

Evaluation of the Substance Abuse and Crime Prevention Act Final Report

Final Report of the 2001-2006 SACPA Evaluation,
also known as the 2005 Report. Prepared for the
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Executive Summary

This is the fourth and final annual report from the five-year independent statewide evaluation of the Substance Abuse and Crime Prevention Act (SACPA). This report was prepared by University of California, Los Angeles Integrated Substance Abuse Programs (UCLA) for the California Department of Alcohol and Drug Programs (ADP). The report describes the number of offenders referred to SACPA, the number who completed their assessment, and the number who entered treatment during the policy's fourth year (2004-2005). Following that, the report presents outcome measures on treatment completion, treatment duration, and re-offending. Next, three benefit-cost studies are presented, followed by analyses of funding options intended to improve SACPA outcomes. Then statewide crime trends associated with SACPA are examined. Finally, conclusions and recommendations generated over the course of the evaluation are summarized.

Offenders Referred to SACPA

A total of 48,473 offenders were referred for treatment during SACPA's fourth year. Of this total, 36,285 (74.9%) entered treatment. Show rates rose slightly in each of SACPA's first four years and are comparable to show rates in other studies of drug users referred to treatment by the criminal justice system.

Offenders in SACPA Treatment

Characteristics of SACPA treatment clients have not changed through its first four years. In the fourth year, more than half of SACPA participants who entered treatment reported methamphetamine as their primary drug (55.0%), followed by cocaine/crack (13.7%), marijuana (12.7%), alcohol (8.8%), and heroin (8.6%). Most SACPA treatment clients were men (72.8%). About half (45.9%) were non-Hispanic White, 31.4% Hispanic, 16.3% African-American, 2.8% Asian/Pacific Islander, and 1.7% Native American. Their average age was 34.8 years.

About half of SACPA clients in each of the first four years entered drug treatment for the first time. First-time treatment exposure was more common among Hispanics, men, younger drug users, and marijuana users. Many first-time treatment clients had been using their primary drug for over 10 years. Thus, SACPA reached a large number of drug users who had never received treatment before.

Treatment placements were similar across SACPA's first four years. Most treatment clients were placed in outpatient drug-free (non-methadone) programs (84.1% in the fourth year) or long-term residential programs (10.9%). Methadone maintenance, methadone detoxification, other detoxification, and short-term residential treatment were used infrequently.

Treatment Completion and Duration

Analyses of treatment completion and duration require sufficient passage of time to allow clients to complete treatment and have their discharge recorded. Therefore UCLA examined these outcomes for clients admitted to treatment during SACPA's third year.

About one-third (32.0%) of participants who entered treatment in SACPA's third year went on to complete treatment. The completion rates in SACPA's first and second years were 34.4% and 34.3%, respectively.

Half of SACPA outpatient drug-free treatment clients (50.8%) received at least 90 days of treatment, as did 37.5% of long-term residential treatment clients. These rates are typical of drug users referred to treatment by the criminal justice system. A period of 90 days is widely cited as the minimum length of stay before treatment is likely to have a beneficial effect. Treatment duration and effectiveness is also associated with appropriate level of care, which is discussed below.

Treatment completion was lower for African-Americans and Hispanics than for Whites, Asian/Pacific Islanders, and Native Americans, and lower for parolees than for probationers. These findings highlight the importance of better assessing and addressing barriers to success for these subpopulations.

Methamphetamine users were similar to the overall SACPA population in their rate of treatment completion and treatment duration. Despite potential clinical challenges that may arise from methamphetamine use, methamphetamine users do not do worse than others on treatment completion and duration measures. This suggests that methamphetamine problems are as treatable as problems associated with other drugs.

Treatment completion was lower and treatment duration was shorter for heroin users than for users of other drugs. Few heroin users in SACPA were placed in narcotic replacement therapy (NRT) programs like methadone detoxification or maintenance. Heroin users' performance in treatment may improve significantly if NRT is made more available.

Re-Offending

Re-arrest rates for first-year SACPA-eligible offenders were lower over a 30-month period among SACPA offenders who completed treatment than for those who did not complete treatment, controlling for offender background characteristics. These outcomes emphasize the potential value of improving treatment participation and completion rates.

Drug offenders eligible for SACPA in its first year were more likely to have a new arrest for drug or property offenses during the ensuing 30-months than a pre-SACPA-era comparison group of similar offenders who would have been eligible for SACPA. Most arrests in both groups were for drug crimes. Offenders in the SACPA-era spent more time in the community and hence had more time available to re-offend and be re-arrested. These were outcomes among all offenders who were eligible for SACPA, regardless of

their level of actual participation. These findings show the effect of SACPA as the policy was implemented, under which some offenders participated in SACPA and others did not.

Arrest patterns were similar in SACPA's second year. Outcomes were stable between SACPA's first two years.

Crime Trends

SACPA implementation was not associated with a significant increase or decrease in statewide crime trends. UCLA examined California crime trends before and after implementation of SACPA in July 2001. These analyses showed some trends fluctuated slightly upward or downward but there was no reliable evidence of any significant change in any of the crime trends analyzed.

Treatment Differences

Placement rates into residential care were significantly lower for SACPA treatment clients than for non-SACPA criminal justice referrals. This was true even after controlling for client demographics and drug use patterns. Significant changes to treatment and client-composition trends occurred in California after SACPA: large increases in the number of new treatment admissions and in the number of heavy users (daily users of an illicit drug) referred to treatment through the criminal justice system occurred. Although the absolute number of available residential placements increased slightly after SACPA implementation, the treatment system was unable to keep pace with the increase in demand. The percentage of heavy users referred to treatment through the criminal justice system who were placed in residential programs declined significantly following SACPA implementation.

Young male Hispanic SACPA treatment clients were less likely to be placed in residential treatment than White clients with similar patterns of drug use. This placement disparity diminished for older offenders. Additionally, there were no placement differences between Whites and African-Americans or between genders.

Placement rates into narcotic replacement therapy are low among opiate-using SACPA offenders. Very low rates of NRT placement were found both for SACPA and non-SACPA criminal justice referrals compared with self-referrals. NRT placement among SACPA offenders was low across the board, but after controlling for other factors, young (under twenty-five years of age) African-American clients were less likely to receive NRT. This placement difference disappears for offenders over twenty-five years of age. Although placement into NRT for criminal justice referrals falls well short of placement rates for self-referrals, a year-to-year improvement was observed. NRT placement rates among opiate-using SACPA offenders increased from 11% in the first year to 15% in the third year.

Placement of heavy-using SACPA clients into residential care is related to criminal justice outcomes. Although true for all primary drugs, the effect of treatment placement

(residential or outpatient) on criminal justice outcomes was most dramatic for SACPA treatment client reporting methamphetamine as their primary drug. SACPA clients entering residential treatment who had been daily users of methamphetamine had significantly fewer arrests during the thirty-month follow-up period compared with methamphetamine users placed into outpatient treatment. This suggests that expanded use of residential treatment for heavy users, in particular methamphetamine users, should be prioritized.

Among SACPA opiate-users, placement into NRT is related to offender outcomes. Client-treatment and criminal justice outcomes differed significantly depending on whether clients were placed into NRT. NRT clients were significantly more likely to have a successful treatment discharge and, therefore, to comply with the terms of their SACPA probation requirements. They also had significantly fewer arrests in the thirty months following their entry into the program. These results speak to the importance of overcoming attitudinal and access barriers to expanded use of NRT.

Benefit-Cost Analysis

Three studies showed that SACPA yielded cost savings to state and local governments.

Taxpayers saved nearly \$2.50 for every \$1 invested. Study 1, using a pre-SACPA-era comparison group and all first-year SACPA-eligible offenders yielded a benefit-cost ratio of nearly 2.5 to 1.

Treatment “completers” saved \$4 for every \$1 allocated. SACPA participants who completed their treatment program achieved a benefit-cost ratio of approximately 4 to 1.

Cost savings for the second year of SACPA were similar to cost savings in the first year. This suggests stability in benefit-cost outcomes.

Three conclusions follow from the cost analyses: SACPA substantially reduced incarceration costs, SACPA resulted in greater cost savings for some eligible offenders than for others, and SACPA can be improved.

A number of cost factors are not included in this benefit-cost analysis, including mental healthcare, welfare payments, child welfare services, or the effect of SACPA on criminal justice costs for non-eligible offenders.

UCLA divided the cost offsets between those that affect state expenditures and those that affect county expenditures. Of the 12-month savings reported, \$83 million accrued to the state and \$61 million accrued to counties, with a cost increase of \$3 million to the federal government. Of the 30-month savings reported, \$171 million accrue to the state, \$12 million to counties, with a cost increase of \$7 million to the federal government. Due to time and information limitations, the allocation of costs between the state and counties

was, of necessity, approximate. A more definitive allocation requires more information on revenue collection and changing spending practices.

Funding Implications of Improvements to SACPA

Several options for improving the performance of SACPA are presented along with their associated costs. Four treatment expansion options and one community-supervision enhancement option are considered. In all cases, the improvements would require funding levels that are higher than those currently in place. Additional analyses of data accumulated for the benefit-cost analysis will provide a basis for further projections of costs associated with refinements in SACPA implementation.

Option A: Pre-SACPA-Era Placement Parity. Estimates are provided of the incremental cost to provide SACPA-era clients with the care they would have received had they been referred to treatment through the criminal justice system in the pre-SACPA-era. Providing a pre-SACPA-era level of treatment would cost an additional \$19 million.

Option B: Providing an Adequate Treatment “Dose.” Estimates are provided of the cost implications of reducing the number of clients who currently enter SACPA treatment but receive an insufficient treatment “dose” (fewer than 90 days in treatment). It would cost at least \$18 million to get all SACPA offenders who did not receive 90 days of care to a 90-day treatment minimum mark.

Option C: Providing Treatment to Offenders Not Currently Entering Treatment. Estimates are provided of the cost of providing outpatient drug-free treatment to those individuals who are currently untreated. This would increase treatment costs by at least \$13.3 million.

Option D: Providing NRT Treatment to Treatment Clients Not Currently Receiving NRT. Estimates of cost implications of expanded use of NRT for SACPA treatment clients who report opiates as their primary drug are provided. Specifically, all offenders who reported opiates as their primary drug and who were assigned to outpatient drug-free treatment are assigned the cost of receiving NRT. Extending NRT to all medically eligible clients would result in annual cost increase of at least \$3.7 million.

Option E: Enhanced Community Supervision. Estimates are provided of the cost implications of enhanced community supervision under SACPA that depends on the supervision needs of the offender. Offenders’ number of prior convictions in the 30-month period preceding their entry into SACPA was shown to be a strong predictor of follow-up recidivism. Estimates are based on a 25% enhancement to the current supervision cost of offenders who enter SACPA with no convictions in the 30 months prior to their SACPA conviction, a 50% enhancement for offenders who enter with one to four prior convictions in the 30 months prior to their SACPA conviction; and the provision of intensive supervision probation (ISP) for offenders who have five or more prior convictions in the 30 months prior to their SACPA conviction. The enhancements in community supervision would result in an increased cost of supervision of approximately \$25 million.

Recommendations

Based on evidence accumulated over the course of the evaluation, UCLA generated the following recommendations for consideration:

- Funding should be allocated to ensure greater availability of favorable drug-treatment options. Residential treatment should be available for those with the most severe drug abuse as determined by a standardized assessment. NRT should be provided as a first line intervention for those SACPA treatment clients with heroin or other opiate use problems.
- Practices associated with better SACPA show rates should be pursued, including locating assessment units in or near the court, performing assessments in a single visit, allowing walk-in assessments without appointments, and incorporating procedures used in drug courts (e.g. a court calendar dedicated to drug offenders, dialog between the judge and offender, close supervision, and collaboration involving judge, prosecutor, defense attorney, and treatment provider). Evidence-based practices established by existing research should also be incorporated wherever possible, and financial incentives should be considered for counties and providers for instituting these practices or for otherwise demonstrating more success on objective measures such as reduced time from SACPA conviction to treatment entry.
- Explore handling offenders with high rates of prior convictions differently. This could include placement into more-controlled treatment settings (e.g. residential treatment), more intensive supervision, or drug court referral.
- Collaboration and coordination among court, probation, parole, and treatment systems should continue to be improved with the goal of admitting offenders into appropriate treatment in the shortest possible time while maintaining appropriate levels of oversight and supervision.
- Drug testing information should be considered to provide an objective basis for delivery of additional services or for a program of graduated sanctions for offenders who are not complying with SACPA requirements.
- A concerted, collaborative effort should be made to streamline access to and use of state data for authorized evaluation studies. Efforts to improve the quality of data sources such as the SACPA Reporting Information System are also important.
- Further policy-relevant sub-studies should be conducted to address issues that remain, including research on barriers to success and potential implementation improvements for Hispanics, parolees, offenders with co-occurring mental disorders, women, including pregnant women and women with children, and the homeless. Research is also recommended to investigate the net effect of SACPA on crime among the broader population of both drug offenders and non-drug offenders.

Chapter 1: Introduction

Douglas Longshore, Ph.D. and Darren Urada, Ph.D.

In November 2000, California voters passed Proposition 36, which was enacted into law as the Substance Abuse and Crime Prevention Act (SACPA), beginning July 1, 2001.

The California Department of Alcohol and Drug Programs, through a competitive bid process, chose the University of California, Los Angeles Integrated Substance Abuse Programs to conduct an evaluation over a 5½-year period beginning January 1, 2001 and ending June 30, 2006.

This report describes the fourth year of SACPA implementation, July 1, 2004 to June 30, 2005, treatment completion and duration outcomes for offenders in SACPA's third year, July 1, 2003 to June 30, 2004, and recidivism outcomes for offenders during SACPA's first two years.

In November 2000, California voters passed Proposition 36, which was enacted into law as the Substance Abuse and Crime Prevention Act (SACPA). SACPA represents a major shift in criminal justice policy, inasmuch as adults convicted of nonviolent drug offenses in California and otherwise eligible for SACPA can now be sentenced to probation with drug treatment instead of either probation without treatment or incarceration. Offenders on probation or parole who commit nonviolent drug offenses or who violate drug-related conditions of their release may also receive treatment and/or drug education. Treatment modalities include regular and intensive outpatient drug-free (non-narcotic replacement therapy) treatment, short- and long-term residential treatment, and narcotic replacement therapy (NRT), typically methadone detoxification or maintenance. Offenders who commit non-drug violations of probation/parole may face termination from SACPA. Consequences of drug violations depend on the severity and number of such violations. The offender may be assigned to more intensive treatment, or probation/parole may be revoked.

The California Department of Alcohol and Drug Programs (ADP), through a competitive bid process, chose University of California, Los Angeles Integrated Substance Abuse Programs (referred to as UCLA throughout this report) to conduct an evaluation of SACPA. This evaluation began on January 1, 2001 and ended December 31, 2006.

Evaluation Overview

Along with evaluations of drug courts and drug policy initiatives in other states (e.g., Arizona's Drug Medicalization, Prevention, and Control Act of 1996), the SACPA evaluation provides state and national policymakers with information needed to make decisions about the future of SACPA in California and similar programs elsewhere. The evaluation covered four domains: implementation, offender outcomes, cost-offset, and lessons learned. Data have been collected in surveys of county representatives and

offenders, focus groups (semi-structured in-depth discussion) with county representatives, observation (e.g., recording of issues raised, perceptions noted, decisions and agreements reached) at meetings, conferences, and other events, county records, and statewide datasets maintained by human services and criminal justice agencies.

While the “gold standard” for program evaluation is experimental comparison in which potential participants are randomly assigned to a program group (offered an opportunity to participate) or a comparison group (not offered that opportunity), experimental comparison was not feasible in the SACPA evaluation because randomization would have meant denying or delaying participation by offenders legally entitled to participate in SACPA. It was therefore necessary to take a “quasi-experimental” approach where such comparisons were relevant. In this approach, the comparison groups were composed of subgroups of the people who participated, and a comparison group that was composed of people who would have been eligible for the program if it had existed at the time of their conviction.

Douglas Longshore, Ph.D. was principal investigator of this evaluation until his death on December 30, 2005. Following his death, Darren Urada, Ph.D., Angela Hawken, Ph.D., and M. Douglas Anglin, Ph.D. jointly carried his work forward. Other UCLA researchers who had key roles in the SACPA evaluation include Bradley T. Conner, Ph.D., Yih-Ing Hser, Ph.D., Michael Prendergast, Ph.D., Susan Ettner, Ph.D., Umme Warda, M.S., and David Huang, Dr.P.H. Mark Kleiman, Ph.D. served as a policy advisor.

Organization of the Report

This report addresses research questions in the domains of treatment and treatment disparities, offender outcomes, crime trends, benefit-cost analyses, funding levels, and statewide crime trends.

Chapter 2 describes the SACPA “pipeline” in its fourth year, July 1, 2004 to June 30, 2005: the number of offenders referred to SACPA, the number who completed their assessment, and the number who entered treatment. Characteristics of SACPA treatment clients are also described.

Chapter 3 covers the types of treatment received by SACPA clients, the duration of their treatment exposure, and treatment completion in relation to offender background characteristics.

Chapter 4 addresses the topic of offender outcomes including re-offending (new arrests) for SACPA’s first and second year cohorts. First, outcomes are tracked in relation to an offender’s degree of participation in SACPA. Second, re-offending is compared between drug offenders in SACPA’s first year and similar drug offenders in a pre-SACPA era over a 30-month follow-up period. This comparison gauged the overall effect of SACPA as a policy on the criminal activity of drug offenders. Third, analyses are repeated on a 12-month follow-up for a second-year cohort in order to assess whether outcome patterns changed over time.

Chapter 5 examines the relationship between statewide crime trends and SACPA implementation. The chapter also examines the indirect effect SACPA may have had on crime trends among non-SACPA offenders as a result of reductions in prison and jail usage by SACPA offenders.

Chapter 6 describes findings on treatment disparities, including changes in service provision since SACPA implementation and the relationship between treatment modalities and client demographic characteristics.

Chapter 7 delivers cost benefit analyses of SACPA in three studies. In the first study, offenders eligible for SACPA were compared with a before-SACPA group of offenders to calculate costs attributable to SACPA as a policy. In the second study, variations in benefit-cost ratios are examined in relation to SACPA treatment participation. In the third study, costs in SACPA's second year are compared to those in SACPA's first year.

Chapter 8 focuses on funding improvements to SACPA. Specifically, the chapter presents the funding implications of several improvements that could be implemented in order to address specific SACPA needs.

Chapter 9 summarizes conclusions and recommendations over the course of the five-year SACPA evaluation.

For copies of previous SACPA evaluation reports for the 2002, 2003, and 2004 years, see: <http://www.uclaisap.org/prop36/html/reports.html>. The cost analysis, which is available as a separate report at the above website, is included in this report as Chapter 7. For information about the evaluation see: <http://www.uclaisap.org/prop36/index.html> or contact:

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Chapter 2: SACPA Offenders

Darren Urada, Ph.D. and Douglas Longshore, Ph.D.

A total of 48,473 offenders were referred for treatment during SACPA's fourth year. Of this total, 74.9% entered treatment.

Similar to prior years, in its fourth year most SACPA treatment clients (72.8%) were men. About half (45.9%) were non-Hispanic White, while 31.4% were Hispanic and 16.3% were African-American. Their average age was 34.8 years. The primary drug of use for about half of SACPA's treatment clients was methamphetamine (55.0%), followed by cocaine/crack (13.7%), marijuana (12.7%), alcohol (8.8%), and heroin (8.6%).

Most SACPA offenders (88.4%) were sentenced to probation or were already on probation when they committed their SACPA-eligible offense. The others (11.6%) were on parole.

A large portion of SACPA treatment clients had never received treatment before (49.2%). SACPA treatment clients with no prior treatment experience were more likely to be Hispanic, male, younger, and to report marijuana as their primary drug of use. In addition, while first-time clients had shorter histories of use of their primary drug than repeat clients, almost half of the first-time clients reported over 10 years of primary drug use. These trends closely parallel findings from SACPA's third year.

This chapter describes the "pipeline" of offenders entering SACPA during its fourth year. Three steps in the pipeline are covered: referral of the offender to SACPA, completion of the assessment process, and entry into the treatment program to which the offender was assigned. Show rates at assessment and treatment (i.e., the percentage who completed the assessment process and the percentage who went on to enter treatment) in SACPA's fourth year are compared to those in SACPA's first, second, and third years.

This chapter also reports characteristics of offenders who entered treatment during SACPA's fourth year, with a special focus on those who had never been in treatment before.

SACPA Pipeline

People convicted of a nonviolent drug offense, typically possession of or being under the influence of an illicit drug, are eligible for SACPA.¹ As shown in Table 2.1, there are some differences in eligibility criteria for probationers and parolees.

¹ There are some eligibility exceptions. SACPA does not apply to any offender previously convicted of one or more serious or violent felonies, unless the current drug possession offense occurred after a period of five years in which the offender remained free of both prison custody and the commission of an offense

Table 2.1 Terms of SACPA Participation for Parolees and Probationers²

Factor	Parolees	Probationers
Controlling Law	Penal Code 1210, 3063.1, 3063.2	Penal Code 1210, 1210.1, 1210.5
Adjudication Authority	Board of Prison Terms	Superior Court
Supervision Authority	Parole and Community Services Division, California Department of Corrections and Rehabilitation	County probation department
Serious or Violent Background	Parolees who have ever been convicted of a serious or violent felony are ineligible.	Offenders with prior serious or violent felony convictions are eligible if the conviction is more than five years old and they have been free of both prison custody and non-drug possession felony or violent misdemeanor convictions during that period.
Disposition of charges	Placement in SACPA is the final disposition. Failure to complete treatment must be charged as a new violation.	Original charges remain open for dismissal upon successful completion or re-sentencing upon failure to complete treatment.
Term of supervision	Placement on parole occurs before placement in SACPA and will terminate independently of parolees' progress in treatment.	If not already on probation, offenders are placed on probation. Probation will not terminate prior to completion of treatment.
Disposition of drug violations	Parolees become ineligible upon the second violation subsequent to placement (first violation for those on parole before July 2001).	Probationers become ineligible upon the third violation subsequent to placement (second violation for those on probation before July 2001).

that resulted in (1) a felony conviction other than a non-violent drug possession offense or (2) a misdemeanor conviction involving physical injury or the threat of physical injury to another person. Also ineligible is any non-violent drug possession offender who has been convicted in the same proceeding of a misdemeanor not related to the use of drugs or any felony. SACPA does not apply to any offender who, while using a firearm, unlawfully possesses (1) a substance containing cocaine base, cocaine, heroin, or methamphetamine or (2) a liquid, non-liquid, plant substance, or hand-rolled cigarette, containing phencyclidine. SACPA does not apply to any offender who, while using a firearm, is unlawfully under the influence of cocaine base, cocaine, heroin, methamphetamine, or phencyclidine. SACPA does not apply to any offender who refuses drug treatment as a condition of probation or parole.

Some offenders who are eligible for SACPA may decide not to participate. Those also eligible for a “deferred entry of judgment” program³ such as PC 1000 may choose that option because they can participate without entering a guilty plea; participation in SACPA is contingent on having been found guilty of a SACPA-eligible offense. Moreover, depending on local policy and practice, offenders may be eligible for both SACPA and drug court, and some offenders may choose the latter. Finally, routine criminal justice processing may seem preferable to offenders who face only a short jail sentence or other disposition that they view as less onerous than the requirements of SACPA participation. For these reasons, it is important to assess the acceptance of SACPA by eligible offenders (i.e., How many chose to participate in SACPA when offered that option?).

Offenders who choose SACPA are ordered to complete a treatment assessment and enter treatment. Assessment entails a systematic review of the severity of the offender’s drug use and other problems, a decision regarding appropriate placement in a drug treatment program, and identification of other service needs. Upon completion of the assessment, offenders must report promptly to the assigned treatment program. Referral is the first step identifiable in the SACPA pipeline for the fourth year cohort. Completion of assessment is the second step, and treatment entry is the third. A subsequent step, treatment completion, is discussed in depth in Chapter 3.

Information to describe the pipeline was compiled from three sources: the SACPA Reporting Information System (SRIS) maintained by ADP, the county stakeholder survey last conducted by UCLA in 2004, and the California Alcohol and Drug Data System (CADDSS).

The first two sources were created specifically for SACPA monitoring and evaluation. The third, CADDSS, predates SACPA, having been maintained by ADP since July 1991. CADDSS was modified in 2001 to require that providers indicate whether a client was referred via SACPA.

Each data source had unique value to the pipeline analysis but was subject to limitations. To overcome these limitations, the analysis employed a mix of data taken directly from these sources along with estimates validated across multiple sources when possible. Appendix 2 enumerates the known limitations of the data sources and explains the

² Based on a table created by Joseph Ossmann, Acting Director for the Office of Substance Abuse Programs, California Department of Corrections and Rehabilitation.

³ Many first-time California drug offenders can avoid criminal convictions by opting for deferred entry of judgment (DEJ) under Penal Code sections 1000-1000.4. Diversion may include education, treatment, or rehabilitation. Entry of judgment may be deferred for a minimum of 18 months to a maximum of three years. Although there are limitations, diversion, if completed successfully, leads to a dismissal of the charges.

estimation procedures. It is important to note that while statewide estimates are provided, the data do not allow for exact counts of referrals or assessments for all counties.

Offenders Referred

UCLA estimated that 48,473 offenders were referred to SACPA for treatment in its fourth year. This estimate includes offenders referred by the courts and by parole agents⁴. Step 1 of the pipeline is shown in Figure 2.1.

Offenders Assessed

In the fourth year of SACPA, an estimated 41,450 offenders, including probationers and parolees, completed their assessment. That estimate is Step 2 of the pipeline shown in Figure 2.1. The show rate at Step 2 was 85.5%.

Offenders Entering Treatment

The estimated total of offenders placed in treatment in SACPA's fourth year is 36,285⁵, shown as Step 3 in the pipeline in Figure 2.1. This total includes probationers and parolees. The show rate of those offenders assessed that entered treatment at Step 3 was 87.5%.

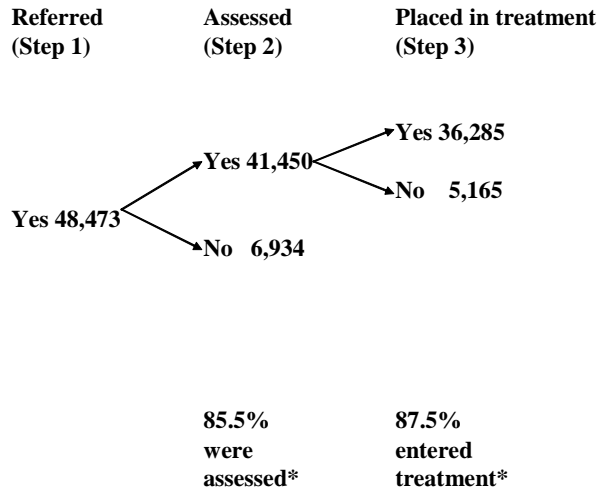
In SACPA's first, second, and third years, estimated overall show rates (i.e., percentage of offenders who were referred to SACPA and went on to enter treatment, thus completing steps 2 and 3 in the pipeline) were 69.2%, 71.4%, and 72.6%, respectively. In SACPA's fourth year, the rate was 74.9%. However, it should be noted that ADP made additional efforts to acquire accurate SRIS data for 2004-2005 that did not occur in earlier years. Therefore, the numbers are not necessarily comparable between years.

Prior research has shown that one-third to one-half of drug users who schedule a treatment intake appointment (including those referred by criminal justice, other sources, and themselves) actually keep their appointment (Donovan et al., 2001; Kirby et. al., 1997; Marlowe, 2002). In a sample of drug users in Los Angeles, Hser and colleagues (1998) found that 62% of those who asked for a treatment referral followed up on the referral they were given. Thus, show rates seen thus far in SACPA compare favorably with show rates seen in other studies of drug users referred to treatment.

⁴ The SRIS manual defines "referrals" as probationers and parolees sent from the court, probation department, or parole authority.

⁵ The number of unique individuals in the pipeline does not precisely match the numbers that will be discussed later from CADDs due to differing definitions. When reporting to SRIS, counties are instructed not to count offenders who were reported in the prior reporting period. The clients in CADDs, however, may have entered SACPA treatment both during the current and past year. However, the numbers using either definition are similar. According to CADDs, 39,202 SACPA clients entered treatment during year 4, while the pipeline estimate of clients who entered treatment in year 4 but not year 3 is 36,285. Given that the demographic characteristics of the group generally have not changed substantially from year to year, the statistics reported here would be very similar regardless of which definition is used.

Figure 2.1
SACPA Offender Pipeline, July 2004 to June 2005
(adjusted SRIS)



* The overall percentage of referrals entering treatment was $36,285 / 48,473 = 74.9\%$.

No-Show Rates

State and county stakeholders have expressed interest in no-show rates (i.e., offenders who chose SACPA but who did *not* complete an assessment or enter treatment). For a direct look at this issue, pipeline results can be converted to a no-show rate at assessment (Step 2), a no-show rate at treatment (Step 3), and an overall no-show rate.

Findings reported above were that 85.5% of offenders initially referred to SACPA in its fourth year went on to complete an assessment. Thus the estimated no-show rate at assessment was 14.5%. Similarly, 87.5% of assessed offenders went on to enter treatment; the estimated no-show rate at treatment was 12.5%. Combining these two steps led to the conclusion that 74.9% of offenders initially referred to SACPA in its fourth year went on to enter treatment. The remaining 25.1% is the estimated overall no-show rate in SACPA’s fourth year. Note that no-show offenders may have failed to complete assessment or enter treatment for any reason. For example, these offenders may have decided to decline SACPA participation after initial acceptance, or they may have absconded, died, or committed crimes or probation/parole violations that precluded further participation. Currently available statewide data do not specify the reason for the no-show. Future research should collect data to identify reasons for no-shows and examine the prevalence of each reason.

Characteristics of Treatment Clients

This section reports characteristics of SACPA offenders who entered treatment during SACPA’s fourth year. SACPA probation and parole referrals are shown separately so

that any differences within the SACPA treatment client population will be apparent. Characteristics covered in the analysis include race/ethnicity, sex, age, primary drug, and drug problem severity.

Characteristics of clients who entered treatment during SACPA's fourth year but who were not part of SACPA are also shown. Non-SACPA clients are also divided into those referred by the criminal justice system, though not by SACPA, and those entering treatment by self-referral or other non-criminal justice referral (e.g., a healthcare provider, school, or employee assistance program). The purpose of comparing treatment clients by referral source is to determine the ways in which SACPA clients were similar to, or different from, other clients in the state's treatment population⁶.

Information on the characteristics of first, second, and third-year SACPA clients was provided in earlier reports. However, that information is also entered in figures below to allow comparisons between client characteristics over these years.

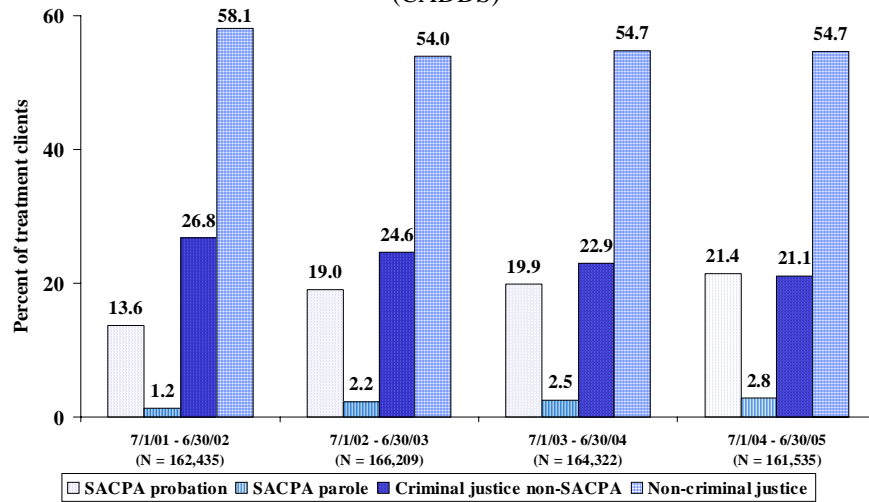
Figure 2.2 shows the breakdown of clients entering treatment by the referral source indicated in CADDs. In its fourth year, SACPA accounted for 24.2% of clients entering treatment (21.4% were referred by probation; 2.8%, by parole). SACPA accounted for 14.8% of treatment clients in SACPA's first year, 21.2% in the second, and 22.4% in the third. Thus it appears that the share of treatment capacity taken up by SACPA clients continues to increase across years. However, some part of this increase may be due to improvement over time in the accuracy of CADDs referral source data.

Figure 2.2 also shows that most of SACPA's fourth-year offenders (88.4%) were sentenced to probation or were already on probation when they committed their SACPA eligible offense⁷. The others (11.6%) were parolees entering SACPA due to a new offense or a drug-related parole violation. In the first year, 8.1% of SACPA treatment clients were parolees, in the second, 10.4% were parolees, and in the third, 11.2% were parolees. The parolee portion of the SACPA client population increased over time, but the degree of increase was small.

⁶ The CADDs admission record for each client indicates the referral source as SACPA (court/probation or parole), non-SACPA court/criminal justice, or non-criminal justice. CADDs also indicates the client's legal status. Most clients (77%) sent from non-SACPA court/criminal justice were on probation or parole or were incarcerated. The remaining 23% consisted of clients participating in a diversion program and others with no legal status on record. Thus, while a portion of the non-SACPA court/criminal justice population may actually not have been in the criminal justice system, the overall population can be characterized as non-SACPA criminal justice. Non-criminal justice clients were those referred by a healthcare provider, employee assistance program, themselves, or other sources but not by criminal justice.

⁷ 21.4% probationers / 24.2% total = 88.4%.

Figure 2.2
Treatment Clients by Referral Source
 (CADDs)



Race/Ethnicity

The racial/ethnic composition of SACPA treatment clients is presented in Figure 2.3. In SACPA’s fourth year, almost half of SACPA treatment clients were non-Hispanic Whites (45.2%). Hispanics (33.9%), African-Americans (13.9%), Asian/Pacific Islanders (2.8%), Native Americans (1.7%), and other groups (2.5%) constituted the other half of the SACPA client population. Figure 2.3 also shows the racial/ethnic composition of SACPA clients in the first three years. The percentage of clients who were Hispanic increased slightly each year. Other than this, there was virtually no change across years.

Figure 2.3
Race/Ethnicity of SACPA Treatment Clients
 (CADDs)

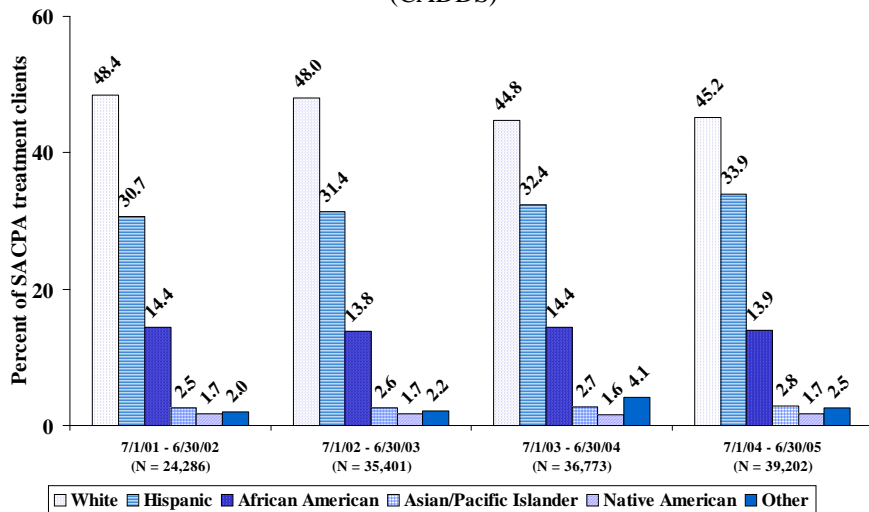
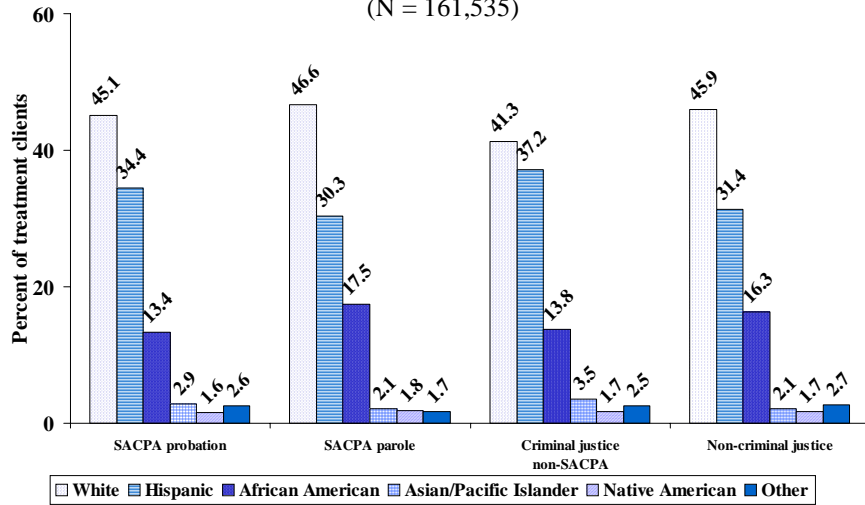


Figure 2.4 presents race/ethnicity of SACPA probationers and parolees separately and of clients referred by non-SACPA sources in SACPA's fourth year. The racial/ethnic composition of all four groups was similar.

Figure 2.4
Race/Ethnicity of Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)



Sex

Clients referred to treatment by SACPA in its fourth year were 72.8% men and 27.2% women (See Figure 2.5). This pattern is similar to the pattern in SACPA's prior years.

Figure 2.5
Sex of SACPA Treatment Clients
 (CADDs)

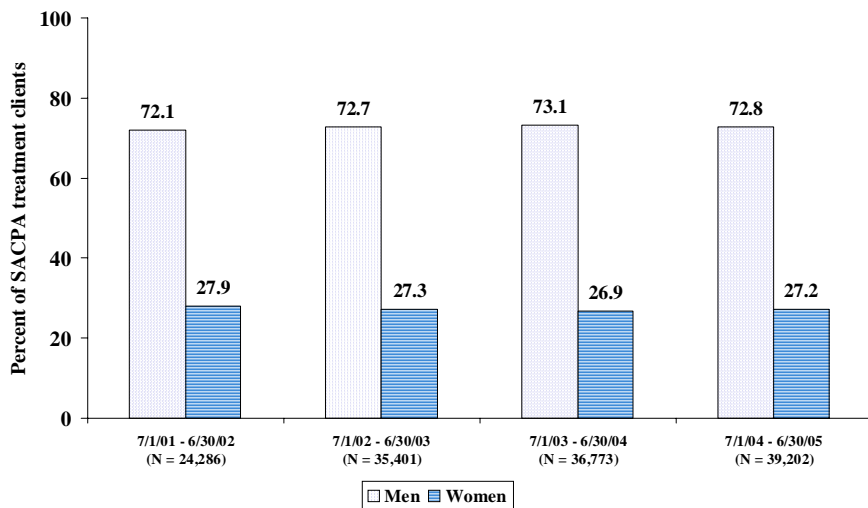
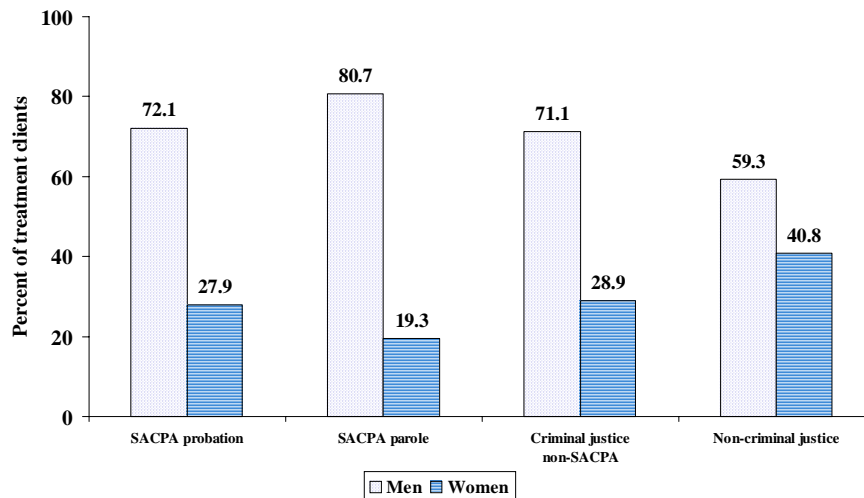


Figure 2.6 shows the sex breakdown for SACPA clients referred by probation and parole and for non-SACPA criminal justice and non-criminal justice referrals. A majority of treatment clients in all groups were men, but this pattern is more pronounced among clients referred to treatment by SACPA and other criminal justice entities than among non-criminal justice referrals. The pattern is most pronounced among offenders referred to SACPA by parole. These results are partly a reflection of the enduring difference between men and women in the seriousness of their criminal involvement (Blumstein et al., 1986; Gottfredson & Hirschi, 1990).

Figure 2.6
Sex of Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)



Age

In SACPA's fourth year, the average (mean) age among clients referred to treatment by SACPA was 34.8 years. Figure 2.7 shows the distribution in age among SACPA clients. Over one-fifth of SACPA clients (23.6%) were 25 years old or younger. Most (60.2%) were between 26 and 45 years old. Relatively few (15.8%) were 46 years or older. These findings closely match the findings in SACPA's first three years.

As shown in Figure 2.8, SACPA clients referred by parole were older than those referred by probation. Moreover, clients referred from criminal justice sources other than SACPA included a higher percentage between 18 and 25 years old than the percentage among SACPA clients (45.3% vs. 25.0% of SACPA probation and 15.9% of SACPA parole). Finally, non-criminal justice referrals include more clients in the oldest age bracket. Because crime is less prevalent in older-age cohorts (Gottfredson & Hirschi, 1990; Hirschi & Gottfredson, 1983), it is not unusual that non-criminal justice referrals include a higher percentage of older clients.

Figure 2.7
Age of SACPA Treatment Clients
 (CADDs)

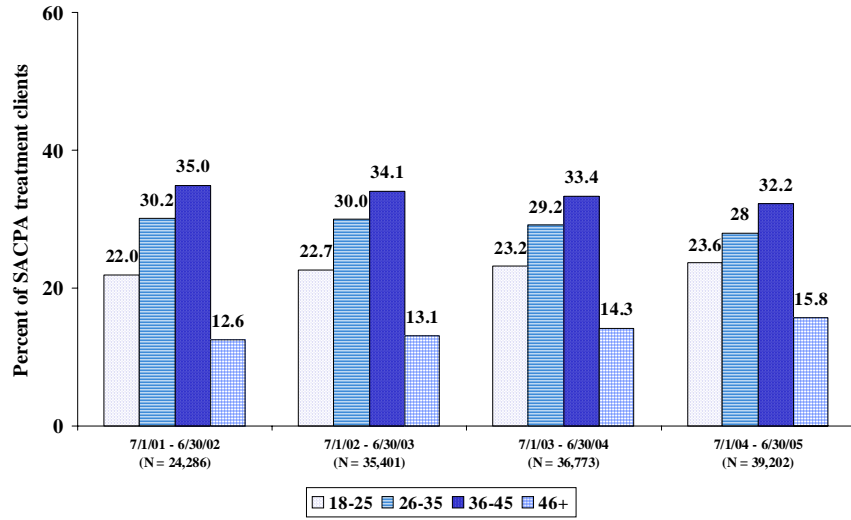
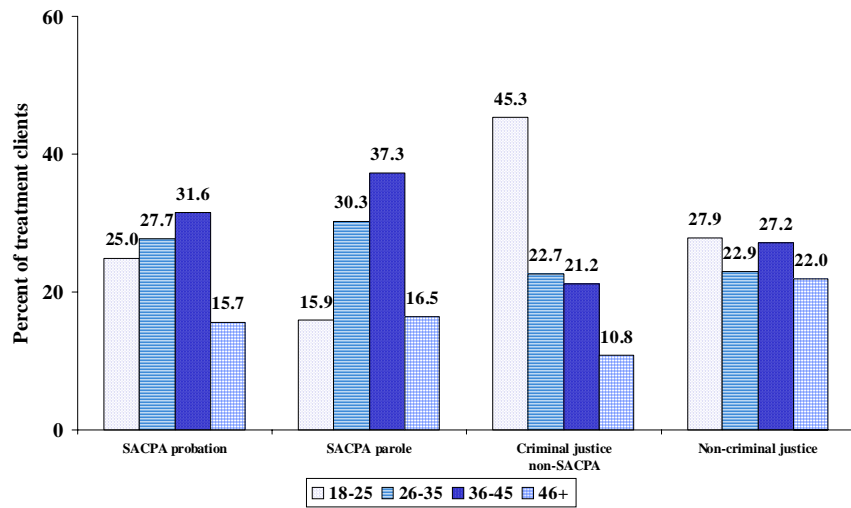


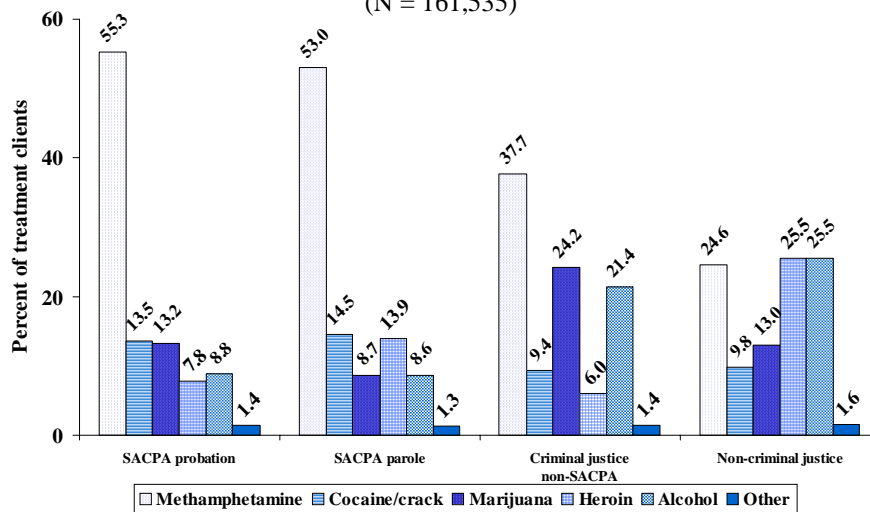
Figure 2.8
Age of Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)



Primary Drug

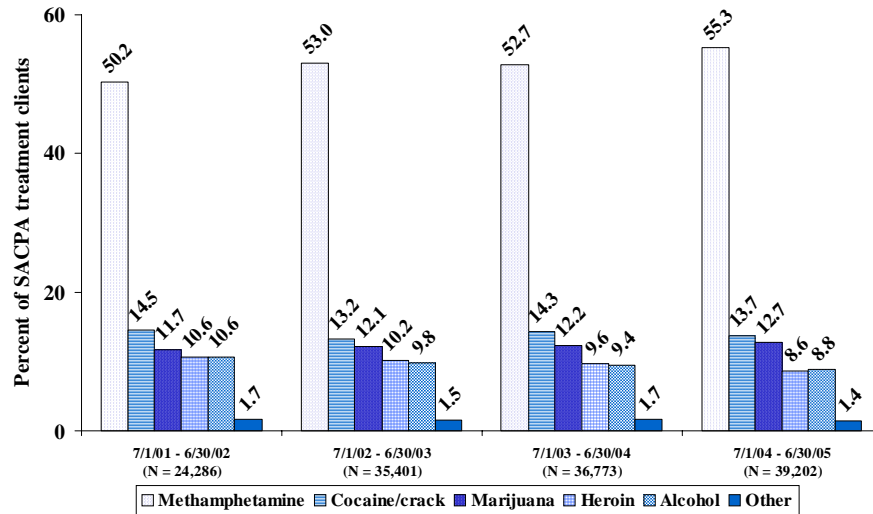
According to client self-report, as depicted in Figure 2.9, methamphetamine was the most common primary drug used by SACPA clients in the fourth year (55.0%), followed by cocaine/crack (13.7%), marijuana (12.7%), alcohol (8.8%), and heroin (8.6%). These figures are largely unchanged from SACPA’s earlier years, except that the proportion of clients who reported methamphetamine as their primary drug has increased nearly every year. In addition to the primary drug, the majority of SACPA clients (62.9%) also reported using at least one other drug.

Figure 2.9
Primary Drug Among Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)



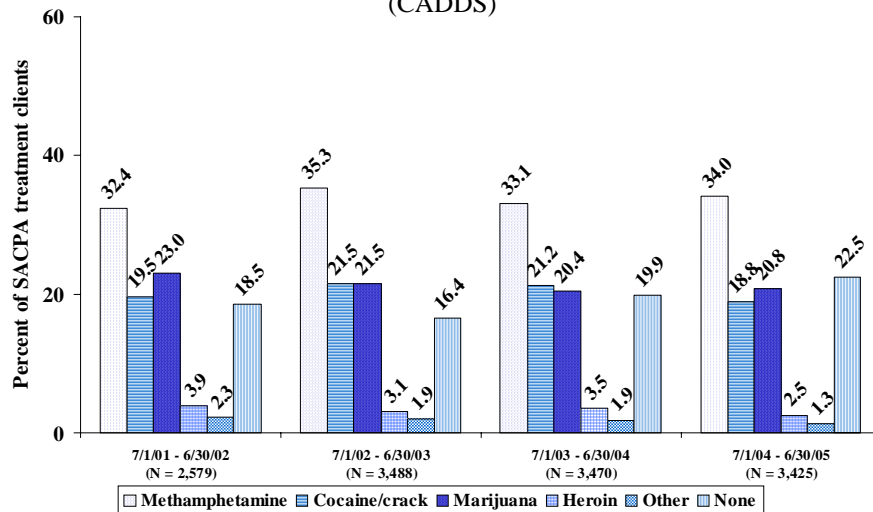
Primary drug by referral source is presented in Figure 2.9. As was true in SACPA’s earlier years, methamphetamine use was more common in SACPA clients than in the other two client groups. Moreover, within the SACPA treatment population, heroin use was more common among parolees (13.9%) than among probationers (7.8%). Heroin use was more prevalent among non-criminal justice clients (25.5%) than among criminal justice clients, possibly because heroin users may, on their own initiative (self-referral), seek methadone treatment to avoid the symptoms of heroin withdrawal. CADDs reporting requirements may also increase the prevalence of reported heroin use relative to other drugs. Specifically, private as well as publicly funded providers are required to report methadone treatment admissions to CADDs, whereas only publicly funded providers are required to report admissions to other types of treatment programs.

Figure 2.10
Primary Drug Among SACPA Treatment Clients
 (CADDs)



In Figure 2.10, alcohol was the self-reported primary drug for 8.8% of the SACPA group, even though SACPA targets offenders with illicit drug offenses. Heavy drinking is quite common among people who use illicit drugs. Figure 2.11 shows the secondary drug recorded in CADDs for SACPA clients whose self-reported primary drug was alcohol. The distribution of secondary drug mirrors the distribution for primary drug. Methamphetamine was the most common secondary drug (34.0%). Cocaine (18.8%) and

Figure 2.11
Secondary Drug when Alcohol is Primary Drug
 Among SACPA Treatment Clients
 (CADDs)



marijuana (20.8%) were also prevalent. No secondary drug was shown for 22.5% of SACPA clients whose primary drug was alcohol. These findings for SACPA’s fourth year closely parallel those for the prior years.

Clients with alcohol as their primary drug and no secondary drug on record may have reported a secondary drug that was not entered into CADDs, or may have failed to report a secondary drug despite having one. In any case, clients reporting alcohol as a primary drug with no secondary drug constituted less than 2.0% of the SACPA fourth year client population and had no substantial impact on the patterns reported below.

Drug Problem Severity

UCLA analyzed three indicators of drug problem severity: years of primary drug use, frequency of recent drug use, and prior treatment experience.

Figure 2.12 shows a split distribution of drug use histories among SACPA treatment clients. About one-fifth of SACPA’s clients in each year (21.9% in the fourth year) reported first use of their primary drug within the last five years. One-quarter (25.0% in the fourth year) reported primary drug histories extending longer than 20 years.

Figure 2.12
Years Since First Use of Primary Drug
Among SACPA Treatment Clients
 (CADDs)

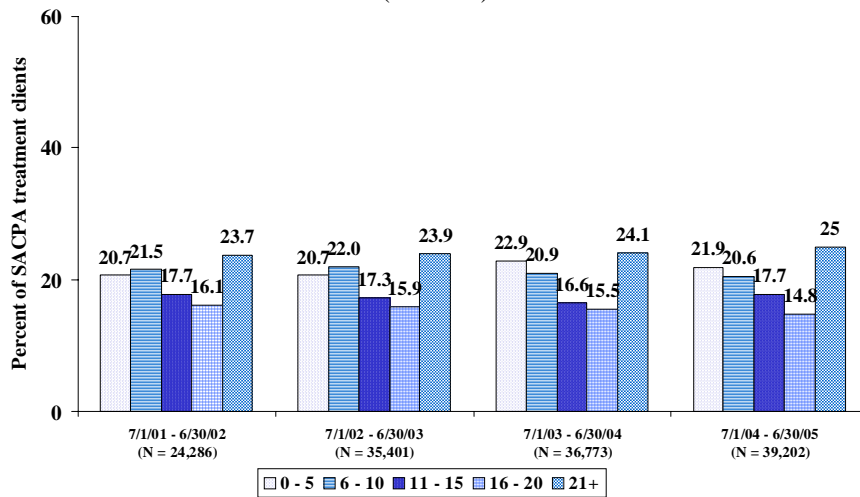
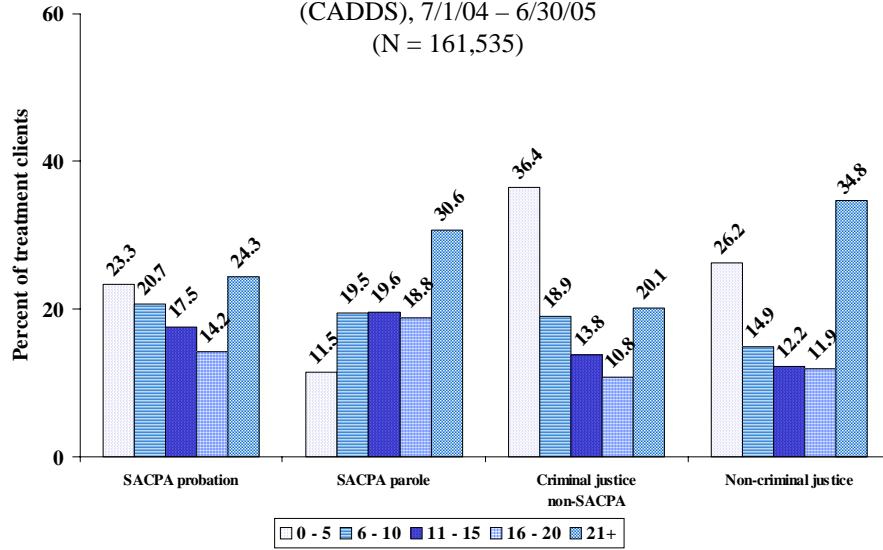


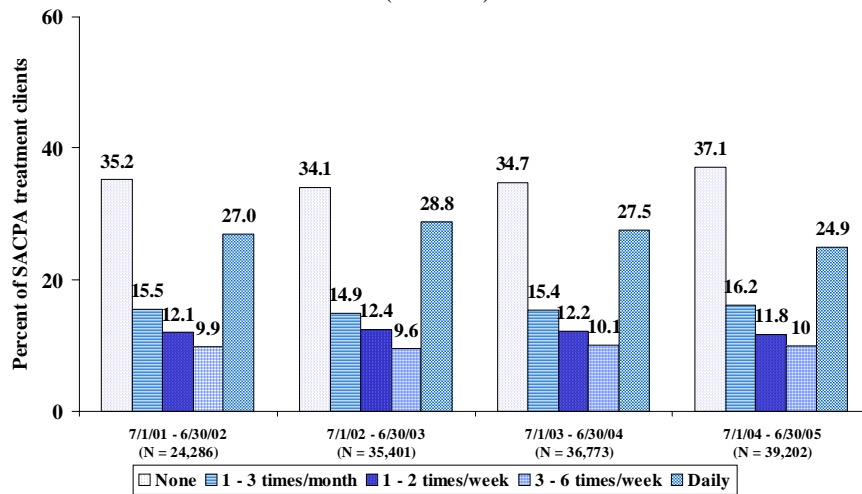
Figure 2.13 shows years since first use of primary drug by referral source for the fourth year population. SACPA parolees reported longer primary drug histories than SACPA probationers and non-SACPA criminal justice referrals. About one-third (30.6%) of SACPA parolees reported having used their primary drug for more than 20 years.

Figure 2.13
Years Since First Use of Primary Drug
Among Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)



Frequency of primary drug use by SACPA clients in the month prior to treatment admission is shown in Figure 2.14. About one-third (37.1%) of fourth year SACPA clients reported no primary drug use in the past month, possibly because they were

Figure 2.14
Frequency of Primary Drug Use in Past Month
Among SACPA Treatment Clients
 (CADDs)



entering treatment directly from being incarcerated⁸ or had ceased use due to probation or parole oversight. Previous SACPA evaluation reports also reported this pattern.

As shown in Figure 2.15, SACPA and non-SACPA criminal justice clients were more likely to report no primary drug use in the past month compared to non-criminal justice clients. Non-criminal justice clients conversely were far more likely to report daily drug use in the past month. This divergence may have arisen because of the reasons listed above.

Figure 2.15
Frequency of Primary Drug Use in Past Month
Among Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)

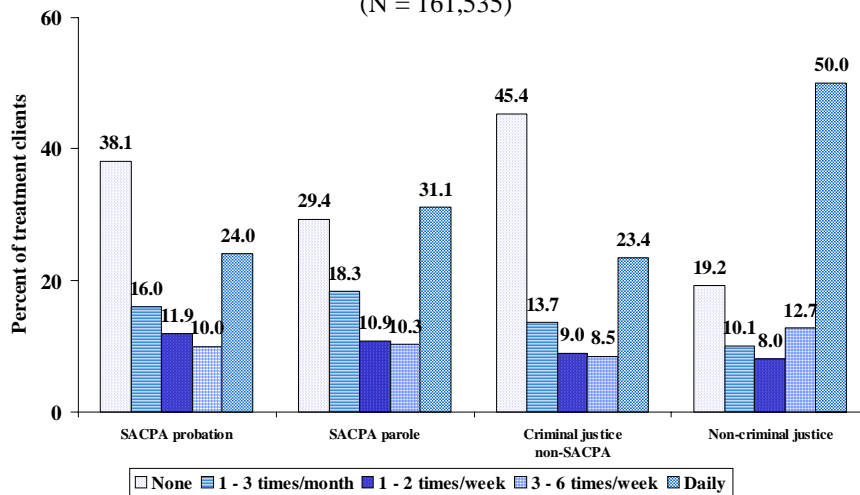


Figure 2.16 shows the number of self-reported prior treatment admissions among SACPA clients. In its fourth year, slightly less than half of SACPA’s clients (49.2%) reported no prior experience in drug treatment. The portion of such clients decreased each year during the first three years of SACPA, but increased 3% during the fourth year.

Figure 2.17 compares treatment experience among clients from all referral sources. About half of the non-criminal justice referrals (50.3%) reported no prior treatment, a finding very similar to that for SACPA referrals on probation as well as parole. Over half of the non-SACPA criminal justice referrals (60.3%) reported no prior treatment.

⁸ In a prior offender survey (see 2004 report), about 60% of offenders who reported no drug use in the month before treatment entry had been in jail (55.8%) or inpatient healthcare (3.3%).

Figure 2.16
Number of Prior Treatment Admissions
Among SACPA Treatment Clients
 (CADDs)

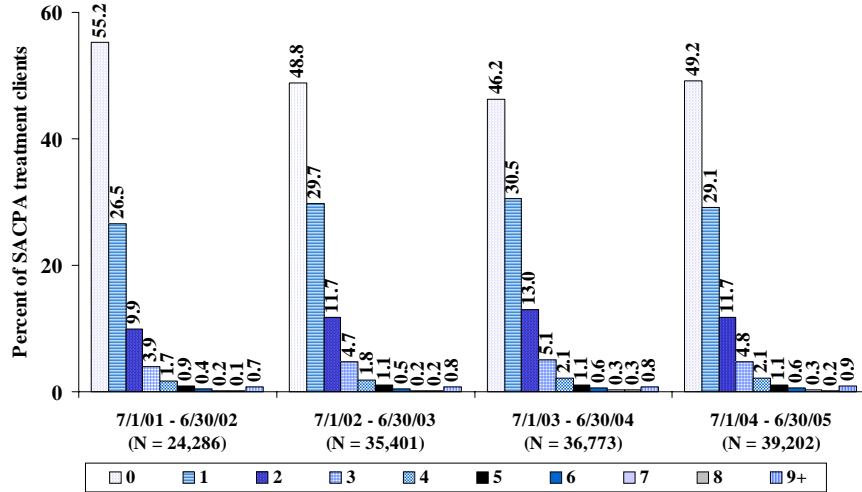
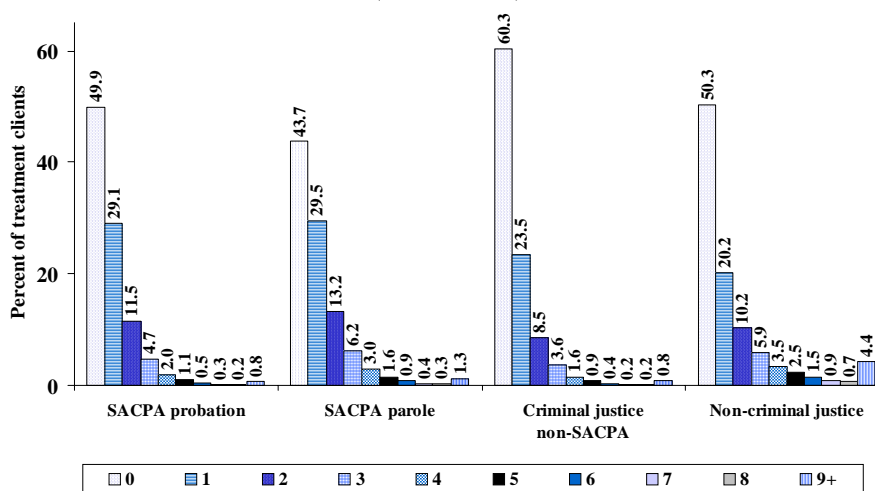


Figure 2.17
Number of Prior Treatment Admissions
Among Treatment Clients by Referral Source
 (CADDs), 7/1/04 – 6/30/05
 (N = 161,535)

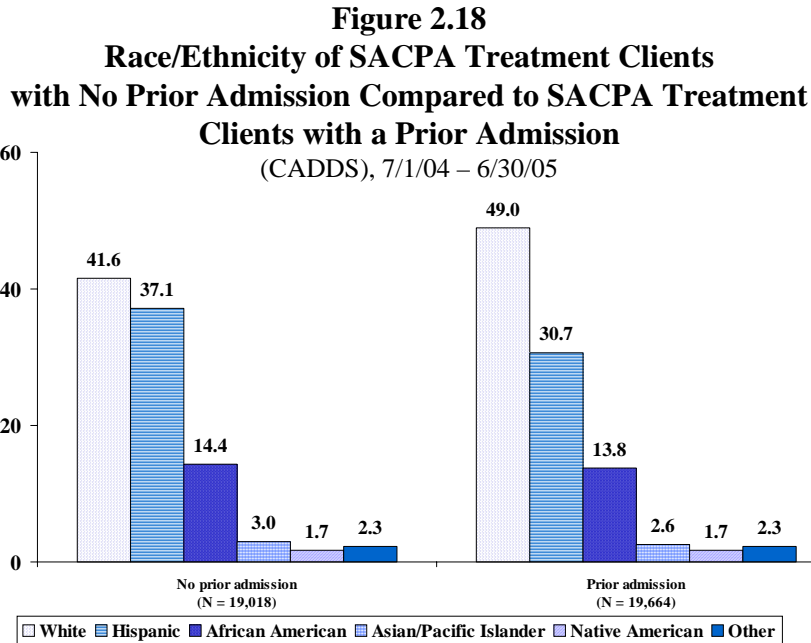


Characteristics of First-Time Treatment Clients

About half of SACPA treatment clients had no prior experience in drug treatment (see Figure 2.16). If SACPA is moving such a large number of first-time clients into the state’s treatment population, it is important to understand how these clients compare with clients who have prior treatment experience. In the following sections, SACPA’s fourth-year clients with and without prior treatment experience are compared on the characteristics of race/ethnicity, sex, age, primary drug, and drug problem severity.

Race/Ethnicity

The racial/ethnic composition of SACPA’s fourth-year clients with and without prior treatment experience is presented in Figure 2.18. Clients with prior treatment experience were more likely to be Non-Hispanic Whites compared to those without prior treatment experience (49.0% vs. 41.6%). Clients with no prior experience were more likely to be Hispanic than clients with prior experience (37.1% vs. 30.7%). Clients with no prior experience were more likely to be African American than clients with prior experience (14.4% vs. 13.8%). Clients with no prior experience were more likely to be Asian/Pacific Islander (3.0% vs. 2.6%), Native American (1.7% vs. 1.7%), and Other (2.3% vs. 2.3%).



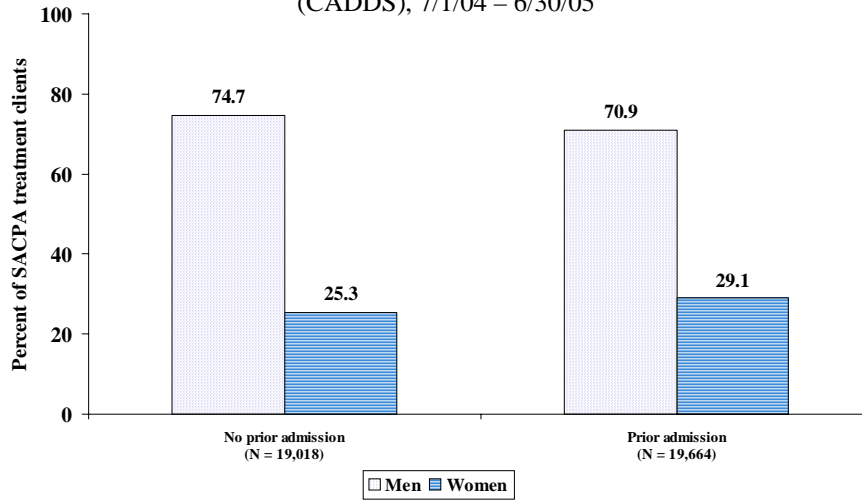
Sex

Clients with no prior treatment experience were somewhat more likely to be men; Specifically, 70.9% of clients who had been in treatment before were men, compared to 74.7% of clients who had not (See Figure 2.19).

Age

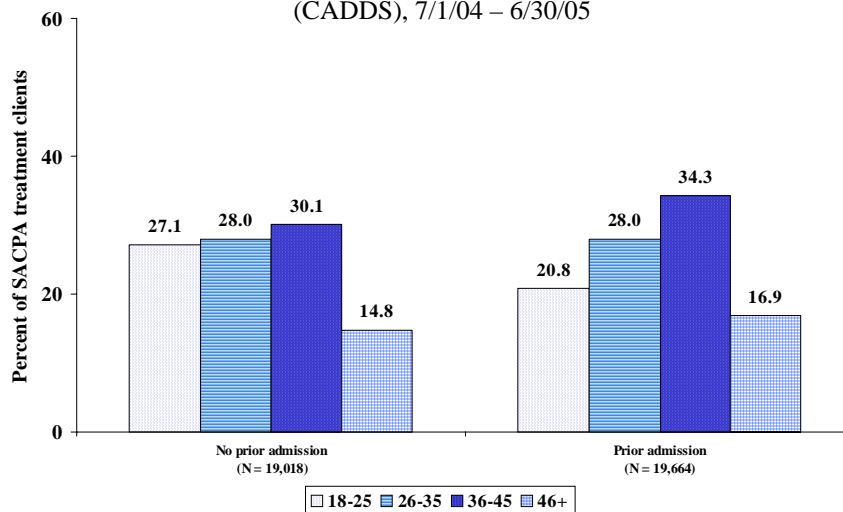
SACPA clients with no prior treatment experience were younger than those with prior treatment experience (See Figure 2.20). This difference is expected, given that younger clients, by definition, have had less time to receive treatment compared to older clients.

Figure 2.19
Sex of SACPA Treatment Clients
with No Prior Admission Compared to SACPA Treatment
Clients with a Prior Admission
 (CADDs), 7/1/04 – 6/30/05



While 20.8% of clients with prior treatment experience were among the youngest clients (18-25 years old), 27.1% of clients with no such experience were in that age range. Conversely, half of clients with prior treatment experience (51.2%) were 36 years of age or older, whereas only 44.9% of clients with no experience were in that age range.

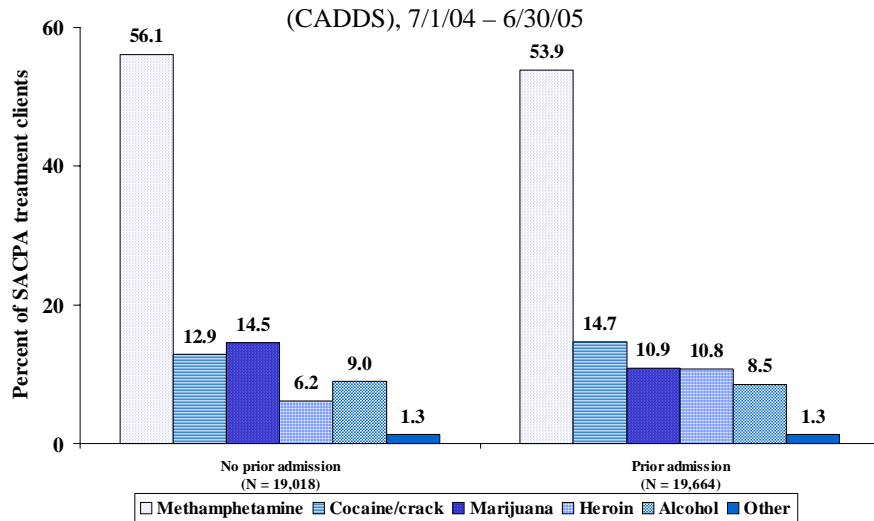
Figure 2.20
Age of SACPA Treatment Clients
with No Prior Admission Compared to SACPA Treatment
Clients with a Prior Admission
 (CADDs), 7/1/04 – 6/30/05



Primary drug

As shown in Figure 2.21, clients with no prior treatment experience were slightly more likely to be marijuana users (14.5% vs. 10.9%), and somewhat less likely to be heroin users (6.2% vs. 10.8%).

Figure 2.21
Primary Drug Among SACPA Treatment Clients
with no Prior Admission Compared to SACPA Treatment
Clients with a Prior Admission



Drug Problem Severity

UCLA analyzed two indicators of drug problem severity in relation to treatment experience: years of primary drug use and frequency of recent drug use.

Figure 2.22 shows drug use histories among SACPA treatment clients with and without prior treatment experience. As with age, it is not surprising that first-time clients had shorter histories of primary drug use. One-fourth (25.7%) of clients with no prior treatment experience, compared to only 18.2% of those with such experience, reported first use of their primary drug within the past five years. Conversely, about half (53.2%) of first-time clients had been using their primary drug for more than 10 years, and approximately one in five (22.2%) had been doing so for more than 20 years.

Frequency of primary drug use appears similar for SACPA clients with and without treatment experience. For example, daily use was reported by about one-fourth of both groups (23.9% and 25.9% respectively; See Figure 2.23).

Figure 2.22
Years Since First Use of Primary Drug Among SACPA Treatment Clients with no Prior Admission Compared to SACPA Treatment Clients with a Prior Admission
 (CADDs), 7/1/04 – 6/30/05

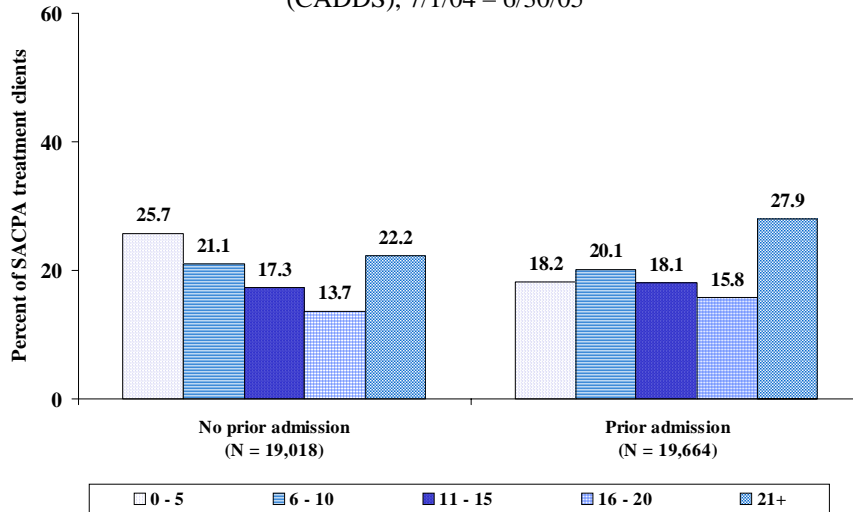
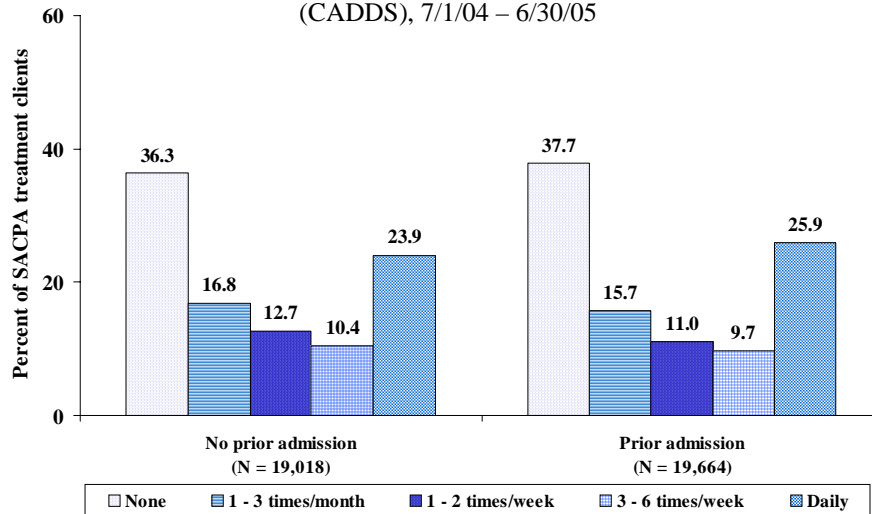


Figure 2.23
Frequency of Primary Drug Use in Past Month Among SACPA Treatment Clients with no Prior Admission Compared to SACPA Treatment Clients with a Prior Admission
 (CADDs), 7/1/04 – 6/30/05



Conclusion

A total of 48,473 offenders were referred for treatment during SACPA's fourth year. Of this total, 74.9% went on to enter treatment. Most SACPA treatment clients (72.8%) were men. About half (45.9%) were non-Hispanic White, while 31.4% were Hispanic and 16.3% were African-American. Their average age was 34.8 years. The primary drug for about half of SACPA's treatment clients was methamphetamine (55.0%), followed by cocaine/crack (13.7%), marijuana (12.7%), alcohol (8.8%), and heroin (8.6%).

Most SACPA offenders (88.4%) were sentenced to probation or were already on probation when they committed their SACPA offense. The others (11.6%) were on parole.

SACPA has reached a large number of drug users who have never received treatment before. SACPA clients with no prior treatment were more likely to be Hispanic, male, and younger. They were also more likely to report marijuana as their primary drug. In addition, while first-time clients had shorter histories of primary drug use than repeat clients, almost half of the first-time clients reported having used their primary drug for more than 10 years. These trends closely parallel findings from SACPA's third year.

Conducting further research to identify reasons for no-shows and the prevalence of each reason may prove beneficial. Identifying and applying methods to reduce no-show rates is another important avenue for future research. The Network for the Improvement of Addiction Treatment⁹ (NIATx), a partnership among the Robert Wood Johnson Foundation, the Center for Substance Abuse Treatment, and other agencies, has shown success in reducing time to assessment and time to treatment admission, in reducing no-show rates, and in increasing treatment-continuation rates through a number of practices aimed at improving drug-treatment processes. Many of these also could apply to the processing of SACPA offenders.

⁹ For more information see <http://www.niatx.org>

Chapter 3: Treatment

Darren Urada, Ph.D., Douglas Longshore, Ph.D., and Bradley T. Conner, Ph.D.

Outpatient drug-free (non-narcotic replacement therapy) treatment was the most common modality for SACPA clients (84.1%), followed by long-term residential treatment (10.9%). Methadone maintenance, methadone detoxification, non-methadone detoxification, and short-term residential treatment were rarely used in SACPA. Treatment placement in SACPA's fourth year was very similar to placement in its first three years.

Treatment completion among SACPA offenders thus far is typical of drug users referred to treatment by criminal justice. The completion rate was 32.0% among offenders who entered treatment in SACPA's third year and had a final discharge on record.

Treatment completion rates were lower, and treatment duration shorter, for African Americans and Hispanics than for Whites, Asians and Pacific Islanders, and Native Americans. These findings signal the importance of addressing the possible disproportionate impact of limited treatment capacity, assessment procedures, and treatment protocols across racial/ethnic groups.

Clients with no prior experience in treatment may find it particularly difficult to conform to unfamiliar requirements such as open acknowledgement of their drug problem and self-disclosure in groups. Despite the potential difficulties, first-time clients did as well in treatment as clients who had been in treatment before.

Methamphetamine users were similar to the overall SACPA population in treatment duration and completion.

Treatment duration was shorter and completion rates lower for heroin users than for users of other drugs. In each SACPA year thus far, few heroin users were treated with methadone detoxification or maintenance. Treatment completion and duration might improve if narcotic replacement therapy was more available.

Treatment completion was lower, and duration shorter, for parolees than for probationers in SACPA.

This chapter reproduces and updates analyses presented in the 2004 SACPA evaluation report (Longshore et al., 2005). The chapter consists of three sections dealing with treatment placement, treatment completion, and treatment duration. While the portion of this chapter dealing with treatment placement focuses on SACPA's fourth year, the portion dealing with treatment completion and duration focus on SACPA's third year so as to provide time for clients to be discharged from treatment.

First, the chapter reports the modalities of treatment in which SACPA clients were placed during the fourth year. For comparison, treatment placement in SACPA's first, second, and third years are also summarized.

Second, as noted, the chapter reports results from analyses of treatment completion and duration among SACPA's third year clients. The focus is on the first three years of SACPA because data are not yet available to determine how SACPA's fourth year population will fare after entering treatment. Treatment completion among SACPA's third year clients is examined and compared to completion in SACPA's first and second years. Then characteristics of third year clients who completed treatment are reported. These characteristics include, for example, race/ethnicity, sex, and primary drug.

Third, the chapter offers findings on treatment duration. Like the findings on completion, findings on treatment duration in SACPA's third year are examined in relation to client characteristics and compared to findings from SACPA's earlier years. CADDs was the data source for these analyses.

Research on drug treatment effectiveness has shown that treatment completion and time in treatment are associated with favorable post-treatment outcomes such as abstinence from drug use, reductions in drug-related problems, and improved psychosocial functioning (Anglin & Hser, 1990; DeLeon, 1991; Hubbard et al., 1989, 1997; Simpson, 1979; Simpson et al., 1997; TOPPS II Interstate Cooperative Study Group, 2003). Thus, the performance of SACPA offenders on these two indicators of treatment performance, treatment completion and time in treatment, serves as a useful indicator of the likelihood of post-treatment success. The analysis of treatment performance, however, does not tell the whole story. SACPA clients must not only attend treatment but also must comply with other requirements set by the court and probation/parole. Their obligations in SACPA are not fully met even if they do complete treatment.

Treatment Placement

While not enough time had passed to conduct treatment completion and duration analyses for the fourth year cohort at the time of this analysis, these data are available for treatment placement. Accordingly, this section refers to clients who entered treatment in SACPA's fourth year.

CADDs data were analyzed to determine the percentage of SACPA offenders entering each treatment modality. As shown in Figure 3.1, outpatient drug-free (non-NRT) was the initial treatment placement for most offenders (84.1%). Long-term residential treatment (planned duration exceeding 30 days) was the second most common placement (10.9%). This pattern was the same regardless of the client's primary drug (see Figure 3.2). Treatment placement in SACPA's fourth year was very similar to placement in the first three years.

Methadone maintenance, methadone detoxification, non-methadone detoxification, and short-term residential treatment were rarely used in SACPA. Methadone maintenance and detoxification are effective in treating heroin dependence (American Methadone

Figure 3.1
SACPA Treatment Clients by Modality
 (CADDs), 7/1/04 – 6/30/05
 (N = 39,202)

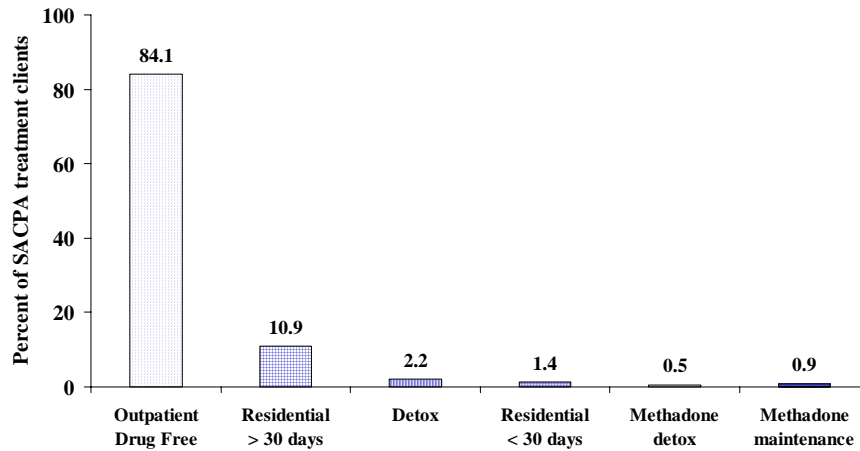
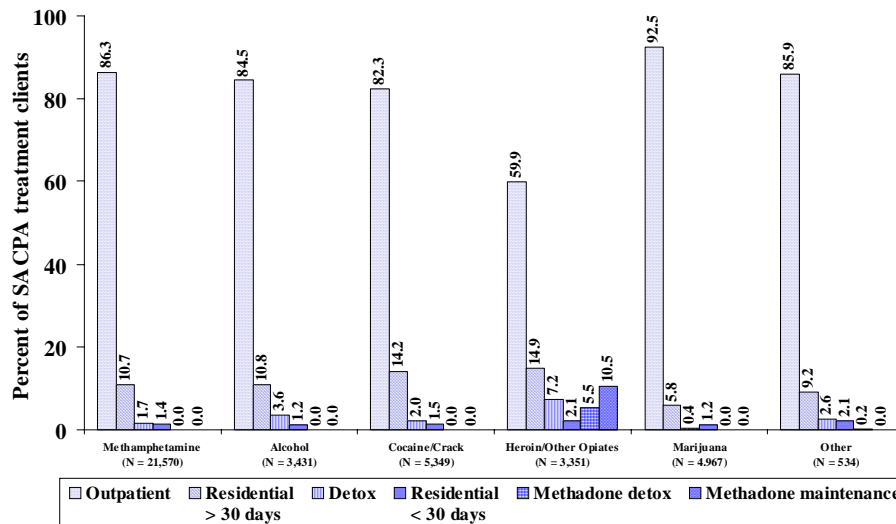


Figure 3.2
Primary Drug by Modality Among SACPA Treatment Clients
 (CADDs), 7/1/04 – 6/30/05
 (N = 39,202)



Treatment Association, Inc., 2004; Mathias, 1997; National Institute on Drug Abuse, 1999; National Institutes of Health Consensus Conference, 1998). Thus it is notable that few heroin or other opiate users in SACPA's fourth year (16.0%) were treated with methadone detoxification or maintenance. Comparable data for SACPA's first three years were 9.9%, 12.7%, and 12.9% respectively. The increase in methadone treatment in the fourth year was primarily attributable to an increase in the use of methadone detoxification, which rose from 2.7% in the third year to 5.5% in the fourth year. Most heroin and other opiate users were placed in outpatient drug-free programs, which do not provide medication to alleviate the withdrawal symptoms associated with heroin dependence.

Treatment Completion

Results discussed in this section apply to clients admitted to treatment during SACPA's third year, July 1, 2003 - June 30, 2004.

Comparative Completion Rates

For a standard of comparison against which to judge SACPA completion rates, this chapter summarizes findings on treatment completion from other large-scale studies of drug treatment. In addition, completion rates for SACPA clients are compared to those for non-SACPA criminal justice clients and non-criminal justice clients¹⁰ who received treatment during the same timeframe. Finally, information on drug court completion rates is provided.

In national studies of drug treatment effectiveness, completion rates have ranged from 35% to 60% (Substance Abuse and Mental Health Services Administration, 2002; TOPPS II Interstate Cooperative Study Group, 2003). Treatment completion rates have also been reported in two large-scale studies examining drug treatment effectiveness in the state of California. The completion rate was 32% in CALDATA, fielded in the early 1990's (Gerstein et al., 1994). More recently, the CalTOP study (Hser et al., 2003) found that 41% of clients with a discharge on record (excluding clients whose discharge indicated a transfer for additional treatment) had completed treatment.

Nationally, drug court completion rates range from 31% to 73% and average about 50% (Belenko, 2001; Latessa et al., 2002; Logan et al., 2004; Rempel et al., 2003). In California, completion rates of 36% (Belenko, 2001) and 55% (California ADP, 2005) have been reported. It is difficult to compare drug court completion and SACPA treatment completion because completion of a drug court program requires frequent appearances before the judge, participation in lengthy and intensive treatment, and

¹⁰ The CADDs record for each incoming client indicates the referral source as SACPA (court/probation or parole), non-SACPA court/criminal justice, or non-criminal justice. Clients sent from non-SACPA court/criminal justice were generally on probation, on parole, incarcerated, or were otherwise participating in a non-SACPA diversion program. Non-criminal justice clients were referred by healthcare providers, employee assistance programs, themselves, or other sources.

compliance with other probation requirements. Also, eligibility criteria can affect drug court completion rates, and these criteria vary widely across the nation. Finally, SACPA offenders who complete treatment must also comply with probation/parole requirements before completing SACPA.

Non-SACPA completion rates were adjusted to ensure that the comparison to SACPA was not affected by differences in client background characteristics. For example, the proportion of heroin users was higher among non-criminal justice clients than among SACPA clients (see Chapter 2), and heroin users had lower rates of treatment completion than users of other drugs (see below). By adjusting (weighting) the composition of each client group, UCLA removed the effect of such differences on completion rates. In analyses of completion rates in relation to client background characteristics such as age and sex, a similar adjustment was made to ensure that each comparison was not confounded by client characteristics other than the one being examined. Finally, for SACPA clients, the relationship between background characteristics and completion was examined in a multivariate regression model (see Appendix 3) to ensure that bivariate findings reported here were reliable.

Measuring Treatment Completion

To allow time for clients to participate in and be discharged from treatment, and to allow for lag in data entry, analyses of treatment completion and duration focus on SACPA's third year, July 1, 2003 - June 30, 2004.

In CADDs, a client's status at discharge is noted by the treatment provider on the client's discharge record. There are four possible statuses at discharge: completed treatment, did not complete treatment but made satisfactory progress, did not complete treatment and did not make satisfactory progress, and transferred to another treatment provider. The most rigorous criterion for success is the treatment completion rate among clients with a final discharge on record. That is the primary indicator employed here in the analysis of treatment completion and the analysis of characteristics of clients who completed treatment¹¹.

Clients who did not complete treatment may also have been doing well. Clients leaving treatment early may have found a job that required them to be at work during treatment hours, moved to a location farther away from the treatment provider, taken on competing responsibilities such as childcare, or lost their means of transportation. The purpose of the "satisfactory progress" criterion is to enable providers to enter a discharge status that reflects the opinion that a client was doing well. This chapter also reports the percentage of clients who did not complete treatment but made satisfactory progress. However, it is

¹¹ CADDs instructions define a treatment completer: "This participant has successfully completed his/her recovery plan and has met the major goals set forth in that plan. The participant is not being referred or transferred to any other alcohol or drug program."

important to emphasize that SACPA requires completion of treatment. While clients who made satisfactory progress may have benefited from treatment, they were out of compliance with the treatment requirement if they did not complete treatment and were still subject to disqualification from SACPA by the court.

Definition of a Treatment Episode

SACPA provides up to 365 days of treatment (an additional six months of aftercare attendance may also be required). Thus, offenders who entered SACPA as late as June 30, 2004, (the end of the third year) had 365 days in which to complete their SACPA treatment episode. The discharge record for most of them should have appeared in CADDs on or before June 30, 2005. However, this was not always the case. During the course of their treatment episode, some clients were transferred from one provider to another. If the transfer entailed an interruption in treatment, a client's treatment episode, counting all segments of it, might have extended beyond one calendar year. Similarly, clients who dropped out of treatment may have been allowed to re-enter treatment at a later date. They too may have had a treatment episode of two or more segments spanning more than a calendar year.

UCLA defined the treatment episode as follows: First, clients who entered treatment between July 1, 2003 and June 30, 2004 were counted as third-year SACPA clients if their initial intake record showed a referral from SACPA probation or parole. Most SACPA clients had only one treatment segment during that timeframe. Those with two or more segments were regarded as transfers if the later segment began not more than two days after the earlier segment ended and even if the intake record for the later segment(s) did not indicate referral from SACPA. This procedure maximized the likelihood that the treatment client was still a SACPA participant when the later segment began. It is unlikely that a person could leave treatment, be dropped from SACPA, and begin treatment again as a non-SACPA client within such a short window of time. Most transfers occurred within this two-day window (in a supplemental analysis, the transfer window was extended to 30 days, however, the findings did not change). Treatment episodes were defined similarly for non-SACPA criminal justice participants and non-criminal justice participants for comparison. Second, to measure time in treatment, UCLA counted the number of calendar days from intake to discharge for each segment of the client's treatment episode. Third, to allow for clients whose time in treatment may have extended past 365 calendar days (and to allow for lag in data entry as well), UCLA scanned CADDs for discharges appearing as late as June 2006—two years past the end of SACPA's third year. Time in treatment was typically far shorter than 365 days among offenders who completed their SACPA treatment. Hence, an analysis allowing two years for a discharge to appear in CADDs missed few clients, whether they completed treatment or dropped out prematurely. The number of SACPA's third year clients who, by June 2006, had a discharge recorded in CADDs was 30,246.

SACPA Treatment Completion

As shown in Figure 3.3, 32.0% of SACPA’s third year clients completed treatment. The completion rates in SACPA’s first and second years were 34.4% and 34.3, respectively.

SACPA’s adjusted completion rates in all three years were somewhat lower than the adjusted rates for non-SACPA criminal justice clients and slightly higher than the adjusted rate for non-criminal justice clients.

Figure 3.3
Discharge Status by Referral Source
(CADDs)

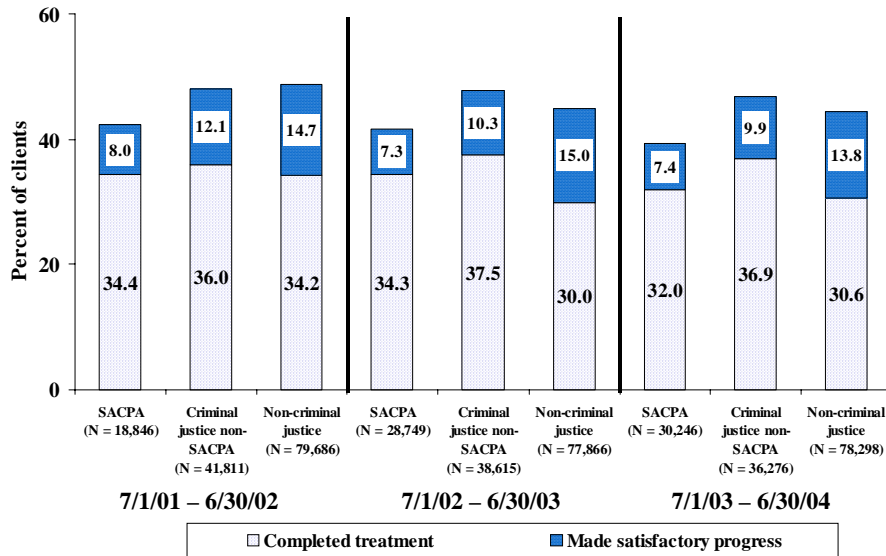
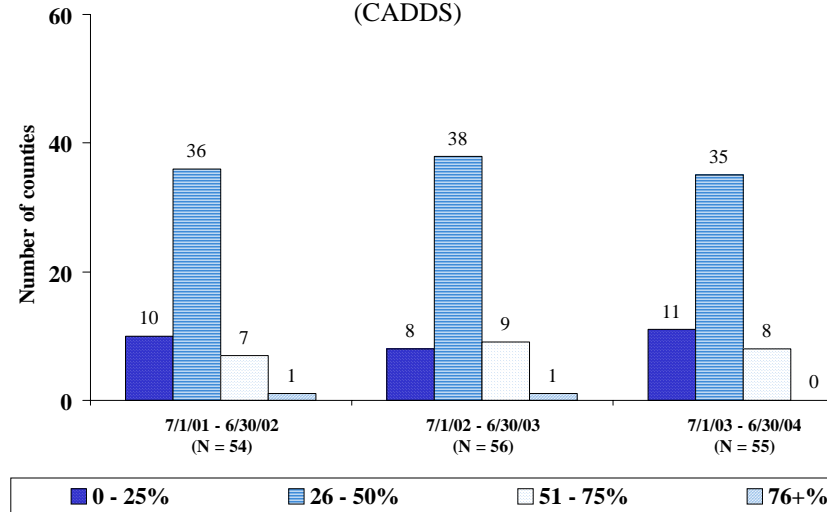


Figure 3.3 also shows clients who did not complete treatment but were making satisfactory progress. Among SACPA clients, 7.4% met criteria for satisfactory progress. The adjusted rates for non-SACPA criminal justice clients (9.9%) and non-criminal justice clients (13.8%) were higher. Overall, 39.4% of SACPA’s third year clients either completed treatment or made satisfactory progress. Non-SACPA criminal justice clients and non-criminal justice clients had rates of 46.8% and 44.4% on this overall indicator of treatment performance. Findings for first-and second year clients were similar.

Figure 3.4 shows variability in treatment completion rates across counties. In each of SACPA’s first three years, completion rates were between 26% and 50% in most counties. Further research is needed to investigate why these variations occur, and whether the adoption of practices from counties with higher rates would result in improved completion rates in counties that reported lower rates. Variation in county completion rates may also result from different mixes of treatment modalities, different populations, and variations in the definition of treatment completion between counties.

Standardization of the definition of treatment completion across the state would allow for more accurate interpretation of these completion rates and variations.

Figure 3.4
County Variation in Completion Rates
for SACPA Offenders
 (CADDSS)



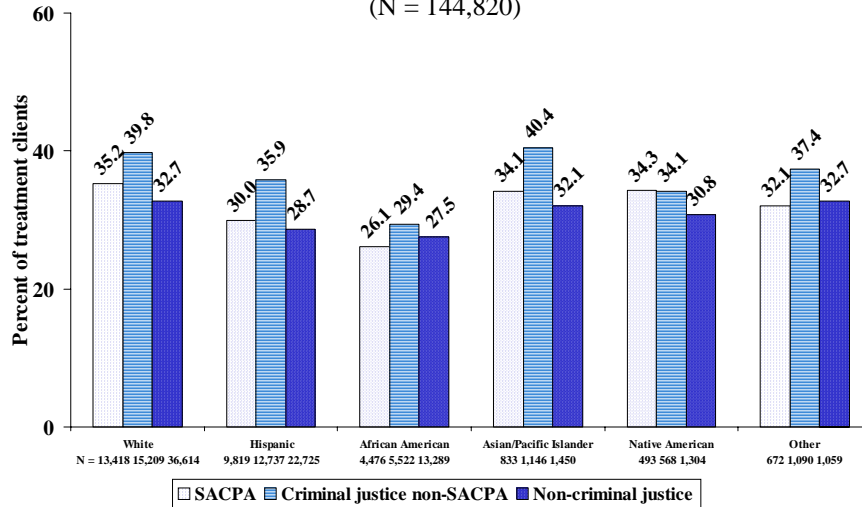
Note: Analysis for each year excluded counties where no SACPA clients had a discharge on record

Client Characteristics and Treatment Completion

To analyze characteristics of clients who completed treatment, UCLA employed the most rigorous criterion for success, namely a discharge record showing “completed treatment.” UCLA conducted an analysis to see whether SACPA client characteristics associated with treatment completion when taken one at a time maintained an association with completion when tested as a set (see Appendix 3). Findings reported here were confirmed in that analysis. In addition, UCLA adjusted the non-SACPA completion rates to ensure that comparisons reported here were not affected by differences in client background characteristics other than the one being examined.

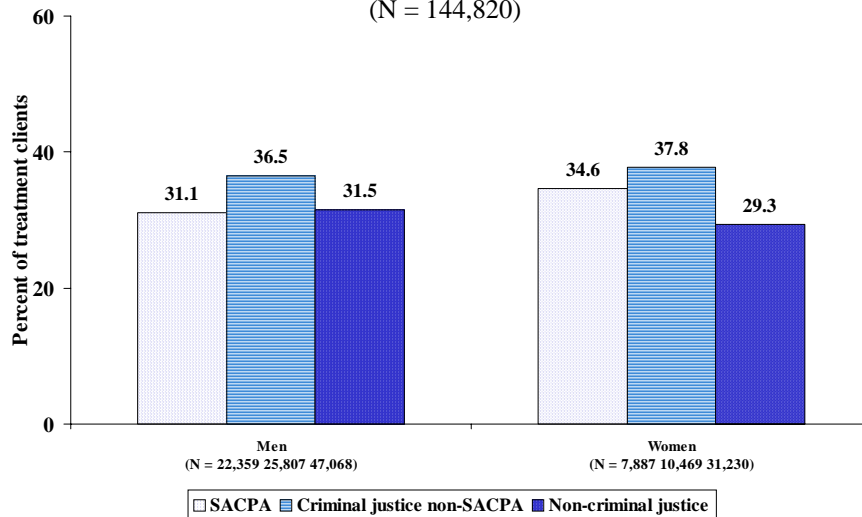
As shown in Figure 3.5, Whites (35.2%) had the highest rates of treatment completion in SACPA’s third year. Native Americans (34.3%), Asian-Americans and Pacific Islanders (34.1%), Hispanics (30.0%), and African-Americans (26.1%) followed. Patterns of racial/ethnic differences in SACPA generally paralleled patterns in non-SACPA groups with the exception that Native Americans did not have the second highest completion rate in those groups. This also marked the first time that Native American completion rates surpassed those of Asian-Americans and Pacific Islander in the SACPA group. Caution must be exercised in interpreting these results, however, due to the relatively small number of Native Americans in the SACPA group. Examination of this trend in subsequent years will determine whether this is an enduring result or due to random statistical variation.

Figure 3.5
Treatment Completion Among Clients by Race/Ethnicity
 (CADDSS), 7/1/03 – 6/30/04
 (N = 144,820)



Treatment completion rates for men and women are shown in Figure 3.6. Women in SACPA had slightly higher completion rates (34.6%) than men (31.1%), as has been the trend in each of SACPA’s first three years. Completion rates were more similar between men and women in the two non-SACPA groups.

Figure 3.6
Treatment Completion Among Clients by Sex
 (CADDSS), 7/1/03 – 6/30/04
 (N = 144,820)



A positive association between age and treatment completion is apparent in Figure 3.7. The completion rate for SACPA clients in the youngest age range (25 years and younger) was 28.6%. Rates climbed to a maximum of 36.2% in the oldest age range (46 years and older). This same stair-step pattern is apparent for the two non-SACPA groups as well. Older drug users may be more likely to see the value of completing treatment given the accumulation of problems arising from their drug use over time.

Figure 3.7
Treatment Completion Among Clients by Age
 (CADDSS), 7/1/03 – 6/30/04
 (N = 144,820)

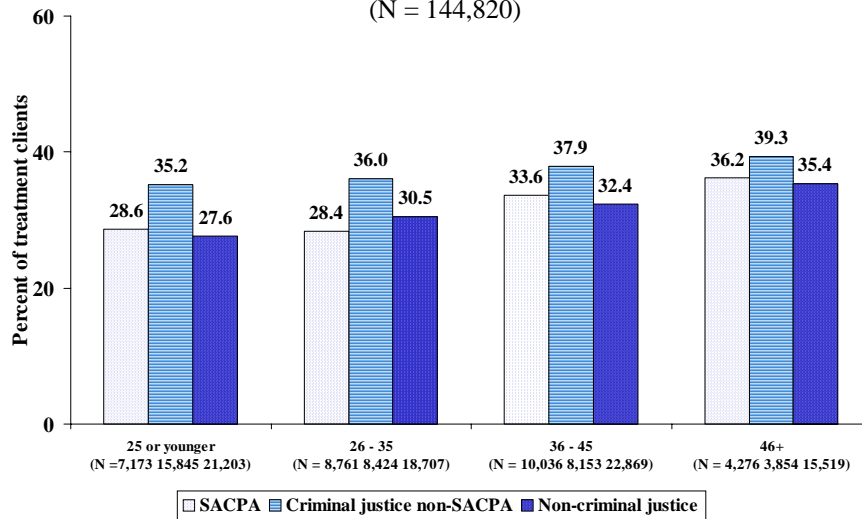


Figure 3.8 shows completion rates by primary drug. Findings are most relevant for the four drugs commonly used by SACPA clients. Heroin users in SACPA had the lowest completion rates (26.4%)¹². This was also true in both non-SACPA groups. Notably, methamphetamine users completed treatment at rates similar to users of most other drugs.

The association between years since first use of primary drug and treatment completion (see Figure 3.9) mirrors that between age and treatment completion. The completion rate for SACPA clients with the fewest years since first use of their primary drug (no more than five) was 29.7%. Clients with at least 21 years of use had the highest completion rate (34.5%). The two non-SACPA groups showed the same pattern.

¹² See discussion earlier in this chapter on the relatively low use of NRT for heroin users in SACPA. Completion rates for heroin users in non-criminal justice settings are not directly comparable since they were far more likely to enter methadone maintenance programs (see Chapter 6). “Completion” is not a meaningful measure in such settings because the program goal in these cases is typically indefinite maintenance.

Figure 3.8
Treatment Completion Among Clients by Primary Drug
 (CADDs), 7/1/03 – 6/30/04
 (N = 144,820)

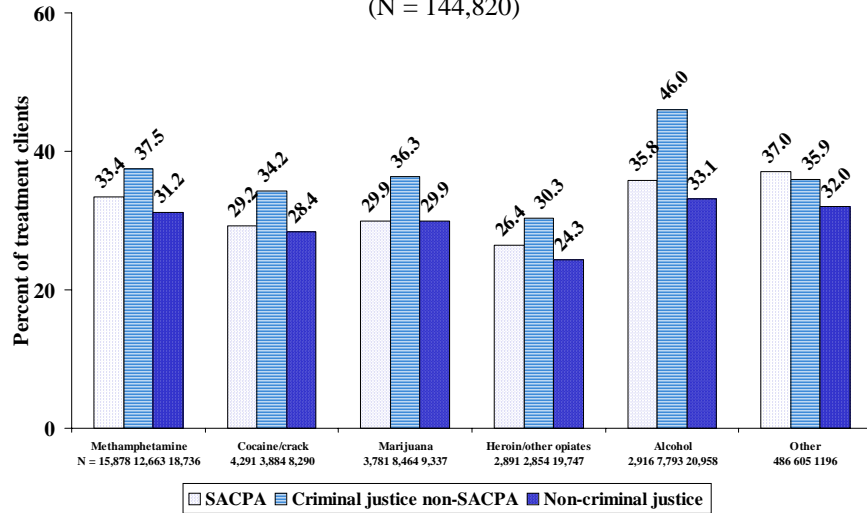


Figure 3.9
Treatment Completion Among Clients
by Years Since First Use of Primary Drug
 (CADDs), 7/1/03 – 6/30/04
 (N = 144,820)

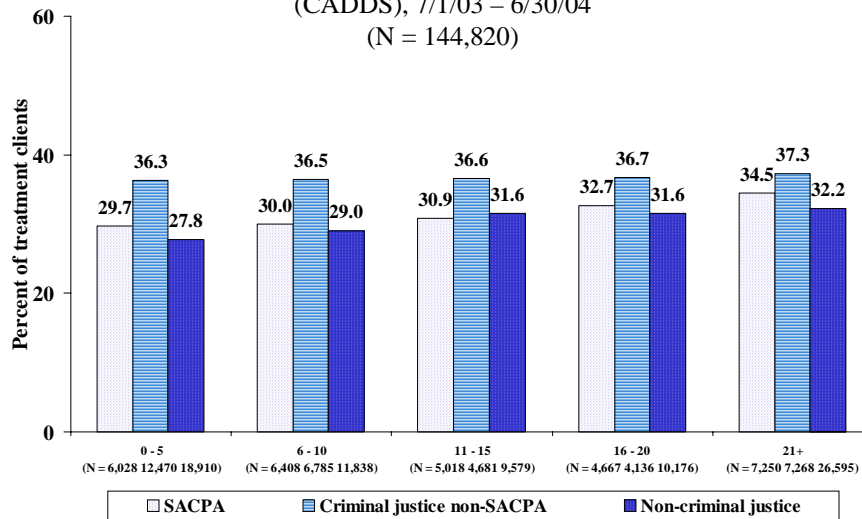
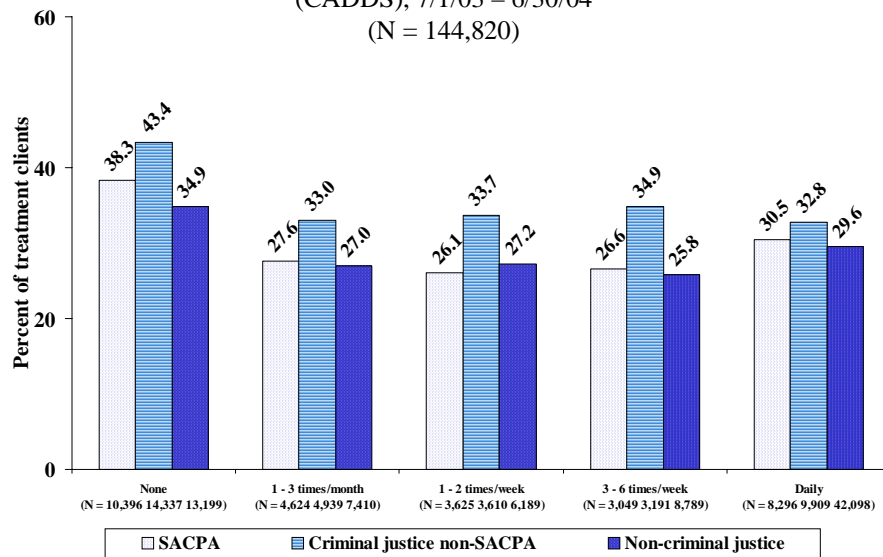


Figure 3.10 shows treatment completion rates by frequency of primary drug use in the month prior to intake. The treatment completion rate was highest among SACPA clients who reported no use at all in the past month (38.3%), perhaps because they were less likely to experience craving/withdrawal symptoms while in treatment or because prior-month abstinence, whether voluntary or imposed by circumstance (e.g., being in jail), was indicative of greater motivation to stop using or of less access to drugs. Completion was lower among all SACPA clients who reported any use of their primary drug in the month prior to intake. The trend toward slightly higher completion rates among clients who reported daily use is in part due to the higher prevalence of residential treatment among this population (see Appendix 3).

Figure 3.10
Treatment Completion Among Clients
by Frequency of Primary Drug Use in Past 30 Days
 (CADDSS), 7/1/03 – 6/30/04
 (N = 144,820)



Treatment completion rates were similar for SACPA clients with and without prior experience in treatment (32.3% and 31.0%, respectively). This was true in the non-SACPA groups as well (See Figure 3.11).

As shown in Figure 3.12, SACPA clients on probation (32.8%) had a somewhat higher completion rate than clients on parole (25.6%). Parolees were older, reported using drugs for longer periods, and were more likely to report daily use and use heroin. However, even after controlling for these factors (see Appendix 3) a difference remains. By definition, parolees are supervised by a different system (parole rather than probation) and they tend to have more serious criminal histories than do probationers. Further study of the parole subpopulation and parole procedures associated with success and failure is warranted.

The figure does not include non-SACPA groups because CADDs data on non-SACPA criminal justice referrals do not distinguish between probation and parole and this distinction is not applicable to non-criminal justice referrals.

Figure 3.11
Treatment Completion Among Clients
by Prior Treatment Experience

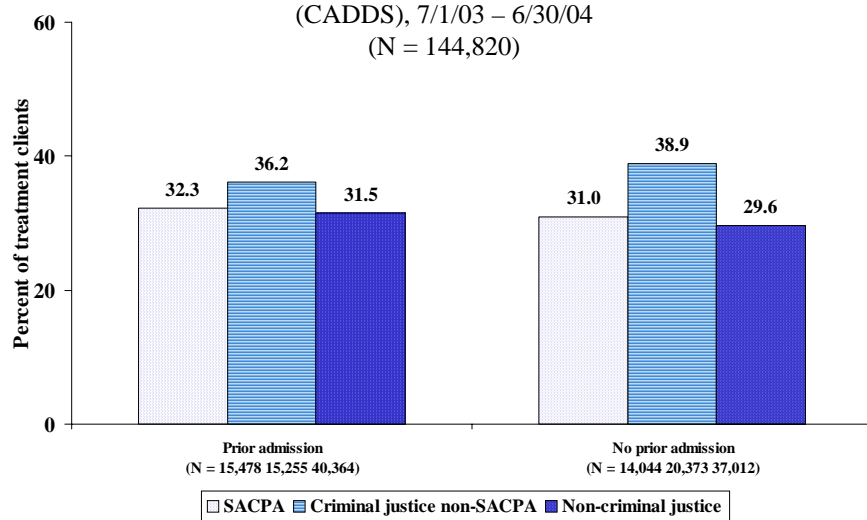
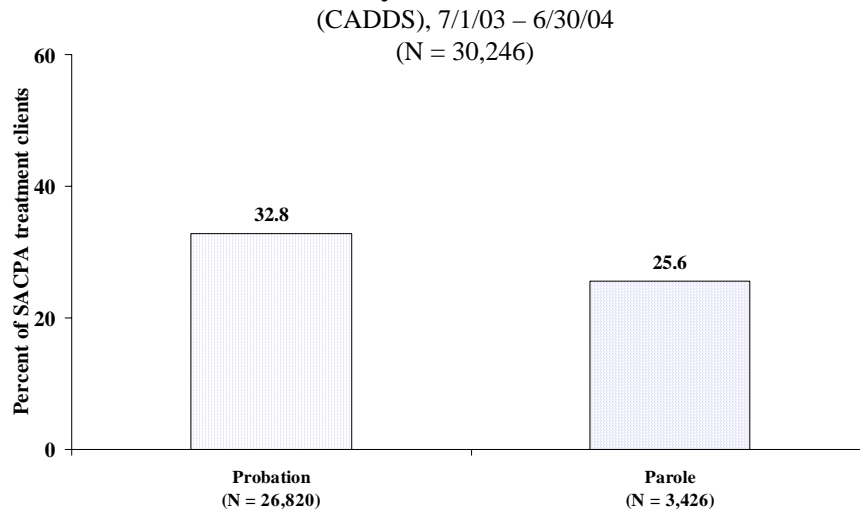


Figure 3.12
Treatment Completion Among SACPA Clients
Referred by Probation and Parole

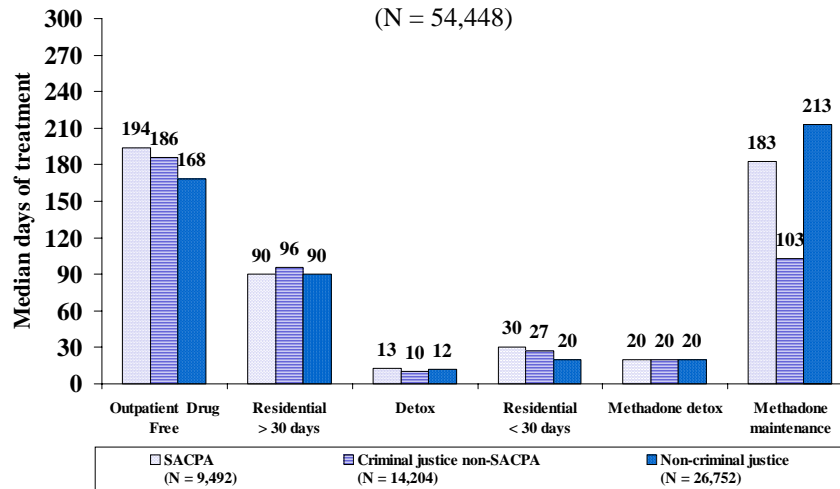


Treatment Duration among Clients Who Completed Treatment

Similar to the findings on completion, findings on treatment duration in SACPA’s third year were examined in relation to client characteristics and compared to findings from SACPA’s first two years.

Classification of clients as outpatient or residential depended on their initial placement. Most SACPA clients who completed treatment did so in the program where they were initially placed. For clients whose treatment episode included two or more segments, either in the same type of treatment or in different types, the calculation of treatment duration covered their total time in treatment from first intake to last discharge. Therefore the times in treatment reported below may include time spent in modality different from the first (e.g. a client may have spent time in residential treatment after initially entering outpatient treatment). That these charts only include the subset of clients with a discharge on record of “completed treatment”. Across the state, median time to treatment completion was 194 days for SACPA clients in outpatient drug-free treatment and 90 days for those in long-term residential treatment (See Figure 3.13). Median times to completion were similar in SACPA’s first two years.

Figure 3.13
Median Length of Stay in Treatment
Among Treatment Completers by Modality
 (CADDIS), 7/1/03 – 6/30/04
 (N = 54,448)



Note: Findings for methadone maintenance may be unreliable for SACPA and non-SACPA criminal justice clients because numbers were small (SACPA n=45, criminal justice n=41).

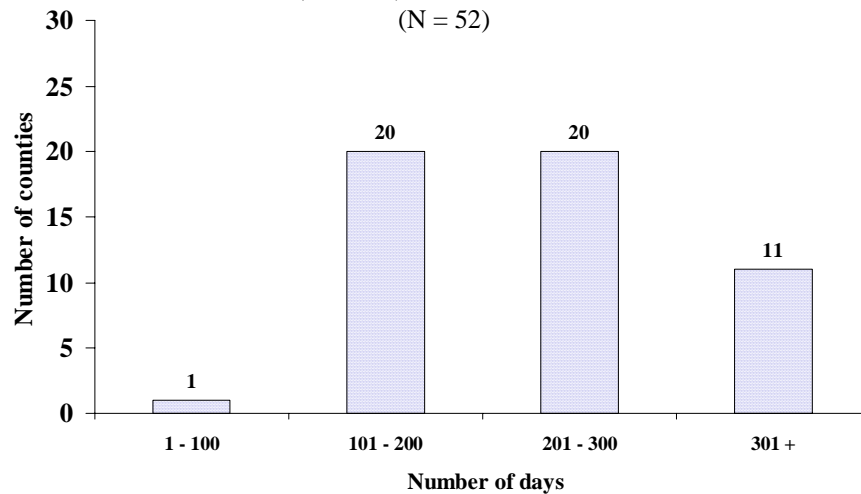
Among clients referred from criminal justice sources other than SACPA, demographic-adjusted median duration for completers was 186 days in outpatient drug-free treatment and 96 days in long-term residential treatment. Non-criminal justice clients who completed treatment typically spent an adjusted median of 168 days in outpatient drug-free treatment or 90 days in long-term residential treatment. SACPA clients who completed outpatient drug-free programs had somewhat longer stays than non-SACPA

outpatient drug-free clients. Residential stays were slightly longer in the non-SACPA criminal justice group.

Counties varied widely on the number of days that SACPA clients were in treatment prior to being discharged with a successful completion. Figure 3.14 shows the distribution of counties for outpatient drug-free treatment. While the median duration was over 300 days in 11 counties, the median was no more than 200 days in 21 counties¹³. Figure 3.15 shows the distribution of counties for long-term residential treatment. The median was less than 200 days in most counties. However, the median was over 200 days in three counties¹⁴.

Figure 3.14
County Variation in Median Length of Stay
Among Outpatient Treatment Completers

(CADDSS), 7/1/03 – 6/30/04
 (N = 52)



Note: In five counties, the number of outpatient treatment completers was too low for a reliable estimate of length of stay. Yuba and Sutter county results are combined.

Treatment Duration among All Clients

A period of at least 90 days is widely cited as the minimum threshold for beneficial treatment (Hubbard et al., 1997; Simpson et al., 1997, 1999, 2002; TOPPS II Interstate

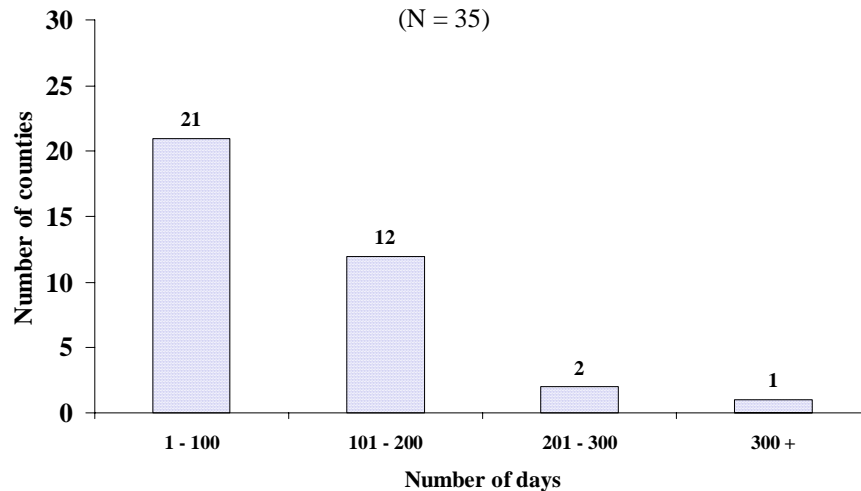
¹³ Six counties were excluded because the number of clients who completed outpatient treatment was too small to support a reliable estimate of treatment duration. Since modality is defined by the client's first admission but duration attempts to capture the entire course of treatment, the durations reported here may include time spent in other modalities that the client transferred to, including residential treatment.

¹⁴ Twenty two counties were excluded because the number of clients who completed residential treatment was too small to support a reliable estimate of treatment duration. Since modality is defined by the client's first admission but duration attempts to capture the entire course of treatment, the durations reported here may include time spent in other modalities the client transferred to following the initial admission, including outpatient treatment.

Cooperative Study Group, 2003). The typical third year SACPA client who completed residential treatment reached this threshold, and the typical outpatient client in SACPA exceeded it (see above). The 90-day threshold remains a useful benchmark for evaluating exposure to treatment among SACPA clients, regardless of how much longer they may have stayed, whether they completed treatment, or how well they fared. This analysis

Figure 3.15
County Variation in Median Length of Stay
Among Residential Treatment Completers

(CADDSS), 7/1/03 – 6/30/04
 (N = 35)



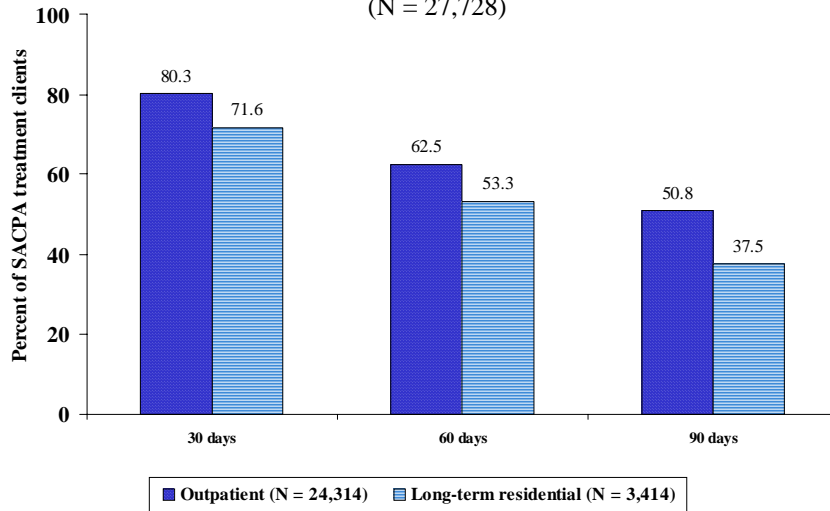
Note: In 22 counties, the number of residential treatment completers was too low for a reliable estimate of length of stay. Yuba and Sutter county results are combined.

reports the percentage of third year SACPA clients who remained in outpatient drug-free treatment or long-term residential treatment for at least 90 days and who had a discharge record. To account for clients who did not receive at least 90 days of treatment, the analysis was expanded to show the percentage spending at least 30 days and at least 60 days in each treatment modality. Findings are compared across years and examined in relation to client demographic characteristics. For clarity of presentation, detailed information on treatment duration among non-SACPA clients is omitted from the figures. Instead, the comparison of SACPA and non-SACPA clients is noted briefly in the text. Appendix C of the SACPA Evaluation 2004 report contains figures showing treatment duration for non-SACPA criminal justice clients and non-criminal justice clients.

Most SACPA clients (80.3%) who entered outpatient drug-free programs were there for at least 30 days (see Figure 3.16). Among long-term residential clients, 71.6% received at least 30 days of treatment. The 60-day rates were 62.5% in outpatient drug-free treatment and 58.3% in long-term residential treatment. Finally, about half of SACPA outpatient drug-free clients (50.8%) received at least 90 days of treatment, as did 37.5% of long-term residential clients.

A slightly higher percentage of non-SACPA criminal justice clients reached each benchmark compared to SACPA clients, whereas a lower percentage of non-criminal justice clients reached each benchmark compared to SACPA and non-SACPA criminal justice clients.

Figure 3.16
Treatment Duration Among SACPA Clients by Modality
 (CADDs), 7/1/03 – 6/30/04
 (N = 27,728)



Client Characteristics and Treatment Duration

UCLA examined treatment duration in relation to the following background characteristics of SACPA clients: race/ethnicity, sex, age, primary drug, years of primary drug use, recent frequency of use, and referral source (probation or parole). Clients in outpatient drug-free treatment and long-term residential treatment were combined.

Figure 3.17 shows treatment duration by race/ethnicity of SACPA clients. The percentage of SACPA clients who reached 90 days was slightly lower among African-Americans, Hispanics, and Native Americans than among Whites, Asian-Americans, and Pacific Islanders. In comparison, the 90-day rate among non-SACPA criminal justice clients was similar for all racial/ethnic groups except African-Americans, who had a slightly lower rate than other groups. Among non-criminal justice clients, Asian-Americans had the highest 90-day retention rate while Whites had the lowest.

Figure 3.18 shows treatment duration for SACPA clients by sex. Men and women in SACPA had similar patterns of duration at 30, 60, and 90 days. The same was true among non-SACPA criminal justice clients, but non-criminal justice referred women were more likely than non-criminal justice referred men to be in treatment at each interval, indicating that they stayed in treatment longer.

Treatment duration by age is shown in Figure 3.19. At all three intervals, duration rates were slightly higher among older SACPA clients. In contrast, age was unrelated to treatment duration among non-SACPA criminal justice and non-criminal justice clients.

Figure 3.17
Treatment Duration Among SACPA Clients
by Race/Ethnicity

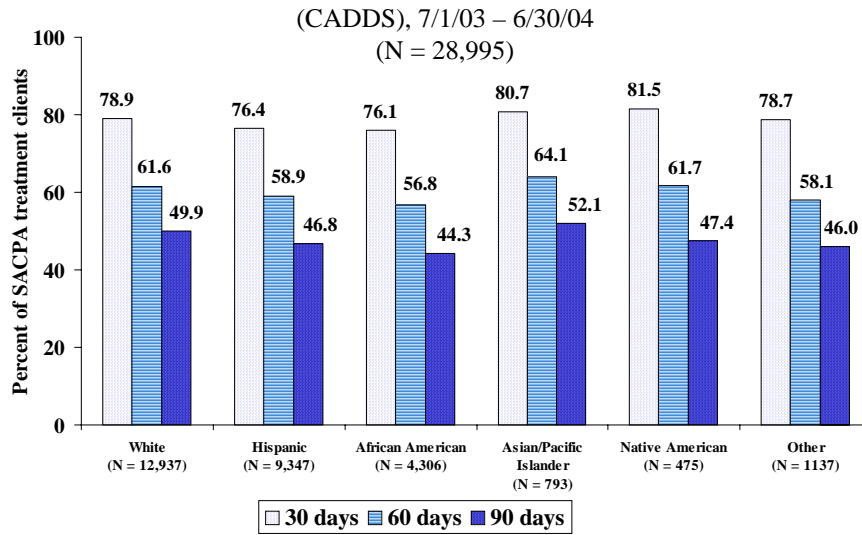


Figure 3.18
Treatment Duration Among SACPA Clients by Sex
(CADDs), 7/1/03 – 6/30/04
(N = 28,995)

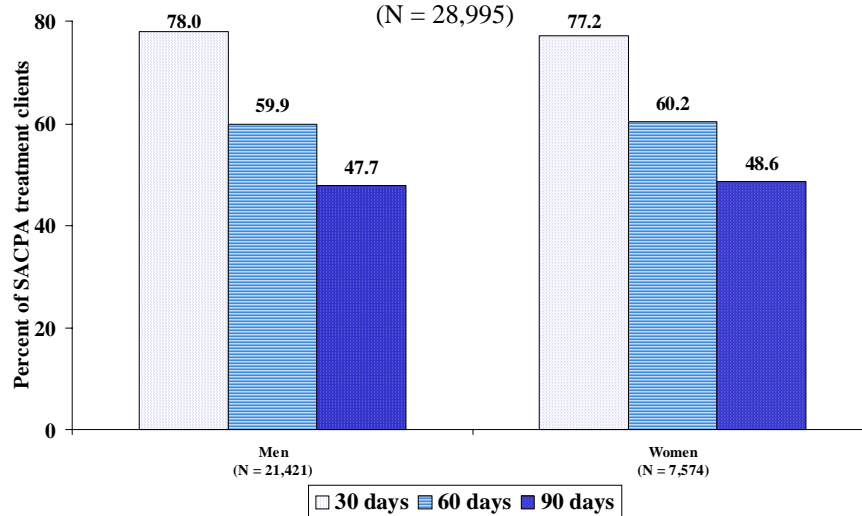
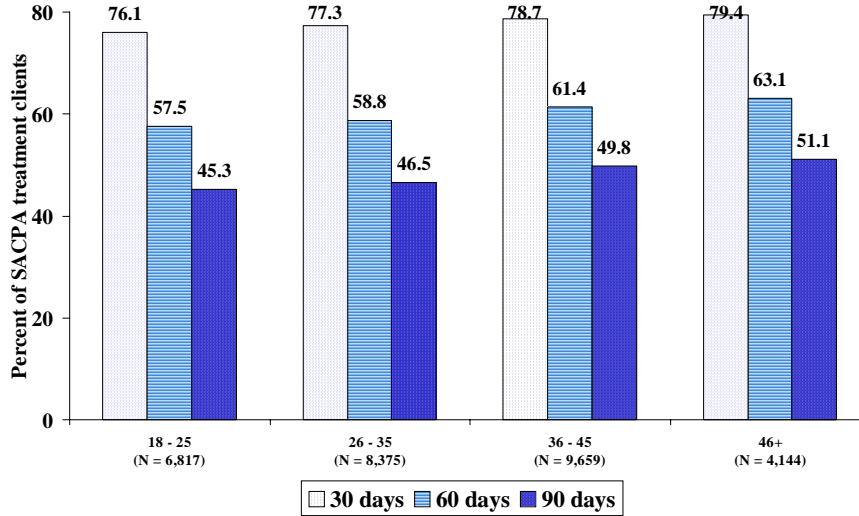
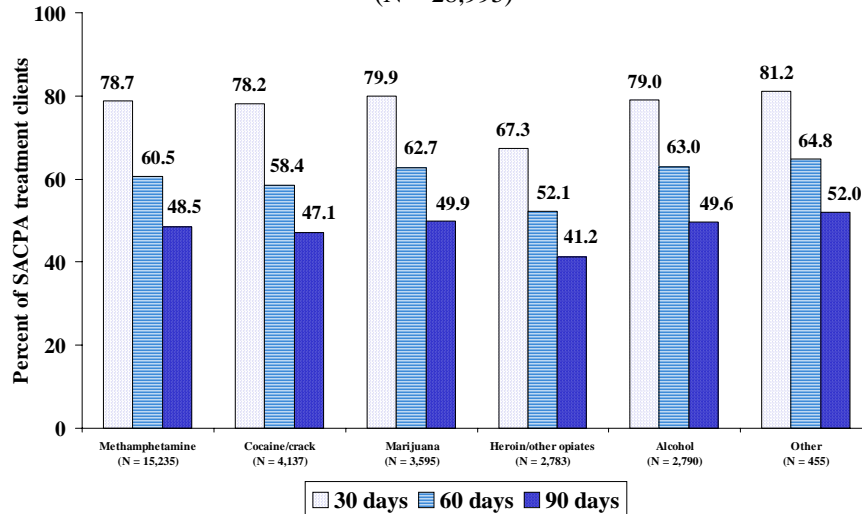


Figure 3.19
Treatment Duration Among SACPA Clients by Age
 (CADDs), 7/1/03 – 6/30/04
 (N = 28,995)



Treatment duration by primary drug is shown in Figure 3.20. Users of methamphetamine, cocaine/crack, and marijuana had similar duration patterns at 30, 60, and 90 days. Heroin users were somewhat less likely to reach 90 days. Heroin users in the non-SACPA criminal justice and non-criminal justice groups also were less likely to reach 90 days.

Figure 3.20
Treatment Duration Among SACPA Clients
by Primary Drug
 (CADDs), 7/1/03 – 6/30/04
 (N = 28,995)



As shown in Figure 3.21, there was no relationship between years of primary drug use and treatment duration among SACPA clients. The same finding was true of non-SACPA criminal justice clients and non-criminal justice clients.

Figure 3.21
Treatment Duration Among SACPA Clients
by Years of Primary Drug Use
 (CADDs), 7/1/03 – 6/30/04
 (N = 28,210)

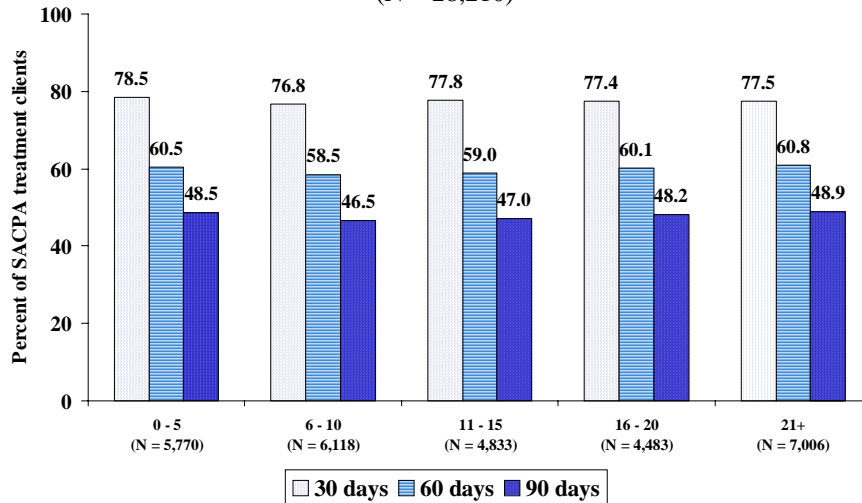


Figure 3.22 shows treatment duration by frequency of primary drug use in the 30 days before treatment entry. The percentage of SACPA clients in treatment at each interval declined as frequency rose. Clients who had been using drugs daily were least likely to be in treatment at all three intervals. This pattern may reflect the difficulty of drug abstinence once one’s drug use has become a daily habit. The same pattern was apparent among non-SACPA criminal justice and non-criminal justice clients.

Figure 3.23 shows treatment duration for SACPA clients with and without treatment experience. There was no relationship between treatment duration and prior treatment experience. Among non-SACPA clients, clients with no prior treatment experience tended to remain in treatment longer than those with prior treatment experience.

Figure 3.24 shows duration patterns separately for SACPA clients on probation and those on parole. Parolees were less likely to be in treatment at each interval. This comparison could not be performed among the non-SACPA groups for reasons previously noted.

Figure 3.22
Treatment Duration Among SACPA Clients
by Frequency of Primary Drug Use in Past 30 Days

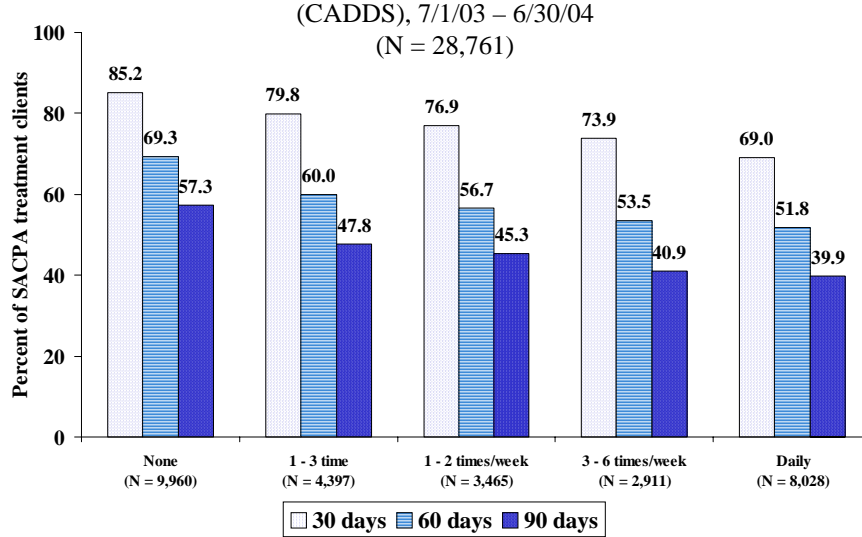


Figure 3.23
Treatment Duration Among SACPA Clients
by Prior Treatment Experience

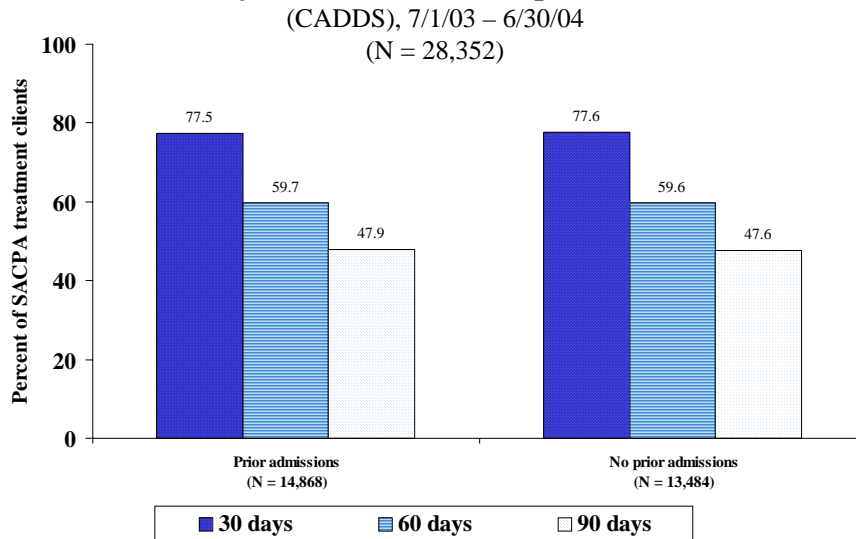
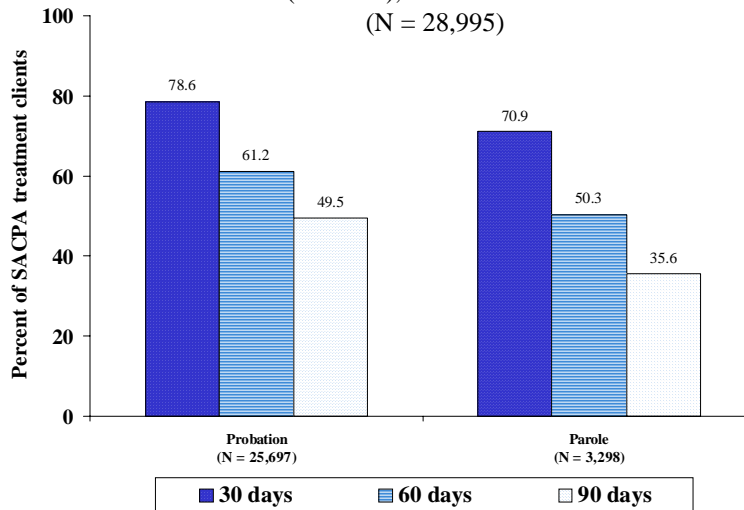


Figure 3.24
Treatment Duration Among SACPA Clients
by Referral Source
 (CADDIS), 7/1/03 – 6/30/04
 (N = 28,995)



Discussion and Conclusions

Most treatment clients in each of SACPA’s first four years (84.1% in its fourth year) were placed in outpatient drug-free treatment.

SACPA clients appeared to be faring about as well as others receiving treatment in the same timeframe. The rate of successful treatment completion was 32.0% among offenders who entered treatment in SACPA’s third year and had a final discharge on record. Overall, 23.9% of offenders who agreed to participate in SACPA in its third year completed treatment (based on a 74.9% treatment entry rate among all SACPA offenders in the third year and a 32.0% completion rate among those who entered treatment). These findings, which were similar in SACPA’s first two years, are typical of drug users referred to treatment by criminal justice.

A total of 39.4% of SACPA’s third year clients either completed treatment or were making satisfactory progress when discharged. Treatment completion and satisfactory progress are good signs, but it is important to note that successful completion of SACPA also requires compliance with the conditions of probation/parole supervision.

In SACPA, treatment completion rates were lower and 90-day treatment duration less common for African-Americans, Hispanics, and Native Americans than for Whites, Asian-Americans, and Pacific Islanders. The same was true in SACPA’s first two years. Disparities in completion rates may reflect entrenched societal conditions. Nevertheless, these disparities are cause for concern. It may be important to explore opportunities to

improve cultural competence in assessment and treatment of SACPA clients. Cultural competence reflects an “awareness of cultural differences and the development of skills to work in multicultural situations” (Campbell et al., 2002, page 110; see also Betancourt et al., 2003) and is believed to have a positive impact on health service utilization, sustained participation, satisfaction with services, and outcomes (Campbell et al., 2002; Paniagua, 1994; Resnikow & Braithwaite, 2001; Smedley et al., 2003). Alternatives for promoting cultural competence include racial/ethnic matching between staff and clients, offering clients the opportunity to choose a counselor of the same race/ethnicity, offering single-race group counseling sessions or self-help support groups, hiring personnel who are bilingual, and training staff in cross-cultural awareness and skills.

Completion rates were higher among clients who were older and those reporting no use of their primary drug in the month prior to treatment intake. Rates were similar for male and female clients. In every comparison, the pattern found among SACPA clients was also found among non-SACPA clients in both of SACPA’s first two years.

Methamphetamine users were similar to the overall SACPA population in treatment completion and duration in each SACPA year analyzed. Concern has been raised regarding the treatment system’s ability to meet the clinical challenges presented by methamphetamine users (e.g., poor engagement in treatment, severe paranoia, severe and protracted dysphoria, and high relapse rates; Rawson et al., 2002). Findings suggest that treatment providers in SACPA have responded to the challenges presented by methamphetamine users.

In SACPA’s third year, treatment completion was lower, and duration shorter, for users of heroin than for users of other drugs. This pattern was found in SACPA’s first two years as well. In the national Drug Abuse Treatment Outcome Study, heroin users did not benefit from outpatient drug-free and residential treatment as much as users of other drugs (Hser et al., 1998; Hubbard et al., 1997; see also Hubbard et al., 1989; Katz et al., 2004). Few heroin users in SACPA thus far have received methadone detoxification, methadone maintenance, or other forms of NRT. Like users of other drugs, most heroin users were treated in outpatient drug-free programs, which do not provide medication to alleviate the withdrawal symptoms associated with heroin dependence. Further study is needed to determine the extent to which low utilization of NRT in SACPA is due to limited local availability of such treatment, client preference, criminal justice practice, or other factors. Treatment completion and duration might improve for opiate users if NRT were more widely available (Desmond & Maddux, 1996).

Clients with no prior experience in treatment may find it particularly difficult to conform to unfamiliar requirements such as open acknowledgement of their drug problem and self-disclosure in groups. Despite the potential difficulties, first-time clients were as likely to complete treatment as clients who have been in the treatment system previously.

Completion rates were lower, and treatment duration shorter, for parolees than for probationers in both SACPA years. This finding suggests a need to evaluate and implement improvements for parolees. Possibilities for consideration include increased supervision, increased use of dedicated SACPA agents, and closer collaboration between parole agents, county agencies, and treatment providers.

Chapter 4: Re-Offending

Darren Urada, Ph.D., Douglas Longshore, Ph.D., and Angela Hawken, Ph.D.

Analyses focused on re-offending (new arrests for drug, property, and violent offenses) over a 30-month follow-up period in SACPA's first year and over a 12-month follow-up period in SACPA's second year.

In one comparison, re-offending was examined in relation to the *degree of offender participation* in SACPA. Re-offending was lowest among SACPA offenders who completed treatment compared to those who were referred to SACPA but did not enter treatment and those who entered but did not complete treatment. New arrests for drug offenses were substantially lower among offenders who completed treatment. Property and violent arrests were low in all three groups.

Outcomes of *SACPA as a policy* were examined by comparing re-offending among offenders in SACPA's first year (SACPA-era offenders) to similar offenders in the pre-SACPA-era. SACPA-era offenders had a higher rate of drug and property arrests than the pre-SACPA-era comparison group. Violent arrests were low in both groups. This comparison may have been affected by differences in incapacitation under the two policies; pre-SACPA-era offenders were more likely to be sentenced to jail or prison.

Trends in re-offending over a 12-month follow-up period in SACPA's first year were replicated in SACPA's second year, suggesting re-offending trends were stable in SACPA's first two years of implementation.

This chapter examines re-offending (new arrests for drug, property, and violent offenses) over a 30-month follow-up period in SACPA's first year and over a 12-month follow-up period in SACPA's second year.

The analyses of re-offending were twofold. First, new arrests in the follow-up period were compared across the three groups of offenders to observe *re-offending in relation to the degree of offender participation in SACPA*. Second, SACPA-eligible drug offenders, including those who did and those who did not participate, were compared to a pre-SACPA-era group of drug offenders. This second comparison examines *re-offending under the implementation of two policy alternatives*: implementation of SACPA policy, under which drug offenders had an opportunity to accept community supervision with treatment versus implementation of pre-SACPA policy, under which similar offenders were either sentenced to prison/jail or placed under community supervision with less likelihood of exposure to treatment.

Following both sets of analyses on the first-year cohort, these analyses were repeated on a second-year cohort to determine differences in re-offending between SACPA's first and second years.

Re-Offending in Relation to the Degree of Offender Participation in SACPA

The evaluation examined outcomes in the population in its first, July 1, 2001-June 30, 2002, and second, July 1, 2002-June 30, 2003, years. These populations were sorted into three mutually exclusive groups: those who were referred for an assessment (i.e., those who accepted the opportunity to participate) but who did not receive treatment; those who entered but did not complete treatment; and those who completed treatment¹⁵. Re-offending outcomes were adjusted for demographic, criminal history, and drug treatment characteristics of offenders. For more details on these terms and procedures, see Appendix 4.

The purpose of this comparison was to describe *re-offending in relation to the degree of offender participation in SACPA*. Despite the effort to account for possible selection bias, it is impossible to know precisely how the comparison serves to isolate the effect of SACPA itself; outcomes could be over- or under-estimated. Nevertheless the comparison is valuable in showing the extent of re-offending among those who partially or fully complied with the treatment requirement in SACPA. In addition, outcomes among those who completed treatment provide an indication of the likely maximum effect of SACPA, at least as it was implemented during the period of evaluation.

SACPA Policy Implementation versus Pre-SACPA Policy Implementation

This evaluation also compared the population arrested for SACPA-eligible drug offenses in the program's first year and a pre-SACPA-era population arrested for eligible offenses during the 12-month period between July 1997 and June 1998¹⁶. On most demographic and criminal history characteristics, the SACPA-era and pre-SACPA-era groups were quite similar. The SACPA-era group, however, had a higher percentage of Hispanics, and there were some group differences in the distribution of offenses leading to arrest (see Table 4.1). Re-offending outcomes were adjusted for background characteristics of offenders, county of arrest, the unemployment rate in California for the month of each offender's arrest and the monthly national number of crimes reported (excluding

¹⁵ In prior research, UCLA also examined the relevance of treatment duration by comparing outcomes for participants who received at least 90 days of treatment and participants who did not. An alternative indicator of treatment exposure was created by comparing participants who either completed treatment or received 90 days of treatment versus non-completers who received fewer than 90 days. Analyses using these indicators led to the same findings reported here.

¹⁶ SACPA eligibility is determined at sentencing, not at the time of arrest. UCLA used eligible convictions to select offenders in order to obtain the best possible precision in identifying offenders eligible for SACPA. The trade-off is that it is possible that there were different charging practices and plea-bargaining practices between the pre-SACPA and SACPA eras, which could potentially bias results. However, this bias was mitigated to the extent possible by adjusting for differences in demographic and criminal history characteristics, as described.

California) in each offender’s month of arrest. The adjustment for unemployment accounts for economic conditions that might have affected re-offending. The adjustment for the number of crimes was to account for general crime trends that might have affected re-offending.

Table 4.1 Characteristics of SACPA-Era and Pre-SACPA-Era Groups

	1997-1998 Full Comparison Group	2001-2002 Full SACPA Group
n	47,355	41,607
Sex		
Male	75.8%	75.2%
Female	24.2%	24.8%
Race		
Asian/Pacific Islander	1.4%	2.1%
Black/African American	16.4%	16.4%
Hispanic	28.0%	31.7%
Native American	0.4%	0.5%
Other	0.5%	0.9%
Unknown	6.8%	0.4%
White	46.5%	47.9%
Prior Convictions, 30 months	50.0%	53.0%
Post Convictions, 30 mo	36.9%	46.3%
Department of Justice Records	100.0%	100.0%

This comparison describes *re-offending period under two policy implementations*: the SACPA policy implementation under which drug offenders had an opportunity to accept probation/parole with treatment versus the pre-SACPA-era policy implementation under which those with similar offenses were either sentenced to prison/jail or placed on probation or continued on parole with less likelihood of exposure to treatment. This comparison is important because offenders in the SACPA era make a decision—whether or not to accept SACPA. Those who accept SACPA may be different from those who do not in ways that lead to an over- or under-estimate of SACPA outcomes. Conversely, offenders in the pre-SACPA-era had no such decision to make and, thus, no opportunity to self-select. By including all SACPA-era offenders who met eligibility requirements at

conviction and all pre-SACPA-era offenders who met eligibility requirements at conviction, UCLA minimized the self-selection problem. This comparison shows how much re-offending occurred over the 30-month period among drug offenders in the SACPA-era and how much likely would have occurred if they had been handled under the pre-SACPA-era policy.

Many offenders arrested for a SACPA-eligible offense in the first year did not participate in SACPA¹⁷. Some SACPA-era non-participants (9.0%) were sentenced to jail or prison. Some of those who agreed to participate in SACPA (31%) did not enter the treatment program to which they were referred (Longshore et al., 2003). On the other hand, only some offenders in the pre-SACPA-era (22.5%)¹⁸ were sent to jail or prison for their eligible offense, and some (15.6%) received treatment while on probation or parole.

For these reasons, the comparison of SACPA-era and pre-SACPA-era eligible offenders does not measure the effect of SACPA participation, nor does it show the effect of a policy under which *all offenders* were sentenced to jail or prison versus an entirely different policy under which *all offenders* received treatment in the community. Rather, it provides a comparison of two time periods as two different policies were actually implemented.

Those individuals with prior or concurrent convictions that made them (or would have made them) ineligible for SACPA (see Chapter 2 for SACPA eligibility rules) were excluded from each offender population. Closing the pre-SACPA-era in June 1998 made it possible to observe re-offending over a period of 30 months during which any subsequent offending in the pre-SACPA-era comparison group was still subject to the pre-SACPA-era policy.

In summary, each comparison sheds unique light on SACPA outcomes over an initial 30-month follow-up period. The first comparison describes outcomes by *SACPA participation* and uses treatment completers to gauge the likely maximum effect of SACPA. The second comparison describes outcomes of *SACPA as a policy*. These outcomes are determined by the behavior of drug offenders who did not choose to participate in SACPA as well as those who did. Effects of offender self-selection on findings thus are minimized.

¹⁷ UCLA examined records for drug offenders who were arrested for SACPA-eligible offenses but did not participate in SACPA. Of offenders with dispositions, some (7%) were acquitted or had their cases dismissed. Some entered drug court (6%) or were routed to a “deferred entry of judgment” program (4%). Most of those with a conviction were sentenced to a jail term (56%), usually followed by probation.

¹⁸ According to Department of Justice records, 9.3% were sent to jail for felony drug offenses and 6.4% for misdemeanor drug offenses; 6.7% were sent to prison for felony drug offenses and 0.1% for misdemeanor drug offenses.

Re-Offending Measure

The primary measure of re-offending was based on *new arrests* that occurred during the period after the SACPA-eligible conviction. Arrests are an imprecise measure of offending because many offenses are undetected by law enforcement and because an officer's arrest decision, given detection of a possible offense, is, in many cases, discretionary (Blumstein, 2002). Moreover, occurrence of an arrest does not necessarily mean that the person committed a crime. On the other hand, the offense for which an arrestee is later charged or convicted depends on a series of additional discretionary decisions by prosecutors and judges (Blumstein & Cohen, 1979; Forst, 2002), and the disposition of an arrest (e.g., charge dismissed, defendant acquitted, or defendant convicted) is often missing from criminal justice records. New arrests, therefore, are the most appropriate indicator of re-offending for the purpose of group comparison. Arrests come "closer to the crime" than other data available in criminal justice records and are most commonly used by criminologists to measure re-offending (Maltz, 2001).

Separate measures were used to examine the percentage of offenders with a new arrest for a drug offense, property offense, and violent offense. For each offense type, felonies and misdemeanors were examined separately and in combination. The time period in which re-offending could occur was 30 months after the SACPA-eligible conviction. Violations of probation or parole were not counted unless the violation was a new offense resulting in arrest. Issuance and execution of warrants were not counted. Accordingly, measures of re-offending reflected new criminal activity. The analysis covered property and violent arrests as well as drug arrests because drug-related crime could have carry-over effects on income-generating property crime or violence associated with drug markets (e.g., Anglin et al., 1998; Miethe et al., 2000).

Re-Offending among SACPA Participants

New arrests were least common among SACPA-era offenders who completed treatment. As shown in Figure 4.1, the 30-month drug arrest rate was 55.5% among referred offenders who did not receive treatment, 60.5% among offenders who entered but did not complete treatment, and 42.7% among those who completed treatment. Property arrests were similar for offenders who did not receive treatment (16.9%) and those who entered but did not complete treatment (16.8%), but lower for those who completed treatment (9.9%). As with drug and property arrests, violent arrests were least common among treatment completers, but such arrests were uncommon in all groups and differences between groups therefore were small.

Treatment completers also had lower numbers of re-arrests. For more details, see Appendix 4. For taxpayer cost implications of these differences in arrests, see Chapter 7.

When new arrests were separated into felonies and misdemeanors, these patterns recurred. The percentage of offenders with a felony drug arrest was 38.1% among those referred but untreated, 42.1% among those who entered but did not complete treatment, and 28.8% among treatment completers. Property felony rates for these groups were

13.7%, 13.5%, and 7.6%, respectively. Violent felony rates followed the same pattern but were uncommon, and group differences were small (see Figure 4.2). Misdemeanor drug arrests were 27.8% among referred but untreated offenders, 30.2% among those

Figure 4.1
New Arrests
During 30 Months After Offense
SACPA Offenders, July 2001 – June 2002
(N =19,716)

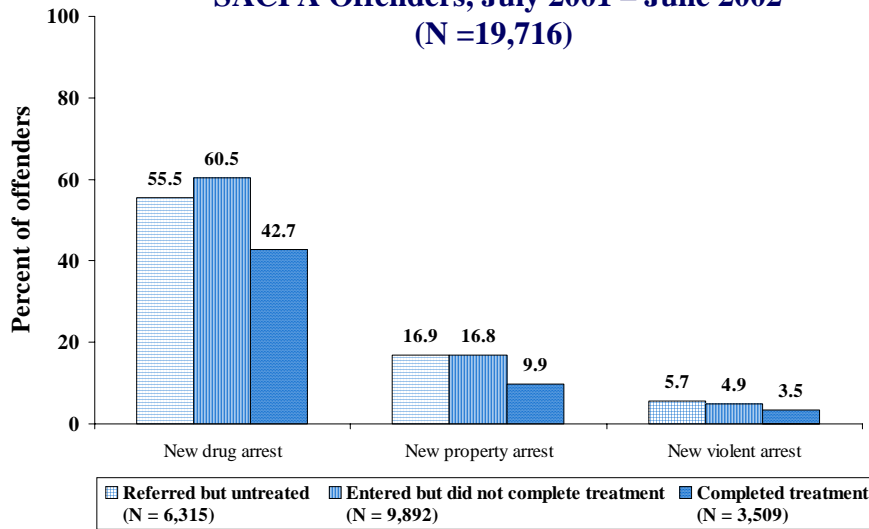
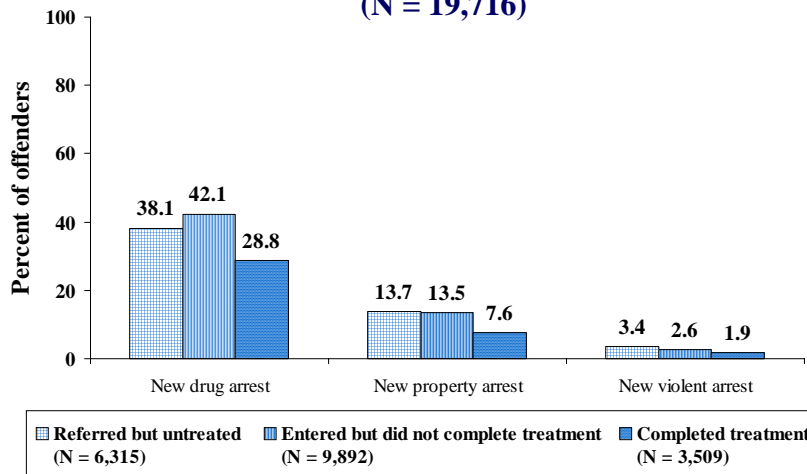
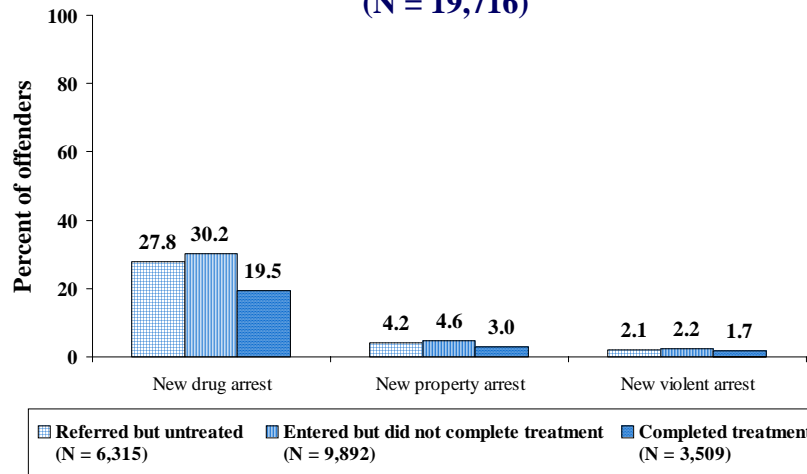


Figure 4.2
New Felony Arrests
During 30 Months After Offense
SACPA Offenders, July 2001 – June 2002
(N = 19,716)



who entered but did not complete treatment, and 28.8% among completers. Property misdemeanors were 4.2, 4.6, and 3.0, respectively. Violent arrests followed a similar pattern but were uncommon, and group differences were small (see Figure 4.3)¹⁹.

Figure 4.3
New Misdemeanor Arrests
During 30 Months After Offense
SACPA Offenders, July 2001 – June 2002
(N = 19,716)



Re-Offending Under SACPA-Era and Pre-SACPA-Era Policies

The percentage of offenders with a new drug arrest was higher in the SACPA-era than in the pre-SACPA-era. As shown in Figure 4.4, 50.0% of offenders in the SACPA-era and 38.1% in the pre-SACPA-era had a new drug arrest during the 30-month follow-up period. Arrests for property crimes were also somewhat higher in the SACPA-era group. Arrests for violent crimes were similar and low in both groups.

When arrests were separated into felonies and misdemeanors, the patterns were generally the same. However, felony property arrests were more common in the SACPA-era group than in the pre-SACPA-era comparison group (see Figures 4.5 and 4.6).

¹⁹ Significance tests confirmed that the percentage arrested for each of these offense types was lower in SACPA treatment completers than in the other two SACPA groups.

Figure 4.4
New Arrests
During 30 Months After Offense
SACPA Year One vs Pre-SACPA Comparison Group

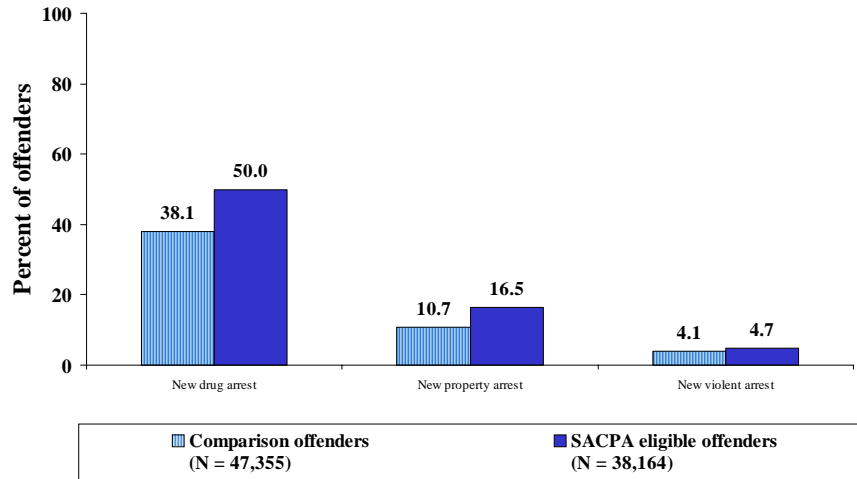


Figure 4.5
New Felony Arrests
During 30 Months After Offense
SACPA Year One vs Pre-SACPA Comparison Group

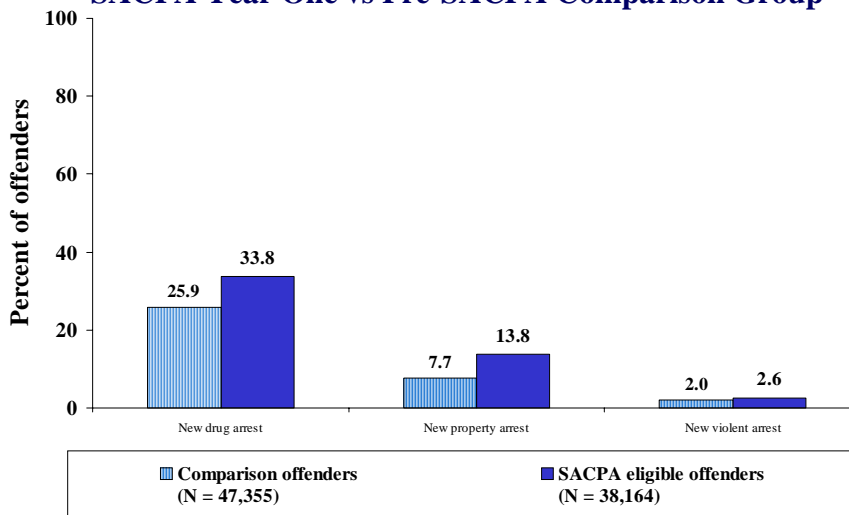
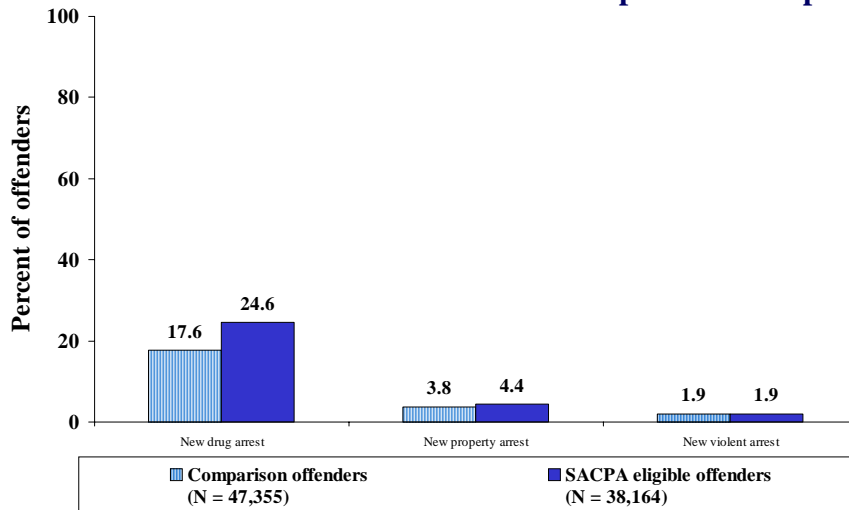


Figure 4.6
New Misdemeanor Arrests
During 30 Months After Offense
SACPA Year One vs Pre-SACPA Comparison Group



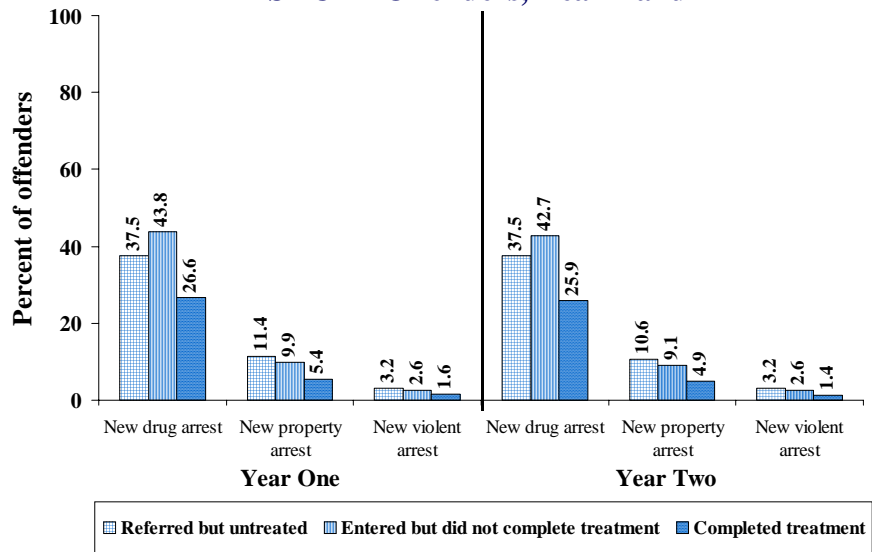
Pre-SACPA-era drug offenders were more likely than SACPA-era drug offenders to be sentenced to jail or prison following arrest for the eligible offense. Accordingly, pre-SACPA-era offenders had less opportunity to re-offend because, during the 30-month follow-up, they were more likely to be in custody for part or all of the period. This difference in sentencing is one aspect of the policies being compared. Hence, for a clear look at outcomes of these policies, there should be no adjustment for it. However, to see whether it affected findings, UCLA re-ran the analysis after controlling for “days on the street”. In this analysis, offenders in the SACPA-era group had fewer re-arrests during unincarcerated time than offenders in the pre-SACPA-era group.

UCLA ran supplemental analyses using (1) the percentage of offenders with a *conviction* for each offense type and (2) the *number of arrests* instead of the percentage of offenders with an arrest. These analyses led to conclusions similar to those reported in this chapter. See Appendix 4 for details of these analyses and see Chapter 7 for the taxpayer implications of these findings.

Second Year Re-offending, 12-Month Follow-Up

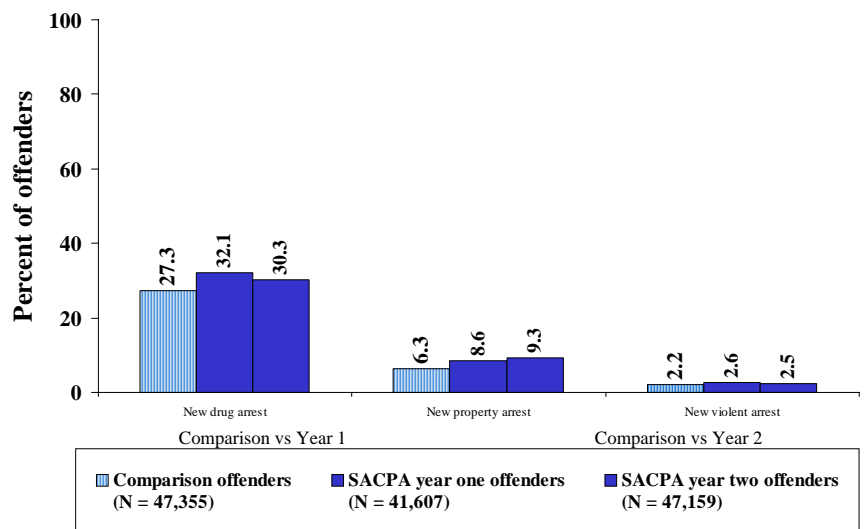
Re-arrest trends were examined for offenders who were referred to SACPA in Year 2. Patterns of re-arrests in Year 2 were very similar to those in Year 1. Treatment completers had far fewer re-arrests than offenders who were referred but not treated, and those who started but did not complete treatment (see Figure 4.7).

Figure 4.7
New Arrests
During 12 Months After Offense
SACPA Offenders, Year 1 and 2



SACPA’s first two years were also compared to the pre-SACPA-era group over a 12-month follow-up period. As in the previous comparison, patterns of re-arrests during SACPA’s second year were very similar to patterns seen in SACPA’s first year. SACPA-era offenders were more likely to be re-arrested, particularly for drug offenses, in both years than pre-SACPA-era offenders (see Figure 4.8).

Figure 4.8
New Arrests
During 12 Months After Offense
SACPA Years 1 and 2 vs Pre-SACPA Comparison Group



Conclusion

Findings in this chapter were based on two types of comparisons. The first described outcomes among SACPA's first-year participants *in relation to the degree of offender participation in SACPA*. The second comparison described outcomes of *SACPA as a policy* among drug offenders who did and did not choose to participate in SACPA. Both comparisons focused on SACPA outcomes over a 30-month follow-up period for the first year. In addition, the results were replicated over 12-month follow-up periods for both the first and second year in order to assess changes between the first two years.

There was a clear pattern in the findings, with the lowest re-offending outcomes evident among those who completed treatment. This finding is typical of studies comparing such groups (e.g., Inciardi et al., 2004; Prendergast et al., 2004).

Outcomes among offenders who completed treatment provided an indication of the likely maximum short-term effect of SACPA in the first year. The analysis found that 42.7% of treatment completers had a new drug arrest during the 30-month follow-up period, whereas the majority of those who did not complete treatment were re-arrested (55.5% of those referred but untreated and 65.5% of those treated who did not complete treatment).

In the comparison of the two policy alternatives, arrests were higher among SACPA-era offenders than in a similar group of pre-SACPA-era offenders on drug offenses (50.0% to 38.1%) and property offenses (16.5% to 10.7%). Re-offending was low and similar across groups for felony and misdemeanor violent arrests. By including all SACPA-era offenders arrested for an eligible drug crime and all pre-SACPA-era offenders arrested for a drug crime that would have been eligible, this comparison showed how much re-offending occurred over a 30-month follow-up period among drug offenders in the SACPA-era and how much likely would have occurred if they had been handled under the pre-SACPA-era policy.

Outcomes were similar across SACPA's first two years, suggesting that in these early years of implementation re-arrest patterns were fairly stable.

Findings were affected by differences in incarceration under SACPA-era and pre-SACPA-era policies. Offenders who are incarcerated are unable to commit new crimes in the community and be re-arrested. Although most pre-SACPA-era drug offenders were not sent to jail or prison, SACPA-era offenders did have fewer re-arrests when analyses were conducted controlling for days on the street.

It is important to note that outcomes are a reflection of SACPA policy as written and of SACPA treatment and supervision as delivered. Under SACPA policy, eligible drug offenders may or may not choose to participate in SACPA. Among those who did choose SACPA, the degree of participation, as indicated by treatment entry and completion, varied widely between offenders. Outcomes might have been different if policy and implementation practices were different.

Chapter 5: SACPA and Criminal Justice Crime Trends

Douglas Longshore, Ph.D., Angela Hawken, Ph.D., Scott Hiromoto, M.A., Dan Du, M.A., and Travis Bunch, M.A.

This analysis examined California crime trends before and after implementation of SACPA in July 2001. Since arrest trends are affected by a myriad of effects, a time series examination of the available data for a lengthy period before and after SACPA implementation was the most rigorous scientific approach. Here, the annual crime data from 1990 to 2004 from the FBI's Uniform Crime Reporting Program are described. In addition, a more detailed trend analysis draws on *monthly* offense data from January 1990 through December 2002, the most recent month for which monthly offense data were available at the time of this analysis. UCLA analyses showed some trends fluctuated slightly, upward or downward, but there was no reliable evidence of any significant change in any of the crime trends analyzed.

UCLA examined criminal activity among offenders participating in SACPA and overall crime trends in the state. The cost analysis in Chapter 7 describes changes in arrest and conviction costs attributed to SACPA-eligible offenders. In the analysis of criminal activity among SACPA-eligible offenders, the goal was to determine whether criminal activity among these offenders was different in the SACPA-era. UCLA found that arrests and convictions were higher for the SACPA-eligible offenders over a 30-month follow-up period compared to a pre-SACPA-era comparison group. These increases, however, were modest and would not be expected to affect overall state crime trends.

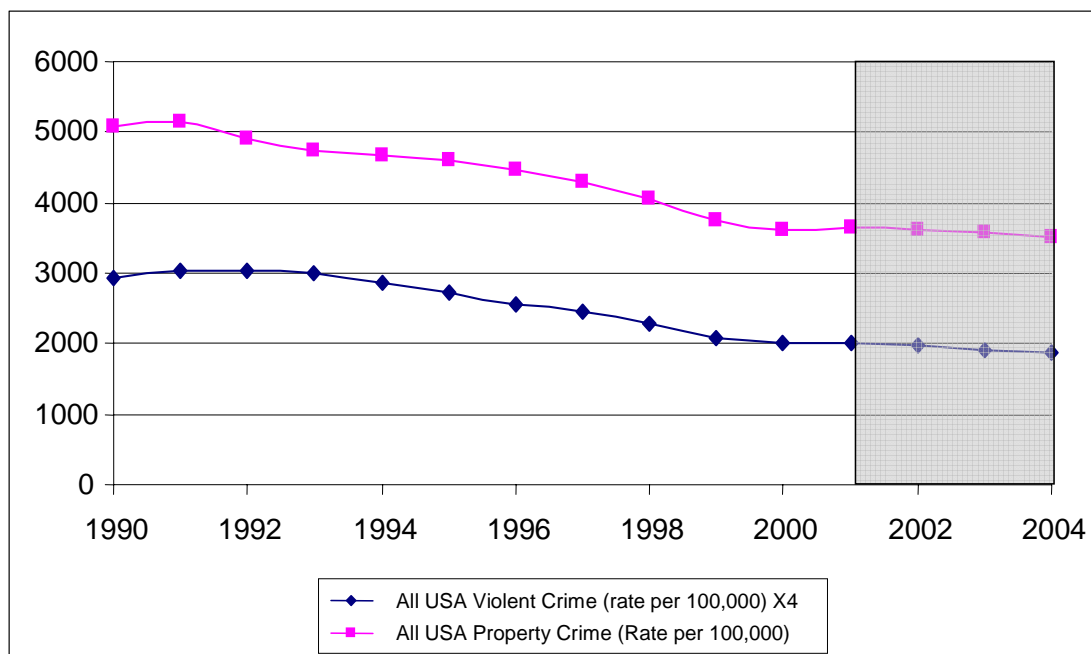
The UCLA analysis of overall monthly crime trends in the state was *not* designed to establish definitively whether SACPA caused any change in those trends. Rather, it was an initial examination of potential effects with several limitations. First, at the time of this analysis, monthly data were only available for the initial 18 months after implementation of SACPA. A longer follow-up period is needed before any short-term fluctuation in crime (between July 2001 and December 2002) can be viewed in a longer-term context. Second, causal claims are difficult to justify in any analysis of crime trends as so many influences are at work. Explanations for the crime drop in the 1990's remain controversial and are only partially understood despite considerable attention from criminologists (e.g., Blumstein & Wallman, 2000; Travis & Waul, 2002; Zimring et al., 2001). Accordingly, the goal of the crime trend analysis was to answer a non-causal question: Was there any change in pre-existing crime trends after SACPA implementation in July 2001?

Crime Trends

The 1990s and early 2000s saw a nationwide decline in crime, especially violent crime. Data from the FBI Uniform Crime Reports show that the violent crime rate per 100,000 people fell by 36% and the property crime rate fell by 30% between 1990 and 2004 (see Figure 5.1). Within property crimes, the number of larceny-theft crimes per 100,000

people declined by 26%, burglaries by 41%, and vehicle theft by 36% between 1990 and 2004. Within violent crimes, robberies declined by 47%, aggravated assault by 31%, and murder-manslaughter by 41%. Overall, the index crime rate dropped by 32% during that time span. More recently, however, national crime trends have leveled off and in some cases have increased in some localities. Preliminary data are available from the FBI Uniform Crime Reports for the first six months of 2005. These data show slight increases in murder-manslaughter (up 2.1% from 2004 to 2005) and robbery (up 0.6% from 2004 to 2005)²⁰.

Figure 5.1
U.S. Property and Violent Crime Trends 1990 – 2004
(Crime Rate per 100,000)



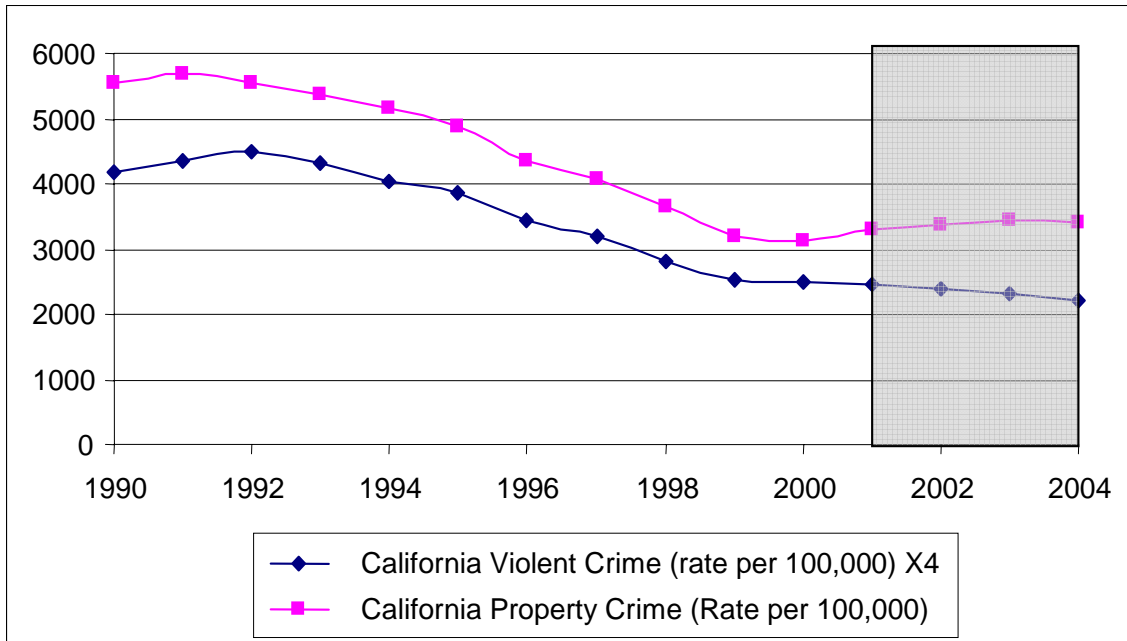
Notes: Data are from the FBI Uniform Crime Reports as prepared by the National Archive of Criminal Justice Data. *Violent Crime rate is multiplied by 4 to show trends on the same scale.* The shaded square indicates the SACPA-era. SACPA was implemented on the fiscal year (July 2001) whereas crime trends are reported on the calendar year.

Crime in California mirrored nationwide declines during the 1990s. The violent crime rate per 100,000 fell 47% between 1990 and 2004 and the property crime rate fell by 39% (see Figure 5.2.). Between 2001 (the year SACPA was implemented) and 2004, violent crime has fallen an additional 11% (nationally, violent crime fell by 8% over the same period) but there has been an 8% increase in property crimes, mostly due to an increase in motor-vehicle thefts (nationally, property crime fell by 4% over the same period). Within

²⁰ FBI preliminary crime statistics for 2005 can be found at <http://www.fbi.gov/pressrel/pressrel06/prelim2005061206.htm>.

violent crimes, robberies declined by 8%, aggravated assault declined by 13%, and murder-manslaughter by 41%. Within property crimes, the number of larceny-theft crimes per 100,000 people has not changed, burglaries increased by 1% and vehicle theft by 19%²¹.

Figure 5.2
California Property and Violent Crime Trends 1990 – 2004
Crime Rate per 100,000)



Notes: Data is from the FBI Uniform Crime Reports as prepared by the National Archive of Criminal Justice Data. *Violent Crime rate is multiplied by 4 to show trends on the same scale.* The shaded square indicates the SACPA-era. SACPA was implemented on the fiscal year (July 2001) whereas crime trends are reported on the calendar year.

National and state trends in crime—particularly the recent slowing, and for certain crimes, reversal of declines seen in the prior decade—provide a context for UCLA’s analysis of possible change in crime trends occurring with commencement of SACPA. Here UCLA relies on monthly offense data. For all crime types, the analysis determined whether any change in pre-existing trends occurred after SACPA implementation in July 2001. Trends were examined from January 1990 through December 2002, the most recent month for which monthly data were available at the time of this analysis.

²¹ California has seen a stark increase in motor-vehicle thefts. The California Attorney General’s Office recently released a report on the rise of the Russian mafia in California notes that California has become a major target for auto thieves operating within Eurasian Organized Crime groups. See report from the California Attorney General’s office titled: “Organized Crime in California Annual Report to the California Legislature 2004” http://ag.ca.gov/publications/org_crime2004.pdf

Monthly Offense data include all crimes known to law enforcement (the crime was reported), whether an arrest occurred or not. The analysis covered burglary, larceny-theft, theft from vehicle, simple assault, aggravated assault, robbery, forcible rape, child and spouse abuse, rape of an incapacitated victim (a category including date rape), SACPA-eligible drug crime (possession of drugs, possession of drug use paraphernalia, and being under the influence), and drug sales. Offense data were available for all crimes except child and spouse abuse, rape of an incapacitated victim, SACPA-eligible crimes, and drug sales. For those crimes, the analysis relied on monthly arrest data (crimes for which an arrest was made).

Crime Types

To determine the types of crime to be examined, UCLA consulted ADP's Statewide Advisory Group (SAG) and Evaluation Advisory Group (EAG). Law enforcement representatives and social scientists with expertise in crime trend analysis also were consulted. These advisors identified a range of violent, property, and drug-related crimes for analysis and recommended analytic techniques best suited to the purpose of detecting change in the direction of crime trends.

Six violent crimes were selected: simple assault, aggravated assault, robbery, forcible rape, child and spouse abuse, and date rape (the analysis examined rape of an incapacitated victim, which includes date rape, for reasons specified in Appendix 5). Three property crimes were selected for analysis: burglary, larceny-theft, and theft from vehicle. Finally, two types of drug-related crime were selected: SACPA-eligible drug crimes and drug sales.

Research Methods

The primary indicator of crime trends in this analysis was the number of offenses. Offense data are a count of crimes known to law enforcement, whether an arrest occurred or not. All law enforcement agencies in California submit offense data to the Criminal Justice Statistics Center at the California Department of Justice (DOJ). UCLA obtained offense data for assault, aggravated assault, robbery, forcible rape, burglary, theft, and theft from vehicle.

A secondary indicator of crime trends, the number of arrests (crimes for which an arrest was made)²², provided a check for consistency of findings across multiple sources of criminal justice data. Because arrest data can be affected by law enforcement priorities and practices, it is difficult to distinguish how much of a trend is due to possible variation in the actual number of crimes committed and how much is due to possible variation in the likelihood of detection or in the exercise of discretion at the point of arrest (Blumstein, 2002). However, arrest data provide one measure of the criminal justice

²² These data are indicated in reports submitted by local law enforcement to the Criminal Justice Statistics Center

burden (arrests as well as subsequent investigations, prosecutions, and dispositions) resulting from detection of particular crime types. UCLA obtained arrest data relevant to child or spouse abuse, rape of an incapacitated victim, drug sales, and SACPA-eligible drug crimes.

Crime data (offenses or arrests) were adjusted to account for four factors widely used in the prediction of crime trends (Brown et al., 2004). The factors were: seasonality (the oscillation of crime trends across seasons of the year), the state unemployment rate, the proportion of the state's population who were men between 18 and 29 years old, and the nationwide trend in the same crime type (a proxy for additional, unknown factors that might be associated with state crime trends). By controlling for variation in crime trends associated with these factors, the analysis was able to examine the association between crime and SACPA implementation with greater sensitivity. Details on the scope of and techniques employed in this analysis appear in Appendix 5.

Findings

This section presents findings in three categories: violent crime, property crime, and drug-related crime. The text describes the pre-existing trend for each crime and indicates whether the trend fluctuated upward, downward, or remained the same after July 2001. Also cited are a *t*-statistic and *p*-value. The sign of the *t*-statistic can be used to identify trends that fluctuated upward (indicated by a positive sign) or downward (indicated by a negative sign) after July 2001. The *p*-value indicates whether the fluctuation, if any, was large enough and stable enough to constitute reliable evidence of significant change.

The accompanying figures (Figures 5.3 through 5.13) show the actual monthly number of crimes (bold solid line) over the entire period, starting in 1990 and ending in 2002. Also shown is the forecasted crime trend (white solid line) in the absence of SACPA (i.e., the trend projected for the period beginning in July 2001 on the basis of monthly data ending in June 2001). That period is shaded. Finally, a confidence interval marked by upper and lower bounds (two non-bold solid lines) is shown for each forecast. The confidence interval is analogous to the margin of error in public opinion polls. If the actual trend does not cross either bound, it can be concluded that any difference between forecasted crime and actual crime was not large enough and stable enough to constitute reliable evidence of change (the *p*-value for such a trend will exceed 0.05). If the actual crime line does cross either bound, the *p*-value will be equal to or less than 0.05, indicating that actual crime truly differed from the forecast, either by decreasing more than expected (crossing the lower bound) or increasing more than expected (crossing the upper bound).

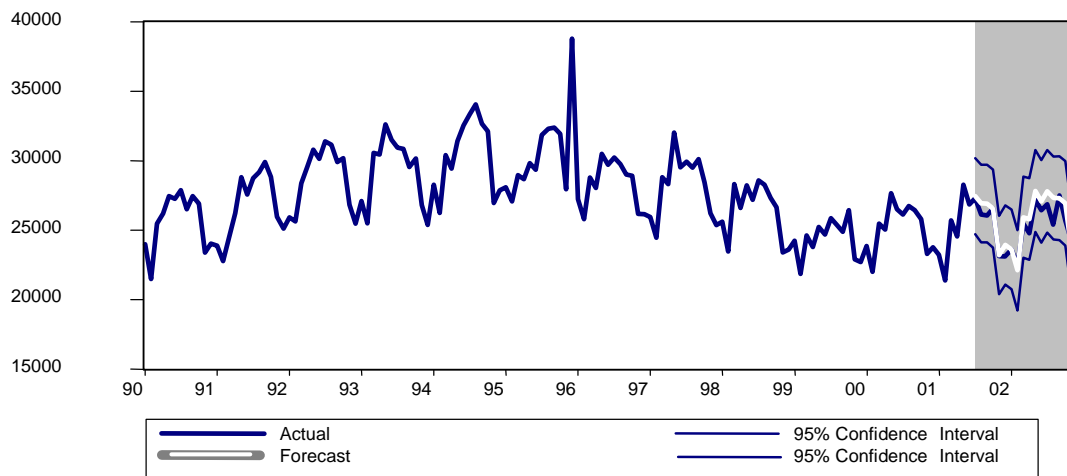
Crime trends are “spiky.” That is, increases and decreases in crime are frequent and very sharp in the short run. The figures show that spikiness, both to indicate how much variability exists in actual crime data over time and to remain as close to the data as possible. UCLA produced an alternate set of figures in which short-term variability in the data was “smoothed” in order to make long-term trends more apparent. The smoothing procedure reduced month-to-month spikiness by replacing each month's value

with an average value for that month. The average was calculated across successive nine-month intervals. Smoothed trends are provided in Appendix 5.

Violent Crime

The trend in simple assault is shown in Figure 5.3. Assault offenses rose in California during the early 1990's before beginning to decrease in 1996. In 1999 the decreasing trend leveled off. The sign of the t -statistic ($t = -0.38$) indicates that actual crime was slightly lower than the forecast after July 2001. But the difference was too small to suggest that real change had occurred ($p = 0.91$).

Figure 5.3
Simple Assault Offenses in California



The statewide trend in aggravated assault offenses is shown in Figure 5.4. Like simple assault, aggravated assault was elevated in the first part of the 1990s. A decline began in the mid 1990's before leveling off after 1999. The actual trend was slightly higher than the forecasted trend ($t = 0.63$), but the two trend lines ran in close parallel overall. The p -value confirmed the absence of reliable change in aggravated assault after July 2001 ($p = 0.68$).

The statewide robbery trend, shown in Figure 5.5, gradually declined in the 1990s. In 2000, robbery offenses began to increase slightly. That increase continued in 2002. The actual trend after July 2001 was lower than the forecast ($t = -1.57$), but this difference was not large enough to constitute reliable evidence of change ($p = 0.14$).

Figure 5.4
Aggravated Assault Offenses in California

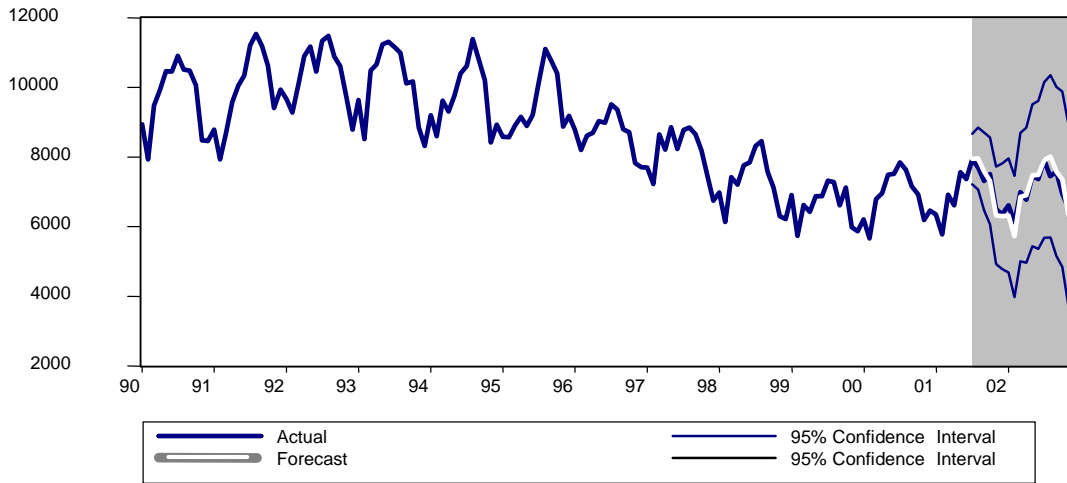
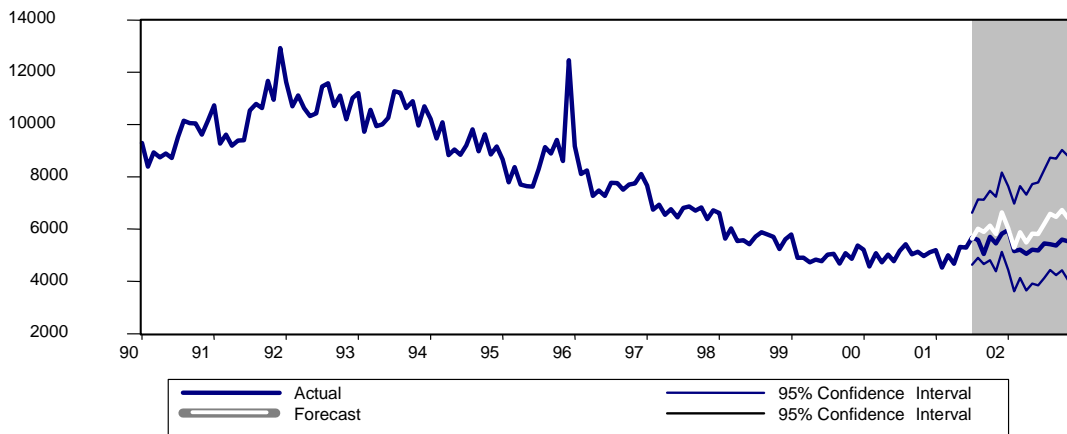


Figure 5.5
Robbery Offenses in California



Forcible rape offenses fluctuated throughout a period of overall decline in the 1990's and continued to fluctuate after July 2001, as shown in Figure 5.6. After July 2001, the actual trend line was higher than the forecasted trend in some months and lower than the forecast in other months. The t -statistic ($t = -0.26$) shows that actual crime after July 2001 was slightly lower than forecasted crime overall. This difference was too small to indicate that any actual change occurred ($p = 0.76$).

Fluctuation during a period of overall decline is apparent in arrests for rape of an incapacitated victim. Fluctuation persisted after July 2001, as shown in Figure 5.7. The actual trend was higher than the forecast ($t = 1.07$). But the difference was not large enough to constitute reliable evidence of change ($p = 0.14$).

Figure 5.6
Forcible Rape Offenses in California

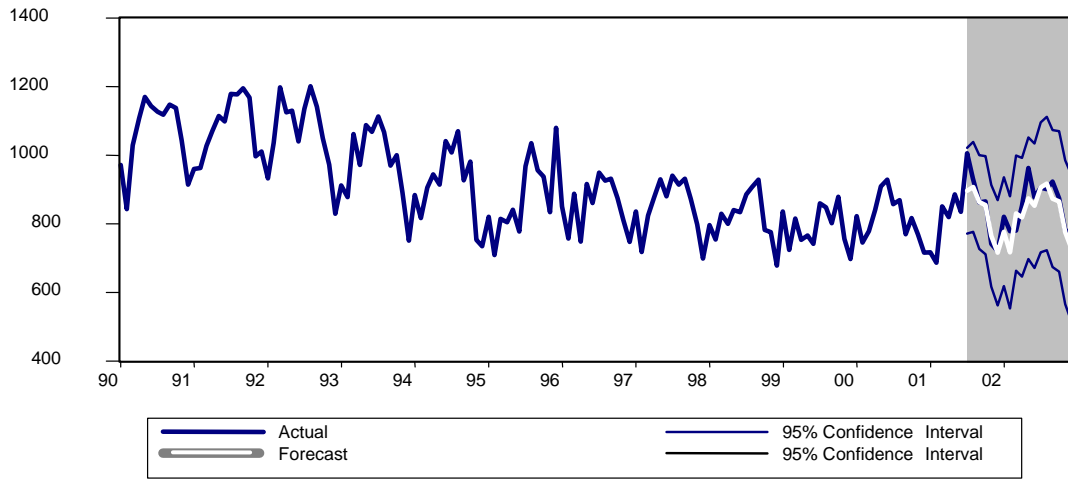
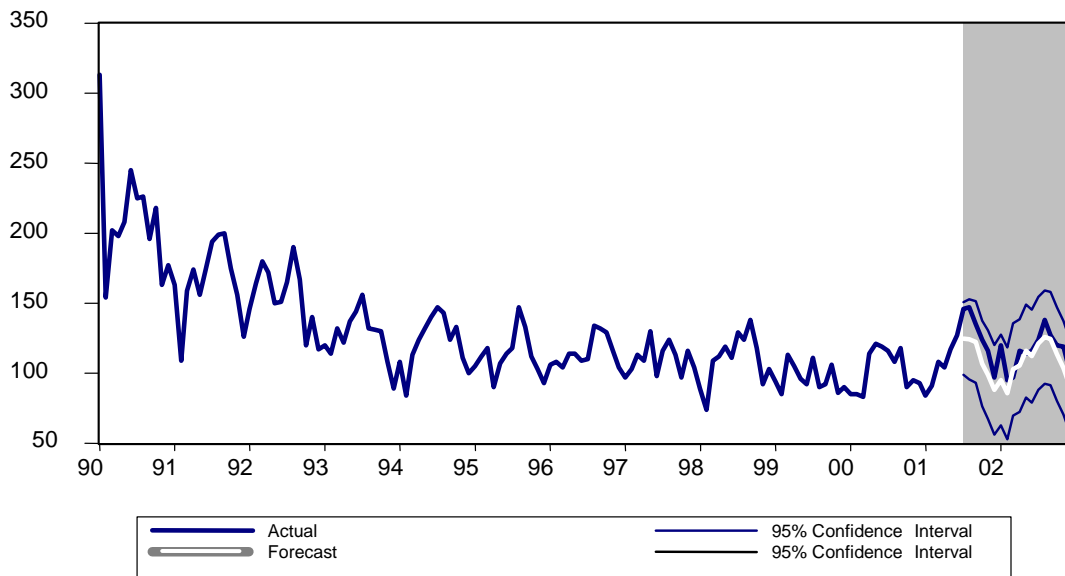


Figure 5.7
Rape of Incapacitated Victim Arrests in California



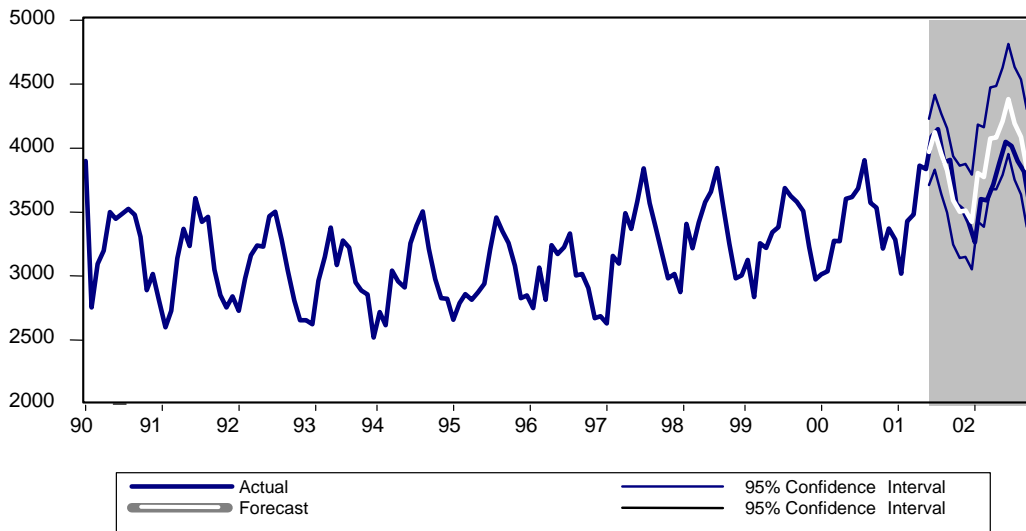
Because arrests for rape of an incapacitated victim did not provide a precise count of arrests for date rape, UCLA also examined Drug Abuse Warning Network (DAWN) data on club drug use (ketamine, rohypnol, and GHB) detected in patients visiting hospital emergency departments between January 1998 and December 2002. DAWN does not indicate whether patients took the drug knowingly or were victims of date rape. But DAWN can be used to detect trends in overall use of drugs associated with date rape and is currently “the major source of indicator data on club drugs” in cities participating in the Community Epidemiology Work Group (National Institute on Drug Abuse, 2003,

page 45). Three California cities, Los Angeles, San Diego, and San Francisco, report to the DAWN system. The trend in “mentions” for each of these drugs fluctuated across the period and showed no consistent increase or decrease after July 2001 (Emergency Department Trends from DAWN: Final Estimates, 2002).

The number of mentions is generally low, perhaps in part because detection of club drugs in biospecimens is quite difficult (the “window period” for detection is only a few hours). Given the low number of mentions, however, further analysis of the DAWN data would not have produced reliable findings.

Arrests for child and spouse abuse were stable during most of the 1990s but began to increase in 1997. See Figure 5.8. After July 2001, abuse arrests were generally lower than forecast ($t = -0.50$). Again this difference was small enough to be attributed to random fluctuation. There was no reliable evidence of change in the abuse arrests after July 2001 ($p = 0.62$).

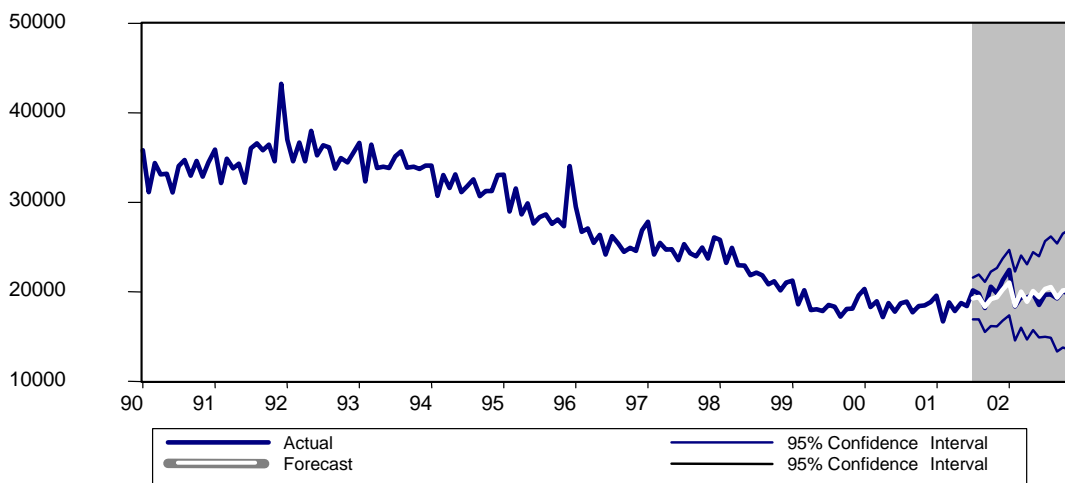
Figure 5.8
Child and Spouse Abuse Arrests in California



Property Crime

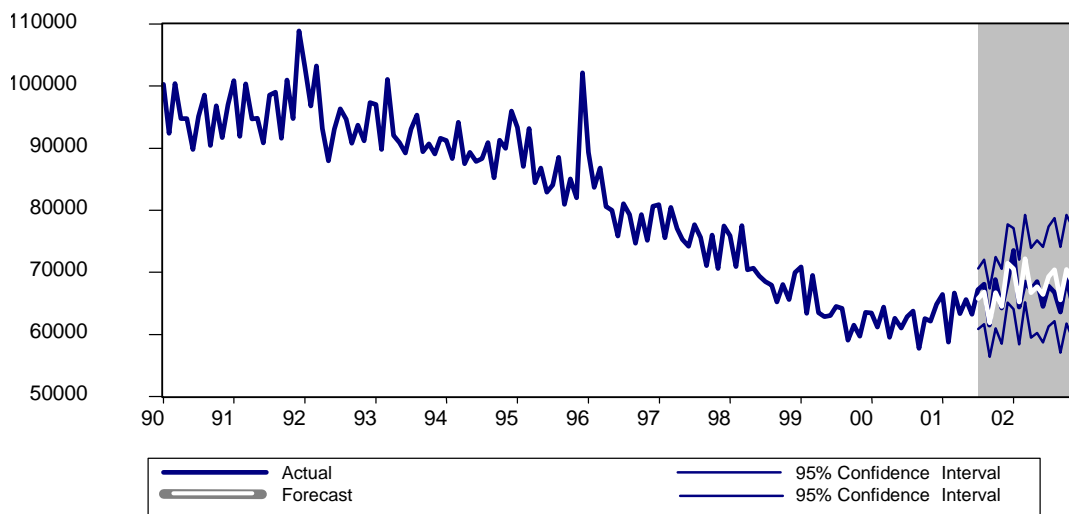
Findings for burglary offenses are shown in Figure 5.9. The statewide trend in burglary mirrors the sharp decline in overall crime seen throughout the nation during the 1990s. The trend leveled off in 1999 and increased slightly thereafter. After July 2001, actual crime was higher than forecast in some months and lower than forecast in other months. As indicated by the t -statistic ($t = -0.15$), actual crime after July 2001 was slightly lower than the forecast overall. But the difference was very small and can be attributed to random fluctuation. There was no reliable evidence of change in the trend after July 2001, as indicated by the p -value ($p = 0.60$).

Figure 5.9
Burglary Offenses in California



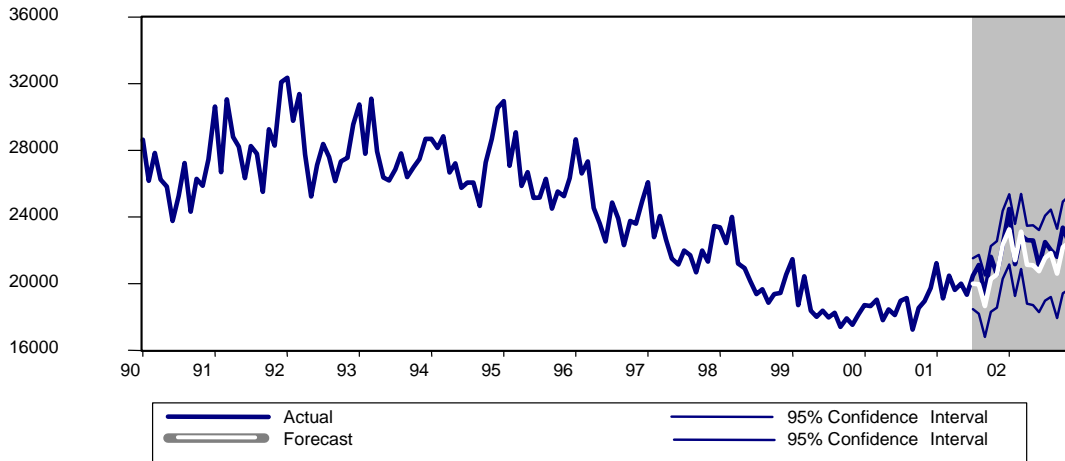
The trend for larceny-theft offenses, shown in Figure 5.10, resembles the burglary trend. There was a sharp drop in larceny-theft during the 1990's, but the trend reversed in 1999 and beyond. After July 2001, actual crime was higher than forecast in some months and lower than forecast in other months. As indicated by the t -statistic ($t = 0.07$), actual crime was slightly higher than the forecast overall. But again the difference was very small and can be attributed to random fluctuation. There was no reliable evidence of change after July 2001 ($p = 0.24$).

Figure 5.10
Larceny-Theft Offenses in California



Theft from vehicle offenses are shown in Figure 5.11. The statewide trend in theft from vehicle began a steady rise in 2000. After July 2001, actual crime was slightly lower than the forecast ($t = -0.29$). The difference was too small to constitute reliable evidence of change ($p = 0.77$).

Figure 5.11
Theft from Vehicle Offenses in California



Drug-Related Crime

Arrests for SACPA-eligible drug crimes (drug possession, possession of drug use paraphernalia, and being under the influence) decreased sharply in the early 1990's, increased in the middle of the decade, and began to decrease again in 1999 as shown in Figure 5.12. That decrease continued beyond July 2001, slightly higher than forecast in some months and lower in others. As indicated by the t -statistic ($t = 1.28$), actual drug-related crime after July 2001 was slightly higher than the forecast overall. The difference was very small and can be attributed to random fluctuation. There was no reliable evidence of change in the trend after July 2001 ($p = 0.21$).

Arrests for drug sales are shown in Figure 5.13. There was a gradual decrease in arrests across the entire period, and that trend continued after July 2001. The actual number of drug sale arrests was somewhat higher than forecast ($t = 1.86$). As was the case for all other crimes examined, the difference between actual and forecast was too small to constitute reliable evidence of change after July 2001 ($p = 0.07$).

Figure 5.12
SACPA-eligible Drug Crime Arrests in California

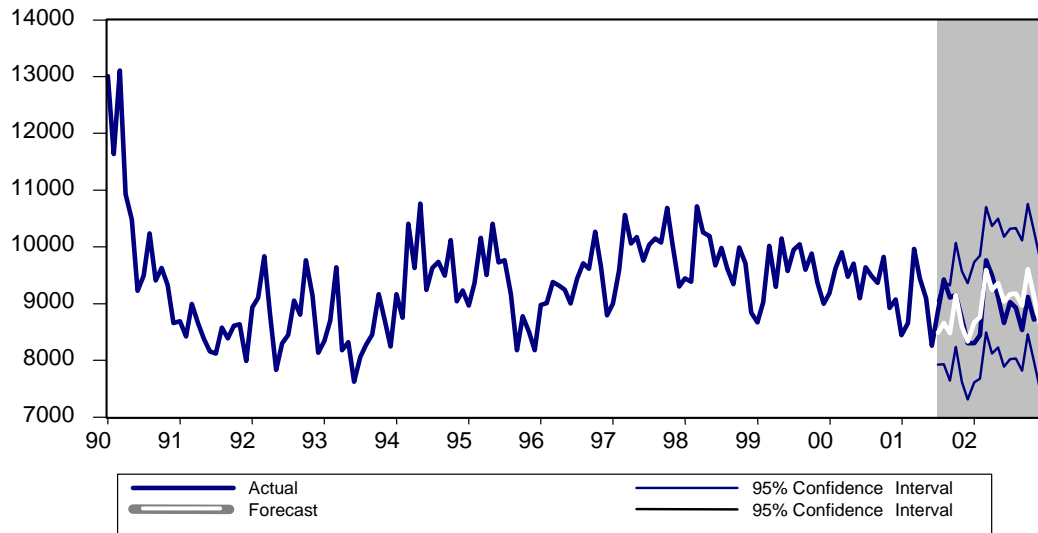
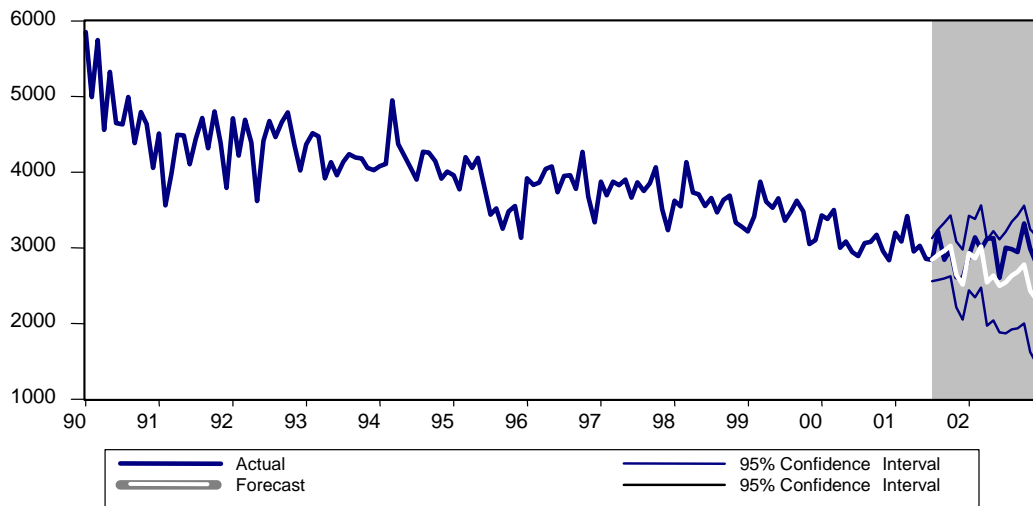


Figure 5.13
Drug Sales Arrests in California



Conclusion

This chapter describes changes in key criminal justice variables in California before and after SACPA implementation. The analysis covered the following crime types: burglary, larceny-theft, theft from vehicle, simple assault, aggravated assault, robbery, forcible rape, child and spouse abuse, rape of an incapacitated victim (a category including date rape), SACPA-eligible drug crime (possession of drugs, possession of drug use paraphernalia, and being under the influence), and drug sales.

January 1990 through December 2002 was the time period covered. Data were adjusted to account for factors widely used in the prediction of crime trends: seasonality, the state unemployment rate, the proportion of the state's population who were men between 18 and 29 years old, and the nationwide trend in the same crime types.

For two reasons, the crime trend analysis was *not* designed to establish whether SACPA did or did not cause any change in crime trends. First, monthly data available at the time of analysis span only 1.5 years after implementation of SACPA. More time must pass before short-term fluctuations in crime can be viewed in a longer-term context. Second, causal claims are difficult to sustain in any analysis of crime trends because so many influences are at work. Accordingly, the analysis answered a descriptive, non-causal question: Was there any change in pre-existing crime trends after SACPA implementation in July 2001? Some trends fluctuated slightly, upward or downward, but there was no reliable evidence of significant change in the crime trends analyzed.

Chapter 6: Treatment Differences

Angela Hawken, Ph.D., M. Douglas Anglin, Ph.D., and Bradley T. Conner, Ph.D.

UCLA analyzed treatment placement among SACPA and non-SACPA criminal justice treatment referrals. SACPA resulted in a large increase in admissions to the California drug treatment system. New treatment admissions with criminal justice referrals doubled following SACPA implementation. The results of our analysis indicated that placement rates into residential care were lower for SACPA referrals than for non-SACPA criminal justice referrals. The analysis indicated that the treatment system appears to be making best use of treatment resources by rationing residential slots for those most in need of residential treatment. But compared with non-SACPA criminal justice referrals, heavy-using SACPA referrals were being under-treated, and that under-treatment was worse for young Hispanic offenders. Young Hispanic males were less likely to be placed into long-term residential treatment than White clients with similar drug use severity. However, this treatment difference diminished for older offenders. UCLA found no evidence of placement differences based on gender. The consequences of under-utilization of residential placement on treatment and criminal justice outcomes were most serious for heavy-using SACPA referrals who reported methamphetamine as their primary drug.

Among opiate users, UCLA found low rates of placement into NRT for SACPA referrals, compared with individuals self-referring to treatment, and other non-SACPA criminal justice referrals. The analysis showed that the limited use of NRT among opiate users had public safety implications as opiate-using SACPA referrals who were not placed in NRT had worse criminal justice outcomes than those who did.

SACPA implementation resulted in a large increase in the number of illicit drug users entering treatment within the California drug treatment system. This chapter details trends in treatment placement for illicit drug users referred to treatment through the criminal justice system, and assesses whether SACPA referrals are less likely to be placed into long-term residential treatment and NRT compared with non-SACPA criminal justice referrals. Patterns of treatment differences for SACPA referrals compared with non-SACPA referrals are also discussed. This discussion focuses on placement differences by race/ethnicity, sex, and primary drug, among heavy-using referrals²³. Controlling for demographics and drug-use patterns, the analysis indicated that placement rates into long-term residential treatment were lower for SACPA referrals than for non-SACPA criminal justice referrals. Young Hispanic males were least likely to receive a long-term residential placement. UCLA found no evidence of placement differences based on gender.

²³ Heavy use here is defined as daily use of an illicit drug.

UCLA examined the placement of criminal justice offenders seeking drug treatment into long-term residential treatment and outpatient drug-free facilities based on drug use patterns, taking into account factors that may have influenced the placement decision. To determine whether treatment differences were of consequence, differences in treatment outcomes for SACPA offenders were examined. UCLA compared drug treatment outcomes by modality, as well as differences in criminal justice outcomes (felony and misdemeanor arrests) 30 months following their entry into SACPA. For the subset of SACPA referrals reporting opiates as their primary drug, UCLA analyzed placement into NRT. UCLA studied disparities in placement in NRT based on offender characteristics, and estimated differences in treatment and criminal justice outcomes based on whether the referral was assigned to NRT.

Treatment differences under SACPA

The success of SACPA as a crime prevention and public health strategy depends in large part on the appropriate treatment of the various types of drug offenders it covers. In this regard, appropriate treatment placement of SACPA referrals is a concern, as treatment is more likely to succeed if drug users are matched with services according to the severity of their drug use and related problems. Research has shown, for example, that the treatment setting and type of program a drug treatment client is *initially* placed into makes a significant difference in the duration of treatment and outcomes (McLellan, 2003). Other research shows that matching referrals to the appropriate level of care can lead to lower treatment costs, due to the longer treatment duration or repeated treatment episodes needed by mismatched clients to achieve desirable outcomes, (Sharon et al., 2003).

UCLA observed two major types of treatment differences under SACPA: placement into long-term residential treatment and placement into NRT. While there is no clear evidence that treatment modality (residential versus outpatient) matters for the typical client, research has shown that those with higher drug use severity, less social support, or psychiatric comorbidity do better in residential rather than outpatient treatment (Gastfriend & McLellan, 1997; Magura et al., 2003; McLellan et al., 1983; Miller & Hester, 1986; Rychtarik et al., 2000). These types of clients, when provided a lower level of care than their condition required, had significantly higher dropout rates and poorer outcomes (Gastfriend, 2003).

Despite evidence of the benefits of long-term residential treatment for heavy-using clients and despite SACPA-linked funding, the financially strained treatment system has adopted what can best be described as an “outpatient-first” approach to drug treatment. Clients must perform poorly in outpatient drug-free treatment before they can be considered for residential treatment. This is typical of treatment systems across the country (McLellan, 2003). This practice is likely due to the higher cost of residential treatment compared to outpatient drug-free treatment, limited capacity for residential treatment in many localities, and the difficulties for capacity expansion due to such issues as zoning and local community resistance. This increasing reliance on outpatient drug-free treatment,

especially under SACPA policies that caused a sharp increase in users receiving treatment, hinders outcomes for heavy using clients.

In a 1998 consensus statement, the National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction supported maintenance pharmacotherapy (NRT) for heroin dependence, as well as increased medicalization of treatment for opiate dependence. Many studies have documented the safety, efficacy, and effectiveness of NRT as a treatment for heroin dependence (for reviews see Mattick et al., 2003 and Amato et al., 2005). Nonetheless, fewer than 14% of SACPA-referred opiate users received NRT, compared with about 84% of non-criminal justice opiate users receiving publicly funded treatment.

Many factors may influence the treatment differences UCLA observed, such as differences in treatment modalities available across locations and differences in client treatment placement preferences. UCLA did not examine the root causes of the underlying race/ethnic differences identified.

Data and Methods

Data used to describe treatment trends in California are taken from CADDSS, which contains admission and discharge records of all clients admitted to publicly funded alcohol and drug programs or to private state-licensed methadone programs. It includes data on client treatment placements, prior treatment episodes, and other treatment and client characteristics. CADDSS includes data on demographics, drug-use history, duration of treatment, treatment mode, legal status, and source of client referral. The outcomes analysis of placement by modality includes an analysis of criminal justice outcomes. Data on criminal recidivism are from the DOJ.

The data on drug-problem severity in CADDSS are insufficient to support a formal determination of need for long-term residential treatment. Frequency of use of an illicit drug is used as a proxy for drug use severity. Through SACPA-era placement versus pre-SACPA-era placement comparison studies, UCLA is able to determine whether criminal justice-referred clients in the SACPA-era differed in likelihood of being placed into different treatment modalities. A lower prevalence of residential placement among heavy-using SACPA-era referrals may suggest lower levels of treatment in the SACPA era due to limited resources for more appropriate placement given treatment needs. UCLA is then able to distinguish how placement patterns differ across client demographics.

Monthly Trend Analysis

UCLA takes advantage of the large number of observations in CADDSS to describe changes in treatment episodes and placement over time, bracketing the implementation of SACPA. Data on treatment admissions from January 1995 through June 2005 are studied; that is, 78 months preceding and 49 months following SACPA implementation. The analysis focuses on treatment admissions for heavy users of illicit drugs and includes

648,621 self-referrals, 119,586 non-SACPA criminal justice referrals, and 50,778 SACPA referrals over the period. The individual-level data were aggregated to generate monthly admission statistics to describe placement trends before and after implementation.

Individual-Level Analysis

To determine whether treatment disparities exist along demographic dimensions (in particular race/ethnicity and sex) UCLA estimated logistic models of treatment placement for SACPA referrals controlling for other factors affecting treatment placement²⁴. UCLA included controls for primary drug, frequency of use, labor-force status at time of treatment admission, number of years of education, age at first use, whether the offender had ever been diagnosed with a chronic mental illness, and whether the offender was homeless. The first individual-level analysis modeled placement into long-term residential treatment for three groups: SACPA-referrals, non-SACPA criminal justice referrals, and self-referrals. The second set of models examined entry into NRT; here the sample is limited to those SACPA-referred treatment admissions where opiates were reported as the primary drug. To estimate the effect of treatment placement on outcomes UCLA used individual-level data for SACPA referrals and estimated logistic regressions to model the effect of treatment placement on treatment completion, and negative binomial models to model the effect of treatment placement on criminal recidivism.

Treatment Admission

Two types of treatment placement under SACPA are reported: long-term residential treatment and NRT. UCLA provides data on placement trends before and after SACPA implementation and on treatment differences in client placement during the SACPA era.

Placement Trends

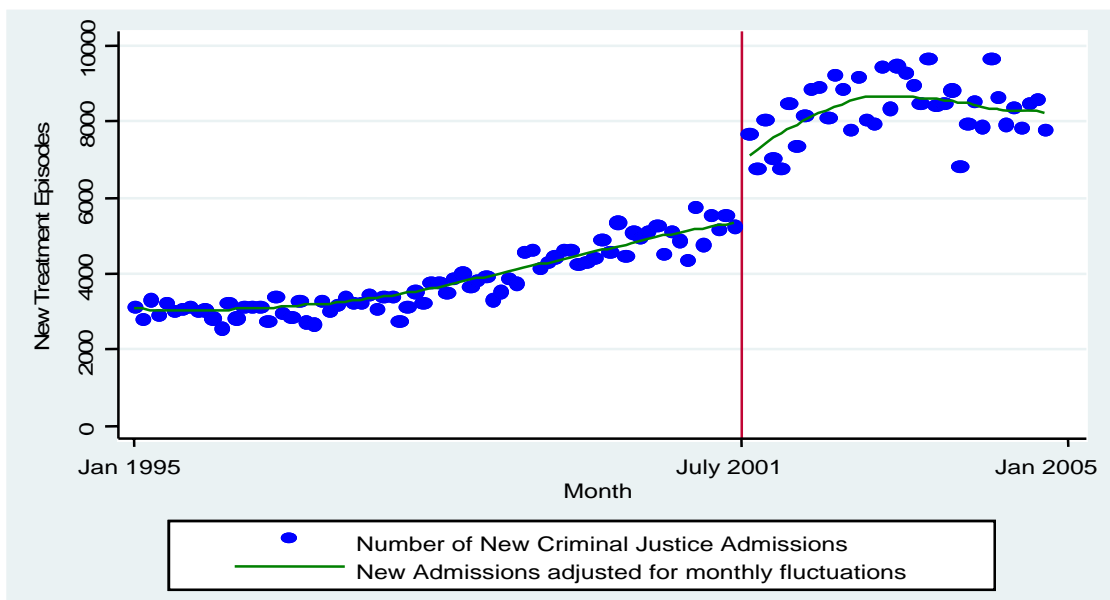
With 40,000 new referrals presenting for treatment each year, SACPA was a significant shock to the California drug-treatment system. Using 1995-2005 treatment admissions data from CADDSS, UCLA assessed the impact of SACPA on the treatment system, and determined whether clients referred to treatment through SACPA are less likely to be placed into long-term residential treatment and NRT than similar clients who enter treatment under non-SACPA criminal justice referrals or self-referrals. Several changes in the profile of drug abuse treatment referrals followed SACPA. As expected, many more clients report the courts or criminal justice system as their primary referral source after SACPA implementation (41% vs. 24%).

There were significant changes to treatment and client-composition trends in California after SACPA. Figure 6.1 shows the large increases in the number of new treatment admissions after SACPA implementation and Figure 6.2 shows the increase in the number of heavy users referred to treatment through the criminal justice system. The

²⁴This is a form of regression which is used when the dependent is a dichotomous.

average number of new criminal justice-referred treatment admissions per month for heavy users more than doubled after SACPA implementation from an average of 1,280 new episodes per month during the three years before SACPA to 2,572 afterwards. Figures 6.1 and 6.2 show that both the number of admissions and the monthly variation in treatment admissions increased after SACPA implementation. The analysis shows significant changes to treatment and client-composition trends in California after SACPA was enacted. These changes are of significance as the severity of addiction in new treatment clients in California affects treatment resource requirements.

Figure 6.1
Treatment Admissions of Criminal Justice Referrals

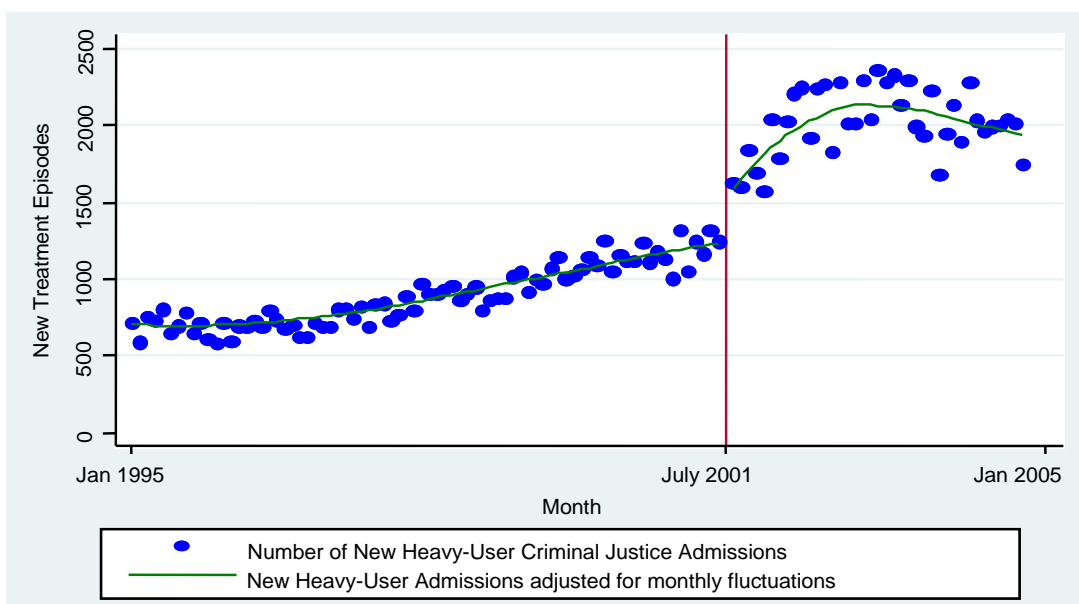


Notes: Data are from the California Alcohol and Drug Data System (CADDSS). Treatment admissions are aggregated to monthly admissions. Heavy illicit drug use is defined here as daily use of an illicit drug. The vertical line indicates the month of SACPA implementation July, 2001). The solid lines passing through the monthly scatter represent a technique used to smooth monthly fluctuations for pre-SACPA and post-SACPA periods.²⁵

UCLA studied trends among all criminal justice referrals who were placed into long-term residential treatment, for the full population and for the subset of referrals considered to be heavy users. While the absolute number of available long-term residential placement slots increased after SACPA implementation, the treatment system was unable to keep pace with the increase in demand.

²⁵ Specifically, UCLA used Locally Weighted Least Squares (LOWESS), a weighted time-series smoothing technique used for the analysis of time-series data that exhibits significant fluctuations from one period to the next.

Figure 6.2
Treatment Admissions for Heavy User Criminal Justice Referrals



Notes: Data are from CADDIS. The vertical line indicates the date of SACPA implementation. The solid lines passing through the monthly scatter represents a technique used to smooth monthly fluctuations for the pre-SACPA and post-SACPA periods.

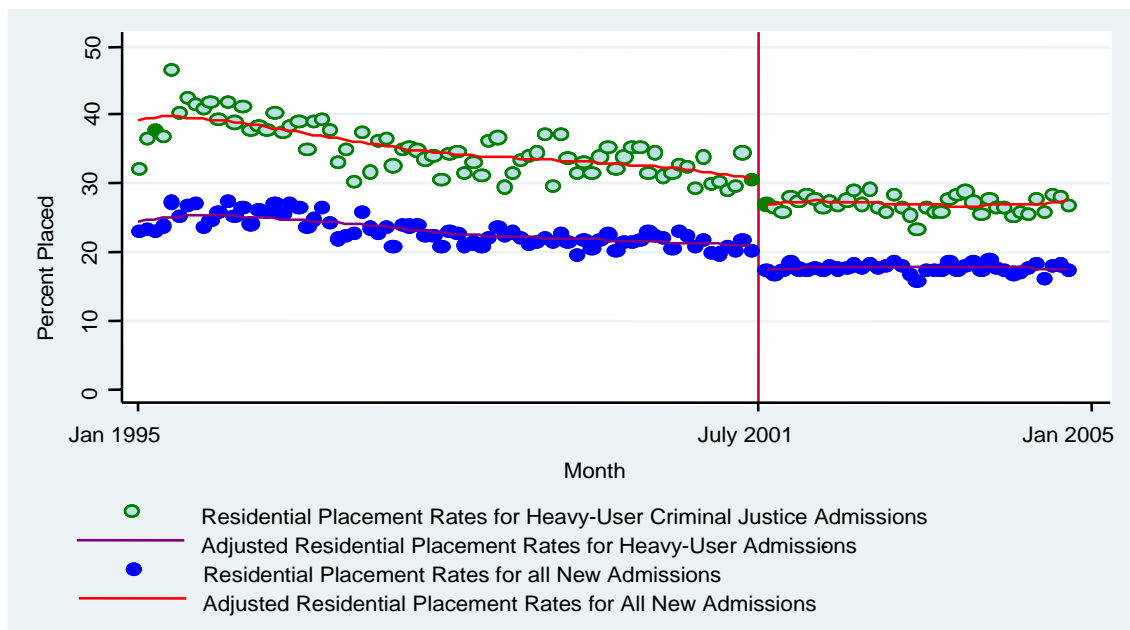
Figure 6.3 shows the percentage of referrals entering long-term residential programs and residential placement rates for heavy users. The percentage of heavy users who were placed in long-term residential programs declined significantly following SACPA (31% of heavy users were allocated to long-term residential treatment before SACPA, compared with 25% afterwards)²⁶. In an effort to make best use of limited residential treatment resources, the treatment system does appear to be rationing slots to those most in need. Figure 6.3 shows that heavy-using SACPA referrals are much more likely to receive long-term residential treatment than those SACPA referrals entering treatment with lower drug use severity.

Treatment Differences

To determine how treatment resources were allocated among SACPA referrals, UCLA studied patterns of treatment disparities for SACPA referrals compared with non-SACPA treatment referrals and self-referrals. The analysis focused primarily on placement disparities by race/ethnicity, sex, and primary drug among heavy users. To determine

²⁶ Placement rates into residential treatment remained constant for heavy-using non-SACPA criminal justice referrals at 31% for each of the first three years following SACPA implementation. Among SACPA heavy-using offenders, placement rates into residential treatment rose consistently for each year following implementation (21% during SACPA’s first year, 22% during the second year, and 24% during SACPA’s third year).

Figure 6.3
Placement of All Criminal Justice Referred Clients into Long Term Residential Treatment, by Severity of Drug Use at Admission



Notes: Data are from the CADDSS. Treatment admissions are aggregated to monthly admissions. Long-term residential treatment is defined as 31 days or more of long-term residential treatment. The vertical line indicates the date of SACPA implementation. The solid lines passing through the monthly scatter represents a technique used to smooth monthly fluctuations for the pre-SACPA and post-SACPA eras.

whether placement differences are of consequence to offender outcomes, a multivariate analysis estimated differences in offender outcomes based on treatment placement. Differences in treatment completion and criminal recidivism based on treatment placement are described.

Long-Term Residential Treatment

Controlling for demographics and drug use patterns, placement rates into long-term residential treatment were significantly lower for SACPA referrals than for non-SACPA criminal justice referrals. Heavy-using SACPA referrals were less likely to be placed into residential treatment than non-SACPA criminal justice referrals ($p = 0.000$). 31% of heavy-using non-SACPA criminal justice referrals were placed into long-term residential treatment compared to 22% of SACPA referrals. Heavy-using self-referrals have lower rates of placement (19%) into long-term residential treatment than criminal justice referrals. The majority of heavy-using self-referrals (54%) are admitted to outpatient detoxification treatment. Detoxification treatment is much less common among criminal justice referrals, accounting for only 2% of admissions.

Among criminal justice referrals, heavy-using SACPA referrals are less likely to receive residential treatment compared with non-SACPA criminal justice referrals of similar severity. UCLA then studied the characteristics of referrals placed into these residential treatment slots. Young Hispanic males referred to treatment through SACPA were less likely to be placed into long-term residential treatment than similar drug-severity White males, even after controlling for factors related to treatment placement (these included age, primary drug, frequency of use, age at first use, education, labor force participation status on entry into treatment, and homelessness). Among young men, SACPA referrals had larger treatment disparities for Hispanics than did non-SACPA criminal justice referrals and self-referrals. Young Hispanic males referred through SACPA were only two-thirds as likely to receive a residential treatment slot as similar young White males²⁷. The difference between rates of residential placement for male Hispanic and White non-SACPA criminal justice referrals was not statistically significant²⁸. Self-referred Hispanic males were less likely to be placed into residential treatment but the magnitude of the treatment difference by ethnicity was smaller than for SACPA clients²⁹. This treatment placement disparity observed among SACPA referrals diminished for older offenders. There was no meaningful difference in the likelihood of receiving a residential treatment placement across race/ethnicity for clients over 35 years. Among SACPA referrals, African-American offenders were slightly less likely to enter residential treatment than White offenders but the difference was not statistically significant. UCLA found no placement differences based on gender.

To test whether placement differences across race/ethnicity was of consequence, UCLA examined differences in treatment outcomes for SACPA offenders. UCLA compared drug treatment outcomes by modality, as well as differences in criminal justice outcomes (felony and misdemeanor arrests), for the 30 months following their entry into SACPA.

Under SACPA, treatment completion is a marker of a client's progress in treatment, but, distinct from the benefits of treatment itself; it is also a marker of an offender's progress towards meeting the requirements of SACPA probation/parole. This is integral to an offender's successful participation in the SACPA program. Among heavy-using SACPA clients UCLA found that, across all of the primary drugs, those who received a residential treatment placement were significantly more likely to have a successful treatment discharge (and therefore be in compliance with the terms of their SACPA probation) than those who received outpatient drug-free treatment³⁰. Large, statistically significant

²⁷ There was no statistically significant difference between rates of residential treatment placement for male Hispanic and White non-SACPA criminal justice clients (odds ratio = 0.98). Self-referred male Hispanic clients were less likely to be placed into residential treatment but the magnitude of the disparity was smaller than for SACPA clients (odds ratio of 0.68 for SACPA offenders versus 0.74 for self-referrals).

²⁸ Odds ratio = 0.98

²⁹ Odds ratio of 0.68 for SACPA referrals versus 0.74 for self-referrals.

³⁰ Logistic regressions were estimated by primary drug. Treatment completion was statistically significantly greater ($p < 0.001$) among those placed into residential treatment across each primary drug.

treatment completion differences were found for heavy-using clients placed into long-term residential treatment compared with those assigned to an outpatient drug-free program. 40% of heavy-using SACPA referrals admitted to residential treatment completed treatment compared to 19% for those who were admitted to non-residential care.

Heavy-using SACPA referrals who were placed in long-term residential treatment also performed significantly better on criminal justice outcomes. UCLA compared criminal justice outcomes for heavy users receiving residential treatment placements compared with those placed into outpatient drug-free treatment, by primary drug after controlling for race/ethnicity, age, and prior arrests³¹. The analyses revealed significant differences in 30-month follow-up recidivism for heavy users entering residential treatment who reported methamphetamine as their primary drug compared with those who were placed into outpatient drug-free treatment³². SACPA clients reporting daily use of methamphetamine on entry into treatment who received residential treatment had 18% fewer felony arrests and 17% fewer misdemeanor arrests than similar individuals placed into outpatient drug-free treatment. Misdemeanor arrests were lower for clients entering treatment with cocaine/crack and marijuana as their primary drug (8% and 15% respectively) and who received residential treatment compared with those who did not, but these differences were not statistically significant. The UCLA finding that the effect of treatment placement (residential or outpatient) on criminal justice outcomes was most dramatic for SACPA offenders reporting methamphetamine as their primary drug suggests that prioritizing expanded use of residential treatment for heavy-using methamphetamine users may be warranted.

In sum, significant treatment differences were found for young Hispanic males even after controlling for factors related to treatment placement. Treatment differences by race/ethnicity decline with age, with no meaningful differences in residential treatment placement probabilities across race/ethnicity for clients over 35 years of age. UCLA found no significant residential treatment placement differences for African-Americans and no significant differences by gender. Among heavy-using SACPA referrals there were significant differences in offender outcomes for those placed into long-term residential treatment compared with those assigned to outpatient drug-free treatment. In particular, SACPA referrals entering residential treatment who had been heavy users of methamphetamine had significantly fewer arrests (both felony and misdemeanor) during the 30-month follow-up period compared with methamphetamine users placed into outpatient drug-free treatment. Significant differences in treatment completion were

³¹ Incident Rate Ratios were estimated to determine differences in arrests based on treatment placement. The IRRs were estimated from a negative binomial regression. The negative binomial model is frequently used to estimate models where the dependent variable represents count data (e.g., number of arrests) and where the variable is “over-dispersed”, meaning there are many offenders with zero arrests and therefore a spike in the data distribution of arrest counts at zero.

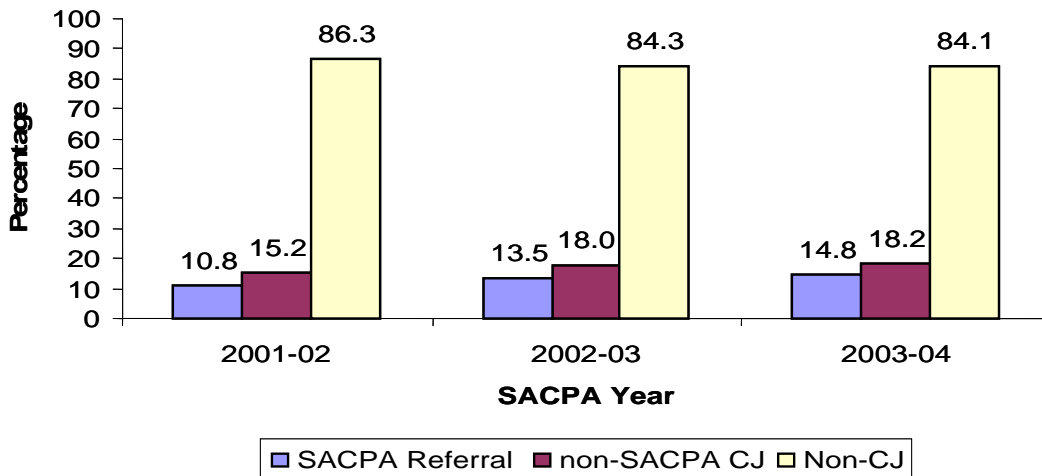
³² Differences were statistically significant ($p = 0.000$).

found for heavy users of each of the primary drugs across modalities. Heavy users placed into residential treatment were significantly more likely to have a successful treatment discharge, and, therefore, significantly more likely to comply with the terms of their SACPA probation requirements.

Narcotic Replacement Therapy for Opiate Users

UCLA analyzed placement into NRT for SACPA referrals reporting opiates as their primary drug. The analysis assessed differences in placement into NRT based on offender characteristics, and estimated differences in treatment and criminal justice outcomes based on whether the offender was assigned to NRT. Although NRT is considered the standard of care for opiate addicts, UCLA found very low rates of NRT placement for SACPA and non-SACPA criminal justice referrals. 14% of SACPA referrals who report opiates as their primary drug receive NRT, compared with 84% of opiate users seeking treatment outside of the criminal justice system; the SACPA rate is similar to the 17% NRT placement rate for non-SACPA criminal justice referrals. Figure 6.4 shows the percentage of opiate-using criminal justice referrals compared with self-referrals receiving NRT during the first three years following SACPA implementation. Although placement into NRT for criminal justice referrals falls well short of placement rates for self-referrals, some year-to-year improvement was observed. NRT placement rates among SACPA opiate-using referrals increased slightly from 11% in the first year to 15% in the third year. For non-SACPA criminal justice referrals placement rates increased from 15% to 18% between year one and year three.

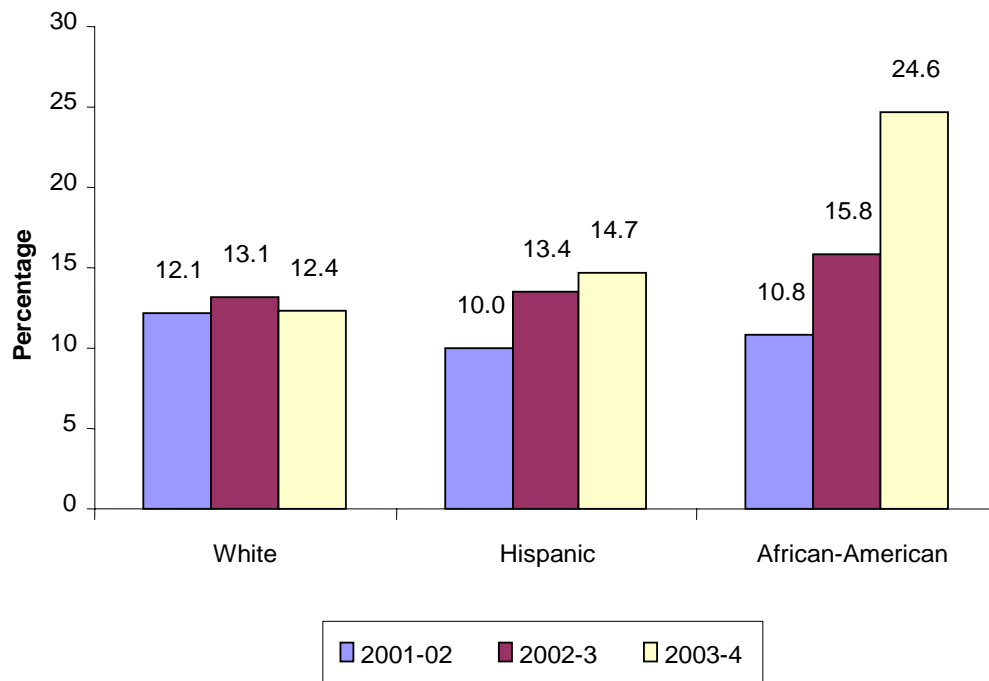
Figure 6.4
Percentage of Opiate-Using Clients Who Receive Narcotic Replacement Therapy, by Year following SACPA Implementation and Source of Referral (SACPA, non-SACPA Criminal Justice, and non-Criminal Justice)



Notes: Data are from CADDs and include all treatment admissions for non-SACPA criminal-justice referrals, and SACPA-probation or parole referrals from July 1, 2001 to June 30, 2004.

In the first three years of SACPA, the percentage of opiate-using SACPA NRT clients increased steadily for Hispanics and African-Americans (see Figure 6.5). The largest expansion of NRT was for African-American clients, from 10.8% during the first year to 24.6%. Among Hispanic clients, NRT rose from 10% in the first year, to 15% in the third year. For White SACPA clients, rates of NRT were essentially stable at 12%.

Figure 6.5
Race/Ethnicity Differences in SACPA Opiate-User Clients who Receive Narcotic Replacement Therapy



Notes: Data are from CADDs and include all treatment admissions for non-SACPA criminal-justice referrals, and SACPA-probation or parole referrals from July 1, 2001 until June 30, 2004.

UCLA performed a multivariate analysis to estimate NRT placement differences after controlling for factors related to treatment placement. All SACPA-referred treatment episodes during SACPA’s first three years where opiates were reported as the primary drug problem were included in these analyses³³. NRT placement among SACPA referrals was low across the board, but after controlling for other factors, young (under 25 years old) African-American clients were less likely to receive NRT. This difference is not

³³ The multivariate analysis controls for age, age at first use, frequency of use, whether the offender has ever been diagnosed with a chronic mental illness, education, whether the offender was homeless, and labor force participation were all controlled.

present among offenders over 25 years old. African-American opiate-using SACPA referrals are on average *more* likely to receive NRT. It was only the young African-American males who were less likely to receive NRT. Female opiate-using SACPA referrals were more likely to receive NRT, but the difference was not statistically significant.

The analysis showed significant differences in treatment outcomes for SACPA clients who received NRT compared with those who did not. 71% of opiate-using SACPA clients placed in NRT had a satisfactory treatment completion compared with 52% of clients who were not placed into NRT. Opiate-using SACPA clients who were placed in NRT were therefore significantly more likely to be in compliance with the treatment provisions of their SACPA probation than those placed in other treatment modalities.

Criminal justice outcomes were analyzed to determine whether there was a significant relationship between receiving NRT and the offender's likelihood of recidivating. UCLA found that, controlling for sex, race/ethnicity, age, frequency of use, and prior arrests, clients placed in NRT had significantly fewer arrests (13% fewer) during the follow-up period (an average of 2.4 arrests per offender compared to 2.8)³⁴.

NRT clients have significantly fewer drug arrests (an average of 1.1 compared to 1.3 arrests per offender)³⁵. NRT clients have fewer property arrests (an average of 0.2 compared with 0.3 arrests per offender)³⁶. UCLA found no significant differences in arrest rates for violent crimes.

In sum, treatment and criminal justice outcomes among opiate users differed significantly depending on whether clients were placed in NRT. NRT clients had fewer arrests in the 30 months following their entry into the program and were more likely to have a successful treatment discharge and, therefore, to comply with the terms of their SACPA probation requirements.

Conclusions and Policy Recommendations

Little was known about who receives what kind of treatment under SACPA, their experiences in treatment, and how treatment-placement and experiences affect treatment outcomes such as treatment completion, and criminal recidivism. This chapter summarizes research undertaken to exploit evaluation data on treatment placement and outcomes for SACPA offenders, to inform ongoing policy reformation.

The implementation of SACPA resulted in a substantial increase in demand for treatment services across the state. The number of individuals referred to treatment through the

³⁴ $p < 0.05$

³⁵ $p < 0.05$

³⁶ $p < 0.05$

criminal justice system doubled in SACPA's first few years, with a large increase in the number of heavy users. Treatment capacity is being increased across the state but lags behind the demand for residential placements for heavy users. Many counties maintain long-term residential treatment waiting lists and many referrals who might otherwise have been placed into long-term residential treatment were placed into outpatient drug-free treatment instead. Monthly trends in treatment placement showed that, for heavy users entering treatment through the criminal justice system, the probability of a long-term residential treatment placement fell significantly following SACPA implementation.

UCLA analyzed differences in long-term residential treatment placement probabilities among heavy users to determine whether there were differences in access based on client characteristics. After controlling for other factors that affect treatment placement, UCLA found that heavy-using young Hispanic males were significantly less likely to be placed into residential treatment than young White or African-American males. This treatment placement difference disappeared for older offenders. UCLA's analysis of treatment outcomes for heavy users showed that modality does matter for heavy-using SACPA offenders. Heavy-using offenders who were placed into long-term residential treatment performed better on treatment outcome measures and therefore complied with their SACPA probation treatment terms. Heavy users placed into long-term residential treatment had fewer arrests during a 30-month follow-up period than those placed into outpatient drug-free treatment. Methamphetamine users had the largest arrest differential. Heavy methamphetamine users placed into long-term residential treatment had less recidivism than those assigned to outpatient drug-free treatment. As the treatment community continues to add capacity, particular attention should be given to expanding the use of residential treatment for heavy-using clients, especially those whose primary drug is methamphetamine.

UCLA found limited use of NRT. Among those who reported opiates as their primary drug, differences in outcomes between those who entered and did not enter NRT programs suggest that resistance to increasing the use of NRT and slow expansion of NRT under SACPA comes at a cost. Clients placed in NRT had significantly better treatment retention rates and criminal justice outcomes. Clients in NRT were more likely to comply with the treatment provisions of SACPA probation/parole and had significantly fewer arrests following treatment entry.

Chapter 7: SACPA Benefit-Cost Analysis³⁷

Angela Hawken, Ph.D., Douglas Longshore, Ph.D., Darren Urada, Ph.D., and M. Douglas Anglin, Ph.D.

UCLA conducted three studies assessing the cost implications and benefit-cost ratios of SACPA. Each showed that SACPA yielded cost savings to state and local governments.

Study 1, using a pre-SACPA-era comparison group and all first-year SACPA-eligible offenders, found a net savings of \$2,861 per offender (N = 61,609), yielding a benefit-cost ratio of nearly 2.5 to 1. In other words, \$2.50 was saved for every \$1 invested.

Study 2 determined that SACPA participants who completed treatment achieved a benefit-cost ratio of approximately 4 to 1, indicating that “completers” saved \$4 for every \$1 allocated. Study 3 found that cost savings for the second year of SACPA were similar to the first year, with a benefit-cost ratio of 2.3 to 1.

Three conclusions follow from the cost analyses: SACPA substantially reduced incarceration costs; SACPA resulted in greater cost savings for some eligible offenders than for others; and SACPA can be improved. Recommendations encompass actions within and across several areas: statewide collaboration and coordination, offender eligibility criteria and alternative practices for high-cost offenders, systems integration, criminal justice, drug treatment, and strategic planning.

The purpose of the SACPA benefit-cost analysis was to examine: 1) overall costs to state and local government for drug offenders eligible for SACPA, 2) cost patterns based on the degree of SACPA treatment participation by offenders and 3) possible changes in cost outcomes over SACPA’s first and second years. Study 1 calculated the benefit-cost ratio attributable to SACPA as a policy, that is, as a change in law that applied to all offenders throughout the state, regardless of the degree of offender participation. Study 2 examined variation in benefit-cost ratios in relation to offenders’ degree of participation in SACPA treatment. This study assessed benefit-cost outcomes for offenders who accepted the drug treatment option at conviction (i.e., accepted referral to the SACPA program), whether they entered drug treatment, and whether they completed the planned treatment. A particular focus of Study 2 was the benefit-cost ratio for those who completed drug treatment (completers). Study 1 and Study 2 were based on SACPA’s first-year population of eligible offenders and covered a 30-month baseline period and a 30-month

³⁷ This chapter was originally released as a separate report in April, 2006. Appendix 7 was added for this report. Thanks are due to Kenneth Nyberg, Ph.D., California State University, Bakersfield, and to Elizabeth Evans, M.A., Bradley T. Conner, Ph.D., Michael Prendergast, Ph.D., and Yih-Ing Hser, Ph.D., UCLA Integrated Substance Abuse Programs, for editorial review and commentary.

follow-up period from the eligible conviction³⁸. Study 3 examined the potential change in benefit-cost ratio estimates from the first to the second year of SACPA to determine whether cost outcomes changed as SACPA matured. Study 3 used 12-month baseline and follow-up periods. All three studies used the “taxpayer perspective,” focusing on costs to state and local governments. Results are expressed in average cost or savings per offender. Furthermore, all costs were adjusted to 2004 dollars to allow standardization across multiple years.

This report provides the essential findings and the subsequent conclusions and recommendations of the three studies. It also summarizes the complex analytic process undertaken to provide valid and consistent data, appropriate analysis, and suitable adjustments for the cost components under consideration. The analysis was originally designed to cover costs in ten areas. Five were in criminal justice: jail, prison, probation, parole, and arrests and convictions. Four were in social services: drug treatment, healthcare, mental healthcare, and welfare. One additional domain assessed offender contributions to state and local government through taxes on earnings (income tax) and purchases (sales tax). However, two social-service areas, mental healthcare and welfare, could not be assessed under the analytic design of the benefit-cost analysis due to incomplete data coverage for mental healthcare costs and a concurrent welfare policy reform that made it impossible to disentangle the effect of SACPA on welfare receipts from the effect of the other reform (welfare costs). Hence, benefit-cost results are based on the remaining eight areas. The savings and costs reported across the eight areas (modules) represent the net savings (or costs) that can be attributed to SACPA.

Background

SACPA was enacted by California voters as a statewide policy that changed the course of criminal justice processing for all eligible offenders, whether or not they chose to participate in the program. The policy also affected all service entities that interact with the pool of eligible offenders. The most rigorous and conservative scientific approach required the construction of a comparison group. Since the most-preferred study design, with offenders randomly assigned to either SACPA or non-SACPA interventions, was not possible, a comparison group was constructed by selecting similar offenders convicted of SACPA-eligible crimes from a period before SACPA was implemented, referred to as the pre-SACPA-era. UCLA compared the total statewide costs for drug offenders eligible for SACPA during its first year (SACPA-era N = 61,609) to total statewide costs for a selected comparison group of drug offenders before SACPA was

³⁸ Although the respective meanings are the same, the terms pre- and post- are commonly used in discussion of experimental design; the terms followback and follow-up are typical in economic research; and the term baseline is used for comparison in reporting results. UCLA used the terms as appropriate to the context within the report.

initiated (pre-SACPA-era N = 68,543)³⁹. The analytic approach used is a significant improvement to that of cost studies limited to single-group, pre/post-designs, such as the California Drug and Alcohol Treatment Assessment (CALDATA) and the California Treatment Outcome Project (CalTOP)⁴⁰. The SACPA benefit-cost analysis also improved on such studies by using official records for data sources, thus removing the need to rely primarily on subject self-report. Finally, the study used lengthy baseline and follow-up periods, thus limiting the effects of “regression to the mean,” which can spuriously inflate post-intervention benefits⁴¹.

The benefit-cost analysis comprises three studies. Study 1 calculated the net savings (or costs) and benefit-cost ratio attributable to SACPA as a policy applied statewide to all eligible offenders. Study 2 examined variation in cost ratios in relation to offenders’ degree of participation in SACPA. A particular focus of Study 2 was the benefit-cost ratio for offenders who completed their SACPA drug treatment program. Study 1 and Study 2 were based on SACPA’s first-year population and covered a 30-month baseline period and a 30-month follow-up period from the *eligible conviction*. Study 3 examined the change in net savings (or costs) from the first to the second year of SACPA to assess if maturity of the policy may have changed cost outcomes. This analysis made it possible to compare more precisely each year’s costs to the \$120 million annual SACPA allocation provided for drug treatment and other services⁴². Study 3 replicates the first-year analysis, and confers greater confidence in the results of Study 1. However, since the second-year cohort was drawn from a more recent period than the first-year cohort, there was a shorter period available for follow-up. As a result, Study 3 used 12-month baseline and follow-up periods around the SACPA-eligible conviction in order to capture equal periods for comparison of the first- and second-year SACPA offenders. As noted earlier, all three studies used the taxpayer perspective, in which the focus is on costs to state and local governments. All costs were adjusted to 2004 dollars using the consumer

³⁹ While the pre-SACPA-era and SACPA-era groups had different sample sizes, the samples were used only to obtain per-offender costs in the eight areas. Once these costs were determined, the calculation of total costs was rebased to the SACPA sample size.

⁴⁰ Gerstein et al., (1994). *Evaluating recovery services: The California Drug and Alcohol Treatment Assessment (CALDATA)*. California Alcohol and Drug Programs. www.adp.cahwnet.gov/pdf/caldata.pdf; Hser et al., (2005). *The California Treatment Outcome Project (CalTOP) Final Report*. UCLA Integrated Substance Abuse Programs. www.uclaisap.org/caltop/FinalReport/CoverPage.pdf.

⁴¹ “Regression to the mean” refers to the tendency for individuals with below-average problems and costs in one period to have more problems and higher costs in the next period, and vice versa for those with above-average problems and costs. Many individuals enter treatment when they have the most problems (Harwood et al., 2002). This is especially true for individuals entering treatment under a court mandate following a conviction. It is quite possible that, in the absence of the treatment intervention, the client would have improved on a number of outcome measures, in other words, part of the beneficial pre/post change would have been observed anyway.

⁴² The study conservatively assumes programmatic costs to be \$117 million under SACPA, excluding \$3 million of the \$120 million annual allocation that was used to cover state-level administrative expenses.

price index or, where appropriate, the medical price index⁴³. Costs have been rounded to the nearest dollar.

The findings, conclusions and recommendations, and analytic methods are summarized in this report and its appendices. Study findings are presented in the first section, followed by conclusions and recommendations. A final section describes the analytic design employed, the data used, and methodological techniques applied. Four appendices supply pertinent detail.

SACPA First-Year Cost Analysis (Study 1)

Study 1 compared offenders eligible for SACPA with a pre-SACPA-era group of offenders who *would have* been eligible for SACPA under the law's provisions⁴⁴. The purpose of this analysis was to calculate the cost attributable to SACPA *as a policy*. The SACPA-era group was the population of adults (18 years or older) who were, during SACPA's first year (July 1, 2001 to June 30, 2002), convicted of a SACPA-eligible offense with no concurrent non-drug offense or other circumstance that made them ineligible. The 30-month follow-up period for each SACPA-era offender ended on or before December 31, 2004. The comparison, or pre-SACPA-era, group⁴⁵ was drawn from a population of adults convicted of an offense for which they *would have* been SACPA-eligible had they been convicted after SACPA was implemented, with no concurrent non-drug offense or other circumstance that would have made them ineligible. This population of offenders was convicted between January 1, 1997 and June 30, 1998. The 30-month follow-up period for all comparison offenders ended on or before December 31, 2000, at least six months before SACPA may have begun to affect the involved systems. Findings covered 30-month baseline and follow-up periods beginning with the date of each offender's conviction.

This section first reports the difference-in-differences (DID), calculated as the difference between (1) the SACPA-era group's pre-conviction and post-conviction difference in costs and (2) the pre-SACPA-era group's pre-conviction and post-conviction difference in costs (see the Research Methods section). This yields a DID average-cost per offender in each cost area. Later, the cost profile of SACPA-related costs or savings across all eight areas is reported.

⁴³ U.S. Department of Labor, Bureau of Labor Statistics. Consumer Price Index: 1913–2005, [data file]. Washington, DC: www.bls.gov/data.

⁴⁴ Offenders were drawn from official California Department of Justice records on arrests and convictions with subsequent computerized eligibility screening. These numbers are larger than those estimated in prior reports, which were obtained from stakeholder surveys or the centralized SRIS derived from county inputs.

⁴⁵ Because the pre-SACPA-era comparison group was, of necessity, drawn from a different period, it is technically known as a time-lagged comparison group.

Cost per Offender

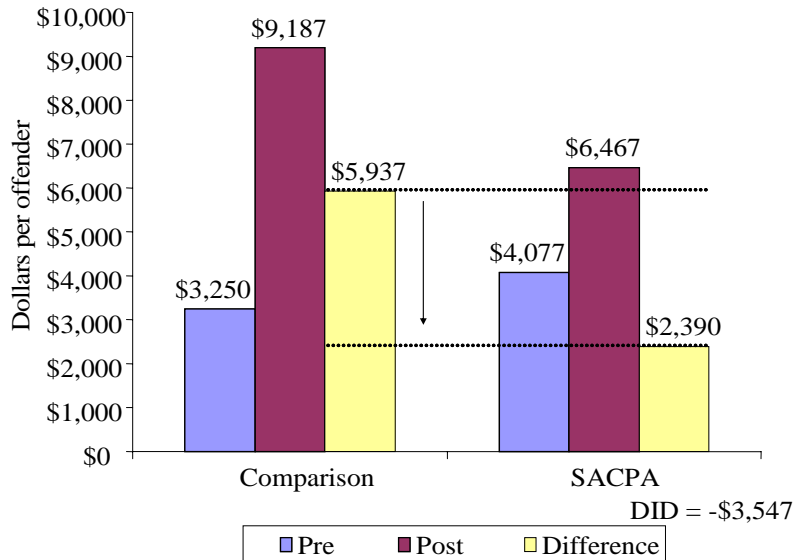
The estimates below reflect regression-adjusted average⁴⁶ (mean) savings or costs per offender for the pre-SACPA-era and SACPA-era groups in each cost category⁴⁷. Costs were calculated based on events, as captured in state administrative databases, multiplied by the costs associated with the event, as determined from data or published sources.

The figures report costs in the baseline period; costs in the follow-up period; differences from baseline to follow-up for each group; and the DID between groups (costs are positive numbers and savings are negative numbers). The full assumptions and statistical techniques underlying these estimates are provided in the Research Methods section.

Prison

Prison costs are shown in Figure 7.1. Cost per offender increased by \$2,390 over a 30-

**Figure 7.1
Prison Costs**



Notes: Data for number of days served in prison are from the Offender-Based Information System. Cost of a prison day (\$84.74) was obtained from the California Department of Corrections (2005). Because the number of prison days avoided by SACPA offenders exceeded a full census of a mid-size facility, the average cost of a prison day was used rather than the marginal cost.

⁴⁶ Cost distributions were not normally distributed, so the average cost in each category was above the median cost due to a relatively small number of offenders with very-high-cost events (e.g., armed robbery). However, government pays such costs and using the average cost better captures their cost consequences.

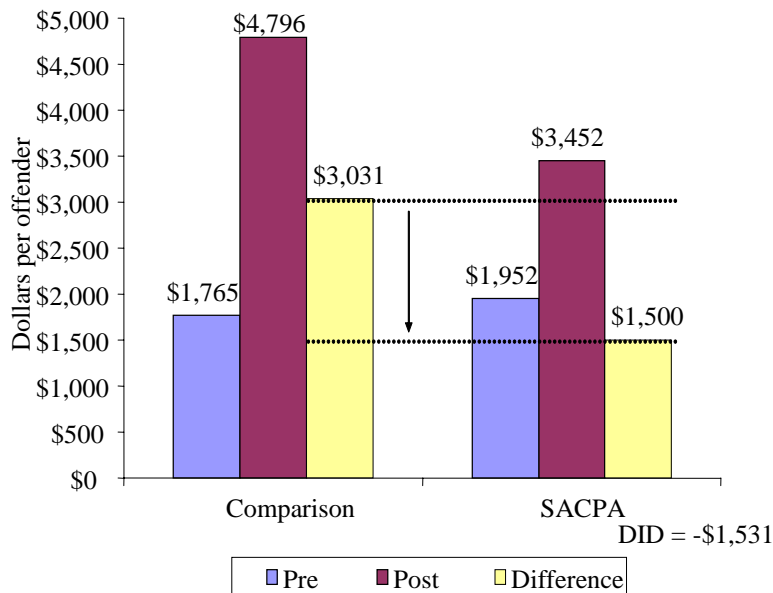
⁴⁷ These are the covariance-adjusted values obtained by using multivariate regression techniques on offender characteristics and contextual trends in the larger society (see the Research Methods section). Totals and differences reported here may differ slightly from what a reader may compute from other reported numbers, due to rounding.

month baseline period for the SACPA-era group and by \$5,937 for the pre-SACPA-era group, which led to a DID prison-cost savings of \$3,547 during SACPA. This means that prison costs in California were \$3,547 lower per offender for the 30-month follow-up period than what would have been had SACPA not been implemented. For the 61,609 offenders eligible for SACPA in its first year, the total savings to the state in prison costs were \$218.5 million.

Jail

Jail costs are shown in Figure 7.2. Cost per offender increased by \$1,500 over baseline during the SACPA-era and by \$3,031 for the pre-SACPA-era group, a DID jail cost savings of \$1,531. This means that jail costs under SACPA were \$1,531 lower per offender during the 30-month follow-up period than would have been expected in the absence of SACPA. Total savings in jail costs to counties for first-year SACPA offenders were \$94.3 million.

**Figure 7.2
Jail Costs**



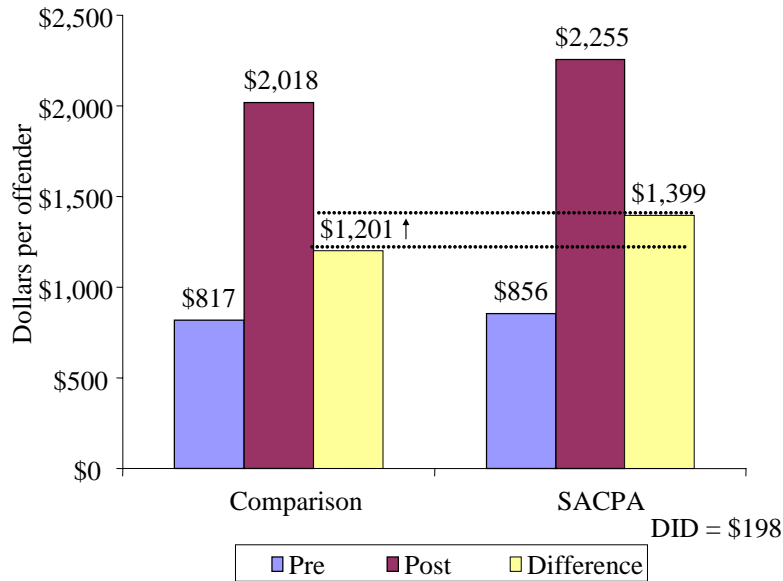
Notes: Data for number of days sentenced to jail are from the California Department of Justice Automated Criminal History System. The 2005 ADP County Survey was used to adjust to actual days served. Cost of a jail day by county was obtained from the County Survey and the 2003 California Board of Corrections Survey. Because the number of jail days avoided by SACPA offenders exceeded a full census of a mid-size facility, the average cost of a jail day was used rather than the marginal cost.

Probation

The cost of probation supervision is shown in Figure 7.3. Cost per offender increased by \$1,399 over baseline for the SACPA-era group and by \$1,201 for the pre-SACPA-era

group, which led to a DID probation supervision cost increase of \$198. This result means that probation costs during the SACPA-era were \$198 higher per offender for the 30-month follow-up period than would have been expected in the absence of SACPA. Total additional cost to the counties for probation was \$12.2 million.

**Figure 7.3
Probation Costs**



Notes: Data for number of days on probation is from sentencing records in the California Department of Justice Automated Criminal History System. Cost of a probation day was obtained by county from the 2005 ADP County Survey.

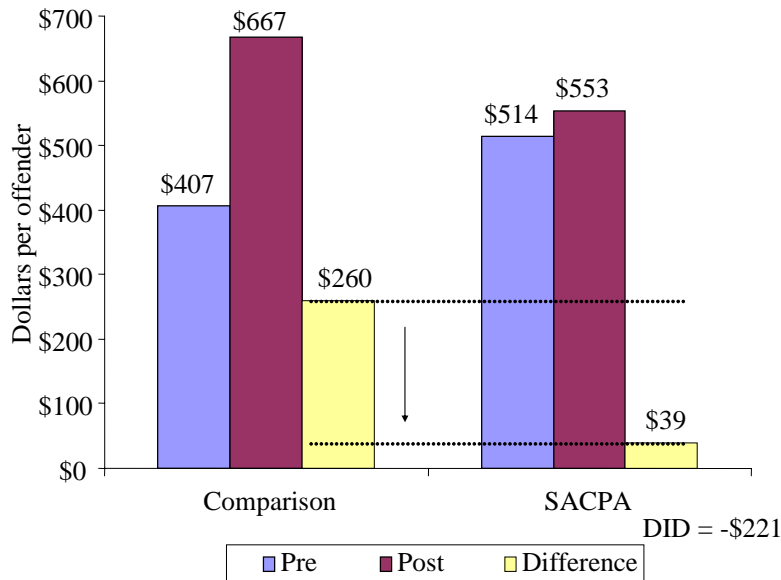
Parole

The cost of parole supervision is shown in Figure 7.4. Cost per offender increased by \$39 over baseline during the SACPA-era and by \$260 for the pre-SACPA-era group, a DID parole supervision cost decrease of \$221. This means that parole costs under SACPA were \$221 lower per offender for the 30-month period than what would have been expected in the absence of SACPA. This difference was expected, given the lower number of prison days (see Figure 7.1) served by SACPA offenders. Parole cost savings to the state under SACPA were \$13.6 million.

Arrests and Convictions

Arrest and conviction costs are shown in Figure 7.5. Although both costs declined for both groups in the 30-month follow-up period, they did not decrease by as much for the SACPA-era group. This was due in large part to the longer time that offenders in the pre-

**Figure 7.4
Parole Costs**



Notes: Data for number of days on parole is from sentencing records in California Department of Justice Automated Criminal History System. Cost of a parole-day (\$9.21) is from the California Department of Corrections (2004).

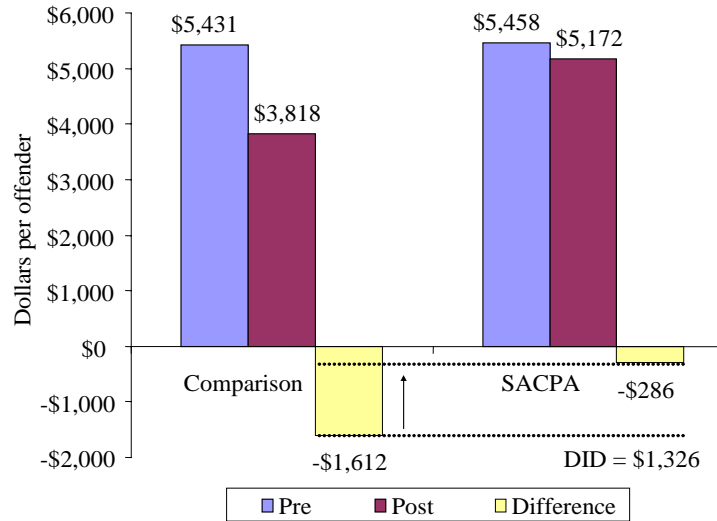
SACPA-era group were “off the street” during the follow-up period due to incarceration⁴⁸. Since offenders who are incarcerated are unavailable to be re-arrested in the community, these differences in street time would be expected to reduce re-arrests and convictions to a greater degree in the pre-SACPA-era group than in the SACPA-era group⁴⁹. Further analysis determined that a disproportionately large share of criminal-justice costs was created by 1.6% (N = 1010) of SACPA-eligible offenders. Costs for offenders in this subgroup were ten times (\$21,175) higher than those for the typical (median) offender (\$2,254; see High-Cost Offender Sub-study for further details). Costs per offender decreased by \$286 relative to baseline levels for the SACPA-era group and by \$1,612 for the pre-SACPA-era group. DID arrest-and-conviction costs were \$1,326 higher for the 30-month follow-up period than what would have been anticipated had

⁴⁸ In the 30-month follow-up period, 71.2% of the pre-SACPA-era group had jail time compared with 58.9% of the SACPA-era group. Likewise, 28.2% served prison time compared with 23.3% for the SACPA-era group. The SACPA-era group also experienced shorter stays when incarcerated.

⁴⁹ Every judicial decision to place an offender on probation contains a degree of risk of re-offending in the community. This is also true when inmates are paroled. In general, any population of offenders under legal supervision has rates of re-offending that increase in proportion to time on the street. Many policy studies on the benefit-cost ratio of incapacitation (incarceration) have assessed the “balance point” between the high cost of incarceration and the greater risk of re-offending under lower-cost community supervision.

SACPA not been implemented, resulting in a total increase of \$81.7 million in criminal justice processing costs.

Figure 7.5
Arrest and Conviction Costs



Notes: Numbers of arrests and convictions are from sentencing records in the California Department of Justice Automated Criminal History System. Costs for crime were adjusted from Miller and colleagues (1996) and French (2005).

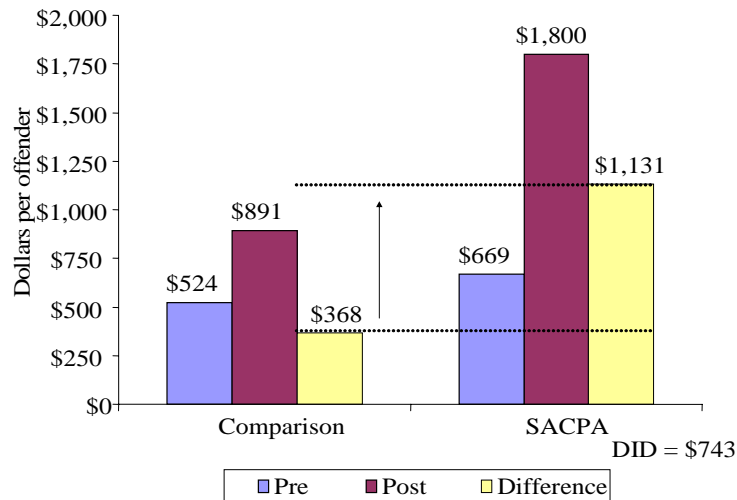
Drug Treatment

Drug-treatment costs are shown in Figure 7.6. Cost per offender increased by \$1,131 over baseline for the SACPA-era group and by \$368 for the pre-SACPA-era group, a DID increase of \$743 per offender, resulting in \$45.8 million more in treatment costs than what would have been anticipated had SACPA not been implemented.

Healthcare

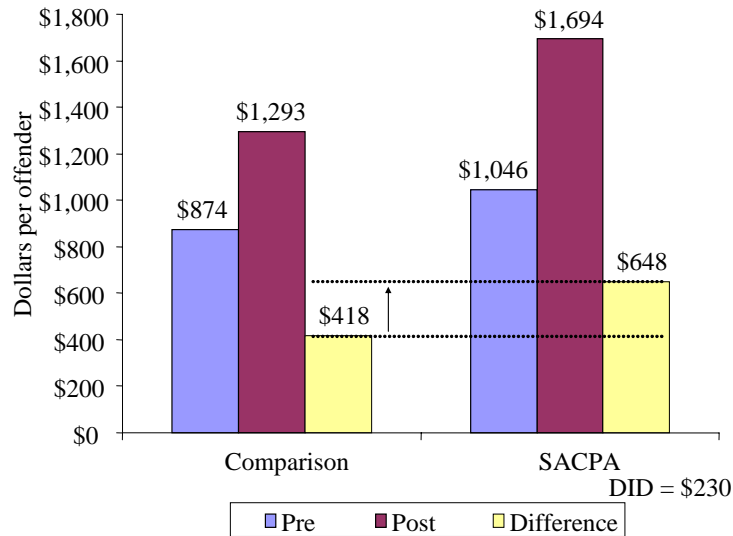
Healthcare costs are shown in Figure 7.7. Greater access to drug treatment was associated with a greater utilization of healthcare (see also Study 2). Costs per offender increased by \$648 for the SACPA-era group and by \$418 for the pre-SACPA-era group. Such costs were \$230 higher per offender for the 30-month follow-up period than would have been anticipated had SACPA not been implemented. Healthcare costs to the state increased by \$14.2 million under SACPA.

**Figure 7.6
Drug-Treatment Costs**



Notes: Data for number of days in drug treatment, by modality, are from CADDs. Per-diem treatment costs are from Ettner and colleagues (2005) adjusted to 2004 dollars.

**Figure 7.7
Healthcare Costs**



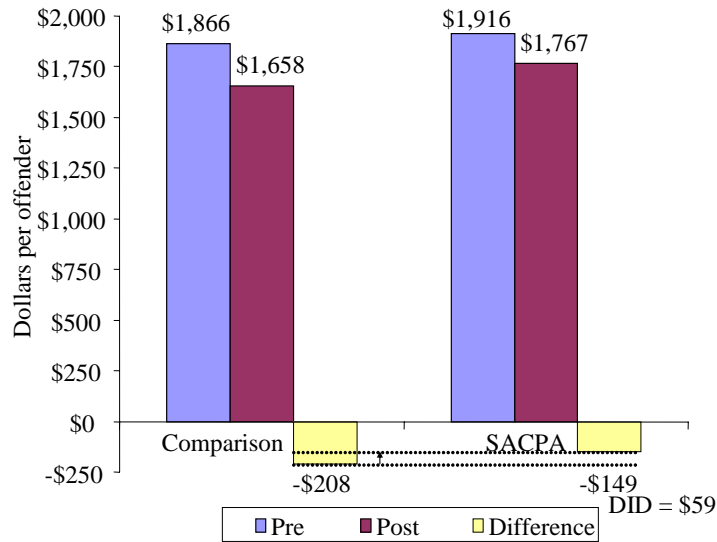
Notes: Data for healthcare costs are from DHS Medi-Cal/Medicaid files.

Income and Sales Tax

Tax receipts are shown in Figure 7.8. Tax receipts declined by \$149 for the SACPA-era group and by \$208 for the pre-SACPA-era group. This resulted in a DID increase in taxes collected under SACPA of \$59. An additional \$3.6 million was received by the

state and county governments for taxes paid on income and purchases compared with what would have been anticipated had SACPA not been implemented.

**Figure 7.8
Taxes Paid**



Notes: Data on earnings were obtained from California's Employment Development Department (EDD). Taxes were computed using California tax tables and were adjusted to 2004 dollars. Values reported reflect estimates of income taxes and sales taxes paid.

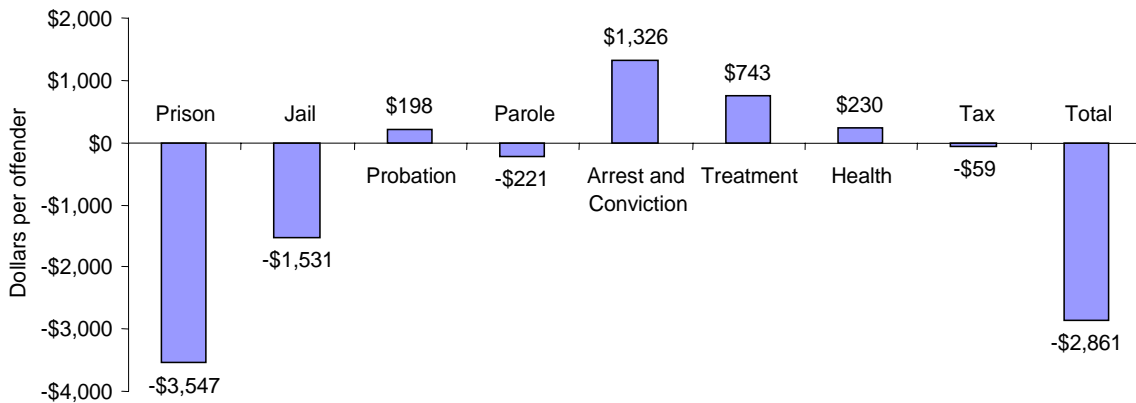
In both groups, earnings fell immediately in the first quarter following the eligible conviction but increased in the quarters that followed. For the pre-SACPA-era group, the reduced earnings can be explained by increased incarceration and, therefore, fewer days available for work. For the SACPA-era group, the initial reduction in earnings is attributed to offenders being in treatment.

SACPA Overall Cost-Offsets

Figure 7.9 shows a summary of SACPA DID costs over all areas examined. The zero line can be interpreted as cost neutral. Bars above the line represent cost increases and bars below the line represents cost savings. There was a total DID cost savings of \$2,861 per offender under SACPA over the 30-month follow-up period⁵⁰, resulting in a total cost savings to government of \$173.3 million.

⁵⁰ Most of these savings accrued in the first 12 months of this period, although savings continued to accrue over the remaining 18 months of the 30-month period. See results of Study 3.

Figure 7.9
DID Cost Summary for Study 1



Study 1 allowed the calculation of a total DID cost for the population of 61,609 offenders in SACPA’s first year. Before turning to the calculation of the benefit-cost ratio, it must be noted that the initial year required a massive ramp-up effort by the involved county systems. The expansion of existing provider contracts and the development and awarding of new contracts was, in many cases, a lengthy process. In addition, during this year, state and county governments were coping with the overall budget constraints of a faltering economy. In some counties, non-recurring funds were used in ways that allowed savings to accrue to the allocated SACPA funds. These savings could then be carried forward into future years. In the first year of the study, 55 of the 58 counties reported⁵¹ a total expenditure of SACPA funds of about \$85 million, an amount less than actually spent. Using this figure would have produced a spuriously high benefit-cost ratio for the first year. Accordingly, UCLA used an estimate of SACPA operation costs (\$120 million less \$3 million used for state administrative costs) as a conservative estimate of expenditures (a figure that stabilized in the subsequent years of SACPA).

To determine the benefit-cost ratio per offender for the first year, total costs over the 30-month period (expressed as a negative number, which represents savings) are multiplied by the total number of offenders convicted of a SACPA-eligible offense during the first year of SACPA (N = 61,609)⁵². From this total, the \$117 million actually allocated for programmatic costs is subtracted to avoid “double counting” costs that had already been paid for via SACPA expenditures (\$120 million less the \$3 million used in SACPA administration). The resulting sum is divided by the \$120 million allocated for first-year

⁵¹ Figures cited are from SRIS.

⁵² Earlier UCLA reports estimated the number of eligible offenders from the Stakeholder Survey for the first year and from SRIS for the second (reported by county lead agencies). The cost analysis improved on these estimates by using official DOJ records.

SACPA costs. In brief, the benefit-cost ratio reported is the total savings net of programmatic costs derived from SACPA, divided by the \$120 million allocation⁵³.

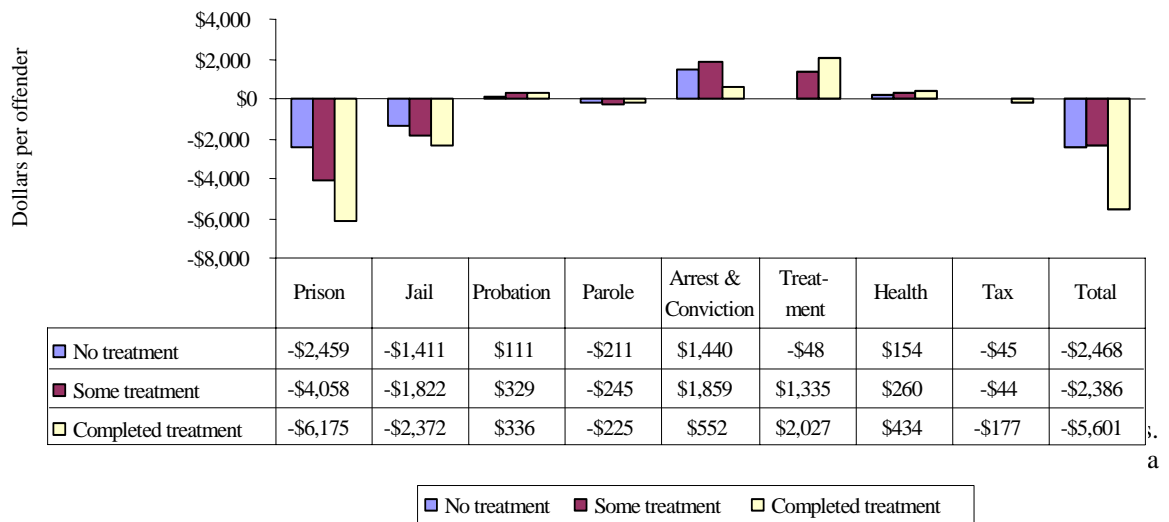
For Study 1, UCLA estimated a benefit-cost ratio of 2.44:1, meaning that nearly \$2.50 was saved under SACPA for every \$1 allocated to fund the program.

SACPA Drug Treatment Participation Benefit-Cost Ratios (Study 2)

Prior UCLA SACPA evaluation reports indicated that, in SACPA’s first and second years, 85% of offenders who accepted SACPA reported for assessment. Of these, almost equal percentages entered drug treatment, 69% and 71% respectively. Of those entering treatment, 34% in each year completed their required treatment, as reported to the statewide database on drug-treatment admissions and discharges. As noted in the earlier reports, these show and completion rates conform to the literature on the treatment of drug-abusing offenders.

Study 2 examined variation in benefit-cost ratios in relation to the level of SACPA participation. The study was based on the population of adults (18 years or older) who, during SACPA’s initial year (July 1, 2001 to June 30, 2002), participated in SACPA, that is, those who *accepted* a SACPA referral. The population was divided into three groups: (1) offenders who were referred to SACPA but did not enter drug treatment, (2) offenders who entered but did not complete treatment, and (3) offenders who completed treatment. Like Study 1, Study 2 covered 30-month baseline and follow-up periods beginning with the date of each offender’s conviction. Figure 7.10 provides a summary of cost offsets by treatment status. The zero line is interpreted as cost neutral. Bars above the line represent cost increases and bars below the line represent cost savings.

Figure 7.10
DID Cost Summary by Drug-Treatment Status



Prison

Drug-treatment participation was strongly associated with reductions in incarceration costs relative to the pre-SACPA-era group costs. Prison costs were \$2,459 lower for offenders who never entered treatment, \$4,058 lower for individuals who entered but did not complete treatment, and \$6,175 lower for offenders who completed treatment, than what would have been expected had SACPA not been implemented.

Jail

Jail costs were \$1,411 lower for offenders who never entered drug treatment, \$1,822 lower for individuals who entered but did not complete treatment, and \$2,372 lower for offenders who completed treatment.

Probation

Probation costs were \$111 higher for offenders who never entered drug treatment, \$329 higher for individuals who entered but did not complete treatment, and \$336 higher for offenders who completed treatment.

Parole

Parole costs were \$211 lower for offenders who never entered drug treatment, \$245 lower for offenders who entered but did not complete treatment, and \$225 lower for offenders who completed treatment.

Arrests and Convictions

Arrest and conviction costs were \$1,440 higher for offenders who never entered drug treatment, \$1,859 higher for offenders who entered but did not complete drug treatment, and \$552 higher for offenders who completed treatment. UCLA found that SACPA-era offenders who did not report for treatment consisted primarily of two types: offenders with low or no prior arrests and convictions and offenders with many prior arrests and convictions. The former group may have felt they were only recreational users not requiring treatment. The latter group may have chosen not to participate in treatment in the belief that sanctions from the criminal justice system were too unlikely or too distant to hold them accountable.

Drug Treatment

As expected, drug treatment costs were higher depending on level of participation. Treatment costs were \$1,335 higher for offenders who entered but did not complete treatment and \$2,027 higher for offenders who completed treatment. Offenders who did not enter treatment had a \$48 lower treatment cost.

Healthcare

State-funded healthcare costs were \$154 higher for offenders who never entered treatment, \$260 higher for offenders who entered but did not complete treatment, and \$434 higher for offenders who completed treatment. This increase indicates that offenders in treatment may be more likely to seek out care for other health needs.

Taxes Paid

There was a slight increase in tax revenues collected related to drug-treatment participation under SACPA. Tax revenues were \$45 higher for offenders who never entered treatment, \$44 higher for offenders who did not complete treatment and \$177 higher for offenders who completed treatment.

Total Cost Offset by Drug-Treatment Status

Total costs saved were \$2,468 for offenders who were referred to SACPA but never entered drug treatment, \$2,386 for offenders who did not complete treatment, and \$5,601 for offenders who completed treatment. Treatment and new arrests and convictions costs constituted a major part of cost increases, whereas total costs savings were driven largely by savings in incarceration (jail and prison) costs. While incarceration costs were reduced in the SACPA-era for those never treated, these savings were offset by higher arrest and conviction costs in the follow-up period for this group. Incarceration savings were even higher for the some-treatment group, but were offset by an increase in arrest and conviction costs and in higher treatment costs.

Cost Comparison

Average cost savings per offender were more than twice as high for those who completed drug treatment compared with those who never entered or did not complete treatment. For treatment completers, the cost savings reflect a benefit-cost ratio of about 4:1, meaning that approximately \$4 was saved under SACPA for every \$1 allocated to a treatment completer. Two methods were applied for sensitivity analysis of this result; one resulted in a ratio of 3.9:1, the other 3.8:1. Notably, although SACPA offenders who received some treatment showed reductions in prison and jail time over those who did not enter treatment, these savings were offset by treatment costs and somewhat higher rates for arrests and convictions in the follow-up period. When only criminal justice costs were considered, the cost savings were as expected: no drug treatment, least; some treatment, intermediate; and completed treatment, most.

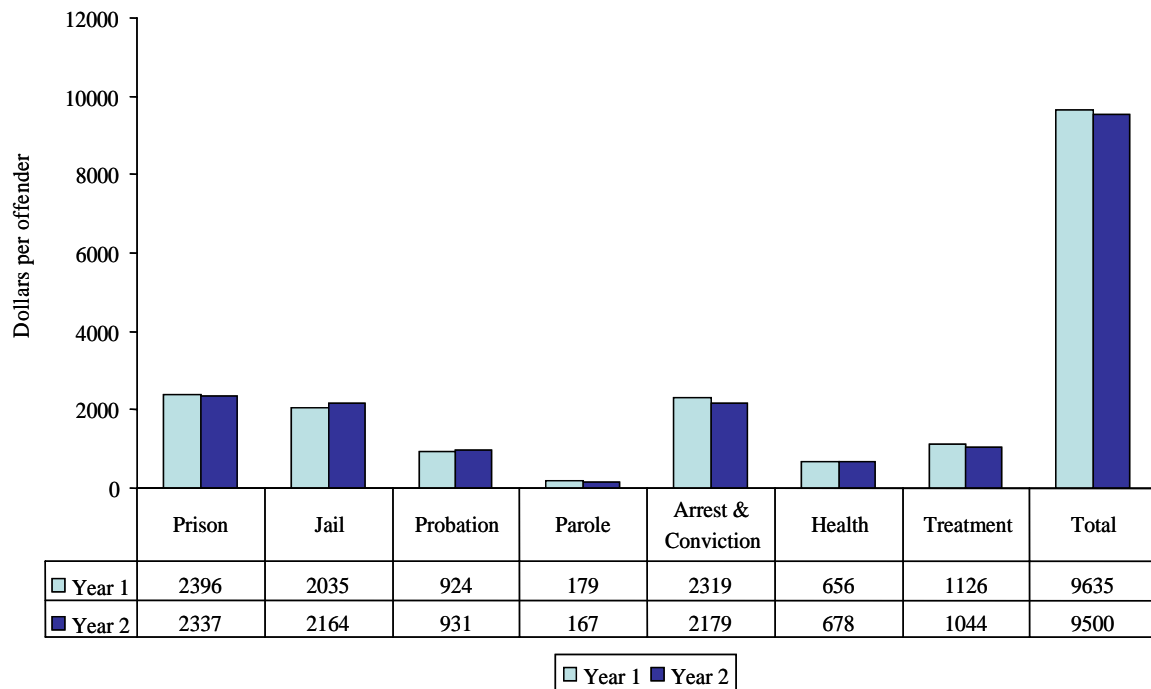
SACPA Second Year Replication (Study 3)

Study 3 examined costs in SACPA's first and second years and compared costs in each of those years to the \$120 million annual allocation. Here, costs in SACPA's first year were based on the first-year SACPA-eligible population (N = 61,609), but the baseline and follow-up periods were restricted to 12 months. Costs in SACPA's second year were based on the second-year SACPA-eligible population (N = 68,883) and baseline and follow-up periods of 12 months.

Figure 11 provides a summary of costs per offender *during the 12-month follow-up* of the first two SACPA years. UCLA found a slight decline (1.5%) in the total cost per offender in the post-period in the second year of SACPA. This decrease was largely attributable to a 6% decrease in arrest and conviction costs for offenders during SACPA's second year.

The estimates for first-year and second-year SACPA offenders are not directly comparable. The pre-SACPA-era group and the first-year SACPA-era group both experienced baseline periods with no SACPA policy in effect. However, the second-year SACPA-era group has a baseline period *during* the SACPA era. Nonetheless, the findings in Figure 7.11 show that average offender costs were very similar across the two years when restricted to equal periods for both years.

Figure 7.11
Summary of Post-SACPA Costs for Year 1 and Year 2 Offenders⁵⁴

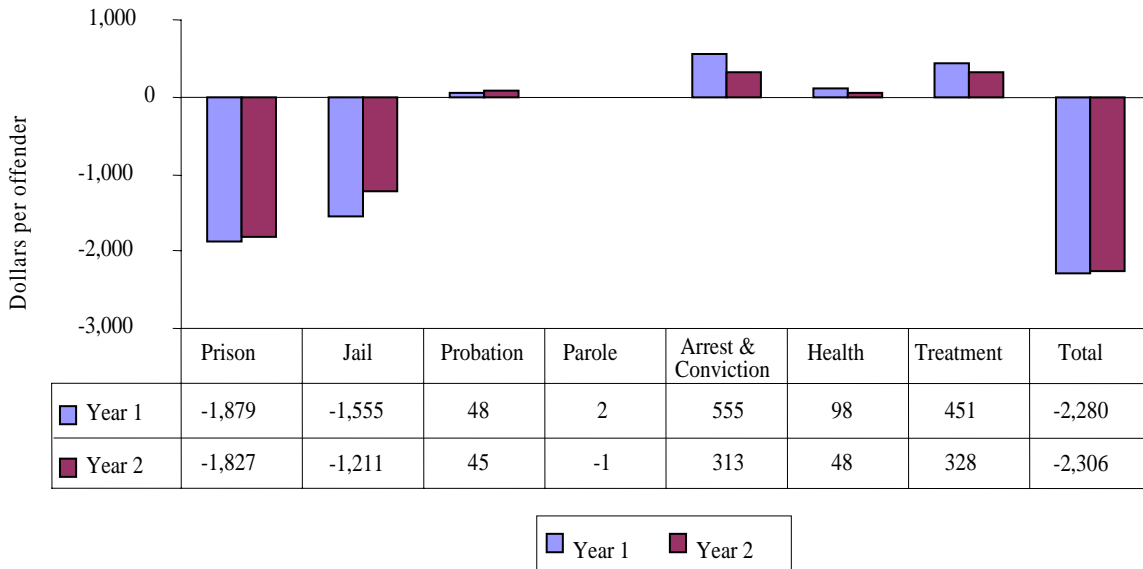


The DID estimates are provided in Figure 7.12. The zero line is interpreted as cost neutral. Bars above the line represent cost increases and bars below the line represent cost savings. Figure 7.12 is not directly comparable with Figure 7.9, which captured a 30-month follow-up period. Overall cost savings in both years were nearly identical at \$2,300 per offender. The higher number of offenders who were identified as SACPA eligible in the second year ($N = 68,883$), as opposed to the first year ($N = 61,609$), meant somewhat greater total savings to government (\$158.8 million) in SACPA’s second year than in its first year (\$140.5 million). The benefit-cost ratio for the first year was 2.2 to 1, meaning that \$2.20 was saved by government for each dollar spent on SACPA, and 2.3 to

⁵⁴ For Study 3, tax information was not available for second year SACPA offenders due to delays in data procurement. Since contributions from taxes received by state and local governments were minimal in Study 1 and Study 2, their inclusion here would not have altered results.

1 for the second year, meaning an additional \$0.10 was saved for each dollar spent (However, this slight increase in the benefit-cost ratio cannot be considered a trend; more years of cost data would be necessary to define any such changes as a trend).

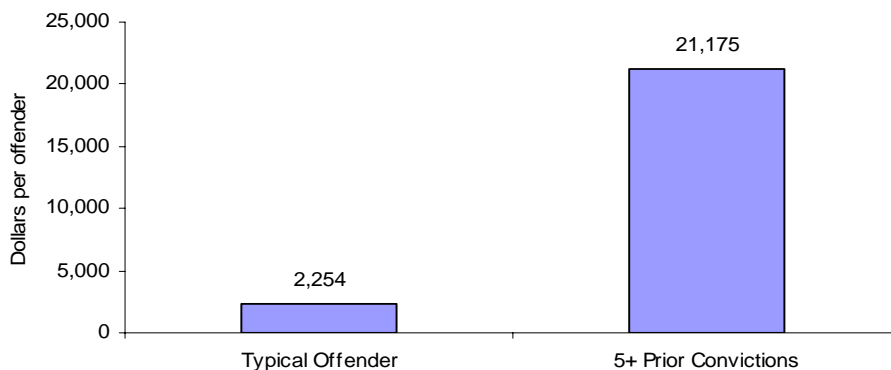
Figure 7.12
DID Cost Summary by SACPA Year



High-Cost Offender Sub-Study

In examining factors that contribute to costs, UCLA found that a small percentage of SACPA-eligible offenders contributed a disproportionate share of criminal justice costs. As the number of prior convictions increased, criminal justice costs in the 30-month follow-up period also increased for prison, jail, and arrests and convictions. This was true for both the pre-SACPA-era and SACPA-era groups. The greatest increase in costs occurred between those with four or fewer prior convictions and those with five or more. Those with five or more convictions in the 30-month period before their SACPA-eligible convictions, constituting 1.6 percent (N = 1,010) of the SACPA-era group, had post-conviction crime costs in the 30-month follow-up period ten times higher than the typical, or median, SACPA offender: \$21,175 versus \$2,254, respectively. Figure 7.13 depicts this difference.

Figure 7.13
Relative Costs for High-Rate Offenders (1.6%, N = 1,010)



Adult-Welfare Sub-Study

Statewide welfare data were made available to UCLA from the California Department of Social Services. The welfare system changed dramatically over the period of the evaluation, in eligibility, benefits, and duration. Welfare caseloads declined rapidly after 1996. The average annual caseload fell by more than 10% per year between 1997 and 2000. The caseload decline began slowing around 2000 (6.7% decrease in 2001 and 2.2% decrease in 2002)⁵⁵.

Such changes limited UCLA's use of this data, especially as the effects of welfare reform made the data unamenable to identifying effects attributable to SACPA. Analysis of the available data revealed that only about 10% to 13% of each group (pre-SACPA-era and SACPA-era) could be identified as having received welfare in either the 30-month baseline or follow-up periods. The change from baseline to follow-up periods in the pre-SACPA-era group showed a 25.6% drop in recipients and a 38% reduction in benefit time. For the SACPA-era group, there was a 38.2% drop in recipients and a 26% duration reduction. There is no practical analytic method to separate the effects of welfare reform from the effects of SACPA.

County State Split

At the request of ADP, UCLA divided the cost offsets between those that affect state expenditures and those that affect county expenditures (see Tables 7.1 and 7.2). *Due to time and information limitations, UCLA's allocation of costs between the state and counties is, of necessity, approximate. A more definitive allocation requires more information on revenue collection and changing spending practices.* This section provides a useful starting point for discussion.

⁵⁵ California Department of Social Services, 2004.

The cost analysis identified per-offender cost outcomes in eight domains: prisons, jails, probation, parole, arrest and convictions, drug treatment, healthcare, and taxes paid (the lattermost is offset against costs). The values reported in Tables 7.1 and 7.2 do not reflect actual dollars spent in each domain by the state and by counties. The cost offsets are based on a difference-in-differences model. As such, the values reported reflect additional costs (or reduced costs) by state and counties, compared with what would have been expected had SACPA not been implemented. The values reported correspond to cost-outcome changes applying to the first cohort of SACPA-eligible offenders (i.e., all those convicted of a SACPA-eligible crime between July 1, 2001 and June 30, 2002). First UCLA will discuss changes based on 12-month baseline and follow-up periods. UCLA did this to respond to a request to provide information based on the 12-month timeframe that is important for the budget process. Second, UCLA will discuss changes based on a 30-month baseline and follow-up period to maintain consistency with the Benefit-Cost Analysis Report released on April 5, 2006 and to provide information on the evolution of savings and costs beyond the initial 12-month period.

Costs over a 12-Month Period

The cost offsets presented in Table 7.1 exclude any county expenditure on privately funded treatment for SACPA-eligible offenders and any expenditure on SACPA-related programming that fall outside of the eight cost domains (e.g., foster-care services).

Counties incurred costs associated with new arrests and convictions of \$34 million for offenders convicted during SACPA's first year. Counties saved \$95.8 million on jail for SACPA offenders. Due to overcrowding of jails in many counties, counties may not realize jail savings over the short term if jail space made available by reduced jail stays among SACPA offenders is filled with non-SACPA offenders, or if there are increases in the average time served in jail by offenders who were incarcerated for other offenses. This represents a policy decision at the county level to reallocate these jail savings back into the jail program. Increased incarceration of non-drug offenders may have far reaching implications which result in additional savings (Hawken, 2006). The measurement and consequences of these practices were well beyond the scope of this benefit-cost analysis.

The state incurred additional costs for drug-abuse treatment, probation, parole, and healthcare of SACPA offenders. The state benefited from savings due to reduced prison costs for the SACPA-eligible population of \$115.8 million and benefited from a slight increase in taxes collected of \$1.5 million. Due to serious overcrowding in state prisons, the state may choose to use these savings within the prison system by incarcerating more non-drug offenders or by increasing terms served by non-drug offenders. The measurement and consequences of these practices were well beyond the scope of the benefit-cost analyses.

Table 7.1 Division of Cost Offsets between State and County (12-month follow-up)

<u>Module</u>	<u>Total</u>	<u>State</u>	<u>County</u>
Cost Savings			
Prison	115,763,311	115,763,311	—
Jail ^a	95,801,995	—	95,801,995
Tax Revenues			
Increased Taxes ^e	1,453,124	1,453,124	—
Cost Increases			
Arrest and Convictions	34,192,995	—	34,192,995
Probation ^b	2,957,232	2,957,232	—
Parole	123,218	123,218	—
Drug-Abuse Treatment	27,785,659	27,785,659	—
Healthcare ^c	6,037,682	3,018,841	—

^a Excludes costs for parole violators who spend time in county jails rather than CDC facilities. The state reimburses counties for these costs.

^b This is regarded as a state cost because the state allocates a portion of SACPA funds for the purposes of supervision. However, prior to SACPA, these costs were paid for at the county level, and, if SACPA funding is removed, these costs would return to the county level. There is variation in county participation in this cost, with some counties reporting that they have contributed additional county funds. This could not be incorporated into this analysis at this time.

^c Healthcare cost increases were divided between state and federal sources. \$3 million of the additional \$6 million in healthcare expenses were funded by the federal government.

^d Due to the short time frame available for this analysis combined with variations in tax rates across counties, UCLA was not able to separate changes in county sales taxes from taxes collected by the state. However, the portion of the change in tax revenues between the comparison and SACPA groups represents a small percentage of the relatively modest total change in revenue stated here. Therefore, any change in county tax revenues are clearly negligible within the context of the much larger costs and savings produced by SACPA in other domains.

Overall, the state benefited from cost offsets due to SACPA more than counties did. While both the state and counties benefit from substantial reductions in incarceration costs, counties incurred a significant increase in costs due to new arrests and convictions among SACPA-eligible offenders. Of the 12-month savings reported in the annual cost report, \$83 million accrued to the state and \$61 million accrued to counties, with a cost increase of \$3 million to the federal government⁵⁶.

Costs over a 30-Month Period

Following the same first-year SACPA offenders for 30 months UCLA finds that cost-offset savings to the counties fall substantially as jail savings are offset by costs associated with arrest and convictions. Table 7.2 reports cost-outcome changes applying to the first-year SACPA offenders with 30-month baseline and follow-up periods.

Counties incurred additional arrest and conviction costs of \$81.7 million for offenders convicted during SACPA's first year. Counties saved \$94.3 million on jail incarceration for SACPA offenders. Due to overcrowding of jails in many counties, counties may not realize jail savings over the short term. That is, while there was a real savings due to reduced jail incarceration of SACPA participants, in many cases the jail capacity freed up by SACPA was filled by offenders who were incarcerated for other offenses. This represents a policy decision at the county level to reallocate these jail savings back into the jail program. Increased incarceration of non-drug offenders may have far reaching implications which result in additional savings (Hawken, 2006). The measurement and consequences of these practices were beyond the scope of UCLA's benefit-cost analyses.

The state incurred additional costs for drug abuse treatment, probation supervision, and healthcare costs for SACPA-eligible offenders. The state benefited from significant savings (\$218.5 million) due to reduced prison costs for the SACPA-eligible population. Due to serious overcrowding in state prisons, the state may choose to use these savings within the prison system by increasing terms served by non-drug offenders. Preliminary analyses suggest that increased incarceration of non-drug offenders may have far reaching implications that result in additional savings (Hawken, 2006). The measurement and consequences of these practices were well beyond the scope of the benefit-cost analyses.

The state benefited from a \$13.6 million reduction in parole supervision costs for the SACPA-eligible offenders and an increase in taxes collected of \$3.6 million.

Of the savings reported in the annual cost report, \$171 million accrue to the state, \$12 million to counties, with a cost increase of \$7 million to the federal government⁵⁶.

⁵⁶ The federal government may have seen additional costs or savings in other domains such as federal penitentiaries and federal income taxes. The analysis of these effects on federal funding, however, was beyond the scope of our analyses.

**Table 7.2. Division of Cost Offsets between State and County
(30-month follow-up)**

<u>Module</u>	<u>Total</u>	<u>State</u>	<u>County</u>
Cost Savings			
Prison	218,509,872	218,509,872	—
Jail ^a	94,317,834	—	94,317,834
Parole	13,615,589	13,615,589	—
Tax Revenues			
Increased Taxes ^d	3,632,467	3,632,467	—
Cost Increases			
Arrest and Convictions	81,719,410	—	81,719,410
Probation ^b	12,198,582	12,198,582	—
Substance-Abuse Treatment	45,762,179	45,762,179	—
Healthcare ^c	14,154,052	7,077,026	—

^a Excludes costs for parole violators who spend time in county jails rather than CDC facilities. The state reimburses counties for these costs.

^b This is regarded as a state cost because the state allocates a portion of SACPA funds for the purposes of supervision. However, prior to SACPA, these costs were paid for at the county level, and if SACPA funding is removed, these costs would return to the county level. There are variations by county participation in this cost, with some counties reporting that they have contributed additional county funds. This could not be incorporated into this analysis at this time.

^c Healthcare cost increases were divided between state and federal sources. \$7 million of the additional \$14 million in healthcare expenses were funded by the federal government.

^d Due to the short time frame available for this analysis combined with variations in tax rates across counties, UCLA was not able to separate changes in county sales taxes from taxes collected by the state. However, the portion of the change in tax revenues between the comparison and SACPA groups represents a small percentage of the relatively modest total change in revenue stated here. Therefore, any change in county tax revenues are clearly negligible within the context of the much larger costs and savings produced by SACPA in other domains.

Conclusions and Recommendations

Three major conclusions can be drawn from the UCLA evaluation of SACPA: (1) SACPA substantially reduced incarceration costs; (2) SACPA resulted in greater cost savings for some offenders than for others; and (3) SACPA can be improved⁵⁷. From these conclusions, specific recommendations are drawn. Each recommendation encompasses goals that require attention at many levels, including statewide collaboration and coordination, offender eligibility and alternative strategies for high-cost offenders, systems integration, criminal justice, drug treatment, and strategic planning.

Conclusion 1: SACPA substantially reduced incarceration costs.

Based on costs incurred by offenders who were eligible for SACPA participation during its first year of implementation, SACPA's overall benefit-cost ratio was nearly 2.5 to 1 over the 30-month follow-up period, resulting in \$173.3 million in net savings to the state and local governments. Over a 12-month follow-up period, SACPA's overall benefit-cost ratio was 2.1 to 1 in its first year and 2.3 to 1 in its second year.

Recommendation 1.1: From the state- and local-government perspectives, continued funding of SACPA is justified.

Recommendation 1.2: ADP should have statutory authority and responsibility to develop a strategic plan for the ongoing operation and continual improvement of SACPA. Attendant evaluation should encompass continuous and timely feedback processes to stakeholders, the Governor's Office, and the Legislature.

Conclusion 2: SACPA results in greater cost savings for some eligible offenders than for others.

In particular, drug-treatment completers had a benefit-cost ratio of 4 to 1, a savings of \$5,601 per offender. In addition, UCLA found that the typical SACPA offender (the median offender in the cost distribution) had no convictions in the 30 months following their SACPA-eligible conviction. In contrast, offenders with five or more convictions in the 30-month period prior to their SACPA-eligible conviction produced costs ten times higher than those of the typical offender.

Recommendation 2.1: SACPA criteria should be modified so that offenders with high rates of prior non-drug convictions (e.g., five or more prior convictions during the prior three years) would be placed into more-

⁵⁷ The evaluation of SACPA required a diverse and detailed methodological approach. UCLA made extensive use of administrative databases on criminal history, drug abuse treatment, healthcare, and employment outcomes. In addition, throughout the evaluation, UCLA sought the expert counsel of the EAG, the views of the SAG, the County Alcohol and Drug Program Administrators Association of California (CADPAAC), and the input of ADP.

controlled settings, including, but not limited to, residential treatment or prison- or jail-based treatment programs.

Recommendation 2.2: Eligible offenders with heavy drug use should receive greater criminal justice supervision (e.g., drug-court management) and more intense drug-treatment services (e.g., residential treatment).

Conclusion 3: SACPA can be improved.

UCLA found that assessment rates were better in counties where assessment units or centers were located in or near the court, where offenders were allowed more days to report for assessment, and where assessment and treatment placement occurred in a single visit. Further, assessment and treatment show rates were higher in counties using one or more drug-court procedures. At the drug treatment level, residential and methadone modalities were underutilized for high drug severity and opiate-dependent offenders⁵⁸. Finally, outcomes were best for SACPA-treatment completers.

Recommendation 3.1: Based on client assessments and research findings on successful strategies, greater resources should be dedicated to increasing treatment engagement, retention, and completion (also see Recommendation 2.2).

Recommendation 3.2: Resources should be allocated to ensure suitable and most-favorable drug treatment options locally. This may require capacity expansion, more efficient location and greater use of residential services, and greater use of NRT.

Recommendation 3.3: Collaboration and coordination among court, probation, parole, and drug treatment systems should continue to be improved with the goal of admitting offenders into appropriate treatment in the shortest possible time, as well as maintaining appropriate levels of oversight and supervision.

Recommendation 3.4: Incentives should be considered for providers who demonstrate more success in drug treatment engagement, retention, and completion for SACPA clients.

Recommendation 3.5: A greater use of both probation and community program drug testing information to determine additional services or intermediate sanctions of increasing severity for problematic or

⁵⁸ Use of these two treatment modalities may have been constrained by county-level slot or funding restrictions.

recalcitrant offenders. Such sanctions could include short jail stays that lengthen with each successive violation.

Several additional issues merit close attention. First, insufficient consideration was given to implementing drug abuse treatment “aftercare” or “continuity of care” in SACPA. Proven models for continuing care should be communicated to drug treatment providers for incorporation into their clinical process. Second, with Proposition 63⁵⁹ funding now available, consideration should be given to applying some of these funds to services for SACPA offenders with co-occurring mental health disorders. Third, the use of administrative databases has proven essential and productive in evaluating SACPA and other statewide policies. A concerted, collaborative effort should be made to streamline access to, and use of, centralized state data for authorized policy and evaluation studies. Finally, further policy-relevant sub-studies on accumulated and new SACPA data should be conducted to complement findings from the benefit-cost analysis.

Research Methods

Common economic analytic issues and several research issues were addressed in the methodology used for the SACPA benefit-cost analysis. These included design, data, analytic, and other aspects that were resolved on the basis of common econometric practice, logic, or empirical assessment. A detailed discussion is presented below.

Design

The SACPA evaluation is one of a few studies of major policy change involving drug treatment in which a time-lagged⁶⁰ comparison group was constructed, allowing for greater precision and credibility in the findings than the more typical single-group, pre- to post-intervention assessment. One disadvantage of a time-lagged comparison group is the possibility that time-related events, in addition to the intervention, might differ across the two periods under study. To compensate for this possibility, measured differences between the pre-SACPA-era and SACPA-era groups and time trends in important variables (e.g., strength of the economy and national crime trends) were statistically controlled in the analyses using covariate adjustments⁶¹. Moreover, as noted earlier, the SACPA evaluation relied on administrative records as data sources (which are more objective than client self-reports), and on a more extended baseline and follow-up period of observation. Overall, these improvements in design, analytic procedures, and data

⁵⁹ California voters approved Proposition 63, the California Mental Health Services Act, to provide additional funding for mental health services. Funds became available to the counties in January 2006.

⁶⁰ Although the two groups were similar in SACPA-eligible conviction and in offender characteristics, the fact that the pre-SACPA-era group was derived from a period before SACPA was implemented requires the time-lagged qualifier.

⁶¹ Covariate adjustments here refers to a standard statistical procedure that allows adjustment for imbalances in baseline variables that may be related to the outcomes under consideration. The adjustments help correct for potential differences in the groups’ predispositions that may cause them to behave differently from the outset, for example, the effect of differences in the economic climate on the groups’ access to employment opportunities.

sources lend additional credibility to the findings over other cost-determination approaches. The three studies were designed to answer the research questions enumerated in the request for evaluation proposals, as amended by suggestions from UCLA staff and consultants. In addition, later adjustments were made based on the cumulative suggestions by the SACPA SAG and the SACPA EAG.

This section describes the comparison group adopted in the benefit-cost analysis and explains the rationale for analytic time frames. Steps taken to identify SACPA's cost as precisely as possible are explained, as are the cost sources and issues addressed over the course of the analysis.

Comparison Groups. The evaluation's three cost studies served different purposes. UCLA employed comparison groups and time periods as appropriate to each purpose.

Study 1: SACPA as a Policy. Study 1 compared (1) offenders eligible for SACPA and (2) a pre-SACPA-era group of offenders who would have been eligible for SACPA. The purpose of this study was to calculate the cost attributable to SACPA as a policy. Findings cover 30-month periods before (baseline) and after (follow-up) the date of each offender's conviction.

The SACPA-era group was the population of adults (18 years or older) who were, during SACPA's first year (July 1, 2001 to June 30, 2002), convicted⁶² of a SACPA-eligible offense with no concurrent offense or other circumstance that should have made them ineligible. SACPA eligibility is determined at sentencing and depends on the nature of the offense(s) for which a conviction is entered. Thus, convictions provided the best indicator of eligibility for SACPA. All offenders convicted of a SACPA-eligible offense were included in the population, whether they actually participated in SACPA or not.

A time-lagged comparison group was drawn from the period before SACPA was enacted. The comparison group consisted of adults convicted of an offense for which they *would have* been SACPA-eligible with no concurrent offense or other circumstance that should

⁶² An alternative indicator of SACPA eligibility is arrest, rather than conviction. This alternative was considered because the conviction is "farther from the crime" than the arrest. That is, convictions reflect not only the arrest itself but also the post-arrest behavior of actors in the criminal justice system (e.g., the decision to file charges and the parameters of plea bargaining) and of offenders (e.g., acceptance of a plea bargain that renders the offender eligible or ineligible for SACPA). In addition, data on convictions (dispositions) were missing for 30% to 40% of SACPA-era and pre-SACPA-era offenders arrested for SACPA-eligible offenses, indicating a possibility that adjudication did not proceed after the arrest. On the other hand, a majority of offenders (66%) arrested for an eligible offense in SACPA's first year did not participate in SACPA, and an unknown portion of them may have been ineligible for SACPA at sentencing. Compared with convictions data, arrests data may therefore provide a much weaker indication of SACPA's cost. There is no empirical basis at present for resolving these considerations. The decision to use convictions as the indicator of SACPA eligibility was, therefore, made on logical grounds, namely, SACPA eligibility is determined upon conviction, not arrest.

have made them ineligible. This population consisted of offenders convicted between January 1, 1997 and June 30, 1998. The 30-month follow-up period for each comparison offender therefore ended on or before December 31, 2000. The pre-SACPA-era is as close to the SACPA years as possible, which minimized the chance that broader trends in drug use, law-enforcement patterns, or other factors might have influenced findings, and the follow-up period for that population ended in advance of any change in criminal justice practice that might have occurred in anticipation of SACPA implementation on July 1, 2001.

The benefit-cost analysis of SACPA as a policy is important because SACPA is a voluntary program; persons convicted of a SACPA-eligible offense may accept or decline the opportunity to be sentenced under SACPA. The voluntary nature of SACPA participation opened the possibility that offenders who accepted SACPA might be different in ways that could affect their costs. In program evaluation, this problem is known as “self-selection bias.” To avoid such bias, the program group must be constructed from *all* those eligible for the program, whether or not they self selected into it. In the case of SACPA, the prior event closest to an offender’s decision to accept or decline SACPA is conviction on a SACPA-eligible offense (or, for the pre-SACPA-era group, conviction on an offense for which they *would have* been SACPA eligible). Additional steps to ensure comparability of the SACPA-era and pre-SACPA-era groups are described in the Causal Inferences section.

Study 2: Degree of SACPA Participation. The purpose of Study 2 was to determine how benefit-cost ratios varied in relation to offenders’ degree of participation in SACPA. The study of variation in cost ratios in relation to SACPA participation was based on the population of adults (18 years or older) who, during SACPA’s initial year (July 1, 2001 to June 30, 2002), participated in SACPA—that is, those who *accepted a SACPA referral*. This population was identified based on three sources: (1) a disposition in the criminal justice record indicating that the offender was referred to SACPA upon conviction, (2) a SACPA-referred admission noted in CADDs, and (3) county records indicating SACPA participation. The population was divided into three groups: (1) offenders who were referred to SACPA but did not enter drug treatment, (2) offenders who entered but did not complete treatment, and (3) offenders who completed treatment. Compared to the more traditional drug treatment evaluation study based on a single-group design, as was the case in CalDATA and CalTOP, this comparison was more precise since the source of data was official records and the baseline and follow-up periods were lengthy. Like Study 1, Study 2 covered 30-month baseline and follow-up periods beginning with the date of each offender’s conviction.

Study 3: Replication of SACPA Outcomes. Study 3 reported costs in SACPA’s first and second years and compared them with the \$120 million annual allocation. Costs in SACPA’s first year were again based on the first-year SACPA population, defined on the basis of referral to SACPA (as in Study 1), but the follow-up period was restricted to 12 months. Costs in SACPA’s second year were based on second-year SACPA-eligible

offenders and used an equivalent 12-month follow-up period. A 12-month cutoff sacrificed the advantages of longer follow-up (see the Rationale for Analytic Time Frames section) but created an opportunity for replication across the first- and second-year populations. Given data reporting lags and the timetable for evaluation reporting, it was not possible to construct a follow-up period longer than 12 months for the second-year population.

Replication indicated the extent to which SACPA costs were similar across the two years and aided in interpreting findings from the other two studies. Specifically, it answers the question: Do the second year findings suggest that costs in the first year were in any way atypical?

Sub-Studies: High-Cost Offenders and Welfare. Two issues emerged in the overall cost analysis that merited further attention. One explored that group of SACPA-eligible offenders who contributed disproportionately to costs in the 30-month follow-up period. The second issue arose from welfare payments to SACPA-eligible offenders. Here the impact of welfare reform during the SACPA evaluation period created such shifts in the data that a valid DID cost assessment could not be conducted. However, descriptive information about the welfare status of the samples is provided.

Rationale for Analytic Time Frames

A follow-up period of 30 months had two important advantages. First, 23% of offenders in the pre-SACPA-era group and 9% of SACPA-era offenders were sentenced to jail or prison due to their SACPA-eligible conviction. This difference reflects one key aspect of the policy change being evaluated. That is, offenders who would have been eligible for community supervision and drug treatment after SACPA was implemented were, in the years before SACPA, more likely to be incarcerated. Median time served in jail was 2.5 months and median prison time was 12.9 months for offenders in the pre-SACPA-era group. During in-custody months, there were incarceration costs, which include the costs of custody, healthcare, and other services delivered in jail or prison, but no other costs. In particular, while incarcerated, offenders had no opportunity to commit new offenses in the community. This fact was important in Study 1 because re-offending was a contributor to total costs. Over a 30-month follow-up period, however, the typical pre-SACPA-era offender who began the period in jail or prison will have been back “on the street” for 17 months or more and will therefore have had time in which to re-offend. Assessment of costs under SACPA was, therefore, more complete with a 30-month follow-up period than would have been possible in a shorter period.

Second, SACPA may show elevated costs of healthcare and social services over the first few months of an individual’s participation in a drug-treatment program as he or she finally begins to receive long-needed services that are potentially important to recovery. In a follow-up period as long as 30 months, the effects of any short-term “blip” in service access will have receded. Coverage of costs under SACPA and before SACPA

implementation was therefore more reliable in a 30-month follow-up period than would have been possible in a shorter period.

With a 12-month follow-up, Study 3 was more limited in its coverage in that potential costs (or savings) beyond this period could not be considered during the evaluation time frame. For this reason, major conclusions about the total cost and benefit-cost ratios were based on Study 1 and Study 2. Study 3 still has value in showing whether costs were similar across years. Importantly, if benefit-cost ratios are similar across the two years, the findings show the stability of cost outcomes.

Causal Inference

Even with the small interval between the SACPA and comparison groups a time-lagged comparison group retains some analytic problems. For example, problems were identified due to changes in data-system efficiencies and coverage. Data from two of the intended cost areas were eliminated from the DID cost estimation: there were insufficient baseline period data for mental healthcare, and competing changes caused by welfare reform for welfare.

To remediate other analytic issues due to sample composition and time lag, a twofold approach was employed to strengthen causal inference from the analysis, to isolate the SACPA cost as precisely as possible. First, a DID econometric-modeling approach was used to compare offender groups. Second, covariance adjustments were used at two levels in an effort, first, to statistically minimize the effects of offender background characteristics and, second, to correct for general contextual conditions in which certain time trends in events (such as overall state economic conditions and changes in crime statistics that were unrelated to SACPA) could have varied significantly over the full period of comparison. Such variation might have had spurious effects on findings. However, despite including several important contextual variables as covariates, such statistical corrections may not have fully eliminated non-comparability of data. The DID and covariance adjustment approaches are described in greater detail below.

Analytical Approach

Each of the three studies used a DID approach. This approach is common in econometric analyses of data from randomized experiments or in natural experiments such as SACPA, where a time-lagged comparison group was constructed. It is important to understand the DID approach fully before interpreting findings and conclusions.

Offenders in each group had a baseline and follow-up period. The baseline period covered 30 months before the date of the offender's conviction for a SACPA-eligible offense. The follow-up period covered 30 months beginning on the date of that conviction. Costs were calculated for each offender in each period and were based on two cost elements: quantities and prices. Quantities are a count of events, such as days in drug treatment, days in prison, and quarters of earned income. Events were counted for each offender's baseline and follow-up period. A price, based on one or more

authoritative sources or from available data, was assigned to each event and multiplied by the count of that event, yielding a cost in that category for each offender in each group in each period. All prices were expressed in 2004 dollars using the consumer price index or, as appropriate, the medical price index.

The first difference in the DID approach is between the baseline period and the follow-up period for each offender. The difference shows the degree to which costs for that offender rose or fell over a standard follow-up time frame. By finding the differences in costs between the baseline and follow-up periods for each offender, the analysis was able to compare follow-up period costs after adjusting for the costliness that each offender came in with; that is, each offender served as his or her own control. The second difference in the DID approach is the difference between groups. That is, did the baseline-follow-up change for all offenders in each group indicate lower or higher per-offender costs in one group or the other? Appendix 7A contains an illustration of a hypothetical DID example.

Covariance Adjustment

In all studies, the pre-SACPA-era and SACPA-era group analyses were conducted after controlling for offender background characteristics, including age, gender, race/ethnicity, prior drug abuse treatment history, prior criminal history, and home county. UCLA used covariance adjustment to control for any extraneous effects of these characteristics on findings.

As noted, contextual conditions could have affected the two groups differently. Adjustments were made for two of the conditions possibly affecting SACPA outcomes: national crime trends and the state unemployment rate. Other such contextual trends could be hypothesized to also affect one or the other of the groups differentially over the lagged time frames used. One such trend was the rapid change in welfare benefits over the study period under the impetus of welfare reform policies and practices. This last trend could not be corrected for by covariance adjustment since data shifts due to welfare reform could not be disentangled from those of SACPA.

Costs Covered

As noted, the analysis covered costs in eight areas (cost categories), five in criminal justice: jail, prison, probation, parole, arrests and convictions, two in social services: drug treatment and healthcare, and one related to taxes paid, taxable earnings and sales tax. The count of events that served as a basis for cost calculation was obtained from California administrative databases. The extent to which such data contain errors potentially affecting reliability and validity varies across data sources and depends on the complexity and quality of the data collection, entry, and internal correction processes. Since these concerns apply equally to the pre-SACPA-era and SACPA-era groups, the DID approach essentially removes any relative effect of data errors on findings.

This section provides a summary of costs in each cost category. These categories cover the majority of cost domains cited in the evaluation's cost-research questions, which were formulated throughout the evaluation planning. It should be noted, however, that the cost analysis could not fully address all of the questions formulated by SACPA stakeholders and advisors. For example, UCLA determined that the likely number of offenders diverted from prison would fill a medium-sized prison. However, California prisons are so overcrowded that the most likely effect of SACPA would simply be less overcrowding. Whether prison construction can be deferred or eliminated thus becomes a more long-term and broader question, and one beyond the scope of the SACPA evaluation.

Jail and prison costs were based on days served in custody (not days sentenced) for each offender. Unlike prison days, where a release date could be obtained from state administrative data, days in jail had to be imputed from sentenced time as reported in administrative data, adjusted by percent of sentence time served, which varied by county depending on local policy and budgets. A survey of counties by ADP and UCLA obtained each county's best estimate of percent of time served. The price of a jail day also varied by county and was costed accordingly. Jail costs were assigned to each offender based on the offender's county of conviction. The price of a prison day was assumed to be the same for all offenders confined in any of the state prisons. Because the number of jail and prison days served by SACPA offenders was similar to the full census of a mid-size facility, the analysis used the average cost of a jail or prison day rather than the marginal cost⁶³.

Probation and parole costs were based on supervision days for each offender. Dual supervision was not taken into account. The cost of a probation-supervision day varied by county and was priced accordingly. The cost of a parole-supervision day was assumed to be the same across counties.

All arrests and convictions in California were recorded⁶⁴. Arrest and conviction costs covered felonies and misdemeanors in all crime categories (drug, property, violent, and other) as well as motor vehicle accidents resulting in arrest. In analyses using the taxpayer perspective (which includes only costs to state and local governments), arrest and conviction costs included all case-processing costs and that portion of victim services (healthcare, ambulance services, mental healthcare, police/fire services, and victim services) likely to have been paid by public sources. Police and sheriffs' costs were based on arrests because an arrest leads to case-processing costs whether or not a conviction later occurs. However, victim services, superior courts, and county prosecutor costs were conservatively estimated based on convictions because the formal

⁶³ Marginal costs reflect only those costs due to increased staffing, feeding, medical care, and other costs associated with the number of offenders incarcerated. Average costs also include those for facility construction and maintenance.

⁶⁴ The evaluation did not have access to information on out-of-state offending.

determination that an offender committed the offense leading to such costs is represented by conviction, not simply arrest⁶⁵.

Drug treatment for each offender was costed by treatment modality (i.e., outpatient drug-free, long-term residential, or NRT) received by that offender because modalities can vary substantially in cost. Days in treatment were obtained from CADDs, maintained by ADP. In some cases, discharge information was missing. An imputation of days of treatment for each modality was used in such cases based on the average duration calculated for those having a discharge date.

Healthcare costs covered medical claims as paid by the state Medi-Cal and Medicaid system.

Taxable earnings as reported to EDD for each offender were calculated in order to arrive at amounts paid in state income tax and local sales tax⁶⁶. This cost domain is on the “plus” side. That is, the overall cost in the pre-SACPA-era and SACPA-era groups was reduced to the extent that offenders in those groups paid taxes.

Finally, welfare status was obtained from the Department of Social Services. Costs actually paid were not directly available. As noted, these data could not be used for the benefit-cost analysis because of the confounding effects due to welfare reform. However, some descriptive data are provided.

Analytic Issues

Several analytic issues had to be addressed in the benefit-cost analysis. Some were decided on the basis of standard practices in econometrics or on professional consensus. Others were not amenable to a single decision, either because none of the plausible alternatives were clearly superior or because the alternatives might have affected findings to a degree too large to be left unexplored. UCLA used sensitivity analyses to address both of these issues. Sensitivity analysis allows possible alternate scenarios to be explored and their effects on cost variability to be determined. Ideally, results from sensitivity analyses tend to converge on those from the chosen analysis, and add to the confidence in those results. Results reported here were well within the mid-range of results using alternate modeling assumptions.

⁶⁵ While the taxpayer perspective is used for the benefit-cost analyses, analyses using the broader “social-planner perspective” are also possible. The social-planner perspective includes costs to the public as well as to state and local governments. For example, in the calculation of costs attributable to new crimes the social-planner perspective included case processing and victim-service costs included in the taxpayer perspective detailed above as well as property loss or damage, pain and suffering, and quality of life impacts incurred by victims themselves and perhaps in part by private insurers.

⁶⁶ The social-planner perspective includes the full value of foregone-employment earnings, whereas the taxpayer perspective considers only consumption taxes and the income taxes paid on earnings.

Chapter 8: Funding Implications of Improvements to SACPA

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UCLA analyzed the cost implications of several options for improving the performance of SACPA. Four treatment expansion options and one community supervision enhancement option are considered. The accumulated total for implementing the enhanced SACPA options described in this chapter is \$78.9 million.

Option A estimates the cost of providing pre-SACPA-era Placement Parity. The incremental cost to provide SACPA-era clients with the care they would have received had they been referred to treatment through the criminal justice system in the pre-SACPA-era would cost an additional \$19 million.

Option B estimates the cost of providing an adequate treatment “dose.” It would cost at least \$18 million dollars to move all offenders who entered SACPA but did not receive 90 days of care to a 90-day treatment minimum mark.

Option C estimates the cost of providing treatment to offenders not currently entering treatment. Providing outpatient drug-free treatment to those individuals who are currently untreated would increase treatment costs by \$13.3 million.

Option D estimates the cost of providing NRT treatment to opiate-using offenders not currently receiving NRT. Extending NRT to all medically eligible clients would result in an annual incremental cost increase of at least \$3.7 million.

Option E estimates the cost of enhanced community supervision that depends on the supervision needs of the offender. Estimates are based on a 25% enhancement to the current supervision cost of offenders who enter SACPA with no convictions in the 30 months prior to their SACPA conviction, a 50% enhancement for offenders who enter with one to four prior convictions in the 30 months prior to their SACPA conviction; and the provision of intensive supervision probation (ISP) for offenders who have five or more prior convictions in the 30 months prior to their SACPA conviction. The enhancements in community supervision would result in an increased cost of supervision of approximately \$25 million.

Chapter 7 provides details of the UCLA Benefit-Cost Analysis Report. One component of this report was an assessment of the benefits and costs of SACPA based on the degree of an offender’s participation in drug treatment. The study found significantly greater savings for offenders who completed SACPA-referred drug treatment, compared with those who did not enter treatment or entered but did not complete treatment. ADP asked UCLA to estimate the costs of specific potential improvements to the law’s provisions. With limited time and information, UCLA’s estimation of costs of potential

improvements is approximate and focuses on only a limited set of possible options. This report provides a useful starting point for the discussion of likely scenarios and their cost implications.

Background

Determining the optimal funding of SACPA is complex, as many factors could be taken into account. Contributing to this complexity is the wide range of costs involved in the operation of SACPA, including those of criminal justice processing, incarceration, probation and parole, drug treatment, and ancillary social services that the law allows. UCLA reduced this task by examining two sets of more tractable questions that the currently available data are most suited to address:

1. Given the increase in demand for drug treatment services that followed the enactment of SACPA and the adjustment by providers to meet this demand, what would it cost to fund SACPA at levels that would provide care equivalent to the pre-SACPA-era status quo?
2. What would it cost to fund enhancements in treatment provision and community supervision under SACPA that could lead to better rates of treatment entry and completion?

UCLA estimated the cost of five treatment-improvement scenarios involving the multiple interacting systems responsible for SACPA (i.e., drug treatment and the criminal justice systems), including reducing specific treatment gaps and providing greater levels of probation supervision.

The success of SACPA as a crime prevention and public health strategy depends on appropriately treating the drug offenders who accept the SACPA referral. Treatment placement of SACPA clients is a concern, as treatment is more likely to succeed if clients are matched with services according to the severity of their drug use problem (McClellan, 2003). In chapter 6 the implications of treatment mismatches are discussed, highlighting two types of inadequate treatment placement under SACPA: placement into outpatient drug-free treatment when long-term residential treatment would have been more appropriate and lack of placement into NRT.

For the first type of treatment mismatch discussed above: despite evidence of the benefits of long-term residential treatment for heavy-using clients, the financially strained treatment system has adopted what can be described as an “outpatient-first” approach to drug-abuse care. Clients must perform poorly in outpatient drug-free treatment before they are able to receive residential treatment (McClellan, 2003). Long-term residential treatment is more costly compared with outpatient drug-free treatment, and there is limited capacity for long-term residential treatment in many localities. For heavy drug users, the increasing reliance on outpatient drug-free care hinders client outcomes, although it also reduces treatment costs.

In the case of the second type of inadequate placement: Rates of placement NRT programs are low among SACPA offenders. Some drug treatment providers and clients resist NRT programs to treat opiate dependence (D'Aunno & Pollack, 2002), but much of the resistance to NRT derives from the criminal justice system (Anglin, 2006). This may stem from the need for more standardized assessment for NRT needs to determine who should be referred for NRT.

UCLA relies on CADDSS for statewide information on drug treatment under SACPA. The data on drug problem severity in CADDSS are insufficient to support a formal determination of need for long-term residential treatment. However, by using comparison studies (SACPA-era placement versus pre-SACPA-era placement), UCLA is able to determine whether criminal justice-referred clients in the SACPA-era differ in how likely they are to be placed in long-term residential treatment. A lower prevalence of placement in long-term residential treatment among heavy-using SACPA-era clients may suggest less effective treatment after SACPA implementation due to inadequate resources. CADDSS allows identification of SACPA offenders' primary drug and treatment placement, thereby allowing the study of rates of placement in long-term residential treatment and NRT.

Data

Data used to describe treatment trends in California are taken from CADDSS. CADDSS contains admission and discharge records of all clients admitted to publicly funded alcohol and drug treatment programs or to private state-licensed methadone programs. CADDSS provides data on client treatment placements, prior treatment episodes, and other treatment and client characteristics. CADDSS includes data on demographics, drug use history, duration of treatment, treatment mode, legal status, and source of referral.

Methods

Costing Improvements to SACPA

UCLA considered four drug treatment enhancement options and also the cost implications of enhancing probation supervision. The first treatment-enhancement option compares the difference between current treatment expenditures and what treatment expenditures would have been if SACPA-eligible participants were treated according to the treatment placement practices for clients referred by the court/criminal justice system in the pre-SACPA-era. The second option considered the cost implications of improving the treatment "dose" for SACPA offenders who enter treatment but receive fewer than 90 days of care. The third option considered the cost of expanding services to those who are referred to SACPA but never receive care. The fourth option considered the cost implications of increasing NRT for SACPA clients who report opiates as their primary drug. The final option provided a cost for enhancing probation supervision under SACPA that would likely result in better compliance with treatment admission and retention.

The analysis of expenditure scenarios relies on data from CADDSS to generate models to estimate the costs of the five options. Input parameters for these estimates draw on evaluation data collected for the SACPA benefit-cost report.

Findings

The analysis shows significant changes to treatment and client-composition trends after SACPA was enacted. Chapter 6 showed the number of new admissions and the number of admissions of heavy users increased significantly after SACPA implementation, illustrating the demand shock faced by the treatment community⁶⁷. Additionally, analysis presented in chapter 6 showed a large increase in the number of heavy users referred to treatment through the criminal justice system. The average number of new criminal justice-referred treatment admissions per month for heavy-using clients more than doubled after SACPA was implemented. UCLA studied trends among criminal justice referred clients who were placed in long-term residential care, for the full population of criminal justice referred clients and for the subset of clients considered to be heavy users. While the absolute number of residential treatment slots increased after SACPA implementation, the treatment system was unable to keep pace with the increase demand. After SACPA implementation, the percentage of clients entering long-term residential treatment declined significantly and there also were substantial differences in residential placement rates for heavy users (see Chapter 6).

Costing Improvements to SACPA

There are many possible approaches to improving SACPA. UCLA's analysis costs four treatment options and one enhanced probation supervision option.

Option A: Pre-SACPA-Era Placement Parity

There were significant changes in the placement of court/criminal justice-referred clients following the implementation of SACPA compared to the treatment these clients would have received in the pre-SACPA era, with a significantly smaller percentage of clients being placed into long-term residential treatment and only a small percentage receiving NRT. The first treatment enhancement option estimates the incremental cost to provide SACPA era clients with the care they would have received had they been referred to treatment through the criminal justice system in the pre-SACPA era. This does not suggest that pre-SACPA-era treatment through the criminal justice system constituted optimal care. The goal here is to cost the funding shortfall between care in the SACPA-era and care in the pre-SACPA-era.

UCLA compared SACPA clients' treatment costs with the costs that would have been expected had they been treated following treatment-placement practices for court/criminal justice referred clients in the pre-SACPA era. Table 8.1 shows the

⁶⁷ Heavy use is defined as daily use of an illicit drug.

distribution of SACPA clients by primary drug and frequency of use. Based on CADDs data, the probability of placement in each treatment modality was estimated given the client’s drug use characteristics (primary drug and frequency of use in the month prior to treatment admission).

Table 8.1 Distribution of SACPA Treatment Clients by Primary Drug and Frequency of Use

		Frequency of Use					
	Primary Drug	1	2	3	4	5	Total
Primary Drug	Heroin/Other Opiates	2.57%	0.71%	0.46%	0.87%	8.74%	13.35%
	Alcohol	2.53%	1.47%	1.37%	1.17%	3.87%	10.42%
	Methamphetamine	18.69%	7.53%	6.06%	5.22%	14.13%	51.63%
	Cocaine/Crack	4.46%	1.88%	1.57%	1.21%	3.97%	13.11%
	Marijuana/Hashish	2.68%	1.58%	1.20%	1.09%	3.25%	9.79%
	Other	0.76%	0.30%	0.24%	0.11%	0.29%	1.71%
	Total	31.70%	13.47%	10.90%	9.67%	34.26%	100.00%

Notes: Values derived draw on data from CADDs. Frequency of use coding: 1. No past-month use; 2. 1-3 times in past month; 3. 1-2 times per week; 4. 3-6 times per week; 5. daily. “Other” primary drug includes barbiturates, other sedatives or hypnotics, other amphetamines, other stimulants, PCP, other hallucinogens, tranquilizers, nonprescription methadone, inhalants, and over the counter drugs.

UCLA then compared the actual cost of treatment for SACPA clients with the cost of treatment for clients with matched drug use patterns who entered treatment through the criminal justice system in the pre-SACPA-era. Table 8.2 illustrates the decrease in treatment expenditure for each type of SACPA treatment client, compared with the expenditure for pre-SACPA-era treatment placements. A negative value indicates lower expenditure per client due to placement changes (placing clients in lower-cost alternatives); a positive value indicates additional expenditures in the SACPA-era compared to pre-SACPA-era expenditure. Table 8.2 illustrates significant differences in shortfalls across offender primary drug and frequency of use. Spending changes per client were most pronounced for opiate and cocaine users. The spending difference per client, averaged over all clients treated under Option A, is \$525. Providing a pre-SACPA-era level of treatment would cost approximately an additional \$19 million⁶⁸.

⁶⁸ For the purposes of the shortfall calculation, the annual number of individuals entering treatment through SACPA is assumed to be 35,947. The value shown is calculated as $35,947 \times \$525.47 = \$18,888,891$. 35,947 is the number of offenders who entered SACPA treatment during the 2002-2003 year (Longshore et al., 2004).

Table 8.2 Treatment Expenditure Differences by Primary Drug and Frequency of Use at Treatment Entry

		Frequency of Use				
	Primary Drug	1	2	3	4	5
Primary Drug	Heroin/Other Opiates	-\$1,048	-\$838	-\$602	-\$304	-\$505
	Alcohol	-\$162	-\$131	-\$153	-\$216	-\$47
	(Meth)amphetamine	-\$636	-\$353	-\$439	-\$477	-\$552
	Cocaine/crack	-\$1,175	-\$704	-\$974	-\$702	-\$965
	Marijuana/Hashish	-\$178	+\$18	-\$40	-\$68	-\$272
	Other	-\$814	-\$685	-\$876	-\$289	-\$817

Notes: Values derived draw on data from CADDs. Frequency-of-use coding: 1. No past-month use; 2. 1-3 times in past month; 3. 1-2 times per week; 4. 3-6 times per week; 5. daily. “Other” primary drug includes barbiturates, other sedatives or hypnotics, other amphetamines, other stimulants, PCP, other hallucinogens, tranquilizers, non-prescription methadone, inhalants, and over-the-counter drugs. A negative value indicates lower expenditure for SACPA offenders due to provision of less expensive treatment alternatives compared to pre-SACPA clients.

Option B: Providing an Adequate Treatment “Dose”

Option B considers the cost implications of reducing the number of clients who currently enter SACPA treatment but receive an insufficient treatment “dose.” 90 days in treatment was used as a threshold to determine a minimum dose, as it is often cited as the minimum number of days a client needs to be in treatment in order for treatment to have a positive effect (Fletcher et al., 2006). Table 8.3 shows the percentage of clients, by primary drug of use, who entered treatment during the SACPA-era but received fewer than 90 days of care. The second column of Table 8.3 shows the cost of providing the difference between the 90-day threshold and the actual number of days of care the client received⁶⁹. UCLA estimated it would cost at least \$18 million to move all offenders who entered SACPA but did not receive 90 days of care to a 90-day treatment minimum mark.

Option C: Providing Treatment to Offenders Not Currently Entering Treatment

Option C estimates cost implications of providing a minimum dose of treatment (90 days) to individuals referred to SACPA that do not enter treatment. As these individuals are not found within CADDs, UCLA does not have information on their primary drug or frequency of use. As UCLA is unable to make informed imputations regarding the appropriate modality of care for these clients, this scenario was costed on the basis of outpatient drug-free treatment to provide at least a minimal estimate. Expanding

⁶⁹ The estimate is derived by calculating the cost of providing outpatient drug-free treatment for the “shortfall” days (i.e., 90 minus the number of days in treatment) for all individuals who *entered* treatment but did not receive 90 days of treatment. These estimates do not include the cost of providing care to individuals who never entered treatment through SACPA.

treatment to provide minimal care for those individuals who are currently untreated would increase treatment costs by at least \$13.3 million⁷⁰.

Table 8.3 Percentage of SACPA Offenders Who Enter Treatment and Receive Fewer than 90 Days of Care and Cost to Provide 90 Days in Treatment

	Primary Drug	Percent treated for less than 90 days	Total incremental cost to provide 90-day “dose”
Primary Drug	Heroin/Other Opiates	34.2%	\$2,710,409
	Alcohol	32.8%	\$2,000,147
	Methamphetamine	25.2%	\$8,957,582
	Cocaine/Crack	29.3%	\$2,419,711
	Marijuana/Hashish	23.6%	\$1,698,523
	Other	21.2%	\$258,804
	All Users	27.5%	\$18,045,175

Notes: Values derived draw on data from CADDs. Values reported in the first column are the percentage of clients who enter treatment but receive fewer than 90 days of treatment. Values in the second column reflect the average treatment shortfall, that is, on average, how many days fewer than 90 the offenders spent in treatment. “Other” primary drug includes barbiturates, other sedatives or hypnotics, other amphetamines, other stimulants, PCP, other hallucinogens, tranquilizers, non-prescription methadone, inhalants, and over-the-counter drugs. A positive value indicates lower expenditure for SACPA offenders due to switches to less expensive treatment alternatives.

Option D: Providing NRT Treatment to Offenders Not Currently Receiving NRT

Option D estimated cost implications of expanded use of NRT for SACPA offenders who report opiates as their primary drug. Specifically, all offenders who reported opiates as their primary drug and who were assigned to outpatient drug-free treatment are assigned the cost of receiving NRT. Each offender is assigned the average number of days in NRT that UCLA observed in CADDs for those offenders who were assigned to a NRT program (162 days)⁷¹. Table 8.4 illustrates the funding implications of extending NRT to all medically eligible clients. Extending NRT to those who currently receive outpatient drug-free treatment would yield a \$774⁷² increase in the average cost of treating SACPA-era opiate-using offenders. This amounts to an annual cost increase of at least \$3.7 million⁷³.

⁷⁰ The value shown is calculated by multiplying the number of offenders who did not receive treatment (number referred to SACPA minus the number who enter treatment) by the cost of 90 days of outpatient care (in 2006 dollars). Increment = 14,388 × 90 × \$924.21 = \$13,297,533

⁷¹ This average is calculated for all individuals assigned to NRT maintenance and detoxification programs.

⁷² The \$774 value is the difference between the current average treatment cost for an opiate user (\$2,889) and the cost under the option involving expanded use of NRT (\$3,663).

⁷³ The value shown is calculated by multiplying the number of offenders who enter treatment (35,947) by the proportion who report opiates as a primary drug of use (13.3%), then multiplying this value by the

Table 8.4 Opiate-Using SACPA Offenders: Current Per-Offender Costs and Estimated Per-Offender Costs with Expanded Use of NRT

	Frequency of Use					All
	1	2	3	4	5	
Percentage of users	19%	5%	3%	6%	65%	100%
Current	\$2,455	\$2,669	\$2,667	\$2,869	\$3,048	\$2,889
Expanded NRT	\$3,449	\$3,585	\$3,564	\$3,677	\$3,736	\$3,663

Notes: Values derived draw on data from CADDs. Under the expanded-NRT scenario all SACPA clients reporting opiates as their primary drug who are currently receiving outpatient drug-free treatment are costed at NRT prices. Values assume 162 days in NRT. Frequency of use coding: 1. No past-month use; 2. 1-3 times in past month; 3. 1-2 times per week; 4. 3-6 times per week; 5. daily.

Option E: Enhanced Community Supervision

The UCLA Benefit-Cost Analysis made a number of policy recommendations for improving SACPA, including more intensive community supervision for SACPA offenders to facilitate higher levels of treatment entry and completion and deter recidivism. Here UCLA presents an option wherein the cost of supervision under SACPA depends on the supervision needs of the offender (see the Benefit-Cost Analysis in Chapter 7 for more detail on the relationship between offender follow-up arrest and conviction costs and the number of prior convictions). For Option E, UCLA assumes a 25% enhancement to the current supervision cost of offenders who enter SACPA with no convictions in the 30 months prior to their SACPA conviction and a 50% enhancement for offenders who enter with one to four prior convictions in the 30 months prior to their SACPA conviction. UCLA also assumes intensive supervision probation (ISP) for offenders who have five or more prior convictions in the 30 months prior to their SACPA conviction⁷⁴. The higher supervision cost for this group is justified by the risk of high-cost recidivism for this group. Table 8.5 shows the cost of community supervision enhancements. The suggested enhancements in community supervision would result in an increased cost of probation of approximately \$25 million.

average increment in treatment costs for opiate users. If all receive NRT, incremental cost = $35,947 \times 0.133 \times \$774 = \$3,699,950$.

⁷⁴ Offenders placed into ISP supervision are required to meet frequently with their supervising officers and are closely monitored to ensure compliance with the SACPA guidelines. Offenders placed into ISP also frequently submit urine samples for urinalysis to detect recent drug use.

Table 8.5 Enhanced Community Supervision

Offender Conviction History	Percentage of Offenders	Level of Supervision	Total Additional Cost
No Prior Convictions 30 months prior	47.0%	Enhanced – 25% ^a	\$7,009,942
1-4 Prior Convictions 30 months prior	51.4%	Enhanced – 50% ^b	\$15,345,443
5+ Prior Convictions 30 months prior	1.6%	Intensive* ^c	\$2,636,789
Total			\$24,992,173

^a Enhanced – 25% supervision is priced 25% higher than standard supervision (\$4.06 compared with \$3.25). The cost shown is the marginal cost of funding enhanced probation compared with standard probation for these clients.

^b Enhanced – 50% supervision is priced 50% higher than standard supervision (\$4.87 compared with \$3.25). The cost shown is the marginal cost of funding enhanced probation compared with standard probation.

^c The cost for intensive supervision is based on an intensive probation supervision cost of \$12.22 per day in 2006 dollars (adjusted from Petersilia, 1998)

Summary of Cost Implications of Improvements to SACPA

A summary of costs to improve SACPA is provided in Table 8.6. The cost of incorporating all of these improvements into SACPA would require funding SACPA at \$228.6 million in 2006 dollars. Some limitations should be noted. Many potential program enhancements are excluded here, for example, the cost of increasing length of stay in long-term residential treatment, providing ancillary services, or aftercare, all of which have been shown to improve drug treatment outcomes and for which provision was made in SACPA.

Table 8.6 Summary of Alternative Funding Options

SACPA Funding Options	Cost in 2006 dollars
Baseline*	\$149,709,926
Pre-SACPA placement parity	\$18,888,891
90-day dose to undertreated offenders	\$18,045,175
90-day dose to untreated offenders	\$13,297,533
Expanded NRT	\$3,699,951
Community supervision	\$24,992,173
Total	\$228,633,649

*Baseline value is based on County Total Expenditures 2005-06. Source: SRIS/Annual Financial Status Reports

Conclusions

The accumulated total for implementing the enhanced SACPA options described in this chapter is \$78.9 million⁷⁵. While these scenarios represent significant costs, policymakers should be aware of several qualifications built into the options. Many counties (e.g., Kern, Riverside) reported lengthy waiting lists for SACPA clients, especially as funds decrease over the course of the fiscal year. Hence, the goal of moving SACPA offenders into treatment as quickly as possible (see Chapter 7 recommendations) is constrained. Capacity expansion in many regions is a continuing issue and is not included in the above analyses.

Also, aspects of costs related to acquiring or building more residential placement treatment facilities (capitalization), ancillary services such as education development, job training, mental healthcare, and the provision of other services are not included in any of the scenarios. Further analyses of data accumulated for the benefit-cost analysis in terms of healthcare, mental healthcare, welfare, and other social service needs of SACPA offenders will not only correspond to the needs of this population more thoroughly, but will also provide a basis for further applicable cost projections. Research in this direction should be pursued.

Finally, in the face of budgetary pressure, increased funding for any program creates tradeoffs. Increased funding for SACPA may be offset by program funding cuts elsewhere. Estimating the opportunity costs of increasing funding for SACPA in this regard was well beyond the scope of this study.

⁷⁵ The incremental funding of \$78.9 million is calculated as the total cost of SACPA options discussed here (\$228.6 million) less baseline spending (\$149.7 million).

Conclusions and Recommendations

Over the five years of the SACPA Evaluation UCLA has addressed a series of research questions that were established in discussions with stakeholders. Findings from the evaluation have generated new questions for future research. This section presents the key findings from the evaluation, and provides recommendations that follow from these findings. For a summary of the original evaluation research questions, a summary of answers to each, and information on where to find further discussion of each of the topics among the series of reports produced by UCLA for ADP over the course of the evaluation, see Appendix 9.

Conclusion 1: SACPA Was a Sound Investment for Taxpayers.

From a taxpayer's perspective, SACPA saved nearly \$2.50 for every \$1 allocated (see Chapter 7). For treatment completers, the savings were \$4 for every \$1 allocated. The benefit-cost analysis findings suggest that carefully targeted funding increases in SACPA may be warranted.

Recommendation 1: Consider funding for improvements to SACPA. Chapter 8 presents several options for the state to consider for future funding.

Conclusion 2: A Small Number of Offenders are Responsible for a Large Percentage of New Crimes Committed.

UCLA found that the typical SACPA offender had no convictions in the 30 months following their SACPA-eligible conviction. In contrast, offenders with five or more convictions in the 30-month period prior to their SACPA-eligible conviction produced crime costs ten times higher than those of the typical offender.

Recommendation 2: SACPA criteria should be modified so that offenders with high rates of prior non-drug convictions are placed into more-controlled settings. Such settings could include residential treatment or prison- or jail-based treatment programs. Alternatives to controlled settings might include drug court referral and more intensive community supervision.

Conclusion 3: Treatment Completion was Associated with Better Outcomes.

Treatment completion has been consistently lower for African-Americans, Hispanics, heroin users, and parolees than their relevant comparison groups (see Chapter 3 of this report, Chapter 3 of the 2004 SACPA evaluation report, Chapter 7 of the 2003 SACPA Evaluation Report). SACPA offenders who completed treatment had better outcomes during the follow-up period. Treatment completers had lower levels of drug use, lower rates of unemployment, and were less likely to re-offend (see Chapter 4 in this report and Chapter 5 of the 2004 SACPA Evaluation Report).

Recommendation 3.1: Based on client assessments and research findings on successful strategies, greater resources should be dedicated to increasing treatment engagement, retention, and completion.

Recommendation 3.2: Resources should be allocated to ensure suitable treatment matching to offender treatment needs. This may require capacity expansion, more-efficient location of treatment centers, greater use of residential services, and expansion of NRT.

Recommendation 3.3: Collaboration and coordination among court, probation, parole, and drug-treatment systems should continue to be improved with the goals of admitting offenders into appropriate treatment in the shortest possible time and providing appropriate levels of oversight and supervision.

Recommendation 3.4: Incentives should be considered for counties and providers who demonstrate success on objective measures, such as reduced time from SACPA conviction to treatment entry.

Recommendation 3.5: A greater use of probation and community program drug testing information to tailor service provision and to provide an objective basis for the enforcement of graduated sanctions for offenders who do not comply with treatment requirements.

Conclusion 4: SACPA Implementation was not Associated with a Significant Increase or Decrease in Statewide Crime Trends.

UCLA analyses of statewide crime trends showed some trends fluctuated slightly, upward or downward, but there was no reliable evidence of any significant change in any of the crime trends analyzed.

Recommendation 4: Pursue research to quantify the effect of SACPA on crime among the broader population of both drug offenders and non-drug offenders to determine the net effect of SACPA on public safety and criminal justice costs.

Conclusion 5: Treatment Differences Exist.

Residential treatment placement was significantly lower for SACPA referrals than for non-SACPA criminal justice referrals (see Chapter 6). Young male Hispanic clients were less likely to be placed in residential treatment than White clients with similar drug use severities. This disparity did not exist for older Hispanic offenders. The effect of treatment placement (residential or outpatient) on criminal justice outcomes was most dramatic for SACPA offenders reporting methamphetamine as their primary drug. NRT for opiate users was low for SACPA referrals compared to self-referrals and other non-

SACPA criminal justice referrals. The limited use of NRT among opiate users had public safety implications as opiate-using SACPA referrals who were not placed in NRT had worse criminal justice outcomes than those who did.

Recommendation 5.1: Differences in treatment placement for young Hispanic men should be investigated. It is not clear whether these placement differences are a consequence of offender self-selection or a result of barriers faced by this group of offenders. Further research should assess needs for localized capacity expansion, cultural competence, and other resources required to address these treatment differences.

Recommendation 5.2: Drug treatment resources should be adjusted to better meet the needs of heavy-using offenders. Residential treatment should be available for those with the most severe drug use problems. Prioritizing expanded use of residential treatment for heavy-using methamphetamine users may be warranted.

Recommendation 5.3: NRT should be provided as a first line intervention for opiate using SACPA offenders.

Recommendation 5.4: Identify improvements for parolees through further research. Improvements may include increased supervision, dedicated SACPA parole agents, and closer collaboration between parole agents, county agencies, and treatment providers.

Recommendation 5.5: Conduct research to examine potential treatment differences and needs among additional special populations, including offenders with co-occurring mental disorders, women, pregnant women, women with children, and the homeless.

Conclusion 6: SACPA can be Improved.

SACPA implementation practices vary widely across the state. This provides an opportunity to identify promising practices. Evidence-based practices drawn from the research literature should be incorporated wherever possible.

Recommendation 6.1: Implement practices associated with better show rates, including locating assessment units in or near the court, performing assessments in a single visit, allowing walk-in assessments without appointments, and incorporating procedures used in drug courts (e.g. a court calendar dedicated to drug offenders, dialog between the judge and offender, close supervision by a judge or case manager, and a collaborative court process involving the judge, prosecutor, defense attorney, and treatment provider).

Recommendation 6.2: Evidence-based practices established by existing research should be incorporated wherever possible. Sources for these practices include “Promising Practices” promoted by NIATx⁷⁶ and Treatment Improvement Protocols published by the Center for Substance Abuse Treatment.⁷⁷ Incentives should be considered for counties and providers instituting these practices.

Recommendation 6.3: Feasibility studies to adopt evidence-based best practices should be conducted. Those that show promising results in improving SACPA outcomes should be considered for statewide implementation.

Conclusion 7: Establish an Infrastructure for Evaluation.

The use of administrative databases is essential to the evaluation SACPA and other statewide policies.

Recommendation 7.1: A concerted collaborative effort should be made to streamline access to and use of state data for authorized evaluation studies.

Recommendation 7.2: Further policy-relevant sub-studies using SACPA evaluation data should be conducted to address remaining research questions.

Recommendation 7.3: Efforts to improve the quality of SRIS counts of referred, assessed, and placed offenders should continue. The viability of collecting further data to study reasons for participant drop-out at each stage should be considered.

Recommendation 7.4: Efforts should be taken to improve the precision of the definition of treatment completion in CADDs.

Recommendation 7.5: Efforts should be taken to improve the quality of the DOJ disposition data that identifies SACPA participants.

⁷⁶ The NIATx website is www.niatx.org. Results obtained when using NIATx can be seen at http://chess.chsra.wisc.edu/pathstorecovery/P2RPresentations/ASHR%20Presentation_10-21-05_final.pdf

⁷⁷ TIP 44, *Substance Abuse Treatment for Adults in the Criminal Justice System (2005)* <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.80017>

Glossary of Terms

Addiction Severity Index (ASI) – A standardized assessment designed to gather data on treatment client status in seven domains: drug use, alcohol use, employment, family and social relationships, legal status, psychiatric status, and medical status.

Board of Prison Terms (BPT) – The agency that protects and preserves public safety through the exercise of its statutory authorities and policies, while ensuring due process to all criminal offenders who come under the Board's jurisdiction. The Board is responsible for the adjudication of parole violations referred by the Parole and Community Services Division of the California Department of Corrections. This agency developed the initial procedure for referring and monitoring parolees during SACPA's first year.

Drug Court – Courts that oversee drug-using offenders in an approach emphasizing treatment and close supervision; direct contact between judge and offender; and collaboration between judge, prosecutor, defense attorney, and treatment provider.

Median – The “middle case” in an ordered distribution

Multivariate regression – Prediction of a dependent variable (e.g. treatment completion) on the basis of two or more independent variables (e.g. primary drug and years of use).

Parole and Community Services Division (P&CSD) of the California Department of Corrections – The agency providing field supervision of California parolees.

Abbreviations

ADP – California Department of Alcohol and Drug Programs

CADDS – California Alcohol and Drug Data System

CalDATA – California Drug and Alcohol Treatment Assessment

CalTOP – California Treatment Outcome Project

CDCR – California Department of Corrections and Rehabilitation

DAWN – Drug Abuse Warning Network

DHS – California Department of Health Services

DID – Difference in Differences

DOJ – California Department of Justice

EDD – California Employment Development Department

NIATx – Network for the Improvement of Addiction Treatment

NRT – Narcotic Replacement Therapy

SRIS – SACPA Reporting Information System

UCLA – University of California Integrated Substance Abuse Programs

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APPENDICES

Appendix to Chapter 2

Pipeline Analysis

Offenders who choose SACPA are referred to assessment and treatment. Assessment entails a systematic review of the severity of the offender's drug use and other problems, a decision regarding appropriate placement in a drug treatment program, and identification of other service needs. Upon completion of assessment, offenders must report promptly to the assigned treatment program. Thus, referral is the first step in the SACPA pipeline. Completion of assessment is the second step, and treatment entry is the third.

Information to describe the pipeline was compiled from three sources: the SRIS maintained by ADP, the 2004 county stakeholder survey conducted by UCLA, and CADDs. The first two of these sources were created specifically for SACPA monitoring and evaluation. The third, CADDs, predates SACPA, having been maintained by ADP since July 1991.

Each data source had unique value in this analysis but was also subject to limitations. To overcome these limitations, the pipeline analysis employed a mixture of data taken directly from these sources along with estimates validated across multiple sources when possible. This appendix enumerates the known limitations of data sources and explains the estimation procedure.

Data limitations

SRIS data were missing or unreliable for a number of counties in SACPA's fourth year. Two strategies were used to deal with the data problems.

1. For counties missing SRIS referral, assessment, and placement data for SACPA's fourth year, UCLA substituted the county's third year pipeline figures⁷⁸, adjusted by the percentage that SACPA clients in CADDs increased or decreased between the two years.
2. If SRIS placement data were present but failed a logic check (CADDs client count was much higher than the total shown in SRIS, or SRIS showed more offenders placed than assessed), the method described above was utilized. In the case of Los Angeles County, numbers from the county's 2004-2005 annual report (Alcohol and Drug Program Administration, 2006) were substituted.

⁷⁸ In some cases, where SRIS data had been missing in the third year, this number was based upon the 2004 stakeholder survey.

Estimation procedure

Counties are asked to report in SRIS the number of offenders who accepted SACPA (i.e., how many offenders chose to participate in SACPA and were referred for assessment). For all 58 counties combined, that total was 49,665 in SACPA's fourth year, including the adjustments described above. However, some counties reported the number of referrals (events) while others reported the number of offenders referred. UCLA's stakeholder survey asked counties which number they had reported to SRIS. If a county did not respond to this question on the 2004 survey but responded on the prior year's survey, the prior year's response was used. Of the 53 respondents, 27 (50.9%) indicated that they were reporting referrals (events), or this could be deduced from their responses (e.g. substantially more assessments than referrals). In counties reporting referrals, any offender who recycled through SACPA (i.e., had two or more separate episodes) during the year would have been counted twice. Hence the raw total in SRIS would be too high as a count of offenders (the same problem affects interpretation of SRIS data on assessment and treatment placement; see below).

To estimate the number of offenders referred to SACPA, UCLA reduced the statewide SRIS total of referrals by 11.9% in counties known to be reporting the number of referrals. This percentage is based on an analysis of CADDs data showing how many SACPA offenders recycled through treatment during the fourth year. Furthermore, some counties reported more placements than assessments or more assessments than referrals. It was assumed that these counties were reporting events rather than unique clients, and the same adjustment was made. Finally, for counties not reporting whether the numbers represented referrals (events) or offenders, UCLA assumed that 50.9% of the reported numbers were referrals (events). Numbers were adjusted downward accordingly. Numbers from counties known to be reporting offenders were not adjusted. After summing the numbers for all counties, UCLA estimated a statewide total of 48,384 offenders referred to SACPA. This estimate includes offenders referred by the court and by parole agents⁷⁹.

Counties are asked to report in SRIS the number of offenders who completed a SACPA assessment. For all 58 counties combined, including estimates as described above, that total was 42,498. However, again some counties may have been reporting the number of assessments completed; others, the number of offenders assessed. Any offender who recycled through SACPA during the year would have been counted at least twice in the number of assessments. The raw total in SRIS may therefore be too high. Therefore, to estimate the number of offenders assessed, UCLA reduced the statewide SRIS total by 11.9% in counties reporting the number of assessments. This percentage is based on an analysis of CADDs data showing how many SACPA offenders recycled through treatment during the year. For counties not reporting whether the SRIS numbers

⁷⁹ The SRIS manual defines referrals as probationers and parolees sent from the court, probation department, or parole authority.

represented offenders or assessments, UCLA assumed that 50.9% of the reported numbers were assessments and adjusted downward accordingly. Numbers from counties known to be reporting offenders were not adjusted. The total across all counties was 41,450, including probationers and parolees.

Finally, counties are asked to report in SRIS the number of SACPA offenders placed in treatment. For all 58 counties combined, including estimates as described above, that total was 38,617. Some counties may have been reporting the number of offenders placed, but others may have been reporting the number of placements (events). Any offender who recycled through SACPA during the year would have been counted at least twice in the number of placements. In addition, any offender who received treatment at two or more programs during the same SACPA episode may have been counted two or more times in the number of placements. For these reasons, the raw total in SRIS may be too high.

To estimate the number of offenders placed in counties reporting events, UCLA reduced the statewide SRIS total of placements by 24.6%. This reduction accounted for both recycling and multiple treatment placements and was based on the ratio of SACPA admissions to unique SACPA clients shown in CADDs.

To estimate the number of offenders placed in counties that did not report whether the numbers represented placements or offenders, UCLA assumed that 50.9% of the reported numbers represented placements, consistent with the proportion of counties known to be reporting placements rather than clients. UCLA adjusted downward accordingly. This results in counts that are not accurate at the individual county level, but are reasonable at the aggregate (statewide) level. Numbers from counties known to be reporting unique offenders were not adjusted. The total across all counties was 36,285, including probationers and parolees.

An alternative method of counting placements would be to use CADDs as a source rather than SRIS, and in fact the number of unique offenders in CADDs was very similar to the number estimated from SRIS (39,202 in CADDs vs. 36,285 estimated from SRIS). Due to differences in the scope of SRIS and CADDs (e.g. CADDs does not include privately funded treatment while counties may include this in their SRIS counts), and in the definitions of placements (the SRIS manual instructs counties not to report individuals who entered SACPA during the prior reporting period), these numbers should and do differ somewhat. Therefore, despite the challenges in interpreting SRIS data, given that CADDs only reports on offenders who were placed in treatment, UCLA chose to use the adjusted SRIS figures as the primary data source for placements. This was done to maintain a consistent source for comparing counts of offenders referred, assessed, and placed in treatment.

Appendix to Chapter 3

Multivariate Analysis of Treatment Completion

Chapter 3 included findings on treatment completion among offenders who participated in SACPA in its second year and identified client characteristics associated with treatment completion. This appendix presents findings from a multivariate analysis in which client characteristics tested in Chapter 3 were employed simultaneously as predictors of completion. The purposes of this analysis were twofold: (1) to determine whether characteristics associated with completion, when taken one at a time, were uniquely associated with completion when tested as a set; and (2) to clarify the magnitude of differences in completion rates by converting the percentage differences shown in the figures in Chapter 3 to the relative likelihood of treatment completion in each group.

As in Chapter 3, the most rigorous criterion for success, a CADDs discharge record showing “completed treatment”, was employed in the multivariate analysis. The following client characteristics, also on record in CADDs, were tested as predictors of completion: sex, age, race/ethnicity, primary drug, years since first use of primary drug, frequency of recent drug use, prior treatment (any versus none), and referral source (probation or parole).

The analytic technique used was multivariate logistic regression. Logistic regression allows one to predict a discrete outcome, from a set of multiple variables that may be continuous, discrete, dichotomous, or a mix of any of these. Generally, the dependent variable, in this case treatment completion, is dichotomous (completion or non-completion). The output from this analysis included an adjusted odds ratio (O.R.) for each characteristic, which indicated the client’s relative likelihood of completion, given that characteristic. Tests of the statistical significance of odds ratios are also provided. However, the analysis was based on the population of SACPA’s third-year treatment clients whose CADDs record contained all data needed for this analysis. The number of such clients was very large ($n = 29,328$). Due to the large number of clients, statistical significance may be achieved (i.e. a reliable relationship may be detected) even if the size of that relationship is not useful in practical terms. Put differently, an odds ratio that is statistically significant might be quite small. The magnitude of the odds ratio is therefore more meaningful in this case.

The analysis confirmed that characteristics individually associated with completion as described in Chapter 3 were also uniquely associated with completion when tested as a set. That is, the relationships between these characteristics and treatment completion were not simply due to their association with another variable (e.g. differences between racial/ethnic groups are not simply due to differences in the primary drugs used by each group). Findings also showed that differences cited in Chapter 3, when expressed as odds ratios, appear large enough to warrant attention by policymakers and service providers, as discussed in that chapter. Findings are shown in Table A.3.1.

**Table A.3.1. Multivariate Analysis of Treatment Completion
Among Second-Year SACPA Clients
(N = 29,328)**

Variable	Adjusted odds ratios
Sex	
Women	1.16*
Men	1.00*
Age (continuous) ^a	1.02*
Primary drug	
Methamphetamine	1.00
Heroin/opiates	0.73*
Marijuana	1.03
Cocaine	0.94
Alcohol	1.25*
Other	1.15
Race/ethnicity	
White	1.00
Hispanic	0.82*
African American	0.64*
Asian	1.03
Native American	0.93
Other	0.73*
Years used primary drug ^a (continuous)	1.01*
Any prior treatment ^a	1.00
Referral source	
Parole	0.74*
Probation	1.00
Frequency of primary drug use	
No past month use	1.00
1-3 times in past month	0.62*
1-2 times per week	0.58*
3-6 times per week	0.60*
Daily	0.75*

^a Tested in reduced models because age, years since first use of primary drug, and prior treatment are highly correlated. These statistics reported for these characteristics are from a model that did not include the other highly correlated variables.

*p ≤ .001

The adjusted odds ratios for treatment completion were lower for African-Americans (O.R. = 0.64) and Hispanics (O.R. = 0.82) than for Whites (treated as the reference category, O.R. = 1.00) and Asian-Americans and Pacific Islanders (O.R. = 1.03). Thus, after adjustment for other characteristics, African-Americans were 36% less likely to complete treatment ($1.00 - 0.64 = 0.36$), and Hispanics were 18% less likely to complete treatment ($1.00 - 0.82 = 0.18$).

The completion rate was slightly higher among older clients (O.R. = 1.02) and positively related to years since first use of primary drug (O.R. = 1.01). However, completion rates were not related to prior treatment experience (O.R. = 1.00).

Clients reporting methamphetamine as their primary drug were treated as the reference category (O.R. = 1.00) in the analysis of primary drug. The adjusted odds ratios for treatment completion were lowest for heroin users (O.R. = 0.73). The odds of completing treatment were about the same for methamphetamine, marijuana, and cocaine users.

Clients reporting no use of their primary drug in the past 30 days were treated as the reference category (O.R. = 1.00) in the analysis of frequency of recent use. All clients reporting recent use were less likely to complete treatment. Although clients who reported daily use at admission tended to complete treatment at a higher rate (O.R. = 0.75) than clients who reported using drugs at lower rates (range: 0.58-0.62), this was, in part, a reflection of the fact that clients reporting daily use received different treatment services. After including a variable indicating whether the client received residential treatment in the multivariate model, clients with daily drug use were not significantly more likely to complete treatment than clients in other categories.

With an adjustment for other characteristics, the analysis confirmed the relevance of referral source. Clients on parole (O.R. = 0.74) were less likely to complete treatment than clients on probation (O.R. = 1.00).

Females (O.R. = 1.16) were more likely to complete treatment than males (O.R. = 1.00). This was a new finding not found in the 2004 report. Future research should continue to monitor the relationship between gender and completion rates to establish whether this is an anomaly or the start of a long-term trend.

Appendix to Chapter 4

Offender Outcomes: Methods and Supplemental Analyses

This appendix includes supplemental information and analyses regarding re-offending, reported in Chapter 4.

The comparison of three groups of SACPA participants is presented first: offenders referred to SACPA, those who entered treatment, and those who completed it. This comparison showed re-offending in relation to the degree of offender participation in SACPA.

The comparison of drug offenders in SACPA's first year to pre-SACPA-era drug offenders is presented next. This comparison showed re-offending under two policy alternatives: the SACPA-era policy under which offenders had an opportunity to accept community supervision with treatment versus the pre-SACPA-era policy under which similar offenders were either sentenced to prison/jail or placed under community supervision with less likelihood of exposure to treatment.

SACPA Participation

Regarding the comparison of SACPA offender groups, this appendix describes the analytic models employed to examine primary outcomes and reports findings based on alternative outcome measures including the number of new arrests in each offender group and the percentage of offenders convicted, instead of the percentage arrested.

Analytic models

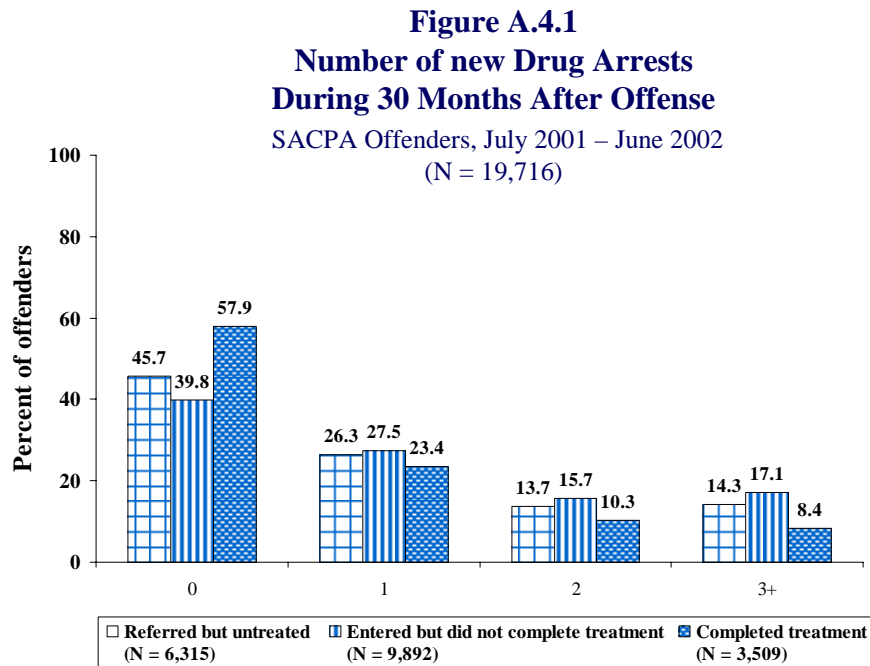
UCLA employed multivariate regression analysis to measure the relationship between program participation and re-offending. The analysis was adjusted for offender characteristics that also may have been related to outcomes. Its purpose was to isolate, as cleanly as possible, the relationship between program participation and re-offending. Offender characteristics used as covariates were: age, sex, race/ethnicity, lifetime drug treatment experience (any versus none), drug treatment in the 30 days before commission of the SACPA-eligible offense, and indicators of criminal history including lifetime (adult) number of arrests, any arrest for a drug offense in the year before SACPA entry, any property arrest in that year, any drug arrest in that year, and arrest for a SACPA-eligible felony, instead of a misdemeanor.

An adjustment was made for the offender's home county. This adjustment was important because counties may have varied in law enforcement and supervision practices or other factors related to an offender's likelihood of being re-arrested, ease of access to illegal drugs, or likelihood of being employed (see Petersilia et al., 1986). Regression models included a covariate for the offender's home county (small counties were grouped when

it was impossible to model their effects individually). This covariate adjustment addressed the possible effect of home county on outcomes at the offender level.

In analyses comparing offenders who entered but did not complete treatment to those who completed treatment, UCLA adjusted for additional covariates available in CADDIS: primary problem drug, treatment placement (long-term residential versus other); employment status (working, not working but looking for work, and not looking). Models including those covariates led to the same findings reported in Chapter 4, illustrating the robust nature of these findings. These models are not shown here.

Figures A.4.1 to A.4.3 show the number of new arrests in each SACPA group. In accord with findings based on percentage of offenders with a new arrest, the figures show that the number of arrests was lowest among offenders who completed treatment.



Figures A.4.4 and A.4.5 show the percentage of offenders with new convictions in each SACPA group. Again, in accord with arrest findings, new convictions were generally lowest among treatment completers.

SACPA Policy versus Pre-SACPA Policy

Regarding the second comparison, drug offenders in the SACPA era and similar offenders in the pre-SACPA-era, this appendix again describes the analytic models employed to examine primary outcomes and reports findings based on alternative outcome measures including the number of new arrests in each offender group and the percentage of offenders convicted.

Figure A.4.2
Number of New Property Arrests
During 30 Months After Offense
 SACPA Offenders, July 2001 – June 2002
 (N = 19,716)

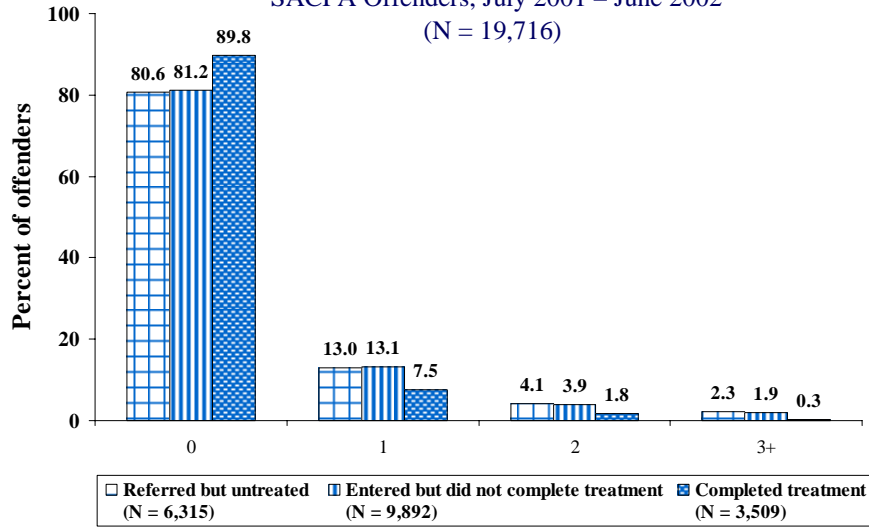


Figure A.4.3
Number of New Violent Arrests
During 30 Months After Offense
 SACPA Offenders, July 2001 – June 2002
 (N = 19,716)

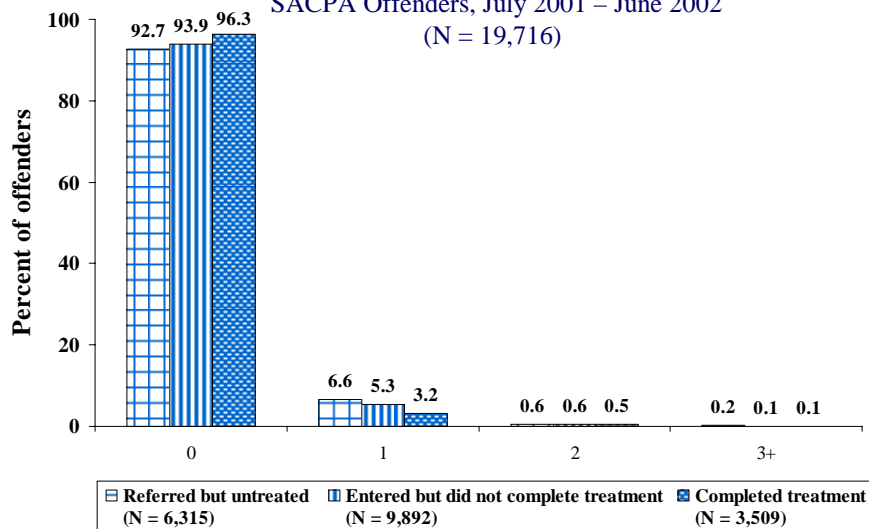


Figure A.4.4
New Convictions
During 30 Months After Offense
 SACPA Offenders, July 2001 – June 2002
 (N = 19,716)

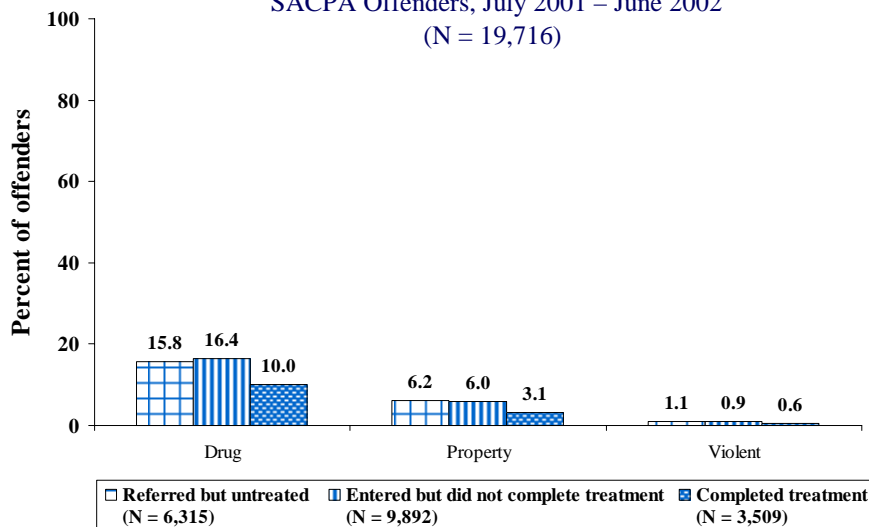
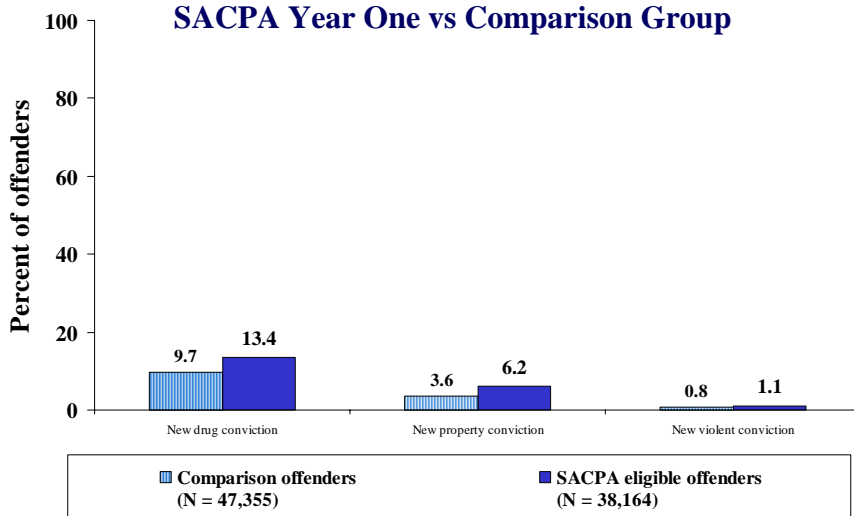


Figure A.4.5
New Convictions
During 30 Months After Offense
SACPA Year One vs Comparison Group



Analytic models

Although the SACPA-era and pre-SACPA-era groups were alike on most background characteristics, the SACPA-era group had a higher percentage of Hispanics and more lifetime (adult) convictions than the pre-SACPA-era group. UCLA adjusted for

background characteristics in multivariate regression in order to isolate the relationship between program participation and each outcome. These characteristics were included as covariates: age, sex, race/ethnicity, prior drug treatment experience (any versus none) and criminal history indicators including lifetime (adult) number of arrests, any arrest for a drug offense in the 30 months before SACPA entry, any property arrest during that period, any violent arrest in that year, and arrest for a SACPA-eligible felony (instead of a misdemeanor).

UCLA added two covariates to adjust for possible contextual differences between the pre-SACPA- and SACPA-eras. The first covariate was the unemployment rate in California for the month of each offender's arrest. UCLA used non-seasonally adjusted unemployment data obtained from the California EDD in order to capture the level of unemployment during the months relevant for each offender. The other covariate was the monthly national number of crimes excluding California in each offender's month of arrest. Data were obtained from the FBI's Uniform Crime Reporting files housed at the University of Michigan. The purpose of adjusting for unemployment was to account for economic conditions that might have affected re-offending differentially. Adjustment for number of crimes was to account for general crime trends that might have affected re-offending differentially.

UCLA repeated adjustment for home county as described in the previous model. Regression models included a covariate for the offender's home county (small counties were grouped when it was impossible to model their effects individually).

The composition of pre-SACPA-era and SACPA-era groups depended entirely on the nature of the offense leading to arrest. There was no self-selection into these groups. Accordingly, treatment effects modeling was not necessary.

Alternative Outcomes

This section reports findings on alternative outcome measures including the number of new arrests and the percentage of offenders convicted instead of the percentage arrested. Separate measures were created for drug offenses, property offenses, and violent offenses. Felonies and misdemeanors were counted separately and then combined.

Figures A.4.1 to A.4.3 show the number of new arrests among drug offenders in the SACPA-era group, rather than the percentage arrested over the 30-month follow-up period. In accordance with the primary outcome measures reported in Chapter 4, treatment completers were re-arrested less often than offenders who did not complete treatment.

Figures A.4.4 and A.4.5 show the percentage of offenders with new convictions. The pattern of re-offending as measured by convictions followed the same general patterns as the measures of arrests. Drug convictions and property crimes were slightly higher in the SACPA-era group.

Convictions depend on a series of discretionary decisions by prosecutors and judges (Blumstein & Cohen, 1979; Forst, 2002). Moreover, convictions are often missing from criminal justice records. This may be one reason for low percents seen in the convictions data. For these reasons, new arrests, not new convictions, are the most appropriate indicator of re-offending. Arrests come “closer to the crime” than other data available in criminal justice records and are the indicator most commonly used by criminologists to measure re-offending (Maltz, 2001).

Appendix to Chapter 5

Appendix 5.A: Scope and Analytic Techniques

This appendix provides details regarding the scope of and analytic techniques employed in the analysis of California crime trends. The goal of the analysis is to project crime trends in the SACPA era using pre-SACPA-era data and compare these to the actual crime trends to determine whether a statistically significant difference exists following SACPA implementation.

Scope

The primary indicator of crime trends is the number of offenses known to local law enforcement agencies, as indicated in reports to the Criminal Justice Statistics Center at the DOJ. All law enforcement agencies in California submit these reports (Criminal Justice Statistics Center, 2002). UCLA obtained offense data for assault, aggravated assault, robbery, forcible rape, burglary, theft, and theft from vehicle.

A secondary indicator of crime trends was the number of arrests indicated in reports submitted by local law enforcement to the Criminal Justice Statistics Center. Because arrest data is affected by law enforcement priorities and practices, it is difficult to distinguish how much of a trend is due to possible variation in the actual number of crimes committed and how much is due to possible variation in the likelihood of detection or in the exercise of discretion at the point of arrest (Blumstein, 2002). Arrest data provide one measure of the criminal justice burden (arrests as well as subsequent investigations, prosecutions, and dispositions) resulting from detection of particular crime types. UCLA obtained arrest data relevant to drug sales, child or spouse abuse, rape of an incapacitated victim, and SACPA-eligible drug crime.

Arrest statistics for drug sales include the sale of cocaine, heroin, or other controlled substance as well as possession with the intent to sell. The category for child or spousal abuse included arrests for assault of a child and for battery of a spouse, ex-spouse, or a date. Arrests for date rape are not reported in a separate category. Date rape is part of a larger category of rape crimes that includes rape of a victim incapable of giving consent, and rape under threat of retaliation. Thus, arrests for rape of an incapacitated victim provided the closest possible match to date rape. UCLA's analysis of the DAWN data on club drug use also showed no significant increase or decrease in the number of patients visiting hospital emergency departments detected with a club drug following SACPA implementation. Finally, there is no category devoted exclusively to arrests for SACPA-eligible drug crimes. UCLA combined arrest data for drug possession, possession of drug use paraphernalia, and being under the influence in order to arrive at a count of SACPA-eligible drug arrests.

Data were adjusted to account for factors known to influence crime trends. Adjustment for other factors can substantially improve the precision of findings regarding the association between an event or policy innovation (in this case, SACPA implementation)

and change in crime trends. Such adjustment therefore made it easier to determine whether there was any reliable evidence of change in pre-existing crime trends after July 2001. Four factors—seasonality (the oscillation of crime trends across seasons of the year; Hipp et al., 2004), the state unemployment rate, and the proportion of the state’s population who were men between 18 and 29 years old, and national crime trends—were taken into account.

Accounting for the seasonal fluctuation in crime improves analytic precision. The unemployment rate and percent of young men in the population were included because even minor changes in these factors can affect crime trends. Unemployment data were obtained from the EDD; population data, from the U.S. Bureau of the Census. A fourth adjustment factor was the nationwide trend in the same crime type. The purpose of this adjustment was to account for additional, unknown factors that might have affected crime in California. National crime data were available for assault, aggravated assault, robbery, forcible rape, burglary, and theft⁸⁰.

Many states have gaps in crime statistics resulting from missing data or data reporting procedures that make it impossible to analyze their crime data on a monthly basis (Lott & Whitley, 2003)⁸¹. UCLA used data from 13 states with reliable monthly reporting: Arkansas, Georgia, Maine, New Jersey, North Carolina, Oklahoma, Pennsylvania, Texas, Utah, Virginia, Washington, West Virginia, and Wyoming. These states included urban and rural areas and were from all regions of the nation⁸². National crime data were obtained from Uniform Crime Reporting Program files archived at the University of Michigan. Data covered January 1990 through December 2002 in monthly time segments. December 2002 was the most recent month for which data were available.

UCLA used two analytic techniques to provide estimates of SACPA-era crime trends based on pre-SACPA-era data. The primary technique was auto-regressive integrated moving average (ARIMA) modeling, employed to describe patterns in time-ordered “event counts” (such as number of arrests) and to forecast change on the basis of those patterns. Criminologists use ARIMA to detect discontinuity in crime trends associated with, for example, change in police practices and criminal sanctions (e.g., Cochran et al., 1994; McDowell et al., 1992; McGarrell et al., 2001; Novak et al., 1999; Singer & McDowell, 1988). Ramirez and Crano (2003) and Stolzenberg and D’Alessio (1997)

⁸⁰ Use of national data to adjust the error term for these crime types improved the precision of estimates of change concurrent with SACPA implementation. National data pertained to forcible rape, not specifically to rape of an incapacitated victim, but the correspondence was close enough to warrant use of the national data as an adjustment factor to improve precision of the state trend analysis.

⁸¹ Monthly data were necessary in order to maximize the number of time points available for analysis.

⁸² Arizona also had usable monthly crime data but was excluded because of Proposition 200, a voter initiative passed in that state in 1996. Prop 200 mandated treatment instead of incarceration for first- and second-time nonviolent drug offenders. Because the purpose of adjusting for national trends was to control for factors *unrelated to SACPA*, it was necessary to exclude the state in which a policy similar to SACPA was in force.

used ARIMA to examine the effect of Three-Strikes legislation in California. To confirm robustness of research findings, a second technique, structural time series, was used (Johansen et al., 2000). The purpose of each analysis was the same: to detect any change in the crime trend not explained by seasonal cycles or other factors. Findings from the two time series techniques were consistent in all respects suggesting that findings are robust to analytic technique (i.e., they are not dependent on use of a single analytic technique or on statistical assumptions underlying the technique). Because ARIMA has been more widely applied in criminology (Sridharan et al., 2003), findings from the ARIMA analysis are reported.

Appendix 5.B: Smoothed Crime Trends

Increases and decreases in crime are frequent and very sharp in the short run. The figures provided in the main body of Chapter 5 show this spikiness, both to indicate how much variability exists in actual crime data over time and to remain as close to the data as possible. Here UCLA provides an alternate set of figures for which short-term variability in the data was “smoothed” in order to make long-term trends more apparent. The smoothing procedure reduces month-to-month spikiness by replacing each month’s value with an average value for that month. The average was calculated across successive nine-month intervals.

Figure A.5.B.1
Simple Assault Offenses

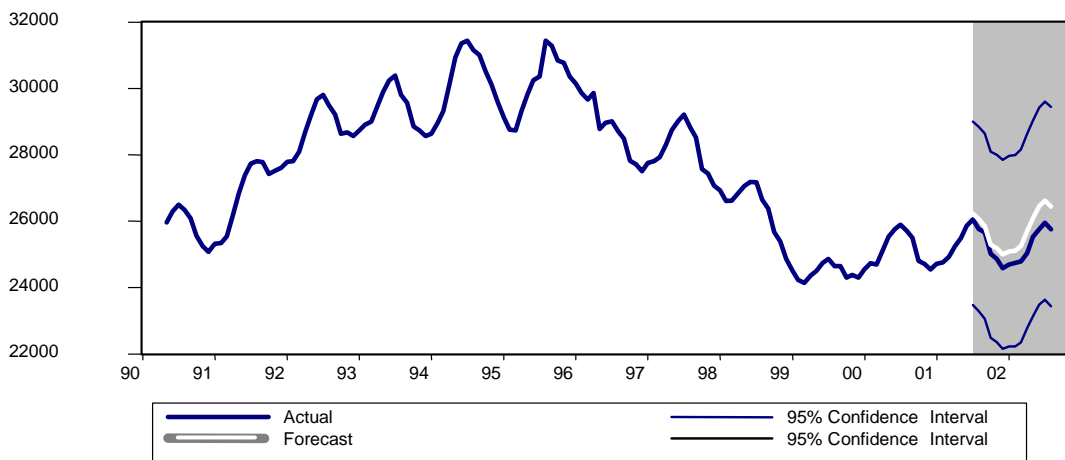


Figure A.5.B.2
Aggravated Assault Offenses

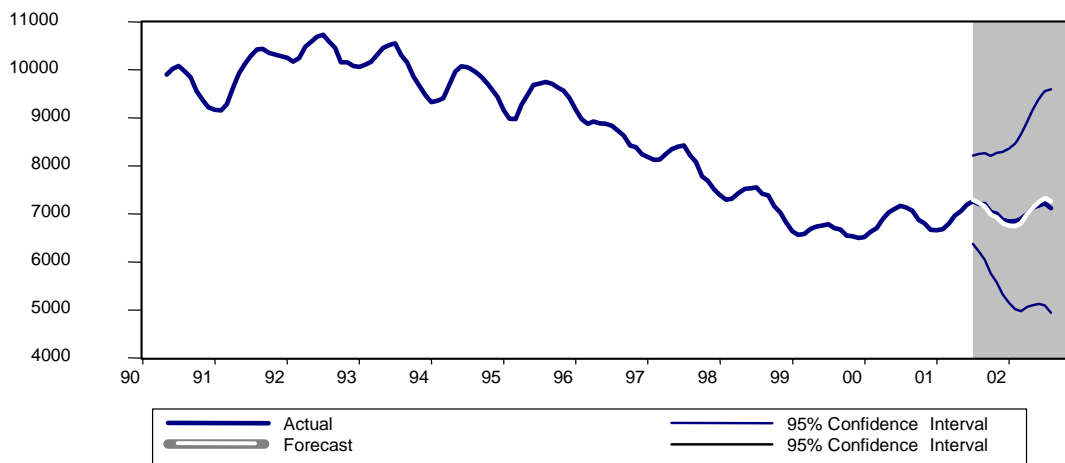


Figure A.5.B.3
Robbery Offenses

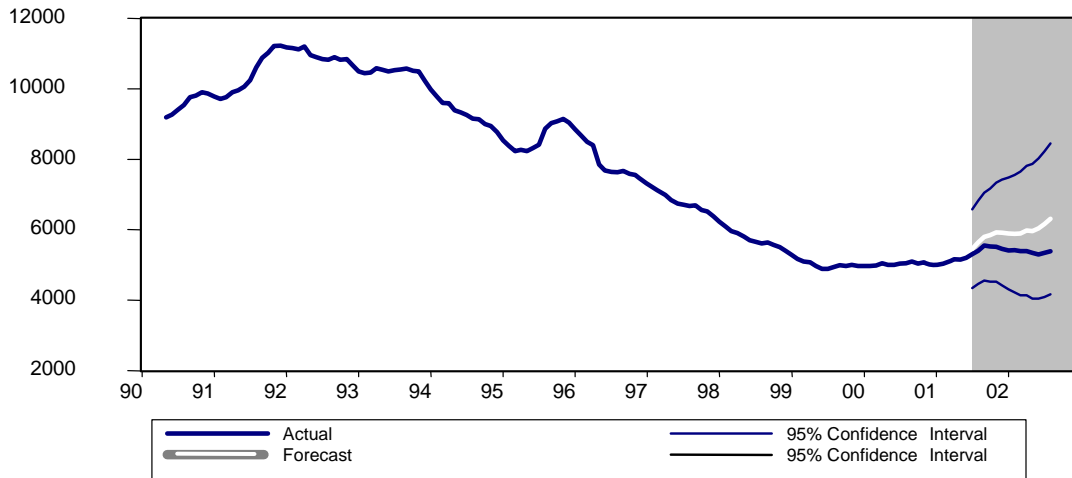


Figure A.5.B.4
Forcible Rape Offenses

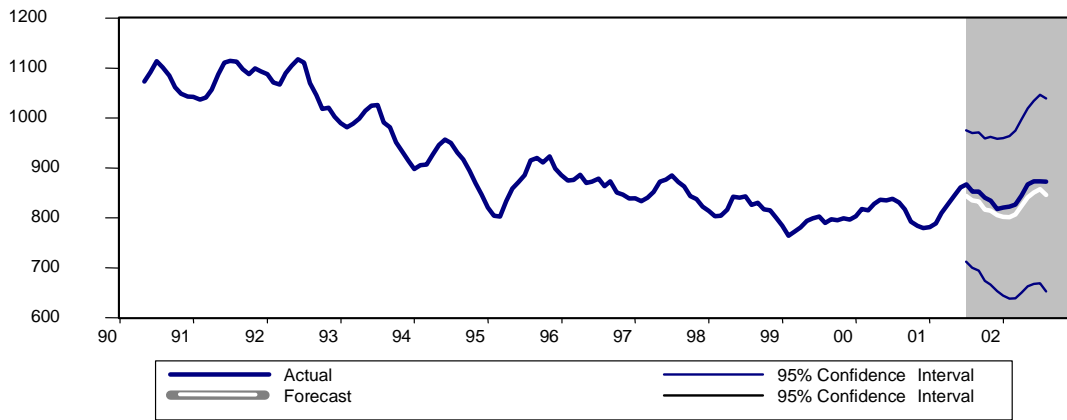


Figure A.5.B.5
Rape of Incapacitated Victim Arrests

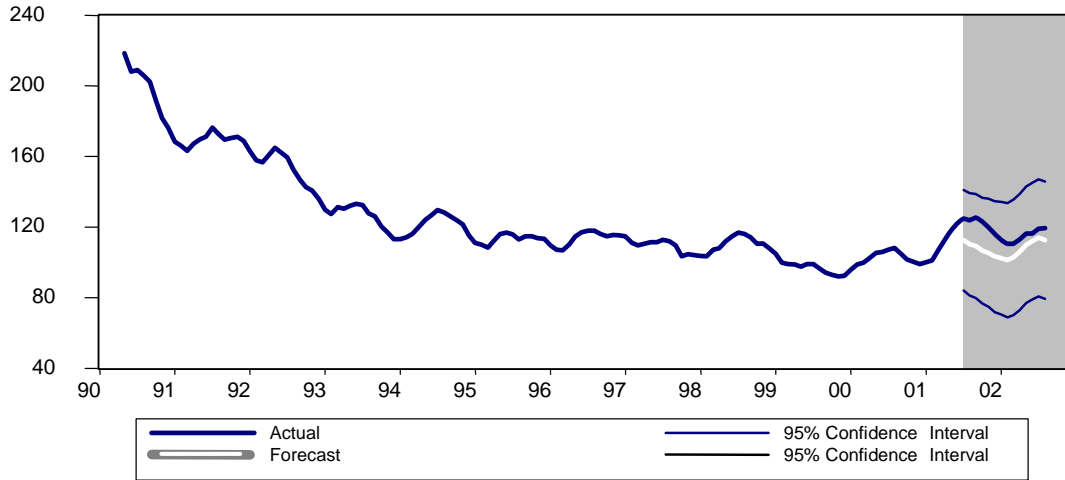
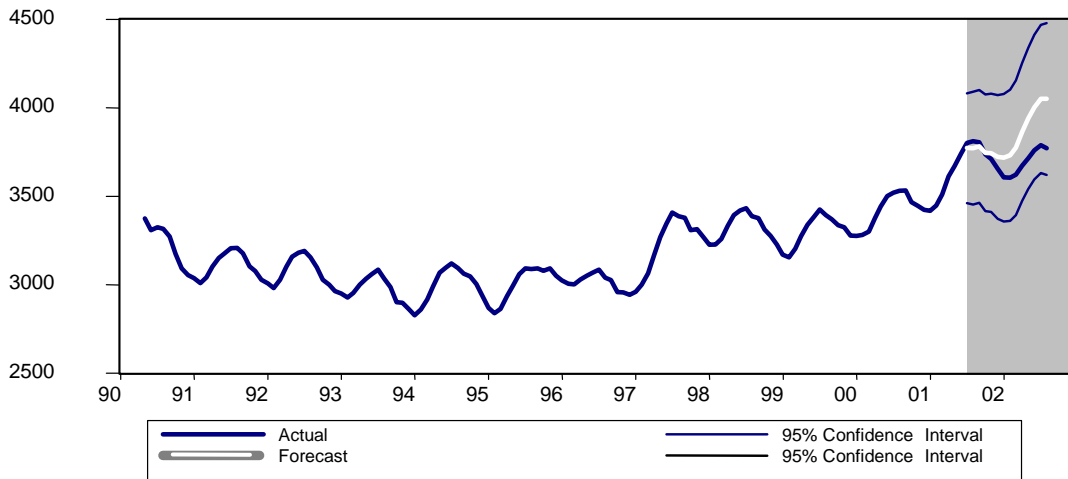
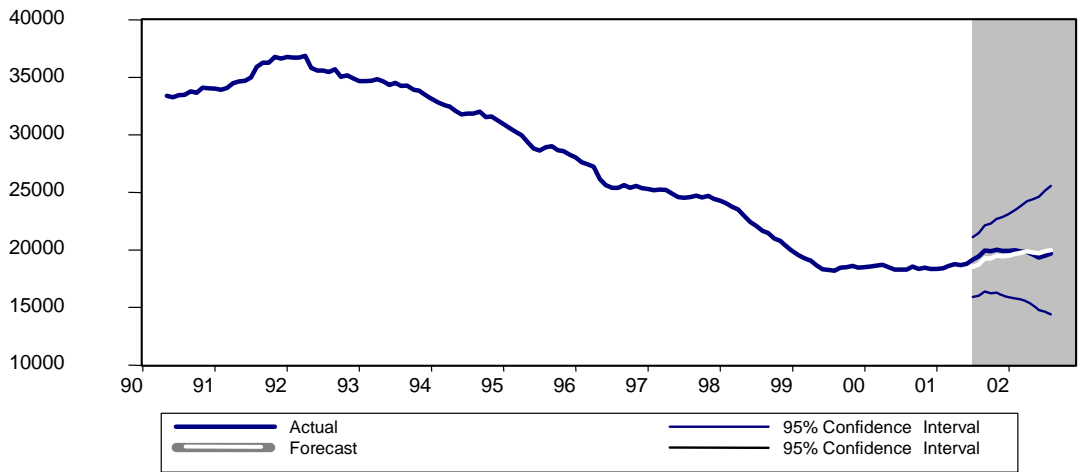


Figure A.5.B.6
Child and Spouse Abuse Arrests



**Figure A.5.B.7
Burglary Offenses**



**Figure A.5.B.8
Larceny-Theft Offenses**

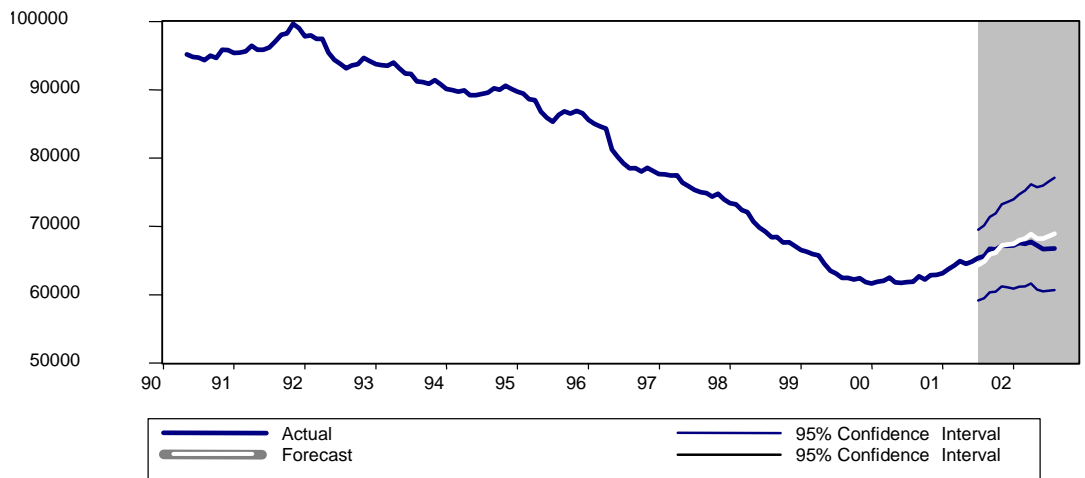


Figure A.5.B.9
Theft from Vehicle Offenses

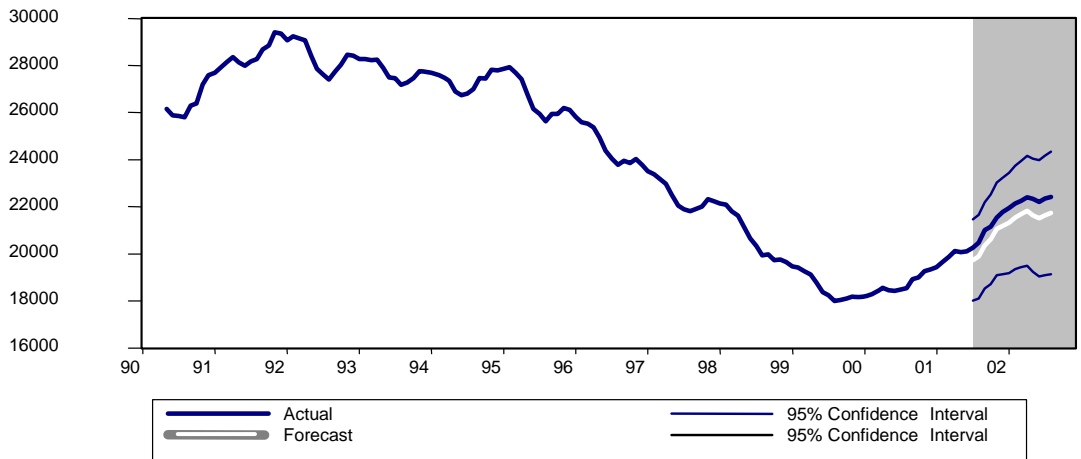


Figure A.5.B.10
SACPA-eligible Drug Crime Arrests

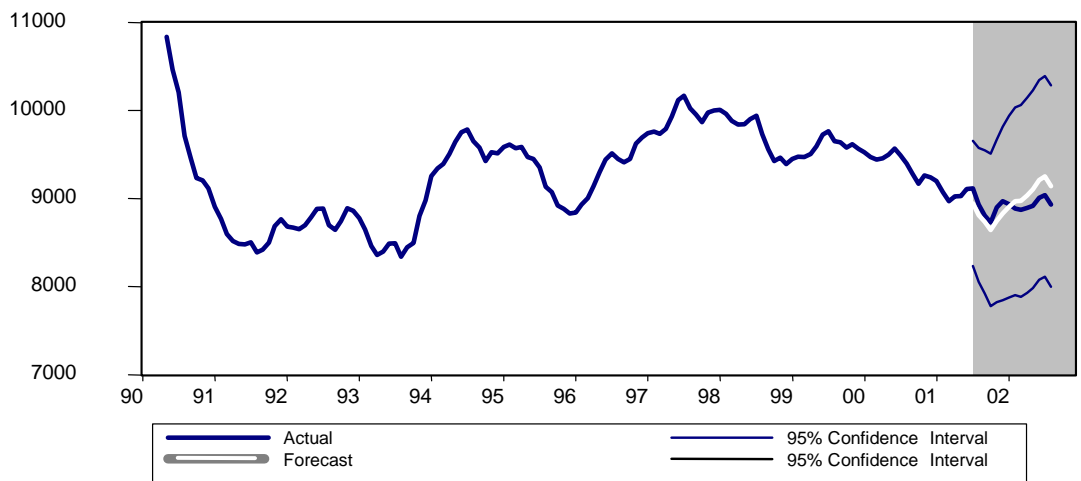
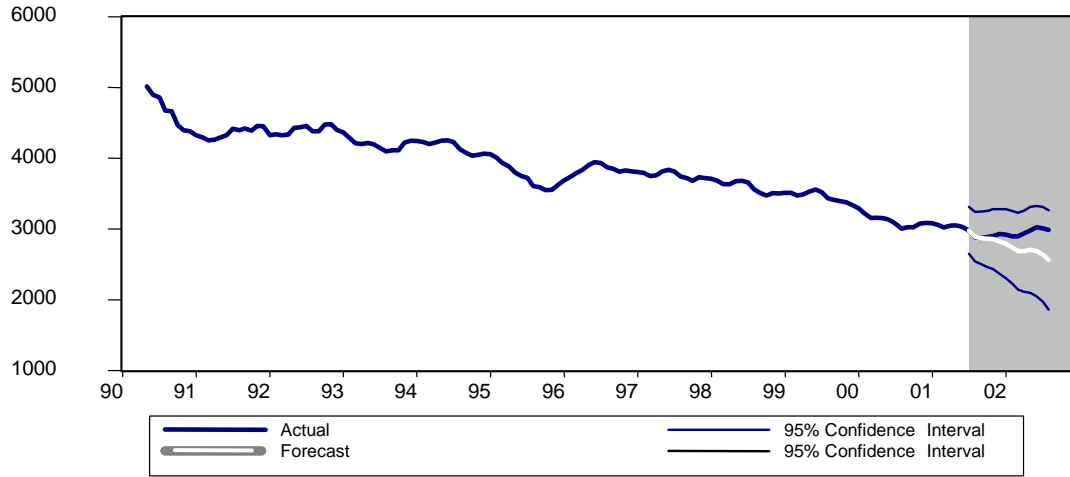


Figure A.5.B.11
Drug Sales Arrests



Appendix to Chapter 7

Appendix 7.A: Difference-in-Differences Hypothetical Example

The difference-in-differences (DID) approach is a widely adopted method for policy and program evaluation in many fields. This section illustrates how to interpret the DID results reported for SACPA. Briefly, assume that we are trying to estimate the effect of SACPA on some hypothetical cost. Assume also that we estimate that the average cost per offender for the SACPA group was \$5,000 in the 30 months *before* the SACPA-eligible conviction and \$3,000 in the 30 months after the SACPA-eligible conviction. The difference between the pre- and the post-period is \$2,000. This scenario illustrates the standard pre-post design. The \$2,000 cost reduction is attributed to the policy.

But now assume the same analysis is performed on our pre-SACPA-era comparison group. Assume that the average cost per offender was \$5,000 in the 30 months *before* the equivalent of a SACPA-eligible conviction and \$4,000 in the 30 months after the SACPA-eligible conviction. This analysis is shown in Figure A.7.A.1. In this case, the \$1,000 cost reduction post-policy change must be due to other factor/s because the comparison group did not receive the policy. The \$1,000 represents the cost reduction (we could have hypothesized an increase) that we would have expected to observe in the absence of the law. Thus, attributing the full \$2,000 reduction illustrated in Figure A.7.A.1 to SACPA (the result of the standard pre-post design) would be misleading. To estimate more precisely the effect of SACPA, we net out the cost difference that would have been expected had the law not been implemented. Figure A.7.A.2 illustrates the DID estimate as being the difference between the \$2,000 cost reduction observed among the SACPA offenders and the \$1,000 cost reduction observed among the comparison offenders.

Fig A.7.A.1
Illustration of a Hypothetical Cost Module

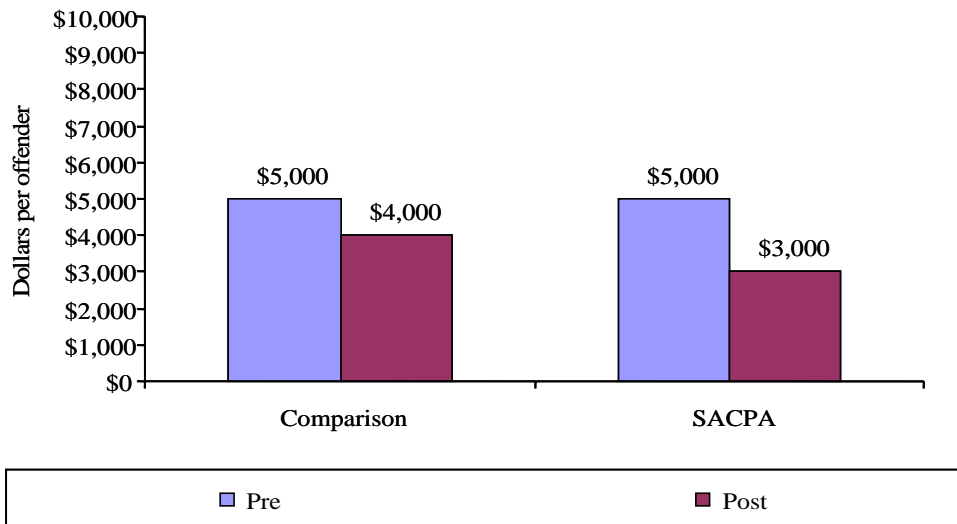
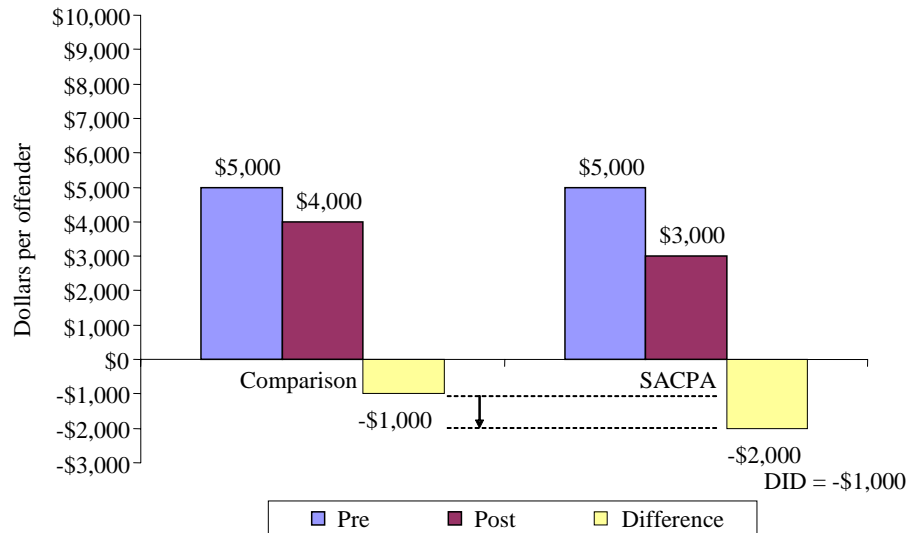


Figure A.7.A.2
Illustration of a Hypothetical Difference-in-Differences
Computation



The DID estimate has a clear interpretation. The dollar value estimated shows us how much the average cost per offender differed during the SACPA-era when compared with what would have been expected if the law had not come into effect. For the hypothetical cost module in this illustration, the DID estimate leads to the conclusion that costs under SACPA were, on average, \$1,000 lower per offender than what average offender costs would have been in the absence of the law.

This approach was applied to the eight cost areas described in the Findings section of Chapter 7. Each figure gives the calculated pre- and post- values, the differences within each group, and the DID between the two groups.

Appendix 7B: Technical Appendix

Introduction and Overview

The Benefit-Cost Analysis in Chapter 7 provided the essential findings and summarized a complex process undertaken to provide valid and consistent data, appropriate analysis, and suitable adjustments for the cost components of SACPA under study. This supporting document serves as the technical report and related appendices for activities taken during the conduct of the multiple cost studies that culminated to the overall cost determination and benefit-cost ratios previously reported. This appendix also documents related sub-studies that were conducted as part of the benefit-cost analysis.

Taxpayer Perspective

The primary purpose of the benefit-cost analysis is to assess the effects of the legislation attributable to SACPA as a policy, that is, when applied statewide as the law required, regardless of the actual level of involvement in the program options that might be taken by offenders. A “taxpayer perspective” was used to define the costs attributed to SACPA; that is, what were the costs borne, or recovered, for state and local governments. The analysis does not include costs or benefits of less immediate relevance for state and county budgets, such as forgone production, community safety, remuneration by private insurance, impact on immediate families, and so on. This wider approach, the “social planner” perspective, is often used to estimate the full economic consequences of illness or behavior (e.g., drug abuse).

In analyses using the taxpayer perspective, which focuses solely on costs to state and local government, offending costs included all case processing costs for arrests and convictions and that portion of victim services (medical care, ambulance services, mental healthcare, police/fire services, and victim services) likely to have been paid by public sources. Costs also include the consequences of convictions (jail, prison, probation, parole) and social services (drug abuse treatment, healthcare, welfare, etc.). This perspective was driven by the evaluation requirements of SACPA. Research questions specified in the law and amended by adjustments agreed to by the SAG for the SACPA evaluation, a policy group of stakeholders convened by the ADP, and the EAG, a research group convened by UCLA.

Cost Determinations

From the taxpayer perspective, ten modules, or areas, of cost determination were initially considered, five in the criminal justice area and five in disparate areas of social services. The five criminal justice modules were: incarceration in prison (state); incarceration in jail (county); probation (county); parole (state); and law enforcement (county and state) related to arrests and convictions (police and courts), all measured for 30 months before and after the SACPA eligible conviction. The five social service modules were: drug abuse treatment; healthcare; mental healthcare; welfare, and taxable earnings. Of all modules considered, only four were expected to drive the cost model because of their magnitude and the relatively high associated costs: prison, jail, arrests and convictions,

and drug treatment. The remaining six modules contributed modest adjustments to the overall impact. Due to lack of appropriate data for the analytic approach (described later), however, two of the intended social cost modules--mental healthcare and adult welfare-- could not be used for the selected study design. It should be noted that costs in some domains would logically be higher during the SACPA-era than in the pre-SACPA-era. For example, SACPA provides drug treatment at no cost to a large number of offenders, therefore, costs in the drug treatment domain are higher during the SACPA-era for that group. Alternatively, costs in other domains, such as jail and prison incarceration, are lower. Because of the multiple year time period under assessment, all costs are measured in the 2004 dollars.

General Approach

Event data (type and counts) in each module originated in official administrative data sets maintained by the state; cost parameters were based on actual costs reported for the event (e.g., Medi-Cal claims) or from average costs per event provided in the extant literature or by agency officials. The process culminates in total costs applicable to individuals before and after SACPA implementation. Within each cost module, cost per offender was determined. As a next step, costs were added across modules to provide a per-offender total, allowing benefit-cost ratios to be determined.

Together, the cost studies answer the research questions enumerated in the request for proposals, as amended by suggestions from ISAP staff and consultants, with later adjustments given suggestions by the SAG and the EAG.

Analysis design

From the perspective of general econometric research, the SACPA evaluation is among the few studies of major policy change in which a time-lagged comparison group was able to be constructed, allowing for greater precision and credibility in the findings than the more commonly reported single group, pre- to post- policy change assessment. One disadvantage of a time-lagged comparison group, however, is the possibility of time related events that might differ across the two time periods under study. Hence, as additional controls, measured differences between the pre-SACPA-era comparison and SACPA-era groups and time trends in important variables (i.e., national crime trends) were statistically controlled in the analyses using covariate adjustments. Moreover, SACPA relies on the more objective data sources of administrative records than that of simple patient self-report, covers a more extended pre- and post- period, and has a lengthy observation window (five years in total). Overall, these improvements in design, analytic procedures, and data sources lend substantial credulity to the findings over other cost determination approaches.

Comparison Group Construction

The most rigorous scientific approach under a taxpayer perspective required construction of a suitable comparison group. Since the most preferred comparison group could not be obtained by random assignment of similar offenders into SACPA and non-SACPA

interventions, the next best alternative is a time-lagged comparison group. Thus, ISAP compared the total statewide costs for drug offenders referred to SACPA during its first year, July 1, 2001 through June 30, 2002, to total statewide costs for a selected comparison group of drug offenders selected from a one year period before SACPA was initiated. This was the most rigorous design possible, and is a significant improvement on cost studies limited to single group, pre- post-designs, such as CalDATA and CalTOP, in analytic approach. These two studies compared costs for a similar period (12 months for CalDATA and 9 months for CalTOP) before and after admission to drug treatment in community-based programs in California. These studies have, among others, significant problems including lack of a comparison group, little control for other intervening events over the observation period, self-selection of cases into treatment, and regression to the mean effects. The SACPA analysis also improved on such studies in using official records for data sources, thus removing the need to rely primarily on subject self-report. An additional improvement was the use of a lengthy 30-month pre and post period (discussed below), thus limiting the effects of ‘regression to the mean’ spuriously inflating post-intervention benefits. In addition, statistical controls for population differences and intervening events effects were applied.

Studies Performed

Study 1 compared offenders eligible for SACPA to a pre-SACPA-era comparison group of offenders who *would have* been eligible for SACPA under the law’s provisions.⁸³ The analysis calculates the cost attributable to SACPA as a policy. The SACPA-era group was the population of adults (age 18 or older) who were, during SACPA’s first year (July 1, 2001, to June 30, 2002), convicted of a SACPA-eligible offense with no concurrent non-drug offense or other circumstance making them ineligible. The 30-month follow-up period for each SACPA offender ended on or before December 31, 2004. The pre-SACPA-era comparison group was drawn from a population of adults convicted of an offense for which they *would have* been SACPA-eligible had they been convicted after SACPA was implemented with no concurrent non-drug offense or other circumstance making them ineligible. This population of offenders was convicted between January 1, 1997, and June 30, 1998. The 30-month follow-up period for all comparison offenders ended on or before December 31, 2000, at least 6 months before SACPA may have begun to affect the involved systems. Findings covered a 30-month baseline and a 30-month follow-up period beginning with the date of each offender’s conviction.

Study 2 examined variation in benefit-cost ratios in relation to level of SACPA participation. The study was based on the population of adults (age 18 or older) who, during SACPA’s initial year (July 1, 2001, to June 30, 2002), participated in SACPA, those who *accepted* a SACPA referral. The population was broken into three groups: (1)

⁸³ Offenders were drawn from official DOJ records on arrests and convictions with subsequent computerized eligibility screening. These numbers are larger than those estimated in prior reports, which were obtained from stakeholder surveys or SRIS.

offenders who were referred to SACPA but did not enter drug treatment, (2) offenders who entered but did not complete treatment, and (3) offenders who completed treatment. Like the first study, this second study covered 30-month baseline and 30-month follow-up periods beginning with the date of each offender's conviction.

Study 3 examines the potential change in cost estimates from the first to the second year of SACPA to assess if benefit-cost ratios have changed as the policy matures. Study 3 examined costs in SACPA's first and second years and compared costs in each of those years to the \$120 million annual allocation. Here, costs in SACPA's first year were based on the first-year SACPA-eligible population (N = 61,609), but the baseline and follow-up periods were restricted to 12 months. Costs in SACPA's second year were based on the second-year SACPA-eligible population (N = 68,883) and baseline and follow-up periods of 12 months. Because of time lags in data accumulation from state sources and to conform to the annual trust fund allocation, the time period for assessment in this study was set for the 12 months before and 12 months after the SACPA eligible conviction for the first and second year cohorts.

Rationale for analytic timeframes

A follow-up period of 30 months had important advantages. First, 23% of offenders in the pre-SACPA-era group and 9% of SACPA-era offenders were sentenced to jail or prison upon conviction. This difference reflects one key aspect of the policy change being evaluated. That is, offenders who would have been eligible for community supervision and treatment in the SACPA era were, in the years before SACPA, more likely to be subject to incarceration. During in-custody months, there were incarceration costs (which include the cost of custody, healthcare, and other services delivered in jail or prison) but no other costs, such as amortized prison construction costs. In particular, while incarcerated, offenders had no opportunity to commit new offenses in the community. The comparison must have, of necessity, fewer total offences in the follow-up period, which is appropriately credited to the pre-SACPA-era policy. The rate of offending in the non-incarcerated months, however, may be the same for the two groups, or lower for the SACPA-era group to the extent that drug treatment is successful at reducing recidivism.

Second, SACPA may show elevated costs of healthcare and social services over the first few months of an individual's participation in treatment as he/she begins to access services long needed and potentially important to recovery. In a follow-up period as long as 30 months, the effects of any short-term "blip" in service access will have receded due to linkages to drug treatment. Coverage of costs during the SACPA era and the pre-SACPA era and of cost ratios for participants was therefore more reliable in a 30-month follow-up period than would have been possible in a shorter period.

With a 12-month follow-up, the third study was more limited in the stability of its cost coverage, that is, more likely to be influenced by regression to the mean. For this reason, conclusions about the total cost and benefit-cost ratios were based primarily on the first

two studies. The third study still has value in showing whether costs measured over a shorter period were or were not similar across years when measured the same way in each year (the same limitations applied to both). In addition, the study showed how SACPA costs over a reduced period compared to the annual SACPA allocation.

Residual Problems for the Analytic Timeframe

The time-lagged comparison group approach does have residual problems. Certain time trends could have varied between the comparison periods, or data system efficiencies and/or coverage may have changed. This was found to be true for the mental healthcare and welfare data, as previously described. Trends of several of the important variables were included as covariates (e.g., national crime trends and state economic indicators), but UCLA was unable to account for any hidden time trend variables because UCLA does not have data that may affect cost relationships. This is concern is common to evaluation research.

Causal Inferences

A twofold approach was employed to strengthen causal inference from the analysis, to determine as precisely as possible the causal affect of SACPA on costs. First, as noted, the widely accepted DID econometric modeling approach was used to compare offender groups. Second, covariance adjustments were used in an effort to statistically minimize the effects of measurable offender background characteristics and contextual conditions that might have had extraneous and/or spurious effects on findings.

Difference in Differences

A common approach to assessing costs is that of using a single group experiencing the intervention (usually drug treatment) and determining events, pricing, and costs for a baseline period before the intervention and for a post-intervention period. These periods are typically set to be equal (e.g., one year pre- compared to one year post-intervention). The equal interval design is most amenable to cost considerations and has been the design used in California in two treatment evaluation studies: CalDATA, conducted by NORC and CalTOP, conducted by UCLA. The SACPA cost evaluation also established equal pre and post periods.

However, the single group design is less than optimal for several reasons. First, regression to the mean effects are large. Since admission to treatment often represents a response to a crisis event (e.g., a period of excessive, atypical use, health issues, arrest, family disruption, etc.) that is preceded by higher than usual related events, these circumstances often restabilize over time to patterns more typical for the person in question. Other general regression to the mean effects are pertinent as well. Second, the periods to be compared are typically short, and are not necessarily representative of the longer-term service use patterns of the individuals under study. Third, other events occur in the social milieu that may make the two periods unequal in ways that can be articulated (and perhaps controlled for statistically) and in ways that seem 'hidden' but remain as potential confounds for the interpretation of the data. Essentially, a single-group, pre-

post-intervention design is the default choice only when comparison groups cannot be reasonably constructed.

Accordingly UCLA proposed and was contracted to conduct a two-group, pre-post-design by constructing a comparison group. To further refine the analyses, UCLA used demographic and other characteristics of the samples as covariates in the analysis to statistically control possible inequivalence in the comparison and SACPA samples. This analysis also included time trends over the full time-lagged period included as covariates for important variables. UCLA also chose periods of comparison that were as long as feasible under the time constraints of the study: the pre- (baseline) and post- (follow-up) periods are 30 months each.

Finally, to make best use of the two-group pre- post-intervention design, UCLA applied a DID approach to isolate those effects, in this case costs, that could be directly attributable to the intervention. The first difference in this approach is between the pre- and the post-period costs for each offender. The pre- period represents each offender's baseline "costliness," and the post period shows the degree to which costs for that offender rose or fell over a standard follow-up timeframe. By subtracting costs in the pre-period from costs in the post-period for each offender, the analysis was able to compare post-period costs after adjusting for the costliness that each offender came in with; that is, each offender served as his or her own control. The second difference in this approach is the difference between groups. A detailed example of the DID approach is provided in appendix A.7.

The evaluation period covered 30 months (or 12 months for Study 3) before the date of the offender's conviction for a SACPA-eligible offense and 30 months (12 months for Study 3) following the date of that conviction. Costs calculated for each offender in each period were based on two cost elements: quantities and prices. Quantities are a count of events, such as days in treatment, days in prison, or emergency department visits. Events were counted for each offender's pre-period and post-period. A price, based on one or more authoritative sources or from available relevant data, was assigned to each event and multiplied by the count of that event, leading to a cost in that category for each period for each offender in each group.

There are many reasons to believe that outcomes in the post- period will be different from outcomes observed in the pre-period in the absence of the law. UCLA chose a DID design to mitigate these biases. DID is appropriate for data generated from a randomized experiment or a natural experiment (such as the implementation of SACPA), and for this problem: UCLA cannot observe the counterfactual: what if SACPA participants had not been sentenced under SACPA? To estimate the effect of SACPA, UCLA relies on a comparison group to "difference out" these confounding factors, to help isolate the effect of participating in SACPA. DID models are increasingly employed in the economic evaluation of drug abuse programs (Kaestner, 2000, Mancuso et al., 2004; Wagner and Chen, 2005).

Difference-in-Differences: Without Regression

One approach is simply to take the mean value of each group’s outcomes pre- and post-baseline. The unadjusted DID of the means for each outcome is calculated as

$$\text{SACPA Effect} = (\bar{S}_A - \bar{S}_B) - (\bar{C}_A - \bar{C}_B) \tag{1}$$

where \bar{S} is the average outcome in the SACPA group and \bar{C} is the average outcome in the comparison group. The subscripts denote the period: A is the post-period and B is the pre-period.

Difference-in-Differences: With Regression

To control for observable differences between the groups (e.g., demographics, differences in economic climate at time of arrest, county) the DID effect is estimated using a regression framework. The outcome Y_i is modeled as:

$$Y_i = \alpha + \beta S_i + \phi t_i + \delta(S_i \times t_i) + \mathbf{B}\mathbf{X} + \varepsilon_i \tag{2}$$

where S_i is SACPA status: $S = 0$ for individuals who were not convicted under SACPA, (the comparison group), and $S = 1$ for individuals who were sentenced under SACPA. UCLA observed outcomes for individuals in two time periods: $t_i = 0$ for observations in the 30-month pre-period, and $t_i = 1$ for the 30-month post-period. \mathbf{X} is the vector of observable characteristics used as controls in the regression and ε_i is a random error term. The terms α , β , ϕ , and \mathbf{B} are parameter coefficients: α is the constant term, β is the SACPA group-specific effect that accounts for average permanent differences between the SACPA-era group and the pre-SACPA-era group, and ϕ is the time trend common to both groups.

Table A.7.B.1 Difference-in-Differences with Regression

	SACPA	Control	Difference
<u>Before</u>	$\alpha + \beta$	α	β
<u>After</u>	$\alpha + \beta + \phi + \delta$	$\alpha + \phi$	$\beta + \delta$
<u>Difference</u>	$\phi + \delta$	ϕ	δ

Notes: The first column illustrates that a pre/post design would estimate the policy effect as $\phi + \delta$, confounding the common time trend as being part of the SACPA effect. The bias introduced in a treatment/control design is illustrated in the second row. The treatment/control design would estimate the policy effect as $\beta + \delta$, which is biased if β is not zero; i.e., the estimate confounds any pre-existing permanent differences in average outcomes across the groups as being part of the SACPA effect.

The parameter coefficient on the interaction term (δ) gives the DID estimate of the SACPA effect. The interpretation of regression results is shown in table A.7.B.1.

The coefficients in the table show the bias introduced in an evaluation design that employs either a standard pre- post- methodology or a treatment/control design. The first column of Table A.7.B.1 illustrates that a pre/post design would estimate the policy effect as $\phi + \delta$, i.e., confounding the common time trend as being part of the SACPA effect. The bias introduced in a treatment/control design is illustrated in the second row of Table A.7.B.1. The treatment/control design would estimate the policy effect as $\beta + \delta$, which is biased if β is not zero, i.e., the estimate confounds any pre-existing permanent differences in average outcomes across the groups as being part of the SACPA effect.

Covariance Adjustment

All of the benefit-cost studies include controls for offender background characteristics. These characteristics included age, gender, race/ethnicity, prior treatment history, prior criminal history, and the offender's home county. UCLA also used covariance adjustment to minimize possible contextual effects on findings. The analysis adjusted for two time-related contextual conditions: national crime trends, and the state unemployment rate that applied at the time of the offender's arrest.

Analytic Issues

Several analytic issues had to be addressed in the benefit-cost analysis. Some were decided on the basis of standard practice in econometrics or of common professional judgment. Others were not amenable to a single decision, either because none of the plausible alternatives was clearly superior or because the alternatives might have affected findings to a degree too large to be left unexplored. UCLA used sensitivity analysis (described later) to address both of those issues; sensitivity analysis allows possible alternate scenarios to be explored and their effects on cost variability determined. In the ideal, results from sensitivity testing tend to converge on those from the primary analysis, and provide, in a sense, confidence intervals for those results.

UCLA used STATA 9, a program that is frequently used in econometric modeling and that had the appropriate features to allow for robust estimation using multiple modeling techniques. It is particularly well suited to a two-group, pre- post- intervention design using a DID approach. A variety of methods are also available to add statistical control to the analyses and to adjust for covariants of different classes. Two modeling approaches were used: Generalized Least Squares and Generalized Linear Models. The two estimation techniques yielded similar conclusions (see Sensitivity Testing). We chose to report the results of the Generalized Least Squares analysis here due to ease of interpretation. The choice of modeling technique did not affect findings to any significant degree.

Selecting the SACPA and Comparison Samples

This section provides details on the selection of both the pre-SACPA-era and the SACPA-era samples, together with sampling decisions and their rationale. It should be noted that sample sizes for each of groups in each of the studies was relatively large, as

noted below. Accordingly, even small differences in costs between groups would be statistically significant; how meaningful differences are is a matter of interpretation.

Study 1: SACPA as a Statewide Policy

The primary benefit-cost study compared convicted offenders eligible for SACPA versus a pre-SACPA-era group of convicted offenders who would have been eligible for SACPA under the law. The purpose of this study was to calculate the cost attributable to SACPA as a policy.

The SACPA-era group was the population of adults (age 18 or older) who were, during SACPA's first year (July 1, 2001 to June 30, 2002), *convicted of a SACPA-eligible offense* with no concurrent offense or other circumstance that should have made them ineligible. Although SACPA-eligible, some offenders may have rejected the treatment option and selected alternate judicial dispositions. Others may have accepted the SACPA alternative, but may subsequently have failed to meet one or more conditions in meeting their full obligations under this option. All cases needed to be considered, since SACPA as a policy was under study, and these alternatives were part of the overall policy implementation. This type of sample selection is similar to the intent-to-treat sampling considered the most rigorous for drug treatment and other intervention evaluations.

Persons convicted of a SACPA-eligible offense may accept or decline the opportunity to be sentenced to SACPA. The voluntary nature of SACPA participation opened the possibility that offenders who accepted SACPA might be different from those that declined it in ways that could affect their costs. To avoid this self-selection bias, the SACPA-era group must be constructed from all those eligible for the program, whether or not they self-selected into it. Additional steps to ensure comparability of the SACPA-era and pre-SACPA-era groups are described under Causal Inferences.

The time-lagged pre-SACPA-era comparison group was drawn from a population of adults *convicted of an offense for which they would have been SACPA-eligible* with no concurrent offense or other circumstance that should have made them ineligible. This population was offenders convicted between January 1, 1997 and June 30, 1998. The 30-month follow-up period for each comparison offender ended on or before December 31, 2000, six months or more before SACPA was implemented. As previously noted, however, the time lag, although minimized, may still have influenced events and outcomes due to intervening secular trends in, for example, law enforcement, sentencing, treatment availability, and so on. Such potential impact was further minimized in STATA 9 by the inclusion of time related trends in important variables as covariates.

Table A.7.B.2 Description of Sample

	1997-1998 Full Comparison Group	2001-2002 Full SACPA Group	2001-2002 Eligible but no referral record	2001-2002 Referred but not treated	2001-2002 Treated, not completed	2001-2002 Completed Treatment
n	47,355	41,607	21,857	6,349	9,892	3,509
Sex						
Male	75.8%	75.2%	75.9%	73.5%	74.8%	74.9%
Female	24.2%	24.8%	24.1%	26.5%	25.2%	25.1%
Age						
25 or under	12.0%	22.8%	23.4%	20.4%	24.4%	18.4%
26 to 35	37.0%	31.7%	32.2%	30.1%	31.7%	31.5%
36 to 45	38.3%	33.6%	32.6%	35.0%	33.4%	35.8%
46 and older	12.7%	11.9%	11.9%	14.6%	10.5%	14.3%
Race						
Asian/Pacific Islander	1.4%	2.1%	2.1%	2.3%	1.9%	2.8%
Black/African American	16.4%	16.4%	17.7%	16.8%	15.2%	11.2%
Hispanic	28.0%	31.7%	32.7%	34.4%	29.6%	26.4%
Native American	0.4%	0.5%	0.6%	0.3%	0.5%	0.5%
Other	0.5%	0.9%	1.0%	0.9%	0.7%	0.9%
Unknown	6.8%	0.4%	0.6%	0.1%	0.2%	0.1%
White	46.5%	47.9%	45.3%	45.3%	51.8%	58.1%
Prior Convictions, 30 mo	50.0%	53.0%	50.2%	57.2%	56.9%	52.3%
Post Convictions, 30 mo	36.9%	46.3%	42.6%	52.2%	54.1%	37.4%
Department of Justice Records (arrests, jail, probation)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Dept of Corrections & Rehab., Prison	28.2%	22.5%	24.0%	29.1%	21.6%	12.8%
Dept of Corrections & Rehab., Parole	22.3%	18.5%	19.1%	23.4%	16.4%	11.3%
Department of Health Services Records	13.3%	17.8%	15.2%	16.5%	18.7%	17.6%
Employment Development Dept Records	49.2%	67.9%	57.5%	80.7%	78.8%	78.9%
Received Substance Abuse Treatment	15.7%	40.6%	15.9%	0.0%	100.0%	100.0%

Study 2: Degree of SACPA participation

The study of variation in cost ratios in relation to SACPA participation was based on the population of adults (age 18 or older) who, during SACPA's initial year (July 1, 2001 to June 30, 2002), participated in SACPA—that is, those who *accepted a SACPA referral*. Offenders in this group were identified based on inclusion in at least one of three sources: (1) a disposition in the criminal justice record indicating that the offender was referred to SACPA upon conviction, (2) an admission to treatment in CADDs with SACPA indicated as the referral source, or (3) county records indicating SACPA participation. The population was then broken into three comparison groups: (1) offenders who were referred to SACPA but did not enter treatment versus (2) offenders who entered but did

not complete treatment versus (3) offenders who did enter and complete treatment. The purpose of this comparison was to show how cost ratios varied in relation to offenders' degree of participation in SACPA. As in Study 1, the pre-SACPA-era group provided the contrast information to aid in the interpretation of results.

Like the first, this second study covered a 30-month follow-up period beginning with the date of each offender's conviction.

Study 3: Differential Costs in SACPA's First Two Years

The third study reported costs in SACPA's cohorts during the first and second years and compared costs in each of those years to the \$117 million annual trust-fund allocation. Costs in SACPA's first year were again based on the first-year SACPA population, defined on the basis of referral to SACPA, but the follow-up period was restricted to 12 months. Costs in SACPA's second year were based on second-year SACPA referrals and a follow-up period of 12 months. A 12-month cut-off sacrificed the advantages of longer follow-up (noted above) but created an opportunity for replication across the first- and second-year populations. (Given data reporting lags and the timetable for evaluation reporting, it was not possible to construct a follow-up period longer than 12 months for the second-year population.) The comparison group was not appropriate as a contract in this study, since only those accepting and referred to SACPA were under study.

Replication across the two initial years indicated the extent to which SACPA costs were similar from year to year and aided in interpretation of findings from the other two studies. Specifically, does the second year suggest that costs in the first year were in any way atypical? Obtaining similar findings also increases confidence that the primary cost study results are correct. Another purpose of a 12-month follow-up period was to provide a more direct comparison of the cost in each of the first two years and the \$117 million annual trust-fund allocation. Again, the derivation of similar cost ratios confers confidence in the primary study findings.

Cost Module Variables, Sources, and Processing

Specific data sources, the variables derived, and how each was processed are described in the cost module sections that follow. Originally ten domains were to be used, but two of them (mental healthcare and welfare) proved either unamenable for inclusion in the DID approach or lacked sufficient sample coverage. Details for their exclusion are provided following the presentation of the other modules. There remained eight modules suitable for analysis: Five fall into the criminal justice sector (jail, prison, probation, parole, arrests and convictions) and three cover disparate social service areas (drug treatment, healthcare, and employment). UCLA provides a list of sample cohorts (pre-SACPA and SACPA) and, with the exception of the CADDs database (see Drug Treatment), the recipient agency matched this list to their own data and returned the abstracted data for analysis. Designated agency staff developed and applied the matching procedures and determined the form of the output data returned. Lag times varied over the agencies depending on length of time required for agency internal authorization and the time

required for technical staff to perform the data matching and abstraction. In most cases, this was a lengthy process. The agencies accessed, date samples were submitted, and the date data were returned are shown in the table below.

On receipt at ISAP, research staff assured the integrity of the data by performing a check of the contents and comparing the file data structures to those described in the data manuals provided. Checks were also instituted to determine the degree of match achieved for each source (records obtained actually received versus the number of requests submitted) and to make a determination if any systematic pattern of missing variables (other than true zeros) was apparent. Additionally, variables to be used in the benefit-cost analyses were examined for characteristics of their distribution (e.g., range, median, mean, outliers). Options were identified for the imputation of certain missing variables when necessary. As a general approach, covariate and outcome data were imported from a number of administrative databases. Where there were nontrivial amounts of missing data, characteristics of offenders with and without data were examined. UCLA programmers then aggregated the events and prices within the evaluation time frames (30 months and 12 months) within modules for a given individual.

Certain aspects of data boundary conditions applied to some of the modules. These concerned the date of initiation of the 30 month (or 12 month) baseline period, the index conviction data, and the date of the end of the 30 month (or 12 month) follow-up period, dates that bounded the 'observation windows' for each individual under study. There were no problems with exactly specified conditions such as prison, probation, or parole. When such conditions bridged the specified dates, they were simply pro-rated for the degree of overlap within the observation windows. Drug treatment was handled similarly. However, jail incarceration was problematic. Data were provided for the amount of sentenced time. Time served actually was less, in some cases much less, depending on a county's local policies and budgetary concerns (see Jail Cost Module). Medical costs also were more complicated. Since many of these were over extended periods with a date of diagnosis, date billed, and date paid, we choose date paid within the observation window as the most straightforward way to allocate costs. Error correcting credits and subsequent error correcting debits flagged in the data were also

Table A.7.B.3 Administrative Databases Obtained for the SACPA Evaluation⁸⁴

Last possible date for receiving data: October 2005

Agency	Database Name	Date Application was Submitted	Date Data was Received
Department of Motor Vehicles	Driver License Master Record: CORE (SS29 Process) and DUI module programs	03/27/03	12/19/03
Department of Health Services	MEDS file Medi-Cal Paid Claims file (aka "035" file)	03/18/03	01/27/05
Employment Development Department	Unemployment Insurance Base Wage database Unemployment Insurance Single Client database	9/4/03	10/19/05
Department of Social Services	TANF Medi-Cal	03/06/03	08/05
Office of Statewide Health Planning and Development	Non-public health information	02/21/03	06/19/04
Department of Justice	Criminal histories Convictions	05/10/02 05/05	02/07/03 09/05
Department of Corrections	Parolee info	As needed	As needed
Board of Prison Terms	Parolee info	12/02 12/04	12/02 01/05
Department of Justice	Monthly Arrest and Citation Register; crime trends	08/09/02	09/18/02

contained within the window, based on manual-based instructions formulated by the Department of Health Services that these averaged out for large samples. However, as noted below for the healthcare module, time lags in error correction procedures required UCLA to make certain adjustments. Taxable earnings were reported on a quarterly basis, and were directly converted to a monthly basis when necessary to allocate to a particular window. No systematic biases are expected in any of the cost modules on the basis of these allocation decisions. In addition, any residual biases would apply to both the pre-SACPA and SACPA groups, and would be largely nullified by the DID approach.

⁸⁴ UCLA was not able to obtain child welfare data from the Department of Social Services.

The final benefit-cost analysis covered costs in eight domains: jail and prison incarceration, probation and parole supervision, arrests and convictions, drug treatment, healthcare, and taxable earnings. UCLA used administrative data maintained by state agencies and collected unit-cost information from criminal justice, treatment, and other sources in order to measure costs and cost savings and to evaluate the adequacy of funds appropriated. Once a count of events had been determined, a price, based on one or more authoritative sources or from available relevant data was assigned to each event and multiplied by the count of that event, leading to a cost in that category for each period for each offender in each group. Both mental healthcare and welfare data were found to be unamenable to the DID approach either due to lack of data coverage in the baseline period for the pre-SACPA-era group or to large secular changes in the data trends or both. Moreover, at the state level, only Temporary Assistance to Needy Families (TANF) was available. This assistance is drawn primarily by women (95%) who are heads of household and thus limited in its application primarily to the women's sample. The majority of welfare payments are derived at the county level through such programs as general relief, however, these data were not available for analyses. Accordingly, mental healthcare and welfare cost modules were dropped in the summative model, but are discussed in their own sections.

These aggregated sums for each offender within each module were introduced into STATA 9, together with selected covariates. UCLA used STATA 9 to produce a determination of group costs for each module, the DID within modules, and per offender DID costs within modules. These were then summed across modules and group designation and benefit-cost ratios were determined. At each step of these procedures, programming and results were rechecked and cross-checked, assessed for internal consistency, and logically appraised for sensibility. Results were also compared to findings from the SACPA Offender Survey to ensure that the observed relationships among variables were similar and consistent.

Modules and Inputs

Prison Costs

As a policy focused on treatment in lieu of incarceration, at the time of implementation it was anticipated that SACPA would help relieve the serious overcrowding experienced in California prisons. The UCLA analysis of prison data shows that SACPA did lead to sizable reductions in prison stays among the drug-offending population.

Inputs:

a. Prison price data

The average cost of a prison day (\$84.74) was obtained from the California Department of Corrections and Rehabilitation (CDCR) and was assumed to be the same for all offenders. California prisons operate well above capacity. In 2001 and 2002 the occupancy rate across male and female institutions was 187% and

189%, respectively (CDCR, 2005). As the system is operating above capacity, the cost savings from reducing the number of inmates depends on the number of offenders diverted from prison. If a relatively small number were diverted, the cost savings per prisoner per day would be lower than the average cost. A more appropriate estimate of cost savings in the case of a small number of offenders being diverted is the marginal cost per prisoner. A CDCR estimate of the marginal cost of a prison day in 2001, adjusted to 2004 dollars using the Consumer Price Index, is \$38.40. SACPA diverted large numbers of offenders from prison; as the number of full-time–equivalent prison days avoided by SACPA offenders amounted to more than the full census of a prison facility, the analysis used the average cost of a prison day rather than the marginal cost.

b. Prison quantity data

Data to calculate the number of prison days SACPA-eligible offenders served were from the Offender Based Information System (OBIS). 15% of the SACPA group served time in prison during the 30-month baseline period. Similar baseline incarceration rates were found for the pre-SACPA-era group (14%). Among those offenders who served prison time, the average number of days spent in prison during the 30-month baseline period was slightly lower for the SACPA-era group (331 days vs. 342 days). 23% of the SACPA-era group served time in prison at some point during the 30-month period following the eligible conviction compared with 31% for the pre-SACPA-era group. The pre-SACPA-era group had higher rates of prison incarceration and served more days on average, when incarcerated in the follow-up period (386 days vs. 328 days)⁸⁵.

Jail Costs

For the same reasons that UCLA anticipated that SACPA would yield fewer prison terms served, UCLA expected a reduction in jail stays. Fewer people would serve jail time based on the eligible conviction under SACPA compared with pre-SACPA incarceration rates. UCLA's analysis of jail data shows that SACPA did lead to sizable reductions in jail time served among the drug-offending population.

Inputs:

a. Jail price data

A cost of a jail day was assigned to each offender based on county of conviction. Jail costs (by county) were obtained from the 2005 ADP County Survey and from the 2003 California Board of Corrections Survey. All costs were adjusted to 2004

⁸⁵ The difference in days served for the SACPA group and comparison group for those offenders who serve a prison term does not necessarily reflect a change in the average sentence given. UCLA's follow-up period is restricted to 30 months, therefore prison days served for many offenders is truncated at the 30-month window. For many comparison offenders, prison stays would have begun at the time of the SACPA-eligible conviction. In contrast, most SACPA offenders who served a prison term would have entered prison at a later date, most likely on a new charge.

dollars. Per-diem cost of jail varied significantly across county and ranged from \$27 to \$141⁸⁶. The average cost of a jail day was \$72.

b. Jail quantity data

Data on jail sentences were obtained from the Department of Justice Automated Criminal History System. Jail costs were based on actual days served in custody (not days sentenced) for each offender. Unlike prison days, where a count of days served could be obtained from state administrative data, days in jail had to be imputed from sentence lengths, which were reported in the DOJ data, adjusted by percent of sentence served, which varied by county depending on local policy and budgets. UCLA obtained the percentage of time served on a sentence, by county, from the ADP County Survey, collected for this purpose. The percentage of time served on a sentence ranged from forty-two percent to eighty percent.

36% of the SACPA group served time in jail during the 30-month baseline period. Similar baseline jail-incarceration rates were found for the pre-SACPA-era group (34%). Among those offenders who served jail time, the average number of days spent in jail during the 30-month baseline period was the same for the SACPA and pre-SACPA comparison groups (80 days). 57% of the SACPA group served time in jail during the 30-month period following the eligible conviction compared with 71% for the pre-SACPA-era group. The pre-SACPA-era group had higher rates of jail incarceration and served more days on average, when jailed in the follow-up period (102 days vs. 89 days)⁸⁷.

Probation Costs

A priori, UCLA expected higher probation costs under SACPA as SACPA provides for drug treatment while on probation, and fewer offenders are incarcerated. UCLA's findings are in line with expectations.

Inputs:

a. Probation price data

A cost of a probation day was assigned to each offender based on county of conviction. Probation costs (by county) were obtained from the 2005 ADP County Survey. All costs were adjusted to 2004 dollars. The average per-diem cost of probation supervision varied significantly by county size. Probation costs per client were lower in larger counties managing large caseloads (typically \$2 or

⁸⁶ Because jail and prison days served by SACPA offenders amounted to the full census of a mid-size facility, the analysis used the average cost of a jail or prison day rather than the marginal cost.

⁸⁷ The difference in days served for the SACPA group and comparison group for those offenders who serve a jail term does not necessarily reflect a change in the average sentence given. UCLA's follow-up period is restricted to 30 months, therefore jail-days served for many offenders is truncated at the 30-month window. For many comparison offenders, jail stays would have begun at the time of the SACPA-eligible conviction. Most SACPA offenders would have entered jail at a later date, most likely on a new charge.

\$3 per day) and higher in small counties where the cost of probation-officer salaries were divided among a small caseload (an extreme example includes a county reporting estimates of \$30 per day due to very low numbers supervised).

b. Probation quantity data

Probation costs were based on the number of supervision days for each offender, obtained from sentencing records in the Department of Justice Automated Criminal History System. 49% of the SACPA group had been supervised on probation during the 30-month baseline period. Similar baseline probation rates were found for the pre-SACPA-era group (45%). Among those offenders who had been on probation, the average number of days on probation during the 30-month baseline period was slightly lower for the SACPA group (556 days vs. 580 days). 85% of the SACPA group was under probation supervision during the 30-month period following the eligible conviction compared with 78% for the pre-SACPA group. The pre-SACPA group spent fewer days on probation on average compared with the SACPA group, when on probation in the follow-up period (820 days vs. 850 days)⁸⁸.

Parole Costs

A priori, UCLA expected lower parole costs under SACPA as fewer offenders in the SACPA group serve prison terms. UCLA's findings are in line with expectations.

Inputs:

a. Parole price data

The cost of a parole day (\$9.21) was obtained from the CDCR (2005). The supervision cost of parole was assumed to be the same for all offenders.

b. Parole quantity data

The number of days on parole for each offender was taken from sentencing records in the California Department of Corrections and Rehabilitation's Offender Based Information System. 15% of the SACPA-era group served time on parole during the 30-month baseline period, compared with 12% of the pre-SACPA-era group. Among those offenders who served time on parole during the baseline period, the average time spent on parole was 364 days for the SACPA-era group compared with 373 for the pre-SACPA-era group. 18% of the SACPA-era group served time on parole during the 30-month period following the eligible conviction compared with 23% for the pre-SACPA-era group. The number of days spent on parole during the follow-up period among those who served time on

⁸⁸ The difference in probation days served for the SACPA group and comparison group for those offenders who serve a probation term does not necessarily reflect a change in the average sentence given. UCLA's follow-up period is restricted to 30 months, therefore probation days served for many offenders is truncated at the 30-month window. Many comparison offenders would have been incarcerated at the time of the SACPA eligible conviction, delaying probation.

parole was similar for the SACPA and pre-SACPA-era groups (324 days vs. 322 days).

Arrest and Conviction Costs

A priori, it is not clear whether arrest and conviction costs would rise or fall under SACPA given two competing influences: treatment effects and incapacitation effects. There is literature pointing to lower recidivism rates among offenders who are treated, suggesting that expanded treatment provision should lead to lower crime costs. In the short run, however, this may not be observed. Greater incarceration rates among the comparison group imply greater incapacitation as incarcerated offenders are limited to committing crimes against themselves, each other, and their guards. Incarcerated individuals are therefore grossly limited in their opportunities to offend. Over the medium term, UCLA anticipates that the incapacitation effect would be eroded as pre-SACPA-era offenders are released from custody. UCLA finds evidence of this in the analysis of arrest and conviction costs, with higher arrest and conviction costs under SACPA.

Inputs:

a. Arrest and conviction price data

In analyses using the taxpayer perspective (which focuses solely on costs to state and local governments), arrest and conviction costs included all case-processing costs and that portion of victim services (medical care, ambulance services, mental healthcare, police/fire services, and victim services) paid by public sources. The DOJ's Automated Criminal History System identifies arrests and convictions for hundreds of crime categories. These crimes were grouped into a smaller number of crime categories that have similar costs, following Ettner and colleagues (2005). The unit cost of crime was then assigned to crimes in each of these categories. Criminal events are converted to crime costs at the individual level by multiplying each event by the relevant cost. Crime costs include police and sheriff's office costs (applied to each arrest) and court and county-prosecutor costs (applied to each conviction). To provide costs for a comprehensive list of crimes, UCLA draws on two sets of cost inputs: French (2005), and Miller and colleagues (1996). Crime costs were adjusted to 2004 dollars using the Consumer Price Index and the Medical Price Index (Bureau of Labor Statistics, 2005). Police and sheriff's office costs range from \$1,128 for criminal traffic offenses to \$13,333 for fatal crimes. Court costs range from \$950 for larceny to \$104,980 for fatal crimes.

b. Arrest and conviction quantity data

Arrest and conviction costs covered felonies and misdemeanors in all crime categories as well as motor-vehicle accidents resulting in arrest. All offenses occurred in California; UCLA did not have access to information on out-of-state offending. Police and sheriff's costs were applied to arrests because an arrest leads to case-processing costs whether it yields a conviction or not. However,

victim-service, superior court, and county-prosecutor costs were conservatively estimated on the basis of convictions because the formal determination that an offender committed the offense leading to such costs is represented by conviction, not simply arrest.

66% of the SACPA-era group had an arrest during the 30-month baseline period compared with 63% of the pre-SACPA-era group. 66% of the SACPA group had an arrest during the 30-month follow-up period compared with 52% of the pre-SACPA group. The SACPA group had higher arrest rates than the comparison group. Most arrests occurred for drug-related crimes (77%).

Drug Treatment

As SACPA is intended to provide treatment services to non-violent drug offenders in lieu of incarceration (or probation without treatment), UCLA's a priori expectation was that treatment costs would be significantly higher under SACPA. The findings support UCLA's expectations.

Inputs:

a. Drug treatment price data

Drug abuse treatment providers differ substantially in the cost of providing services. Here UCLA's assigns an average cost of treatment, by modality, to all individuals receiving treatment, irrespective of the treatment provider. Cost of-treatment estimates are taken from Ettner and colleagues (2005), and are adjusted to 2004 dollars using the medical care price index (Bureau of Labor Statistics, 2005). Ettner and colleagues (2005) provide two cost estimates: unweighted and weighted. In calculating unweighted average per-provider treatment costs, each provider has equal weight in the determination of the average cost, irrespective of the number of clients served. However, there appear to be significant economies of scale in the treatment of drug abuse clients. Economies of scale are efficiencies in service delivery related to the scale of operations, where the per-unit cost of treatment decreases as the number of clients served increases⁸⁹. As an example, the per-person cost of treating 40 clients would be lower than the per-person cost of treating 20 clients. With weighted estimates, the cost of treatment for each provider is weighted by the number of client-days served by the provider, larger providers who treat a disproportionate number of clients are given greater

⁸⁹ Economists typically use the term "economies of scale" to describe production within an industry. Economies of scale exist if the cost of producing a unit of output falls as output increases. In the presence of scale economies, the industry would be more efficient if it were characterized by a few large firms producing at lower cost rather than many small firms, other things being equal. In the context of substance abuse treatment, the existence of scale economies would suggest that larger providers are able to provide services at lower cost per client. A key difference between the industry production case (introductory economics texts often refer to the production of "widgets") and substance-abuse treatment is that the former assumes a homogeneous product.

weight in determining the average treatment cost. UCLA used weighted estimates in determining per-diem costs to reflect the finding that lower-cost providers are treating a disproportionate number of clients (Ettner et al., 2005).

Drug-treatment prices were allocated to each offender based on treatment modality (usually outpatient, methadone maintenance, short-term residential, or long-term residential) as modalities vary substantially in price. Treatment costs assigned were \$6.13 per day for outpatient care, \$16.87 for methadone maintenance, and \$34.78 for residential care⁹⁰. Unfortunately, provider-specific price data were not available. UCLA assigns the same average per-diem cost for a modality to all offenders who received treatment within that modality, irrespective of provider.

b. *Drug-treatment quantity data*

Days in treatment (by modality) for each offender were obtained from CADDs. 40% of the SACPA group received treatment during the 30-month baseline period compared with 32% of the pre-SACPA-era group. Treatment entry rates were significantly higher under SACPA. 74% of the SACPA group entered a treatment program during the 30-month follow-up period, compared with 39% of the pre-SACPA-era group. During the 30-month follow-up period, SACPA offenders were more than twice as likely to enter an outpatient drug-free program and were 50% more likely to enter residential care compared with the pre-SACPA-era group. However, very few SACPA clients were placed into NRT. An offender in the SACPA group was less likely, on average, to receive NRT than an offender in the pre-SACPA-era group (even though treatment-entry rates were much higher among the SACPA group). Overall, the SACPA group was much more likely to enter treatment, and the length of stay in treatment was significantly longer for this group. During the follow-up period, for those entering an outpatient drug-free program, the average time in treatment for the SACPA group was 195 days compared with 147 days for the comparison group. Those entering residential programs spent an average of 81 days in care during the 30-month follow-up period for the SACPA group compared with of 75 days for the pre-SACPA group. Those entering NRT spent an average of 148 days in care during the 30-month follow-up period for the SACPA group compared with of 128 days for the pre-SACPA-era group.

Healthcare

A priori, UCLA had no clear expectation of whether SACPA would lead to lower or higher healthcare costs. Prior treatment-evaluation studies report findings in both directions. UCLA's findings show healthcare costs increased over the short term.

⁹⁰ Unweighted costs were \$9.78 per day for outpatient care, \$16.85 for methadone maintenance, and \$85.60 for residential care.

Inputs:

Under the taxpayer perspective, healthcare costs here include only those funded by government. Healthcare costs were obtained from Medicaid/Medi-Cal data on health-services utilization and healthcare costs for eligible offenders. 16% of the SACPA group received healthcare services funded by Medicaid/Medi-Cal during the 30-month baseline period, the same as in the pre-SACPA-era group. 17% of SACPA offenders received healthcare services during the follow-up period compared with 13% of the comparison group.

Taxes Paid

Finally, taxable earnings for each offender were calculated in order to arrive at amounts paid in state income tax⁹¹. As tax revenues represent a gain to the state, these revenues are offset against other costs; that is, overall cost in the SACPA and pre-SACPA groups was reduced to the extent that offenders in those groups paid taxes. A priori, UCLA expected a substantial increase in taxes paid by the SACPA group compared with offenders in the pre-SACPA-era group, based on prior evaluation studies that point to the gain in employment earnings following drug treatment (see Chapter 2). The findings did not support UCLA's expectation—there was only a small increase in taxes paid under SACPA.

Inputs:

Earnings data were provided by the EDD. The Employment and Earnings File maintains employment and earnings records on the legal earnings of all employed Californians. Taxes were computed using California tax tables and were adjusted to 2004 dollars. SACPA offenders were slightly more likely than offenders in the pre-SACPA group to be employed during the 30-month follow-up period (37% percent versus 34%).

Excluded Cost Modules

As discussed earlier, two intended cost modules could not be applied under the DID cost model. For the first, mental healthcare, state records were not automated until 1998. Thus, the baseline period for the pre-SACPA-era group could not be determined. Without this information, a DID model could not be applied. The second was welfare, where the only statewide database is TANF, affecting primarily women who are head of households. TANF was initiated under the welfare reform movement of the late 1990s, so that data for the baseline of the pre-SACPA-era group could not be determined. Moreover, large secular trends in TANF data occurred over the full time-lagged period, for which data adjustments were not possible. More detail is provided below.

⁹¹ The social-planner perspective includes the full value of employment earnings while the taxpayer perspective considers only consumption taxes and the paid earned-income taxes on earnings.

Difference-in-Difference Results

The summary findings of the DID models for each of the modules included in the benefit-cost findings are presented below.

Combining Costs

As noted, after creating an individual-based cost for each of the modules, the total cost (summed DID, some positive and some negative) was calculated for each group within each module. Covariate adjustments were made within the program as appropriate for each module to remove their effects insofar as possible, thus sharpening the effects that could be attributed solely to SACPA. Subsequently, per offender costs were summed across modules for each period, and a summary cost ratio determined. The culmination of these procedures leads to the study findings as described below.

Determining Cost Ratios

Determining the applicable procedures to determine cost ratios was not a straightforward process. In using the count, duration, and cost of events comprising the drug treatment module, the final cost of drug treatment included those expenditures from the SACPA trust fund allocated for drug treatment. Moreover, some SACPA offenders obtained treatment under funding from sources other than the trust fund. Therefore, the cost of drug treatment directly attributable to the \$117 million provided from the trust fund had to be 'backed out' of the total cost picture so as to not be double counted. The resultant total cost was then compared to the \$117 million allocated to provide the requisite ratio.

Table A.7.B.4 DID Regression Results for Costs per Offender

Dependent Variable: Prison Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	302.18** (89.62)	3.37	0.00	126.51	477.84
Post-period	5937.01** (86.72)	68.46	0.00	5767.03	6106.99
SACPA*Post-period	-3546.63** (120.75)	-29.37	0.00	-3783.29	-3309.96
Dependent Variable: Jail Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	-305.74** (36.61)	-8.35	0.00	-377.48	-233.99
Post-period	3030.98** (34.60)	87.60	0.00	2963.16	3098.80
SACPA*Post-period	-1530.92** (50.17)	-30.52	0.00	-1629.25	-1432.59
Dependent Variable: Probation Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	-71.34** (8.24)	-8.65	0.00	-87.50	-55.18
Post-period	1200.63** (7.13)	168.32	0.00	1186.65	1214.61
SACPA*Post-period	198.65** (10.14)	19.60	0.00	178.78	218.52
Dependent Variable: Parole Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	33.92** (10.32)	3.29	0.00	13.69	54.15
Post-period	259.53** (8.48)	30.62	0.00	242.92	276.15
SACPA*Post-period	-221.02** (12.52)	-17.65	0.00	-245.56	-196.48

Notes: All models include controls for offender's county, regional unemployment rate, national crime rates, sex, and a full set of race-age interaction terms. Adjusted standard errors are given in parentheses. * significant at the 5 percent level; ** significant at the 1 percent level

Table A.7.B.5 DID Regression Results for Costs per Offender

Dependent Variable: Arrest and Conviction Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	-739.22** (53.65)	-13.78	0.00	-844.38	-634.07
Post-period	-1612.50** (42.07)	-38.33	0.00	-1694.94	-1530.04
SACPA*Post-period	1326.43** (64.22)	20.65	0.00	1200.55	1452.31
Dependent Variable: Healthcare Costs	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	138.84* (65.82)	2.11	0.04	9.84	267.85
Post-period	418.52** (53.13)	7.88	0.00	314.38	522.66
SACPA*Post-period	229.69** (77.70)	2.96	0.00	77.40	381.98
Dependent Variable: Taxes	Coef.	t	P> t	[95% Conf. Interval]	
SACPA	72.22** (4.33)	16.66	0.00	63.72	80.71
Post-period	-207.97** (3.56)	-58.42	0.00	-214.95	-200.99
SACPA*Post-period	58.97** (5.28)	11.17	0.00	48.62	69.32

Notes: All models include controls for offender's county, regional unemployment rate, national crime rates, sex, and a full set of race-age interaction terms. Adjusted standard errors are given in parentheses. * significant at the 5 percent level; ** significant at the 1 percent level

Appendix to Conclusion and Recommendations

Evaluation Research Questions and Answers

The following research questions were developed by UCLA in collaboration with ADP, the SAG, the EAG, and other stakeholder groups. Questions cover four domains: cost offset, client outcomes, implementation, and lessons learned. UCLA divided each research question into subquestions that represent the scope of the evaluation more specifically and serve as an organizing framework for detailed planning (e.g., identification of data sources and analytic techniques).

This section addresses each of the research questions and directs the reader to the evaluation report that provides further information on the topic.

Cost-Offset

UCLA used administrative data maintained by state agencies and collected unit-cost information from treatment, criminal justice, and other sources to measure costs and cost savings and to evaluate the adequacy of appropriated funds.

Research Question 1: Does SACPA lead to cost savings?

Yes. Approximately \$2.50 was saved for every \$1 allocated to fund SACPA. See Chapter 7 for further details.

Subquestions 1.1 to 1.7 cover components of costs and cost savings. The difference in cost for SACPA offenders and comparison offenders were calculated for each component and combined across all components to determine whether SACPA led to net cost savings.

Subquestion 1.1: Drug treatment costs and cost savings. What are the drug treatment costs for SACPA offenders versus comparison offenders?

Over a 30-month period, drug treatment costs were \$743 higher among SACPA-eligible offenders than would have been expected in the absence of SACPA. See Chapter 7 for further details.

Subquestion 1.2: Services costs and cost savings. What are the healthcare and social service costs for SACPA offenders versus comparison offenders?

Over a 30-month period, healthcare costs were \$230 higher among SACPA eligible offenders than would have been expected in the absence of SACPA. Changes in welfare payments could not be disentangled from the simultaneous effects of welfare reform, and mental healthcare data could not be used in the analysis due to data limitations. See Chapter 7 further details.

Subquestion 1.3: Case processing costs and cost savings. What are the law enforcement, prosecution, defense, and court costs for SACPA offenders versus comparison offenders?

Over a 30-month period, arrest and conviction costs were \$1,326 higher among SACPA-eligible offenders than would have been expected in the absence of SACPA. These costs also apply to subquestion 1.6. See Chapter 7 for further details.

Subquestion 1.4: Probation costs and cost savings. What are the probation supervision costs for SACPA offenders versus comparison offenders?

Over a 30-month period, probation costs were \$198 higher among SACPA-eligible offenders than would have been expected in the absence of SACPA. See Chapter 7 for further details.

Subquestion 1.5: Parole costs and cost savings. What are the parole supervision costs for SACPA offenders versus comparison offenders?

Over a 30-month period, parole costs were \$221 lower among SACPA-eligible offenders than would have been expected in the absence of SACPA. See Chapter 7 for further details.

Subquestion 1.6: New crimes costs and cost savings. What are the costs of new crimes by SACPA offenders versus comparison offenders?

Over a 30-month period, arrest and conviction costs were \$1,326 higher among SACPA-eligible offenders than would have been expected in the absence of SACPA. These costs also apply to subquestion 1.3. See Chapter 7 for further details. Future research should be conducted to quantify the effect of SACPA on crime among the broader population of both drug offenders and non-drug offenders to determine the net effect of SACPA on public safety and criminal justice costs.

Subquestion 1.7: Incarceration costs and cost savings. What are the costs of jail and prison incarceration for SACPA offenders versus comparison offenders?

Over a 30-month period, prison costs were \$3,547 lower among SACPA-eligible offenders than would have been expected in the absence of SACPA. See Chapter 7 for further details.

Over a 30-month period jail costs were \$1,531 lower among SACPA-eligible offenders than would have been expected in the absence of SACPA. See Chapter 7 for further details.

Subquestion 1.8: Construction. Does SACPA lead to a cost saving from prison and jail construction delayed or averted?

The number of prison days avoided by SACPA offenders exceeded a full census of a mid-size prison facility, and the number of jail days avoided exceeded a full census of a mid-size jail facility.

Research question 2: Does the enacted SACPA allocation cover the cost of treatment, other services, case processing, and supervision of SACPA offenders?

Subquestion 2.1: SACPA allocation. What percentage of the cost of treatment, other services, case processing, probation supervision, and parole supervision (measured in subquestions 1.1 to 1.5) is covered by the SACPA allocation?

UCLA prepared two sub-studies to the benefit-cost analysis that focused specifically on funding issues. The first considered the division of costs and benefits between counties and the state and the second considered the level of funding that would be appropriate for SACPA. The studies concluded that cost-savings were divided between the county and the state, but that SACPA was under-funded at the \$120 million level.

Outcomes

UCLA estimated SACPA's effects on crime, drug use, and the well-being of offenders for one year and two and one-half years after SACPA eligibility. Sources included state administrative databases covering all 58 counties, and a survey of offenders who participated in SACPA in ten counties. Outcomes were compared between these offender groups: (1) SACPA-eligible offenders versus offenders from a pre-SACPA-era; (2) SACPA-eligible offenders who completed an assessment versus those who did not complete an assessment; (3) SACPA-assessed offenders who entered treatment versus those who did not enter treatment; and (4) offenders who entered and completed SACPA treatment versus those who entered but did not complete it. Since self-report measures could only accurately be collected via a follow-up survey, this information could not be collected accurately on the 1997-1998 pre-SACPA-era comparison group.

Research question 3: What is SACPA's effect on crime?

Subquestion 3.1: Officially recorded crime. How many arrests for property crimes, violent crimes, and drug crimes (SACPA-eligible or ineligible) are on record for SACPA offenders versus comparison offenders?

Greater participation in SACPA was generally associated with better outcomes. Offenders who completed treatment were substantially less likely to be re-arrested than those who did not. However, as a group, all SACPA eligible offenders (regardless of participation) were more likely to be arrested than pre-SACPA-era group offenders. This difference was attributable to differences in incarceration practices. Most re-arrests were for drug offenses. See Chapter 4 for more details. As a result of SACPA, many drug offenders were diverted from incarceration in overcrowded California prisons and jails. The public safety implications and associated costs of using scarce prison and jail resources to house non-drug offenders was beyond the scope of this evaluation. Further research is needed to quantify the effect of SACPA on these populations.

Subquestion 3.2: Revocations. How many probation and parole revocations are on record for SACPA offenders versus comparison offenders?

Among SACPA offenders who were on probation in 2003-2004, 23.1% had their probation revoked during this year. Among a 6-month sample of parolees, the recommitment over the course of a 12-month follow-up period was 56.0% (note that due to different measurement methods the probation and parole numbers are not directly comparable). These statistics were unavailable for the pre-SACPA-era comparison group. See Chapter 4 of the 2004 SACPA Evaluation Report for further details.

Subquestion 3.3: Self-reported crime. How many property crimes, violent crimes, and SACPA-ineligible drug crimes are reported by SACPA offenders versus pre-SACPA-era offenders?

Since it was not possible to collect self-reported crime on the pre-SACPA-era group and self-reported crimes are correlated with re-arrest rates, this evaluation focused on official records of re-arrests. See Chapter 4 for further details on re-arrests.

Subquestion 3.4: Crime trends. How did crime rates change after commencement of SACPA?

There was no evidence that crime rates changed significantly from rates that would have been expected (projected). Higher re-arrests among the SACPA eligible population may have been offset by lower re-arrests among the non-SACPA population as a result of incarceration resources being re-allocated to the latter group. See chapter for further details.

Research question 4: What is SACPA's effect on offender drug use?

Subquestion 4.1: No drug use. What is the rate of drug abstinence for SACPA offenders?

Compared to pre-SACPA drug use, abstinence increased among SACPA offenders in the follow-up period. See Chapter 5 of the 2004 SACPA Evaluation Report for further details.

Subquestion 4.2: Reduced drug use. What change in drug problem severity occurs for SACPA offenders?

Days of drug use decreased among SACPA offenders in the follow-up period, compared to pre-SACPA drug use. See Chapter 5 and Appendix E of the 2004 SACPA evaluation report for further details.

Research question 5: What is SACPA's effect on offender employment?

Subquestion 5.1: Employment. What is the employment rate for SACPA offenders?

Increases in employment and reductions in employment problem severity were associated with participation in SACPA. Treatment completers had the most favorable outcomes. See Chapter 5 and Appendix E of the 2004 SACPA evaluation report for further details.

Research question 6: What is SACPA's effect on offender health and family well-being?

SACPA offenders made greater use of medical services than comparison group offenders (see Chapter 7). This is likely an indication that clients in treatment were attending to medical issues that were previously left untreated. Mental healthcare and family problems could not be fully analyzed due to data issues.

Implementation

To describe how offenders move through SACPA and to document innovation in criminal justice and treatment procedures, UCLA used "pipeline" models; an annual survey of county representatives in all 58 counties; in-depth discussion with representatives in ten focus counties; and observation at meetings, conferences, and other events.

Research question 7: How many SACPA-eligible offenders enter and complete treatment?

Subquestion 7.1: Treatment entry. What percentage of SACPA-eligible offenders enter treatment, and what are their characteristics?

The proportion of offenders entering each SACPA stage and the characteristics of offenders who have reached treatment has been reported in each of the SACPA Evaluation Reports (Chapter 2 of the 2002, 2004, and 2005 reports, Chapter 3 of the

2003 report). Between 30,000 and 40,000 offenders entered treatment through SACPA in each year.

Subquestion 7.2: Treatment completion. What percentage of SACPA-eligible offenders complete treatment, and what are their characteristics?

Approximately one third of clients who have entered treatment have completed it each year. For further details on completion rates and the characteristics of treatment completers see Chapter 7 of the 2003 SACPA Evaluation Report, Chapter 3 of the 2004 report, and Chapter 3 of this report.

Research question 8: What procedures are used for assessment, placement, and supervision of SACPA offenders?

Subquestion 8.1: Assessment. What assessment instruments and procedures are used to identify service needs and risk levels of SACPA offenders?

Procedures varied somewhat by county, but the Addiction Severity Index was used by nearly all counties, and most counties assessed offenders after sentencing and prior to treatment. For more information assessment instruments and procedures, see Chapter 3 of the 2002 SACPA Evaluation Report.

Subquestion 8.2: Placement. What treatment placement instruments and procedures are used to determine the types of treatment to which SACPA offenders are referred?

Procedures varied somewhat by county, but more than half used the American Society of Addiction Medicine Patient Placement Criteria to guide treatment placement. For more information on placement instruments and procedures see Chapter 3 of the 2002 SACPA Evaluation Report.

Research question 9: How do sectors of the criminal justice and treatment systems respond to SACPA?

Subquestion 9.1: Law enforcement. Did arrest or charging practices change during SACPA?

There was no evidence that SACPA prompted any systematic change in arrest or charging practices. For further information see Chapter 4 of the 2002 SACPA Evaluation Report.

Subquestion 9.2: Offender management. What procedures (such as dedicated court calendars, mental health courts, case management, SACPA-specific urine test protocols, or placement in services for co-occurring disorder or other characteristics) are used in managing SACPA offenders?

A wide variety of management strategies and procedures were implemented, and practices varied by county. For information on these strategies see Chapter 4 of the 2002 and 2003 SACPA Evaluation Reports.

Subquestion 9.3: Treatment provision. What procedures are used (such as expanding treatment capacity and treatment matching) in the provision of drug abuse treatment to SACPA offenders?

Initial Capacity expansion was greatest for outpatient drug-free treatment (82.1% of counties added new programs and 86.7% added slots in existing programs in the first year), followed by intensive outpatient or day treatment (40.6% and 73.7% respectively), and residential treatment (29.4% and 69.2% respectively). Drug education or early intervention programs were expanded as well (23.5% added new programs and 58.3% added new slots). Capacity expansion was lowest for outpatient treatment with methadone or other NRT's (5.9% added new programs and 30.6% added new slots). For more information see Chapter 4 of the 2002 SACPA Evaluation Report.

Research question 10: What problems occur in implementing SACPA, and how are those problems addressed?

SACPA required substantial collaboration among criminal justice, treatment, and county administrators. County representatives expressed concern regarding the sufficiency of SACPA funding across years. However, most county representatives reported favorable views of overall SACPA implementation locally. For more information see Chapter 5 and Appendix E of the 2002 SACPA evaluation report.

Lessons Learned

To arrive at implications for policy and practice, UCLA used its annual survey of county representatives in all 58 counties; in-depth discussion groups in ten focus counties; and observation at meetings, conferences, and other events.

Research question 11: What implementation strategies are associated with SACPA outcomes?

Assessment “show” rates were higher in counties placing probation and assessment staff at the same location, counties allowing walk-in assessment, and counties requiring only one visit to complete an assessment. Treatment “show” rates were higher in counties handling SACPA offenders in a drug court approach. For more information see Chapter 6 of the 2002 SACPA Evaluation Report and Chapter 5 of the 2003 SACPA Evaluation Report.