

EFFECTS OF LEGAL SUPERVISION ON NARCOTIC ADDICT BEHAVIOR:

ETHNIC AND GENDER INFLUENCES

Elizabeth Piper Deschenes, Ph.D.

and

M. Douglas Anglin, Ph.D.

Drug Abuse Research Group  
Neuropsychiatric Institute  
University of California, Los Angeles

December, 1989

This research was supported in part by Grant 86-IJ-CX-0069 from the National Institute of Justice and by USPHS Grant DA04268 from the National Institute on Drug Abuse. Further support was obtained from the State of California Department of Alcohol and Drug Programs, under contract D-0001-8. Address correspondence to Dr. Anglin, UCLA Drug Abuse Research Group, 1100 Glendon Avenue, Suite 763, Los Angeles, California 90024-3511.

## ABSTRACT

While the literature evaluating drug abuse treatment is well established, evaluations of the effectiveness of different types of legal supervision on the behavior of narcotic addict offenders are less common. In this study, traditional probation or parole (both with and without urine testing) and specialized intensive parole supervision designed for the California Civil Addict Program were examined for their effects on the addiction and criminal behavior of Anglo and Chicano male and female narcotic addicts. Two samples were drawn from clients in methadone maintenance programs during the years 1976 and 1978. Repeated measures ANOVA was used to compare levels of narcotics use, drug trafficking, property crime involvement, and social functioning during periods within the addiction career under various types of legal supervision. Results showed that only those forms of legal supervision with urine testing proved effective in reducing daily narcotics use and improving addiction-related behaviors.

126041

U.S. Department of Justice  
National Institute of Justice

This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the National Institute of Justice.

Permission to reproduce this ~~copyrighted~~ material has been granted by

Public Domain/NIJ/NIDA

U.S. Department of Justice

to the National Criminal Justice Reference Service (NCJRS).

Further reproduction outside of the NCJRS system requires permission of the ~~copyright~~ owner.

## Chapter X

### EFFECTS OF LEGAL SUPERVISION ON NARCOTIC ADDICT BEHAVIOR:

#### ETHNIC AND GENDER INFLUENCES

##### Introduction

The overwhelming evidence of a link between narcotics use and criminality (Anglin and Speckart, 1988; Wish and Johnson, 1986; Johnson, et al., 1985; Gropper, 1985) guarantees the visibility of the narcotic addict to the criminal justice system. Since the 1960s, attempts to control the criminal behavior of narcotic addicts have been polarized into criminal justice system interventions and drug treatment efforts. The criminal justice system employs incarceration, probation and parole supervision, and civil commitment, while drug treatment programs utilize such alternatives as methadone maintenance, outpatient drug-free counseling, and therapeutic communities. In general, evaluations of the effectiveness of community treatment programs for narcotic addicts have been more positive than evaluations of criminal justice system programs in controlling criminal behavior.

There is consistent evidence that the three major drug treatment modalities reduce levels of narcotics use and associated criminal

behavior (Stitzer and McCaul, 1987; Anglin and Hser, 1990). Outcome results from both the Treatment Outcome Prospective Study (TOPS) and the Drug Abuse Reporting Program (DARP) demonstrated that methadone maintenance treatment, outpatient drug free programs, and therapeutic community programs are effective in reducing drug use and crime by narcotic addicts (Collins and Allison, 1983; Hubbard, Allison, Bray, Craddock, Rachal and Ginzburg, 1983; Simpson and Sells, 1982).

On the other hand, there has been continued controversy over the effectiveness of the criminal justice system in controlling crime in this population since Martinson's (1974) conclusion that "nothing works." Many studies evaluating criminal justice system interventions have shown disappointing results. For example, in a 40-month follow-up study of probationers in Los Angeles and Alameda counties, Petersilia, Turner, Kahan and Peterson (1985) found that 65% were re-arrested and 51% were subsequently convicted. Property offenders had higher recidivism rates as compared to drug or violent offenders. Petersilia et al. (1985) concluded that few offenders in prison would be good candidates for probation and argued that routine probation is generally inappropriate for most felons. Furthermore, the authors suggest that neither intensive supervision probation nor traditional probation is appropriate for "violent predators," or offenders who have the highest robbery, assault, and drug dealing rates.

Recent meta-analyses suggest that rehabilitation is effective (Gendreau and Ross, 1989; Andrews et al., forthcoming) and other studies have shown that more promising results may be attained from appropriate

legal supervision efforts. For example, in a study of matched samples of probationers and prisoners, Petersilia, Turner and Peterson (1986) found that discharged prisoners had higher recidivism rates in a 24-month follow-up study than did probationers. As in their prior study, property crime offenders (both prisoners and probationers) had higher rates than drug or violent offenders. For prisoners, and particularly for drug offenders, longer prison sentences served to decrease recidivism. Regarding the differences in recidivism rates between the two groups, Petersilia et al. (1986) point out that while many prisoners have no supervision after the first year of release, probationers are often supervised for up to three years. The difference in recidivism rates, therefore, may be due to the failure of the criminal justice system to sufficiently supervise prisoners after release.

One explanation for the contradictory results reported for the effectiveness of legal supervision is that high caseloads and limited resources constrain the actual level of control that can be imposed on offenders. As a result, intensive probation supervision is one special program which is gaining attention nationwide. Where traditional criminal justice system efforts have been augmented by the use of urine monitoring with associated sanctions for detected narcotics use, as is the case in intensive probation supervision (IPS) and in some specialized pre-trial surveillance programs, significant deterrent effects have been claimed (McCarthy, 1987; Carver, 1986; Toborg, 1984). However, as reported by Bennett (1987), despite the intent, intensive supervision may not be significantly different from regular supervision

in terms of caseload, contacts with probationers or parolees, or increased resources available to the supervising officers. But where such programs are truly more intensive, recent evaluations have been fairly positive. For example, drug offenders in Georgia did better under intensive probation than under regular probation supervision (Erwin, 1986). A lower percentage of subjects under intensive probation supervision were convicted of serious new crimes against persons than either a regular probation or an incarcerated sample. In New Jersey, an evaluation of intensive probation showed a higher employment rate and a lower recidivism rate than traditional probation (Bureau of Justice Assistance, 1987). Although intensive probation supervision was developed to decrease prison overcrowding, it has shown to be effective in improving probation outcomes.

Although these initial reports are promising for the more effective forms of legal supervision, few studies have targeted narcotic abusing offenders as a group of special interest. The few studies focusing on this group are reported below.

#### Legal Supervision and Narcotic Abusing Offenders

The current research is one of a series of analyses of criminal justice system intervention effectiveness resulting from a long-term research program on narcotic addict offenders in California conducted by the UCLA Drug Abuse Research Group. An initial study evaluated the California Civil Addict Program (CAP) and concluded that the specialized intensive legal supervision with urine monitoring provided during the parole phase of the program was effective in reducing daily narcotic use

and property crime (McGlothlin, Anglin and Wilson, 1977; Muthen and Speckart, 1983, 1985).

Subsequent UCLA studies on an admissions cohort of male methadone maintenance patients analyzed the effects of legal supervision on narcotics use and criminal behavior during the addiction career. The results indicated that immediate positive behavioral effects occurred when intensive legal supervision was imposed and, for some addicts, improvement persisted after discharge from legal supervision status (Anglin, Deschenes, and Speckart, 1988). For a subset of addicts with more than one period of legal supervision, cumulative positive behavior changes were observed over time. For this group, daily narcotics use and criminal behavior increased after discharge from initial supervision status, but during subsequent legal supervision episodes, these behaviors fell to levels lower than those exhibited during the earlier legal supervision period. Further research showed that supervision with urine testing produced optimal suppression of daily narcotic use and criminal behavior among these male narcotics addicts (Deschenes, Anglin and Speckart, 1988).

Gender and ethnic differences in the addiction and criminal careers of narcotics addicts have also been investigated in this research program, but analyses have not been previously conducted to assess the influence of gender and ethnicity on the effects of different types of criminal justice system supervision. In terms of gender differences in overall addiction and criminal careers, Chicanas used narcotics most frequently of all subgroups of addicts (males and

females, Chicanos and Anglos) and had a higher relapse rate following treatment (Anglin, Hser, and McGlothlin, 1987). Furthermore, females were more likely to be on welfare and have lower levels of employment (Hser, Anglin, and McGlothlin, 1987). In terms of treatment intervention effects, methadone maintenance decreased levels of narcotics use and criminal behavior in all groups, but Chicanas, in particular, showed greater rebounds toward pre-treatment levels after discharge than all other groups (Anglin and Hser, 1987).

Ethnic differences were substantial. Although Anglos abused a wider variety of drugs than Chicanos (Anglin, Ryan, Booth and Hser, 1988; Anglin, Booth, Ryan, and Hser, 1988), Chicanos had higher levels of criminality than Anglos. Drug dealing for profit was higher among Chicanos. In addition, Chicanos continued to deal while in treatment. Long-term outcomes after treatment discharge were less favorable for Chicanos, who had higher rates of unemployment, shorter periods of abstinence, and higher rates of arrest than Anglos (Anglin, Hser, and McGlothlin, 1987).

An earlier analysis of the present sample of methadone maintenance patients examined ethnic and gender differences in narcotics use, criminality, and other behaviors before, during, and after any periods of legal supervision (Anglin and Deschenes, 1989). Although all groups showed improvements in behavior while under legal supervision, Anglos generally showed greater reductions in levels of narcotics use than Chicanos. After discharge from supervision, behavior gains deteriorated toward, but did not achieve, pre-supervision levels. Between periods of

legal supervision, there was a tendency for Chicanos to rebound to higher levels of narcotics use than Anglos. In terms of criminality, all groups, with the exception of Anglo males, decreased the percentage of time committing property crime both during and between periods of legal supervision. For those addicts under legal supervision who also entered methadone maintenance treatment, there were greater decreases in both narcotics use and property crime, regardless of race or sex.

Some of the reasons for the ethnic and gender differences in response to legal supervision reported above are related to other explanatory variables. For example, Chicanos appear to be less responsive to legal supervision in terms of narcotics use because they have greater economic constraints regarding conventional employment; males find it necessary to deal drugs and females continue to commit crime--activities which maintain contact with the addict sub-culture.

Overall, when considering both types of social intervention, the gender and ethnic differences reported for methadone maintenance treatment and for general legal supervision suggest that such interventions may need to be sensitive to ethnic and gender contributions that may affect responsiveness to different types of supervision. In this respect, information concerning both the general effects of conventional types of legal supervision and their variation across gender and ethnic subgroups may suggest methods of improving their effectiveness.

The present study replicates earlier analyses examining the effects of various types of legal supervision, both with and without



methadone maintenance clinics. These subjects were interviewed during the years 1980-1981, an average of 6 years after admission (Anglin et al., 1983). The total number of subjects interviewed was 720, of whom 141 were Chicanos, 45 Chicanas, 251 Anglo men, and 283 Anglo women. There were too few Blacks to justify retention in the present sample. The two samples were generally representative of California methadone maintenance patients for the period under study. Complete descriptions of the specific composition of these samples are provided by Anglin and McGlothlin (1984).

The background characteristics of the present sample of narcotic addicts, as shown in Tables X-1 and X-2, are similar to those of the addicts reported on in our earlier work (Deschenes, Anglin and Speckart, 1988), and their characteristics agree well with those previously reported in the literature. The majority of Chicano subjects, both male and female, were from the poor and working classes, whereas the majority of Anglos were from the working and middle classes. Chicanos completed fewer years in school and reported more problems in school (e.g., truancy, discipline, conflict with teachers) than Anglos. These ethnic differences in educational achievement are also reflected in a higher percentage of Chicanos in semi-skilled and unskilled employment. Women generally reported more family conflict than men.

---

Insert Table X-1 and X-2 about here

---

#### Interview Procedure

Data were obtained through retrospective longitudinal interviews. The interview procedure was adapted in part from a schedule developed by Nurco et al. (1975) and has been described in detail elsewhere (McGlothlin et al., 1977). Briefly, the procedure involved the pre-interview preparation of a schematic time chart from documented information including records from the California Department of Corrections and Department of Motor Vehicles and treatment clinic medical files. The time charts showed all known arrests and intervals of incarceration, legal supervision, and methadone treatment. This information was used by the interviewer as a memory aid to facilitate recall of past events. During the initial contact with the subject, the interviewer established the date of the first narcotics use on the time chart and then proceeded chronologically to the point when narcotics use changed from less than daily use to daily use (or vice versa), or when the respondent's legal status or treatment status changed. Data were then collected on narcotics use, employment, criminal behavior, and certain other variables for that interval. The interviewer repeated this process for subsequent intervals. Thus each defined interval was homogeneous in terms of level of narcotics use, legal status, and drug treatment participation. The subject's narcotics use history was

recreated in terms of these and other variables from one year before the first use of narcotics until the time of the interview.

To improve the validity of the self-report data, subjects were informed early in the interview that a urine specimen would be requested after all forms had been completed. This request, with which 95 percent of the subjects complied, reduced under-reporting of recent drug use and other antisocial behavior. Official arrest records provided an additional source of objective data against which to compare self-report data.

#### The Narcotic Addiction Career

The retrospective longitudinal interview, in which data are chronologically sequenced from the year prior to initial narcotics use to the time of interview, permits an examination of the relationship between the narcotic addiction and criminal careers, as well as the effects of legal supervision on both. Addiction is defined, for the purposes of this study, as daily narcotics use for a consecutive period of at least 30 days. Termination of addiction occurs at the point when narcotics use becomes less than daily and does not return to a daily level during any subsequent period prior to the interview. Within this framework, the timing and effects of significant events (such as addiction, entry into and discharge from legal supervision, incarceration, and termination of addiction) can be analyzed and evaluated with respect to their influence on the narcotics-crime relationship. The addiction career and significant events in that career are described in an earlier paper (Deschenes, Anglin and

Speckart, 1988), which also gives a conceptual schema for the progressive stages that occur over an addiction career.

#### Measures

Independent Variables: Legal supervision is defined as any type of supervision imposed by the criminal justice system, including probation, parole or outpatient status (a term for the type of intensive parole supervision provided by the California Civil Addict Program), and abscondence<sup>2</sup> from any of these statuses. Sex and race are also included as independent variables.

Dependent variables: Dependent variables included: (1) narcotic use (percentage of time abstinent, percentage of time using narcotics daily, and average number of fixes per month), (2) other drug use (percent of time using alcohol, marijuana, or other illicit drugs), (3) criminal behavior (percentage of time actively involved in property crime such as robbery, burglary, and theft, number of crime days per month, dollar income from committing property crime, and percentage of time and dollar income from drug dealing), (4) social functioning (percentage of time employed or on welfare, percentage of time married, and dollar income from employment and welfare), and (5) treatment (percentage of time on methadone maintenance). All dependent variables were measured during non-incarcerated time periods.

#### Analyses

Repeated measures analysis-of-variance (ANOVA) was used to determine significant effects of legal supervision, first to test the

effects of any legal supervision and subsequently to test for differences under various types of legal supervision. Subsamples of addicts were selected to compare aggregate data from time periods with and without different types of supervision.

For the first set of analyses, all time periods under legal supervision from initial addiction to last daily use and all time periods of no legal supervision were aggregated in order to compare the global effects of the two conditions. Similarly, for the second set of analyses, types of legal supervision were contrasted at three levels, from lowest intensity supervision to highest. At the first level, aggregate periods of no legal supervision were compared to aggregate periods of legal supervision without urine testing. The same technique was used at the second level to compare aggregate time periods of legal supervision with and without urine testing. At the third level, aggregate time periods under legal supervision with testing, but not with intensive supervision (OPS), were compared to those periods under OPS supervision. At each level of analysis, only those subjects having both conditions at some point in their addiction career were included in the analysis. Thus, the sample sizes available under the different conditions varied.

In Tables X-3 to X-6, the values in each column represent the mean levels of the dependent variables for each subgroup of subjects. F-tests were used to test the differences between the means. Tests were conducted for the main effects of the type of legal supervision, the main effects of sex and race, and the interactive effects of sex, race,

and legal supervision. Any significant differences are noted in the last column of each table.

The first set of repeated measures ANOVA (Table X-3) tested the difference between periods during the addiction career when not under legal supervision to all aggregate periods under any type of legal supervision. Subsequent analyses were run for those subsamples with a sufficient number of cases to test differences between types of legal supervision. Table X-4 compares periods with no supervision to periods of supervision without urine testing. Table X-5 compares conditions of supervision without urine testing to conditions of supervision with urine testing. Table X-6 compares regular supervision with urine testing to intensive supervision with urine testing. In each table, significant differences between the two types of conditions are referred to as status, or "type," effects and are marked on the tables as "T" in the significant effects column. Gender, or sex, differences are denoted by "S," and ethnic, or race, differences are denoted by "R." The two-way interactive effects are denoted by a combination of letters, for example, race and sex are indicated as "RS," race and status as "RT," and the three-way interactive effect of gender, ethnicity, and type of legal supervision status is denoted by "SRT."

## Results

### Addiction and Criminal Careers

Table X-2 summarizes characteristics of the addiction and criminal careers for the total sample. At the time of interview, Chicano males

were the oldest among the four groups and Anglo females were the youngest. Age differences are also reflected in the subjects' drug-use histories. Chicanos began drug use at an earlier age than the other groups and their drug careers were longest, and they were older at first admission into methadone maintenance. Chicanas had the next longest addiction careers; Anglo males and females had shorter addiction careers, perhaps because they entered methadone maintenance at earlier ages than Chicanos.

The criminal histories indicate that Chicano males had the lowest age at first arrest and were more likely to be gang members. Females were slightly older than males at first arrest, but Chicanas were more likely to be gang members than Anglo males.

Chicano males were older at entry into their first legal supervision than any of the other groups, however, they were under legal supervision for a longer period. There were few differences between Anglo males and Chicanas and Anglo females, with the exception that Anglo males spent a greater amount of time under legal supervision. Overall, Anglo females had the fewest number of periods of legal supervision, with 35 percent never being under supervision.

#### No Supervision versus Supervision

Of the total sample, 107 Chicanos, 168 Anglo men, 32 Chicanas, and 155 Anglo women had periods of no legal supervision and some period of legal supervision during their addiction careers. As can be seen in Table X-3, there were significant differences for almost all variables for the no-supervision versus supervision comparison. When under legal

supervision, a significant decrease was reported in the percentage of nonincarcerated time spent using narcotics daily and a significant increase in the percentage of time abstinent among all gender and ethnic subgroups. Despite this consistent legal supervision effect, there were significant gender and ethnic differences in the number of fixes per month and in the percentage of time using other drugs. Under both conditions, Chicanos reported they fixed more often than Anglos, and females more often than males. Males also used more alcohol and marijuana than females, regardless of the supervision condition. In the use of other drugs, Anglos reported higher rates than Chicanos. However, supervision did produce a decrease in the percentage of time using other drugs among all groups.

---

Insert Table X-3 About Here

---

Legal supervision also had a significant impact on criminal behavior. Among all four subgroups, there was a significant decrease in the percentage of time and the number of days per month spent committing property crime during supervision. Chicano females, whose level was highest during non-supervision, showed the greatest decrease. In comparison, there was a moderate decline among both Chicano and Anglo males and relatively little change among Anglo females, whose rates were low overall. The percentage of time committing burglary showed the greatest decrease as a function of legal supervision among all groups, with the exception of Anglo females, among whom burglary increased

slightly (though nonsignificantly). There were significant race and sex differences in the number of crime days per month for all property crime. As before, Chicano females, who reported committing the most property crime during non-supervision, decreased the number of crimes committed during legal supervision to the greatest degree. A similar pattern was found for dollar income from property crime. In general, there was a greater decrease among females than males, and the greatest decrease was among Chicano females, who had the highest income under non-supervision.

Conditions of supervision also significantly decreased the percentage of time dealing drugs among all four groups, for both dealing in general and for profit. These decreases were greater among females than males, even though their levels under no supervision were lower than males. Dollar income from drug dealing also decreased under legal supervision.

Employment remained fairly constant despite supervision. As would be expected, the level for females was much lower than that for males, but Chicana females showed a minor increase in the percentage of time employed when under supervision. There were significant differences in the percentage of time receiving welfare differentially by sex and race. Whereas females were less likely to be employed, they were more likely to be receiving welfare. As might be expected from their increased employment while under supervision, Chicano males and females decreased their percentage of time on welfare while they were being supervised. Dollar income from employment and welfare only show significant race and

sex differences, with males receiving greater pay and females receiving greater amounts in welfare; the effects of legal supervision status were not significant.

Although not significant, three of the four groups increased their percentage of time on methadone maintenance while under legal supervision. However, Chicano females spent less time on methadone maintenance while under legal supervision than during periods without legal supervision.

#### No Supervision versus Supervision without Testing

In a previous study, we conjectured that during the addiction career, supervision without urine testing produced no better results than no supervision at all (Deschenes, Anglin, and Speckart, 1988). That proposition was tested in this study and the results are presented in Table X-4. As hypothesized, few significant legal status differences were observed between the two conditions. The most significant differences were for the percentage of time using alcohol, dollar income from property crime and from drug dealing, the percentage of time receiving welfare, and the percentage of time on methadone maintenance. Among all four subgroups, the percentage of time on methadone was higher when respondents were not under supervision than when they were being supervised without urine testing. Nonetheless, there were no significant differences between these two conditions in the percentage of time using narcotics daily or abstinent or in property crime activity as measured by percent time involved or crime days.

---

Insert Table X-4 About Here

---

The most significant differences in social functioning were related to gender and are similar to the differences pointed out in the previous table. The percentage of time receiving welfare decreased significantly when under supervision without testing.

In general, the analyses comparing the conditions of no legal supervision to supervision without urine testing show few significant differences attributable to conditions of legal supervision. While it may seem contradictory that addicts under no supervision appear to do as well as those under supervision without testing, it must be remembered that legal supervision occurs in response to detected criminal offenses. Thus, legal supervision is imposed more often during periods of higher narcotics use and related criminality. Furthermore, it is possible that the greater percentage of time on methadone maintenance under the no supervision condition contributed to the better outcomes.

#### Supervision with and without urine testing

The effects of supervision with urine testing versus supervision without testing are shown in Table X-5 for those subjects having both conditions during their addiction careers. Among all four subgroups, the added condition of urine testing yielded a significant decrease in the percentage of time using narcotics daily and in the number of fixes per month and, except for Anglo females, a corresponding increase in the

percentage of time abstinent. No corresponding changes were seen for property crime levels.

---

Insert Table X-5 About Here

---

When addicts were under supervision with testing, the percentage of time using alcohol increased significantly among all four subgroups, particularly Chicano females. No significant differences were found in marijuana or other drug use with respect to type of legal supervision, although the use of other drugs appears to have decreased when addicts were being tested.

Although one would expect a decrease in criminal behavior with the significant decrease in narcotics use, the addition of urine testing did not produce significant differences in any of the measures of criminal behavior. However, trends in mean differences indicated that criminal behavior was lowered when addicts were being tested.

Among females, the percentage of time involved in prostitution was significantly higher when addicts were being tested. This result may be related to the significant decreases in dealing drugs, especially for profit, during periods under urine testing. Chicano males, however, remained stable in their level of drug dealing. Anglo females increased their general level of drug dealing but decreased dealing for profit. These results suggest that for most groups supervision with testing decreased drug dealing, except for Chicano males, for whom drug dealing was apparently a major source of subsistence income.

As in the previous analysis comparing no supervision to supervision without testing, there were gender differences in employment and race and gender differences in welfare, but there were no significant differences related to type of legal supervision. Males were more likely to be employed than females, who were more likely to be receiving welfare. The percentage of time married or with a common law spouse was higher among all groups under supervision with testing than under supervision without testing, except for a higher percentage of common law marriages for Chicanos under supervision without testing.

These analyses suggest that supervision with testing produced greater benefits than supervision without testing. Under the supervision with testing, narcotics use was lower, employment income was higher, and drug dealing was lower (except for Chicano males). While not significantly different, criminal behavior was also reduced. These results, however, may be confounded with the percentage of time on methadone maintenance, which was higher under conditions of supervision with testing than under supervision without testing.

#### Regular Supervision with testing versus Intensive Parole Supervision

The effects of intensive "outpatient" legal supervision (OPS) with testing versus regular supervision with testing (Table X-6) showed few significant differences, a result which may be attributable to the fact that only a small number of addicts experienced both conditions and were suitable to be included in the comparison. Nonetheless, analyses showed similar trends to those found in earlier comparisons. For example, although not significant, there was a decrease in daily narcotics use

for all groups except Chicano females. There was also a greater reduction in the use of other drugs. Overall, Chicano males appear to have responded better to OPS than Anglo males, perhaps, in part, due to a higher proportion of time spent on methadone when under intensive legal supervision.

#### Summary of the Results

Figures X-1 through X-5 graphically summarize the major results from the three comparisons of legal supervision for the four race/gender groups: (1) supervised periods as opposed to non-supervised periods, (2) supervised periods without urine testing as opposed to supervised periods with urine testing, and (3) supervised periods with urine testing under regular probation as opposed to intensive probation.

Figures X-1 through X-5 show the mean percentage of nonincarcerated time engaged in: 1) daily narcotics use, 2) all property crime, 3) drug dealing, 4) employed, and 5) methadone maintenance. In each of these figures, the numbers portrayed are extracted from Tables X-3, X-5, and X-6.

It should be noted that since different numbers of clients are used in each of the analyses, Figures X-1 through X-5 should be read in the following way. Each pair of columns--namely no supervision versus supervision, no urine testing versus urine testing, and no OPS versus OPS--is generated from the same pool of subjects. The overall pattern of results forms a general picture of how addicts responded to the various intervention strategies. It should be remembered, however, that subjects are probably not randomly assigned to interventions, and it is

the most problematic individuals (or individuals who are repeat offenders) who are likely to be assigned to the most restrictive of the intervention conditions.

The variation in levels of daily narcotics use among the subgroups under different conditions can be seen in Figure X-1. With the exception of OPS for Chicano females, all of the interventions are effective in decreasing the rate of daily narcotics use. Overall, supervision with urine testing appears to be the most effective. OPS provided an additional decrease in daily narcotics use among Chicano males.

---

Insert Figure X-1

---

Figure X-2 shows a similar pattern for the mean percentage of time engaged in property crime. While all of the interventions are effective, supervision with urine testing was most effective for all groups and Chicano males responded the best.

---

Insert Figure X-2

---

The behavioral patterns are somewhat different for drug dealing, as shown in Figure X-3. For all of the groups, except Anglo females, supervision with testing appears to be most effective in controlling drug dealing behavior. The other intervention conditions are not as

effective in controlling drug dealing, and for Chicano males dealing increased under OPS.

---

Insert Figure X-3

---

The results displayed in Figure X-4 suggest that employment does not respond in a manner similar to the other dependent variables to differences in intervention conditions. Although supervision with urine testing provided improved results for Anglos, greater increases in general employment seem to be correlated with OPS.

---

Insert Figure X-4

---

Differences in the interventions with regard to the simultaneous percentage of time on methadone maintenance are important. As can be seen in Figure X-5, among all the groups, with the exception of Chicano males, the percentage of time on methadone maintenance is highest for the supervision with testing condition and lowest for supervision without urine testing. For Chicano males, there is a higher percentage of time on methadone while they are also on OPS. Therefore, an interactive effect of type of intervention and percentage of time on methadone maintenance may contribute to the decreases in narcotics use and criminal behavior. The percentage of time on methadone may also be related to the lack of statistical differences between the no supervision and supervision without testing conditions. Future analyses

will explore the relationships between different criminal justice system intervention conditions and methadone maintenance participation.

---

Insert Figure X-5

---

#### Discussion

The results of the replication of these legal supervision analyses with a different sample of heroin addicts have both confirmed and extended the findings from our earlier study. As hypothesized, legal supervision significantly decreased daily narcotics use, property crime, and drug dealing among all groups, regardless of sex or race. However, legal supervision without urine testing was no better and sometimes worse than no supervision at all. To some extent, this result may be due to the confounding effect of methadone maintenance. Addicts under no supervision were more likely to be on methadone than addicts under supervision without urine testing.

As hypothesized, when conditions of legal supervision without urine testing are compared to periods of legal supervision with urine testing, there were further significant decreases in narcotics use among all groups. However, these differences may be confounded with the increased percentage of time on methadone maintenance, which would further suppress levels of daily narcotics use.

Despite high levels of narcotics use, Chicana females significantly reduced levels of narcotics use under supervision with

testing, despite their lower percentage of time on methadone maintenance. However, the addition of urine testing did not appear to significantly affect levels of property crime, as had been expected. A significant interactive effect of the urine testing condition was found by race and sex for drug dealing. Chicano males did not markedly decrease drug dealing during supervision; however, there was a great reduction among Chicanas.

The level of legal supervision was also differentially affected by sex and race. Anglos appeared to respond better than Chicanos for supervision versus no supervision, but there were no further differences for testing versus no testing. Sex differences were found more often for levels of other drug use and social functioning, such as the percentage of time employed or on welfare. Females were also more likely to have higher levels of abstinence than males under the stricter types of supervision.

Some of the differences may be attributable to different levels of time on methadone maintenance. Of those males having both supervision with testing and OPS, a higher proportion of time was spent on methadone maintenance among the OPS condition. The opposite was true among females. By comparison, males and females who had supervision under both testing and no testing conditions had a higher percentage of time on methadone maintenance under the testing condition. Furthermore, the percentage of time on methadone maintenance was highest among Chicano males for intensive supervision with testing (OPS) but higher among Anglo males in the testing conditions compared to the no-testing

condition. Among females, the percentage of time on methadone maintenance was lower for the OPS condition. Thus, the greater percentage of time on methadone maintenance among Chicano males may be related to the greater decreases in the percentage of time using narcotics daily and committing property crime (see Figure X-1). Among Anglo males, the greater percentage of time on methadone maintenance during the testing rather than the OPS condition may contribute to their reduced narcotics use and crime. Both Chicano and Anglo females appear to respond similarly to Anglo males (see Figure X-2), doing better in the supervision with testing rather than in the OPS condition.

#### Policy Implications

Although further research is necessary to quantify the singular and joint effects of legal supervision with and without urine testing and those of concurrent methadone maintenance participation, the findings from the present analysis and other studies (Deschenes et al., 1988; Anglin et al., 1988) have several implications for public policy. Overall, these data support the contention that the most effective intervention policy for narcotic addict offenders is one that includes supervision with testing. Only supervision with objective monitoring for drug use has demonstrated effects in reducing both daily narcotics use and property crime. Although intensive parole supervision (OPS) as delivered in the mid-1970s appeared to be effective in prior studies (McGlothlin, Anglin, and Wilson, 1977), the reduction in resources and other changes in the Civil Addict Program during the late 1970s showed

that there were very few significant outcomes differences in comparison to regular supervision with testing.

To date, the interaction between legal supervision and community treatment, while beneficial, has often been haphazard and coincidental. To maximize behavioral gains among addict offenders, a system integrating the two social interventions would be desirable. Adequate social intervention efforts should involve various levels of criminal justice supervision as well as various levels of community treatment intervention. On the criminal justice side, the lowest levels of intervention may involve diversion of individuals from court processing into treatment; the imposition of treatment as a condition of probation, as a condition of early release from incarceration or as an adjunct to parole after incarceration; or treatment as a condition of remaining unincarcerated should a violation of parole or early release conditions be detected. On the community treatment side, interventions can range from simple educational approaches or outpatient counselling to methadone maintenance and other pharmacotherapies to residential treatment. The integration of these two dimensions of intervention can provide nearly any level of monitored control and intensity of treatment that may be desired for a given individual.

For an integrated dynamic system to work, communication and coordination between the criminal justice system and the community treatment system must be improved. By collaborating in producing the desired behavior changes in addicted offenders, both systems can

significantly improve outcomes for individuals under their care and for society as a whole.

## End Notes

<sup>1</sup> Daily narcotics use is defined as daily use for a consecutive period of 30 days.

<sup>2</sup> To conduct an unbiased assessment of overall effects of legal supervision, abscondence was included in the definition of legal supervision, even though it denotes periods during which the legal system failed to maintain the mandated control over the offender.

## References

- Andrews, D. A., Ivan Zinger, and R. D. Hoge (1989). Does correctional treatment work? A clinically-relevant and psychologically-informed meta-analysis. Criminology, in press.
- Anglin, M. Douglas & Deschenes, Elizabeth Piper (1989). Ethnic and gender differences in legal supervision effectiveness in controlling narcotics use and crime. Unpublished manuscript. University of California, Los Angeles.
- Anglin, M. Douglas & Hser, Yih-Ing (1987). Addicted Women and Crime. Criminology, 25(2), 359-397.
- Anglin, M. Douglas & Hser, Yih-Ing (1990). Efficacy of drug abuse treatment. In M. Tonry and J. Q. Wilson (Eds.), Crime and Justice, vol. 13.
- Anglin, M. Douglas & McGlothlin, William H. (1984). Outcome of narcotic addict treatment in California. In F. M. Tims & J. P. Ludford (Eds.), Drug abuse treatment evaluation: Strategies, progress, and prospects. (NIDA Research Monograph 51), Washington, D.C.: U.S. Government Printing Office.
- Anglin, M. Douglas & Speckart, George (1988). Narcotics Use and Crime: A multisample, multimethod analysis. Criminology, 26(2), 197-233.
- Anglin, M. Douglas, Booth, Mary W., Ryan, Timothy M., & Hser, Yih-Ing (1988). Ethnic differences in narcotics addiction: Part II. Chicano and Anglo addiction career patterns. International Journal of the Addictions, 23, in press.
- Anglin, M. Douglas, Deschenes, Elizabeth Piper & Speckart, George (1988). Effects of Legal Supervision on Narcotics Use and Criminal Behavior over the Addiction Career. Unpublished manuscript. University of California, Los Angeles.
- Anglin, M. Douglas, Hser, Yih-Ing, & Booth, Mary W. (1987). Sex differences in addict careers. 4. Treatment. American Journal of Drug and Alcohol Abuse, 13, 253-280.
- Anglin, M. Douglas, Hser, Yih-Ing, & McGlothlin, William H. (1987). Sex differences in addict careers. 2. Becoming addicted. American Journal of Drug and Alcohol Abuse, 13, 59-71.
- Anglin, M. Douglas, McGlothlin, William H. & Speckart, George (1981). The Effect of Parole on Methadone Patient Behavior. American Journal of Drug and Alcohol Abuse, 8(2):153-170.
- Anglin, M. Douglas, McGlothlin, William H. & Speckart, George R., & Ryan, Timothy M. (1983). Shutting Off Methadone: The closure of the San Diego Methadone Maintenance Program. Final Report, NIDA Grant DA02577.

- Anglin, M. Douglas, Ryan, Timothy M., Booth, Mary W., & Hser, Yih-Ing (1988). Ethnic differences in narcotics addiction: Part I. Characteristics of Chicano and Anglo methadone maintenance clients. International Journal of the Addictions, 23, in press.
- Bennett, Lawrence A. (1987). A Reassessment of Intensive Service Probation. In Belinda R. McCarthy (Ed.), Intermediate Punishments: Intensive Supervision, Home Confinement and Electronic Surveillance. Monsey, N.Y.: Willow Tree Press, pp. 113-134.
- Bureau of Justice Assistance. (1987). Intensive Supervision Probation and Parole (ISP). Program Brief. Washington, D.C.: U.S. Department of Justice.
- Carver, J. A. (1986). Drugs and Crime: Controlling use and reducing risk through testing. National Institute of Justice Research in Action, September/October.
- Collins, James J. and Allison, Margaret (1983). Legal coercion and retention in drug abuse treatment. Hospital Community Psychiatry, 34, 1145-1149.
- Deschenes, E. P., Anglin, M. Douglas, & Speckart, G. (1988). Criminal Careers and Social Economic Costs of Narcotic Addiction. Unpublished manuscript. University of California, Los Angeles.
- Erwin, Billie S. (1986). Final Report of the Georgia Intensive Probation supervision Project. Atlanta, GA: Department of Corrections.
- Gropper, Bernard A. (1985). Probing the Links Between Drugs and Crime. National Institute of Justice Research in Brief. Washington, D.C.: U.S. Department of Justice.
- Hser, Yih-Ing, Anglin, M. Douglas, & Booth, Mary W. (1987). Sex differences in addict careers. 3. Addiction. American Journal of Drug and Alcohol Abuse, 13, 231-251.
- Hser, Yih-Ing, Anglin, M. Douglas, & McGlothlin, William H. (1987). Sex differences in addict careers. 1. Initiation of use. American Journal of Drug and Alcohol Abuse, 13, 33-57.
- Hubbard, R. L., Allison, Margaret, Bray, R. M., Craddock, S. G., Valley J., Rachal, J. Valley and Ginzburg, H. M. (1983). An overview of client characteristics, treatment services, and during-treatment outcomes for outpatient methadone clinics in the treatment outcome prospective study (TOPS). In J. R. Cooper, F. Altman, B.S. Brown, and D. Czechowicz (Eds), Research on the Treatment of Narcotic Addiction: State of the Art. National Institute on Drug Abuse Research Monograph. DHHS Pub. No. (ADM)83-1281. Washington, D.C.: U.S. GPO

- Johnson, Bruce D., Paul Goldstein, Edward Preble, James Schmeidler, Douglas S. Lipton, Barry Spunt, and Thomas Miller (1985). Taking Care of Business: The Economics of Crime by Heroin Abusers. Lexington, Mass.: Lexington Books.
- McCarthy, B. R. (Ed.) (1987). Intermediate Punishments: Intensive Supervision, Home Confinement and Electronic Surveillance. Monsey, N.Y.: Willow Tree Press.
- McGlothlin, William H., Anglin, M. Douglas, & Wilson, B. D. (1977). An Evaluation of the California Civil Addict Program. Services Research Issues Series. Rockville, MD: National Institute on Drug Abuse.
- Martinson, Robert (1974). What Works? Questions and Answers about Prison Reform. The Public Interest, Spring: 22-54.
- Muthen, B., & Speckart, G. (1983). Categorizing skewed, limited, dependent variables: Using multivariate probit regression to evaluate the California Civil Addict Program. Evaluation Review, 7:257-269.
- Muthen, B., & Speckart, G. (1985). Latent variable probit ANCOVA: Treatment effects in the California Civil Addict Program. British Journal of Mathematical and Statistical Psychology, 38, 161-170.
- Nurco, David N., Arthur J. Bonito, Monroe Lerner, and Mitchell B. Balter (1975). Studying addicts over time: Methodology and preliminary findings. American Journal of Drug and Alcohol Abuse, 2:185-188.
- Petersilia, Joan & Susan Turner with Joyce Peterson (1986). Prison versus Probation in California: Implications for Crime and Offender Recidivism. Santa Monica, CA: Rand Corporation.
- Petersilia, Joan, Susan Turner, James Kahan, & Joyce Peterson. (1985). Granting Felons Probation: Public Risks and Alternatives. Santa Monica, CA: Rand Corporation.
- Powers, K., Hser, Yih-Ing, Hanssens, D. M., & Anglin, M. Douglas (1988). Measuring the long-term effects of public policy: The case of narcotics use and property crime. Management Science, in submission.
- Simpson, D. Dwayne and S. B. Sells (1982). Effectiveness of treatment for drug abuse: An overview of the DARP Research Program. Advances in Alcohol and Substance Abuse, 2(1):7-29.
- Stitzer, M. L. & McCaul, M. E. (1987). Criminal justice interventions with drug and alcohol abusers: The role of compulsory treatment. In Edward K. Morris and Curtis J. Braukmann (Eds.), Behavioral Approaches to Crime and Delinquency. New York: Plenum Press.
- Toborg, M. (1984). Preliminary Findings on the D.C. Urine Testing Experiment. Paper presented at a Meeting of the American Society of Criminology.

Wish, Eric D. and Bruce D. Johnson (1986). The Impact of Substance Abuse on Criminal Careers. In Alfred Blumstein, Jacqueline Cohen, Jeffrey A. Roth, and Christy A. Visher (Eds.), Criminal Careers and "Career Criminals". Washington, D.C.: National Academy Press, pp. 52-88.

Table 1. Background Variables

	Male		Female		<u>Significant<sup>#</sup></u>
	<u>Chicano</u>	<u>Anglo</u>	<u>Chicana</u>	<u>Anglo</u>	
<u>N</u>	141	251	45	283	
<u>Family SES</u>					Race
Poor	20.7	2.4	22.7	2.1	
Working class	58.6	24.9	56.8	24.8	
Middle	17.9	55.8	15.9	54.6	
Upper-Middle	2.9	16.9	4.6	18.4	
<u>Problems in Family*</u>	2.4	2.7	3.1	3.1	Sex
<u>School</u>					
Mean highest grade	9.4	11.4	10.0	11.2	
Behavior problems**	83.0	70.9	82.2	65.7	Race
<u>Occupation</u>					
Professional	0.7	3.2	0.0	1.8	Sex, Race
Sales/Services	3.0	8.5	2.4	14.6	
Skilled	17.3	32.9	0.0	8.2	
Semi-skilled	57.1	48.4	48.8	43.9	
Unskilled, Never worked	21.8	6.9	48.8	31.4	

<sup>#</sup> p ≤ .05

\* rated on scale of 1 to 5, from excellent to poor

\*\* truancy, discipline, conflict with teachers

Table 2. Addiction and Criminal Careers

	Male		Female		<u>Significant<sup>#</sup> Effects</u>
	<u>Chicano</u>	<u>Anglo</u>	<u>Chicana</u>	<u>Anglo</u>	
<u>N</u>	141	251	45	283	
<u>Mean age at interview</u>	36.4	31.8	32.5	29.8	Sex, race
<u>Drug Use History</u>					
Mean age first narcotics use	19.3	19.5	20.6	19.5	
Mean age first daily use	21.3	20.8	21.5	20.4	Race
Mean age at MM admission	30.3	26.6	26.8	24.7	Sex, race
Mean age at last daily use	33.6	29.2	30.7	27.3	Sex, race
Mean career length (in months)	147.5	100.7	110.4	82.4	Sex, race
<u>Criminal History</u>					
Gang member (%)	40.4	17.6	25.0	5.3	Sex, race
Mean age at first arrest*	16.0	16.9	17.8	18.6	Sex
<u>Legal Supervision</u>					
Mean age at first entry**	24.0	22.8	23.0	22.8	
Mean age at first discharge	28.5	26.5	26.3	25.7	Sex, race
Length first (in months)	54.3	42.7	39.3	33.3	Sex, race
Mean age at second entry	31.9	26.7	26.8	26.5	
Mean age at second discharge	34.3	29.6	28.8	28.8	Sex
Length second (in months)	49.3	34.1	22.8	27.7	Sex, sex x race
<u>Number of Legal Supervisions (Mean)</u>					
None (%)	14.3	23.5	22.2	35.3	
One (%)	50.0	46.2	46.7	48.1	
Two or more (%)	35.6	30.3	31.1	16.7	
<u>Type of Legal Supervision***</u>					
No supervision	39.6	42.9	26.6	63.0	
Any supervision	60.4	57.1	73.4	37.0	
Without testing	22.4	3.9	1.1	4.6	
With testing	15.3	13.9	6.9	12.5	
Regular (non-OPS)	6.6	5.6	5.7	9.2	
Intensive (OPS)	8.7	8.2	1.2	3.3	Sex

# p ≤ .05

\* self-reported arrest

\*\* after addiction

\*\*\* measured as average percent time from first daily to last daily use

Table 3. Effects of No Supervision versus Supervision on Drug Use, Crime, and Self-Reported Behavior

N	Male				Female				Significant Effects
	Chicano		Anglo		Chicana		Anglo		
	107	168	32	155					
	<u>NS</u>	<u>S</u>	<u>NS</u>	<u>S</u>	<u>NS</u>	<u>S</u>	<u>NS</u>	<u>S</u>	
<u>Percent Time Narcotics Use*</u>									
Abstinent	11.5	16.4	15.6	18.9	13.3	22.6	14.9	18.8	T**
Daily	74.0	57.6	67.7	54.6	69.1	50.8	69.8	58.1	T***
<u>Number of fixes*</u>									
	74.5	54.7	61.7	47.5	86.9	61.4	69.3	55.0	T***, S, R*
<u>Percent Time Other Drug Use*</u>									
Alcohol	24.9	32.5	24.1	21.2	13.7	13.5	11.5	12.0	S***
Marijuana	17.8	15.9	25.5	24.1	9.4	9.5	14.1	17.1	S*
Other	2.3	1.8	7.5	4.8	3.5	1.8	9.8	5.7	T, R**
<u>Percent Time Property Crime*</u>									
All Property Crime	36.7	30.5	35.9	30.0	43.2	33.7	29.1	27.2	T
Robbery	1.4	2.2	3.1	2.0	4.9	1.0	1.6	0.8	T, SRT
Burglary	20.9	15.0	16.9	13.9	19.4	9.7	9.1	9.6	T*, RT
Theft	18.3	16.5	18.3	14.3	26.2	21.5	18.0	15.4	T
Prostitution	-	-	-	-	3.3	6.6	10.7	16.1	R
<u>Number of Crime Days*</u>									
All Property Crime	6.6	5.5	6.6	5.5	10.5	8.1	5.8	4.8	T*, R*, SR*
Robbery	0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.1	
Burglary	2.6	1.9	1.8	1.7	3.6	1.8	1.0	0.8	T*, R*, RT
Theft	3.2	3.0	3.4	2.6	6.5	4.9	3.6	2.6	T*, S, R
<u>Crime Dollars*</u>									
All Property Crime	486	446	685	595	1453	804	514	419	T*, S, R, SR**, ST
Robbery	10	70	53	57	52	7	32	14	
Burglary	274	197	259	222	428	68	104	89	T, RT
Theft	128	141	205	171	814	377	254	186	T, S**, R, SR, ST
<u>Percent Time Drug Dealing*</u>									
General	60.2	57.4	53.5	47.6	42.0	27.0	40.0	29.0	T***, S***
For Profit	26.2	21.9	25.2	19.2	15.6	11.4	16.8	10.9	T*, S**
<u>Percent time*</u>									
Employed	47.0	51.4	50.6	53.0	9.6	18.4	23.8	22.4	S***
Receiving Welfare	11.2	6.3	5.8	4.9	50.4	44.5	30.6	32.9	S***, R*, SR, RT
On Methadone Maintenance	20.1	25.5	21.9	24.1	25.7	16.6	21.1	24.8	SRT
Married	43.7	43.3	23.4	26.7	30.7	23.6	27.5	21.7	S, R*, SR, ST
Common Law Spouse	22.6	28.4	25.6	26.8	33.5	28.6	34.1	32.5	S
<u>Income</u>									
Employment###	82	75	112	115	12	23	38	30	S***, R**
Welfare#	45	33	14	14	180	159	84	94	S***, R***, SR*, RT
Drug Dealing#	196	116	134	72	203	44	68	42	T**
Prostitution#	-	-	-	-	116	125	235	498	R

# = per month      NS = Non-supervised      R = race      Signif. < 0.05      \* < 0.01  
 ## = per week      S = Supervised      S = sex      Signif. < 0.05      \*\* < 0.001  
 T = legal supv. type      Signif. < 0.05      \*\*\* < 0.0001



Table 5. Effects of Supervision Without and With Urine Testing on Drug Use, Crime, and Self-Reported Behavior

N	Male				Female				Significant Effects
	Chicano		Anglo		Chicana		Anglo		
	42		60		9		43		
	NT	T	NT	T	NT	T	NT	T	
<u>Percent Time Narcotics Use*</u>									
Abstinent	6.2	16.0	16.4	20.0	20.0	33.7	35.5	15.4	S*, RT
Daily	82.9	58.1	70.2	49.7	67.1	42.3	54.3	52.3	T*, S
<u>Number of fixes*</u>									
	79.1	61.5	63.6	49.2	118.3	77.7	60.7	60.8	T*, R*
<u>Percent Time Other Drug Use*</u>									
Alcohol	23.9	27.0	18.6	20.3	12.5	39.9	8.4	15.1	T*, ST
Marijuana	15.8	15.4	18.9	17.9	1.9	5.7	11.9	13.0	
Other	1.7	1.0	6.2	1.5	1.9	0.2	4.8	8.0	
<u>Percent Time Property Crime*</u>									
All Property Crime	53.9	37.5	33.5	28.9	29.5	24.5	20.1	19.1	S
Robbery	1.0	0.2	1.9	1.1	1.7	0.0	2.4	0.9	
Burglary	32.2	16.1	19.0	13.4	8.1	7.9	6.9	7.1	S*
Theft	26.1	22.4	16.6	17.1	19.4	6.3	12.4	5.5	
Prostitution	.	.	.	.	9.9	24.8	14.2	20.6	T
<u>Number of Crime Days*</u>									
All Property Crime	9.1	7.5	7.0	6.0	6.0	6.3	4.4	3.3	
Robbery	0.0	0.0	0.1	0.1	0.3	0.0	0.3	0.0	
Burglary	3.6	2.6	2.1	1.5	0.7	2.3	0.9	1.0	
Theft	4.4	4.4	3.5	3.3	2.3	1.1	2.7	0.9	
<u>Crime Dollars*</u>									
All Property Crime	818	505	771	773	759	1,081	336	255	
Robbery	6	0	15	106	16	0	36	3	
Burglary	369	225	345	267	31	274	66	64	
Theft	323	208	245	250	45	24	161	64	
<u>Percent Time Drug Dealing*</u>									
General	50.0	52.2	52.2	42.7	43.1	12.6	31.1	38.0	S*, SRT*
For Profit	19.7	19.8	28.4	17.0	35.3	4.4	6.7	5.1	T*, SRT*
<u>Percent time*</u>									
Employed	41.4	41.6	33.7	53.2	9.2	9.5	17.2	28.3	S***
Receiving Welfare	4.5	3.4	2.9	4.5	50.0	46.7	14.5	26.1	S***, R*, SR*
On Methadone Maintenance	3.0	26.8	6.7	31.5	5.6	12.1	17.6	36.3	T***, R*
Married	22.5	33.2	24.0	32.0	12.3	18.4	10.2	19.2	T, S
Common Law Spouse	21.2	35.9	11.5	29.8	47.5	41.3	28.1	38.3	T, S
<u>Income</u>									
Employment**	42	64	56	145	14	9	16	40	T, S*
Welfare*	89	14	8	14	213	177	31	67	S*, R*
Drug Dealing*	34	82	107	59	111	33	12	56	SRT
Prostitution*	.	.	.	.	316	690	243	560	

# = per month      NT = Supv. no urine test      R = race      Signif. < 0.05      \* < 0.01  
 ## = per week      T = Supv. with testing      S = sex      Signif. < 0.05      \*\* < 0.001  
 T = legal supv. type      Signif. < 0.05      \*\*\* < 0.0001

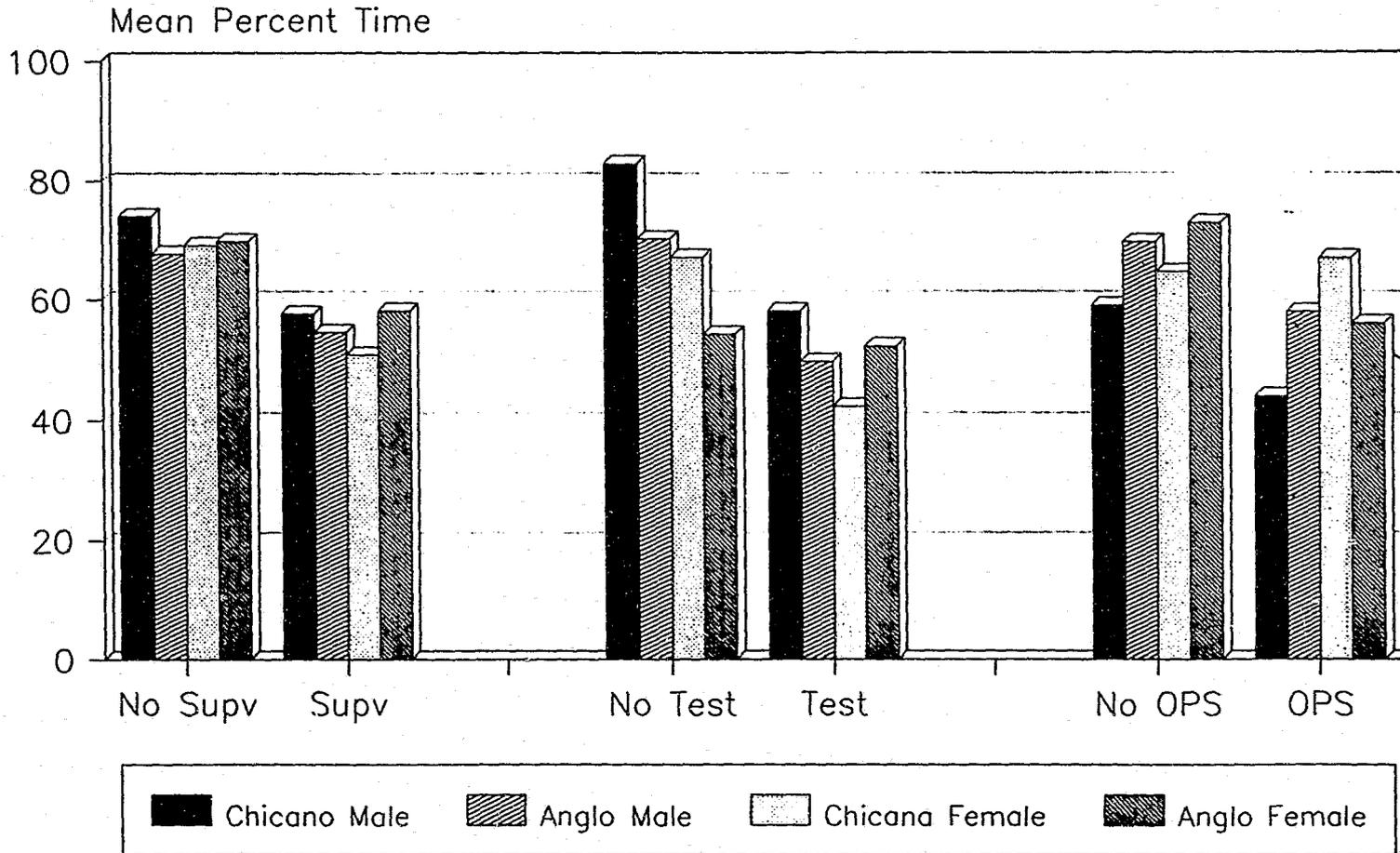
Table 6. Effects of Regular Supervision with Urine Testing versus Intensive Supervision on Drug Use, Crime, and Self-Reported Behavior

N	Male				Female				Significant Factors
	Chicano		Anglo		Chicana		Anglo		
	23		39		6		17		
	NO	OPS	NO	OPS	NO	OPS	NO	OPS	
<u>Percent Time Drug Use*</u>									
Abstinent	8.7	11.8	10.9	12.5	29.8	10.8	10.9	23.9	S, SRT
Daily	59.0	44.0	69.7	58.0	64.6	67.0	72.9	56.1	
<u>Number of fixes*</u>									
	65.1	38.3	58.7	58.7	107.2	97.1	72.8	59.8	S*
<u>Percent Time Other Drug Use*</u>									
Alcohol	30.3	39.1	21.1	23.9	0.0	16.7	9.6	11.8	S
Marijuana	19.7	16.3	28.5	20.7	16.7	16.7	13.2	9.2	
Other	4.3	0.9	6.7	1.7	16.7	0.0	1.5	4.6	T
<u>Percent Time Property Crime*</u>									
All Property Crime	43.3	32.4	43.0	41.7	30.6	27.1	37.5	34.9	
Robbery	5.5	2.3	3.5	4.0	0.0	0.0	0.8	0.0	
Burglary	33.2	13.3	23.5	21.2	16.7	3.6	9.5	15.3	
Theft	15.7	25.1	22.4	20.4	16.7	6.9	16.6	14.4	
Prostitution					11.7	16.7	20.3	11.8	
<u>Number of Crime Days*</u>									
All Property Crime	9.1	7.2	9.3	8.4	7.8	7.7	8.1	6.1	
Robbery	1.0	0.6	0.6	0.6	0.0	0.0	0.0	0.0	
Burglary	5.2	1.9	3.4	2.6	1.5	1.1	0.5	1.4	S
Theft	3.0	5.6	4.1	3.5	2.2	1.7	3.4	2.1	
<u>Crime Dollars*</u>									
All Property Crime	889	464	759	1,045	1,505	728	463	612	RT
Robbery	222	5	35	133	0	0	2	0	
Burglary	511	178	356	405	112	307	32	147	
Theft	99	280	208	344	54	82	210	112	
<u>Percent Time Drug Dealing*</u>									
General	56.0	67.3	56.8	38.0	38.9	25.4	46.8	47.8	
For Profit	14.1	25.7	25.4	13.9	5.6	2.2	21.9	14.9	
<u>Percent time*</u>									
Employed	42.1	47.2	42.0	62.8	4.5	35.6	21.9	33.6	T*, S**
Receiving Welfare	7.6	10.4	1.4	3.9	29.8	10.2	19.3	37.6	S**, RT*, SRT*
On Methadone Maint.	17.4	45.1	16.3	28.7	30.1	9.0	39.2	14.1	ST**
Married	34.3	34.1	18.3	21.1	16.7	1.4	3.7	21.4	
Common Law Spouse	43.3	35.7	41.5	38.0	13.5	23.1	41.4	22.4	
<u>Income</u>									
Employment**	70	84	78	138	4	37	29	62	T, S**
Welfare*	22	34	5	8	82	32	58	109	S*, RT, SRT*
Drug Dealing*	24	221	105	38	11	3	96	78	
Prostitution*	---	---	---	---	465	573	788	212	

# = per month    NO = Testing, no OPS    R = race    Signif. < 0.05    \* < 0.01  
 \*\* = per week    OPS = Testing, OPS    S = sex    Signif. < 0.05    \*\* < 0.001  
 T = legal supv. type    Signif. < 0.05    \*\*\* < 0.0001

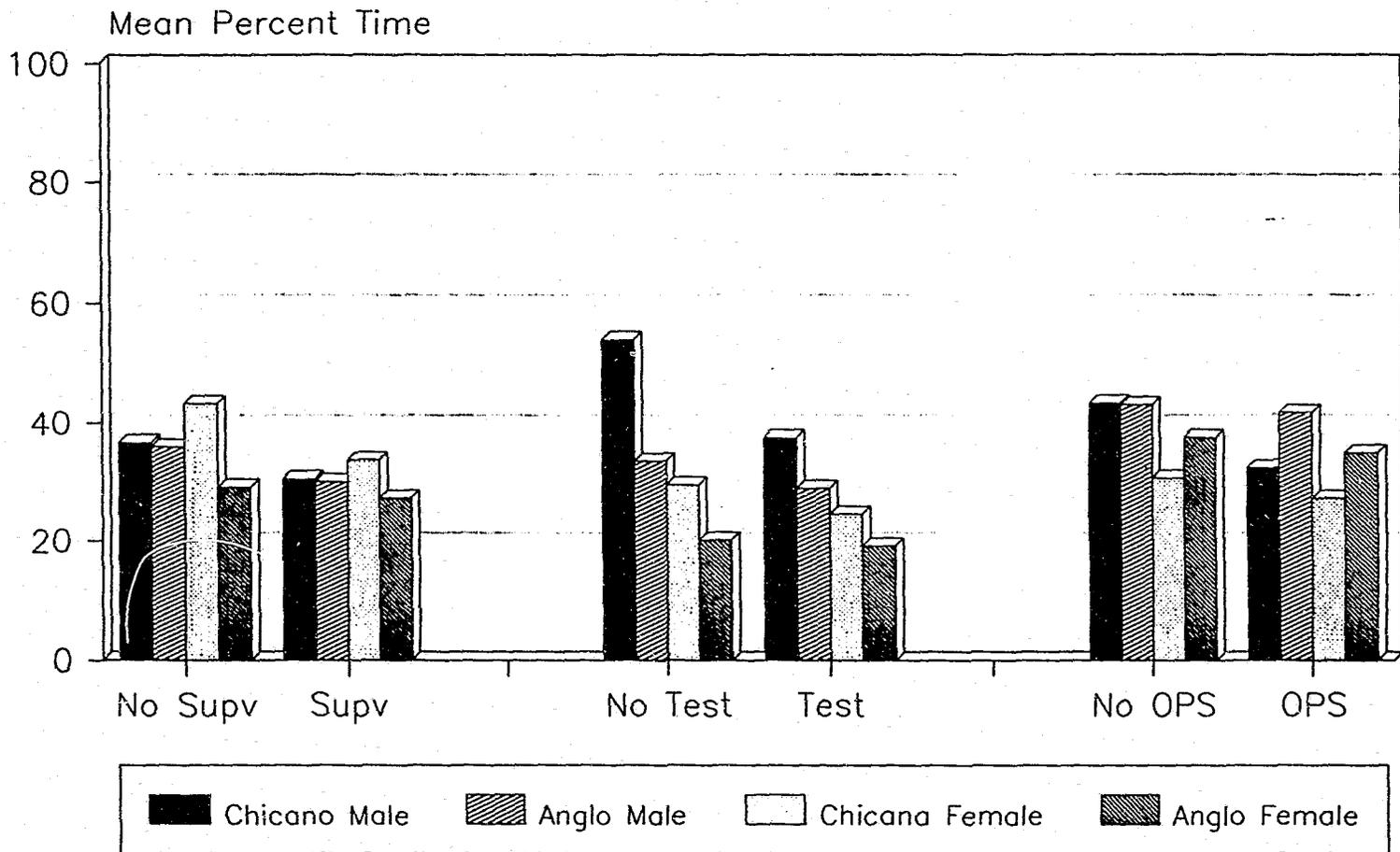
# Figure 1

## Daily Narcotics Use



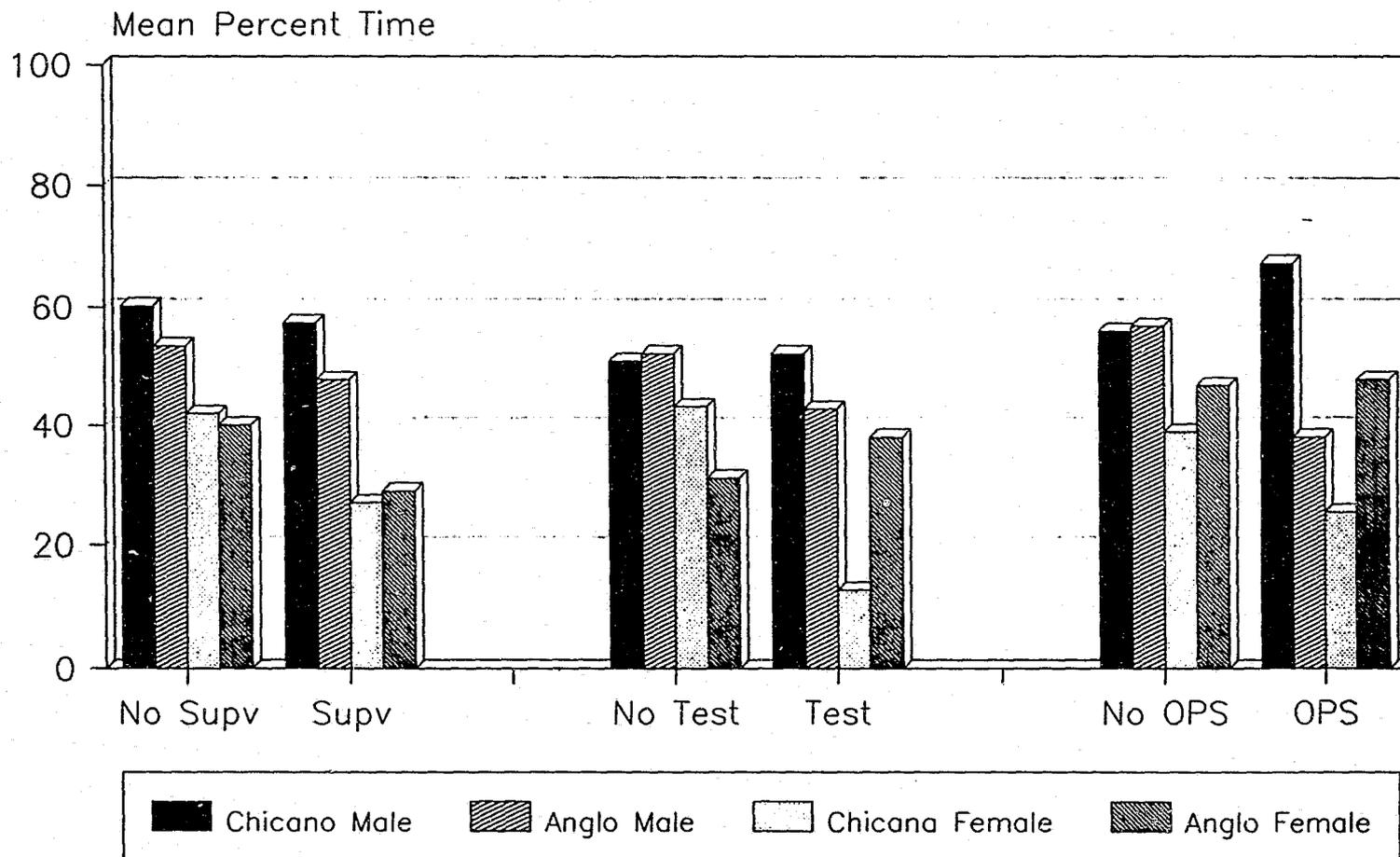
# Figure 2

## All Property Crime

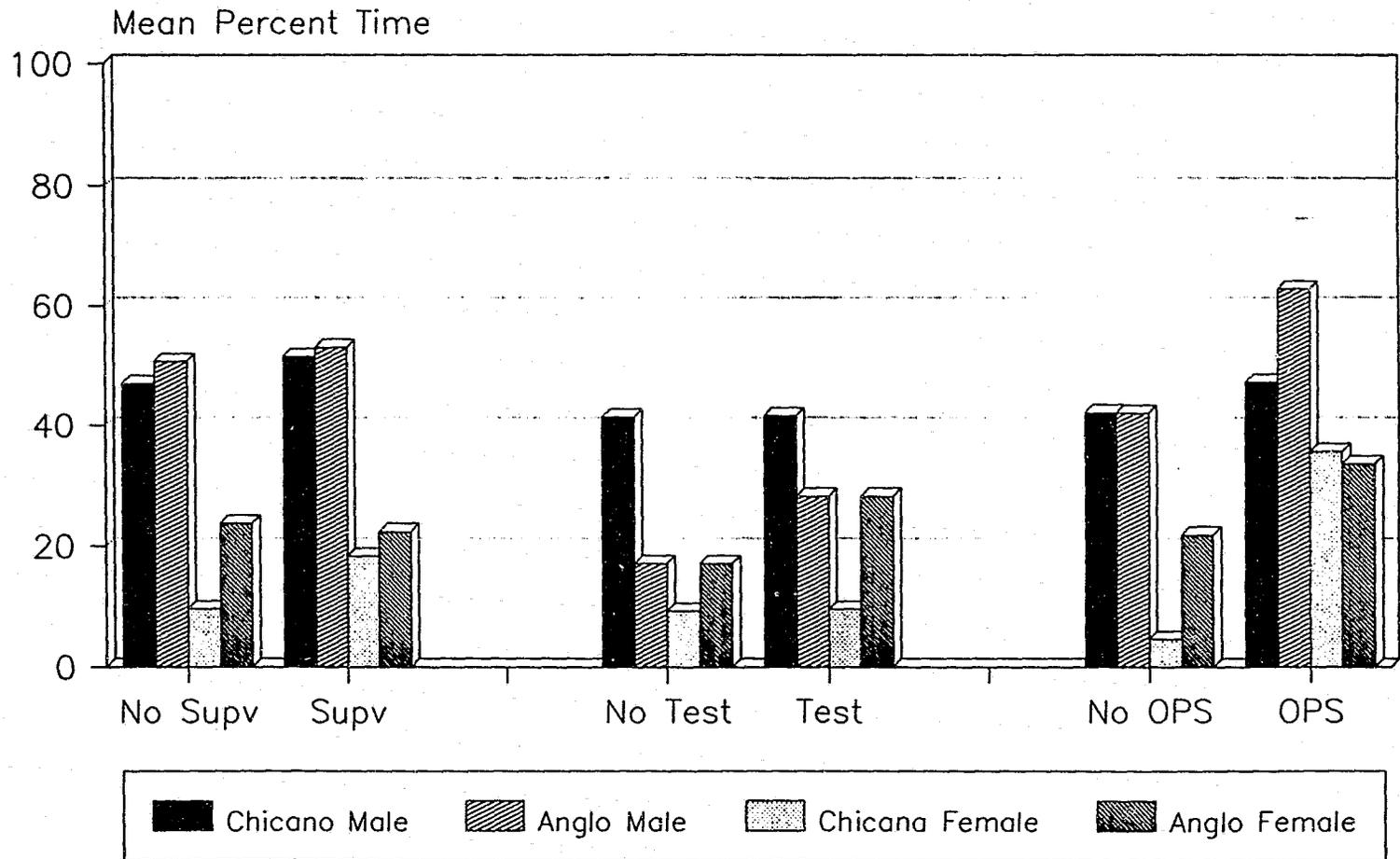


# Figure 3

## Drug Dealing



# Figure 4 Employment



# Figure 5

## Methadone Maintenance

