CURRENT TRENDS AND INDICATORS OF ALCOHOL PROBLEMS IN CALIFORNIA

DEPARTMENT OF ALCOHOL AND DRUG PROGRAMS
DIVISION OF ADMINISTRATION
DATA MANAGEMENT SERVICES BRANCH
STATISTICS AND ANALYTICAL STUDIES SECTION

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INDICATORS OF ALCOHOL PROBLEMS

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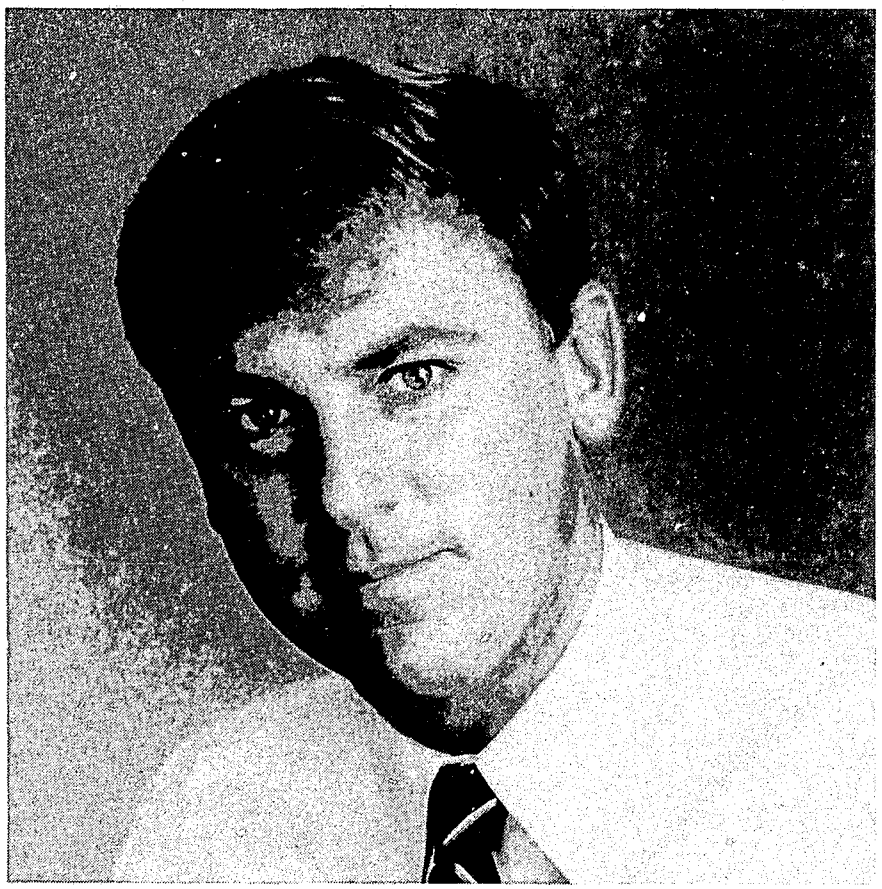

FOREWORD

As the use of alcohol and the problems related to alcohol abuse increase in our society, so does public concern. The socioeconomic costs (crime, treatment lost employment, reduced productivity, social programs) confronting California's citizens as a result of the problems related to alcohol abuse is conservatively estimated at more than $11 billion annually. This is a cost of over $400 for every man, woman, and child in California. As a result, citizen and parent groups, youth and student organizations, civic groups, law enforcement agencies, educators, health care providers, business leaders, and the community at large are joining together to battle this problem and its consequences to our citizens, especially our youth.

The Department of Alcohol and Drug Programs, in cooperation with California's counties and communities, is targeting resources to address problems related to alcohol use. This annual report is intended to highlight patterns and trends of alcohol-related problems during the period 1983 through 1987.

CHAUNCEY L. VEATCH III, Director
Department of Alcohol and Drug Programs

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INTRODUCTION

Alcohol abuse creates an extremely damaging set of problems for our society. From deaths to arrests, personal problems to lost productivity, motor vehicle accidents to birth defects, alcohol abuse creates an emotional and financial drain. This report is intended to highlight alcohol-related problems by reporting indicators of these problems. Both trend data for the period 1983 through 1987 and one-time data are included, since not all data are presently available for the entire five-year period.

Major data sources for this report include the following California state organizations.

- Arrests -- Department of Justice
- Consumption -- State Board of Equalization
- Deaths -- Department of Health Services
- General Population Figures -- Department of Finance
- Hospital Discharges -- Office of Statewide Health Planning and Development
- Motor Vehicle Accidents -- California Highway Patrol
- Treatment Admissions -- Department of Alcohol and Drug Programs

By examining a number of indicators, the reader gains a more comprehensive understanding of alcohol problems. Obviously, some indicator data and trends on alcohol abuse are affected by many intervening variables. Arrest figures, for example, are affected not only by the actual changes in crime activity but also by the focus and philosophies of the criminal justice system. If there is a decision to pursue arrests for persons committing a certain type of offense, statistical trends will be affected. Likewise, increases in the number of licensed drivers and/or miles driven per year may affect motor vehicle accident trends. It is impossible to pinpoint all the causes of year-to-year fluctuations in data. But, even with the effects of additional influences noted, the indicators in this report form a composite picture of severe and enduring problems.

Persons having questions about this report should call the principal author, Craig Chaffee, at (916) 323-2021.

HIGHLIGHTS

Prevalence

- More persons use alcohol than any other drug.
- Although alcohol is by far the most frequently used drug in our society, overall trend indicators reflect a general but slight decrease in resulting problems.
- There are approximately 2.2 million drinkers who experience significant problems as a result of their consumption.
- By grade 11, approximately one student in five drinks beer weekly or more often.
- California's consumption of alcohol is about 20 percent greater than the national average. Wine consumption is about 98 percent greater. However, overall per capita consumption rates went down 4.7 percent from 1983 to 1987.

Costs to Society

- Cost of alcohol problems is estimated at $11.7 billion annually, and includes such factors as treatment and support, mortality, reduced productivity, lost employment, accidents, and crime.
- There are also human problems which cannot be assigned a monetary value. These include effects on the quality of life for family, friends, and community; and the mental anguish suffered by family and friends when a spouse, child, or friend is abusing alcohol.

Deaths

- During 1987, there were 2,488 deaths directly attributable to alcohol (e.g., alcoholic cirrhosis of the liver).
- Many other deaths, such as motor vehicle accidents, are not directly attributable to, but are related largely to, alcohol use.

Criminal Justice

- During 1987, there were a total of 610,821 arrests for alcohol-related offenses.
- Adult and juvenile arrests dropped 3.8 and 9.5 percent, respectively, from 1983 to 1987. These arrest decreases occurred while the drinking age population (14 and above) increased 7.2 percent.
- About half of all misdemeanor arrests in 1987 were for alcohol-related offenses.

ALCOHOL PROBLEM INDICATORS

PREVALENCE OF DRINKING PROBLEMS

While an estimated 4 to 6 million Californians drink alcoholic beverages once a week or more, an estimated 2.2 million persons 14 years and older currently experience problems as a result of alcohol abuse. These problems may include symptoms of alcohol dependence such as loss of memory, inability to stop drinking until intoxication, inability to cut down on drinking, binge drinking, and withdrawal symptoms. Persons with dependence symptoms are defined as alcoholics by the National Institute of Alcohol Abuse and Alcoholism (NIAAA). In addition, alcohol abusers are defined as those who, while not showing dependence symptoms, experience negative social or personal consequences of alcohol use. Such negative consequences include arrests, accident involvement, health problems, impairment of job performance, and difficulties in personal relationships.

Adolescent alcohol users may experience such negative consequences as poor school performance, trouble with parents, and involvement with the law enforcement system. A 1987 California Attorney General's statewide survey of drug and alcohol use among 7th, 9th, and 11th grade students reports that alcohol is used more frequently than any other drug surveyed. By grade 11, approximately one student in five drinks beer weekly or more often.

ALCOHOL BEVERAGE CONSUMPTION

National surveys of drinking practices indicate that approximately one-third of the U.S. population 18 years and over are abstainers, one-third are light drinkers, and one-third are moderate to heavy drinkers. Further, although two-thirds of the adult population drink, actual consumption is very unevenly distributed. Research suggests that the ten percent of drinkers who drink the most heavily are responsible for half of all alcohol consumed. This same 10 percent consumes roughly 14 drinks per person per day, on the average.

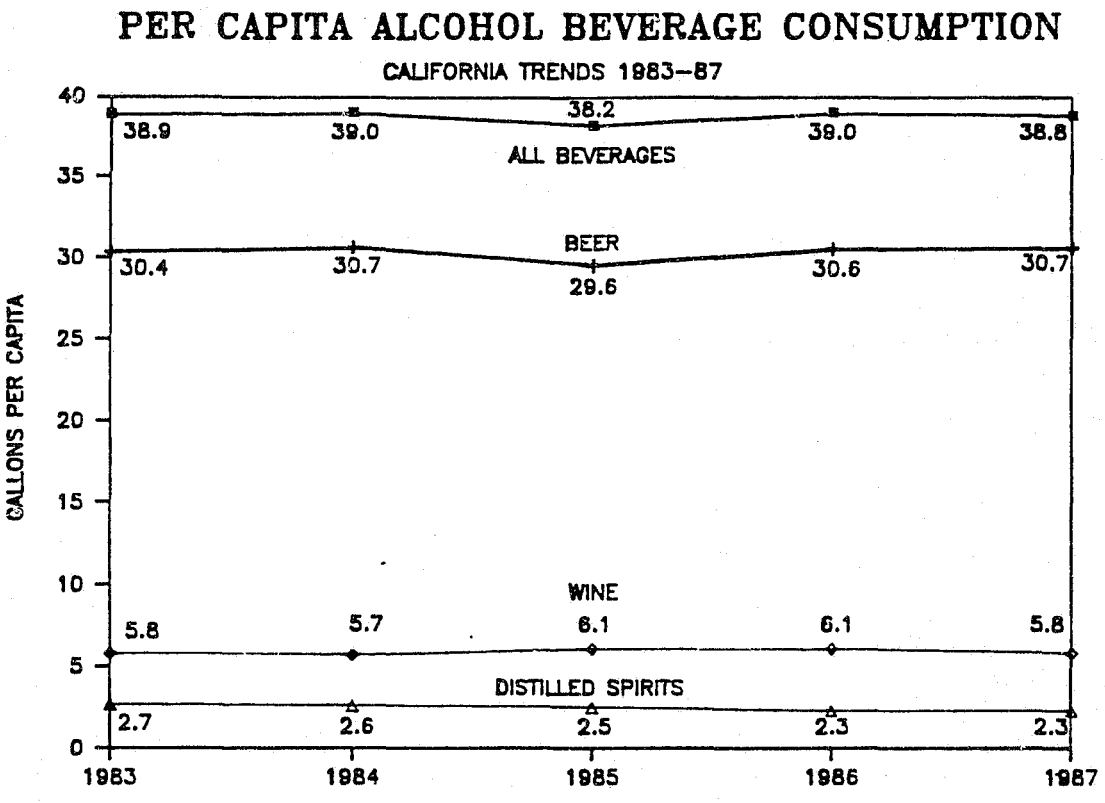
The other half of all alcohol is consumed by the 90 percent of the drinking population who are infrequent, light, or moderate drinkers. In every age group, men drink more than women, and there are more heavy drinkers among men than among women. California's total consumption of alcohol is about 20 percent greater than the national average; its wine consumption is about 98 percent greater.

Graph 1 illustrates the apparent per capita consumption of alcoholic beverages consumed in California. As mentioned above, individuals vary drastically in how much they drink. Nevertheless, per capita consumption rates provide an idea of how much is being consumed overall, with population increases accounted for. Consumption figures are developed from the taxable distributions reported by manufacturers, importers, or wholesalers on tax returns. The quantity sold is presumed equal to the quantity consumed, and is therefore referred to as "apparent" consumption. The lag period between time of sale and time of actual consumption is discounted as of little consequence for purposes of estimating consumption rates.

During the period 1983 through 1987, the annual per capita consumption rate of alcoholic beverages has remained relatively stable at about 39 gallons for all beverages, with one decrease to about 38 gallons in 1985. Beer per capita

consumption has remained at about 30.5 gallons, with one significant drop to 29.6 gallons in 1985. Wine per capita consumption has remained fairly stable, 5.8 gallons in 1983 and 1987, 5.7 gallons in 1984, and 6.1 gallons in 1985 and 1986. Distilled spirits shows the only consistent per capita and actual gallonage decrease, going from 54,087,901, or 2.7 gallons per person, to 49,318,784, or 2.3 gallons per person.

GRAPH 1



Source: State Board of Equalization

Total consumption (in gallons) of all beverages has increased (because of the increase in beer consumption) about seven percent. Consumption went from 782,903,453 gallons in 1983 to 837,530,536 gallons in 1987. (Appendix, Table 1) Likewise, the total population of those 14 and older has increased about 7 percent, from 20,113,901 in 1983 to 21,566,774 in 1987.

But, while the consumption of beer has increased, the consumption of distilled spirits has decreased. Distilled spirits contain more alcohol per gallon than beer (e.g., hard liquor 80 proof, beer 6 proof). Therefore, the number of gallons of absolute alcohol consumed per capita has decreased slightly, from 3.22 gallons in 1983 to 3.07 gallons in 1987.

ALCOHOL-RELATED ARRESTS

Arrests for alcohol-related offenses serve both as an indicator of alcohol problems and as a deterrent against such behaviors in the future. The criminal justice statistics on alcohol detail a continuing problem of major proportions.

Total alcohol-related arrests have shown a see-saw movement since 1983. In 1983, total alcohol-related arrests were 636,107; they decreased in 1984 to 629,702, decreased again in 1985 to 614,599, only to increase to 623,913 in 1986, and decrease in 1987 to 610,821. (Appendix, Table 2) If the general population increases for persons 14 and older are taken into account, the number of arrests per 100,000 has decreased steadily from 3,163 in 1983 to 2,832 in 1987 (10.5 percent overall decrease).

The categories used in alcohol-related arrests are felony drunk driving, misdemeanor drunk driving, misdemeanor drunk (647f), liquor laws, and civil drunk. Felony drunk driving and misdemeanor drunk driving are self-explanatory. Since January 1, 1982, the State has punished drunken drivers with a minimum of 48 hours in jail and $390 in fines, and it has tightened legal procedures to increase the likelihood of conviction. Liquor law violations can be any violations involving alcohol, not pertaining to driving or public nuisance. A misdemeanor drunk (647f) is a person found drunk in public places, creating a nuisance and obstructing public thoroughfares. A civil drunk is someone who is intoxicated and placed in protective custody for their own safety.

Adult

As with total alcohol-related arrests, adult alcohol-related arrests also moved up and down between 1983 and 1987. In 1983, total adult alcohol-related arrests were 613,288. They decreased in 1984 (607,993) and 1985 (593,034). They increased in 1986 (598,444) and decreased to 590,169 in 1987. (Graph 2A)

Felony drunk driving arrests of adults continuously increased between 1983 and 1987, from 6,633 to 8,269. This is a 24.7 percent net increase.

There were 342,203 adult misdemeanor drunk driving arrests in 1983. From 1984 to 1986, these arrests decreased from 341,579 to 334,902. However, in 1987, arrests rose slightly to 337,294.

Misdemeanor drunk (647f) arrests declined 13.0 percent from 219,818 in 1983, to 191,347 in 1987.

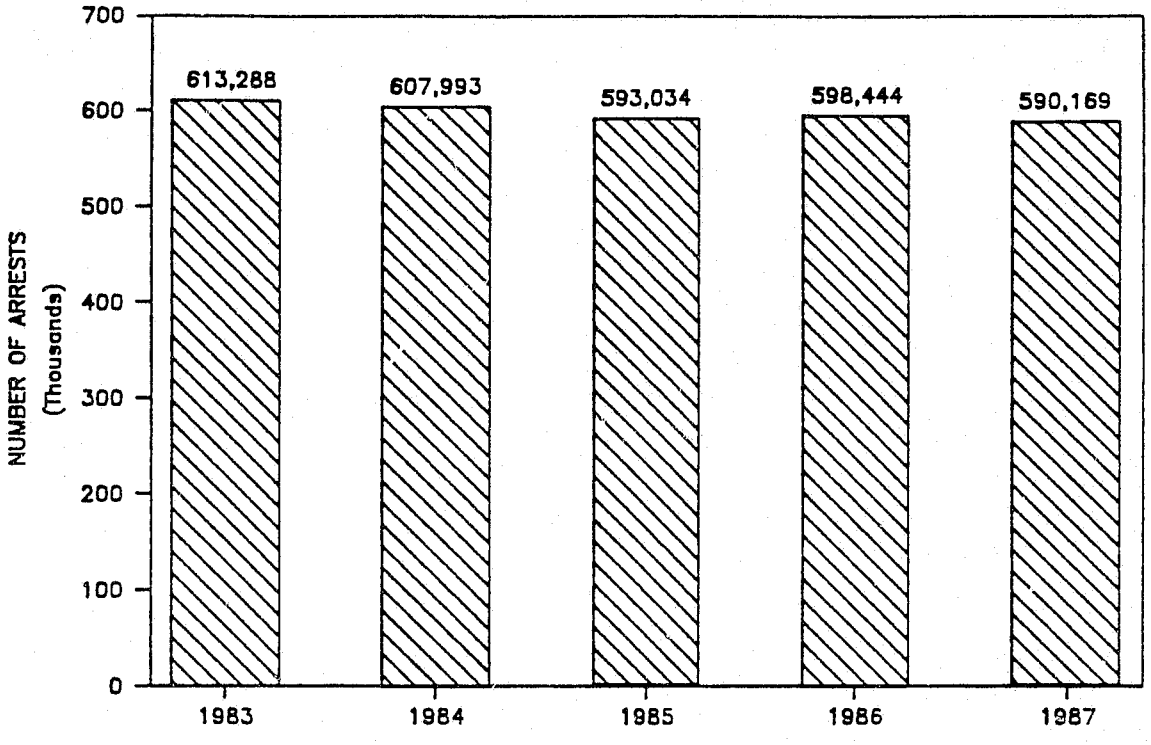
Liquor law arrests remained fairly constant from 29,738 in 1983 to 29,582 in 1984. In 1985 and 1986, arrests increased to 33,489 and 38,678, respectively. In 1987, these arrests decreased to 32,465.

Civil drunk arrests increased from 14,896 in 1983 to 21,434 in 1986. In 1987, the number dropped slightly to 20,794. Overall, this category had the largest net increase (40.0 percent). (Graph 2B)

GRAPH 2A

TOTAL ADULT ALCOHOL-RELATED ARRESTS

CALIFORNIA TRENDS 1983-87

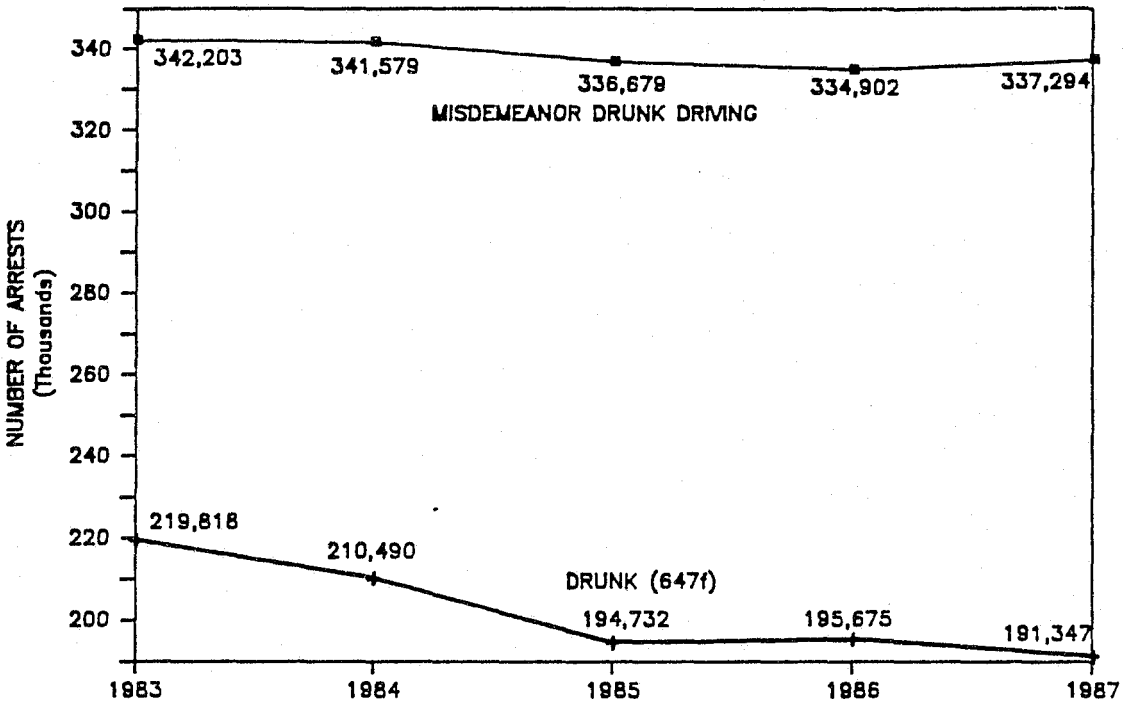


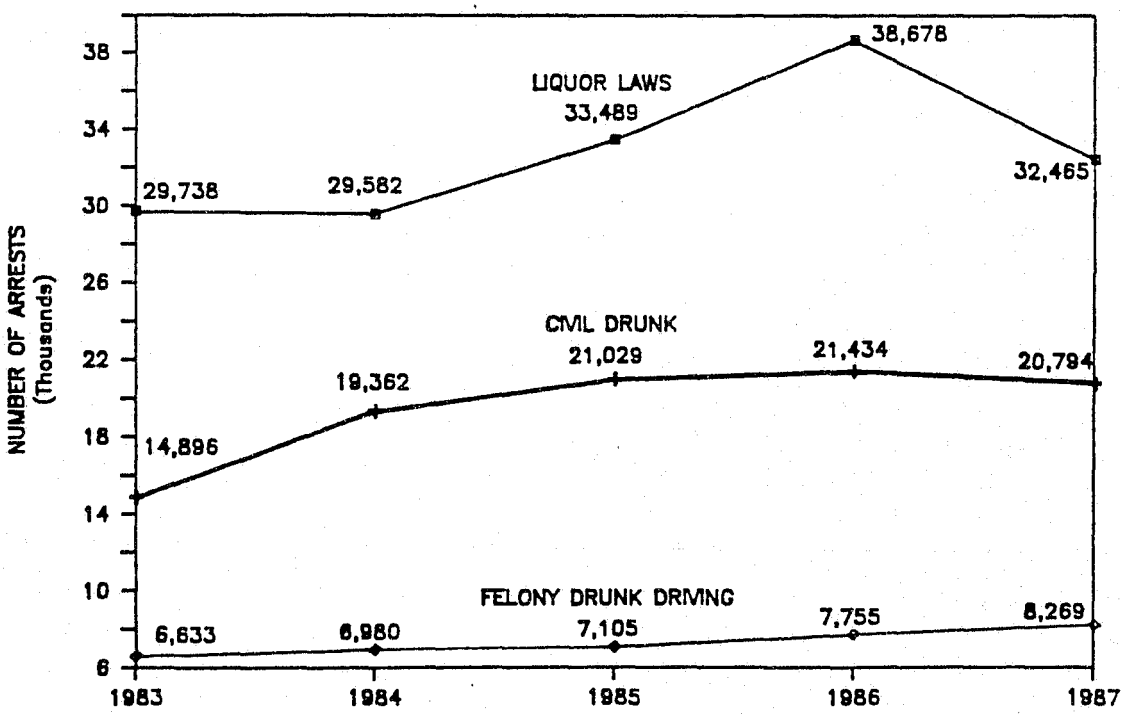
SOURCE: DEPARTMENT OF JUSTICE, BUREAU OF CRIMINAL STATISTICS

GRAPH 2B

ADULT ALCOHOL-RELATED ARRESTS

CALIFORNIA TRENDS 1983-87





SOURCE: DEPARTMENT OF JUSTICE,BUREAU OF CRIMINAL STATISTICS

Juvenile

Total juvenile alcohol-related arrests decreased slightly, from 22,819 in 1983 to 21,565 in 1985. The arrests increased in 1986 to 25,469, then decreased in 1987 to 20,652. (Graph 2C)

Felony drunk driving arrests increased from 179 in 1983 to 220 in 1984. Arrests decreased in 1985 to 211, then increased to 279 in 1986. In 1987, they decreased to 219.

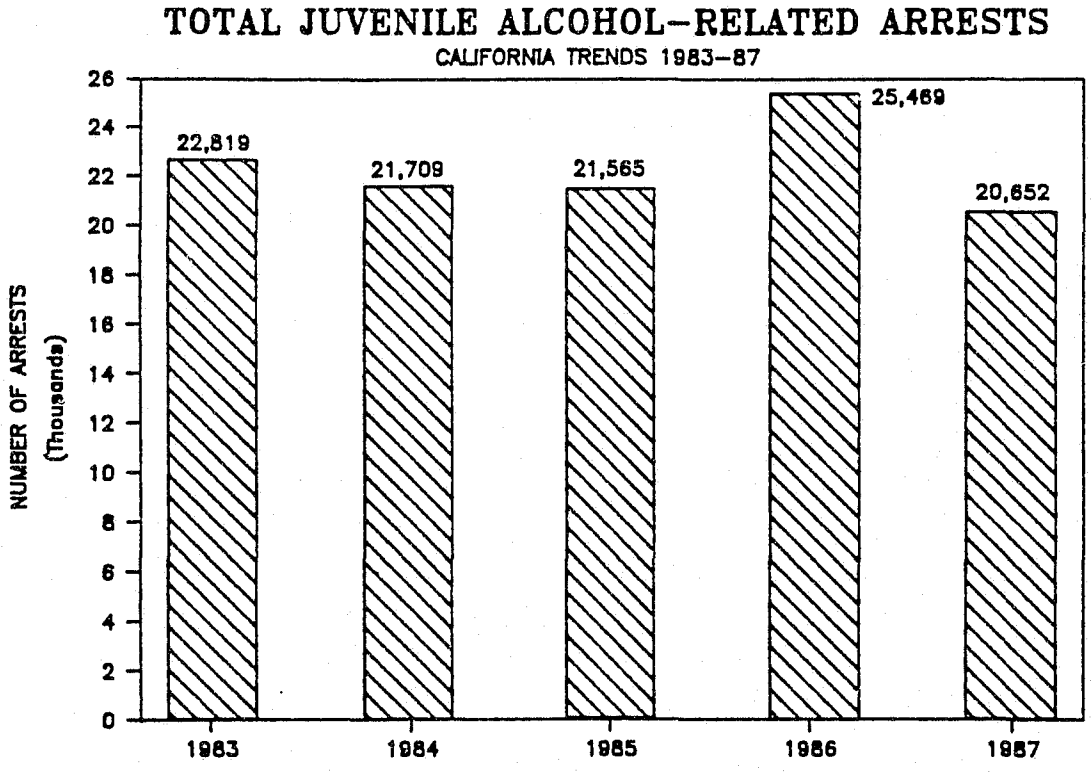
Between 1983 and 1985, misdemeanor drunk driving arrests decreased from 4,064 to 3,802. In 1986, they increased to 4,350, then decreased in 1987 to 3,794.

Drunk (647f) arrests, like misdemeanor drunk driving arrests, decreased between 1983 and 1985, from 7,688 to 6,589. In 1986, these arrests increased to 7,842, then decreased in 1987 to 5,738.

Liquor law arrests decreased slightly between 1983 and 1984, from 10,816 to 10,537. The arrests increased from 10,860 in 1985 to 12,844 in 1986, then decreased to 10,807 in 1987.

Civil drunk arrests increased from 72 in 1983 to 154 in 1986, then decreased to 94 in 1987. (Graph 2D)

GRAPH 2C

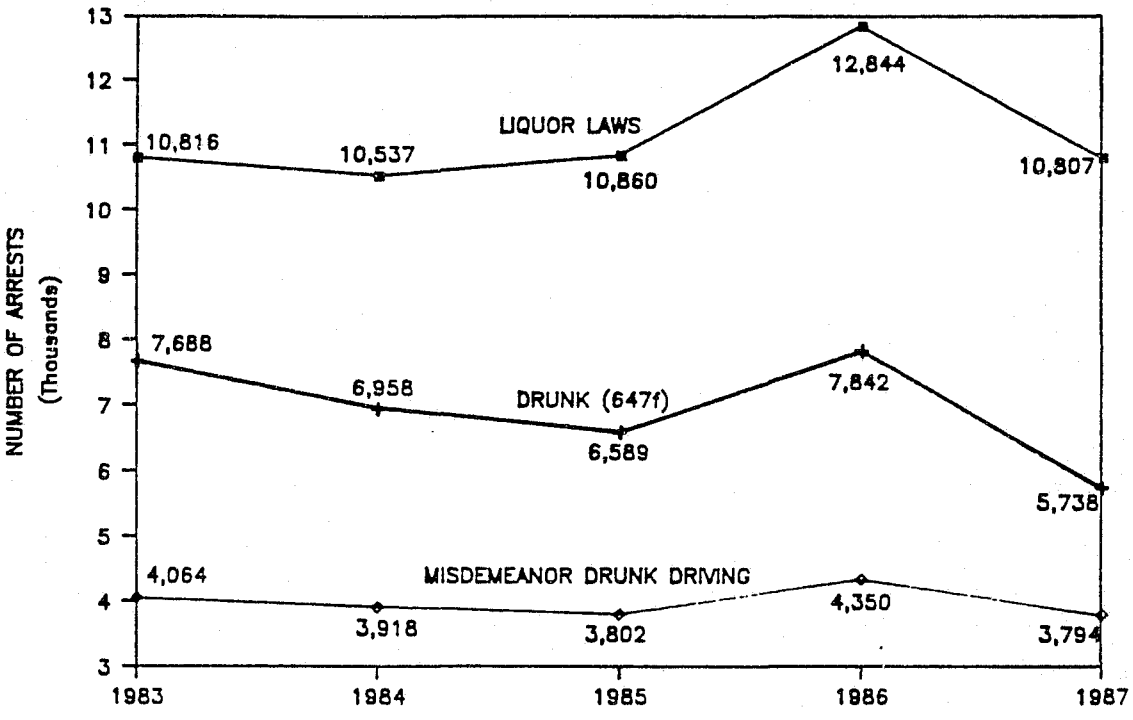


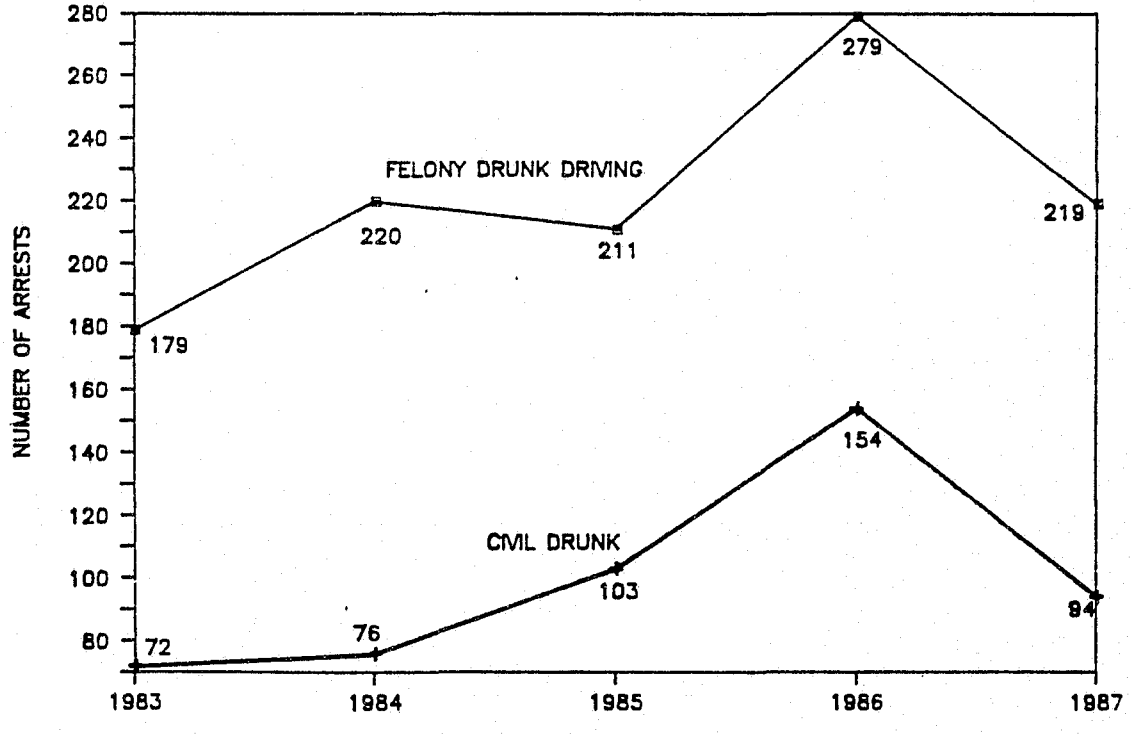
SOURCE: DEPARTMENT OF JUSTICE, BUREAU OF CRIMINAL STATISTICS

GRAPH 2D

JUVENILE ALCOHOL-RELATED ARRESTS

CALIFORNIA TRENDS 1983-87





SOURCE: DEPARTMENT OF JUSTICE, BUREAU OF CRIMINAL STATISTICS

ALCOHOL-RELATED CRIMINAL ACTIVITY

In addition to arrests specific to alcohol abuse, a major portion of criminal acts such as murder, assault, rape, and burglary are alcohol-related. Below is a table from a 1985 U.S. Department of Justice study, designed to provide a representative sample of the Nation's prison population. It found that nearly half the convicted inmates had been under the influence of alcohol at the time of the criminal offense for which they were convicted.

ALCOHOL USE AMONG CONVICTED OFFENDER JUST BEFORE COMMITTING CURRENT OFFENSE, BY CRIMINAL TYPE

Current Offense	Percentage of Convicted Persons Who Used Alcohol
Total	48%
Violent	54
Murder/attempted murder	49
Manslaughter	68
Rape/sexual assault	52
Robbery	48
Assault	62
Other violent[a]	49
Property	40
Burglary	44
Auto theft	51
Fraud/forgery/embezzlement	22
Larceny	37
Stolen property	45
Other property[b]	51
Drugs	29
Traffic	26
Possession	30
Other drugs	44
Public order	64
Weapons	32
Obstructing justice	43
Traffic	36
Driving while intoxicated[c]	93
Drunkenness/morals offenses[d]	70
Other public order[e]	28
Other[f]	40

Source: USDOJ 1985

a. Includes kidnapping, purse snatching, hit-and-run driving, and child abuse.
b. Includes arson, destruction of property, property damage from hit-and-run driving, and trespass.
c. Includes driving while intoxicated and driving under the influence of drugs.
d. Also includes vagrancy and commercialized vice.

e. Includes rioting, habitual offender, family-related offenses such as nonsupport or abandonment, invasion of privacy, and contributing to the delinquency of a minor.
f. Includes juvenile offenses and unspecified offenses.

ALCOHOL-RELATED MOTOR VEHICLE ACCIDENTS AND VICTIMS

Motor vehicle accidents are the most common non-natural cause of death in the United States, accounting for more fatal injuries than any other type of accident. Although most states define legal intoxication as having a blood alcohol content (BAC) of 0.10 percent or higher, alcohol may cause a deterioration of driving skills at 0.05 percent or even lower. Deterioration progresses rapidly with rising BAC.

After analyzing case reports, simulated driving conditions, and epidemiologic data, researchers have consistently and unequivocally concluded that alcohol contributes significantly to traffic accidents. The higher the amount of alcohol consumed, the greater the likelihood that an accident will occur and that the accident will be serious or fatal.

The following provides an overview of alcohol-related motor vehicle accidents and victims in California from 1983 through 1987.

Accidents

In 1983, there were 2,089 fatal accidents related to alcohol use. The number increased to 2,311 in 1984, decreased to 2,130 in 1985, and increased to 2,232 in 1986 and to 2,425 in 1987. Overall, this was a net increase of 7.5 percent. (Appendix, Table 3) However, if the general population increases for persons 14 and older are taken into account, the number of fatal accidents per 100,000 was 10.4 in both 1983 and 1987.

Alcohol-related motor vehicle injury accidents increased from 42,618 in 1983 to 43,113 in 1984. In 1985, injury accidents decreased to 42,316. In 1986, they increased to 44,303, then decreased in 1987 to 43,108. This was a net increase of 1.1 percent. (Table 3) However, if the general population increases for persons 14 and older are taken into account, the number of injury accidents per 100,000 decreased from 211.9 in 1983 to 199.9 in 1987 (5.7 overall decrease). Further, during this time period, there was a 23.9 percent increase in miles driven per year and an 11.5 percent increase in the number of licensed drivers.

The percentage of total alcohol-related fatal accidents compared to the total of all fatal accidents increased slightly from 51.1 percent in 1983 to 51.4 percent in 1984, and then decreased to 48.2 percent in 1985 and 48.0 percent in 1986. In 1987, the percentage increased to 49.3 percent. (Graph 3)

The percentage of total alcohol-related injury accidents compared to the total of all injury accidents continually decreased, from 21.7 percent in 1983 to 18.0 percent in 1987. (Graph 3A)

Victims

The number of victims killed in alcohol-related motor vehicle accidents in 1983 was 2,386. The number increased in 1984 to 2,607, decreased in 1985 to 2,412, increased in 1986 to 2,543 and in 1987 to 2,754. This represented a 15.4 percent net increase. (Table 3) If the general population increases for persons 14 and older are taken into account, the number of victims killed per 100,000 increased 7.6 percent, from 11.9 in 1983 to 12.8 percent in 1987.

The number of victims injured in alcohol-related motor vehicle accidents increased from 66,909 in 1983 to 67,835 in 1984. In 1985, the number of injuries decreased to 66,667. In 1986, the number increased to 69,876, then decreased to 68,816 in 1987. This represented a 2.9 percent net increase. (Table 3) However, if the general population increases for persons 14 and older are taken into account, the number of victims injured per 100,000 decreased 4.1 percent, from 332.7 in 1983 to 319.1 in 1987. Also, the increase in miles driven per year and in licensed drivers (noted above) must be taken into account.

The percentage of total alcohol-related victims' fatalities and injuries compared to the total of all victims' fatalities and injuries gradually decreased from 52.2 percent (fatalities) and 22.9 percent (injuries) in 1983 to 48.7 percent (fatalities) and 20.1 percent (injuries) in 1986. In 1987, alcohol-related victims' fatalities increased to 50.1 percent of the total, while alcohol-related injuries decreased to 19.1 percent. (Graph 3)

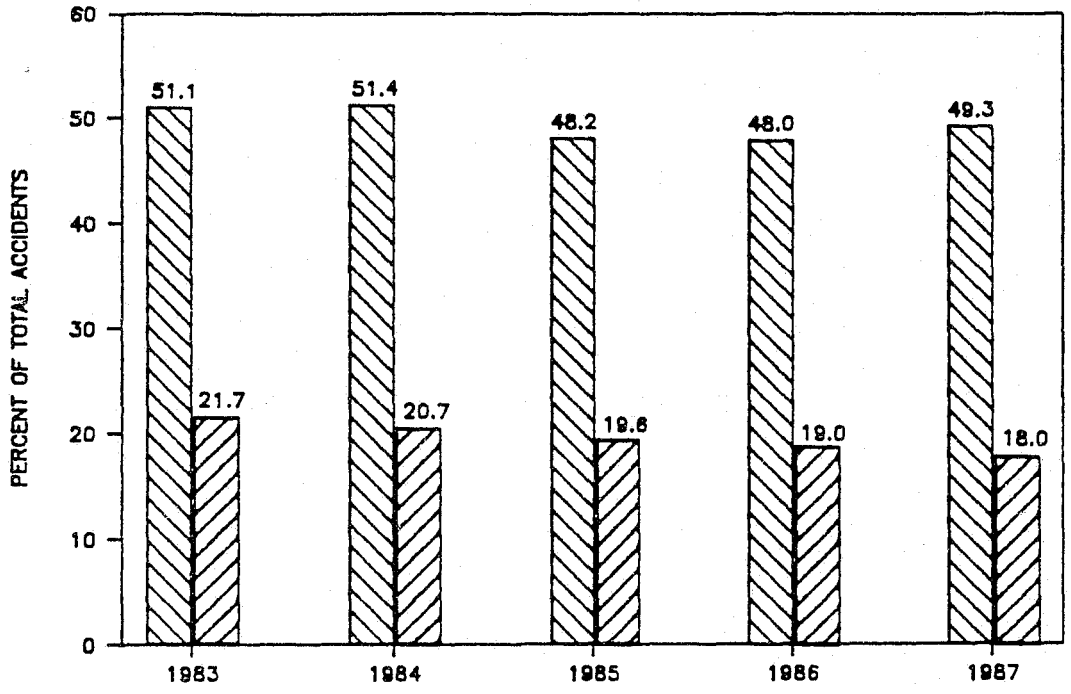
Blood Alcohol Concentration

A Blood Alcohol Concentration Chart and a description of the effects of increased blood levels on a typical person are displayed on the page following Graph 3.

GRAPH 3

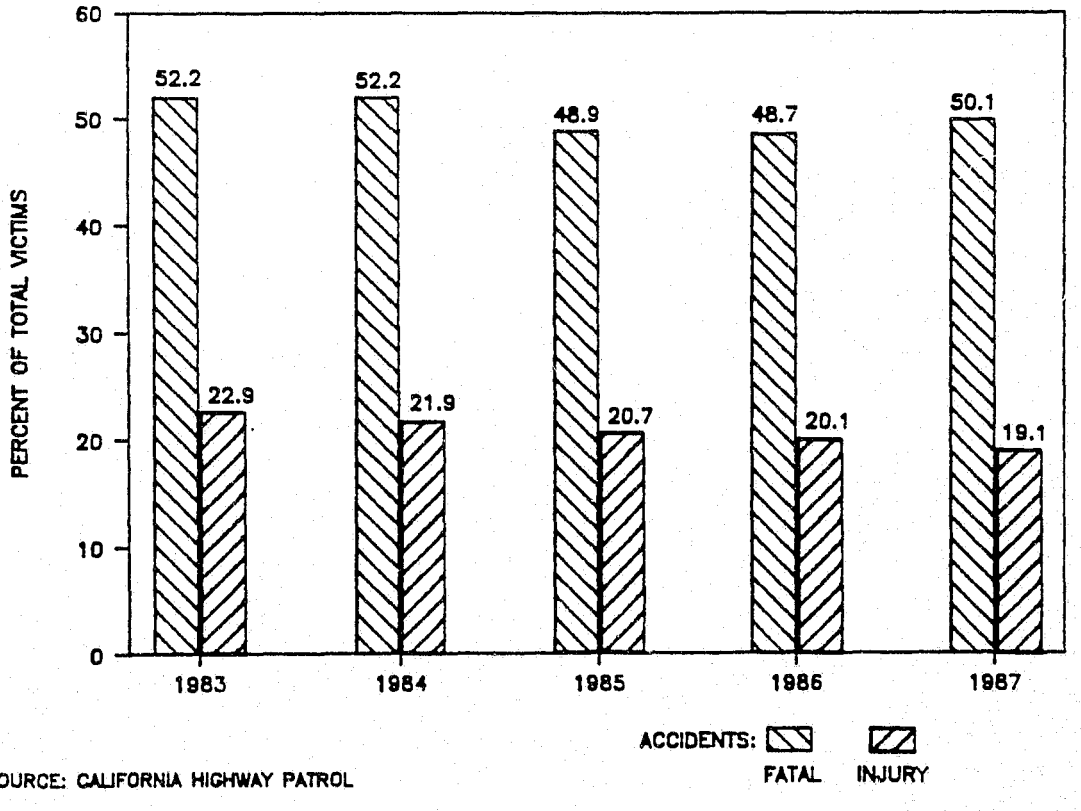
ALCOHOL-RELATED MOTOR VEHICLE ACCIDENTS

COMPARED TO TOTAL ACCIDENTS



ALCOHOL-RELATED ACCIDENT VICTIMS

COMPARED TO TOTAL ACCIDENT VICTIMS



SOURCE: CALIFORNIA HIGHWAY PATROL

EFFECTS OF INCREASED BLOOD LEVEL ON A TYPICAL PERSON

Blood Alcohol Concentration	Effects
.02	Reached after approximately one drink; light or moderate drinkers feel some effect, e.g., warmth and relaxation.
.04	Most people feel relaxed, talkative and happy. Skin may flush.
.05	First sizable changes begin to occur. Lightheadedness, giddiness, lowered inhibitions, and less control of thoughts may be experienced. Both restraint and judgment are lowered; coordination may be slightly altered.
.06	Judgment somewhat impaired; normal ability to make a rational decision about personal capabilities is affected, e.g., concerning driving ability.
.08	Definite impairment of muscle coordination and a slower reaction time; driving ability suspect. Sensory feelings of numbness of the cheeks and lips. Hands, arms, and legs may tingle and then feel numb. (Legally impaired in Canada and in some states.)
.10	Clumsy; speech may become fuzzy. Clear deterioration of reaction time and muscle control. Legally drunk in most states and in California it is illegal to operate a motor vehicle with this or greater BAC.
.15	Definite impairment of balance and movement. The equivalent of a half-pint of whiskey is in the bloodstream.
.20	Motor and emotional control centers measurably affected; slurred speech, staggering, loss of balance, and double vision can all be present.
.30	Lack of understanding of what is seen or heard; individual is confused or stuporous. Consciousness may be lost at this level, i.e., individual "passes out".
.40	Usually unconscious; skin clammy.
.45	Respiration slows and can stop altogether.
.50	Death can result.

Source: Paley, W., et al, Alcoholism, A Treatment Manual, 1979.

BLOOD ALCOHOL CONCENTRATION (BAC) CHARTS

DRINKING UNDER 21 YEARS OF AGE IS ILLEGAL.

(Drivers under 18 years old with a BAC of .05-.09 can be cited for violation of Section 23140 CVC.)

IF YOU DRINK, DON'T DRIVE!

Prepared by the Department of Motor Vehicles in cooperation with the California Highway Patrol, The Office of Traffic Safety, the Department of Alcohol and Drug Programs and the Department of Justice

There is no safe way to drive after drinking. These charts show that a few drinks can make you an unsafe driver. They show that drinking affects your **BLOOD ALCOHOL CONCENTRATION (BAC)**. The **BAC** zones for various numbers of drinks and time periods are printed in white, grey, and black.

HOW TO USE THESE CHARTS. First, find the chart that includes your weight. For example, if you weigh 160 lbs., use the "150 to 169" chart. Then look under "Total Drinks" at the "2" on this "150 to 169" chart. Now look below the "2" drinks, in the row for 1 hour. You'll see your **BAC** is in the grey shaded zone. This means that if you drive after 2 drinks in 1 hour, you could be arrested. In the grey zone, your chances of having an accident are 5 times higher than if you had no drinks. But, if you had 4 drinks in 1 hour, your **BAC** would be in the black shaded area. . .and your chances of having an accident 25 times higher. What's more, it is **ILLEGAL** to drive at this **BAC** (.10% or greater). After 3 drinks in 1 hour, the chart shows you would need 3 more hours—with no more drinks—to reach the white **BAC** zone again.

REMEMBER: "One drink" is a 12-ounce beer, or a 4-ounce glass of wine, or 1¼-ounce shot of 80-proof liquor (even if it's mixed with non-alcoholic drinks). If you have larger or stronger drinks, or drink on an empty stomach, or if you are tired, sick, upset, or have taken medicines or drugs, you can be **UNSAFE WITH FEWER DRINKS.**

TECHNICAL NOTE: These charts are intended to be guides and are not legal evidence of the actual blood alcohol concentration. Although it is possible for anyone to exceed the designated limits, the charts have been constructed so that fewer than 5 persons in 100 will exceed these limits when drinking the stated amounts on an empty stomach. Actual values can vary by bodytype, sex, health status, and other factors.

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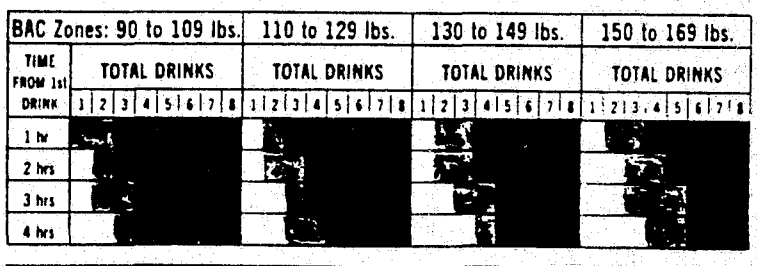
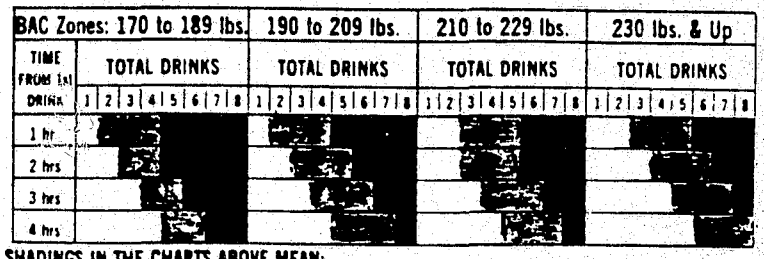




SHADINGS IN THE CHARTS ABOVE MEAN:

- ☐ (.01%-.04%) Seldom illegal
- ☐ (.05%-.09%) May be illegal
- ■ (.10% Up) Definitely illegal
- ☐ (.05%-.09%) Illegal if under 18 yrs. old

ALCOHOL PROGRAMS -- PARTICIPANT CHARACTERISTICS

The Department presently tracks participant data from two major sources on persons receiving treatment/recovery services primarily for alcohol use. Under both systems, one individual can be counted more than once during a given period if he/she is admitted and discharged more than once.

California Alcohol Program Participant System (CAPPS)

County-monitored, community-based direct alcohol recovery services voluntarily submit admission-based participant data to ADP. Presently, counties representing approximately 57 percent of the general population submit data. From this data collection, and a telephone survey of nonparticipating counties, the following estimates of statewide participant characteristics were formed (Fiscal Year 1987-88 data is the most current available):

	Number of Clients		
Age/Sex	Male	Female	Total
Under 18 years	1,500	750	2,250
18-20	1,980	820	2,800
21-24	5,900	2,100	8,000
25-34	29,500	9,600	39,100
35-44	28,050	6,100	34,150
45-54	11,880	2,170	14,050
55-64	5,360	890	6,250
65 and over	1,130	270	1,400
TOTAL	85,300	22,700	108,000

Client Race/Ethnicity	Number of Clients
White, not of Hispanic Origin	69,550
Black, not of Hispanic Origin	24,200
Hispanic	10,700
Asian or Pacific Islander	550
Native American	2,100
Other	900
TOTAL	108,000

It is also estimated that only about 20 percent are working, and that about 40 percent have not finished high school.

California Hospital Alcohol Use Acute Care Data

ADP has begun using data on hospital patients. The Office of Statewide Health Planning and Development (OSHPD) collects inpatient discharge data from all nonfederal acute care hospitals in California. This data base includes a record for each acute care hospital discharge. Freestanding chemical dependency recovery hospitals, as well as units of acute care hospitals treating patients for alcohol and drug problems are included in the data base. These patients are a fairly separate and distinct population from those entering programs reporting to CAPPS. This system collects data on hospital

stays, while CAPPS collects data on community-based direct alcohol recovery services. From the hospital data collection, the following statewide patient characteristics are formed (1986 data is the most current available):

- During 1986, there were 41,363 discharges for alcohol abuse diagnoses from nonfederal acute care hospitals in California.

- 71.7 percent were male, and 28.3 percent were female.

- 79.1 percent were White, 11.7 percent were Hispanic, 7.8 percent were Black, 0.9 percent were Asian and Other, and 0.5 percent were American Indian.

- 2.7 percent were 0-17, 1.7 percent were 18-20, 15.9 percent were 21-30, 36.3 percent were 31-44, 33.8 percent were 45-65, and 9.6 percent were over 65.

- Of the 41,363 hospital stays for alcohol, 47.6 percent were 6 days or less, 45.3 percent were 7-30 days, 6.4 percent were 31-60 days, and 0.7 percent were 61 days or more.

- The sources of admission were as follows: routine (68.2 percent), emergency room (26.2 percent), short-term acute care hospital (4.3 percent), and other (1.3 percent).

- The medical conditions of patients at admission were as follows: elective (47.9 percent), urgent (36.7 percent), emergency (15.2 percent), and unknown (0.2 percent).

- The discharge status of the patients was as follows: routine discharge (80.1 percent), left against medical advice (9.6 percent), went to other facilities (7.9 percent), and died (2.4 percent).

- The total hospital charges for services rendered during the length of stay for patient care at the facilities (physician fees related to patient care are not included) were $253,861,957.

- The expected principal sources of payment for services rendered to the hospital patients were as follows: insurance companies (36.8 percent), Medicare (15.1 percent), self-pay (10.4 percent), health maintenance or prepaid health plan (8.7 percent), Blue Cross/Blue Shield (8.3 percent), medically indigent services (6.8 percent), Medi-Cal (6.1 percent), other government (5.9 percent), no charge (1.1 percent), and other (0.8 percent).

ALCOHOL-RELATED MORTALITY

For each death in California, information is recorded on the underlying cause of death, as well as on any contributing causes, along with demographic information. Despite the availability of this information, it is difficult to assess accurately the impact of alcohol abuse on mortality, according to research quoted in the Sixth Special Report to the U. S. Congress on Alcohol and Health. The document says there is substantial under-reporting of alcohol-related conditions, particularly as contributing causes of death on

death certificates. The report also states that this under-reporting may be due to reporting bias, physicians' lack of knowledge of decedents' drinking histories, or both. Furthermore, deaths from motor vehicles and other casualties -- homicide, suicide, etc., are likely to be associated with acute rather than chronic alcohol abuse. They are probably seriously under-reported. In a 1984 national study, the following estimates of percentages of deaths attributable to alcohol were reported.

ESTIMATED PERCENTAGE OF DEATHS ATTRIBUTABLE TO ALCOHOL
UNITED STATES, 1980

Cause of Death	Percentage Attributable to Alcohol
Alcohol as the main cause	
Alcohol psychosis	100
Alcohol dependence syndrome	100
Nondependent use of alcohol	100
Alcoholic polyneuropathy	100
Alcoholic cardiomyopathy	100
Alcoholic gastritis	100
Alcoholic fatty liver	100
Acute alcoholic hepatitis	100
Alcoholic cirrhosis of the liver	100
Alcoholic liver damage, unspecified	100
Accidental poisoning by alcohol	100
Alcohol as a contributing cause	
Cancer of directly exposed tissues	
Malignant neoplasm of lip, oral cavity, pharynx	25
Malignant neoplasm of larynx	25
Malignant neoplasm of stomach	20
Malignant neoplasm of liver	25
Other diseases	
Diabetes mellitus	5
Hypertensive diseases	5
Pneumonia and influenza	5
Diseases of esophagus, stomach, duodenum	10
Chronic liver disease and cirrhosis not specified as alcoholic	25
Accidents	
Railway accidents	10
Motor vehicle traffic accidents	50
Other road vehicle accidents	20
Water transport accidents	20
Air and space accidents	10
Accidental falls	25
Accidents caused by fire	25
Accidents due to natural and environmental factors	25
Accidents caused by submersion, suffocation, and foreign bodies	35
Other accidents	25

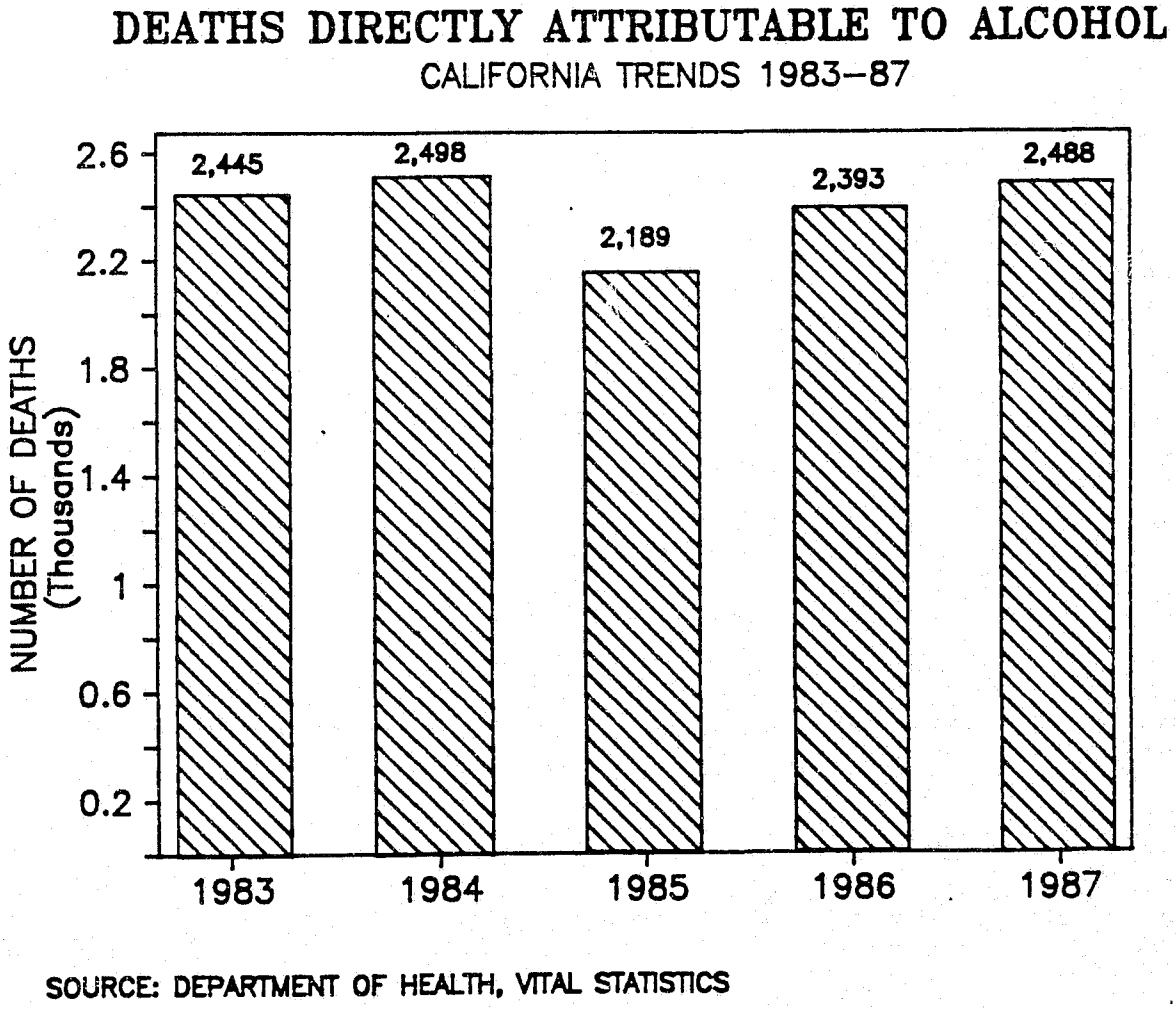
Violence	
Suicide	30
Homicide	50
Undetermined whether accidental or purposely inflicted	30

Source: Ravenholt 1984 -- Sixth Special Report to Congress on Alcohol and Health

DEATHS DIRECTLY ATTRIBUTABLE TO ALCOHOL

Each year, ADP compiled information from the State Department of Health Services on the number of deaths directly attributable to alcohol. In 1987, there were 2,488 deaths. The number of deaths has remained relatively constant since 1983, with a decrease to 2,189 in 1985. (Graph 4) The majority of directly attributable deaths were from chronic liver disease and cirrhosis each year (93.6 percent). Alcoholic psychosis, accidental poisoning, and toxic effects of alcohol accounted for the remaining 6.4 percent in 1987. As previously noted, the number that are directly attributable is relatively small compared to the estimated number of alcohol-related deaths.

GRAPH 4



SOURCE: DEPARTMENT OF HEALTH, VITAL STATISTICS

OTHER PROBLEMS

Alcohol Abuse With Drugs

Many persons who abuse alcohol also abuse drugs. The Department has a California Alcohol Program Participants System, which tracks alcohol recovery treatment admissions, and a California Drug Abuse Data System (CAL-DADS). Of 95,625 admissions to drug programs reporting to CAL-DADS during Fiscal Year 1987-88, 16,565 (17.3 percent) reported having a problem with alcohol as well as drugs. The most commonly mentioned drugs used with alcohol were (in rank order) cocaine, heroin, marijuana, amphetamines, and PCP. It should be noted here that the high prevalence of heroin is in part based on the fact that all methadone maintenance programs are required to report to CAL-DADS.

The Department also tracks data from the National Institute on Drug Abuse's Drug Abuse Warning Network (DAWN). This data base contains a nonrandom sample of hospital emergency room episodes and medical examiner death reports for drugs in standard metropolitan statistical areas (SMSAs) throughout the United States. Within the 3 California SMSAs (Los Angeles, San Diego, and San Francisco), 15.9 percent (4,437) of all drug emergency room mentions (27,881) during 1987 are for alcohol-in-combination with other drugs. The most commonly mentioned drugs in emergency room episodes besides alcohol-in-combination were (in rank order) cocaine, heroin/morphine, PCP, amphetamines, and marijuana/hashish. Of all 4,274 medical examiner death report drug mentions, 16.5 percent (705) were for alcohol-in-combination.

Homeless

Although the homeless traditionally have been viewed as mostly alcoholics, drug addicts, and transients, this sub-population now includes increasing proportions of the elderly, women, children, minorities, unemployed, displaced families, and the mentally ill. Many interrelated factors contribute to the increasing number of homeless. Nevertheless, it is estimated that 15 to 25 percent of the street indigent are alcoholics. A survey of residential services for alcohol and drug use completed by the Department in July 1986 found that an average of approximately 35 percent of the clients served would be classified as homeless if they were not in the programs.

Alcohol-Related Birth Defects (ARBD)

Fetal alcohol syndrome, a birth defect associated with maternal drinking during pregnancy, affects a portion of the live births in California. The number of births affected is uncertain, as there is little data and the experts disagree on their estimates. However, there is no doubt that fetal alcohol syndrome is one of the leading birth defects frequently associated with mental retardation, along with Down syndrome and spina bifida. Of these three, fetal alcohol syndrome is the only one that is preventable.

Costs of Alcohol Use

Not only do problem drinkers and their victims suffer, but all Californians share in paying for the extra health, social welfare, and law enforcement protection services required. The total cost of alcohol problems to the State

of California is estimated at over 11 billion dollars annually. This is a cost of over $400 for every man, woman, and child in California. The following is a breakdown of the estimated costs.

COSTS TO THE STATE OF CALIFORNIA FOR
ALCOHOL ABUSE 1985
($ IN BILLIONS)

CORE COSTS		
Direct		
Treatment and Support	$1.4	
Indirect		
Mortality	1.8	
Reduced Productivity	6.6	
Lost Employment	.5	
		$10.3
OTHER RELATED COSTS (motor vehicle crashes, crime, social welfare programs)		$ 1.4
	TOTAL	$11.7

Source: Research Triangle Institute. Presently a national update is being developed and should be available in the summer of 1989.

APPENDIX

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TABLE 1: ALCOHOL BEVERAGE CONSUMPTION
1983 THROUGH 1987

	1983		1984		1985		1986		1987	
	Gallons	Per Capita	Gallons	Per Capita	Gallons	Per Capita	Gallons	Per Capita	Gallons	Per Capita
Total, All Beverages	782,903,453	38.9	797,983,506	39.0	798,393,171	38.2	829,361,264	39.0	837,530,536	38.8
Beer	612,223,494	30.4	627,963,182	30.7	618,879,190	29.6	649,058,530	30.6	662,483,524	30.7
Wine	116,592,058	5.8	116,926,821	5.7	127,523,880	6.1	130,572,539	6.1	125,728,228	5.8
Distilled Spirits	54,087,901	2.7	53,093,503	2.6	51,990,101	2.5	49,730,195	2.3	49,318,784	2.3
Population -- 14 and Over	20,113,901		20,484,760		20,906,427		21,243,953		21,566,774	

Source: State Board of Equalization

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TABLE 2: ALCOHOL-RELATED ARRESTS IN CALIFORNIA
1983 THROUGH 1987

Offense	1983	1984	1985	1986	1987
TOTAL	636,107	629,702	614,599	623,913	610,821
Adult	613,288	607,993	593,034	598,444	590,169
Juvenile	22,819	21,709	21,565	25,469	20,652
ADULT					
Felony Total	6,633	6,980	7,105	7,755	8,269
Drunk Driving	6,633	6,980	7,105	7,755	8,269
Misdemeanor Total	606,655	601,013	585,929	590,689	581,900
Drunk Driving	342,203	341,579	336,679	334,902	337,294
Drunk (647f)	219,818	210,490	194,732	195,675	191,347
Liquor Laws	29,738	29,582	33,489	38,678	32,465
Civil Drunk	14,896	19,362	21,029	21,434	20,794
JUVENILE					
Felony Total	179	220	211	279	219
Drunk Driving	179	220	211	279	219
Misdemeanor Total	22,640	21,489	21,354	25,190	20,433
Drunk Driving	4,064	3,918	3,802	4,350	3,794
Drunk (647f)	7,688	6,958	6,589	7,842	5,738
Liquor Laws	10,816	10,537	10,860	12,844	10,807
Civil Drunk	72	76	103	154	94

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TABLE 3: ALCOHOL-RELATED MOTOR VEHICLE ACCIDENTS
AND VICTIMS COMPARED WITH
TOTAL OF ALL ACCIDENTS AND VICTIMS IN CALIFORNIA
1983 THROUGH 1987

	1983		1984		1985		1986		1987	
	Fatal	Injury	Fatal	Injury	Fatal	Injury	Fatal	Injury	Fatal	Injury
Total, All Accidents	4,087	196,394	4,497	208,419	4,422	216,170	4,647	233,004	4,920	239,190
Total, Alcohol-Related Accidents	2,089	42,618	2,311	43,113	2,130	42,316	2,232	44,303	2,425	43,108
Percent	51.1	21.7	51.4	20.7	48.2	19.6	48.0	19.0	49.3	18.0
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Total, All Victims	4,571	292,538	4,999	309,352	4,933	322,703	5,222	347,351	5,500	360,699
Total, Alcohol-Related Victims	2,386	66,909	2,607	67,835	2,412	66,667	2,543	69,876	2,754	68,816
Percent	52.2	22.9	52.2	21.9	48.9	20.7	48.7	20.1	50.1	19.1
Motor Vehicle Miles of Travel in Millions	182,653		195,990		203,782		213,117		226,297	

Source: Annual Report of Fatal and Injury Motor Vehicle Traffic Accidents - California Highway Patrol

dmscc103:laura.dms:010589:lg

TABLE 4: NUMBER OF DEATHS
DIRECTLY ATTRIBUTABLE TO ALCOHOL
IN CALIFORNIA
1983 THROUGH 1987

Alcohol as a Direct Cause of Death	1983	1984	1985	1986	1987
Total, All Deaths Related to Alcohol	2,445	2,498	2,189	2,393	2,488
Alcoholic Psychoses	29	27	34	36	41
Alcohol Abuse	90	79	81	85	81
Chronic Liver Disease and Cirrhosis	2,295	2,365	2,042	2,238	2,330
Accidental Poisoning by Alcohol*	31	27	32	34	36

*Category also includes "Toxic Effects of Alcohol"

Source: Department of Health Services, Vital Statistics