alcohol-Impaired Drivers: A Comparison of First and Multiple Offenders. Addictive Behaviors. Vol. 17, pp. 407-414, 1992.

Wieczorek, William, et al. Multiple and Single Location Drinking among DWI Offenders Referred for Alcoholism Evaluation. American Journal of Drug and Alcohol Abuse. Vol. 18, No. 1, pp. 103-116, 1992.

Wieczorek, William, and Miller, B. Preliminary Typology Designed for Treatment Matching of Driving-While-Intoxicated Offenders. Journal of Consulting and Clinical Psychology. Vol. 60, No. 5, pp. 757-765, 1992.

Assessment and Treatment Effectiveness

Wieczorek, William. Treatment Histories of Severe DWI Offenders. Presented at the 12th International Conference on Alcohol, Drugs and Traffic Safety. Cologne, Germany. September 1992.

Volipicelli, Joseph, et al. Naltrexone in the Treatment of Alcohol Dependence. Achieves of General Psychiatry. Vol. 49, pp. 876-880, 1992.

O'Malley, Stephanie et al. Naltrexone and Coping Skills Therapy for Alcohol Dependence. Achieves of General Psychiatry. Vol. 49, pp. 881-887, 1992.

Longabaugh, Richard and Lewis, D. Key Issues in Treatment Outcome Studies. Alcohol Health & Research World. Vol. 12, No. 3, pp. 168-174, 1988.

Sobell, Mark et al. Alcohol Treatment Outcome Evaluation Methodology: State of the Art 1980-1984. Addictive Behaviors. Vol. 12, No. 2, pp. 113-128, 1987.

Mann, R.E. et al. A Critical Review on the Effectiveness of Drinking-Driving Rehabilitation Programmes. Accident Analysis and Prevention. Vol. 15, No. 6, pp. 441-461, 1983.

Vingilis, Evelyn and Mann R. Towards and Interactionist Approach to Drinking-Driving Behavior: Implications for Prevention and Research. Health Education Research, Theory and Practice. Vol. 1, No. 4, pp. 273-288, 1986.

Holder, Harold et al. The Cost Effectiveness of Treatment for Alcoholism: A First Approximation. Journal of Studies on Alcohol. Vol. 52, No. 6, p. 517-540, 1991.

Institute of Medicine, National Academy of Sciences. Prevention and Treatment of Alcohol-Related Problems: Research Opportunities. Journal of Studies on Alcohol. Vol 53, pp. 5-16, 1992.

Fitzpatrick, Jody. Problems in the Evaluation of Treatment Programs for Drunk Drivers: Goals and Outcomes. Journal of Drug Issues. Vol. 22, No. 1, pp. 155-167, 1992.

Wells-Parker, Elisabeth and Bangert-Drowns, R. Meta-Analysis of Research on DUI Remedial Interventions. Alcohol, Drugs and Driving, Vol. 6, No. 3/4, p. 147-160, 1990.

Wieczorek, William, et al. The Limited Utility of BAC for Identifying Alcohol-Related Problems among DWI Offenders. Journal of Studies on Alcohol. Vol. 53, pp. 415-419, 1992.

Programs in Other States

Texas Department of Criminal Justice. Substance Abuse Felony Punishment Facilities. Community Justice Assistance Division. September 1992.

Texas Department of Criminal Justice. Case Management Delivery System: Continuum of Care Program for S.B. 828 and H.B. 93 Treatment Beds. Community Justice Assistance Division. No date.

National Commission Against Drunk Driving. Focus on Problem Drinkers. Maryland's Drinking Driver Monitor Program Implemented. No date.

Boersema, Craig and Hardenbergh, D. Initial Results from the Maryland DWI/DUI Sentencing Project. State Court Journal. Vol. 14, pp. 4-15, Winter 1990.

Tyrrell, Steven, et al. Program Evaluation: Aspen Correctional Center, Phoenix South-Substance Abuse Services. Fiscal Year 1989-1990.

Allstate Insurance Company. Alternative Treatment for Chronic Drunk Driving Offenders. The Vanderburgh County Indiana Approach. No date.

Siegal, Harvey. The Intervention Approach to Drunk Driver Rehabilitation. Part I. Its Evolution, Operations and Impact. International Journal of the Addictions: Vol. 20, No. 5, pp. 661673, 1985.

Siegal, Harvey. The Intervention Approach to Drunk Driver Rehabilitation. Part II. Evaluation. International Journal of the Addictions. Vol. 20, No. 5, pp. 675-689, 1985.

Wells-Parker, Elisabeth et al. Interactions Among DUI Offender Characteristics and Traditional Intervention

Modalities: A Long Term Recidivism Follow-Up. British Journal of Addictions. Vol. 84, pp. 381-390. 1989.

Criminal Justice and Deterrence

Mann, Robert E., et al. Sentence Severity and the Drinking Driver: Relationships with Traffic Safety Outcome. Accident Analysis and Prevention. Vol. 23, No. 6, pp. 483-491. 1991.

Popkin, Carol and Wells-Parker E. Deterrence and Rehabilitation: Section 1, Deterrence. Research Needs for the Next Decade. Paper presented at Transportation Safety Research Board-Research Summit. 1992.

Simpson, H.M. and Mayhew, D. The Hard Core Drinking Driver. Traffic Injury Research Foundation. 1992.

Gjerde, Hallvard, and Morland, J. A Two Year Prospective Study of Rearrests for Drunken Driving. Scandinavian Journal of Social Medicine, Vol. 16, pp. 111-113, 1989.

Yu, John et al. Punishment Celerity: Specific Deterrence and DWI/DAR Recidivism in New York State. The Problem-Drinker Driver Project: Research Note 91-5. July 1991.

Voas, Robert B. Evaluation of Jail as a Penalty for Drunken Driving. Alcohol, Drugs and Driving: Abstracts and Reviews. Vol. 2, pp. 47-70. 1986.