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Prevalence and Impact of Alcohol and Drugs: California Versus the Nation

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RAND's Drug Policy Research Center

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PREVALENCE AND IMPACT OF ALCOHOL AND DRUGS: CALIFORNIA VERSUS THE NATION

Submitted to the

State of California
Department of Alcohol and Drug Programs

by

Drug Policy Research Center
RAND

Patricia A. Ebener, Hilary L. Saner

July, 1994

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1. INTRODUCTION

This study was undertaken to develop a framework within which to compare the nature and extent of substance abuse problems in California with those of the nation as a whole. Using existing data from a number of sources, information about the prevalence of use of a variety of substances and the major health and public safety impacts that arise from substance abuse are compared between California and the U.S.

The purpose of the study was to improve the state's ability to monitor changes in alcohol and other drug problems in California and to chart changes here against those in the nation as a whole. The report can also be used to compare trends in California with those of other states that monitor the same impact indicators. As more recent data become available the timelines in this report can be extended and more in depth comparative analysis can be undertaken. In future years, reports similar to this will provide statistical milestones with which to measure progress or setbacks in the state's efforts to prevent and treat drug and alcohol abuse.

Companion volumes that are part of this study have examined prevalence of use within California and charted the variation within the state in the impacts of substance abuse.[1]

EXISTING DATA ON EXTENT OF USE

A number of data systems have been used to provide estimates of prevalence of use of various substances in the general population over time. These include the National Household Survey of Drug Abuse (NHSDA) (a national survey of the household population over 12 years of age), the High School Senior Survey (or Monitoring The Future - a national-level survey of high school students), and the California Student Survey (a state-level survey of high school students). One-time data collection efforts, such as the National Maternal and Infant Health Survey (1988), and the California Perinatal Substance Exposure Study (1992), have also provided important and useful information about the extent of the problem of substance use among specific populations, such as pregnant or recently pregnant women. With the analysis of the California sub-sample of the NHSDA prevalence rates can be calculated for California and compared with national estimates calculated from the same questionnaire and data collection procedures.

STUDIES AND DATA ON THE IMPACTS OF USE

Information regarding prevalence is important. However, while broad measures of prevalence describe the status of drug use, they do not inform the policy maker on how to change

[1] Ebener, P.A., D. McCaffrey, H.L. Saner, *Prevalence of Alcohol and Drug Use in California's Household Population*, 1988-1991, 1994; Ebener, P.A. and H.L. Saner, *Impact of Substance Abuse Problems in California: How do counties vary?*, 1994.

that status. Other indicators of the effects of AOD use must also be examined to better assess the impact of AOD use and demands for services. The burden on society due to substance use encompasses both public health and criminal justice sector costs, and priorities need to be set where there is likely to be the greatest benefit in welfare per dollar spent. We have drawn from a number of studies, as well as from conferences with personnel from the California Department of Alcohol and Drug Programs and experts in the field, to reach consensus on the measures of impact included in this report.

The *Healthy People 2000* (HP2000, 1990) report, sponsored by the US Department of Health and Human Services, presents a comprehensive and forward-looking series of health promotion, protection, and prevention objectives for the nation, to achieve the linked goals of increasing Americans' healthy life span, reducing health disparities, and achieving access to preventive services for all Americans. It is the product of a national effort, involving professionals, private organizations and public agencies from across the country. The report is both wide-ranging and thorough in addressing health promotion and disease prevention opportunities. Indicators put forward by HP2000 as relevant to monitoring the effects of AOD use in the nation include multiple measures such as mortality and morbidity rates due to drug and alcohol use, and case rates for infectious diseases, including AIDS, hepatitis, sexually transmitted disease, and tuberculosis, emergency room visits, alcohol and drug education in schools, worksite policies with respect to AOD use, and homicide and violent crime rates.

Other work examining the impacts of substance abuse in the US has used a variety of public health and criminal justice indicators. Rice, Kelman and Miller (1991) estimated the total loss to the economy related to alcohol and drug abuse, and mental illness (ADM) for 1988 at $273.3 billion. Almost 53 percent of this total was due to alcohol and drug-related costs, including direct treatment and support costs, and the value of reduced or lost productivity. The study used mortality and morbidity indicators such as alcohol psychoses, hepatitis, cirrhosis of the liver, drug dependence, poisoning by drugs, and drug psychoses. Rice et. al. also included related costs for the criminal justice system, such as costs of persons incarcerated in prisons as a result of convictions for an alcohol on drug-related crime, or the costs of victims of crime, motor vehicle crashes, property destruction and social welfare administration. In addition, the costs of two diseases associated with drug and alcohol abuse were estimated - namely AIDS, and Fetal Alcohol Syndrome.

Parsons and Kamenca (1993) estimated that the economic impact of drug abuse in America could reach as high as $150 billion by 1997. They posited that the primary reasons for this increasingly high bill included the prevalence of drug abuse-related AIDS, lost productivity due to AIDS and involvement in criminal careers, the costs due to drug abuse-related offenses, and spiraling health care costs. The indicators used in their study included arrests for drug abuse

violations, incidence of AIDS among IV drug abusers, as well as treatment and enforcement expenditures.

A CASA (1993) report on the cost of substance abuse to the nation's health care system focused on the inpatient hospital costs of the Medicaid program due to tobacco, alcohol and drugs. They divided hospital costs into four general categories - direct treatment of substance abuse; treatment of medical conditions totally attributable to substance abuse, such as cirrhosis, pellagra, and esophageal varices; treatment of diseases where substance use is a major risk factor, such as lung cancer, low birthweight, cardiovascular diseases associated with alcohol use, and AIDS associated with drug use; and costs due to substance abuse complications, such as the compromising of the immune system, or delirium tremens.

In sum, there are many indicators and measures tapping the effects of AOD use in various sectors of society. Some are more direct than others, in that they are totally attributable to substance use, rather than affected by a number of interlinked and confounding factors. For example, drug-related deaths are so classified because drug abuse is considered to be the primary cause of death. On the other hand, while substance use is associated with unsafe sexual practices, many other factors contribute to the transmission of diseases like syphilis or gonorrhea. Similarly, increases in the rate of property crime may be linked with a growing incidence of drug use, as addicts steal to finance their habits. But crime rates are also affected by reporting procedures, level and type of enforcement policies, and so on. Hence these indicators are more indirect signals of AOD impact in a community.

MEASURES OF USE AND IMPACT IN THIS REPORT

Like other studies, we have used a combination of public health and criminal justice indicators to paint a statistical portrait of AOD use and impact at the state and national levels. In addition to several prevalence measures of use among the general household population, and a number of special populations such as youth and women, the indicators of public health status include deaths due to cirrhosis of the liver and alcohol-related motor vehicle crashes, drug-related deaths, and incidence rates for hepatitis, AIDS due to intravenous drug use, sexually transmitted diseases and tuberculosis. The mortality and morbidity measures are supplemented by several indicators of impact in the public safety realm. These include reported crime rates for property crime, violent crime, and homicide, as well drug and alcohol-related arrests, and incarceration rates for adults and juveniles.

Data at the national and state levels have been obtained from a variety of sources. Every effort has been made to obtain information which is comparable in terms of time period and method of data collection. Where possible, trends over time are also presented. However, it is sometimes inappropriate to compare data from different sources. For example, data in one

source may be expressed only in fiscal years while those in another are expressed in calendar years. Thus readers should be very cautious in comparing data from different sources. We have also drawn attention to the limitations and the biases inherent in the data being used to make these comparisons. These limitations restrict the inferential weight which may safely be placed on such comparisons or estimates. In cases where national data are not comparable to those collected at the state level, the available data have been discussed separately.

This report presents data on trends in prevalence and impact of substance abuse. In most cases, available information was not sufficient to allow for tests of statistical significance of differences between years or between subgroups. Thus comparisons of the magnitude of these differences should be made only with caution. In addition, trend data are usually drawn from cross-sectional surveys that do not follow the same individuals over time. Despite this cautionary note, the consistency of the observed trends, from many sources, support the conclusions discussed here about the magnitude and impact of the AOD use problem in California.

ORGANIZATION OF THIS REPORT

Section 2 presents prevalence estimates of AOD use at the state and national levels, for the general population, and use among specific subgroups of particular policy interest, such as youth, women and the workforce. Section 3 includes the public health indicators, including mortality, morbidity and infectious disease rates. In Section 4, the impact on public safety is explored, presenting data on crime, violence and incarceration rates. In each section, the indicators are shown graphically. Sources of data, interpretation of the data, and a discussion of the biases or limitations of the data (where appropriate) are included for each indicator. Finally, in Section 5 we integrate the findings from the previous sections to present a fuller picture of how California compares to the nation in prevalence and impact of AOD use. Appendix 1 contains notes and addenda concerning some of the data systems, or discussions of the biases inherent in collecting data on certain populations such as pregnant women. The raw data used to create each graph or figure are attached in Appendix 2.

2. USE OF ALCOHOL AND OTHER DRUGS

SUMMARY

Prevalence of Use Among the Household Population

• In 1991 prevalence of use of alcohol and illicit drugs was higher in California than the U.S. While most differences between rates are not large they are consistent across 7 illicit drug categories, alcohol and excessive alcohol. They persist whether measuring rates of lifetime, past year or current use.

Prevalence of Use Among Adolescents

• In 1991, prevalence among California's youth was higher than rates at the national level. Slight differences were found for alcohol, any illicit drugs and cocaine use during the past year.

Prevalence of Use Among Women of Child Bearing Age

• Estimated prevalence of maternal drug use at the time of delivery in California, is about 11 percent. Comparable figures are not available for the U.S. as a whole.

• Rates of past year use of alcohol and marijuana were very similar in California and the U.S. as a whole, for women between the ages of 15 and 44.

Drug Testing in the Workplace

• 1993 estimates of drug use in the workplace increased in the western U.S. compared to slight decreases in other regions.

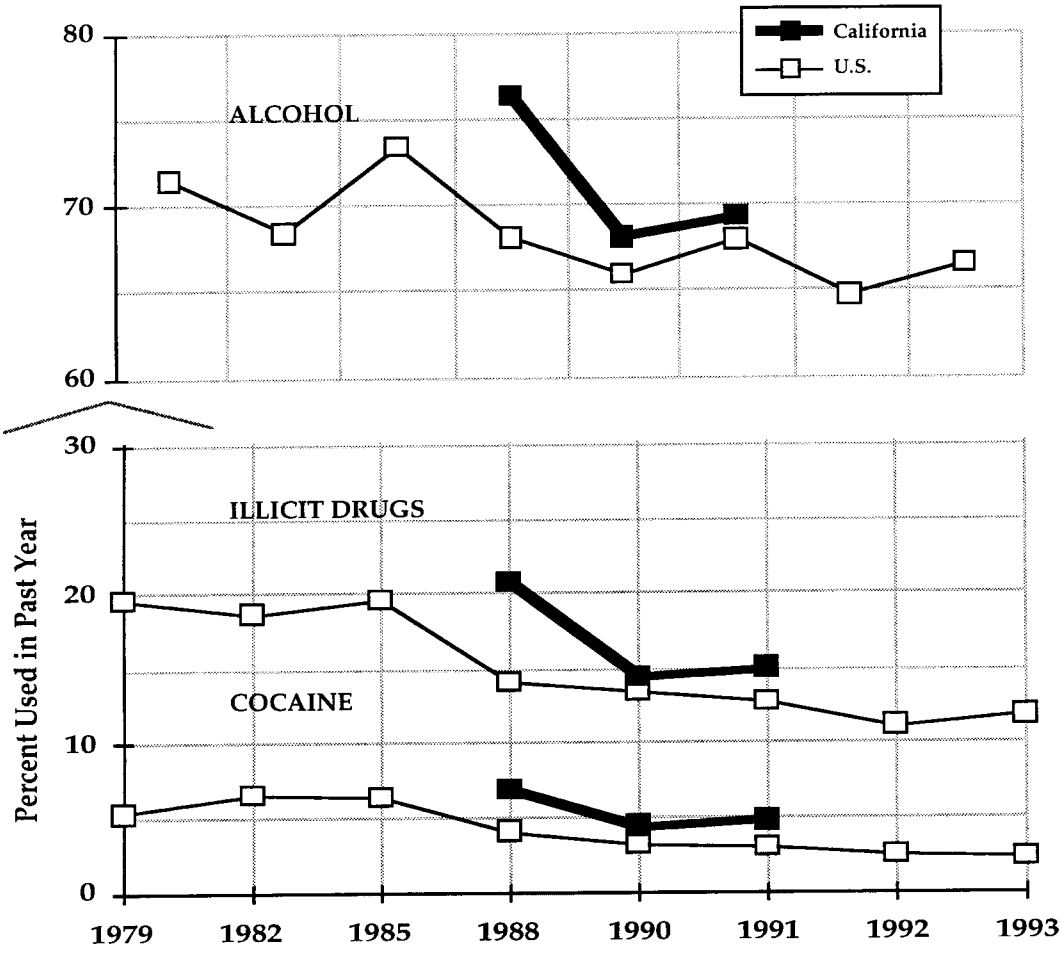
Perceptions of Risk From Use

• The proportions of young people who perceived great risk in occasional or regular marijuana and cocaine use were lower in California than the U.S. in 1991.

• A higher proportion of Californian youth perceived great risk in daily use of cigarettes and alcohol than in the U.S.

• A similar pattern exists for the household population, in general.

Prevalence of Use Among the Household Population



Comments

As shown in this figure, rates in California in 1988, the first year for which data are available, were higher than nationwide rates at the peak of usage in 1979 (for any illicit drug), and 1985 (for alcohol and cocaine). Between 1985 and 1991, drug and alcohol use in the U.S. general population declined. Between 1988 and 1991 a similar trend is observed for California. By 1991, while lower than the 1988 numbers, the prevalence rates in California were still higher than those for the nation when considering current use of alcohol, lifetime and current use of illicit drugs, lifetime, past year and current marijuana or cocaine use. While the differences in annual prevalence are not large they are certainly consistent across the substances examined. They represent a conservative estimate of the difference between California and the rest of the nation, because the higher rate in California is included in the U.S. total.

The higher rates in California for any illicit drug use are evident for all race/ethnic groups captured by the survey and across gender and age groups. The same is true for marijuana and cocaine use. The fact that higher rates prevail across substances, and all age, race/ethnicity, and gender groups suggests that in large part it is drug using behavior, rather than demographics of

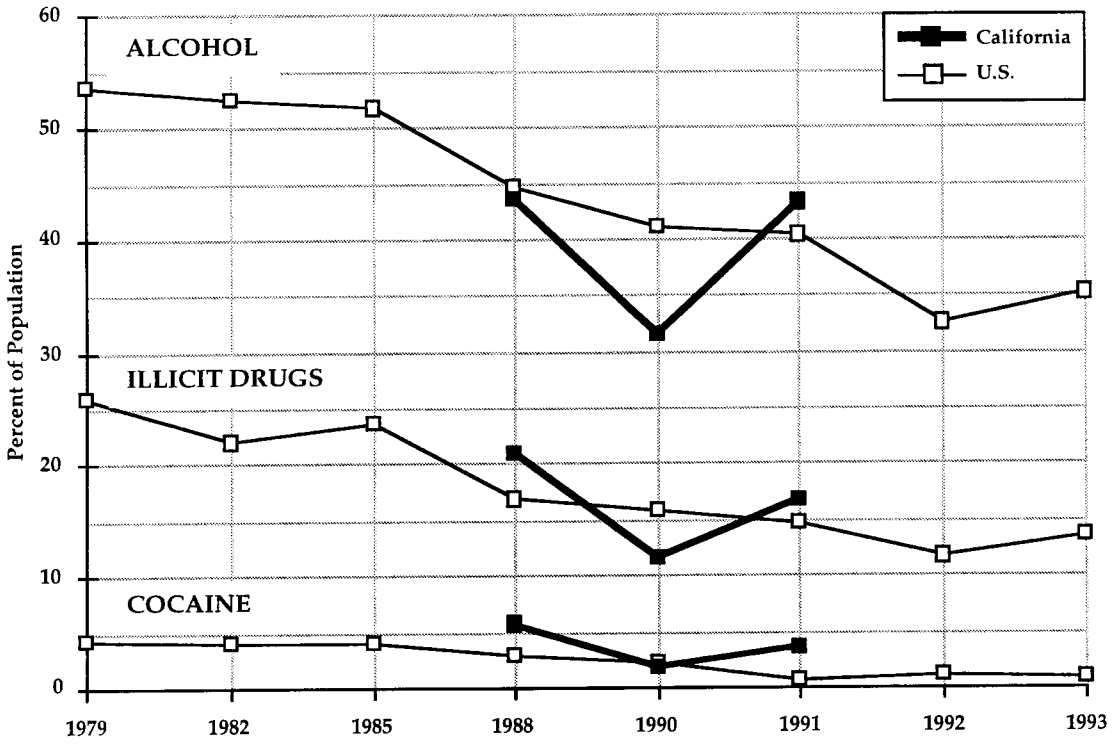
the population alone, that contributes to the higher prevalence rates observed in California. Higher rates of use of alcohol are also found across gender and most age and race/ethnicity groups in California.

Data Sources

Data for the nation are provided by the National Household Survey of Drug Abuse, years 1988, 1990 and 1991. The California numbers are from the California subsample of the national survey for these three years, thus allowing for standardizing of methods of data collection, item construction and populations at the two levels of comparison.

A more detailed analysis of prevalence of alcohol and other drug use in California is reported in Ebener, McCaffrey and Saner, 1994.

Prevalence of Use Among Adolescents



Comments

This figure shows three measures of prevalence of use among youth in California and the U.S. These include prevalence of past year use of alcohol, marijuana and cocaine among 12-17 year-olds.

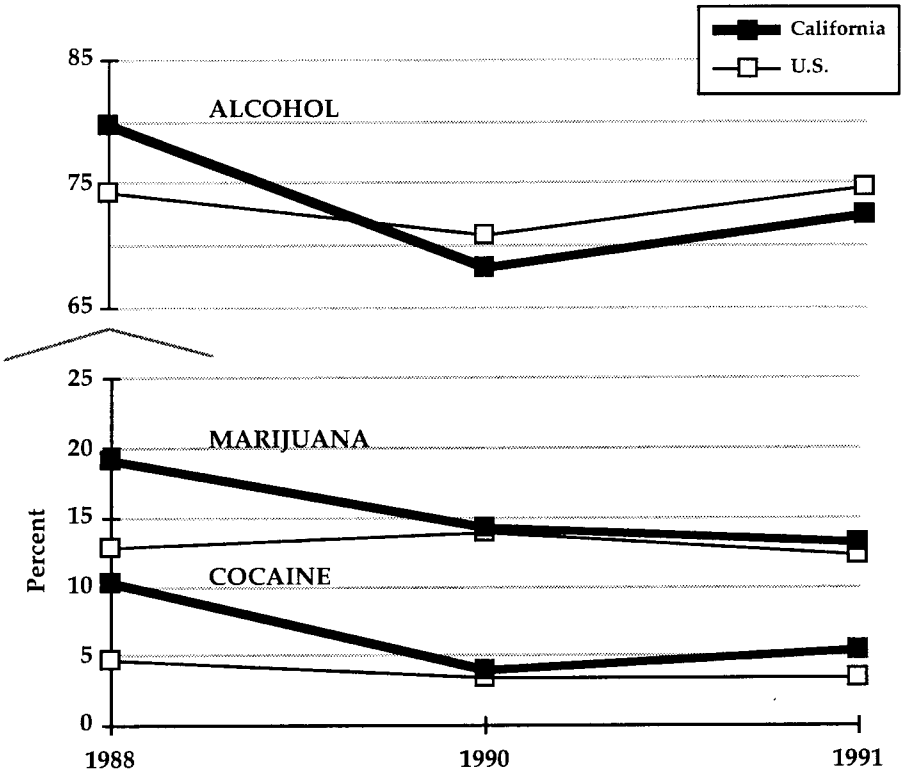
Rates are slightly higher in California. This holds for both older and younger adolescents except that in 1991, past year use of marijuana among California's 12-14 year olds was double the rate in this age group nationwide. Rates in the U.S. in 1993 increased slightly.

The pattern of higher rates in California persists across all substances measured.

Data Sources

Data for the nation are provided by the National Household Survey of Drug Abuse, years 1988, 1990 and 1991. The California numbers are from the California subsample of the national survey for these three years, thus allowing for standardizing of methods of data collection, item construction and populations at the two levels of comparison.

Use Among Women of Childbearing Age



Comments[1]

The figure shows that rates of marijuana and cocaine use in 1991 during the past year among women between the ages of 15 and 44 were very similar in California and in the nation as a whole. Use of marijuana declined by 30 percent since 1988 in California, and remained stable over that time period at the national level.

In 1988, the rate of cocaine use in California was over twice that of the nation. By 1991 use of this drug had declined in California and in the U.S.

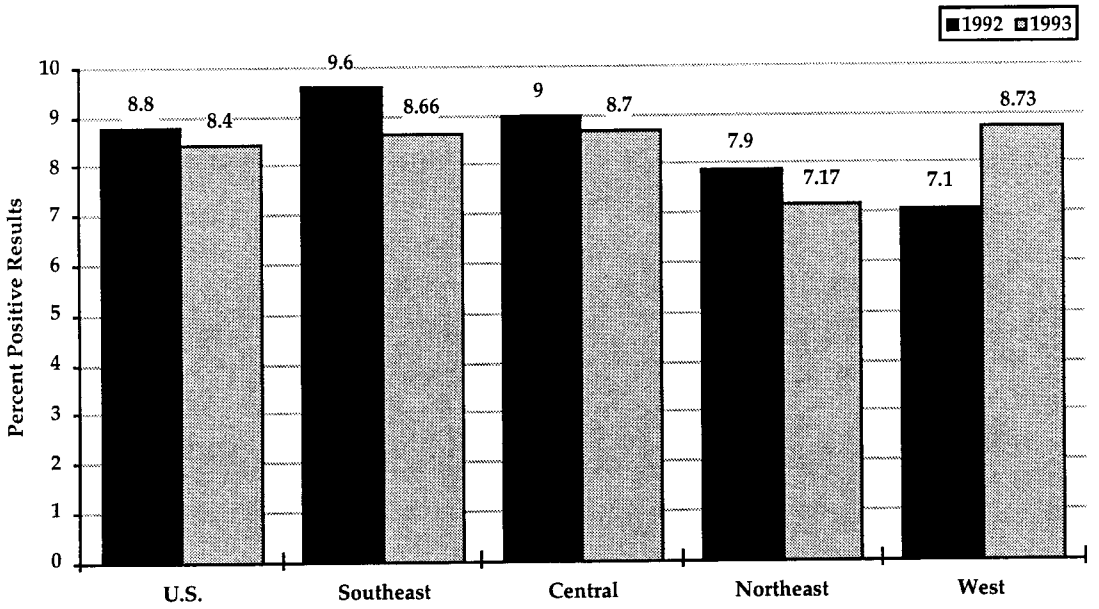
Estimates of alcohol use in this population were much higher than for illegal drugs in the state and nationally. Estimates of past year use of alcohol in 1991 were comparable for California and the U.S. The apparent rate of decline in California from almost 80 percent in 1988 to 72 percent in 1991 may not be confirmed when additional years of data are added to the time line. The national figure remained stable at around 74 percent during that time.

Data Sources

- *The National Household Survey of Drug Abuse,* NIDA 1988, 1990 and 1991.

[1] A recent survey of maternal drug use at the time of delivery conducted in a sample of California hospitals found prevalence of alcohol use of 6.72 and illicit drugs of 3.49. Comparable data are not available for the U.S. (See Data Note 2.)

Drug Testing in the Workplace



Comments

An area that is often overlooked in assessing the nature and extent of AOD use is substance abuse in the workplace. Alcohol and other drugs used can interfere with the efficient and safe performance of work responsibilities and the exercise of proper judgment on the job.

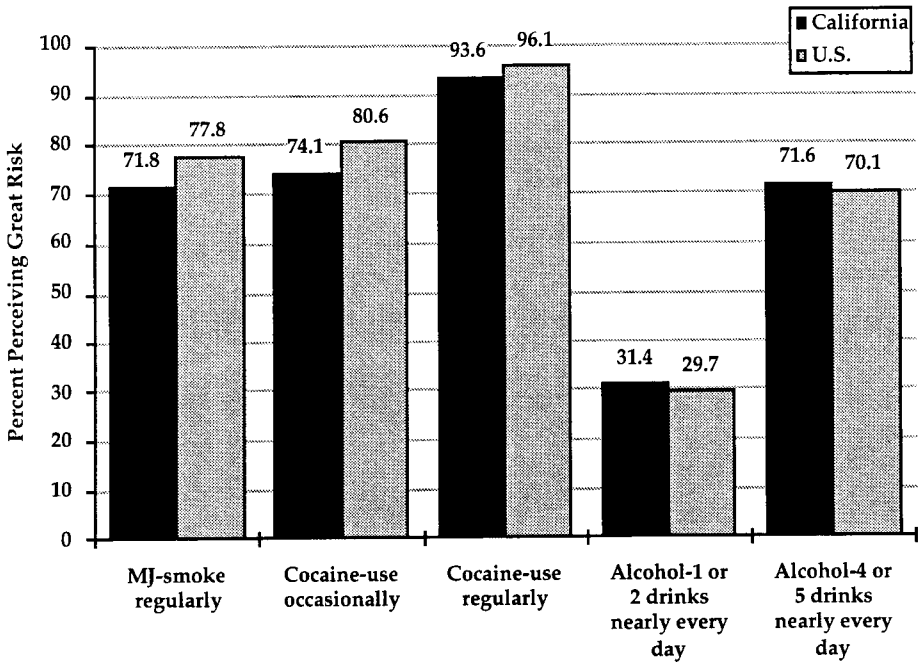
Accurate information about the extent of substance use in the workplace is not readily available. However, several large pharmochemical companies, such as PharmChem and SmithKline Beecham Clinical Laboratories regularly perform tests for drug use on urine samples from American workers in different sectors. These samples are not randomly drawn, and thus do not allow for inferences to be made to a larger population of workers. However, because of the large size of the samples, the results do give some indication of trends over time and the extent of the problem in this population.

The 1993 nationwide results of more than three million drug tests conducted at the SmithKline Beecham Clinical Laboratories (SBCL) exhibited an overall positivity rate of 8.4 percent, down slightly from 8.8 percent in 1992. SBCL reports a 53 percent drop in workplace positive drug tests since 1987. When the results are disaggregated by region, the trend is down over the past two years in all regions of the country except the West. The proportions of positive tests results in 1992 were highest in the Southeast region of the country, and lowest in the West. The West showed a slight increase in 1993, to a rate of 8.73 percent. Almost 40 percent of the positive test results were for marijuana, followed by 25 percent for cocaine.

Data Sources

- PharmChem Laboratories Report, Statewide Epidemiology Work Group Proceedings, Fall 1992.
- SmithKline Beecham Clinical Laboratories, News Release 1994.

Household Population Perceptions of Risk From Substance Use



Comments

Another potential explanation which may contribute to differences in use is different perceptions of the risks and harms associated with using drugs and alcohol. We explored this possibility by comparing the percentages of California and U.S. respondents who perceived great risk of using illicit drugs and alcohol. The results are shown in the figure for selected risks that NHSDA respondents are asked about.

For the illicit drugs shown, the percentage of Californians reporting perceptions of great risk from use is lower than the percentage of the total NHSDA population. Although the differences are only slight in most cases, the pattern is consistent across all use patterns and age groups.

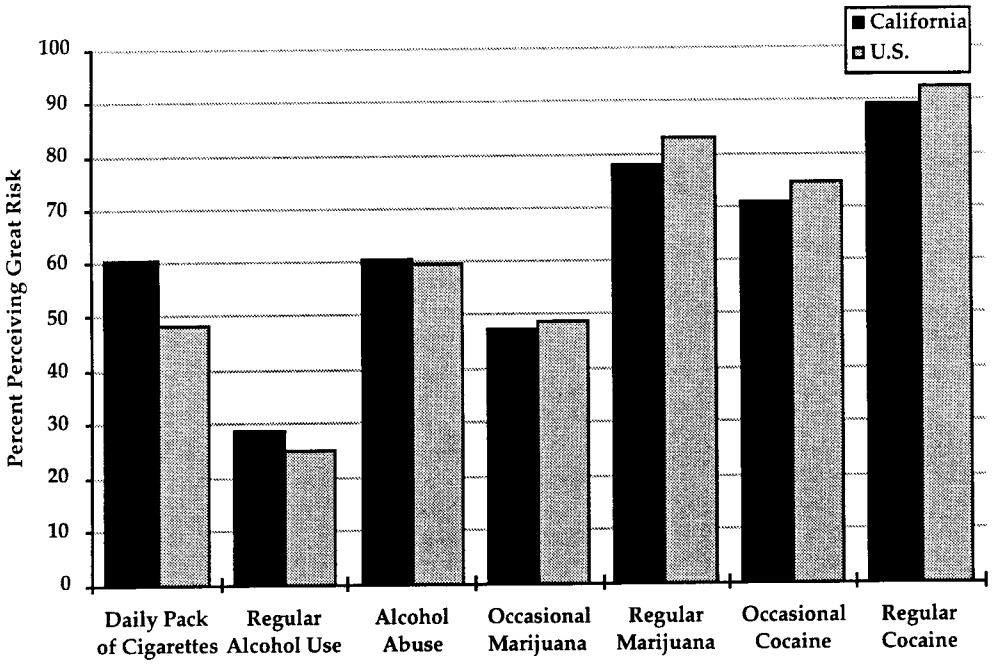
For alcohol the opposite pattern emerges – the percentage of Californians reporting perceptions of great risk of using alcohol is slightly higher than the percentage of the total population. The pattern for the total population holds across age groups and levels of use of alcohol.

These findings are consistent with higher prevalence of drug use among Californians. Where there are lower percentages who perceive great risk we might expect higher prevalence rates. But the alcohol finding contradicts this notion and makes it more difficult to believe that perceptions of risk are accountable for different use rates. This topic deserves further exploration to determine the impact of perceptions on behavior and other explanations for differences in prevalence rates and perceptions of risks associated with use between California and the U.S.

Data Sources

- National Household Survey (1991)

Adolescents' Perceptions of Risk From Substance Use



Comments

The patterns of risk perception are the same among youth as they are in the total population. Youth (aged 12-17) respondents to the National Household Survey on Drug Abuse in 1991 were asked about their perceptions of risk in smoking a pack of cigarettes a day, in having 1 or 2 drinks almost every day (termed "regular alcohol use" in the accompanying figure), and in having 4 or 5 drinks almost every day ("alcohol abuse" in the figure). The proportions of youth between the ages of 12 and 17 who view these behaviors as risky are higher in California than in the nation as a whole. However, when asked about occasional or regular use of marijuana and cocaine, the proportions of adolescents who perceive great risk in these behaviors are lower in 1991 in California than in the U.S.

Data Sources

- National Household Survey (1991)

3. IMPACT ON PUBLIC HEALTH

SUMMARY

Deaths Due To Cirrhosis Of The Liver

• In 1991, the rate of deaths in California was 12.2 persons per 100,000 population, 24% higher than the national rate. Since 1980 the rate in California declined by 35% compared to a 27% decline in the U.S.

Deaths Caused By Alcohol-Related Motor Vehicle Crashes

• In 1991, 44% of all fatal motor vehicle accidents were alcohol-related in California compared with 48% for the nation. Between 1985 and 1991 the rate in California declined by 9%. Nationwide the rate also declined during the same period, by 7%.

Drug-Related Deaths

• In 1991, the drug-related death rate in California was more than 1.5 times the national rate. During the 1980s the rate in California increased by 18% compared with only a 27% increase nationwide.

Cases of Hepatitis B Infection

• Although the incidence of hepatitis B in California was more than twice the rate of the US in 1985, it has decreased by more than 50 percent since then to coincide with the national estimate at the beginning of this decade.

Proportion of HIV Infected People Who Are Intravenous Drug Users

• In 1991 the proportion of AIDS cases in California due to IVDU was 17.2 percent, as compared with the national proportion of 30.2 percent. In California IVDU has been increasing as a proportion of all cases while nationwide the proportion has changed slightly downward.

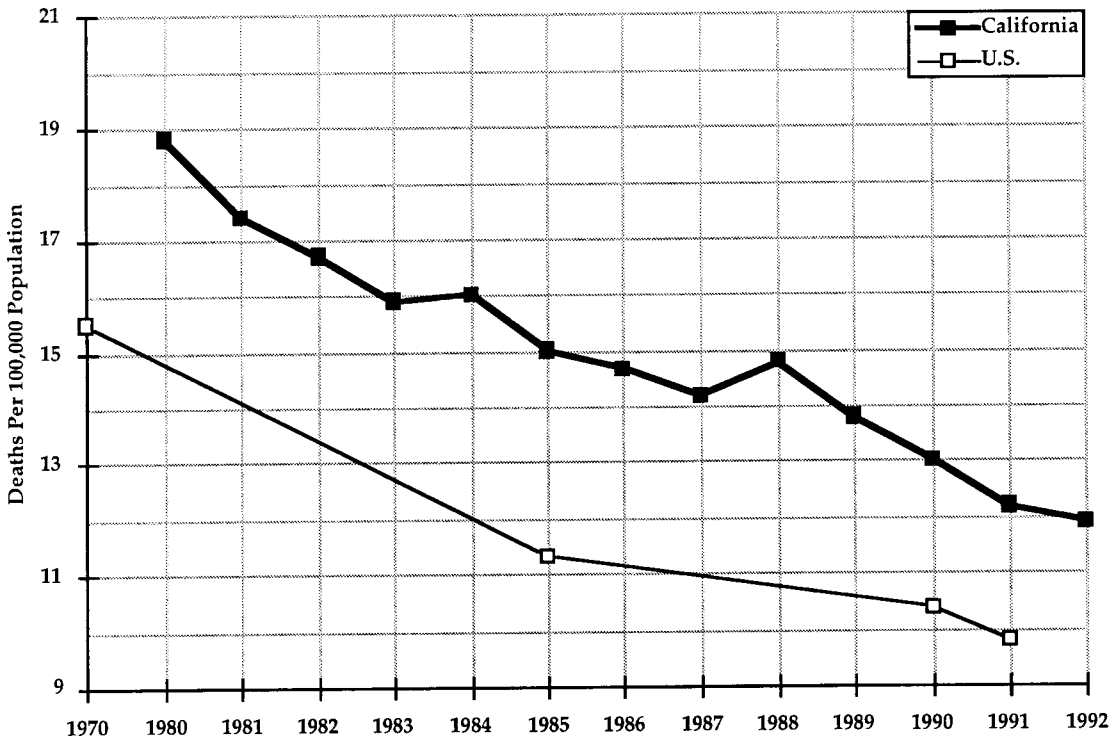
Cases of Sexually Transmitted Disease

• In 1991 the incidence of sexually transmitted disease in California was 186 cases per 100,000, 38 percent lower than the national rate of 298 cases per 100,000. Between 1980 and 1990 the rate in California declined dramatically by 76%, compared with a decline nationwide of 37%..

Cases of Tuberculosis

• In 1992 California reported 17 cases per 100,000 population, 64 percent more than the nation. An increase of 39 % between 1988 and 1992 in California was more tan twice the size of a nationwide increase of 15%.

Deaths Due To Cirrhosis Of The Liver



Comments

Cirrhosis of the liver, largely attributable to heavy alcohol consumption, was the ninth leading cause of death in California in 1992. Liver cirrhosis deaths, and cirrhosis mortality is used as an indicator of abusive alcohol consumption patterns.

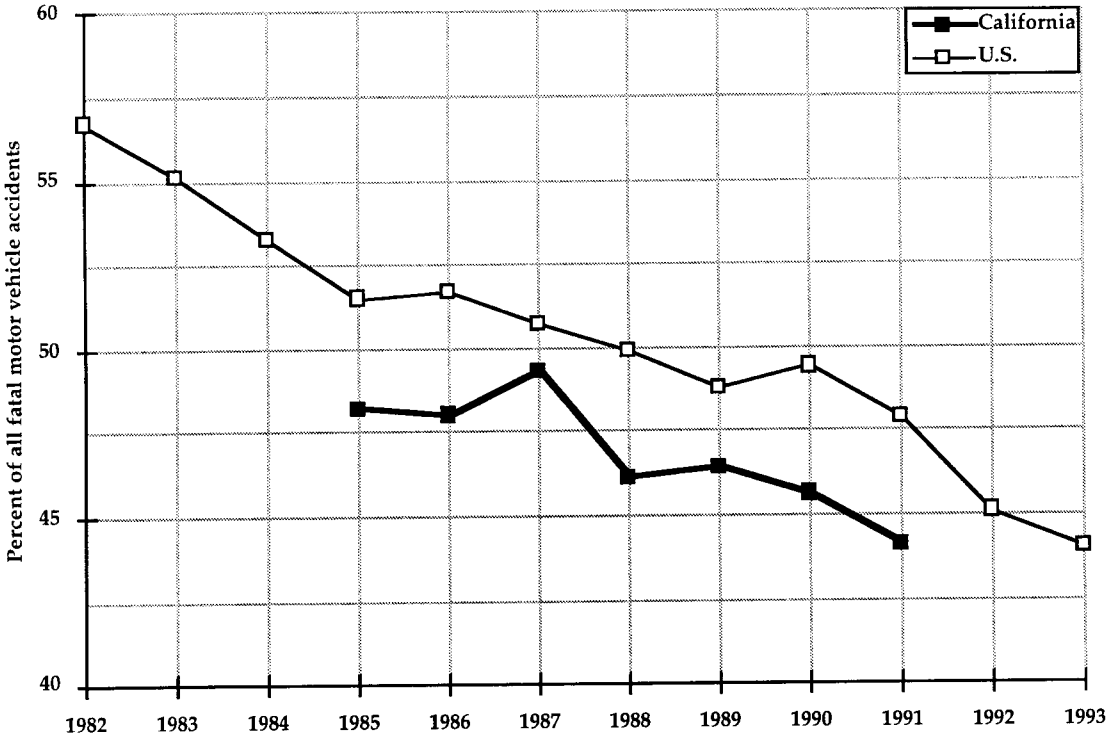
The figure shows that in 1991 the rate of deaths due to cirrhosis in the state was 12.2 per 100,000 population, 24 percent higher than the national rate.

Both rates have declined over the past decade. Since 1980, the rate has declined more quickly in California (by a factor of 0.55 per 100,000 per year) than in the nation (0.31 per 100,000 population per year). Thus the rate in the state has declined 77 percent faster than that for the nation. Data on prevalence of use for the same period are not available for California. Nationwide, overall prevalence of use has declined very little over this time period, suggesting other possible explanations such as improved diagnosis and medical treatment.

Data Sources

- National Vital Statistics System, CDC, in 1993 U.S Statistical Abstracts.
- California Department of Health Services, Center for Health Statistics, Death Statistical Master Files.

Deaths Caused By Alcohol-Related Motor Vehicle Crashes



Comments

The National Highway Traffic Safety Administration defines a fatal traffic crash as being alcohol-related if either a driver or nonmotorist (e.g. pedestrian) had a blood alcohol concentration of 0.01 grams per deciliter or greater in a police reported traffic crash.

The figure shows that California has tracked better than or at similar levels to the nation in alcohol-related motor vehicle crash fatalities, when measured per 100,000 population, in the years prior to 1987. In 1991, 44 percent of all fatal motor vehicle accidents were alcohol-related in California, as compared to 48 percent for the nation. Since 1985, the rates have declined at similar speeds at both the state and national levels.

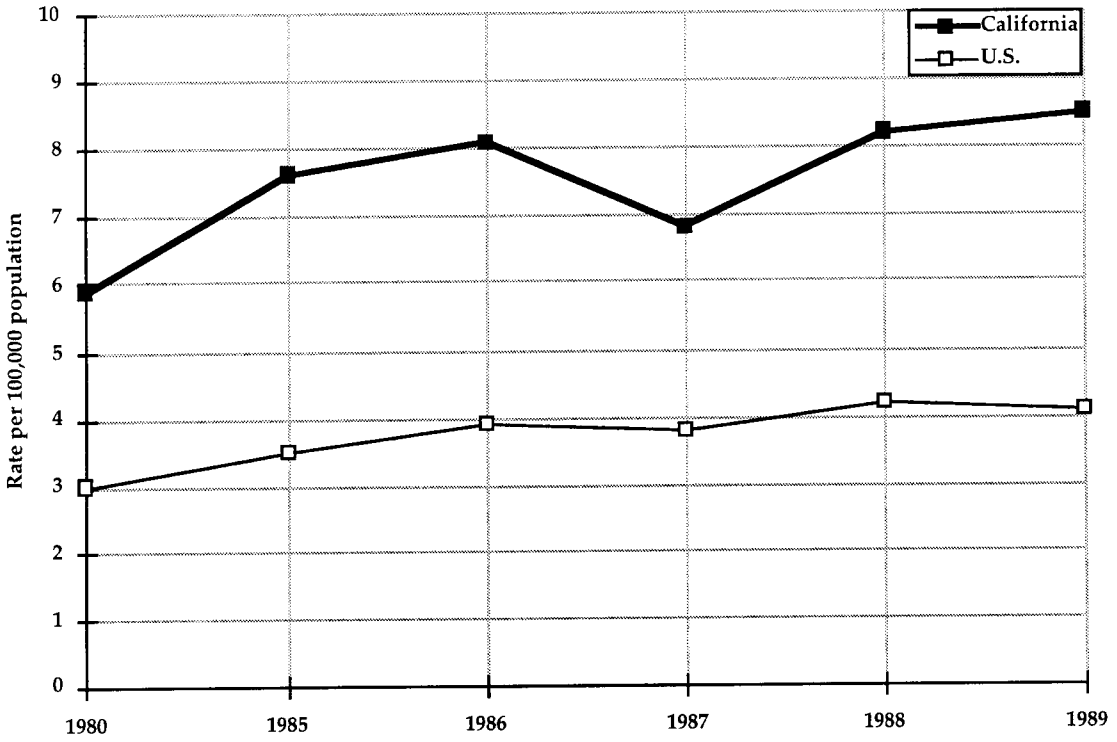
Declines are more likely attributable to education campaigns to reduce drunken driving than to reductions in prevalence of use which has not been significant.

Data Sources

- Fatal Accident Reporting System 1991, US Department of Transportation.
- CA Department of Health Services, Center for Health Statistics; California Highway Patrol, Statewide Integrated Traffic Records System.

Note: The fatality counts include drivers, passengers, pedestrians, bicyclists and motorcyclists.

Drug-Related Deaths



Comments

Drug-related deaths are determined by local medical examiners and recorded as underlying cause of death on death certificates. Procedures for determining whether drugs are related to cause of death are not uniform.

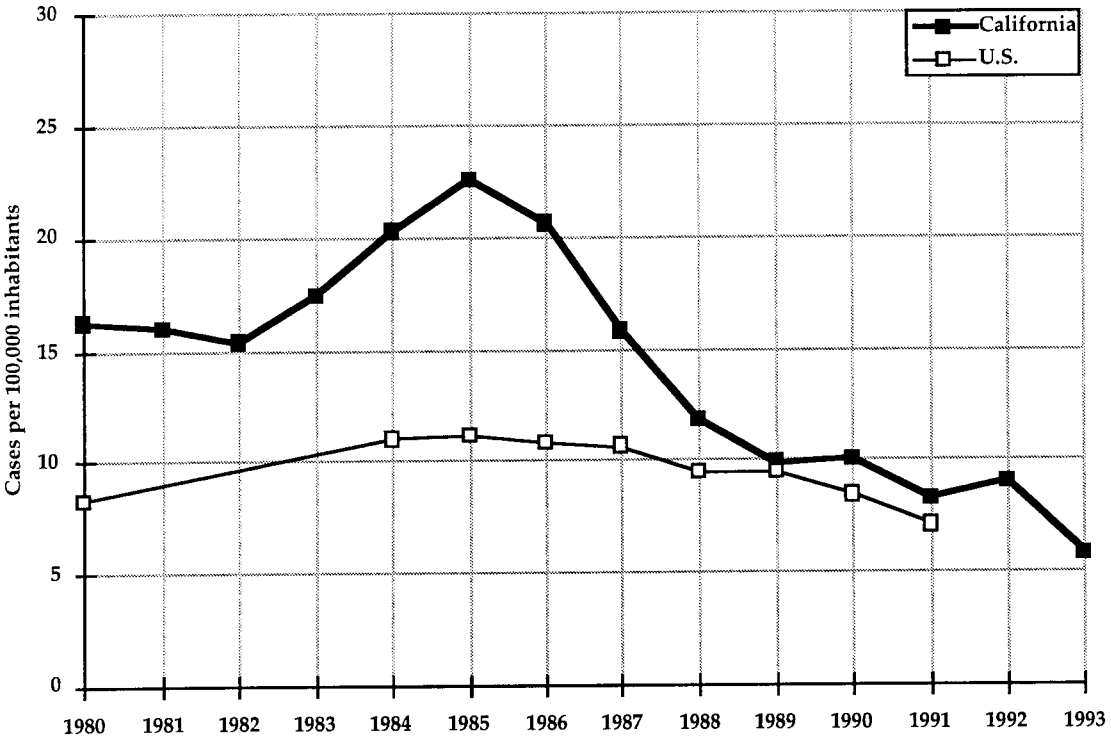
Drug-related deaths provide a direct indication of the high human and social costs of drug use. The causes of drug-related deaths include drug psychoses, drug dependence, drug poisoning or overdose, and suicide by drugs.

The drug-related death rate in California is substantially higher than that for the nation - almost twice as high in 1989. The drug-related death rates increased over the past decade for both the United States and for California, although California's rate increased 2.5 times more quickly than the U.S. rate.

Data Sources

- National Vital Statistics System, CDC.
- CA Department of Health Services, Center for Health Statistics.

Cases of Hepatitis B Infection



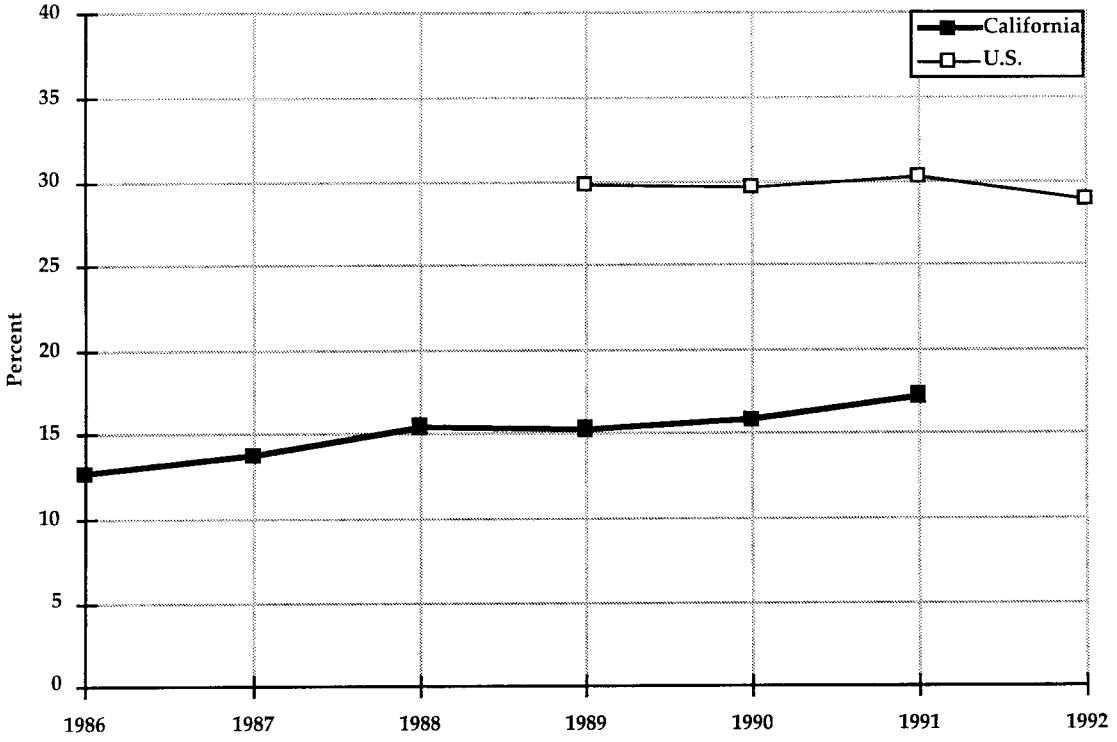
Comments

The figure demonstrates that for the years 1980 to 1985, the Hepatitis B infection rate for California was more than twice the rate of infections in the nation, and increased to a peak in the middle of the decade. However, the rate in California decreased by 50 percent since the mid-eighties to coincide with the national average by 1989. The decline in California parallels the extensive education campaign about high risk behaviors for HIV infection.

Data Sources

- CDC *Summary of Notifiable Diseases, United States, Morbidity and Mortality Weekly Report,* vol. 40, 1992; in 1993 United States Statistical Abstracts CA Department of Health Services, Center for Health Statistics.

Proportion of HIV Infected People Who Are Intravenous Drug Users



Comments

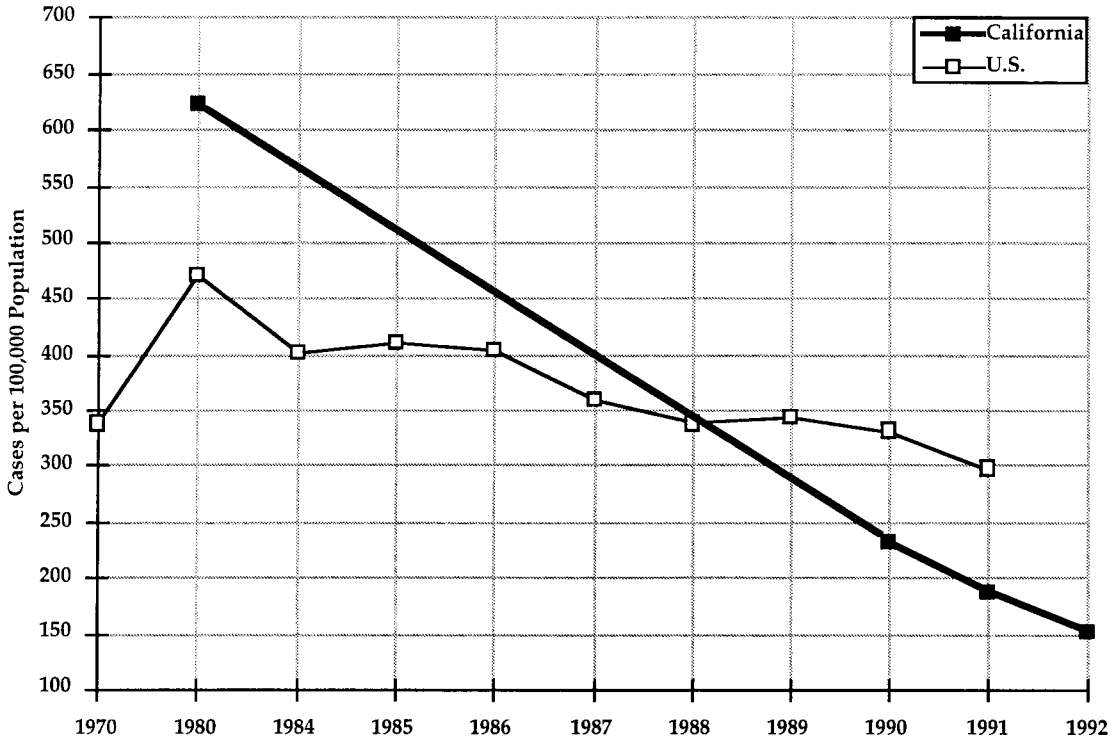
The HIV epidemic in the US is composed of several interrelated but separate epidemics, each with its own dynamics. IVDUs' are at risk for infection, through needle sharing and the exchange of sex for drugs.

The figure shows that in 1991 the proportion of AIDS cases in California due to IVDU was 17.2 percent, as compared with the national proportion of 30.2 percent for that year. Since 1986 this fraction has increased from 12.7 percent to 17.2 percent in 1991 in the state, whereas the national rate has remained stable over the past few years at about 30 percent.

Data Sources

- HIV/AIDS Surveillance Report, various issues, Center for Disease Control.
- CA Department of Health Services, Center for Health Statistics.

Cases of Sexually Transmitted Disease



Comments

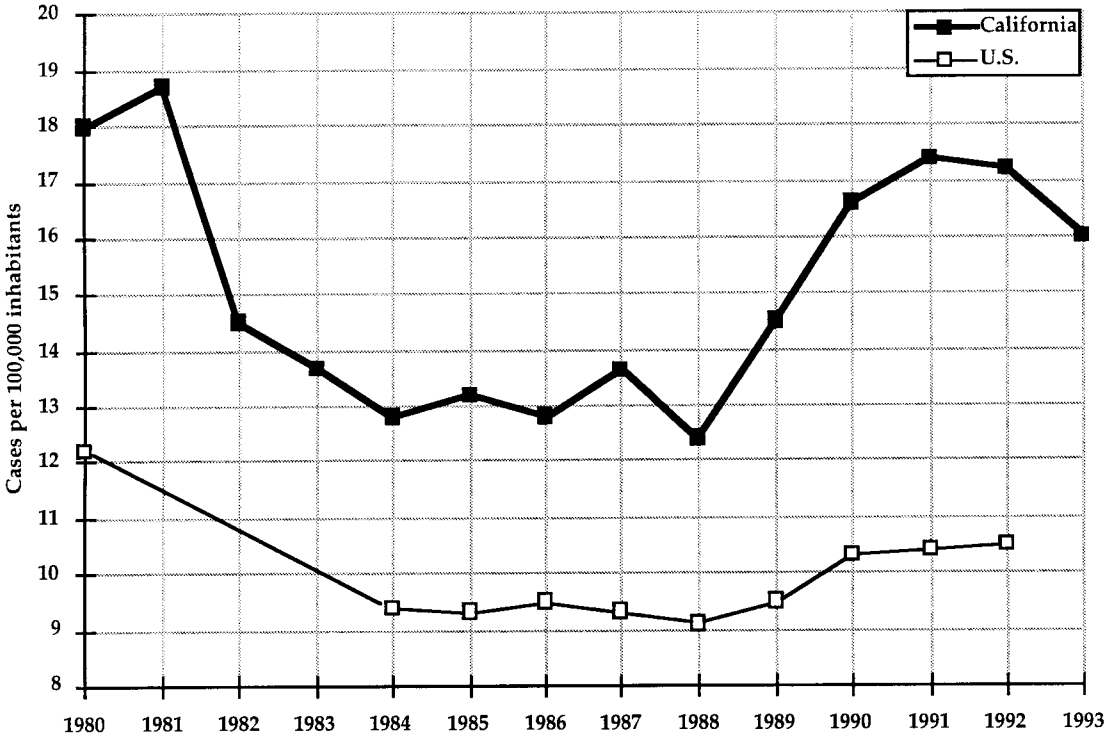
The spread of STDs is often linked to intoxication, use and abuse of alcohol, and use of other drugs. Almost 12 million cases of STDs occur in the United States annually, 86 percent of them in people aged 15 to 29 years. The medically underserved, the poor, women and children, and racial and ethnic minorities shoulder a disproportionate amount of the STD burden.

The figure shows that in 1980 California had a 32 percent higher STD incidence than the nation. However, over the past decade, while incidence at both the state and national levels has declined, rates in California have plummeted to well below the rates for the United States as a whole. In 1991 the incidence in California was 38 percent lower than the U.S.

Data Sources

- CDC Summary of Notifiable Diseases, United States, Morbidity and Mortality Weekly Report, vol. 40, 1992; in 1993 United States Statistical Abstracts.
- CA Department of Health Services, Division of Communicable Disease Control, STD Control Branch.

Cases of Tuberculosis



Comments

The figure shows that in 1992 California had 64 percent more cases of tuberculosis than the nation. After a decline in incidence during the early eighties, the rates for both the state and the nation are on the upswing. Between 1988 and 1992, the incidence in California has increased by 39 percent. Nationally, the incidence of tuberculosis increased by 15 percent during the same period.

Data Sources

- CDC *Summary of Notifiable Diseases, United States, Morbidity and Mortality Weekly Report*, vol. 40, 1992; in 1993 United States Statistical Abstracts.
- CA Department of Health Services, Center for Health Statistics.

4. IMPACT ON PUBLIC SAFETY

SUMMARY

Reported Property Crimes

- In 1992, the rate of reported property crime in California was 5,560 per 100,000 population, 13 percent higher than the nationwide rate of 4,903 per 100,000.

Reported Violent Crime Rates

- The rate of reported violent crime in California during 1992 was 49 percent higher than the national rate -- 1,120 per 100,000 compared with 758 per 100,000.

Homicide Deaths

- In 1991, the rate of homicide deaths in the state was 13.3 per 100,000 population, compared with 10.8 per 100,000 population in the U.S.

Arrests Made For Driving Under the Influence (DUI)

- The rate of arrests for Driving Under the Influence was 1.650 per 100,000 population in California, 57 percent higher than in the nation as a whole during 1989.

Drug Abuse Violations

- In 1991, over 75 percent more drug violation arrests were made per capita in California than at the national level.

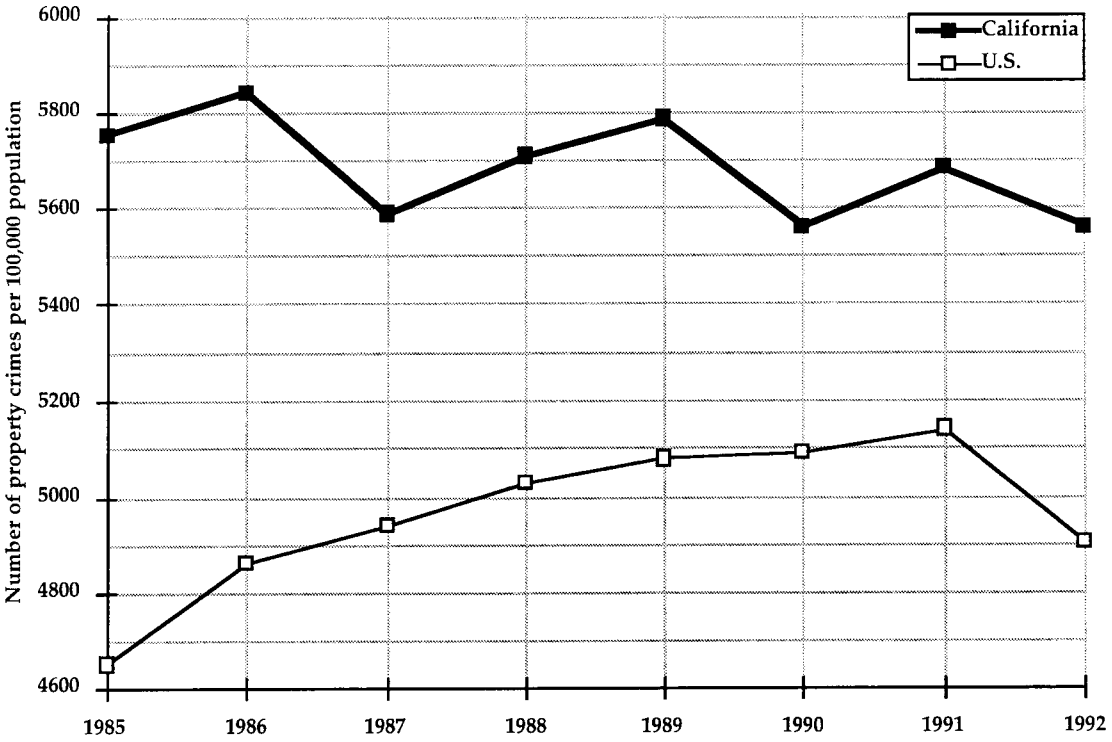
Adult Incarceration Rates in State and Federal Institutions

- In 1991 the adult incarceration rate in California was 396 per 100,000 population, 27 percent more than the rate of 310 at the national level.

Juveniles Under Custody in Public and Private Juvenile Facilities

- In 1991, California had 129 percent more juveniles in custody, per 100,000 youth, than the nation as a whole.

Reported Property Crimes



Comments

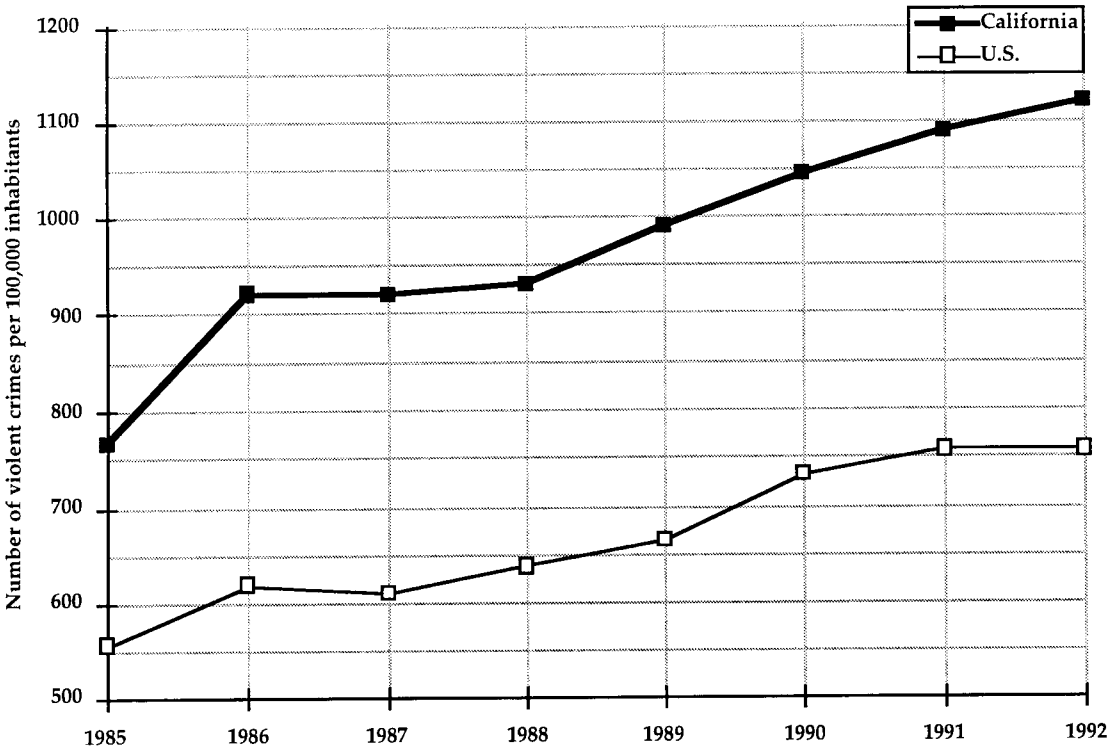
Crimes against property known to law enforcement agencies compose the property crime index, including robbery, burglary, larceny-theft, motor vehicle theft, and arson. Drug use among criminal offenders is well documented by the Drug Use Forecasting Program and surveys of sentenced prisoners. A 1991 national study reported that 6 in 10 inmates had used drugs in the month before the arrest, and 4 in 10 were under the influence at the time of the offense.

The figure shows that California has a higher and more variable incidence of reported property crimes than occurs nationally. In 1992, there were 5559.8 property crimes reported per 100,000 population in California, as compared with 4902.7 per 100,000 residents nationally. However, since 1985 the rate has decreased slightly (by 3 percent) in California, whereas the national rate of reported property crimes has increased by over 5 percent in the same time period.

Data Sources

- National and state data from the Uniform Crime Reporting Program, Crime in the United States, multiple years. (See Data Note 3, in Appendix 1.)

Reported Violent Crimes



Comments

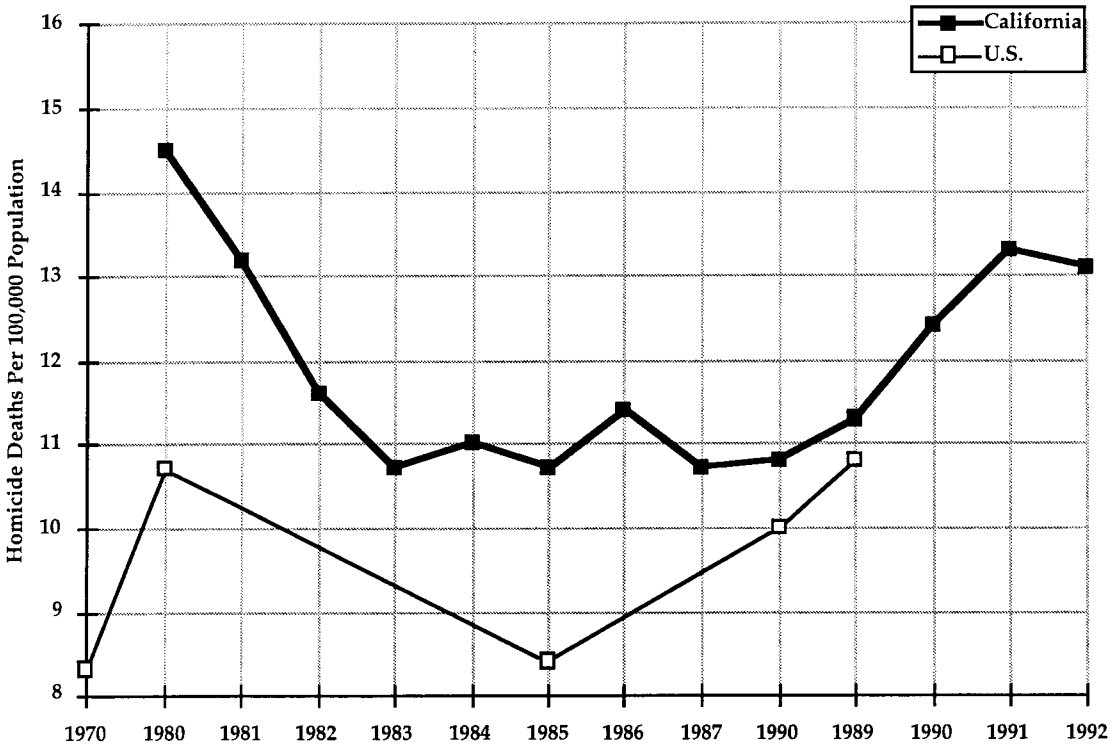
The most commonly reported crimes against persons compose the violent crime index. These offenses include murder, non-negligent manslaughter, forcible rape, robbery and aggravated assault.

The figure shows that California has a much higher incidence of violent crime than occurs nationally. In 1992, the California rate was 1,119.7 violent crimes reported to the police per 100,000 population, 48 percent higher than the national rate of 757.5 in the same year. The rate is rising at both the state and national levels, although it increased 50 percent more sharply in California between 1985 and 1992.

Data Sources

- National and state data from the Uniform Crime Reporting Program.

Homicide Deaths



Comments

Death by homicide is the 8th leading cause of death in California. An important factor associated with homicide is the use, manufacture and distribution of drugs.

The figure reveals that the homicide rate for both California and the United States as a whole are quite variable, although the rate in California is consistently higher year for year than that of the nation. In 1991 the rate of homicide deaths per 100,000 residents in California was 13.3, compared with 10.8 nationally. Between 1980 and 1991, the national incidence hovered between 8.4 and 10.8 per 100,000 population. Over the same time period in California, the rate actually declined slightly, from 14.5 in 1980 to 13.3 in 1991. However, in recent years the rate has been increasing markedly.

Data Sources

- National data from the National Center for Health Statistics, *Vital Statistics of the United States*, in the 1993 U.S Statistical Abstracts.
- State data from the Department of Health Services, Death Statistical Master Files.

Arrests For Driving Under the Influence (DUI)

Comments

Arrests made for DUI provide a direct measure of one public safety impact resulting from AOD use. Arrest data is a gauge of law enforcement's response to crime. Arrest practices, policies and enforcement emphases vary from place to place, and over time. Also, arrest figures do not measure the number of individuals arrested, since a person may be arrested several times during the year for the same or different offenses.

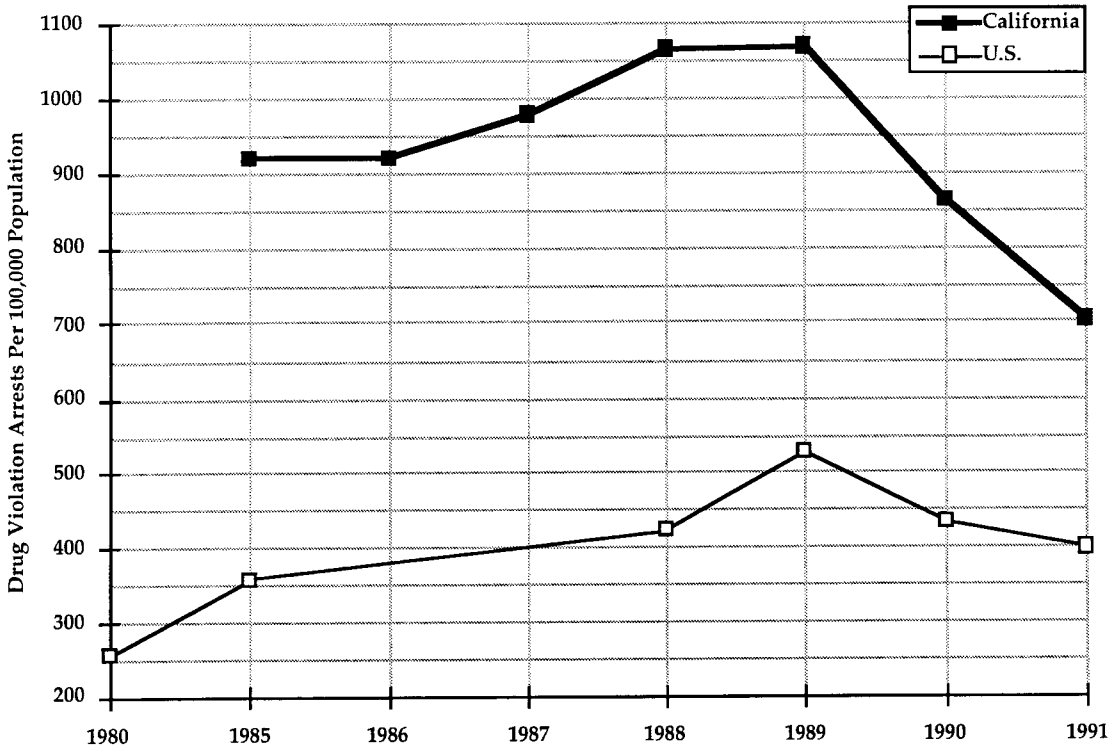
Here arrest rates for driving under the influence are measured as arrests per 100,000 drivers, where the arrests are for those 16 years and over, and number of drivers is taken as the number of licensed drivers.

The figure demonstrates that many more arrests are made for DUI in California than occur nationally. In 1989, the California rate was 57 percent higher than that of the U.S. as a whole. The rate in California has decreased by 11 percent from 1986 to 1989, while the national trend has increased by 6.8 percent over the decade.

Data Sources

- U.S. Bureau of Justice Statistics, *Drunk Driving, Special Report*, in U.S. Statistical Abstracts, 1993.
- California Department of Motor Vehicles, and Department of Justice, in California County Fact Book, 1991-1992.

Drug Violation Arrests



Comments

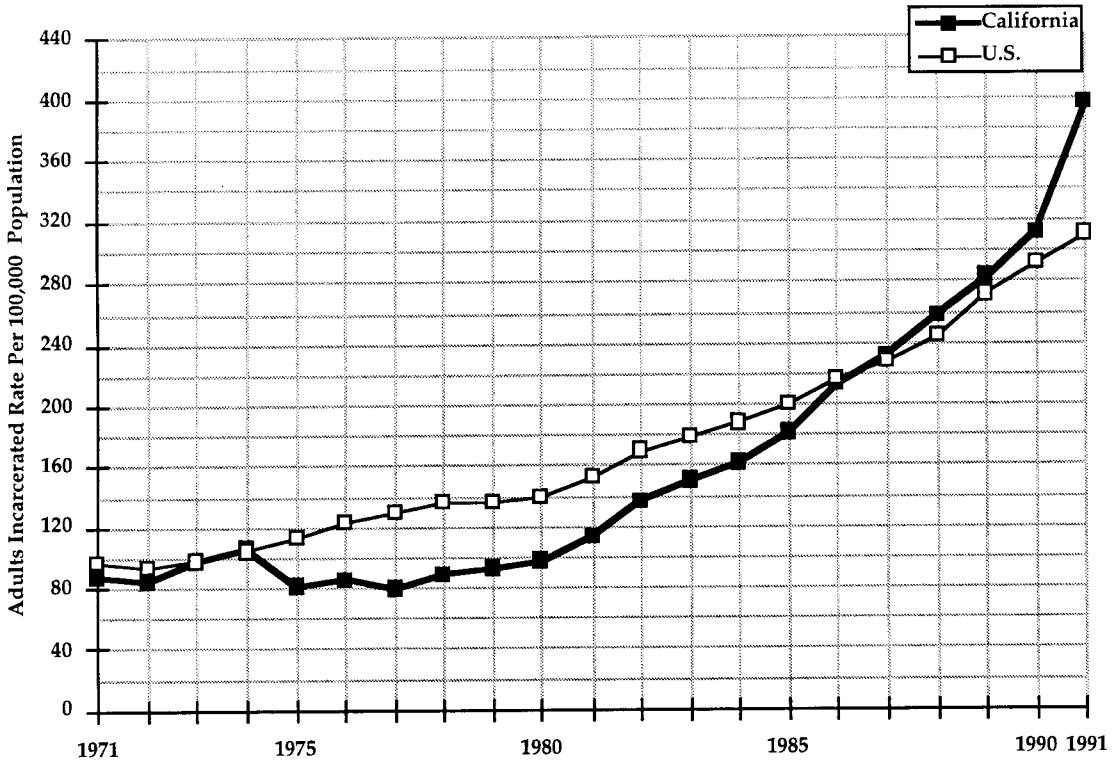
Arrests made for drug abuse violations include arrests for unlawful possession, sale, use or manufacture of illegal drugs. These arrest rates provide another direct measure of illegal activity related to or resulting from illicit drug use.

The figure shows that over 75 percent more per capita drug abuse arrests occurred in 1991 in California than at the national level. However, the rate in California has decreased by 23 percent, from 921 in 1985 to 704 arrests per 100,000 population in 1991. Rates peaked in California and the nation in 1989 and since then have fallen in California and the U.S. by 30 percent and 25 percent respectively.

Data Sources

- National and state data from the Uniform Crime Reporting Program.

Adult Incarceration Rates in State and Federal Institutions



Comments

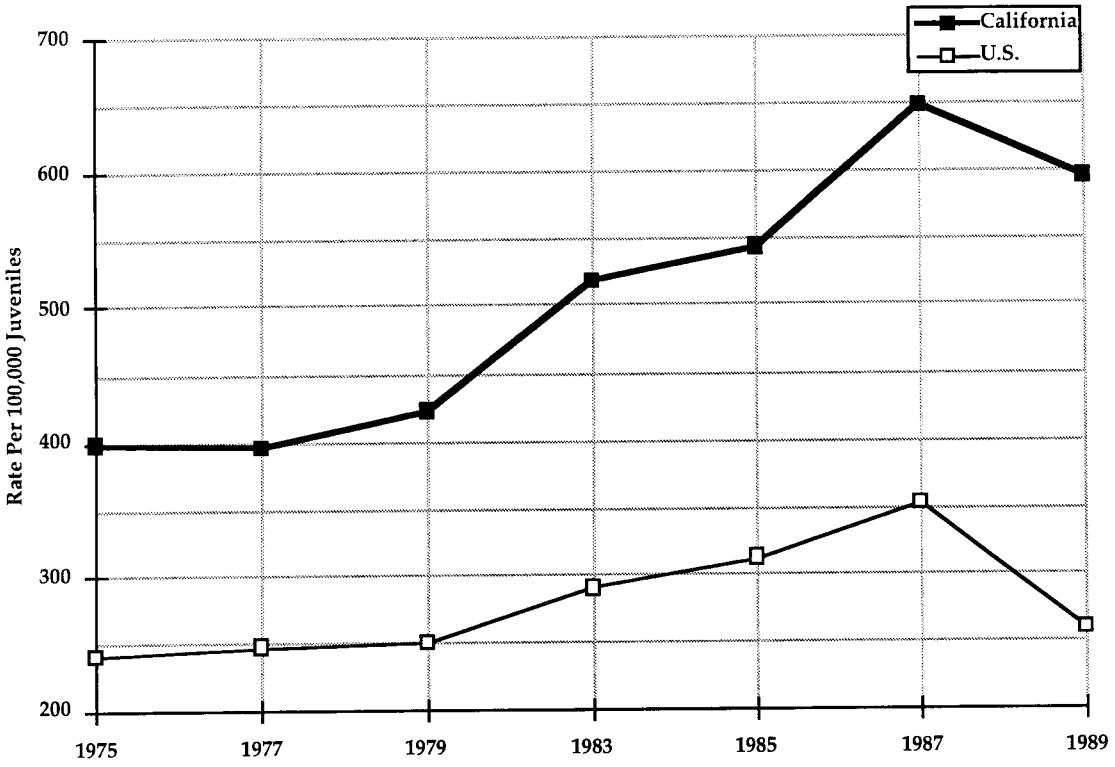
The figure shows that in 1991, the adult incarceration rate in California was 396 per 100,000 population, over 27 percent more than the rate of 310 per 100,000 at the national level. Furthermore, California has overtaken the nation in its incarceration rate since the mid-1980s. While prison populations at both levels are growing fast, in the last seven years California's prison population has grown 40 percent more quickly than the national population.

At the state level, almost one-quarter of the prison inmates were incarcerated for drug offenses in 1992, many others were under the influence of drugs or alcohol at the time of the current offense, and many admit they committed their offense specifically to obtain money to buy drugs.

Data Sources

- Bureau of Justice Statistics, Sourcebook of Criminal Justice Statistics, 1992. (Please see Data Note 4, in Appendix 1, for a discussion of this incarceration data.)

Juveniles Under Custody in Public and Private Juvenile Facilities



Comments

The figure illustrates that in 1989 California had 595 juveniles in custody per 100,000 youth, 129 percent more than the figure of 259 per 100,000 juveniles reported at the national level. In both cases, the rate increased from 1975 to the late 1980s, but shows a decline in 1989. However, in California the rate of increase over this time period was more than 3 times as fast as the national increase.

In 1989, at the national level, almost 12 percent of all juveniles held in public facilities were there for alcohol and drug offenses. California Drug Use Forecasting (DUF) data show that in 1991 over 30 percent of juvenile arrestees tested in Los Angeles and San Diego tested positive for at least one illicit drug. These were the second and third highest rates among the 12 juvenile DUF sites.

Data Sources

- Bureau of Justice Statistics, Sourcebook of Criminal Justice Statistics, 1992.

5. SUMMARY AND CONCLUSIONS

In this report we have examined the impact of substance abuse on public health and public safety, through a variety of indicators available at state and national levels. The indicators include prevalence of use of alcohol and other drugs in different populations, multiple public health indicators of mortality and morbidity related to substance use, and a series of crime, arrest and incarceration indices. These indicators provide a profile of the breadth and extent of substance abuse in California compared with the U.S. They are helpful in monitoring the extent of substance abuse problems and their variation within the United States.[2]

To the extent that trends can be compared between California and the U.S. as a whole, they show parallels in the direction of change in most indicators, but significant differences in rates of change over comparable time periods. To the extent that levels of impact can be compared the data show that California has consistently higher prevalence rates than the nation as a whole across all substances and among different demographic groups.[3] The differences in rates of lifetime use are the greatest. Past year and past month use rates are rarely more than two percentage points apart, except for current alcohol use which is 57 percent in California and 51 percent nationwide. Though small, the differences are statistically significant for several substances. Moreover, while California rates are only slightly higher, they suggest a significantly higher impact in California because even a few percentage points difference translates to a large number of users in a state like California which has a large population, compared with most other states.

The picture that emerges in the state-to-national comparisons across public health indicators shows that rates in California are sometimes higher and sometimes lower than rates nationwide. Rates of hepatitis B and STDs have decreased dramatically in the state over the past decade, compared with much more modest declines nationwide. Alcohol-related crash fatalities and deaths due to cirrhosis of the liver have also both declined but rates of the former are higher in California than in the U.S. as a whole. The death rate from drugs is increasing both nationwide and in California where it is twice the national level. The proportion of AIDS cases associated with intravenous drug use has increased nationwide.

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[2]See Ebener, P.A. and H.L. Saner, *Impact of Substance Abuse Problems in California: How Do Counties Vary?*

[3]See Ebener, P.A., D. McCaffrey and H.L. Saner, *Prevalence of Alcohol and Drug use in California's Household Population, 1988-1991: Analysis of the California Subsample from the National Household Survey on Drug Abuse* for a more comprehensive analysis of the prevalence of alcohol and other drug use in California.

The pattern that emerges from the public safety indicators is also somewhat mixed. California shows substantially higher rates than the nation for arrest for drug and alcohol-related violations, for reported property crime, and for reported violent offenses. The measure of reported violent crime is particularly troublesome, as it shows California higher than the nation, and increasing 50 percent more rapidly. By contrast, the incidence of reported property crime and death by homicide have actually decreased slightly in the state since 1985. Furthermore, while the levels of drug- related arrests are indeed much higher in California, levels have declined by 23 percent over the past seven years (after peaking in 1989) as compared with the increase of 56 percent at the national level, where rates also began to decline after 1989.

The levels of adult and juvenile incarceration in California are both higher and increasing more rapidly than those at the national level. In particular, the rate of juveniles in custody in the state was 129 percent higher than the comparable figure for the nation in 1989, and has been growing over three times as quickly during the period covered by our data.

A number of factors make these comparisons very difficult to interpret, including the lack of uniformity in data collection procedures and the fact that substance abuse is not the sole risk factor for a number of the public health indicators. In addition, different public health policies such as immunization programs can impact on morbidity rates.[4]

The comparison of rates shown in this report portray only part of the picture of impacts of substance abuse. There are different economic costs associated with each indicator and the costs may well differ between California and nationwide. To further the comparison of impacts of substance abuse these economic costs should be factored into the analysis.

Finally, this report shows several years of retrospective data for many indicators. For others, additional years of data are needed before comparisons of trends can be made.

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[4]See Ebener, P.A. and H.L. Saner, *Impact of Substance Abuse Problems in California: How Do Counties Vary?* for a discussion of data collection procedures and factors that impact reporting levels for many of the indicators included here.

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APPENDIX 1: DATA NOTES

1) The National Household Survey on Drug Abuse

The NHSDA has been conducted periodically since 1971. Recent surveys were conducted in 1982, 1985, 1988, 1990 and 1991. The methodologies employed in survey design, sampling and administration have remained largely consistent over time. Personal interviews are conducted with randomly selected household members age 12 and older using a questionnaire that employs a combination of interviewer-administered and self-administered questions. The surveys provide information about the patterns of use, problems resulting from use, and perceptions of the harm of using illicit drugs, alcohol and tobacco. The survey also gathers data on quantities and frequencies of use of an array of substances. Respondents answer all drug use questions using self- administered answer sheets, which are immediately placed in an envelope and sealed to protect confidentiality and encourage honest reporting.

In recent years when the NHSDA sample design was changed, the national sample has included significantly larger numbers of cases from California. This results from a NHSDA design feature, which in the first stage of sampling, selects with certainty places with large Hispanic population, rather than selecting regions of the country totally at random. Because all of California's heavily populated counties have relatively large Hispanic populations, 28 of California's 58 counties were among those areas selected with certainty in the 1991 NHSDA sample (the 1988 and 1990 samples included slightly fewer counties). These counties, all urban or suburban places, together contain 94.2 percent of the state population.

The guaranteed inclusion of so large a California sample at the first stage of sampling ensures that the final California sample (individuals chosen from the sampled regions) will be large enough to provide meaningful state level estimates. Subsequent stages of the NHSDA sampling process select from the sampled regions, smaller places, households and individuals to be interviewed. At each stage the probability of selection is known (and is nonzero for all California residents in the 28 selected counties) and weights are applied to adjust for sampling probability, and non-response. The weights applied to the California cases (4,406 in 1991) result in a weighted sample which very closely matches the demographics of the California statewide population. The weights, however, cannot adjust for the non-inclusion of six percent of the population which live in mostly rural counties.

Our sensitivity analyses concluded that the bias in our prevalence estimates, resulting from exclusion of the rural counties from the sample is so small that greater error in the estimates might be introduced from adjusting for the bias than is eliminated by the adjustment. Because

the portion of the population excluded is so small, even extraordinary differences in prevalence in the unrepresented counties would not significantly alter the rates we calculate for the state. Thus we applied the rate found among the sampled population to the age adjusted balance of the state to produce a statewide estimate.

With the exception of Los Angeles County, which itself is oversampled by NHSDA, it is not possible to calculate regional estimates within California using this sample.

The NHSDA measures lifetime, past year (the 12 months prior to the survey date), and past month use (the 30 days prior to the survey date) of a number of illicit drugs and alcohol. For this report prevalence rates were derived for alcohol, any illicit drug use, illicit drugs other than marijuana, marijuana (including hashish), cocaine (including crack), heroin, hallucinogens (including PCP), stimulants, other psychotherapeutics (including sedatives, tranquilizers and analgesics) and inhalants. The summary measure of any illicit drug use includes marijuana, cocaine, heroin, hallucinogens and the non-medical use of psychotherapeutic drugs (stimulants, sedatives, tranquilizers and analgesics). We have also calculated prevalence rates for excessive use of alcohol (five or more drinks at one time), combined excessive alcohol and drug use and use of multiple illicit drugs.

There are other sources of information about substance use among youth in California and the U.S. For example, at the national level, data on substance use among youth is collected during the spring of each year, using a nationally representative sample of high school students (The High School Senior Survey - or Monitoring The Future). In California, the Attorney General's Office and the Department of Alcohol and Drug Programs sponsor a biennial statewide survey of drug and alcohol use among 7th, 9th and 11th grade students (the California Student Survey). These data are representative of public schools in the state with respect to geographical region, school enrollment, ethnicity, and socioeconomic status.

2) The California Perinatal Substance Exposure Study

The Perinatal Substance Exposure Study was designed to obtain population-based prevalence estimates of maternal alcohol and drug use at the time of delivery for the state of California, and several sub-state regions. Urine toxicology screening was matched to basic information about the mothers, including age, marital status, birthplace, race/ethnic group, level of prenatal care, and drugs administered before the collection of urine. Data were collected from almost 30,000 women in 202 hospitals throughout the state. The sampling of hospitals and women were found to be a good match to the maternity hospitals in the state as a whole. Weighting procedures were used to ensure that appropriate distributions of race/ethnic groups were represented in the sample.

Data collection took place during 1992. These estimates do not provide estimates of substance use during pregnancy. Toxicological assays of urine samples, which were used in this study, are limited to providing an estimate of current drug use only, in that a positive result reveals only that a particular substance was used within a specific time before testing. The detection period for alcohol may be as short as 8 hours. For marijuana, it may be up to 14 days depending on the dose and how often the drug has been used. For cocaine, the detection window ranges from 12 to 72 hours.

Source of bias in detecting maternal substance use. Several issues complicate the estimation of drug use among pregnant women, including sources of data, techniques used to determine drug use, and problems defining drug use (Horgan, Rosenbach, Ostby and Butrica, 1991). Many estimates rely in some manner on hospital reports of births in which there is some evidence of drug exposure, or in which the mother reports having used drugs during pregnancy. Thus these estimates are biased downwards to the extent that mothers who use alcohol or drugs may under report the extent of use during pregnancy at the time of delivery. Self-report measures, especially on mail surveys, where women have few assurances of confidentiality, may lead to non-response or serious under reporting of drug use by mothers. Measures based on medical records may also be biased downward, due to the difficulties in identifying use and to unwillingness to record data which may be perceived as potentially incriminating (Zellman, Jacobsen, DuPlessis, and DiMatteo, 1992).

Furthermore, identification of illicit substance use is often a difficult and sensitive issue. Toxicological assays for the presence of drug metabolites in mothers' body fluids are considered the most objective measure of drug use. However, these do not allow for an accurate description of an individual's pattern of use over an extended period of time. And the accuracy of the test depends on the actual timing of drug use, as well as the specific assay technique used. A positive test result only indicates that a particular substance was used within a certain period of time prior to testing. The test does not indicate the amount used or the frequency of use. In particular alcohol use is very difficult to document because of its rapid metabolism. Diagnostic methods which do provide accurate information about a longer history of exposure (for example, radio immunoassay of hair samples) are costly and unavailable for routine use. Problems in defining use during pregnancy may relate to difficulties in defining when conception actually occurred. Many women may cease to use drugs during their pregnancy, but may have continued use in the period between conception and positive pregnancy determination (Horgan, Rosenbach, Ostby, and Butrica, 1991).

3) The Uniform Crime Reports

The UCR Program is a nationwide, cooperative effort of over 16,000 city, county, and state law enforcement agencies who voluntarily report data on crimes which are brought to their attention. However, many factors are known to affect the volume and type of crime occurring from place to place, such as variations in population density and composition, mobility, economic conditions, cultural and family factors, and climate, as well as the enforcement practices and policies of each local criminal justice system. Thus comparisons between the state and the nation which has been calibrated by population counts only, should be made and interpreted with due caution.

4) Sentenced Prisoners in State and Federal Institutions

Corrections data is distinct from arrest data in that it focuses on persons under community supervision, and includes counts of people who are now inmates of State and Federal prisons, or are juveniles in state custody. Information on State and Federal prisoners is derived from an annual census of all State correctional departments and the Federal Bureau of Prisons, and the 1991 Survey of Inmates in State Correctional Facilities.

Sentenced prisoners are defined as those serving sentences of more than one year. Because these data are derived from an enumeration rather than a survey, they are not affected by sampling error. Furthermore, response errors are held to a minimum using systematic telephone follow-ups and other control procedures. Thus the year-end counts are generally held to be reliable.

5) Juveniles Under Custody in Public and Private Juvenile Facilities

The data on juveniles confined in State and local facilities is derived from a national census of public and private juvenile facilities conducted periodically by the U.S. Bureau of the Census.. A juvenile is a person of an age specified by State statute, usually under 18, who is subject to juvenile court authority at the time of admission, regardless of age at the time of the census. The upper age of original juvenile court jurisdiction ranges from 16 to 19, but for most States it is 17 or 18. The figures are one-day counts reflecting the number of juveniles under custody on the census date. All data collected for each of the censuses reflect State-by-State variation among juvenile justice systems, and thus require caution when making comparisons. Juvenile custody rates were calculated by dividing the number of juveniles in public or private facilities by the number of persons from 10 years of age up to the statutorily defined maximum age of original court jurisdiction in each State.

APPENDIX 2: RAW DATA

Prevalence of Use Among the Household Population
(Percent Used in Past Year)

	1979	1982	1985	1988	1990	1991	1992	1993
Alcohol - U.S.	71.4	68.4	73.4	68.1	66.0	68.0	64.7	66.5
Alcohol - CA				76.3	68.1	69.3		
Illicit Drugs - U.S.	19.5	18.7	19.6	14.1	13.3	12.7	11.1	11.8
Illicit Drugs - CA				20.7	14.4	14.9		
Cocaine - U.S.	5.3	6.5	6.3	4.1	3.1	3.0	2.4	2.2
Cocaine - CA				6.9	4.4	4.8		

Prevalence of Use Among Adolescents
(Percent of Population)

	1979	1982	1985	1988	1990	1991	1992	1993
Alcohol - U.S.	53.6	52.4	51.7	44.6	41.0	40.3	32.6	35.2
Alcohol - CA				43.5	31.4	43.2		
Illicit Drugs - U.S.	26.0	22.0	23.7	16.8	15.9	14.8	11.7	13.6
Illicit Drugs - CA				21.0	11.5	16.7		
Coc aine - U.S.	4.2	4.1	4.0	2.9	2.2	0.7	1.1	0.8
Cocaine - CA				5.7	1.7	3.5		

Use Among Women of Childbearing Age
(Percent)

	1988	1990	1991
Alcohol - U.S.	74.2	70.9	74.7
Alcohol - CA	79.7	68.3	72.4
Marijuana - U.S.	12.9	13.9	12.2
Marijuana - CA	19.1	14.3	13.1
Cocaine - U.S.	4.7	3.4	3.4
Cocaine - CA	10.2	4.0	5.4

Drug Testing in the Workplace
(Percent Positive Results)

	1992	1993
U.S.	8.8	8.4
Southeast	9.6	8.66
Central	9.0	8.7
Northeast	7.9	7.17
West	7.1	8.73

Household Population Perceptions of Risk From Substance Use
(Percent Perceiving Great Risk)

	California	U.S.
Marijuana (smoke regularly)	71.8	77.8
Cocaine (use occasionally)	74.1	80.6
Cocaine (use regularly)	93.6	96.1
Alcohol (1 or 2 drinks nearly every day)	31.4	29.7
Alcohol (4 o5 drinks nearly every day)	71.6	70.1

Adolescents' Perceptions of Risk From Substance Use
(Percent Perceiving Great Risk)

	California	U.S.
Daily Pack of Cigarettes	60.4	48.3
Regular Alcohol Use	28.6	24.8
Alcohol Abuse	60.5	59.8
Occasional Marijuana	47.4	48.8
Regular Marijuana	77.9	83.2
Occasional Cocaine	71.0	74.8
Regular Cocaine	89.2	92.7

Deaths Due To Cirrhosis Of The Liver
(Per 100,000 Population)

	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
California		18.8	17.4	16.7	15.9	16.0	15.0	14.7	14.2	14.8	13.8	13.0	12.2	11.9
U.S.	15.5						11.3					10.4	9.8	

Deaths Caused By Alcohol-Related Motor Vehicle Crashes
(Percent of All Fatal Motor Vehicle Accidents)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
California				48.2	48.0	49.3	46.1	46.4	45.6	44.1		
U.S.	56.7	55.1	53.3	51.5	51.7	50.7	49.9	48.8	49.4	47.9	45.1	44.0

Drug-Related Deaths
(Per 100,000 Population)

	1980	1985	1986	1987	1988	1989
California	5.9	7.6	8.1	6.8	8.2	8.5
U.S.	3.0	3.5	3.9	3.8	4.2	4.1

Cases of Hepatitis B Infection
(Per 100,000 Inhabitants)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
California	16.3	16.0	15.4	17.4	20.3	22.6	20.6	15.8	11.8	9.9	10.0	8.3	9.1	5.8
U.S.	8.3				11.0	11.2	10.8	10.7	9.5	9.5	8.4	7.1		

Proportion of HIV Infected People Who Are Intravenous Drug Users
(Percent)

	1986	1987	1988	1989	1990	1991	1992
California	12.7	13.8	15.4	15.3	15.8	17.2	
U.S.				29.8	29.6	30.2	28.9

Cases of Sexually Transmitted Disease
(Per 100,000 Population)

	1970	1980	1984	1985	1986	1987	1988	1989	1990	1991	1992
California		623.2							231.2	186.4	151.8
U.S.	338.1	471.6	401.9	411.5	404.4	359.7	338.0	343.2	331.6	298.0	

Cases of Tuberculosis
(Per 100,000 Inhabitants)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
California	18.0	18.7	14.5	13.7	12.8	13.2	12.8	13.6	12.4	14.5	16.6	17.4	17.2	16.0
U.S.	12.2				9.4	9.3	9.5	9.3	9.1	9.5	10.3	10.4	10.5	

Reported Property Crimes
(Per 100,000 Population)

	1985	1986	1987	1988	1989	1990	1991	1992
California	5,752.7	5,842.3	5,588.4	5,705.7	5,785.8	5,558.4	5,682.7	5,559.8
U.S.	4,650.5	4,862.6	4,940.3	5,027.1	5,077.9	5,088.5	5,139.7	4,902.7

Reported Violent Crimes
(Per 100,000 Inhabitants)

	1985	1986	1987	1988	1989	1990	1991	1992
California	765.3	920.5	918.0	929.8	988.7	1,045.2	1089.9	1,119.7
U.S.	556.6	617.7	609.7	637.2	663.1	731.8	758.1	757.5

Homicide Deaths
(Per 100,000 Population)

	1970	1980	1981	1982	1983	1984	1985	1986	1987	1990	1989	1990	1991	1992
California		14.5	13.2	11.6	10.7	11.0	10.7	11.4	10.7	10.8	11.3	12.4	13.3	13.1
U.S.	8.3	10.7					8.4			10.0	10.8			

Arrests For Driving Under the Influence (DUI)
(Per 100,000 Licensed Drivers)

	1980	1986	1988	1989
California		1,857.9	1,666.8	1,649.8
U.S.	981.0			1,048.0

Drug Violation Arrests
(Per 100,000 Population)

	1980	1985	1986	1987	1988	1989	1990	1991
California		920.9	920.9	978.1	1,067.4	1,070.1	862.9	704.5
U.S.	256.03	356.2			423.4	526.8	435.3	400.6

Adult Incarceration Rates in State and Federal Institutions
(Per 100,000 Population)

	California	U.S.
1971	87	96
1972	84	94
1973	97	98
1974	106	104
1975	81	113
1976	85	123
1977	80	129
1978	88	135
1979	93	136
1980	98	139
1981	114	153
1982	135	170
1983	150	179
1984	162	188
1985	181	200
1986	212	216
1987	231	228
1988	257	244
1989	283	271
1990	311	292
1991	396	310

Juveniles Under Custody in Public and Private Juvenile Facilities
(Per 100,000 Juveniles)

	1975	1977	1979	1983	1985	1987	1989
California	398	395	422	519	543	649	595
U.S.	241	247	251	290	313	353	259