Drug Testing for Youthful Offenders on Parole: An Experimental Study

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MISSION AND VALUES

THE MISSION OF THE YOUTH AUTHORITY *is to protect the public from criminal activity by providing education, training, and treatment services for youthful offenders committed by the courts; assisting local justice agencies with their efforts to control crime and delinquency; and encouraging the development of state and local programs to prevent crime and delinquency.*

In order to enhance our ability to accomplish our mission, we have a shared set of values: ***WE VALUE****:*

- ***The Worth of the Individual***
  We treat all people with dignity, respect and consideration.
- ***People's Ability to Grow and Change***
  We believe people have the ability to grow and change, and provide the opportunity for them to do so
- ***Staff as our Greatest Resource***
  We encourage staff to develop personally and professionally and to participate in decision making.
- ***Ethical and Moral Behavior***
  We demonstrate behavior which is fair, honest, and ethical both on and off the job.
- ***Citizen Participation***
  We invite public involvement, support, and assistance to plan, deliver, and evaluate programs.
- ***Excellence***
  Our performance demonstrates a commitment to and recognition of quality, dedication, and innovation.
- ***A Safe and Healthy Environment***
  We believe that physical and mental health are important and our commitment is to provide a safe and secure work and living environment.

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Executive Summary

This report presents the findings of a five-year experimental study of drug testing for youthful offenders released to parole. The intent of this study was to determine how much drug testing should be part of regular parole supervision--that is, carried out by parole agents in the context of their regular duties with no reduction in caseload size and no access to additional outside resources, such as testing facilities.

Parole is a period of supervised release following a stay in a state-level correctional institution. The California Youth Authority's Parole Services and Community Corrections (PS&CC) Branch operates 16 parole units throughout California, grouped into Northern and Southern regions. Policies of the Branch are developed jointly by parole administrators and members of the Youthful Offender Parole Board (YOPB), which has sole authority to revoke or otherwise remove a ward from parole.

For juveniles committed to the California Youth Authority (CYA), parole follows a determination by the YOPB that the offender has made sufficient progress that release to the community is warranted. Parolees agree to abide by certain conditions, which commonly include staying out of trouble, not associating with criminals, not engaging in gang behavior, and refraining from drug and/or alcohol use. All CYA parolees are on maximum supervision (at least two contacts per month) during a "Re-entry period," which covers the first two to three months of parole. From there, they move to "Case-management," where they may earn their way to lower supervision levels. Most parolees move to medium supervision (one contact per month) within the first six months of parole and remain at that level.

Drug testing by parole agents supplements other aspects of parole supervision, expanding agents' ability to "observe" recent drug use, and thereby supports both the control and support aspects of parole supervision (Holt, 1998). Its use is intended primarily to enhance *public safety* through controlling drug use among parolees and thereby reducing their criminal behavior. The control of drug use, in this context, helps to reduce criminal behavior that is *directly* related to substance abuse (sales, possession, and violence related to drug trafficking) and criminal behavior that is *indirectly* related to substance abuse (thefts and robberies aimed at getting money for drugs). Further, the control of drug use is considered useful in helping (or forcing) parolees to adopt lifestyles that are less conducive to continued criminal behavior.

California Youth Authority parolees are not, for the most part, "drug offenders" but are serious offenders who also have substance abuse problems. For offenders at this level of involvement in the criminal justice system, drug use in itself is oftentimes not the main issue. For these serious offenders, the control of drug use may be best thought of primarily as a means for preventing *non-drug* crimes and for facilitating the development of more pro-social ways of life. However, drug use is typically only one of a number of problems that might hinder successful reintegration into society, and the importance of controlling drug use may differ across parolees and over time.

Drug testing is believed to reduce drug use among offenders through *deterrence* and *detection.* The threat of detection through drug testing may *deter* offenders from using drugs. For offenders who are not deterred, drug testing aids in the *detection* of substance abuse, and sets the stage for treatment or sanctions, which may reduce drug use directly and/or bolster future deterrence. The CYA uses a general "graduated sanction" approach to responding to positive drug tests, but specific responses are not required by policy. In keeping with the "individualized

justice" approach typical of juvenile justice agencies (Cavender and Knepper, 1992), positive tests often serve primarily as "triggers" for evaluating everything the parolee is doing at the time, and the appropriate response is based on that overall assessment of the parolee's adjustment. Still, although no hard-and-fast rules exist, there is a general expectation among parole agents concerning appropriate responses to positive tests. The expected response graduates from treatment (with a warning) through short-term incarceration combined with treatment (a residential drug program) to punishment (revocation). This graduated response is intended to provide some assistance to the parolee in tackling his/her drug problem and send a message that continued drug use will not be tolerated. The process is thereby expected to enhance the deterrent value of drug testing in the future.

Drug testing serves a number of purposes in criminal justice settings and has enjoyed increasing popularity since the late 1980s and early 1990s. It has become an integral part of probation and parole as well as of treatment programs for substance abusers (Cullen, Wright, and Applegate, 1996). It provides a concrete measure of drug use activity, both at the individual level and at the aggregate level and therefore provides a means of monitoring and understanding of the behavior of offenders; of identifying drug users (Toborg, Bellassai, Yezer, and Trost, 1989; Torres, 1996a, 1996b) and ongoing patterns of use (Wish and Gropper, 1990); of determining trends in drug use for the nation (U.S. Department of Justice, 1997) and for local jurisdictions; and of estimating an offender's suitability for pretrial release (Britt, Gottfredson, and Goldkamp, 1992; Goldkamp and Jones, 1992) or supervision level for offenders in the community. Drug testing is also commonly considered a deterrent to future drug use and associated criminal activity (Toborg et al., 1989; Wish and Gropper, 1990).

Several other functions of drug testing that arise from its ongoing use and from the increasing reliance of agencies on drug test results might be added to this list (Simon, 1993; Boyken and Haapanen, 1996). These functions go beyond any simple informational value or presumed effect on the behavior of individual offenders. First, a positive drug test provides hard *evidence* of drug use, a legally defensible indicator that parole or probation conditions have been violated, and a consequent justification for action with (or against) a supervised offender. Second, drug testing has come to be an important means of measuring both the progress of a parolee and the nature of the parolee/agent relationship, providing a tangible, empirical basis for describing the parolee's conduct on parole and the extent to which his or her drug use was monitored during supervision. Third, drug testing serves as a convenient way for agents to demonstrate that they have been diligent in monitoring the drug use of the parolees and/or for an agency to monitor the performance of parole agents. Fourth, the testing *procedure* helps to structure the interaction between the parolee and the agent around a set of activities that have a procedural legitimacy and which therefore take some of the "guesswork" and the suspicion out of parole visits. Finally, drug testing portrays a public image of the probation or parole agency as engaged in concrete actions to hold offenders accountable and/or to "get tough" on supervised offenders.

Balanced against these real and assumed benefits of drug testing are the associated costs, especially those associated with an over-reliance on drug testing. Dollar costs of drug testing run into the millions. There are also opportunity costs associated with drug testing, especially as agencies develop an over-reliance on the "measurement" features and benefits. To the extent that agencies strive to provide both control-oriented activities and support for offenders' efforts to develop pro-social lifestyles, over-reliance on testing pushes the balance toward control. It

means less time and resources to devote to other aspects of supervision, such as assisting with employment, finding a suitable placement, or securing appropriate services for other problems the parolee may have. Further, the parolee/agent relationship may come to be increasingly structured around a violation-oriented, relatively distasteful activity (Torres, 1996b).

As with other agencies providing community supervision, drug testing by CYA parole agents supplements other methods of supervision (such as face-to-face and phone contacts, collateral contacts, direct observation, etc.), all of which are intended to increase public safety. Parole agents value the increased ability to "observe" recent drug use, and drug testing is often regarded as an indispensable tool for enforcing parole conditions prohibiting drug use. Although the emphasis is clearly on the "control" side, drug testing is believed to reinforce both the control and support aspects of parole supervision. Drug testing is believed to help deter drug use by parolees and to help detect substance abuse problems and set the stage for treatment that will contribute to the adoption of a more pro-social lifestyle. These changes, in turn, are believed to lead to a reduction in criminal behavior and an increase in public safety. This assumed public safety benefit is the primary justification for drug testing CYA parolees.

Over the five years prior to this study's implementation, the California Youth Authority's expenditures for drug testing had risen steadily from $77,000 in 1986 to over $325,000 in 1990. After that peak, budget limitations brought this figure down sharply in 1991 to about $200,000 and slowly thereafter to a current level of about $120,000 per year. While this sum may not be large in comparison to that of other agencies, the funds, as well as the time the agents spend administering drug tests, might be put to better use. The other benefits of drug testing, such as monitoring trends, providing tangible evidence of parole violations, and measuring parole performance, are also valued but may not, in themselves, justify the costs of continued testing in

the absence of a clear public safety benefit. It is this *public safety benefit* that is the primary focus of the present study: do higher frequencies of drug testing result in less criminal behavior (as indicated by fewer arrests) and/or in better parole adjustment?

Research on Drug Testing. Several studies of the deterrent effect of drug testing on drug use and criminal behavior among criminal justice populations have shown mixed results (Cullen, Wright, and Applegate, 1996). There is some research evidence that drug testing with graduated responses can reduce drug use among offenders. However, there is no research evidence that routine drug testing for regular probation or parole populations by their agents provides any crime-reduction (public safety) benefits.

Drug testing programs among probationers have been reported to have a deterrent effect on the drug use behavior of the offenders under supervision (Oregon Department of Corrections, 1993; Vito, Wilson, and Holmes, 1993). These studies focused on the percentage of tests that showed evidence of drug use. They did not address the effects of drug testing on other forms of criminal behavior. Studies that focused on misconduct among offenders released and awaiting trial found that drug testing as a component of pretrial release had no effect on pretrial misconduct (Britt, Gottfredson, and Goldkamp, 1992; Goldkamp and Jones, 1992). Special programs that have incorporated drug testing as part of a coordinated drug-treatment effort, such as the California Civil Addict Program, have shown reduced levels of drug use and criminality for offenders receiving intensive supervision coupled with drug testing than for offenders receiving regular supervision (without drug testing) or no supervision (McGlothlin, Anglin, and Wilson, 1977).

Studies of drug testing as part of intensive supervision programs for regular offenders, on the other hand, have found no benefits for drug testing in terms of crime reduction for

probationers (Turner and Petersilia, 1992) or for parolees (Turner, 1992). Drug testing increased the likelihood of new violations for both groups, due to the increased ability to detect drug use. Intensive supervision, however, did not result in lowered arrest rates. To date, there have been no studies of the relative benefits of different testing levels on offenders under regular community supervision.

Issues Not Addressed. This study did not address the general question of whether drug testing at some level *could* reduce criminal behavior among offenders on community supervision. Such levels of drug testing would require changing other aspects of parole supervision as well--the number of contacts between agents and parolees or the use of an outside contractor for collecting urine samples. It would be extremely difficult or impossible to sort out the effects of the increased drug testing from the other changes in supervision. While the present study was necessarily limited to relatively low levels of drug testing, it was able to study drug testing differences while holding other aspects of supervision constant (on average) across groups. Further, it addressed a policy issue that could be immediately put into effect in most paroling agencies: How much should parole agents test?

In addition, no hypotheses regarding either positive tests or *actual drug use* as they relate to levels of drug testing were explicitly addressed by this study, although levels of positive tests may have some implications for overall drug use among parolees. Differences in the numbers of positive tests would be difficult to interpret without some independent, direct measure of actual drug use. None was available for this study.

The study also did not involve an experimental evaluation of different kinds of *responses* to positive tests. In the parole setting, situations rarely involve only drug use. The positive tests

often serve primarily as a "trigger" for evaluating the parolee's overall adjustment at the time, and the appropriate response is based on that assessment. A study requiring particular types of response to positive drug tests would be both impractical and unrealistic because it would require agents and other decision makers (i.e., members of the Youthful Offender Parole Board) to ignore aspects of the parolees' adjustment that would not be ignored otherwise. Further, the inclusion of response options in the present study would have resulted in a very complex design involving relatively small samples and would probably not have been generalizable to other areas or agencies.

Design

The study was designed to assess differences in outcome (if any) for comparable groups that differed in the amount of drug testing but not in other aspects of supervision. The levels were chosen to provide a reasonable range of possible drug testing frequencies, from "no testing" up to two tests per month. The goal was to design a study that maximized scientific rigor while maintaining a foundation in the realities of parole operations at the CYA. Through maximizing scientific rigor, the study sought to obtain the best assessment of the effectiveness of drug testing levels, independent of the effects of other aspects of parole (Rossi and Freeman, 1993). Balanced against this goal was the goal of avoiding artificiality: of recognizing and incorporating the practical realities of day-to-day parole operations. The intent was to maximize the study's usefulness, so that its findings and results were considered as relevant as possible to actual policy decisions regarding drug testing in parole (Patton, 1997).

The present study employed a *true experimental design* (Campbell and Stanley, 1966) and attempted to avoid other possible differences in parole for the groups. Groups were formed

by randomly assigning new parolees to different drug testing levels, and the groups were to be tested at their respective frequencies for the duration of parole (up to 24 months). All other aspects of parole were to remain unchanged to the extent possible. In this way, the study sought to have the amount of drug testing be the only difference among the groups. Differences in the outcomes for the groups could then be confidently attributed to differences in drug testing.

In order to completely isolate the effects of one activity, such as drug testing, other activities had to be held constant across groups, and a certain amount of artificiality became unavoidable. For example, in order to ensure that differences in drug testing levels were maintained, it became necessary to prohibit two common practices:

- responding to positive drug tests by increasing the amount of testing and
- responding to a pattern of non-use of drugs and good parole adjustment by gradually reducing the amount of drug testing over time.

Other aspects of parole, such as overall supervision level, which were more incidental to drug testing policy, were controlled. In order to avoid having drug testing levels "drive" supervision levels (so that differences in overall supervision level would be confounded with drug test levels), agents were instructed to keep drug testing levels and supervision levels separate. Parolees with drug testing levels that would require their being seen more often than their supervision levels would require were to be "called in" for a drug test only, which could be performed by the OD (officer on duty) that day.

Other activities that were more integral to the use of drug testing in parole were not restricted. These activities involved *responses* to positive drug tests other than an increase in testing levels: referral to a residential drug treatment program, temporary detention, individualized corrective action plans, and revocations. These responses could be seen as

extensions of the drug testing "program" in that without some kind of response to the positive tests, there is no real "treatment" and no basis for expecting any effects. No attempt was made to "standardize" these responses to dirty tests. Imposing particular responses to dirty tests would have created a profoundly artificial situation.

The final design was developed in consultation with a task group of parole agents and field supervisors to ensure that the procedures were practical and did not cause undue hardship for parole personnel. The task group was made up of parole administrators, parole supervisors, and field staff. It was carefully selected so as to represent different geographical areas of the state, ethnicities, levels of responsibility, and types of parole caseloads (e.g., urban vs. rural). Such a diverse group was necessary to represent both staff and agency perspectives on the relative importance of various research issues and the practical strengths and weaknesses of various research designs.

Sample. The sample included all wards committed directly to the California Youth Authority from juvenile or adult courts who were released to parole over the course of ten months (November 1992 through August 1993). Cases were excluded only if their possible parole exposure was very limited or if their parole circumstances made unscheduled drug tests impractical or unfeasible.

All cases meeting the following basic criteria were eligible:

1. *YA cases*: M-cases (easily distinguished by their identification numbers)[1] were excluded;
2. *California parole*: no out-of-state cases;
3. *At least 6 months remaining jurisdiction time* (to the age at which the California Youth Authority's jurisdiction over the offender, based on commitment offense, ends);
4. *At least 60 days available confinement time (ACT) at release*.[2]

Cases meeting these criteria were excluded only if participation was not practical or feasible:

1. cases with *no parole conditions* regarding drug testing;
2. cases with *parole conditions that specified the frequency of drug testing* or that mandated particular responses to dirty tests;
3. certain "*special interest" cases*;
4. cases assigned to "*rural" parole caseloads*.

It was initially estimated that approximately 44% of parole releases would be excluded, providing a net one-year total sample of just over 2,000. Due to a greater-than-expected number of releases and a lower-than-expected number of exclusions, this number was reached in ten months. After correcting for errors, the final sample included 1,958 cases.

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[1] The California Youth Authority population is made up of two kinds of offenders: (a) cases committed directly to the California Youth Authority as juveniles or young adults (YA cases), and (b) young adults who have been committed to adult prison but who are housed and programmed at the Youth Authority (referred to as M-cases because their YA identification numbers begin with "M").

[2] Available confinement time is determined by the offense(s) for which the offender was committed to the California Youth Authority. Parolees can be revoked or otherwise confined (e.g., temporary detention) only up to the amount of confinement time remaining (available) after the parolee leaves CYA institutions.

Participating parolees were assigned, at random, to one of five levels of routine, unscheduled drug-testing. The five levels of testing were chosen to provide a range of testing intervals that would be practical to implement as part of routine parole supervision. They were chosen to match minimum standards for face-to-face contacts with parolees, which range from one contact every two months (minimum supervision) to one contact per month (medium supervision) and two contacts per months (maximum supervision). Group assignments were made by a computer program which assigned cases to groups at random, based on a pre-determined probability of group assignment. The high-test group was to have only half the number as the other groups in order to keep expenses down and to reduce the need to contact parolees more than contact standards required (once per month for most parolees). In keeping with other aspects of parole, the parolees were tested at a higher level (double the frequency) during the first 60 to 90-day Re-entry period.

The following levels were assigned:

1. *No routine testing* (parolees are tested only after an arrest, either by law enforcement or by parole agents who have probable cause to arrest for drug use);
2. *No routine testing,* but tested once or twice during Re-entry;
3. Once every two months (*Bimonthly*), with one test a month (*Monthly*) during Re-entry;
4. Once a month (*Monthly*), with one test every two weeks (*Biweekly*) during Re-entry; and
5. Once every two weeks (*Biweekly*), with one test every week (*Weekly*) during Re-entry.

Each agent was to have a "mix" of cases in different testing groups. In order to reduce the likelihood of cases in different testing groups being treated differently in terms of other aspects of parole, unit supervisors were not to assign cases to agents on the basis of their testing levels.

Testing Procedures. Except for differences in frequency, drug testing was expected to follow regular parole procedures. Following established practices, drug tests were to be carried out by the assigned agents at the time of regular parole contacts. Tests could also be ordered at other times, in which case the parolee was expected to visit the parole office and be tested by the OD (officer on duty). Once contacted, parolees were required to report for drug testing within 48 hours. This interval was considered short enough that most drugs could still be detected in the urine and long enough that scheduling would not interfere with employment, school, or other pro-social activities. As much as possible, tests were to be scheduled on a "surprise" basis, especially for parolees in the low-level testing groups. Parolees were to be tested at their assigned levels for 24 months or until parole removal (discharge, revocation, or death). Wards remaining on parole after 24 months could be tested at the discretion of the parole agent. Drug tests *over* the assigned level were permitted (but not required) only after an arrest. In these instances, drug tests were allowed either to verify actual drug use or to obtain a fuller picture of the parolee's adjustment (to support a recommended disposition by the YOPB).

Performance standards for parole agents and supervisors regarding drug testing were amended to include the study procedures. Thus, adherence to the testing frequencies became part of the standards by which the performance of parole agents and their supervisors were to be evaluated. While enforcement of this standard was not directly assessed, its existence signaled administrative support of the study and may have helped to ensure that parolees were tested at their assigned levels.

Audits of the drug testing were performed as part of the study and as part of the regular audit process for the Parole Services and Community Corrections Branch. Data on the reasons for each missed (or extra) test were not systematically recorded and are not reported. Auditing

proved to be a tedious and labor-intensive process, but it was invaluable for understanding the subtleties of implementing and maintaining policies that would tightly control the number of drug tests administered to parolees. With only a few exceptions, audits showed that agents and supervisors made responsible efforts to test parolees at their assigned levels.

Data Collection. A variety of types of data were collected to describe the sample (background data), to assess the implementation of the study (implementation data), to assess the effect of differences in drug testing levels on parolee behavior (outcome data), and to help understand the role of drug testing information in parole (process data). Implementation data were used primarily to determine whether the study was carried out as designed and whether the groups actually differed in terms of drug-testing levels. Outcome measures focused specifically on hypothesized public safety benefits of drug testing: parole adjustment and criminal behavior. Process data were used to assess whether differences in drug testing were associated with expected differences in certain "intermediate outcomes," such as detection of drug use, identification of substance abuse problems, and responses to dirty tests.

Primary outcomes of direct interest to this study were related to the hypothesized *public safety* benefits of testing: a reduction in criminal behavior and an increase in the number of offenders successfully completing parole. Criminal behavior was measured in terms of arrests. California Department of Justice "rap sheet" information covering at least 42 months from parole release was obtained in automated form. These data were used to establish counts of arrest charges for various types of offenses covering the period of parole (up to 24 months) and for standard 24-month and 42-month follow-up periods.

Arrest information has limitations for studying criminal behavior, but these limitations did not seriously compromise the present design. Arrests are not a direct measure of criminal

behavior. Not all crimes result in arrest, and the probability of arrest is not the same for all types of crimes. Arrests therefore provide a somewhat reduced, biased picture of criminality. However, arrest data can still be considered adequate for assessing differences across the groups in this study. Because any measurement bias would be expected to operate equally across groups, arrest data would not be expected to bias the results of any group comparisons. The fact that arrests are an incomplete measure of criminal behavior means only that true behavioral differences among the groups would be harder to identify using arrest data. For policy purposes, such conservatism is probably an asset: it reduces the likelihood of discovering "significant," but *trivial* differences.

Parole adjustment was measured in terms of the circumstances of each parolee's removal from parole. The circumstances of parole removal may not provide a clear picture of the behavior of the parolee; therefore, less emphasis was placed on the results for these Parole Adjustment measures than on the results for the arrest data. An index was created by combining information on official parole removal (discharge or revocation), the parolee's status at discharge (in local custody, in adult prison, in federal prison, deceased, not on violation, etc.), the YOPB's evaluation of the parolee at discharge (honorable, general, or dishonorable discharge), and the parolee's status if still on parole at the end of 24 months. Some parolees, for example, were officially on parole while actually being in local custody, "missing," or, in a few cases, in prison. This index was further collapsed into general categories indicating Good Adjustment, Marginal Adjustment, and Poor Adjustment.

Implementation

Analyses of descriptive data across groups, drug test information, and supervision levels suggest that the study was implemented as designed. By these criteria, the study was a success, and stands as one of the few successful large-scale experimental studies of correctional interventions.

Parolees were accepted into the study based upon pre-established eligibility criteria that excluded only those parolees for whom policies regarding routine drug testing of "ordinary" parolees would not apply (parolees who were in special programs or residing in rural areas, for example). No evidence of a breakdown in the sampling procedure, intentional or otherwise, was found, and eligibles actually exceeded the estimated proportion of total parole releases. A total of 1,958 parolees participated.

Comparability of Groups. The goal of the random assignment was to establish groups that were similar in all major respects, thereby minimizing the likelihood that pre-existing group differences would affect outcomes. Comparisons across groups on important background characteristics identified no significant differences, and led to the conclusion that the groups were essentially equivalent. This similarity meant that any differences in outcome among the groups could be attributed to differences in the experiences of the parolees in the groups after entering the study.

Drug Testing Differences. The groups were tested at different levels throughout parole. However, the magnitude of the differences was less than anticipated from the design, and there was a considerable amount of variation in testing within groups. Drug testing data for the study are summarized in Table ES-1.

Table ES-1
Summary of Drug Testing During Months Available for Testing[a]
By Group

	Group					
	1	2	3	4	5	Total
Total Cases	442	457	429	445	185	1,958
Cases Available at Least One Month	419	437	404	420	177	1,857
Average Months Available	10.5	10.2	10.5	9.6	9.0	10.1
Drug Tests (Throughout Parole)						
Percentage of Available Cases Tested	33.7%	77.8%	89.1%	92.6%	94.4%	75.2%
Average Tests per Available Month**	0.09	0.31	0.53	0.80	1.35	0.52
Average Total Tests (Available Months)**	0.81	2.06	4.67	6.38	9.79	4.06
Drug Tests (Case-management)						
Expected Tests per Available Month	0.0	0.0	0.5	1.0	2.0	0.49
Actual Tests per Available Month**	0.09	0.16	0.41	0.55	0.89	0.35

[a] Availability defined as being on the street at least 75% of the days (23 days of each 30-day month).
** $p < .01$

The "no testing" group actually turned out to be a "minimal testing" group, with about one in twelve of the parolees tested each month. Over one-third (33.7%) of these cases were tested at least once during parole.

Tests over the study period, taking into account periods of non-availability, ranged from .09 per month for the “No test” group (Group 1) to 1.35 tests per month for the high-test group (Group 5). The total number of tests administered to participants over the “available” months ranged from .81, on average, for Group 1 to 9.79 for Group 5. The high-test group was tested less than once per month, on average, during the period following Re-entry (i.e., during Case-Management), when they were supposed to be tested twice per month. However, differences in overall testing levels were statistically significant. In addition, analysis of testing for each

month of parole indicated that differences did not erode appreciably over time--that the group differences in testing were maintained throughout the study.

Audits and interviews with parole agents suggested that the failure to reach and maintain anticipated levels was not based, for the most part, on deliberate non-compliance. From the agents' perspective, the problem had more to do with the practical difficulties of maintaining particular, pre-defined testing levels than it did with good faith efforts to comply with the study protocol. Agents seemed to make a good faith effort to comply with difficult expectations that ran counter to normal casework decision-making (for example, not testing Group 1 parolees suspected of drug use and not rewarding parolees who refrain from drug use by reducing the amount of testing). Even the relatively small differences in observed levels of testing in this study were often difficult to maintain.

After-the-fact analysis of budgetary figures suggested another possible factor that may help to explain the failure to achieve the desired levels of drug testing. While drug testing resources, in the form of a contract for drug test analyses, were high enough throughout the study to support the desired level of drug testing, the *average* number of tests per parolee that the budget would support was lower (about 0.50 tests per month) than the overall expected average for the parolees in the study (about 0.64 tests per month). The average testing level for this study was very close (0.52) to the average supported by the budget, suggesting that the study was adapted to the constraints of the available resources for testing.

That the testing levels differed as much and consistently as they did attests to the professionalism of the agents in adhering to the study protocols, simultaneously maintaining several different (and arbitrary) pre-assigned levels of drug testing in the context of their routine parole supervision. Professionalism, in this sense, refers to the willingness of agents to place the

interests of knowledge about drug testing over the interests of being able to exercise discretion over drug testing of their parolees. This value of relying on their own expertise is also, however, an important aspect of professionalism in parole (Simon, 1993; Holt, 1998), and is often referred to as "using professional judgement." In this study, the two aspects of professionalism were somewhat in conflict, and it is not surprising that the result was something of a compromise: significant differences, but not as much as planned.

Other aspects of supervision, such as the number of contacts, did not differ across groups. Data on supervision levels and numbers of face-to-face contacts revealed no tendency to vary other aspects of supervision to accommodate the different testing levels. These data suggest that the only aspect of parole that was different across groups was the amount of drug testing.

The groups can be thought of as representing drug-testing policies involving overall investments in drug testing. Within each group (policy), some wards were tested more than others, and some parole agents were more diligent and consistent than others at following the policy. The *policies* can be compared in terms of the outcomes for the parolees in the groups.

Outcomes

Parole adjustment and criminality (as measured by arrests) showed no differences in favor of increased drug testing across the five groups (Table ES-2). In fact, arrests *during and after the parole period* tended to be higher for groups tested more often as part of this study.

Parole Adjustment. Comparisons of parole outcomes (types of removal from parole) indicated no overall differences across groups in level of "adjustment:"

1. *good adjustment* (on parole at 24 months or discharged for reasons other than a parole violation);

Table ES-2
Summary of Outcomes
By Group

	Group					All
	1	2	3	4	5	Cases
Number of Cases	442	457	429	445	185	1,958
Parole Adjustment						
Good Adjustment*	29.9%	31.1%	29.1%	24.3%	20.5%	28.0%
Marginal Adjustment	18.1%	19.7%	21.2%	23.8%	17.8%	20.5%
Poor Adjustment	49.5%	47.5%	48.3%	50.6%	58.9%	49.9%
Death	2.5%	1.8%	1.4%	1.3%	2.7%	1.8%
Percentage Arrested:						
During Parole (to 24 Months)						
Any Charges	58.6%	56.8%	59.7%	62.1%	61.0%	59.4%
Violent*	28.4%	29.8%	33.3%	28.7%	38.4%	30.8%
Property*	16.8%	21.0%	19.4%	24.6%	19.2%	20.4%
Drugs	16.1%	13.9%	18.9%	16.8%	16.3%	16.4%
Other	23.2%	18.5%	19.2%	22.0%	14.5%	20.1%
42-Month Follow-up						
Any Charges	74.0%	74.4%	75.1%	80.6%	77.9%	76.2%
Violent	48.0%	48.7%	51.7%	52.4%	57.6%	50.9%
Property	27.0%	33.0%	30.1%	37.9%	33.1%	32.1%
Drugs	26.2%	24.9%	29.1%	30.6%	33.7%	28.2%
Other	35.0%	34.4%	36.6%	37.2%	32.6%	35.5%
Average Arrests:						
During Parole (to 24 Months)						
Any Charges	1.38	1.41	1.47	1.55	1.42	1.45
Violent	0.47	0.53	0.54	0.48	0.63	0.52
Property	0.30	0.34	0.32	0.39	0.27	0.33
Drugs	0.21	0.24	0.30	0.25	0.26	0.25
Other	0.40	0.30	0.31	0.43	0.26	0.35
42-Month Follow-up						
Any Charges**	3.00	2.98	3.34	3.68	3.76	3.30
Violent**	1.01	1.04	1.34	1.34	1.48	1.21
Property*	0.66	0.69	0.64	0.85	0.67	0.71
Drugs	0.56	0.56	0.68	0.63	0.80	0.63
Other	0.77	0.68	0.68	0.86	0.81	0.76

Note: Tests for group differences used Chi-square for percentages, ANOVA (with variables logged) for means.
** $p < .01$
* $p < .05$

2. *marginal adjustment* (missing, dishonorably discharged, or revoked for a technical violation of parole); or
3. *poor adjustment* (removed from parole because of criminal behavior or incarcerated for an arrest at 24 months).

There was a slight tendency for the groups with more frequent testing to have fewer cases remaining on parole and therefore to have a lower proportion with "good" adjustment.

Arrests. Analysis of arrests showed no reduction for the higher test groups in the average numbers of arrests or the proportions of each group with any arrests. Almost three out of five (59.4%) were arrested at least once during parole. Two out of three (65.9%) were arrested by 24 months and three out of four (76.2%) by 42 months. By 42 months, over half of these offenders had been arrested for at least one violent offense (homicide, rape, robbery, assault, or kidnapping), the most common of these being assault and battery (or simple assault). They were less likely (32.1%) to have an arrest for a property offense (burglary, vehicle theft, other theft). Many of these percentages showed a tendency to increase at higher levels of testing, although none of these differences were statistically significant.

Like the results for percentages, average arrests showed a slight trend toward *more* offense charges for cases in the higher testing groups, particularly for the full 42-month follow-up. Statistically significant differences in these averages (at the $p < .05$ level)[3] were found for Total and Violent offenses at 42 months. Average total arrests for the groups at 24 months and 42 months are shown in Figure ES-1, along with the average testing levels.

[3] This level indicates that a difference this large would be expected due to "chance" variation only 5% of the time.

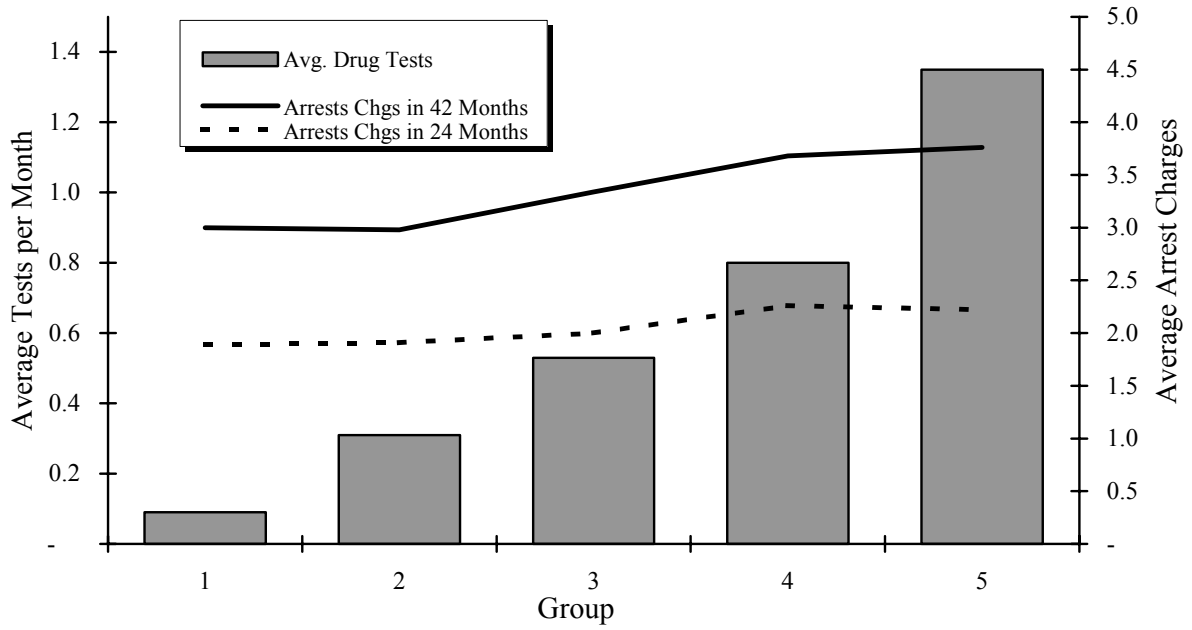

Figure ES-1: Testing levels and average total arrest charges during 24 and 42 months of follow-up.

This graph shows that while the overall rate of drug testing was not high, *relative* differences among the groups were substantial. Outcomes showed a consistent trend toward higher arrest rates as testing levels went up. Random variations (due to measurement error or chance differences among the groups) would not be expected to result in such a trend, since the groups would have an equal chance of having elevated levels. This trend reinforces the suggestion that the higher arrest rates for groups 4 and 5 were related to the differences in testing levels.

In terms of specific offenses, statistically significant differences at the $p < .05$ level were found for Assault and Battery, Drug Sales, and Miscellaneous Felony offenses. Differences at the $p < .10$ level were found for homicide and property offenses. Each of these differences was also associated with a statistically significant linear trend: higher average arrest charges for higher testing groups.

Survival analysis and multivariate analyses (logistic regression models, and negative binomial Poisson regression models), in which possible groups differences that might explain these findings were controlled, showed similar results. Survival analysis showed no group differences in the time to first arrest of various kinds. After controlling for background variables, logistic regression models found no significant differences in the proportions of each group who were arrested. Negative binomial Poisson regression models found higher testing groups (Groups 3, 4, and 5) to have *higher* levels of arrests than lower testing groups (Groups 1 and 2).

Simple comparisons across groups for subsets of the sample differing by ethnic group, level of drug problems, history of use, and so on, showed similar patterns of responses: average numbers of arrests increasing with higher levels of drug testing. These differences were not statistically significant, due to smaller sample sizes in the subgroups. However, the stability of the results suggests that the pattern was not produced only by a particular subgroup of the sample. The lack of positive impact (and the possible negative impact) of increased drug testing was found for all types of parolees.

Process Analysis

These analyses indicated that the lack of positive relationship between drug testing levels and parole adjustment or criminal behavior could not be attributed simply to a failure to use the drug testing information in accordance with the model of change (deterrence/detection). Parole agents *did pay attention* to the drug test results, *did consider these results* when making casework decisions about parolees, and *did respond to positive tests* with increased sanctions and increased drug treatment. As testing levels increased, more parolees were identified as drug

users, and this information was used by agents, who applied both sanctions and treatment in an effort to reduce the substance abuse problem.

Results also showed that parole agents did not rely solely on the drug testing information for identifying and assessing substance abuse problems among parolees. Parole agents identified some parolees as needing treatment despite having no positive tests. They also determined that some parolees who *did* have positive tests did not have a substance abuse problem that interfered with their functioning enough to warrant service. These findings suggest that drug test information was helpful, but not relied on exclusively. At higher testing levels, agents had more information upon which to base their assessments of substance abuse problems. Drug test results alone, however, were often not considered sufficient for this identification.

The most common response for positive tests up to the third positive test was "continue on parole." After the first positive test, however, this response accounted for less than one in four outcomes of positive tests. As the number of positive tests went up, fewer cases were continued on parole and more cases were referred to drug programs. At no level was a strong punitive approach taken. Even for the first positive test, almost one in ten (9.8%) positive tests resulted in a referral to a residential drug program. This response was increasingly common for additional tests. Only a small percentage (5.1%) was directly removed from parole (usually on a technical violation).

The most common "outcome" for the second and third positive test was for the parolee to go AWOL. In fact, going "missing" was a common response to *all* positive tests, accounting for one-fifth of all outcomes. The substantial proportion of parolees that went missing after submitting a positive urine sample, coupled with the fact that this proportion went up for each successive positive test, suggests that parolees at least *believed* that serious consequences would

follow from a positive drug test and that the consequences got more serious as the number of positive tests went up. It appears that rather than face the consequences of failure to stay drug-free (temporary detention, revocation, or drug treatment), the parolee chose instead to go AWOL.[4]

Exploratory Analysis

Exploratory analyses focused on the potential value of drug testing for identifying parolees that pose a greater risk to public safety. Positive drug tests during the first three months of parole (Re-entry) were found to predict higher levels of arrest over the follow-up period up to 42 months. These results suggest that drug testing might be used as a risk-assessment tool to identify parolees who demonstrate their higher criminal propensity by submitting positive urine samples early during parole.

Recommendations

Based on the results of this study, the general answer to the question of how much drug testing to include as part of routine parole supervision would be *minimal surprise testing, but perhaps with regular, frequent testing during the first three months of parole (Re-entry).* This recommendation is based on the general results of the study and on results of various specific analyses. It is also based on insights regarding drug testing that were gained through interviews with agents and experience with implementing the study.

[4] This finding is consistent with the results of the study by Britt, et al., (1992) of drug testing for offenders in a pretrial release program. They found that those offenders in the drug-testing group were more likely to fail to appear for their trials than offenders who were not subjected to drug testing.

This recommendation, however, does not imply that drug use by parolees should no longer be considered a problem. The present study did not address whether or not drug use *information* was important or whether attending to the substance abuse problems of parolees had any effect.

Minimal Drug Testing. The outcome comparisons showed no public safety benefit (better adjustment or fewer arrests) associated with levels of testing beyond that which was given to the No-test groups. From a public safety perspective, therefore, there is little justification for testing beyond a minimum level. The study could not speak to the value of ceasing to test altogether, for two reasons. First, because some testing went on for the "No-test" groups, the study cannot, technically, permit conclusions about a true No-test condition. Second, because all of the parolees in this study were *subject* to testing (had conditions of parole permitting drug testing, whether tested or not) and observed testing going on, they all experienced a reasonable threat of being tested. The *threat* of testing must therefore be included in any recommendation following from the results; and, in order for that threat to be credible, there must be some testing going on.

By keeping drug testing at a minimum, the agency can avoid a good deal of the dollar cost of drug testing. The agency can also avoid other, opportunity costs associated with potential over-reliance on drug testing: agent/parolee relationships that favor control at the expense of service and support and that are structured around a failure-oriented, unpleasant activity.

To the extent that agents are expected to monitor the drug use behavior of their parolees, other monitoring methods would have to be used to a greater extent. Results of the process

analysis, noted above, suggest that such methods are available and are already being used in lieu of, or in combination with, drug tests.

Agencies may also have to rely on other methods of documenting the need for intervention with parolees, monitoring the progress of parolees, and evaluating the job performance of parole agents.

Drug Testing During Re-entry. While the findings suggest little public safety benefit for testing above a minimum level, the predictive value of early drug use on parole suggests the potential value of regular, frequent drug testing during the Re-entry period. The lack of a good understanding of what to do with parolees who test positive early, however, along with the tendency for parolees to go AWOL after submitting a positive test, suggests a certain caution.

Cases testing positive in the first three months of parole were much more likely to have arrests during parole and later, indicating that an early positive test is a good indicator of increased risk for criminal behavior. Cases testing positive only after the first three months were no different from cases never testing positive. This finding suggests that a positive drug test early in parole is a powerful indicator of criminal propensity and that regular, frequent drug testing can provide a relatively straightforward risk-assessment procedure.[5]

A note of caution is called for, however. In the first place, it is not clear what should be done with parolees who demonstrate their higher-than-average criminal propensity through testing positive early in parole. There is no research to suggest how best to reduce the future criminality of these parolees. While it may be tempting to respond to these parolees with

[5] Multivariate analyses suggested that early positive tests did not provide much predictive power over what might be obtained from information on past history of drug use and prior criminal history. The reverse, however, was also true, suggesting that early drug use in parole might serve as a simple substitute for these other indicators of criminality.

increased incarceration (to protect the public for as long as possible) or to require intensive drug treatment (to try to reduce whatever influence drug use may have on their behavior), it was common for parolees to go "missing" after submitting a positive test. If this absconding was in anticipation of the possible consequences of getting caught using drugs, increasing the sanctions or the treatment associated with positive tests could exacerbate this problem. As a consequence, agents would lose whatever influence they may have with the parolee, and the parolee may become even more unstable and irresponsible. In short, "getting tough" with these parolees may backfire, resulting in bigger problems than drug use.

Thus, while drug testing appears to have some utility for identifying parolees with higher future arrest rates, the benefits of increased testing for this purpose are not clear. What is needed is a better understanding of how to respond effectively to this indicator of criminal propensity without, literally, scaring the parolees off.

In summary, this study showed that routine drug testing by parole agents beyond a minimum level did not seem to have a positive impact on the criminal behavior of parolees. While limited in its scope, the study was carried out successfully, providing experimental evidence that the variations in drug testing frequencies that can be implemented as a part of regular parole did not produce expected differences. In fact, all observed differences were in favor of *lower* levels of drug testing. It is not clear why higher levels of drug testing would be associated with higher arrest rates that extended far beyond the time when these offenders were under CYA parole supervision. Further research would be necessary to fully understand and verify this finding. In the meantime, the present results suggest the value of a thorough review of assumptions regarding the benefits of drug testing for offenders on parole supervision.

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Chapter 1
Introduction

This study is about drug testing in parole. Specifically, it is about the relative benefits for public safety of testing more frequently or less frequently in the context of regular parole supervision. Drug testing as part of the conditions for community supervision of offenders has a remarkable appeal because it fits with commonsense notions about how to control drug use and because the control of drug use is believed to be an effective method of controlling crime. However, the effectiveness of drug testing as a means of controlling other forms of criminal behavior is unclear. This reports presents the results of a large-scale study of those effects in a regular parole setting. It focuses on differences in parole adjustment and criminal behavior, as measured by arrests, for parolees tested at different intervals as part of regular parole supervision.

This study was not about whether drug testing *in general* can make a difference for parolee behavior, but whether drug testing *within the limits imposed by regular parole supervision* can make a difference. The nature of parole places major limits on the amount of testing that can be performed in this context, and the testing frequencies were relatively low (up to 1.35 tests per month, on average, for the highest frequency group). The study cannot address the effectiveness of drug testing above that level or accompanied by other changes in supervision. Nevertheless, the differences in testing frequencies used in this study could mean large differences in criminal justice expenditures, and it is important to understand the benefits derived from such (seemingly small) differences in testing levels.

Drug testing as part of community supervision has enjoyed increasing popularity since the late 1980s and early 1990s, becoming an integral part of probation and parole as well as of treatment programs for substance abusers (Cullen, Wright, and Applegate, 1996). Camp and Camp (1993) estimated over 50,000 drug tests, on average, administered by probation jurisdictions and over 77,000 drug tests annually, on average, for 45 parole jurisdictions. Clearly, the criminal justice system has embraced drug testing as a valuable weapon in the war against drug use and crime.

According to Cullen, et al., (1996), drug testing has a number of purposes in criminal justice settings. First, a large part of the appeal of drug testing for offenders in community supervision is that it provides a concrete measure of drug use activity, both at the individual level and at the aggregate level. It therefore fosters a better understanding of the behavior of offenders and the relationship between drugs and crime. Second, regular drug testing can provide a reliable means of identifying drug users (Toborg, Bellassai, Yezer, and Trost, 1989; Torres, 1996a, 1996b) and ongoing patterns of use (Wish and Gropper, 1990). This information can be used to establish treatment and supervision plans (Vito, Wilson, and Holmes, 1993). Third, results can be used to determine trends in drug use for the nation, as with the Drug Use Forecasting Study (U.S. Department of Justice, 1997), and for local jurisdictions. This information is valuable for program planning and policy development. Fourth, because of the association of drug use to general criminality, drug test results may also be used to estimate risk for future criminal behavior and to set conditions of pretrial release (Britt, Gottfredson, and

Goldkamp, 1992; Goldkamp and Jones, 1992) or supervision level for offenders in the community.[1] Finally, drug testing, in combination with a program of responding to drug use, is commonly considered a deterrent to future drug use and associated criminal activity (Toborg, et al., 1989; Wish and Gropper, 1990).

To this list, several other functions of drug testing that arise from its ongoing use and from the increasing reliance of agencies on drug test results might be added (Simon, 1993; Boyken and Haapanen, 1996). These functions, although not explicit, bring a certain value to drug testing that goes beyond any informational value or presumed effect on the behavior of individual offenders. First, a positive drug test provides hard *evidence* of drug use, a legally defensible indicator that parole or probation conditions have been violated. It serves as a "trigger" and a rationale for action with (or against) a supervised offender that may be only partly based on the drug use. Second, drug testing comes to be an important means of measuring both the progress of a parolee and the nature of the parolee/agent relationship. Parole reports routinely indicate the number of times a parolee was tested and the results of those tests. The drug test information provides a tangible, empirical basis for describing the parolee's conduct on parole. Third, drug testing serves as a convenient way for agents to demonstrate that they have been diligent in monitoring the drug use of the parolees. Fourth, the testing procedure helps to structure the interaction between the parolee and the agent. The process of obtaining a urine sample provides a routine set of activities that have a procedural legitimacy and which therefore

[1] The California Youth Authority, for example, includes positive drug test results in its Parole Classification instrument. This item is weighted in such a way that a positive test result would prevent a recommendation for lowered supervision level and would lead to a recommendation for increasing supervision in combination with any other risk factor or "service need" factor.

take the "guesswork" and the suspicion out of parole visits: both participants know what is expected, at least for that part of the visit. Finally, drug testing portrays a public image of the probation or parole agency as engaged in concrete actions to hold offenders accountable and/or to "get tough" on supervised offenders.

Balanced against these real and assumed benefits of drug testing are the associated costs, especially those associated with an over-reliance on drug testing. Dollar costs of drug testing run into the millions. At $5.00 per test, the estimated 77,000 drug tests per parole agency (Camp and Camp, 1993) would result in an annual cost of $385,000 per jurisdiction. Multiplying that by 50 jurisdictions plus the federal system results in an estimate for 1992 of $18,865,000 per year to test parolees. If the cost of testing probationers and others who are tested as part of court-ordered treatment programs are added to these costs, the estimate could easily reach $50 million dollars for testing criminal justice populations.

There are also opportunity costs associated with drug testing, especially as agencies develop an over-reliance on the "measurement" features and benefits. Over-reliance on drug test results can lead to an exclusive focus on drug testing, as opposed to other ways of evaluating a parolee's drug problem or progress on parole. In this sense, drug test results alone may be sufficient for arguing that a parolee is using drugs (or has remained "clean"), but the unsubstantiated judgment of the parole agent may not be considered adequate. Under these conditions, parole may come to revolve more and more around drug testing, and the limited time that an agent can spend with each parolee may come to be disproportionately taken up by this "measurement" activity (Holt, 1998).

There are two consequences of this disproportionate focus on drug testing for the parolee/agent relationship. On the one hand, to the extent that agencies strive to provide both control-oriented activities and support for offenders' efforts to develop pro-social lifestyles, over-reliance on testing pushes the balance toward control. It means less time for the agent to devote to other aspects of supervision, such as assisting with employment, finding a suitable placement, or securing appropriate services for other problems the parolee may have. On the other hand, the parolee/agent relationship would come to be increasingly structured around a violation-oriented, relatively distasteful activity (Torres, 1996b). The monitoring of drug use through drug testing involves looking for failure, even though the response may be treatment-oriented. To the extent that drug testing comes to dominate parole contacts, parolees may come to perceive their relationships with their parole agents as less supportive and helpful. Further, neither parolees nor parole agents tend to enjoy the process of drug testing, which involves actually watching the offender urinate into the bottle (Torres, 1996b). Drug testing imposes a distinctly negative component to the interaction, further undermining the supportive aspects of the relationship.

Like their counterparts in other agencies, however, administrators of the California Youth Authority are not blind to the costs of drug testing and to the lack of evidence in favor of any public safety benefit. Over the five years prior this study's implementation, the California Youth Authority's expenditures for drug testing had risen steadily from $77,000 in 1986 to over $325,000 in 1990. After that peak, budget limitations brought this figure down sharply in 1991

to about $200,000 and slowly thereafter to a current level of about $120,000 per year.[2] Over the last four years, the Youth Authority has spent over $500,000 to have urine samples from parolees analyzed. While this sum may not be large in comparison to that of other agencies, the funds, as well as the time the agents spend administering drug tests, might be put to better use. The other benefits of drug testing, such as monitoring trends, providing tangible evidence of parole violations, and measuring parole performance, are also valued, but may not, in themselves, justify the costs of continued testing in the absence of a clear public safety benefit. It is this *public safety benefit* that is the primary focus of the present study: Do higher frequencies of drug testing result in less criminal behavior (as indicated by fewer arrests) and/or in better parole adjustment?

In order to understand the study and its strengths and limitations, it is important to understand some of what is already known about the relationship of drug use to crime and the treatment of drug use among criminal populations. It is also important to understand a little about parole, particularly as it operates in the California Youth Authority. This information will aid in understanding the primary goals of drug testing in the parole context and the rationale for the present study.

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[2] These marked changes in drug testing were not accompanied changes in standard parole outcomes (parole removals for a violation), suggesting that drug testing levels did not have an effect on those outcomes. Possible changes in the parole populations and in other policies of the Youthful Offender Parole Board or the Youth Authority make it difficult to draw firm conclusions, however. Follow-up arrest data covering that period were not collected. Possible effects of these changes on criminal behavior of parolees are therefore unknown.

Drug Use and Crime

Crime has been closely associated with drug use by a mounting body of research evidence (Chaiken and Chaiken, 1982, 1984; Ball, 1981; Wish and Johnson, 1986; Haapanen 1990, 1991). Drug use, therefore has been an important focus of control efforts, along with more traditional concerns, such as employment, peer associations, and so on (Simon, 1993). Drug use has been argued to contribute directly and indirectly to other forms of crime, both property crime and violent crime. Goldstein (1989), for example, points to three ways that drug use contributes to *violent* crime. First, the psycho-pharmacological effects of drugs may lead to "drug-induced violence," such as that commonly associated with the use of PCP. Second, the need for income to purchase drugs may lead to (often) desperate crimes, such as armed robbery. Third, the distribution and sales of illegal drugs bring with them a measure of "systemic violence" that is inherent in any high-stakes, illegal enterprise[3]. Clearly, these factors can be seen to contribute equally to property crimes as well. The proceeds of property crimes are often used to purchase drugs, and drug use data on arrestees indicate that property crimes tend to be committed while under the influence of drugs (Drug Use Forecasting Study, U.S. Department of Justice, 1997). From this perspective, the control of drug use should have a direct and immediate effect on crime.

From a larger perspective, drug use has been argued to contribute to crime indirectly, as well, by steering individuals down a "life-course trajectory" of increasing disengagement from

[3] "Systemic violence" refers to violence that is inherent in the activity of drug dealing and distribution. Because these business enterprises operate outside the law, normal legal remedies are, for the most part, unavailable. The participants therefore rely on direct forms of violence to enforce rules of conduct and contractual obligations.

conventional society (Sampson and Laub, 1994). Studies have shown that criminality is associated with poor employment, lack of skills, unstable family relationships, and unhealthy peer relationships, as well as with drug use (Simon, 1993). Continued drug use, like continued lack of employment, continued lack of commitment to education or training, and continued gravitation toward criminal associates (and away from pro-social ones) makes it more and more difficult for an offender to, as it were, "turn his life around." The further a person travels down the wrong path, the more distance he puts between himself and conventional society, and, therefore, the less access he has to it. The more time a person "loses" in the course of pursuing the criminal lifestyle, the more difficult it is to "make up for lost time," and the more likely the individual will feel that it's not worth the effort (Sampson and Laub, 1994). Drugs contribute to this downward spiral by impeding the development of necessary skills, by undermining stable employment, and by encouraging the development of criminal associations. Controlling drug use, then, would be critical for making even the first steps toward a more pro-social way of life.

Controlling Drug Use Among California Youth Authority Parolees

Parole is a period of supervised release following a stay in a state-level correctional institution. For offenders serving fixed (or determinate) sentences, this period may be imposed as part of the sentence. For offenders on indeterminate sentences, such as juvenile offenders adjudicated in juvenile courts, parole generally follows a determination by a parole board that the offender has made sufficient progress that release to the community is warranted. Parole from the California Youth Authority follows the latter path. In order to be released to the community, parolees agree to abide by certain conditions, which commonly include staying out

of trouble, not associating with criminals, not engaging in gang behavior, and refraining from drug and/or alcohol use.

The California Youth Authority's Parole Services and Community Corrections (PS&CC) Branch operates 16 parole units throughout California. These units are grouped into Northern and Southern Regions, each with a regional administrator who, in turn, report to the Deputy Director of the branch. Policies of the Branch are developed jointly by parole administrators and members of the Youthful Offender Parole Board, which has sole authority to revoke or otherwise remove a ward from parole.

All CYA parolees are on maximum supervision (at least two contacts per month) during a "Re-entry period," which covers the first two to three months of parole. From there, they move to "Case-management," where they earn their way to lower supervision levels by maintaining employment, staying out of trouble, and not requiring high levels of service from parole agents. Most parolees move to medium supervision (one contact per month) within the first six months of parole and remain at that level, although a few eventually move to minimum supervision (one contact every two months). A classification system is used to establish recommended movement between levels, based upon the parolee's performance and service needs.

Parole is to be distinguished from *probation*, which typically occurs <u>in lieu of</u> a sentence to incarceration. For adults, probation may be granted in lieu of a stay in county jail or as a condition for a reduced term in jail. It may also be granted, with or without a jail term, to felons in lieu of a state prison sentence. In exchange for the suspension or reduction of the term of incarceration, probationers agree to abide by certain conditions, which, like parole, commonly include staying out of trouble, not associating with criminals, and refraining from drug and/or alcohol use.

California Youth Authority (CYA) parolees are not, for the most part, “drug offenders” but are serious offenders who also have substance abuse problems. Most offenders released to parole supervision from the California Youth Authority have parole conditions prohibiting drug use and requiring drug testing, even though few of these offenders were committed for drug offenses. Changing attitudes concerning drug use have resulted in tougher penalties for drug offenses at both the adult and juvenile levels in California. Still, only a small minority of new commitments to the CYA are for drug offenses, including drug sales. During recent years, the percentage of new commitments for drug offenses has dropped steadily from 19% in 1989 to 5% in 1997. During this period, the percentage of commitments for violent offenses (murder, rape, robbery, assault, and kidnapping) rose from 41% to 59%. Still, the Youth Authority’s best available estimates suggest that two out of three of these new commitments enter the CYA with extensive patterns of drug use and/or serious substance abuse problems.

For parolees who were committed for non-drug offenses, drug testing is justified on the basis of self-admitted histories of drug use and by the commonly accepted association between drug use and other forms of criminal behavior. For these serious offenders, the control of drug use may be best thought of primarily as a means for preventing *non-drug* crimes and for facilitating the development of more pro-social ways of life. However, drug use is typically only one of a number of problems that might hinder successful reintegration into society, and the importance of controlling drug use may differ across parolees and over time.

There appears to be general agreement among parole administrators that controlling substance abuse by parolees is an important goal of supervision. Further, this attention to substance abuse is consistent with the dual nature of parole supervision: surveillance and service (Holt, 1998). On the one hand, parole agents are expected to "keep an eye on" recently released

offenders and thereby help to protect the public from possible criminal behavior. Parole conditions thereby routinely preclude any drug use by parolees. Depending on the offender's circumstances, drug use may serve as the specific justification for removal from parole and the possible prevention of other crimes. Drug use, in this regard, stands as evidence that the offender is not able or willing to conform to conditions of release (Torres, 1996a).

On the other hand, parole agents are expected not only to provide surveillance and preventive intervention, but also to assist the parolee in his or her efforts to establish a noncriminal lifestyle. For some parolees, drug use does not necessarily indicate a repudiation of conventional lifestyles or a gravitation back to criminal behavior. It may simply indicate a problem area in the offender's life that has not been adequately resolved. For these offenders, or in these circumstances, drug use may point to the need for additional assistance, in the form of increased support, referral for treatment, or involvement in a short-term residential drug-treatment program.

The control of drug use in parole, then, can serve several purposes, and depending on the circumstances, drug use may be seen to indicate the first step back to a life of crime or simply an unresolved problem requiring attention. Paroling agencies may differ in their policies concerning responses to drug use by parolees. The point remains, however, that for offenders at this level of involvement in the criminal justice system, drug use in itself is oftentimes not the main issue. For agencies supervising serious offenders on parole, the focus on drug use and the responses to it are based largely on the perceived implications of drug use for criminality and/or broader parole adjustment.

As with other agencies providing community supervision, drug testing by CYA parole agents supplements other methods of supervision (such as face-to-face and phone contacts,

collateral contacts, direct observation, etc.), all of which are intended to increase public safety. Its use covers all of the purposes discussed above. Parole agents value the increased ability to "observe" recent drug use, and drug testing is often regarded as an indispensable tool for enforcing parole conditions prohibiting drug use. Although the emphasis is clearly on the "control" side, drug testing is believed to reinforce both the control and support aspects of parole supervision. Drug testing is believed to help deter drug use by parolees and to help detect substance abuse problems and set the stage for treatment that will contribute to the adoption of a more pro-social lifestyle. These changes, in turn, are believed to lead to a reduction in criminal behavior and an increase in public safety. This assumed public safety benefit is the primary justification for drug testing CYA parolees.

Primary Functions of Drug Testing in Parole: Deterrence and Detection

The control of drug use through drug testing rests on two of the functions described by Cullen, et al., (1997): *deterrence* from drug use and identification (*detection*) of drug users. These two functions work together, theoretically, to reduce the rational choice of drug use for pleasure and to reduce the need for drug use that stems from treatable problems (Figure 1).

1. Deterrence. Drug testing serves as a potent threat to the parolee that he or she may be "caught" using drugs despite all efforts to hide the behavior. Rather than face the consequences of violating this condition of parole, parolees are hypothesized to voluntarily limit (or curtail) their drug use (Toborg, Bellassai, Yezer, and Trost, 1989; Wish and Gropper, 1990).

2. Detection. For those parolees who are not deterred, drug testing serves to identify when drug use begins, providing evidence of failure to conform to parole conditions and evidence of poor commitment to establishing a legitimate lifestyle. The drug use can then be responded to with appropriate sanctions or treatment which may lead, in turn, to reductions in future drug use and greater efforts toward making lifestyle improvements (Toborg, et al., 1989; Wish and Gropper, 1990; Vito, Wilson, and Holmes, 1993).

These two functions of drug testing have somewhat different implications for *who*, *how often*, and *under what circumstances* to optimally test for drugs to provide the most cost-effective parole services. Drug testing takes time and money, both of which tend to be in short supply in agencies providing community supervision. Even if an agency could afford to test everyone under supervision often enough to detect any and all drug use, this may not be the best use of the necessary resources. For some, most, or even all parolees, some resources might better be spent on other forms of assistance, such as increased agent contacts that are focused on matters other than drug use or assistance with more positive adjustment activities: placements, school, vocational training, counseling, and so on. What is needed is better information on the pay-off associated with the extent and frequency of drug testing (who and how often to test).

For deterrence, the goal is to establish the belief among parolees that drug use is likely to be detected and that the consequences of the violation outweigh any immediate pleasure the contemplated drug use might bring. The optimal drug testing program would include enough testing to convince most parolees that there was a credible threat that their drug use would be detected and also include a sanction/treatment response that parolees would find onerous enough to offset the promise of immediate pleasures from drug use.

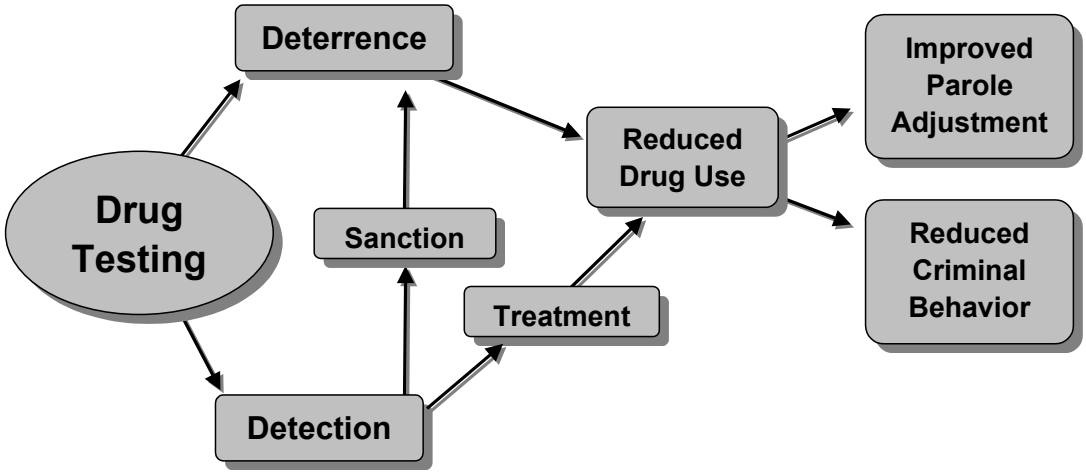

Figure 1: Deterrence and detection as the primary functions of drug testing in parole.

On the detection side, sanctions and treatment might imply somewhat different optimal levels of testing. The use of sanctions is part of the deterrence approach, described above, and would imply the need for a level that, when combined with the particular sanction used, would be enough to make drug use seem too risky. On the treatment side, less actual detection may be necessary. In a drug testing program for identifying and addressing broader adjustment problems, the detection of each and every instance of drug use may not be necessary, especially if doing so requires an inordinate commitment of time and resources to drug testing. If a pattern of drug use is developing, even a less-than-comprehensive drug testing regimen should still detect it eventually. Such a program of drug testing should also detect some instances of sporadic, occasional use, but can be expected to miss some. From a treatment perspective, these undetected incidents, however, may not pose enough of a danger to society or to the successful

integration of the parolee into the community to make the marginal cost of their detection worthwhile.

In practice, both theoretical pathways are assumed to work in combination. Drug testing is expected to deter parolees from using drugs. If they are not deterred, drug testing will detect the drug use and provide a basis for responding. The CYA uses a general "graduated sanction" approach to responding to positive drug tests, but specific responses are not required by policy. In keeping with the "individualized justice" approach typical of juvenile justice agencies (Cavender and Knepper, 1992), positive tests often serve primarily as "triggers" for evaluating everything the parolee is doing at the time, and the appropriate response is based on that overall assessment of the parolee's adjustment.[4] Although no hard-and-fast rules exist, there is a general expectation among parole agents concerning appropriate responses to positive tests. The first dirty test generally results in a "corrective action plan" (CAP) that specifies drug treatment, attendance at Alcoholics Anonymous/Narcotics Anonymous meetings, and/or a warning of heavier penalties for continued use and an increase in drug testing. The second dirty test usually warrants at least a recommendation for referral to a CYA-operated residential drug program. A third dirty test means a recommendation for revocation and a hearing with the Youthful Offender Parole Board (YOPB). One assistant parole unit supervisor stated

> ....One hundred percent of my agents would recommend to continue on parole with some kind of additional treatment or counseling program in the community for a primary dirty [positive] test. For the second dirty test they would recommend either to continue on parole in the community or to send the parolee to [a residential drug treatment facility]. This would depend not on the agent, but the agent would make the decision based on the seriousness

[4] This process has its basis in the Juvenile Court philosophy, in which the "best interests of the minor" are balanced against public protection and punishment of offenders. Parole removal is a response of parole personnel and/or the Youthful Offender Parole Board (YOPB) to parolee adjustment in a broad sense, which may or may not involve criminal activity.

> of the parolee's involvement with the drugs and the parolee's overall adjustment to the community. For a third dirty test, the parolee would probably be revoked.

Thus, the expected response graduates from treatment (with a warning) through short-term incarceration combined with treatment (a residential drug program) to punishment (revocation). This graduated response is intended to provide some assistance to the parolee in tackling their drug problem and send a message that continued drug use will not be tolerated. The process is thereby expected to enhance the deterrent value of drug testing in the future.

Research on the Effectiveness of Drug Testing

There have only been a few studies of the deterrent effect of drug testing on drug use and criminal behavior among criminal justice populations (Cullen, Wright, and Applegate, 1996). Several have shown positive results in reducing drug use after implementation of the drug testing program. Drug testing programs among probationers and parolees in Oregon and probationers in Jefferson County, Kentucky, both of which included graduated sanctions for positive tests, found decreases over time in the percentage of positive drug tests. The researchers concluded that the drug testing programs appeared to have a deterrent effect on the drug use behavior of the offenders under supervision (Cullen, Wright, and Applegate, 1996; Oregon Department of Corrections, 1993; Vito, Wilson, and Holmes, 1993). Neither of these studies focused on differences in the frequency of testing.

These studies also did not address the effects of drug testing on other forms of criminal behavior. Studies that have addressed this issue have focused on misconduct among offenders released and awaiting trial. A study in Arizona (Britt, Gottfredson, and Goldkamp, 1992) found

that drug testing as a component of pretrial release had no effect on pretrial misconduct. Studies of pretrial drug testing in Wisconsin and Maryland (Goldkamp and Jones, 1992) found that drug testing had no effect on rearrests or failure to appear at court hearings. The latter study faced difficulties in implementing the graduated sanctions, however, because the number of cases testing positive several times would have placed a tremendous burden on courts and jails. As a consequence, sanctions were limited, reducing the potential deterrent value of the drug testing program. These studies also did not address the issue of frequency of drug testing.

Special programs that have incorporated drug testing as part of a coordinated drug-treatment effort, such as the California Civil Addict Program, have shown drug testing to be a valuable part of that effort. The California Civil Addict Program provided institutional substance abuse treatment and intensive parole supervision to adult offenders identified as substance abusers—primarily heroin addicts. Evaluations of this program showed reduced levels of drug use and criminality for offenders receiving intensive supervision coupled with drug testing than for those receiving regular supervision (without drug testing) or no supervision (McGlothlin, Anglin, and Wilson, 1977).

Drug testing as part of intensive supervision programs for regular offenders, on the other hand, have found no benefits for drug testing in terms of crime reduction for probationers (Turner and Petersilia, 1992) or for parolees (Turner, 1992). Drug testing increased the likelihood of new violations for both groups, due to the increased ability to detect drug use. Intensive supervision, however, did not result in lowered arrest rates. Thus, while these programs may increase the ability to hold offenders accountable for violating conditions of probation or parole, they do not seem to improve the offenders' behavior very much.

In summary, drug testing is generally viewed as an important and valuable tool for parole agents and others involved in community supervision. Drug testing helps to extend the possible range of surveillance to include recent drug use beyond the direct observation of the parole agent. The threat of detection may deter offenders from using drugs and thereby reduce what is commonly regarded as a "major contributor" to criminal activity. For offenders who are not deterred, the detection of drug use through urine testing provides the agent with a tangible basis for corrective action, either in the form of punitive sanctions or of treatment. There is some research evidence that drug testing with graduated responses can reduce drug use among offenders. While certain special programs for drug-abusing offenders have shown some positive results in reducing drug use and criminal behavior, there is no research evidence that routine drug testing for regular probation or parole populations by their agents provides any crime-reduction (public safety) benefits.

Most people believe that drug testing at some level is necessary in parole and that higher levels would be more effective at improving public safety than lower levels. There is probably less consensus, however, on how important it is to control drug use rather than, say, to enforce conditions requiring employment and staying away from criminal associates: on how much to invest in drug testing as a major component of parole supervision. The issue here, again, is whether differences in drug testing levels that can be practically applied within the context of regular parole supervision make any difference for the behavior of the parolees. In other words, given that the testing would be done by parole agents as part of regular parole supervision, does testing more often lead to better outcomes for parolees than testing less often? This study begins to address these questions by studying the relative benefits of different amounts of (investments in) drug testing by one paroling agency.

Issues Not Addressed By This Study

As mentioned earlier, this study did not address the general question of whether drug testing at some level *could* reduce criminal behavior among offenders on community supervision. It could be argued, for example, that drug testing twice or three times per *week* could deter drug use and crime by catching every occurrence of drug use. However, that level of drug testing would require changing other aspects of parole supervision as well--the number of contacts between agents and parolees or the use of an outside contractor for collecting urine samples. It would be extremely difficult or impossible to sort out the effects of the increased drug testing from the other changes in supervision. While the present study was necessarily limited to relatively low levels of drug testing, it was able to study drug testing differences while holding other aspects of supervision constant (on average) across groups. Further, it addressed a policy issue that could be immediately put into effect in most paroling agencies: How much should parole agents test?

In addition, no hypotheses regarding either positive tests or *actual drug use* as they relate to levels of drug testing were explicitly addressed by this study, although levels of positive tests may have some implications for overall drug use among parolees. Differences in the numbers of positive tests would be difficult to interpret without some independent, direct measure of actual drug use. None was available for this study. The greater detection of drug use might be expected to result in greater numbers of positive drug tests as the frequency goes up. However,

this effect would be counterbalanced by any additional deterrent effects that might also be related to higher frequencies of drug testing. Drug test results for the total sample, however, were compared to those obtained for arrestees and probationers from other states to help understand the results of this study and place them in a wider context.

The study also did not involve an experimental evaluation of different kinds of *responses* to positive tests, although some information on responses was collected and analyzed for descriptive and exploratory purposes. The main reason for not including response options in the experimental design was that in the parole setting, as explained above, situations rarely involve only drug use. The positive tests often serve primarily as a "trigger" for evaluating everything the parolee is doing at the time, and the appropriate response is dictated by that overall assessment of the parolee's adjustment. A study requiring particular types of response to positive drug tests would be both impractical and unrealistic because it would require agents and other decision makers (i.e., members of the Youthful Offender Parole Board) to ignore aspects of the parolees' adjustment that would not be ignored otherwise.[5]

Secondly, the inclusion of response options in the present study would have resulted in a very complex design involving relatively small samples and would probably not have been generalizable to other areas or agencies. Response options are closely related to the availability of local resources, which differs widely among parole units. A study of response options would have been limited by necessity to a relatively small geographical area, involving only a few

[5] For example, the options for a parolee with a stable living situation and a full-time job would not ordinarily include temporary incarceration or a three-month residential drug program (both of which would jeopardize employment) unless he or she was considered likely to get in serious trouble otherwise.

parole units, and to instances where the only violation was for the positive test. As noted above, such cases are in the minority, making it likely that small samples would have been involved.

Chapter 2
Design and Methods

In order to assess whether different levels of routine, unscheduled drug testing resulted in different numbers of crimes and/or parole failures among CYA wards on parole supervision, an experimental research study was carefully developed and implemented. The goal was to design a study that maximized scientific rigor while maintaining a foundation in the realities of parole operations at the CYA. Groups were formed by randomly assigning new parolees to different drug testing levels, and the groups were to be tested at their respective frequencies for the duration of parole (up to 24 months). All other aspects of parole were to remain unchanged to the extent possible without creating an unnecessarily artificial situation. In this way, the study sought to have the amount of drug testing be the only difference among the groups. Differences in the outcomes for the groups could then be confidently attributed to differences in drug testing and resultant responses to those tests that were positive. Parole adjustment was measured by the type of parole removal (revocation, violation discharge, etc.), if any, at 24 months. Criminal behavior was measured by arrests at 24, 36, and 42 months.

The usefulness of evaluation results rests in part on whether the study has enough scientific rigor that researchers and policy makers can have confidence in its results. The present study meets this standard and has potentially important implications for parole in general and for CYA parole in particular. In developing the research design, the objective was to balance the goals of

1. <u>scientific rigor</u>, to permit the best assessment of the effectiveness of drug testing levels, independent of the effects of other aspects of parole (Rossi and Freeman, 1993), and

2. usefulness, so that its findings and results were considered as relevant as possible to actual policy decisions regarding drug testing in parole (Patton, 1997).

Scientific rigor involves isolating the effects of the program, policy, or activity in question from the effects of other factors at work in the situation. In order to attribute outcome differences to levels of drug testing, other possible explanations for any observed differences in outcome must be eliminated. In the present case, the goal was to compare outcomes for groups of parolees that differed from one another only in the amount of drug testing they received during parole. The present study sought to maximize scientific rigor by using a *true experimental design* (Campbell and Stanley, 1966) and by avoiding other possible differences in parole for the groups.

One type of group difference that could cause problems for rigorous evaluation is differences in the characteristics the members had prior to entering the study. These pre-existing differences could directly influence outcomes or could influence how members of the groups respond to the "program" (in this case, drug testing). Either way, pre-existing differences could make it difficult to determine whether any observed differences in outcomes were due to the program or to the pre-existing differences in the groups. In general, while the influence of pre-existing differences can be controlled to some extent through various statistical adjustments, the more similar the groups to begin with, the more confidence can be placed in the evaluation findings and the more useful the study's results (Farrington, 1983).

In the *true experimental design* (Campbell and Stanley, 1966), study participants are assigned to groups on a random basis, and the groups are therefore initially as similar as possible. "Random assignment" procedures, as they are sometimes called, serve to "mix up" the types of people that get assigned to the different groups. They therefore produce groups that are

very similar in their overall characteristics, especially when the groups are large, as they were in the present study. The use of this sampling design made it possible to assume that the groups would have performed similarly on parole if they were treated similarly. Conversely, to the extent that they were treated differently, differences in outcome could be attributed to those differences in treatment. This sampling strategy made direct comparisons of outcomes for the groups possible.

Problems for the study could also be caused by differences in treatment (other than the planned intervention) occurring after selection. If the groups assigned to different levels of drug testing were also treated differently in other ways, such as in the amount of supervision or in the use of various sanctions, for example, it would be difficult to determine whether it was these features of parole or the drug testing that made the difference in outcome (if any). Here, however, the issue of balance between rigor and usefulness becomes more problematic. When, under normal circumstances, activities simply go together, holding them constant may create an "artificial" situation that no longer conforms to how things would actually work in the "real world." The results would therefore be less useful for informing decisions about the activity.

On the one hand, the study must be designed so that desired differences in activity or treatment are produced. If there are no differences in treatment, outcome differences cannot be attributed to treatment differences. In the present study, this meant, among other things, prohibiting two common practices:

- responding to positive drug tests by increasing the amount of testing and
- responding to a pattern of non-use of drugs and good parole adjustment by gradually reducing the amount of drug testing over time.

The first of these practices would have been applied more often to parolees at lower testing levels while the second would have been applied more often to parolees at higher testing levels. They would thereby have reduced the differences in the groups. Thus, some artificiality, created by restricting agents from making these kinds of decisions about how much to test, was unavoidable.

On the other hand, the study must be designed so that other differences in activity or treatment are minimized. In order to completely isolate the effects of one activity, such as drug testing, other activities had to be held constant across groups. Some differences make more sense to restrict than others, however. Some, such as overall supervision level, which were more incidental to drug testing policy, were controlled. Drug tests are usually performed by agents during a face-to-face contact with the parolee. A parolee tested twice a month would have to be seen twice per month, which is the "contact standard" for maximum supervision. Under ordinary circumstances, then, that level of drug testing would be restricted to parolees on maximum supervision. In order to avoid having drug testing levels "drive" supervision levels (so that differences in overall supervision level would be confounded with drug test levels), agents were instructed to keep drug testing levels and supervision levels separate. Parolees with drug testing levels that would require their being seen more often than their supervision levels would require were to be "called in" for a drug test only, which could be performed by the OD (Officer on Duty) that day.

Other activities that were more integral to the use of drug testing in parole were not restricted. These activities involved responses to positive drug tests other than an increase in testing levels: referral to a residential drug treatment program, temporary detention, individualized corrective action plans, and revocations. These responses could be seen as

extensions of the drug testing "program" in that without some kind of response to the positive tests, there is no real "treatment" and no basis for expecting any effects. No attempt was made to "standardize" these responses to dirty tests, however, because doing so would have required a wholesale change in the way drug problems are handled in CYA parole. Typically, evidence of drug use, either in the form of a positive drug test or an arrest by law enforcement for a drug-related offense, prompts a global assessment of the parolee's adjustment. While drug use, in and of itself, enters strongly into this assessment, responses by parole agents or by the YOPB are not predicated simply on that use. Imposing particular responses to dirty tests would have created a profoundly artificial situation.

By not standardizing responses, the study ran the risk that there might be little or no difference in how parolees were handled, despite differences in drug testing levels and numbers of positive tests. Although a complete lack of differences was considered extremely unlikely, given the Parole Services and Community Corrections Branch policy of requiring <u>some</u> kind of response to every positive test, it was still possible that these differences would be less than might be expected from differences in testing. There was some risk, then, that the study would be weakened by a lack of important group differences in "treatment." Still, it was considered critical that the study focus on drug testing *as it would actually work in parole*. The usefulness of a study in which sanctions were dictated would be minimal if an agency (in this case, the CYA) had no intention of moving to a policy wherein particular responses were mandated.

The final design was developed in consultation with a task group of parole agents and field supervisors to ensure that the procedures were practical and did not cause undue hardship for parole personnel. The task group was made up of parole administrators, parole supervisors, and field staff. It was carefully selected so as to represent different geographical areas of the

state, ethnicities, levels of responsibility, and types of parole caseloads (e.g., urban vs. rural). Such a diverse group was necessary to represent both staff and agency perspectives on the relative importance of various research issues and the practical strengths and weaknesses of various research designs.

The Sample

In order to be as representative as possible of CYA parolees who would be the subjects of routine drug testing policies, the sample was to include all wards committed directly to the California Youth Authority from juvenile or adult courts and who were released to parole over the course of one year. Offenders committed to adult prison and "housed" at the Youth Authority ("M" cases) were excluded.[6]. Other cases were excluded only if their possible parole exposure was very limited or if their parole circumstances made unscheduled drug tests impractical or unfeasible. All cases meeting the following basic criteria were eligible:

1. *CYA cases*--M-cases, easily distinguished by their identification numbers, were excluded;
2. *California parole*--no out-of-state cases;

[6] The Youth Authority population is made up of two kinds of offenders: (a) cases committed directly to the Youth Authority as juveniles or young adults (YA cases), and (b) young adults who have been committed to adult prison but who are housed and programmed at the Youth Authority (referred to as M-cases because their YA identification numbers begin with "M").

3. *At least 6 months remaining jurisdiction time*;[7]

4. *At least 60 days available confinement time (ACT) at release*.[8]

Certain cases meeting these primary criteria, however, were excluded because their participation was not practical or feasible:

1. cases with no parole conditions permitting drug testing;
2. cases with parole conditions that specified the frequency of drug testing;
3. certain "special interest" cases, if the inclusion of the case could be shown to hinder the agent's ability to supervise the parolee successfully in the community;
4. cases assigned to "rural" parole caseloads, which typically cover wide geographical areas--the agents (usually resident agents) would be unable to schedule surprise tests.

Because some of the exclusion criteria involved parole placement and parole conditions, which are not known until the offender is actually ordered released to parole by the Youthful Offender Parole Board (YOPB), eligibility could not be determined until actual release.

Parole unit supervisors were given the responsibility for determining eligibility for the study and for calling this information into the research offices. Each parolee was to be reported either as a study case or as an exclusion. If excluded, these supervising parole agents (or, typically, the assistant supervising parole agents) also had to provide the reason for exclusion. It was initially estimated that approximately 44% of parole releases would be excluded, providing a net one-year total sample of just over 2,000 (see Figure 2).

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[7] The Youth Authority's jurisdiction over juvenile offenders extends only up to a certain age (age 21 or age 25), based upon their commitment offense(s).

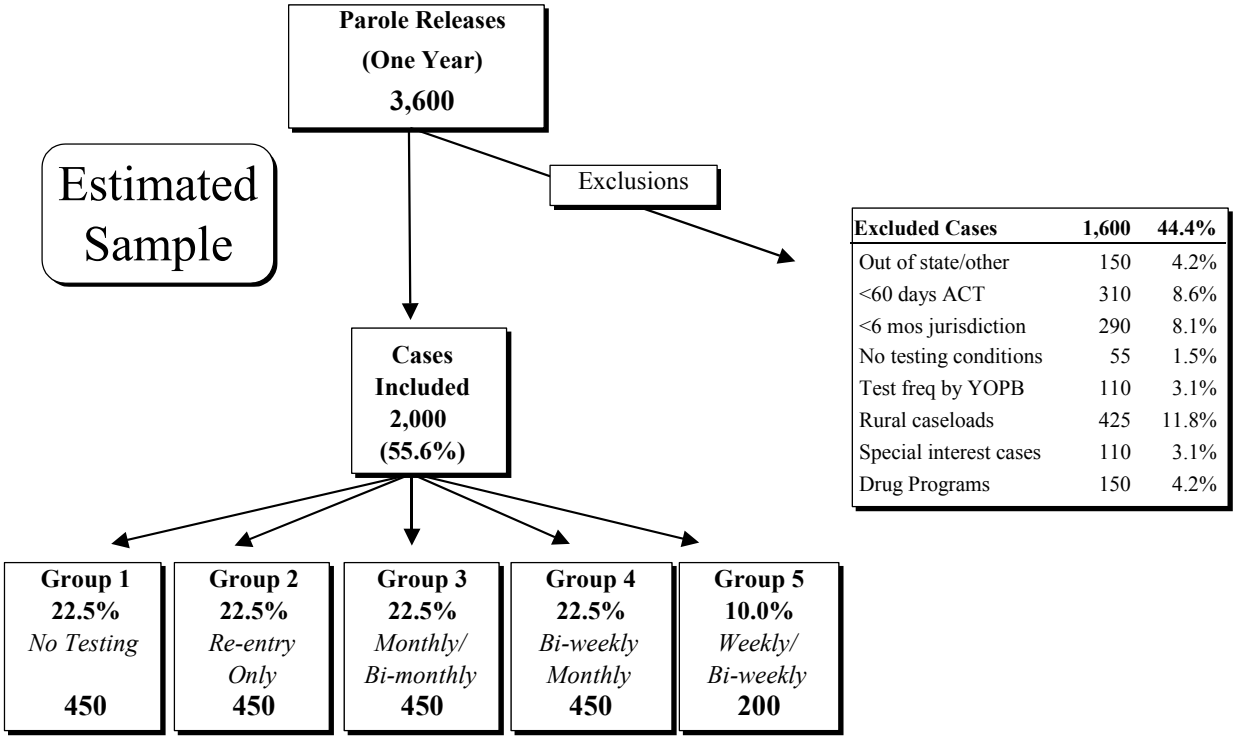
[8] Available confinement time is determined by the offense(s) for which the offender was committed to the Youth Authority. Parolees can be revoked or otherwise confined (e.g., temporary detention) only up to the amount of confinement time remaining (available) after the parolee leaves CYA institutions.

Participating parolees were assigned, at random, to one of five levels of routine, unscheduled drug-testing. The five levels of testing were chosen to provide a range of testing intervals that would be practical to implement as part of routine parole supervision. They were chosen to match minimum standards for face-to-face contacts with parolees, which range from one contact every two months (minimum supervision) to one contact per month (medium supervision) and two contacts per months (maximum supervision). In keeping with other aspects of parole, the parolees were tested at a higher level (double the frequency) during the first 60 to 90-day Re-entry period.[9] The following levels were assigned:

1. *No routine testing* (parolees are tested only after an arrest, either by law enforcement or by parole agents who have probable cause to arrest for drug use);
2. *No routine testing,* but tested once or twice (*Bimonthly)* during Re-entry;
3. Once every two months (*Bimonthly*), with one test a month (*Monthly*) during Re-entry;
4. Once a month (*Monthly*), with one test every two weeks (*Biweekly*) during Re-entry; and
5. Once every two weeks (*Biweekly*), with one test every week (*Weekly*) during Re-entry.

Most parolees are at medium (a minimum of one face-to-face contact per month) or maximum supervision (two contacts per month) for most of parole, so testing at any of these five levels could be maintained reasonably as part of routine parole supervision. As noted earlier, a major consideration in establishing the design was to avoid having testing levels "drive" supervision levels. Under these conditions, it would be impossible to determine whether differences in outcome were due to differences in drug testing or to differences in contacts or

[9] All parolees are on maximum supervision (at least two contacts per month) during the first two to three months of parole. Following Re-entry (the Case-management period), parolees are typically supervised at "medium" level, which involves one contact per month.



Excluded Cases	1,600	44.4%
Out of state/other	150	4.2%
<60 days ACT	310	8.6%
<6 mos jurisdiction	290	8.1%
No testing conditions	55	1.5%
Test freq by YOPB	110	3.1%
Rural caseloads	425	11.8%
Special interest cases	110	3.1%
Drug Programs	150	4.2%

Figure 2: Estimated sample sizes and study design.

other aspects of supervision. Where testing levels were higher than the minimum contact standards for a particular parolee, agents were instructed to have the parolee come to the parole office to be tested. The agent or the Officer on Duty could collect the specimen without a supervision contact.

Each agent was to have a "mix" of cases in different testing groups. In order to reduce the likelihood of cases in different testing groups being treated differently in terms of other aspects of parole, unit supervisors were not to assign cases to agents on the basis of their testing levels.

At the time the supervisors called in the eligibility information for each case, research staff used a computer program to assign the case to a group, based on a pre-determined probability of group assignment. The high-test group was to have only half the number as the other groups in order to keep expenses down and to reduce the need to contact parolees more than contact standards required (once per month for most parolees).

As shown in Figure 2, the assignment process was designed to create four equal-sized groups of 450 parolees and one group of 200 parolees. A computer program developed by Allan Abrahamse, of the Rand Corporation, for use in their study of drug courts in Maricopa County, Arizona, was modified to assign cases based on probabilities of 22.5% for assignment to Groups 1 through 4 and 10% for assignment to Group 5.[10]

Testing Procedures

Prior to the implementation of the study, training was provided to all agents during regular staff meetings at parole offices. At that time a Procedure Manual was also provided to each agent (Appendix A). This manual explained the study and the expectations for agents.

Except for differences in frequency, drug testing was expected to follow regular parole procedures. Following established practices, drug tests were to be carried out by the assigned agents at the time of regular parole contacts. Tests could also be ordered at other times, in which case the parolee was expected to visit the parole office and be tested by the OD (Officer on

[10] We would like to thank Allan Abrahamse for furnishing and modifying his computer program. Peter Greenwood and Elizabeth Deschenes (now at California State University Long Beach) also provided valuable assistance and support with this project.

Duty). Once contacted, parolees were required to report for drug testing within 48 hours. This interval was considered short enough that most drugs could still be detected in the urine and long enough that scheduling would not interfere with employment, school, or other pro-social activities.

During training, agents were reminded that tests were to be scheduled on a "surprise" basis, especially for parolees in the low-level testing groups. Agents were to schedule tests in such a way that parolees could not predict when the next test would be. Additionally, parolees were not to be advised that they were part of a study. Parolees were to be tested at their assigned levels for 24 months or until parole removal (discharge, revocation or death). Wards remaining on parole after 24 months could be tested at the discretion of the parole agent.

Although no formal criteria were established for under-testing, it was generally understood that testing levels would be difficult to maintain under certain circumstances. For example, when agents go on vacation, their caseloads are covered by other agents or the assistant unit supervisor, but contact standards are generally relaxed. Similarly, parole units that are understaffed, due to position vacancies or illnesses, may reassign some (but not all) of the parolees on the caseload to other caseloads. As a result, a number of parolees are placed in “uncovered caseloads” for some period of time during their paroles. Although unit supervisors were asked to avoid having study cases in these uncovered caseloads, extraordinary measures were not required. The interest, again, was in trying to implement the different testing levels in the context of parole as it might actually operate in practice. Drug testing requirements were also suspended when the parolee was unavailable for testing: missing, in custody, in temporary detention, in a residential drug program, etc.

Conversely, drug tests *over* the assigned level were permitted (but not required) only after an arrest. The arrest may have been by law enforcement agencies, in which case the drug test information was expected for determining the appropriate action of the Youthful Offender Parole Board.[11] The arrest may also be made by the parole agents for law violations or parole violations, including being under the influence of drugs or alcohol. Under these circumstances, drug tests were allowed either to verify actual drug use or to obtain a fuller picture of the parolee's adjustment (to support a recommended disposition by the YOPB). These tests, which were included in the study, would tend to inflate the drug-test frequencies, primarily for the no-test groups. The "legitimacy" of these tests is impossible to verify with accuracy,[12] however, and no attempt was made to account for each test. At the higher levels of testing, these "post-arrest" drug tests would be more likely to simply take the place of required tests; they would therefore tend not to inflate the estimates of study tests.

Performance standards for parole agents and supervisors regarding drug testing were amended to include following the study procedures. Thus, adherence to the testing frequencies became part of the standards by which the performance of parole agents and their supervisors was to be evaluated. While enforcement of this standard was not directly assessed, its existence

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[11] The YOPB may take action to revoke an offender's parole regardless of (or in addition to) any action taken by local authorities. On one side, the YOPB may simply "continue" the parole of an offender who serves a local sentence for a minor law violation. On the other side, the YOPB has the authority to revoke parole on the basis of information that local authorities may deem as "insufficient evidence" for prosecution.

[12] Arrests by parole agents (or law enforcement agents) are not currently included in the CYA's computerized OBITS file. If the arrest results in a revocation of parole, only the revocation date is entered. Since revocation proceedings may take several months, linking the extra test to the arrest that led to the revocation would be a matter of guess-work. Further, not all parole arrests lead to revocation; in these instances, it is possible that no information explaining the arrest would even be available in the centralized files.

signaled administrative support of the study and may have helped to ensure that parolees were tested at their assigned levels.

Audits of the drug testing were performed as part of the study and as part of the regular audit process for the Parole Services and Community Corrections Branch. The data files for the project were routinely updated with testing information and used to monitor the implementation of the study. Test information from the contract laboratory was listed by parole office and used as the basis of project auditing. The project liaison (a senior parole agent assigned to this study) and the principal project staff member visited each parole unit to discuss implementation, collect data, and determine the reasons for under- or over-testing. Parole agents (and supervisors) were required to account for cases not being tested at the assigned level. These audits were conducted three times during the course of the study, and were intended primarily to stress the importance of compliance. Data on the reasons for each missed (or extra) test were not systematically recorded and are not reported here.

Auditing proved to be a tedious and labor-intensive process, but it was invaluable for understanding the subtleties of implementing and maintaining policies that would tightly control the number of drug tests administered to parolees. With only a few exceptions, audits showed that agents and supervisors made responsible efforts to test parolees at their assigned levels.

Data Collection

A variety of types of data were collected to describe the sample (background data), to assess the implementation of the study (implementation data), to assess the effect of differences in drug testing levels on parolee behavior (outcome data), and to help understand the role of drug

testing information in parole (process data). Implementation data were used primarily to determine whether the study was carried out as designed and whether the groups actually differed in terms of drug-testing levels. Outcome measures focused specifically on hypothesized public safety benefits of drug testing: parole adjustment and criminal behavior. Process data were used to assess whether differences in drug testing were associated with expected differences in certain "intermediate outcomes," such as detection of drug use, identification of substance abuse problems, and responses to dirty tests.

Data on study participants (and the study itself) were obtained from

1. *the CYA's Offender Based Information and Tracking System (OBITS),* which included automated information on demographics, commitment offenses, and parole outcomes;
2. *hard-copy ward Master Files*, which contain social and criminal history information for periods prior to commitment, parole reports to the YOPB (including ongoing parolee location and status), and discharge information;
3. *Parole Case Review Summary forms,* which include data on numbers of contacts, supervision levels, and assessments of parolee service needs and parole performance (Parole Classification System data);
4. *the contract Drug Testing Laboratory*, in the form of automated files containing dates and results for the drug tests submitted for analysis;
5. *automated criminal histories ("rap sheets")* obtained from the California Department of Justice, Bureau of Criminal Identification and Investigation; and,
6. *phone interviews with parole agents* concerning problems with the study and factors that influenced the use of drug testing in parole settings. The interview data were used to help

interpret findings and better understand factors that may affect an agency's ability to implement a drug-testing program based upon the findings.

Background Data

Demographic information and commitment offense information were collected on the sample and on the cases excluded from the study. These data were used to describe the sample and to assess its representativeness of all parolees released during the study period. Additional background information on the sample included prior criminal history, characteristics of the home environment, and substance abuse histories coded from hard-copy Master Files.

The Offender-Based Information and Tracking System (OBITS) of the California Youth Authority contains background and demographic information about offenders under CYA jurisdiction. The OBITS system currently does not contain detailed information on the arrest histories of offenders. Nor does it contain drug-use history information that is obtained at the time an offender is processed through the reception center/clinic. These data were coded from hard-copy files located at the CYA central headquarters building.

Implementation Data

These data were used to determine whether the study was carried out as designed: whether the groups were similar (the success of the random assignment), whether the groups actually differed in the amount of drug-testing they received during parole, and whether the groups were otherwise treated similarly on parole. Implementation data included background information, which was used to assess the success of the random assignment procedures; drug testing information; information on parole status, which was used to control for periods of non-

availability in the assessment of testing levels; and information on parole supervision, which was used to assess whether other aspects of parole differed across testing groups.

Drug Testing Data. An accurate picture of actual differences in testing levels among the groups required using both the number of tests per month and the parolee's "availability" during that month. These data were used to calculate testing levels for parolees *available for testing*.

Information on drug tests and drug test results (i.e., whether the test was positive and the primary drug) was obtained directly from the laboratory contracted to analyze the urine specimens. The drug-test laboratory provided a monthly, computerized listing of all tests and results for each CYA parolee. From these files, the data for the study participants were extracted for use in monitoring the number of tests for each parolee (for auditing implementation) and for determining actual group differences in testing and drug test results. There were certain problems with the drug-test laboratory that resulted in missing data for one month early in the study (March 1993) and for an additional three months late in the study (April through June 1995). In addition, drug test *results* were found to be inaccurately reported for a fifteen-month period starting January 1994. The data on positive drug tests for the period from January 1994 through March 1995 were obtained from parole reports in the hard-copy Master Files.[13] Data from the (new) drug lab were complete again from July 1995 to the end of the study.

[13]Data on all positive tests noted in the files were recorded. For the period from the beginning of the study through December 1993, the data matched the drug lab data very well, indicating that the drug lab data were complete and that the parole files noted nearly all positive tests. Starting in January 1994, positive drug test results were not reported by the lab for most cases (shown as "negative" on the data file), although the dates of drug tests appeared to be reported accurately. In March 1995 the drug lab lost a bid to renew its contract for urinalysis and stopped submitting data altogether. For this period between January 1994 and March 1995, the data on positive drug tests were taken from the parole reports, which appeared very complete and accurate. The drug lab that took over the contract in July, 1995 reported drug tests and their results accurately and completely.

Parolee Status and Progress. Information on progress and important activities during parole were obtained from automated records and from parole reports contained in the wards' Master Files. From these sources, information on study-relevant "events," such as transfers to other units, AWOLs, arrests and other violations, detentions, jail sentences, deaths, discharges, and positive drug tests were recorded.[14] The study design called initially for obtaining this kind of information directly from parole agents in order to provide ongoing assessment of parolee status. This data collection effort, however, was not successful. The task group had recommended a separate form on which agents would record significant events and the actions taken by the agents in response to those events. Parole agents were responsible for completing a form for each relevant event; the forms were collected at least quarterly by project staff. Parolees transferred to another unit were followed-up to ensure that new agents were aware of the testing level and reporting responsibility. A copy of the data collection form is included as Appendix B. However, most events of interest (for example, arrests or AWOLs) typically took months to resolve. Most forms were submitted marked "pending." A review of the forms determined that the same information could be obtained more easily (and more accurately) from the parole reports to the Youthful Offender Parole Board. Completion of these reports to the YOPB was of much greater consequence, both to the parolee and to the parole agent, and were therefore more accurate and complete. The data collection forms were reviewed, however, for information not included in the agents' reports to the YOPB.

[14] Positive drug tests noted in parole reports were coded even though information on tests and test results were being obtained from the drug laboratory. These data became critically important when major flaws in the drug lab data were discovered.

The drug test data were used to determine whether the groups differed in the expected ways with respect to the numbers of tests. These analyses, however, had to take into account the "status" of each parolee during each month on parole to control for periods during which the drug testing requirements simply could not be met (the parolee was unavailable). The parolee was considered unavailable for testing if he/she was

- in *temporary detention* in a CYA facility for a minor parole infraction;
- in a CYA-operated Residential Drug Treatment Program;[15]
- *AWOL* (missing);
- *hospitalized* for an injury or health problem, or
- *in local custody* (prior to parole revocation proceedings or criminal prosecution or while serving a local sentence without parole revocation).

Information on these statuses was obtained from computerized records, which indicate changes in a parolee's "official" status and through coding of hard-copy Master Files.

Master File records were used to identify periods in which a parolee's unavailability was not accompanied by an official status. For example, parolees are declared officially "missing" or AWOL only by the Youthful Offender Parole Board. This process may occur weeks or even months after the last known contact with the parolee. For the purposes of documenting actual

[15] This condition was discovered through the auditing process. Certain parolees with dirty drug tests may (as one option) be sent to one of two 90-day residential drug treatment programs, during which they are not tested for drugs. This kind of "suspension" of the testing requirements could not be avoided without closing down the drug programs for lack of referrals. Still, it reduced the overall testing frequencies, and had the greatest relative impact on the group tested at the highest levels. This kind of movement into and out of the drug programs is not considered a "transfer" and so is not recorded in the CYA's computerized OBITS system. Data on participation in these programs was recorded from parole reports in the ward Master Files.

availability for testing, the parolee was considered missing from the date of the first unsuccessful attempt at contact until he/she was apprehended or otherwise returned from Missing status. Similarly, not all arrests and local incarcerations result in official status changes. Typically, parolees who are arrested have a parole "hold" placed on them so that they can be considered for revocation upon release from local custody. However, when these "holds" are in effect, the local custody counts against the parolee's total Available Confinement Time (ACT). In order to avoid using up all of a parolee's remaining ACT, holds are occasionally not placed (pending the outcome of the local action), and the local incarceration may therefore not be noted in the automated "status" file. The dates of these periods of non-official unavailability were also recorded.

The dates of the parole statuses were used to construct a data file indicating each parolee's status for each day from the date of parole to the date of parole removal (or 24 months, if the parolee was not removed by that time). The days, in turn, were used to determine proportions of time during each 30-day period when the parolee was in various statuses, including "available for testing." These data were used to calculate testing levels during available months.

Supervision level and contacts. Information on the assigned supervision level and the number of face-to-face and collateral contacts (with family members, friends, and employers) was obtained from the Case Review Summary (Appendix C). These forms are completed on each parolee twice during Re-entry and three times a year thereafter. They thereby provide an ongoing picture of parole supervision and progress. Each form includes the parolee's supervision level and the number of face-to-face and collateral contacts for the case-review period just ended.

Outcome Data

Primary outcomes of direct interest to this study were related to the hypothesized public safety benefits of testing: a reduction in criminal behavior and an increase in the number of offenders successfully completing parole.

As noted earlier, in the discussion of the theory of drug testing, the most direct and immediate hypothesized effect of drug testing (a reduction in drug use) was, unfortunately, not amenable to direct measurement. The only measure of drug use available to the study was the results of the drug tests themselves. These cannot be used to compare groups *in terms of actual drug use* because of the built-in differences in the ability to detect sporadic, occasional use. While regular, long-term patterns of use would probably be detected eventually at any of the levels of routine drug testing (two of the five groups are no-test groups after the initial Re-entry period), occasional use could easily be missed at lower levels of testing. Without a direct measure of actual drug use, the groups could not be compared on this outcome.

Criminality. Criminal behavior was measured in terms of arrests. California Department of Justice "rap sheet" information covering at least 42 months from parole release was obtained in automated form. These data were used to establish counts of arrest charges for various types

of offenses[16] covering the period of Parole (up to 24 months) and for standard 24-month and 42-month follow-up periods.

Arrest information has limitations for studying criminal behavior, but these limitations did not seriously compromise the present design. Arrests are not a direct measure of criminal behavior. Not all crimes result in arrest, and the probability of arrest is not the same for all types of crimes. Arrests therefore provide a somewhat reduced, biased picture of criminality. However, arrest data can still be considered adequate for assessing differences across the groups in this study. The fact that arrests are an incomplete measure of crime means only that it would be more difficult to identify a difference among the groups (a real difference in behavior might be missed). Using this measure, then, requires that differences in criminal behavior be fairly substantial in order to be found statistically significant. For policy purposes, such conservatism is probably an asset: It reduces the likelihood of discovering "statistically significant," but *trivial* differences. The bias introduced by using arrests is not a problem unless there is some reason to believe that the bias works differently across groups, either creating or hiding group differences. Since the groups were randomly assigned, whatever bias is at work should have affected each group similarly and therefore should not have adversely affected the group comparisons.

Parole adjustment. As an outcome, parole adjustment was measured in terms of the circumstances of each parolee's removal from parole. An index was created by combining

[16] Information on arrests of parolees is not routinely collected and stored in OBITS. While most arrest information is made available to agents supervising parolees and subsequently reported to the YOPB, the information is in narrative form and difficult to retrieve from the Master Files. Further, once a parolee is removed from parole, this reporting ends, and no other routine follow-up is currently performed. Consequently, standardized information on subsequent arrests must be obtained from rap sheets.

information on official parole removal (discharge or revocation), the parolee's status at discharge (in local custody, in adult prison, in federal prison, deceased, not on violation, etc.), the YOPB's evaluation of the parolee at discharge (honorable, general, or dishonorable discharge), and the parolee's status (from the status file, discussed above). The latter data were used to understand the parole adjustment of wards still on parole at the end of 24 months. Some parolees, for example, were officially on parole while actually being in local custody, "missing," or, in a few cases, in prison.

This index was further collapsed into general categories indicating Good Adjustment, Marginal Adjustment, and Poor Adjustment. Good Adjustment was defined as remaining on parole at the end of 24 months (but not in local custody, in prison, or missing) and by discharges not involving violations (honorable or general). Marginal Adjustment was defined as being missing at 24 months or revoked for technical violations of parole. Poor Adjustment was indicated by law violations resulting in parole removal or by incarceration at 24 months. These distinctions are discussed more fully in Chapter 4, where the results are presented.

Due to some ambiguities of meaning, less emphasis was placed on the results for these Parole Adjustment measures than on the results for the arrest data. The circumstances of parole removal may not provide a clear picture of the behavior of the parolee. For example, the most straightforward indicator of good parole adjustment might be "honorable discharge." In order to receive an honorable discharge, the parolee must be adhering to all conditions of parole and making a solid attempt to lead a pro-social and law-abiding lifestyle. These discharges are given to parolees who are felt to constitute the least threat to public safety in the future. Few parolees adjust well enough on parole to receive honorable discharges. Other outcomes in the "Good Adjustment" category, such as general discharge or "still on parole," are less indicative of pro-

social behavior. General discharges are given to parolees who are staying out of trouble, but who otherwise are not making much effort to find employment, go to school, or establish stable relationships with family and non-criminal associates. Remaining on parole may be an indicator that a parolee is not getting into trouble (a "good" outcome) or that the agent is reluctant to recommend discharge (due to Marginal Adjustment). These distinctions could not be made with the present data. Thus, unless otherwise indicated, such as being in local custody, parolees still on parole at 24 months were assumed to be adjusting well enough to warrant placement in the Good Adjustment category, even though there was undoubtedly a range of adjustment underlying that "outcome."

On the other side, revocations or discharges for law violations are somewhat ambiguous measures of *poor* adjustment as well. These parole outcomes are determined by actions of the Youthful Offender Parole Board as they review available information about alleged criminal behavior by parolees and decide on an appropriate parole response. There are a number of situations where criminal behavior by parolees does not result in removal for a law violation and others where parolees are removed for law violations despite a failure to prosecute or convict by local authorities. Many of these reasons have more to do with the options available to the YOPB and the CYA for future handling of the parolee than with an assessment of the merits of the case.

The meaning of certain specific outcomes, such as revocations of parole for technical violations, is also unclear. These parole removals are often considered a form of "treatment," which in this case could be in response to a dirty drug test. From this perspective, a parolee is revoked if the drug use is considered an indicator of a return to criminal (or simply irresponsible) behavior patterns before they escalate to a level that seriously threatens public safety. An increase in this form of "treatment" would necessarily reduce the number and proportion of

parolees removed from parole in other ways. Indeed, technical revocations for drug use may simply be a convenient way of removing from supervision those parolees who would probably be removed for other reasons in the absence of an indication of drug use.

For these reasons, less emphasis was placed on the results of analysis of these outcomes than on the results for arrests.

Process Data

Process data were used to assess whether differences in drug testing were associated with expected differences in certain "intermediate outcomes," such as detection of drug use, identification of substance abuse problems, assessments of service needs, and referrals to drug treatment programs. Analysis of these data focused on the theoretical model of how drug testing would affect the behavior of offenders on parole.

Parole Agent Assessments. Information on the parole agents' ongoing assessment of the parolee was obtained from Parole Classification System forms, which are part of the Case Review Summary (Appendix C) discussed earlier (under Implementation Data). This instrument includes parole agent assessments of parolees' needs for service along a number of dimensions along with several indices of parole adjustment (gang activity, arrests, employment, and drug use). These data were used to compare groups in terms of their perceived substance abuse problems and other problems. Of interest was an understanding of how drug test data were used by agents--in particular, whether positive drug tests led to perceptions of parolees as having substance abuse problems and/or whether dirty tests led to treatment or sanctions.

Responses to Drug Tests. Responses to positive drug tests were not recorded directly. Attempts to gather this information through having parole agents record information on study-relevant "events" failed, as discussed above. Positive drug tests rarely occurred independent of other adjustment problems, and it became impossible to isolate actions that were in response specifically to drug test information. Consequently, responses were inferred from changes in parole status occurring during the months following a dirty drug test. Parole status data were described earlier.

Analysis

Implementation Analysis

Implementation of the study was assessed by whether the groups were as similar as possible at the outset of the study, whether they differed in the amount of drug testing they received, and whether they were otherwise treated similarly on parole.

Initial similarity. The establishment of equivalent groups was the goal of random assignment. This similarity, again, makes it possible to assume that the group outcomes would be similar if the groups were treated the same while on parole. Differences in outcome can then be attributed to differences in treatment during parole (in this case, differences in drug testing).

Drug testing differences. As explained above, drug testing differences were assessed by comparing the average number of tests per month for those months in which the parolees were available for testing. The interest was in the level of compliance during those months in which compliance could reasonably be expected. Availability was operationally defined as being available 75% of the time during a particular month. This level was chosen as a reasonable amount of time in which agents could conduct the required number of drug tests.[17] For these analyses, drug tests occurring during "unavailable" months were ignored.

Other differences in supervision. Attributing outcome differences to drug testing differences also requires the absence of other possible "treatment" differences. While some differences in treatment, such as differences in drug treatment, might be expected as a natural

[17] Analyses were also performed using less restrictive definitions of availability, with similar results, in general. Overall testing rates were lower, however, due to the inclusion of more "available" months in which no drug tests were performed.

consequence of differences in drug testing, general differences in overall supervision were not supposed to differ across groups. Differences in supervision levels and/or face-to-face contacts with parole agents could produce differences in outcome independent of drug testing. Accordingly, average supervision levels and numbers of parole contacts for case-review periods were compared across groups.

Outcome Analysis

Outcome analyses primarily involved simple comparisons of outcome measures (means or proportions). Multivariate regression-type models were used to control for possible group differences and to evaluate possible differential effects for subgroups of offenders. Survival models were also used to make full use of available follow-up information and to estimate group differences in *when* failures occurred.

The use of an experimental design, in which participants were assigned to groups on a random basis, meant that the groups were essentially equivalent except for drug testing levels. Group outcomes could therefore be compared in a straightforward way. Comparisons focused on the proportions with arrests of various kinds and on the proportions with various levels of parole adjustment. Statistical significance of the observed differences was assessed using standard (Chi-square) tests of significance. Group differences were considered "significant" if they reached the 5% probability level ($p < .05$). This level indicates the probability that differences as large as those found in the data would be found even if there was no difference related to drug testing: that the random sampling produced these differences simply by "chance." Typically, a one-in-twenty (or .05) probability level is used to indicate that the group difference

reflects a "real" effect, rather than a chance occurrence. To provide a broader picture of the outcomes, however, significance levels were also reported for group differences which reached the 10% probability level ($p < .10$).

Other comparisons focused on differences among groups in the numbers of arrests of various kinds during specific follow-up periods. Due to the extreme skewness of these variables, standard statistical methods (ANOVA) were applied only to log-transformed data.[18] As with the analysis of proportions, the statistical significance was reported for differences at the $p < .10$ level.

Of course, no system of random assignment will perfectly equate groups, and they could differ in terms of combinations of important characteristics that could affect outcomes. Consequently, standard multivariate regression-type methods, including ordinary least squares (OLS) regression and logistic regression, were used to control for the effects of background variables. The dependent variable in some of these analyses was dichotomized as success/failure, with "failure" defined as having any arrest during the follow-up period, having any violent arrest, etc. In other analyses, the dependent variable was the number of arrests, using log-transformed variables in OLS regressions and arrest counts in *negative binomial Poisson regression models.*[19] Independent variables were the background variables and group

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[18] This is a common technique for reducing the skewness of data in preparation for parametric analysis, which assumes a "normal' (i.e., bell-shaped) distribution of the variables (Cohen and Cohen, 1975, Agresti and Finlay, 1986). The transformation involves taking the natural logarithm of the variable, after adding a constant (in this case, the value "one").

[19] These methods, which were developed for analyzing data in the form of "counts," have been argued to be most appropriate for analyzing data that is distributed the way numbers of arrests are (Long, 1997). The application of these methods to criminal justice data is relatively recent, however, and standard statistical analysis software packages (e.g., SPSS) generally do not include them. The analyses for this report were performed by Mike Ezel and Amy D'Unger, graduate students in Sociology at Duke University. Software for applying these models to criminal justice data was developed by Kenneth Land, Duke University, Daniel Nagin, Carnegie-Mellon University, and William Greene, New York University.

membership variables. Categorical (and ordinal) independent variables were entered as dummy variables to obtain estimates for each characteristic (group membership, ethnic category, etc.).

Various measures of outcome were also analyzed using survival models (Maltz, 1984; Linster, Lattimore, and Visher, 1990). Survival models focused on time to failure, as defined by first arrest, parole removal, first violent arrest, etc. These models provide both a way to maximize efficiency, by making use of all available follow-up data, and a way to incorporate time-sensitivity into the understanding of how outcomes were affected by drug testing.[20]

Process Analysis

In an effort to understand the role of drug testing in parole, analysis focused on the awareness of, and response to, positive drug test results. Using data on drug test results, identified "service needs" for parolees, and parole status over the periods following positive drug tests, these analyses addressed such questions as whether increases in drug testing led to better identification of drug use (more positive tests), whether positive tests led to the identification of parolees as having substance abuse problems, and whether certain actions followed positive drug tests.

The intent of these analyses was to understand whether the "model" underlying the hypothesized effect of drug testing on public safety was valid: whether higher levels of drug testing produced higher levels of detection and responses (sanctions and treatment), *setting the*

[20] Survival models increase efficiency because they do not require that all members of the sample have the same follow-up time. Since the sample consists of cases paroled over the course of ten months, follow-up times varied by at least ten months for participants. Because the unit of analysis in survival models is *time to failure* or, in the absence of failure, *time to the end of observation* (which is defined as a censoring event), all of the available follow-up data can be used in the analysis.

stage for lowered drug use and future deterrence from drug use. *Actual* deterrence could not be assessed in these analyses because the study did not have a direct, independent measure of drug use. Thus, it was impossible to tell whether increased drug tests led to lower drug use.

Exploratory Analysis: The Predictive Value of Drug Test Results

In addition to assessing whether higher levels of drug testing levels in regular parole produced positive differences in outcomes, the study looked at the potential risk-assessment value of drug testing, especially early in parole: the predictive value of substantiated drug use. Exploratory analyses of these data focused on whether the results of the tests during the early period of parole (Re-entry) helped predict later arrests. Predictive value of positive drug tests would suggest uses of drug testing beyond its presumed effect on the behavior of the parolee.

Chapter 3
Implementation

As explained in the previous chapter, this study was designed to provide the most meaningful information possible about drug testing in parole. It was designed to assess differences in outcome (if any) for comparable groups that differed in the amount of drug testing but not in other aspects of supervision. To be successful, it had to meet three criteria:

- The groups had to be comparable. If the study design failed to produce groups that were equivalent, outcome differences could not be attributed to differences in drug testing alone. Differences in background characteristics would have to be "taken into account" (if possible) through statistical means in order to estimate differences in outcome resulting from the drug testing differences.
- The groups had to differ in the amount of drug testing. If the study design failed to produce differences in drug testing, there would be no basis for attributing outcomes to drug testing differences.
- The groups had to be treated similarly otherwise. If the study design failed to control for other differences in parole supervision that might be expected to vary with drug testing, such as contact or supervision levels, it would be impossible to sort out the relative contributions of drug testing from those other factors.

Analyses of descriptive data across groups, drug test information, and supervision levels suggest that the study was, in fact, implemented as designed. The random assignment procedures produce groups that were equivalent in all major respects. The groups were tested at

different levels throughout parole, although the magnitude of the differences was less than anticipated from the design. Other aspects of supervision, such as the number of contacts, did not differ across groups. By these criteria, the study was an overwhelming success, and stands as one of the few successful large-scale experimental studies of correctional interventions.

Comparability of Groups

The Sample and Group Assignments

It was initially estimated that approximately 44% of parole releases would be excluded, providing a net one-year total sample of just over 2,000 parolees. The actual percentage of exclusions was lower anticipated (32.9%), and the goal of 2,000 (actually 2,107) cases was reached after only ten months. A final audit resulted in the elimination of 149 cases for a variety of reasons, reducing the final sample to 1,958 cases (Figure 3). This final sample was divided, as planned, into the five groups, with actual sample sizes very close to the expected sample sizes..

Some of the 149 cases were entered twice (for example, by supervisors and assistant supervisors or by two units involved in early transfers). Others *should* have been *excluded,* due to lack of remaining jurisdiction time and/or available confinement time (ACT) at release, but were missed by the supervisors. Others were deported soon after release or belatedly identified as having been part of other CYA programs requiring special parole handling. Audits determined that only a handful of cases were excluded (or included) in error and that these cases typically involved clerical errors or misunderstanding of the criteria. No instances of intentional attempts to undermine the assignment process were discovered.

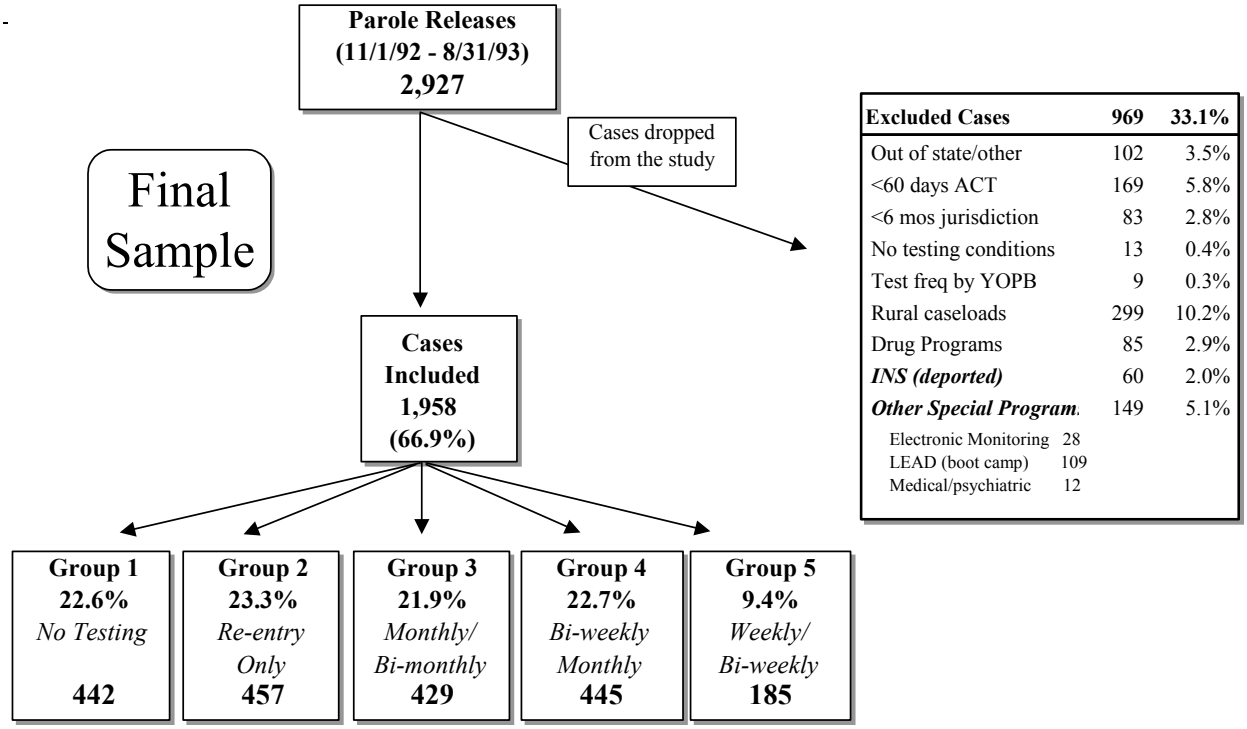

Figure 3: Final sample sizes and exclusions.

Representativeness of the Sample

Comparison of the sample with all CYA parole releases during that period shows the sample differed in certain ways, due primarily to the exclusion of parolees living in outlying rural areas: Rural counties tend to be predominantly white and tend to commit a higher proportion of property offenders to the CYA. An analysis of the reasons for exclusion by parole office showed that units covering predominantly urban areas had 76% of their releases included in the study, compared to 59% for units covering large rural areas of the state.

Table 1 shows characteristics of the sample included in the study, along with characteristics of all cases released to parole during the period of sample selection. A total of 2,927 cases were released between October 1, 1992 and August 31, 1993; of these, 969 were

excluded from the study and the remainder (1,958) were assigned to one of the five testing levels. These data indicate that the study sample and the excluded group differed in terms of both ethnicity and commitment offense.

Ethnic breakdowns show that the parole releases were roughly 18% white, 38% Hispanic and 38% African American, with a small number (7%) of other ethnic groups (primarily Asians). The excluded group was 27% white and only 31% African American. Overall, 45% of the parole releases had been committed for a violent offense, but only 35% of the excluded group were violent offenders.

In general, the sample is most representative of young adult, urban offenders with extensive criminal histories, and currently on parole for serious, violent offenses. The findings should have the greatest implications for parole involving these kinds of offenders.

Similarity of Groups

The strength of experimental designs is that they permit direct comparisons across groups. By randomly assigning cases to groups, the experimental study attempts to make the groups equal with respect to characteristics that might influence outcomes independent of the factor being studied. If this equality is achieved, all of the groups would be expected to show the same outcomes if they were treated the same. Differences in outcomes can therefore be attributed to differences in treatment--in this case, to differences in drug testing levels.

Table 1
Characteristics of Sample and Excluded Cases

	Study Status					
	Excluded		In Study		Total	
	N	%	N	%	N	%
Total Cases	969		1,958		2,927	
Age:						
12			1	0.1%	1	0.0%
13			2	0.1%	2	0.1%
14	1	0.1%	9	0.5%	10	0.3%
15	10	1.0%	30	1.5%	40	1.4%
16	45	4.7%	126	6.4%	171	5.8%
17	125	13.0%	279	14.2%	404	13.8%
18	207	21.4%	437	22.3%	644	22.0%
19	175	18.0%	478	24.4%	653	22.3%
20	250	25.7%	310	15.9%	560	19.1%
21	41	4.3%	106	5.4%	147	5.0%
22	38	3.9%	85	4.3%	123	4.2%
23	33	3.3%	63	3.3%	96	3.3%
24	44	4.6%	32	1.6%	76	2.6%
Ethnicity:						
White	261	27.1%	263	13.4%	524	17.9%
Hispanic	351	36.1%	753	38.5%	1,104	37.7%
African American	299	30.9%	800	40.8%	1,099	37.5%
Other	58	5.9%	142	7.3%	200	6.8%
Sex:						
Male	936	96.6%	1,894	96.7%	2,830	96.7%
Female	33	3.4%	64	3.3%	97	3.3%
Commitment Offense:						
Violent	337	34.6%	989	50.5%	1,326	45.3%
Property	422	43.8%	668	34.0%	1,090	37.2%
Drug laws	135	14.0%	237	12.1%	372	12.7%
Other law	75	7.6%	64	3.4%	139	4.7%

Random assignment is not always perfect, however, especially when small samples are used. Sometimes unwanted differences in groups are obtained in spite of the best experimental efforts. Statistical tests provide a method for assessing the likelihood that differences found between the groups are small enough to fall within the range of differences that would normally be expected when groups are randomly assigned--that is, that they could have occurred simply due to "chance." The more similar the groups are in terms of background characteristics, the more confidence can be placed in the success of the random assignment process and in the direct comparability of the groups. The same statistical tests can then be used to determine whether differences in outcome are greater than would be expected simply on the basis of chance sample differences. Outcome differences that fall outside the normal range of expected variation (that are statistically significant) are typically interpreted as occurring as a result of known differences in treatment among the groups.

The characteristics of the five testing groups are shown in Table 2. Differences among the groups on these characteristics are minor and are not statistically significant. These data indicate that the random assignment procedure worked as planned, producing groups that appear to be, statistically speaking, equivalent with respect to important characteristics brought with them to the experiment.

Included on this table are a detailed breakdown of the commitment offenses and the average numbers of prior arrest charges for each of the groups. These data reinforce the observation that these are serious young offenders with long histories of criminal behavior. Only 12.1% of these parolees were committed to the CYA for drug offenses. They averaged nearly 12 prior arrest charges each, with less than one of these, on average, being a drug charge.

Table 2
Final Sample Characteristics by Group Assignment

	Group											
	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Total	442	100%	457	100%	429	100%	445	100%	185	100%	1,958	100%
Age at Release												
16 or less	37	8.4%	50	10.9%	40	9.3%	31	7.0%	10	5.4%	168	8.6%
17	57	12.9%	62	13.6%	66	15.4%	66	14.8%	28	15.1%	279	14.2%
18	99	22.4%	96	21.0%	91	21.2%	108	24.3%	43	23.2%	437	22.3%
19	106	24.0%	113	24.7%	106	24.7%	105	23.6%	48	25.9%	478	24.4%
20	73	16.5%	71	15.5%	68	15.9%	70	15.7%	28	15.1%	310	15.8%
21 or older	70	15.8%	65	14.2%	58	13.5%	65	14.6%	28	15.1%	286	14.6%
Ethnicity												
White	60	13.6%	65	14.2%	65	15.2%	52	11.7%	21	11.4%	263	13.4%
Hispanic	168	38.0%	171	37.4%	175	40.8%	172	38.7%	67	36.2%	753	38.5%
African American	181	41.0%	187	40.9%	160	37.3%	187	42.0%	85	45.9%	800	40.9%
Other	33	7.5%	34	7.4%	29	6.8%	34	7.6%	12	6.5%	142	7.3%
Sex												
Male	430	97.3%	437	95.6%	417	97.2%	430	96.6%	180	97.3%	1,894	96.7%
Female	12	2.7%	20	4.4%	12	2.8%	15	3.4%	5	2.7%	64	3.3%
Commitment Offense												
Violent	**214**	**48.4%**	**237**	**51.9%**	**210**	**49.0%**	**239**	**53.7%**	**89**	**48.1%**	**989**	**50.5%**
Homicide	11	2.5%	11	2.4%	10	2.3%	14	3.1%	5	2.7%	51	2.6%
Rape	11	2.5%	7	1.5%	7	1.6%	5	1.1%	2	1.1%	32	1.6%
Robbery	79	17.9%	113	24.7%	93	21.7%	111	24.9%	44	23.8%	440	22.5%
Assault	111	25.1%	105	23.0%	97	22.6%	107	24.0%	37	20.0%	457	23.3%
Extort/Kidnap	2	0.5%	1	0.2%	3	0.7%	2	0.4%	1	0.5%	9	0.5%
Property	**162**	**36.7%**	**152**	**33.3%**	**140**	**32.6%**	**137**	**30.8%**	**66**	**35.7%**	**657**	**33.6%**
Burglary	69	15.6%	68	14.9%	64	14.9%	55	12.4%	26	14.1%	282	14.4%
Auto theft	56	12.7%	55	12.0%	49	11.4%	58	13.0%	27	14.6%	245	12.5%
Theft (exc. auto)	37	8.4%	29	6.3%	27	6.3%	24	5.4%	13	7.0%	130	6.6%
Drug	**50**	**11.3%**	**47**	**10.3%**	**59**	**13.8%**	**54**	**12.1%**	**27**	**14.6%**	**237**	**12.1%**
Other	**16**	**3.6%**	**21**	**4.6%**	**20**	**4.7%**	**15**	**3.4%**	**3**	**1.6%**	**75**	**3.8%**
Arson	2	0.5%	3	0.7%	3	0.7%	2	0.4%	1	0.5%	11	0.6%
Sex Offenses (exc. Rape)	5	1.1%	12	2.6%	6	1.4%	4	0.9%	1	0.5%	28	1.4%
Other Offenses	9	2.0%	6	1.3%	11	2.6%	9	2.0%	1	0.5%	36	1.8%
Prior Arrest Charges												
Total		12.3		11.5		12.0		11.5		12.7		11.9
Violent		2.9		2.6		2.8		2.7		3.0		2.8
Property		4.0		3.6		3.7		3.7		3.9		3.8
Drug		0.9		0.9		0.8		0.9		0.9		0.9
Other		4.5		4.4		4.7		4.3		4.9		4.5

Note: Chi-square tests or ANOVAs on logged variables were performed. Differences among groups were not statistically significant.

Differences in Drug Testing

Drug testing levels were assessed for periods in which the parolees were available for testing (i.e., not missing or in custody). The results showed significant, and substantial, differences among the groups. However, there was a great deal of variation in testing levels within the groups, and the overall group differences did not reach the expected levels.

Ongoing monitoring and auditing revealed that most parole agents made a concerted effort to test at the assigned levels. The failure to achieve the expected levels of testing was determined to be the result of a number of factors, including parole agent reductions and absences (leaving temporarily unsupervised caseloads), peculiar circumstances that prevented routine testing (such as placement in short-term residential programs), and errors.

Availability for testing

As mentioned above, the testing information from the drug-testing laboratory was used to establish the testing levels of the groups, taking into account the availability of each parolee for testing during each month on parole. These analyses focused on those months during which parolees were available for testing at least 75% of the time--still on parole and not

- in *temporary detention* in a CYA facility for minor parole infractions;
- *AWOL* (on missing status);
- in a *90-day residential drug treatment programs operated by the CYA;* or
- in *local custody* (awaiting parole revocation proceedings or serving a local sentence without parole revocation).

Table 3
Availability of Groups for Testing Over 24 Months

	Group					
	1	2	3	4	5	Total
Total Cases	442	457	429	445	185	1,958
Availability for Testing (75% of Month)						
1+ Month Available	419	437	404	420	177	1,857
Percent of Cases	94.8%	95.6%	94.2%	94.4%	95.7%	94.8%
Months Available	4,383	4,472	4,243	4,028	1,591	18,717
Average (for cases with any availability)	10.5	10.2	10.5	9.6	9.0	10.1

The number of available months by this criterion ranged from zero through 24, with an average of 10.1 for the full sample. The distribution of available months by group is shown in Table 3. Small differences in availability--the proportion without any available months and the average number of months available--were not statistically significant.

Drug tests

A comprehensive summary of the drug testing administered to the five groups is shown in Table 4. This summary includes the number of cases who were tested in each group, the *expected* level of testing, given the study protocol, and the actual level of testing. Statistics are provided separately for the full 24-month study period and for the Case-management period, when the testing levels were expected to level off and remain constant.[21]

[21] As explained in Chapter 2, assigned drug testing levels were higher during the first three months of parole (the "Re-entry" period) than for the remaining 21 months (the "Case-management" period).

Proportion Tested. According to the study design, all members of Groups 2 through 5 were to be tested at least once and none of the Group 1 cases were to be tested except after an arrest or violation leading to parole removal. The data in Table 4 show that over the full 24-month period, virtually all the cases in the "testing" groups (3 through 5) who were available for testing at least one month were tested. A few cases went without tests, mostly due to short times before parole removal. Similar results were found for the Case-management period for all three of these groups.

Almost one in four of the cases in Group 2 were not tested, mostly due to limited availability for testing during the Re-entry period, the only time these cases were to be tested. Over half (53.7%) of the 97 Group 2 cases who were not tested during Re-entry had one month or less during which they were available for testing. During Case-management, none of the Group 2 cases were supposed to be tested; however, 44% of these cases were tested at least once. This relatively high figure suggests that some agents developed an expectation of testing for these cases that carried over from Re-entry to Case-management. These cases, too, were retained in the sample and all analyses.

A certain number of the Group 1 ("No test") cases were also tested during the study period. Over a third of this group (141 cases, or 33.7%) was tested at least once during parole, accumulating 356 tests over this period. Of these cases

- five were tested only after an arrest which did not lead to parole removal (a condition which was allowed by the study protocol);
- five more were tested a great deal (ten or more times), indicating that the agent simply did not treat the case as a "study" case;

Table 4
Summary of Drug Tests During Months Available for Testing[a]
By Group

	Group					
	1	2	3	4	5	Total
Total Cases	442	457	429	445	185	1,958
Cases Available at Least One Month	419	437	404	420	177	1,857
Re-entry and Case-management						
Cases Tested at Least Once	141	340	360	389	167	1,397
Percentage of Available Cases	33.7%	77.8%	89.1%	92.6%	94.4%	75.2%
Expected Tests (over available months)	-	398	2,575	4,985	3,972	11,930
Average per Available Month	-	0.09	0.61	1.24	2.50	0.64
Actual Tests	356	943	2,003	2,840	1,812	7,954
Percent of Expected Tests	-	236.9%	77.8%	57.0%	45.6%	66.7%
Average per Available Month**	0.09	0.31	0.53	0.80	1.35	0.52
Average Total Tests**	0.81	2.06	4.67	6.38	9.79	4.06
Case-management Only						
Expected Tests	-	-	1,669	3,071	2,392	7,132
Average per Available Month	-	-	0.50	1.00	2.00	0.49
Actual Tests	271	460	1,341	1,744	1,079	4,895
Percent of Expected Tests	-	-	80.4%	56.8%	45.1%	68.6%
Average per Available Month**	0.09	0.16	0.41	0.55	0.89	0.35

[a] Availability defined as being on the street at least 75% of the days (23 days of each 30-day month).
** $p < .01$

- 73 (52%) were tested only once during parole; and,
- 64 (45% of these cases and 14% of all Group 1 cases) were tested occasionally.

While these figures are troubling, they do not indicate a wholesale disregard of the study or suggest that the study was invalid. For the most part, they seem to reflect the difficulty of not testing parolees who have conditions of parole prohibiting drug use and parole conditions

permitting drug testing. Under these circumstances, the parolees and their parents *expected* drug testing, and agents were often called upon to justify their reasons for not testing. In discussing these awkward situations, agents stressed issues of "credibility" and the importance of responding to the well-meant concerns of family and friends:

> If you do not test the kids, they think that you are not doing your job, because they know they are supposed to be tested. They think you are letting them do whatever they want, and that might give some an excuse to shuck on their other responsibilities too.
>
> Often the parents will call you and ask why you are not testing the kid because they say they know the kid is using drugs. You cannot tell them about the study rules.
>
> They sometimes wondered why they weren't being tested. We would then have to beat around the bush.

None of these erroneously tested cases was eliminated from the analysis. It must be assumed that they were selectively chosen for testing, based on admitted drug use, parental concern, or attitude toward supervision. Removing them would bias the sample and defeat the purposes of the random assignment process (Farrington, 1983). Further, as discussed in the next section, the overall testing levels for the groups remained considerably different despite these problems. However, these implementation problems required some refocus of the study away from the effects of drug testing on individual parolees and more toward the effects of drug testing policies in general, as discussed below.

Testing levels. Differences in overall testing levels were evaluated primarily in terms of the individual testing rate for each study participant over those months during which the parolee was available for testing at least 75% of the time. This rate was calculated for each individual participant by dividing the total number of tests during available months by the total number of available months. Separate calculations were made for the full 24-month study period (Re-entry

and Case-management) and for the Case-management period alone, where the testing levels were to stabilize and remain constant. Using this criterion, some months during which tests were performed were ignored in the analysis.[22]

Also shown in Table 4 are the simple average number of tests for members of each group and the *expected* number (and average) of tests for each group. The expected number of tests was calculated for each individual, based on the number of months he or she was available for testing and whether those months were during the Re-entry period or the Case-management period. These expected tests were then summed and averaged across those cases who were available for testing at least one month during the period of interest. The expected tests were used as a guide for evaluating the actual number of tests for each group. For example, for the full study period, there were 177 cases in Group 5 who were available for testing at least one month. Of these, 167 (94.4%) were tested at least one time during that period. If all of these Group 5 cases were tested according to the design, they would have accumulated 3,972 tests during the 1,591 months (from Table 3) that they were available for testing. On average, they would have been tested 2.50 times per month each. In actuality, these cases accumulated a total of 1,812 drug tests during the months when they were available for testing. The average tests per available month averaged 1.35 tests per month for Group 5 members. Over all the available months during parole, the Group 5 cases averaged 9.79 tests each.

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[22] This criterion resulted in eliminating 902 drug tests from the analysis because they occurred during months when the parolee was not available 75% of the time. Although the nature of these tests was not investigated, it is likely that many, if not most, occurred when the parolee was taken into custody, either for a law violation or as a prelude to revocation proceedings. Average testing levels calculated using all tests and any month during which the parolee was available at all were attenuated, but showed similar, and statistically significant differences across groups.

As shown in Table 4, differences in drug testing levels were not as great as expected from the study design, but were different enough to be statistically significant. Across groups, the average numbers of tests was *expected* to range from zero (for the no-test group) up to 2.5 per month (for Group 5) during the study period. *Actual* tests per month ranged from .09 for Group 1 to 1.35 for Group 5. Although they were not at the expected level, however, these differences were found to be statistically significant at the $p < .01$ level (less than one time per hundred would a difference that great be expected as the result of "chance"). The magnitude of these differences is shown in Figure 4. Thus, although the differences were not as large as initially planned, the groups differed significantly in the amount of drug testing they received. These differences are more clearly indicated by the average numbers of tests across all available months for the whole study period. These ranged from less than one test each (.81 tests) for Group 1 to almost ten (9.79) tests each for Group 5.

During Case-management, testing was supposed to settle into a routine of one test every two months, one test per month and two tests per month for Groups 3, 4, and 5, respectively. The data in Table 4 show that these levels were not met. The actual testing rates (average tests per month) ranged from .09 for Group 1 to .89 for Group 5. The overall number of tests given to Group 3 was close to (80.4% of) the expected number. Group 4, however, was given only 56.8% of the expected number of tests, and Group 5 was tested less than half the expected number of times (45.1%). Again, however, the average testing levels differed significantly across groups.

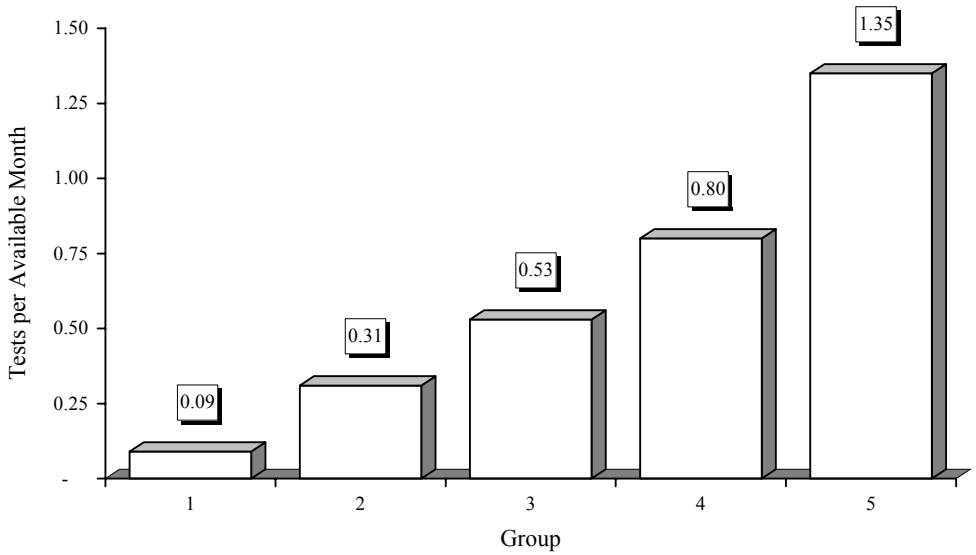

Figure 4: Average tests per available month (individual testing rates) over the full study period.

These group differences in testing, moreover, tended to be consistently applied throughout parole. It is often the case with long-term policy experiments that changes in practices and procedures gradually erode over time, so that eventually the groups are not treated differently at all. Drug testing rates were calculated for each month of parole by combining all tests for the parolees in each group who were available for testing that month and then dividing by the number of parolees. As shown in Figure 5, drug tests were highest for all groups in the first month of parole, decreasing through the next two months to the Case-management levels shown in Table 4. Group differences were also greatest during the Re-entry period and quickly settled into a relatively consistent pattern of group differences for the remainder of parole. These data reinforce the conclusion that the groups were, in fact, tested at different rates during their paroles.

Audits and interviews with parole agents suggested that the failure to reach and maintain anticipated levels had more to do with the practical difficulties of maintaining particular, pre-defined testing levels than it did with good faith efforts to comply with the study protocol. Due to the nature of parole work, parole agents are somewhat constrained in their ability to vary its constituent pieces, which must "fit together" into a consistent whole.[23] The concept of re-integration suggests a gradual relaxation of requirements as parolees demonstrate that they can function on their own. Just as the agents had to "explain" their not testing those Group 1 and Group 2 cases who were suspected of drug use, so too they felt called upon to justify continued testing of parolees with no evidence of drug use. Other aspects of parole supervision could be modified in response to good behavior on parole, but for research purposes, the drug testing had to go on. If the parolee was aware that other parolees were being tested at different levels and/or that the agent was responding to other parolees' behavior, credibility could be threatened.

Thus, even the relatively small differences in observed levels of testing in this study were often difficult to maintain. That these levels differed as much and consistently as they did attests to the professionalism of the agents in adhering to the study protocols, simultaneously maintaining several different (and arbitrary) pre-assigned levels of drug testing in the context of their routine parole supervision.

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[23] Similar difficulties were noted by Maupin in relation to implementing a classification system to establish supervision levels for juvenile parolees based on risk of reoffense (Maupin, 1993). Maupin argued that the discretion of parole agents (who he refers to as "street-level bureaucrats") severely limits the prospects for increased efficiency and equity of treatment based on standardization. This study's results and interviews with agents suggest a much more cooperative attitude among agents than is implied in Maupin's characterization.

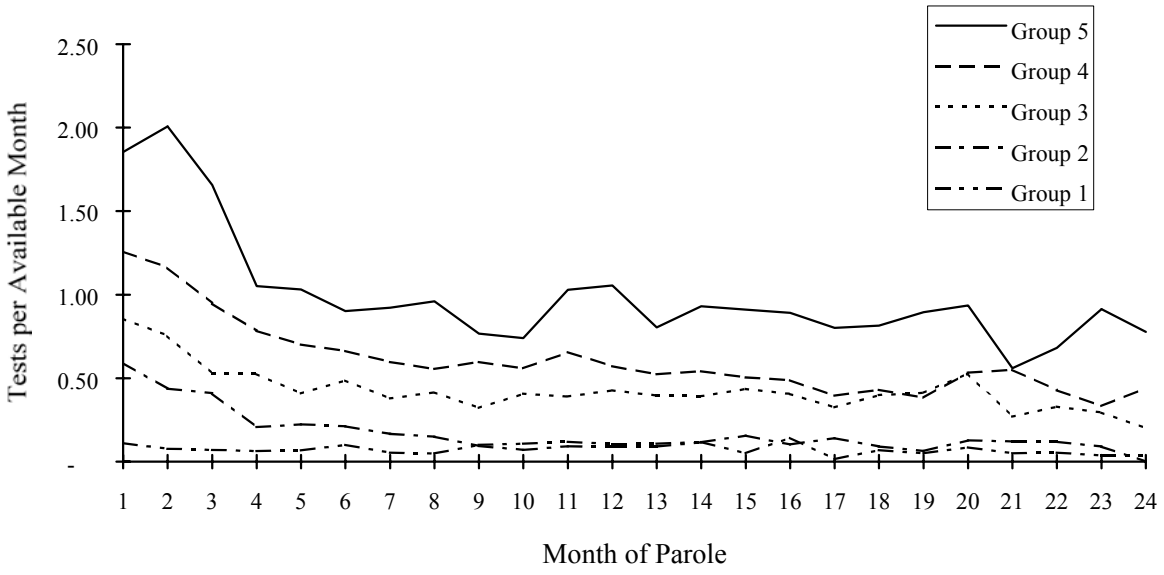

Figure 5: Average tests per month for parolees available for testing at least 75% of the days, by group.

The failure to achieve the desired levels of drug testing may have also been due, in part, simply to resource constraints. Because of the fact that some parolees were entering the study each month while others were leaving (due to revocation or discharge) it was impossible to estimate how many of the "study" parolees would be on parole at any one time and therefore how many drug tests would be required to maintain the testing levels according to the design. Drug testing resources, in the form of a contract for drug test analyses, are determined six months prior to the beginning of each fiscal year, based on estimated need and other budget priorities. The drug test budgets for the 1992-93 and 1993-94 fiscal years (when this study was

going on) were about $175,000. At about $5.00 per test, these budgets allowed for approximately 3,000 drug tests per month over that period. During this time, there were approximately 6,000 wards on Youth Authority parole. The average number of tests that the budget could support was thus about 0.5 per month. On Table 4, the overall average expected number of tests for the sample is shown as .64 tests per month, which is higher than the average allowed for by the budget. To test the study parolees at the correct level, in other words, would have required that agents and supervisors refrain from testing non-study parolees at the average level.

The average number of tests actually given the parolees in the study was .46 (Table 4), which is very close to the overall average that the testing budget would support. It would appear that the study was adapted to the constraints of the budget, with testing allocated differentially across groups, but with a compressed range. Fitting the study to the lower-than-needed budget required that the higher testing levels be lowered. This adaptation would not have to have been conscious, however.[24] The budget may have *indirectly* affected the testing levels by affecting the common set of practices and accepted procedures of the local, street-level unit (Lipsky, 1980;) against which the expectations of the new policy—the study—would be evaluated (McCleary, 1992; Maupin, 1993). In other words, the perceived reasonableness of the testing levels required by the study would be evaluated relative to the overall testing frequency for other parolees. The "reasonableness" of testing a parolee twice per month, for example, would seem different if all parolees were tested once a month, on average, than if they were

[24] In discussions with parole agents, supervisors or administrators, the issue of not having enough resources to accommodate the study never arose as a conscious problem.

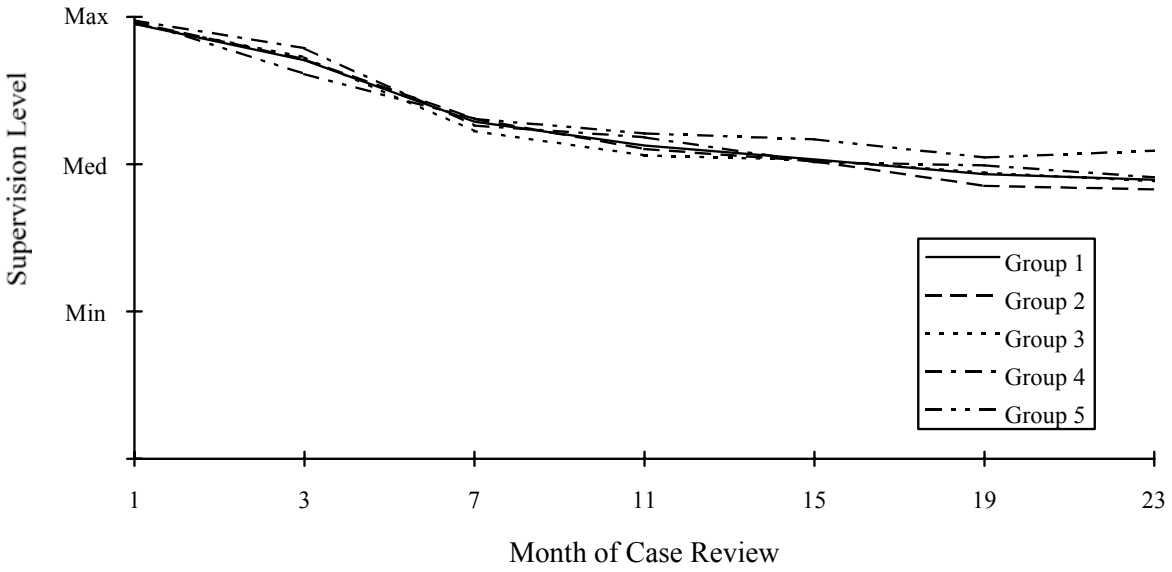

Figure 6: Average supervision level for case review period by group.

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tested only once every two months, on average. It should probably not be surprising, then, that the average testing level for the parolees in the study matched the overall average testing level supported by the Youth Authority budget over this period.

Similarity in Other Aspects of Supervision

Differences in supervision levels or contacts may affect outcomes in addition to, instead of, or in ways opposite to, the effects of drug testing alone. Whatever the nature and direction of their effects, such differences would make it impossible to determine the independent effects of drug testing. It was important, therefore, to establish that the differences in drug testing were not accompanied by differences in these other aspects of parole supervision. Differences may have

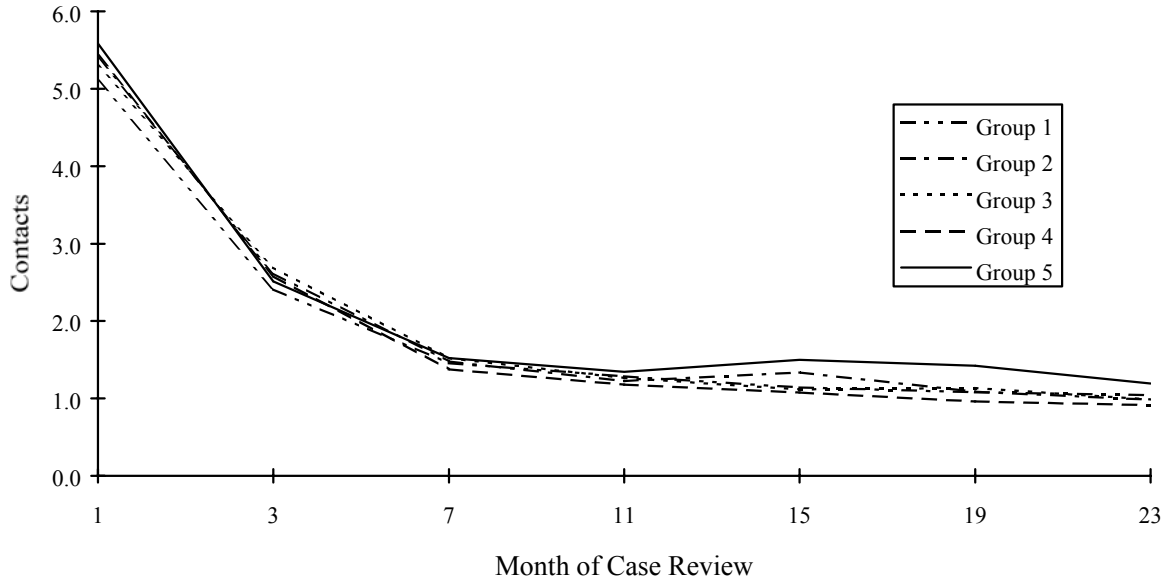

Figure 7: Average face to face contacts per month for case review period by group.

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occurred through assigning supervision levels differently for the groups. For this reason, the study design called for parole supervision to be maintained as usual. Differences could also occur if drug testing levels "drove" contact levels. In this case, agents would contact their parolees more or less, depending on the amount of drug testing they were required to do.

Average supervision levels for the seven case review periods covered by the study are shown graphically in Figure 6. Supervision level was changed to numeric values (1 = minimum, 2 = medium, and 3 = maximum) and then averaged across all cases in each group who were still on parole at the time of the case review. These values show a general decline over the parole period for all groups, reflecting the policy of placing everyone on Maximum supervision during Re-entry and moving them gradually down over time. During Case-management, the average supervision levels off at about "Medium." The groups did not differ in these average values,

indicating that there was no tendency to change the supervision levels of cases in the higher testing groups to coincide with their higher requirement for drug testing.

Face-to-face contact rates per month were calculated as an average per month for the months covered by the case review and then averaged across cases in each group (Figure 7). These, too, showed a decline over time for all groups, consistent with the "front loading" of parole supervision and the decrease in supervision levels over time. During Case-management, the average number of contacts leveled off at about "one" for all groups, the minimum contact standard for the Medium supervision level. Like the previous graph, this graph suggests no tendency to fashion the number of face-to-face contacts after the testing level of the groups.

Overall, the results presented in this chapter point to a successful study. Parolees were accepted into the study based upon pre-established eligibility criteria that only excluded parolees who would likely not be subject to policies regarding routine drug testing of "ordinary" parolees (not in special programs or residing in rural areas, for example). No evidence of a breakdown in the sampling procedure, intentional or otherwise, was found; and eligibles actually exceeded the estimated proportion of total parole releases. Similarly, group assignments were based on computerized random assignment procedures that produced expected numbers of parolees in each of the five testing conditions. Comparisons across groups in important background characteristics identified no significant differences, and led to the conclusion that the groups were essentially equivalent. This is the goal of random sampling strategies.

Analysis of drug testing data found that the groups were tested at different levels throughout parole. Although these differences did not reach anticipated levels, they were statistically significant. They seemed to reflect, for the most part, a good faith effort to comply

with difficult expectations that ran counter to normal casework decision-making (for example, not testing parolees suspected of drug use or reducing the testing of non-users).

Finally, data on supervision levels and numbers of face-to-face contacts revealed no tendency to vary other aspects of supervision to accommodate the different testing levels. These data suggest that the only aspect of parole that was different across groups was the amount of drug testing.

Implementation Problems and Study Limitations

Problems with the complete implementation of drug testing levels included testing of cases in the no-test conditions, undertesting of parolees in the various testing conditions (the most common problem) and overtesting of parolees. Together, these failures to implement the "treatment" as designed resulted in a reduction in (but not an elimination of) group differences and considerable within-group variation in treatment.

There is no consensus in the criminological literature on how to handle this kind of "treatment dilution" (Gartin, 1995). One possibility is to remove cases from the study who did not receive the treatment as planned. This would allow comparison of cases who were actually tested at the designed frequency levels. However, the problem in this study involved *most* of the participants (very few were tested at exactly the right interval). Further, since it must be assumed that cases were overtested or undertested for a reason (that is, selected for more or less drug testing by agents), the exclusion of these cases would necessarily destroy the comparability of the groups.

The course of action taken here was to retain all cases in their assigned groups in order to maintain their comparability (Farrington, 1983). The fact that the groups differed significantly

in the amount of testing they received meant that the study could still address *group differences* in testing levels. The focus on the study was shifted away from the effects of drug testing levels on individual parolees and towards the effects of overall levels on outcomes at the group level.

Individual-level issues cannot be addressed in the present study because it must be assumed that differences in drug testing at the individual level were the combined result of group membership and selective decision-making by parole agents. Consequently, the study could no longer consider the effects of drug testing levels on individual parolees. It could not address such questions as who, when and under what circumstances to test in order to achieve the maximum benefit of drug testing. Parolees tested at different levels could not be assumed to have similar probabilities of parole failure or arrest. Analysis of outcomes would not be able to determine whether outcome differences related to testing were due to the differences in testing or to the differences in parolees that led parole agents to test them at different levels.

The refocus on group differences means that the implications of the study are for *policies that specify overall investments in drug testing as a part of parole supervision*. These policies, moreover, would allow for some individual variation in actual testing. Since the study did not collect information on the exact reason for each test, it is not possible to specify the basis for individual variation in testing other than to note that the variation was the result of individual casework decisions by agents. Agents differ in their rationale for testing, in the pressure they receive from supervisors, relatives of parolees and the parolees themselves to test (or not test), and in their access to other kinds of information about parolees. Even while allowing for this kind of variation across parolees and parole agents, an agency can still specify or place limits on its investment in drug testing, creating overall differences in the amount of testing in parole. It is

for these decisions regarding overall investment that the findings of this study have the clearest implications.

Chapter 4
Outcomes

Parole adjustment and arrests were chosen as two ways of measuring whether drug testing above the minimal level helped parolees reintegrate back into the community and/or cause less harm to others in the form of criminal behavior. These possible benefits were termed *public safety benefits.* No differences along these dimensions were found in favor of increased drug testing. In fact, arrests at 42 months were slightly higher for the groups tested more often. These results suggest that higher levels of testing (that can be incorporated into regular parole supervision) cannot be expected to improve parolees' overall performance in the community.

Parole Adjustment

Analyses of the parole adjustment focused on the proportion of each group with various kinds of outcomes. These were then collapsed into three more general levels of outcome (plus death):

1. good adjustment, defined as remaining on parole at 24 months or being discharged for reasons other than a parole violation;

   On The Street
   Hospital or Out of CA
   Honorable Discharge
   General Discharge
   Discharge, No evaluation

2. marginal adjustment, which included being missing, dishonorably discharged, or revoked for a technical violation of parole;

   Dishonorable Discharge

Missing at 24 Months
Missing (Discharged)
Technical Revocation (Missing)
Technical Revocation (Drug)
Technical Revocation (Other)

3. poor adjustment, which primarily involved being removed from parole because of criminal behavior or being incarcerated for an arrest at 24 months;

   Revoke: Law Violation
   In Court (Discharged)
   Local Custody (Not Discharged)
   Probation/Jail (Discharged)
   Prison (Not Discharged)
   Prison (Discharged)
   Federal/Other State Prison

4. Death.

   Homicide
   Other Causes

These analyses showed the groups to have similar outcomes, although there was a slight tendency for the groups with more frequent testing to have fewer cases remaining on parole and therefore to have a lower proportion with "good" adjustment.

Table 5 shows all of the outcomes considered for this study as well as their groupings into the three categories shown above. There were a variety of possible outcomes for parolees, and most of them indicate a continued lack of commitment to a pro-social lifestyle. None of these specific outcomes showed significant variation across groups except one: For cases revoked for technical violations, parolees in the higher testing groups were more likely to be revoked for a *drug* violation. This result, which bears mostly on parole decision-making, will be discussed in the context of presenting the findings on responses to positive drug tests.

Table 5
Parole Outcomes at 24 Months By Group

	Group											
	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Number of Cases	**442**	**100%**	**457**	**100%**	**429**	**100%**	**445**	**100%**	**185**	**100%**	**1,958**	**100%**
Good Adjustment*	**132**	**29.9%**	**142**	**31.1%**	**125**	**29.1%**	**108**	**24.3%**	**38**	**20.5%**	**548**	**28.0%**
On The Street	93	21.0%	96	21.0%	85	19.8%	73	16.4%	24	13.0%	372	19.0%
Hospital or Out of California	3	0.7%	1	0.2%	3	0.7%	2	0.4%			9	0.5%
Honorable Discharge	13	2.9%	16	3.5%	13	3.0%	14	3.1%	6	3.2%	62	3.2%
General Discharge	23	5.2%	28	6.1%	24	5.6%	19	4.3%	8	4.3%	104	5.3%
Discharge, No evaluation			1	0.2%							1	0.1%
Marginal Adjustment	**80**	**18.1%**	**90**	**19.7%**	**91**	**21.2%**	**106**	**23.8%**	**33**	**17.8%**	**401**	**20.5%**
Dishonorable Discharge	17	3.8%	13	2.8%	13	3.0%	21	4.7%	6	3.2%	70	3.6%
Missing at 24 Months	14	3.2%	11	2.4%	16	3.7%	18	4.0%	5	2.7%	64	3.3%
Missing (Discharged)	13	2.9%	8	1.8%	9	2.1%	10	2.2%	6	3.2%	46	2.3%
Technical Revocation (Missing)	13	2.9%	12	2.6%	14	3.3%	11	2.5%	2	1.1%	52	2.7%
Technical Revocation (Drug)	8	1.8%	19	4.2%	20	4.7%	21	4.7%	11	5.9%	79	4.0%
Technical Revocation (Other)	15	3.4%	27	5.9%	19	4.4%	25	5.6%	3	1.6%	89	4.5%
Poor Adjustment	**219**	**49.5%**	**217**	**47.5%**	**207**	**48.3%**	**225**	**50.6%**	**109**	**58.9%**	**978**	**49.9%**
Revoke: Law Violation	133	30.1%	133	29.1%	119	27.7%	131	29.4%	69	37.3%	585	29.9%
In Court (Discharged)	3	0.7%	5	1.1%	3	0.7%	9	2.0%	4	2.2%	24	1.2%
Local Custody (Not Discharged)	20	4.5%	25	5.5%	25	5.8%	22	4.9%	10	5.4%	102	5.2%
Probation/Jail (Discharged)	7	1.6%	7	1.5%	9	2.1%	8	1.8%	5	2.7%	36	1.8%
Prison (Not Discharged)	5	1.1%	5	1.1%	3	0.7%	9	2.0%	4	2.2%	26	1.3%
Prison (Discharged)	49	11.1%	42	9.2%	46	10.7%	43	9.7%	17	9.2%	197	10.1%
Federal/Other State Prison	2	0.5%			2	0.5%	3	0.7%			7	0.4%
Death	**11**	**2.5%**	**8**	**1.8%**	**6**	**1.4%**	**6**	**1.3%**	**5**	**2.7%**	**36**	**1.8%**
Homicide	9	2.0%	6	1.3%	5	1.2%	6	1.3%	4	2.2%	30	1.5%
Other Causes	2	0.5%	2	0.4%	1	0.2%			1	0.5%	6	0.3%

* Chi-square, Good Adjustment vs. Other Outcomes: 11.37 4 df. p=.023

Most of the outcomes shown on Table 5 under *Poor Adjustment* are variations on "getting back in trouble with the law." The bulk of these parolees (3 out of 5 in this category) were returned to CYA institutions as parole violators after having been arrested. The remainder were serving local, state, or federal sentences or were awaiting trial at the time of discharge (or at the end of 24 months).

Included under *Marginal Adjustment* were those outcomes that were clearly indicative of failure to adopt a pro-social lifestyle, but which did not directly involve criminal behavior. Included here were parolees dishonorably discharged, parolees who were missing, and parolees revoked for technical violations.

- Dishonorable discharge occurs when parolees reach the end of CYA jurisdiction while showing little progress in moving away from the criminal lifestyle (3.6% overall).
- Missing was subdivided into those who were revoked (52 cases), those who were discharged while on missing status (because they reached the age at which CYA jurisdiction expires), and those who were still on parole but on missing status at 24 months. Together, the "missing" parolees constituted 8.3% of the sample.
- Revocation for drug use occurred for only 79 cases (4.0% of the sample).
- Revocation for other technical violations, such as failure to seek employment or engaging in gang-related behavior, occurred for 89 cases (4.5% of the sample).

Together, 11.2% of the sample was revoked for technical violations, and the total with "marginal adjustment" accounted for 20.5% of the sample.

Good Adjustment, for the purpose of this study, was any outcome that did not specifically involve criminal behavior, behavior resulting in violation or which had the potential for violation (e.g., being missing at 24 months), or a dishonorable discharge. Most of these parolees were still on parole at the end of 24 months, when the testing requirements no longer applied. Included here also were General Discharges, given to parolees who manage to stay out of trouble, but who nevertheless show only minimal effort to establish pro-social lifestyles. The only outcome that corresponds to what is commonly meant by "rehabilitated" is "honorable discharge." These

discharges are reserved for parolees who make a concerted effort to abandon their criminal lifestyle and adopt a pro-social one: settle down, stay out of trouble, find employment or continue with their education, form and/or maintain solid relationships with pro-social individuals, and so on. Only 3% of the parolees in this sample had earned such a distinction by 24 months.[25]

Arrests After Release

Analysis of arrests focused on both the average numbers of arrests and the proportions of each group with any arrests over three different follow-up periods: the parole period (up to 24 months), 24 months (which may have extended beyond the parole period), and 42 months. These time periods were chosen to provide several perspectives on the effects of drug testing. The parole period was used because any direct effect of drug testing should manifest itself best during the period when the testing is being done. The 24-month and 42-month periods were used to extend and standardize the follow-up period. The use of standard time periods extends the period of observation beyond the parole period and provides a convenient framework for evaluating the volume of crime attributed to parolees who may differ in their lengths of time on parole. Parolees spend different amounts of time on parole. Most of those who do not remain on parole 24 months are removed for criminal behavior or other violations of parole conditions.

[25] Although it is possible that some of those remaining on parole at 24 months would be given honorable discharges, the proportion would not be high, most likely, because parolees who are doing exceptionally well are typically discharged prior to serving a full 24 months. Parolees retained on parole are those who the agent and the YOPB feel still require supervision and a watchful eye.

Some simply do not have 24 months of remaining jurisdiction time left when they are paroled; these individuals would be granted discharges regardless of parole adjustment.

Percent Arrested

The percent of cases in each group arrested during the three follow-up periods is shown in Table 6. Almost 3 out of 5 (59.4%) were arrested at least once during parole. Two out of three (65.9%) were arrested by 24 months and three out of four (76.2%) by 42 months.

Statistical tests for differences in these proportions among the groups and for the tendency of these percentages to increase at higher testing levels are also shown. Only three of the tests indicated statistical significance at the 5% probability level (property offenses at 24 months and homicide and miscellaneous felony offenses at 42 months). A number of other comparisons showed differences that would be found only one time in ten on the basis of chance ($p < .10$). All of these differences, however, were in the "wrong" direction. Tests for linearity (for the tendency for the percentages to increase at higher testing levels) showed a statistically significant tendency for the percentage of cases arrested to be *higher* for the groups with the higher testing levels.

By 42 months, over half of these offenders had been arrested for at least one violent offense (homicide, rape, robbery, assault, or kidnapping), the most common of these being Assault and Battery (or simple assault). They were less likely (32.1%) to have an arrest for a property offense (burglary, vehicle theft, other theft). About three in five of these offenders had at least one "more serious" arrest charge (any violent or property charge except simple theft).

Table 6
Percent with Arrest Charges By Group

	Group							
	1	2	3	4	5	Total	X^2	Linearity[a]
Cases with Arrest Information	423	433	402	422	172	1,852		
During Parole (to 24 Months)								
Any Charges	58.6	56.8	59.7	62.1	61.0	59.4		
Violent	28.4	29.8	33.3	28.7	38.4	30.8	*	
Property	16.8	21.0	19.4	24.6	19.2	20.4	*	**
Drugs	16.1	13.9	18.9	16.8	16.3	16.4		
Other	23.2	18.5	19.2	22.0	14.5	20.1		
24 Months	-	-	-	-	-	-		
Any Charges	64.8	63.3	65.7	69.0	68.0	65.9		
Violent	36.6	36.7	39.1	38.6	44.2	38.3		
Property	20.1	25.4	23.4	30.6	24.4	24.8	**	***
Drugs	18.9	17.3	22.9	22.0	23.3	20.5		
Other	27.0	23.8	24.9	25.6	21.5	24.9		
42 Months	-	-	-	-	-	-		
Any Charges	**74.0**	**74.4**	**75.1**	**80.6**	**77.9**	**76.2**		**
Violent	**48.0**	**48.7**	**51.7**	**52.4**	**57.6**	**50.9**		**
Homicide	4.7	4.8	7.7	7.1	10.5	6.5	**	***
Rape	2.4	1.2	2.0	1.2	0.6	1.6		
Robbery	17.5	17.1	21.1	23.9	18.0	19.7	*	**
Aggravated Assault	12.8	14.5	12.4	10.9	14.5	12.9		
Assault & Battery	28.4	30.0	31.6	31.8	36.6	31.0		*
Kidnap/Extortion	1.7	1.6	1.5	1.2	2.3	1.6		
Property	**27.0**	**33.0**	**30.1**	**37.9**	**33.1**	**32.1**		***
Burglary	9.7	10.9	10.0	12.6	9.9	10.7		
Auto Theft	12.8	15.9	14.4	19.2	18.6	15.9	*	**
Theft	17.0	20.6	17.2	22.5	16.9	19.1		
Drugs	**26.2**	**24.9**	**29.1**	**30.6**	**33.7**	**28.2**		**
Drug Sales	13.9	15.2	17.9	17.5	21.5	16.6	*	**
Drug Use/Possession	18.2	15.0	21.6	20.9	22.1	19.2		**
Other	**35.0**	**34.4**	**36.6**	**37.2**	**32.6**	**35.5**		
Child Molest	0.5	0.2	0.7	-	0.6	0.4		
Other Sex Offenses	3.3	3.2	3.0	2.1	2.3	2.9		
Weapons	17.0	15.9	16.2	19.4	16.9	17.1		
Miscellaneous Felony	5.4	8.1	6.5	11.1	6.4	7.7	**	**
Miscellaneous Misdemeanor	19.9	19.2	22.9	21.3	18.6	20.6		
More Serious Charges[b]	**57.4**	**58.7**	**60.0**	**61.1**	**64.5**	**59.8**		*
Less Serious Charges	**54.8**	**54.7**	**53.7**	**57.3**	**57.0**	**55.3**		

* $p < .10$ ** $p < .05$ *** $p < .01$

[a] Somer's d.

[b] The more serious charges included all Violent and Property offenses except theft.

Overall, these data suggest that differences in levels of drug testing were associated with only small differences in the percentages of cases arrested. To the extent that the groups differed in these proportions, however, the differences tended to favor lower levels of testing. Higher levels of testing were associated with higher percentages of cases arrested during follow-up.

Average Arrest Charges

Table 7 shows, for each group, the average numbers of arrest charges for the various types of crimes over the three follow-up periods. Also shown are the results of statistical significance tests for differences in these averages, after "transforming" the data to reduce skewness, and for linearity (the tendency for the averages to increase at higher testing levels).

Like the results for percentages, discussed above, these data showed a slight trend toward *more* offense charges for cases in the higher testing groups, particularly for the full 42-month follow-up. Statistically significant differences in these averages (at the $p < .05$ level) were found for Property Offenses at 24 months and for Total and Violent offenses at 42 months. In terms of specific offenses, statistically significant differences were found for Assault and Battery, Drug Sales, and Miscellaneous Felony offenses. Each of these differences was also associated with a statistically significant linear trend: higher average arrest charges for higher testing groups.

Figure 8 shows the average numbers of offenses for the five groups at 24 months and 42 months of follow-up, along with the actual testing rates for the groups. The tendency for arrests to be higher at higher testing levels is clearly evident in this chart.

Table 7
Average Numbers of Arrest Charges By Group

	Group							
	1	2	3	4	5	Total	ANOVA[a]	Linearity
Cases with Arrest Information	423	433	402	422	172	1,852		
During Parole (to 24 Months)								
Any Charges	1.38	1.41	1.47	1.55	1.42	1.45		
Violent	0.47	0.53	0.54	0.48	0.63	0.52		
Property	0.30	0.34	0.32	0.39	0.27	0.33		
Drugs	0.21	0.24	0.30	0.25	0.26	0.25		
Other	0.40	0.30	0.31	0.43	0.26	0.35		
24 Months								
Any Charges	1.89	1.91	2.00	2.26	2.22	2.03		**
Violent	0.65	0.67	0.74	0.77	0.88	0.72		*
Property	0.40	0.45	0.42	0.55	0.43	0.45	**	**
Drugs	0.31	0.35	0.41	0.36	0.45	0.36		
Other	0.53	0.44	0.43	0.58	0.45	0.49		
42 Months								
Any Charges	**3.00**	**2.98**	**3.34**	**3.68**	**3.76**	**3.30**	**	***
Violent	**1.01**	**1.04**	**1.34**	**1.34**	**1.48**	**1.21**	**	***
Homicide	0.06	0.06	0.09	0.09	0.12	0.08	*	**
Rape	0.03	0.01	0.03	0.01	0.01	0.02		
Robbery	0.23	0.24	0.30	0.31	0.23	0.27		
Aggravated Assault	0.16	0.18	0.16	0.17	0.17	0.17		
Assault & Battery	0.51	0.53	0.74	0.75	0.93	0.66	**	***
Kidnap/Extortion	0.02	0.02	0.01	0.02	0.03	0.02		
Property	**0.66**	**0.69**	**0.64**	**0.85**	**0.67**	**0.71**	*	**
Burglary	0.14	0.16	0.12	0.18	0.16	0.15		
Auto Theft	0.21	0.22	0.22	0.30	0.25	0.24		
Theft	0.32	0.31	0.30	0.36	0.26	0.32		
Drugs	**0.56**	**0.56**	**0.68**	**0.63**	**0.80**	**0.63**		**
Drug Sales	0.23	0.24	0.33	0.29	0.42	0.29	**	***
Drug Use/Possession	0.33	0.33	0.36	0.34	0.38	0.34		
Other	**0.77**	**0.68**	**0.68**	**0.86**	**0.81**	**0.76**		
Child Molest	0.01	0.00	0.01	-	0.01	0.01		
Other Sex Offenses	0.05	0.05	0.05	0.03	0.15	0.06		
Weapons	0.24	0.22	0.24	0.31	0.20	0.25		
Miscellaneous Felony	0.09	0.10	0.08	0.14	0.08	0.10	**	*
Miscellaneous Misdemeanor	0.37	0.31	0.30	0.38	0.37	0.35		
More Serious Charges[a]	**1.35**	**1.42**	**1.68**	**1.83**	**1.89**	**1.60**	**	***
Less Serious Charges	**1.65**	**1.56**	**1.66**	**1.86**	**1.87**	**1.70**		

* p < .10; ** p <.05; *** p < .01

[a] Analysis of Variance (ANOVA) was performed on log-transformed variables.

[b] The more serious charges included all Violent and Property offenses except theft.

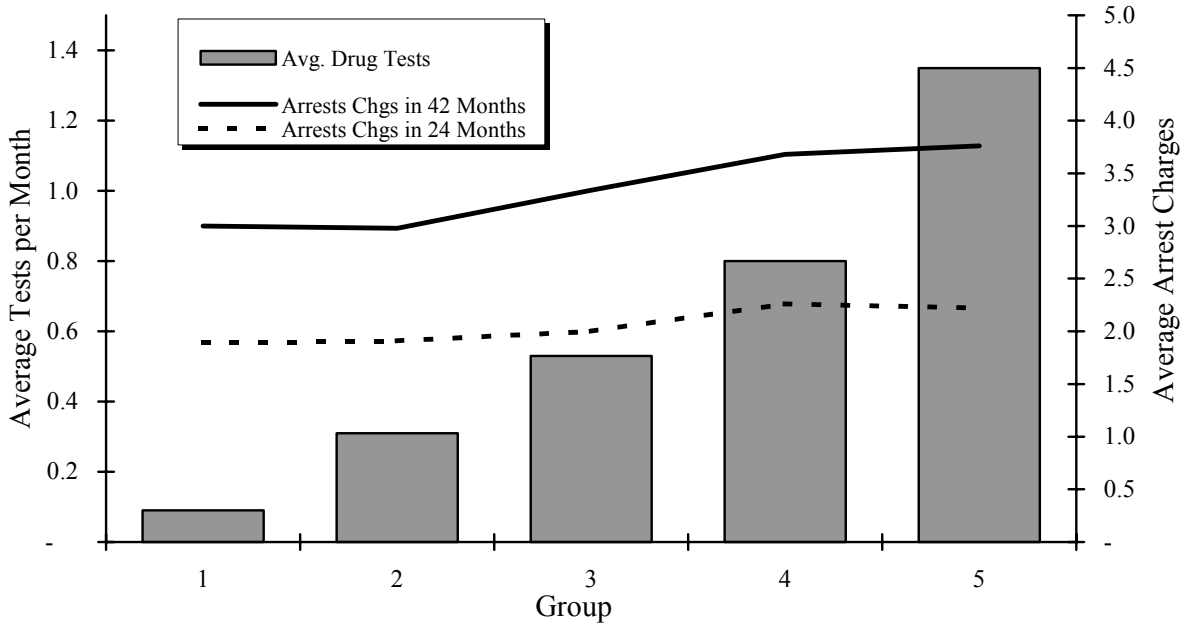

Figure 8: Testing levels and average total arrest charges during 24 and 42 months of follow-up.

Combined, the data on percentages arrested and average numbers of arrest charges show no evidence of a public safety benefit of increased drug testing. Not only was criminal behavior not improved by higher levels of drug testing, it was actually somewhat worse. While these differences were not large, they were statistically significant in a number of instances, suggesting that the differences (and the direction of those differences) were not simply "chance" occurrences.

Subgroup Analysis. In order to determine whether drug testing may have had different effects for different types of parolees, similar analyses were performed for subgroups of the sample: different ethnic groups, levels of drug problems, histories of use, and so on. These analyses showed similar patterns of responses, with average numbers of arrests increasing with higher levels of drug testing. These differences were not statistically significant, due to smaller

sample sizes in the subgroups. This similarity suggests that the lack of positive impact (and the possible negative impact) of increased drug testing was true for all types of parolees.

Multivariate Analysis of Outcomes

Multivariate analyses were used to estimate the effects of group membership on outcomes while taking into account the effects of other characteristics. These analyses are used to "control for" the effects of characteristics that might affect outcome and that are not equally distributed across groups. Even the best random assignment procedures will generally not be able to produce groups that have exactly the same kinds of individuals. By controlling for any such group differences, a more accurate estimate of the effects of testing levels can be obtained.

These analyses focused on three general types of outcomes: *whether or not* the parolee had a bad parole outcome (parole revocation or arrest), *the number of arrests* each parolee experienced over 42 months of follow-up, and the *time (number of days) before failure* (revocation or arrest). *Logistic Regression Models* focused on the probability of parole revocation, and on the probability of having any arrest or any violent offense during the 42-month follow-up period. Numbers of arrests were analyzed using *Negative Binomial Poisson Regression Models*, which were developed for use with data like arrests, which take the form of "counts." *Survival Models* were used to estimate the effect of group membership on the length of time to parole revocation or arrest. All of the models included the same control variables:

- having been committed to the Youth Authority for a violent offense,
- age at parole release,
- membership in a gang,

- ethnicity (coded so that Hispanic ethnicity and African American ethnicity were compared to white/other ethnicity),
- number of prior arrest charges,
- being a school dropout,
- having a history of drug abuse, and
- drug testing-group.

Combined, these multivariate analyses reaffirmed the findings of the simple comparisons of outcomes by group.

Logistic Regression Models

Probability of Parole Revocation. Significant predictors of the probability of parole revocation included being committed for a violent offense, membership in a gang, African American ethnicity, a history of drug abuse, and number of prior arrest charges. More specifically, being African American, being a member of a gang, having a history of drug abuse, and the number of prior arrest charges increased the probability of parole revocation, while being committed for a violent offense decreased the probability of parole revocation. Marginally significant predictors include Hispanic ethnicity ($p = 0.054$), which predicted a lower probability of parole revocation, and age at release ($p = .056$), which was related to an increase in the probability of revocation (meaning older parolees were more likely to have their parole revoked). Group membership was not related to differences in the probability of parole failure.

Probability of Any Arrest. Significant predictors of the probability of being arrested included being committed for a violent offense, age at parole release, membership in a gang,

Hispanic and African American ethnicity, number of prior arrest charges, and being a member of *drug testing-group number 4*. More specifically, being Hispanic or African American, being a member of a gang, being a member of Group 4 (as compared to being a member of Group 1), being older at parole release, and the number of prior arrest charges increased the probability of being arrested within 42 months, while being committed for a violent offense decreased the probability of a subsequent arrest. Nonsignificant predictors of having an arrest included being a school dropout and membership in the other drug testing-groups (i.e., members of Groups 2, 3, and 5 were no more likely to have arrests than members of Group 1). Having a history of drug abuse had a marginally significant and positive effect ($p = 0.072$) on the probability of arrest.

Probability of Violent Arrest. Significant predictors of the probability of being arrested for a violent crime include being committed for a violent offense, age at parole release, membership in a gang, Hispanic and African American ethnicity, a history of drug abuse, and number of prior arrest charges. More specifically, being Hispanic or African American, being a member of a gang, being older at parole release, having a history of drug abuse, and the number of prior arrest charges increased the probability of violent arrest, while being committed for a violent offense decreased the probability of a subsequent violent arrest. Nonsignificant predictors of a violent arrest included being a school dropout and drug testing-group membership.

Negative Binomial Poisson Regression Models

Negative binomial and zero-inflated[26] negative binomial regression models were used to investigate whether the mean (average) number of total arrests, violent arrests, property arrests, and drug arrests over the 42-month follow-up period differed by group membership after controlling for background characteristics that might differ across groups. Negative binomial regression models were used, rather than standard (ordinary least squares) regression models because they are a more statistically appropriate method for analyzing data in the form of "counts"--in this case, counts of arrests (Long, 1997). Modeling count variables with methods designed for use with continuous variables can potentially lead to bias in the parameter estimates.

For simplicity, these models combined Groups 1 and 2, for whom no routine testing was intended for the period after Re-entry. Estimates for these models indicated significantly higher average arrests (total and violent) for those groups who *were* tested. Thus, these results confirm the bivariate results, which showed that the groups with higher testing levels also had more arrests during the follow-up period.

All Arrests. The results for all arrests were based on the ordinary negative binomial model. Group 1 and Group 2 were combined as the comparison group in these analyses because both of these groups received no drug tests for most of their parole periods and because their outcomes were very similar. The results indicated a significant effect of group membership:

[26] The zero-inflated model "inflates" the number of zeros in the negative binomial probability density function when the ordinary negative binomial model underpredicts the number of zeros in the sample data. The appropriateness of the zero-inflated negative binomial regression models is indicated by a Vuong statistic greater than 1.96.

both Group 4 and Group 5 had mean numbers of arrests which were significantly larger than the mean number of arrests for Groups 1 and 2 (t-value for Group 4 = 3.920; t-value for Group 5 = 2.254). Substantively, the estimate for Group 4 indicates (controlling for the effects of the other covariates in the model) that there was a 28% difference in the mean number of arrest between Group 4 and Groups 1 and 2, while the estimate for Group 5 indicates that there was a 22% difference in the mean number of offenses between Group 5 and Groups 1 and 2. The estimate for Group 3 indicates that there was nearly a statistically significant effect of being a member of Group 3 (t-value = 1.755; p-value = 0.0792).

Other significant predictors in this model were (positive effects meaning that higher values were associated with more arrests):

- age at release--a positive effect (t-value = 6.500),
- African American ethnicity--a positive effect compared to the white and "other" sample members (t-value = 2.096),
- a history of drug abuse—a positive effect (t-value = 4.329),
- the number of prior arrest charges--a positive effect (t-value = 3.725), and
- a non-violent commitment offense--a significant negative effect (t-value = -8.082).

Non-significant predictors include Hispanic ethnicity, being a school dropout, and being a gang member.

Violent Arrests. Once again, the results were from the ordinary negative binomial model. These models also found a significant effect of group membership. Group 3, Group 4, and Group 5 all had mean numbers of arrests which were significantly larger than the mean number of arrests for Groups 1 and 2 (t-values were 3.234; 3.436; and 3.128 for Groups 3, 4, and 5

respectively). Substantively, after controlling for the effects of the other covariates in the model, there was a 33% difference in the mean number of arrests between Group 3 and Groups 1 and 2, a 34% difference in the mean number of arrests between Group 4 and Groups 1 and 2, and a 43% difference in the mean number of arrest charges between Group 5 and Groups 1 and 2.

Other significant predictors in this model included

- age at release--a positive effect (t-value = 4.328),
- African American ethnicity—a positive effect compared to whites and "others" (t-value = 5.940),
- Hispanic ethnicity--a positive effect (t-value = 3.677),
- a history of drug abuse--a positive effect (t-value = 2.522),
- the number of prior arrest charges—a positive effect (t-value = 2.315), and
- a non-violent commitment offense--a negative effect (t-value = -3.954).

Non-significant predictors include being a school dropout, and being a gang member.

Property Arrests. The results presented here are from the zero-inflated negative binomial model.[27] There was a significant effect of group membership. Group 4 members, on average, had more arrests than did the members of Groups 1 and 2 (t-value for Group 4 = 2.462). Substantively, the estimate for Group 4 indicated (controlling for the effects of the other covariates in the model) that there was a 15% difference in the mean number of property arrests between Group 4 and Groups 1 and 2. Differences between Group 3 and the no-test groups and Group 5 and the no-test groups were not statistically significant.

[27] The Vuong statistic comparing the ordinary negative binomial model and a zero-inflated negative binomial model was 3.9534.

Other significant predictors in this model included

- number of prior arrest charges—a positive effect (t-value = 2.505), and
- a non-violent commitment offense--a negative effect (t-value = -2.920).

Drug Arrests In this model, which was also from the zero-inflated negative binomial model,[28] there was no significant effect of group membership. None of the estimates for group membership had associated p-values less than 0.15.

The significant predictors in this model included

- age at release--a positive effect (t-value = 2.011), and
- number of prior arrest charges--a positive effect (t-value = 1.968).

Survival Models

Survival models were used to analyze the time to parole revocation, the time to first arrest, and the time to first violent arrest. The survival (hazards) analysis used the lognormal distribution, which implies a non-monotonic hazard rate (i.e., one that varies over time). According to this model, there is a period of time immediately after release when the risk of failure (parole revocation or arrest) increases up to an "inflection point," where the risk of arrest is assumed to be the greatest. After this peak, the risk of a violent arrest is assumed to decrease over time.[29]

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[28] The Vuong statistic was 4.0355.

[29] The model was also run using the Cox proportional hazards model. The substantive conclusions drawn with this model (which does not imply any parametric distribution of the failure times) did not differ from those drawn with the lognormal model.

Time to Parole Revocation. The data are censored at 730 days, such that any parolee whose parole was revoked after 730 days was considered to have "survived" 730 days on parole. Analyzing only those parolees who did have their parole revoked, the mean time to failure (parole revocation) by group was as follows:

- Group 1: 363.5 days
- Group 2: 348.9 days
- Group 3: 362.2 days
- Group 4: 365.5 days
- Group 5: 361.8 days

Results of the survival analysis indicate that the significant predictors of time to parole revocation included Hispanic ethnicity, number of prior arrests, and whether the parolee was committed for a violent offense. More specifically, being Hispanic (compared to being white), having a higher number of prior arrests, and being committed for a nonviolent offense were related to a shorter length of time to parole revocation. Membership in a gang had a marginally significant effect ($p = .056$). Nonsignificant predictors included age at parole release, African American ethnicity, a history of drug abuse, being a school dropout, and group membership (group membership did not have a significant effect on time to parole revocation).

Time to First Arrest. These data were censored at 1,095 days, such that any parolee who was arrested after 1,095 days was considered to have "survived" 1,095 days. Of those parolees who were arrested, the mean time to failure (arrest for any crime) by group was as follows:

- Group 1: 297.1
- Group 2: 313.4
- Group 3: 310.1
- Group 4: 327.5
- Group 5: 281.1

Significant predictors of time to any arrest included Hispanic and African American ethnicity (compared to whites and others), age at parole release, gang membership, number of prior arrests, a history of drug abuse, and a violent commitment offense. More specifically, being Hispanic or African American, being older at parole release, being a member of a gang, having a higher number of prior arrests, having a history of drug abuse, and being committed for a nonviolent offense were related to a shorter length of time to arrest. Nonsignificant predictors included school dropout and group membership. Group membership did not have a significant effect on the time between parole release and first arrest by law enforcement.

Time to First Violent Arrest. As with the analysis for any arrests, the data for first violent arrest were censored at 1,095 days, such that any parolee who was arrested for a violent crime after 1,095 days was considered to have "survived" 1,095 days. Analyzing only those parolees who were arrested, the mean time to failure (violent arrest) by group was as follows:

- Group 1: 409.3 days
- Group 2: 401.0 days
- Group 3: 385.0 days
- Group 4: 425.6 days
- Group 5: 399.4 days

Significant predictors of time to a violent arrest included Hispanic and African American ethnicity (compared to whites), age at parole release, membership in a gang, number of prior arrests, and whether the parolee was committed for a violent offense. Being Hispanic or African American, being older at parole release, being a member of a gang, having a higher number of prior arrests, and being committed for a nonviolent offense were related to a shorter length of time to a violent arrest. History of drug abuse had a marginally significant effect ($p = 0.066$).

Again, neither being a school dropout nor group membership had a significant effect on the time to the first violent arrest by law enforcement, if any.

Chapter 5
Process Analysis of the Model for Drug Testing Effects

In an effort to understand why the different levels of drug testing did not produce the hypothesized improvement in parole adjustment or arrests, additional analyses were performed to assess whether the intermediate steps in the model took place:

- Did increases in drug testing lead to better identification of drug use (more positive tests)?
- Did positive tests lead agents to indicate a need for action, such as sanctions or treatment?
- Did positive tests actually lead to a response--a sanction or treatment--that might reduce drug use through deterrence or treatment effects?

These analyses were intended to help understand whether the problem was with the model (Figure 1, Chapter 1) or the implementation of the model. These analyses showed that drug testing was used as the model suggested--that these basic conditions for reducing drug use and criminality, according to the model, were generally met:

- increased levels of drug testing helped to identify drug-using parolees,
- positive test results led to identification of parolees as having difficulties with drugs and as needing substance abuse treatment services,
- parole agents responded to positive tests with treatment and sanctions.

Together, these results suggest that the ineffectiveness of drug testing in this context was *not* simply the result of non-use or misuse of the drug testing results by agents. These analyses also produced a few surprises that point to limitations of drug testing as a deterrent-oriented approach to working with parolees in the community.

Identification of Drug Use

These analyses focused on the number and proportion of positive drug tests among all drug tests, regardless of the "availability" of the parolee.[30] Table 8 shows a summary of the drug test results by group. Shown are the total number of drug tests, the number of positive tests, the number of cases testing positive and the types of drugs used.

The percentage of cases with at least one positive test and the average number of positive tests for each group indicate that the higher levels of testing did result in a greater identification of drug use. At higher levels of drug testing, there was a correspondingly higher proportion of parolees eventually found to be using drugs. If the amount of drug use is assumed to be similar in the groups, these results would indicate that increased testing was successful at identifying drug users and drug use.

The percentage of all tests that were positive in this sample was 8.8% and was generally higher for the groups tested at lower levels. Groups 1 and 2 were nearly equal, at around 12% to 13%. Groups 3 and 4 were also similar, with about 9% positive tests. Group 5, at about 6% was the lowest. These differences could suggest a lower level of use in the higher test groups (a deterrent effect), but they could also simply reflect a tendency at lower testing levels to "target" drug testing at offenders and points of time when drug use is most likely. These figures, in other

[30] In the earlier analyses of implementation, we excluded from the analysis all months during which a parolee was not available for testing at least 75% of the time. This was done to avoid holding agents responsible for maintaining testing levels during months when the parolee was in custody, missing, out-of-state, or otherwise unavailable for testing. Drug tests that did occur during those excluded months were ignored in the analyses. For the present purposes, all drug tests were of interest.

words, could indicate a greater "efficiency" of testing for the lower-frequency groups. Without an independent measure of actual drug use in these group, it is not possible to determine whether a deterrent effect occurred.

The overall level, however, can be used as a rough gauge of the amount of use in this sample. The 8.8% positive rate suggests that at any point in time less than 10% of these parolees were using drugs within the time period "observed" by the drug test. In contrast, the Drug Use Forecasting Study (U.S. Department of Justice, 1997), which assesses drug use among arrestees in cities nationwide, generally reports positive results of drug tests for about 60% to 70% of arrestees at both the adult and juvenile levels. Further, studies of probationers and parolees in Oregon found positive tests to be at the 20% and 30% level after several years of drug testing (Cullen, et al., 1996), and drug tests of probationers in Kentucky were 35% positive after three years of drug testing. By these standards, the percent of positive drug tests for these Youth Authority parolees was relatively low *in all conditions*. Moreover, very few of these parolees (8.6%) had more than one positive test.

There are at least two possible explanations for this low rate of positive tests. First, it is possible that the combination of institutional drug programs and parole produce a marked deterrent effect across the board. An alternative explanation is that due to the nature of these young offenders' criminality, they would not be expected to have as much drug use as probation samples or typical arrestees. As previously noted, the offenders committed to the Youth Authority tend to be drug users, typically, but are not committed for drug use. The drug use is present, but it may be ancillary to the serious criminality that brings them to the Youth Authority. Probationers, in contrast, may more often be placed on probation because of drug use primarily. Arrestees may also be a poor comparison because their drug use is being assessed at a

Table 8
Positive Drug Test Results By Group

	Group					
	1	2	3	4	5	Total
Total Cases	442	457	429	445	185	1,958
Total Tests	470	1,070	2,216	3,118	1,982	8,856
Cases With 1+ Positive Tests	41	97	134	174	70	516
Percent of all cases	9.3%	21.2%	31.2%	39.1%	37.8%	26.4%
Percent of Cases with						
1 Positive	7.9%	15.8%	21.2%	24.9%	21.6%	17.8%
2 Positive	0.7%	3.5%	7.0%	8.1%	9.7%	5.3%
3 or more Positive	0.7%	2.0%	3.0%	6.1%	6.5%	3.3%
Total Positive Tests	56	136	197	275	115	779
Average (for All Cases)	0.13	0.30	0.46	0.62	0.62	0.40
Percentage of All Tests	11.9%	12.7%	8.9%	8.8%	5.8%	8.8%

particular point in time. It could be that Youth Authority parolees would have a much higher rate of positive tests if they were tested upon arrest. Again, while the data are suggestive, they cannot, in themselves, provide an adequate assessment of overall deterrent value of drug testing among these parolees.

Table 9 also shows the types of drugs that were found positive. These figures are based on one positive drug per test. When multiple drugs were found, only two were reported, and only one was used in the analysis. Due to reporting conventions (positive drugs were listed in alphabetical order), these data understate the percentage of tests that showed a positive result for cocaine and for THC (marijuana or hashish). Nevertheless, THC was the most commonly-found

Table 9
Types of Positive Drugs By Group

	Group					
	1	2	3	4	5	Total
Total Tests	470	1,070	2,216	3,118	1,982	8,856
Total Positive Tests	56	136	197	275	115	779
Percentage of All PositiveTests						
Amphetamines	28.6	19.9	29.9	23.6	20.0	24.4
Barbiturates	-	1.5	-	-	-	0.3
Cocaine	17.9	19.9	12.7	15.3	15.7	15.7
Codeine	1.8	-	2.0	2.2	0.9	1.5
Morphine	1.8	1.5	2.5	1.8	0.9	1.8
PCP	5.4	8.1	5.1	3.3	5.2	5.0
THC/Marijuana	39.3	48.5	46.7	52.0	54.8	49.6
Unknown	5.4	0.7	1.0	1.8	2.6	1.8

drug, with amphetamines and cocaine considerably lower. These data are consistent with the 1996 Drug Use Forecasting Study (U.S. Department of Justice, 1997) for Los Angeles and San Diego. Juveniles in these two sites were most commonly found positive for THC (52% and 48% of arrestees, respectively), with cocaine next (13% and 5% of arrestees). A separate analysis for Los Angeles reported amphetamine use to be on the rise during the early 1990s, leveling off at about 5% by 1993. The parolees in this sample, then, were using the same types of drugs as typical arrestees, but appeared to be using them to a considerably lower extent.

Agent Recognition of Test Results

To determine whether agents were cognizant of the results of the drug tests and incorporated this information into their case planning, data from the Parole Classification System form (Appendix C) were analyzed. This system was designed to assist with casework decisions, promote accountability among parolees, and help establish a workload-based determination of supervision levels. To this end, parolees were rated on nine types of need for service and six areas of parole performance. Scores on these dimensions were used to estimate the overall level of service required by each parolee during the next four months and the progress he or she had made toward meeting his or her parole conditions. While it was not intended as a system for collecting data on parolees' problems and behaviors, the items can indicate changes in perceived needs for services and can indicate behavior problems noted during case-review periods.[31]

Of particular interest for this study was the need for substance abuse services. This item asks for an assessment of the parolee's substance abuse, with the following response options:

0 = None

3 = Occasional abuse; some disruption of functioning

5 = Frequent substance abuse; serious disruption of functioning

Only 94 of the 1,958 parolees in the sample (4.8%) were ever rated as "5" on this dimension, and of these almost two-thirds (63%) had at least one positive drug test.

[31] Because the emphasis was on estimating the amount of parole agent "service" required by the parolee during particular periods, service needs that were "met" (for example, when a substance abusing parolee was already in treatment) were to be indicated as zero even though the problem itself was still there. However, problems with parole performance were to be indicated regardless of whether they were handled prior to filling out the form.

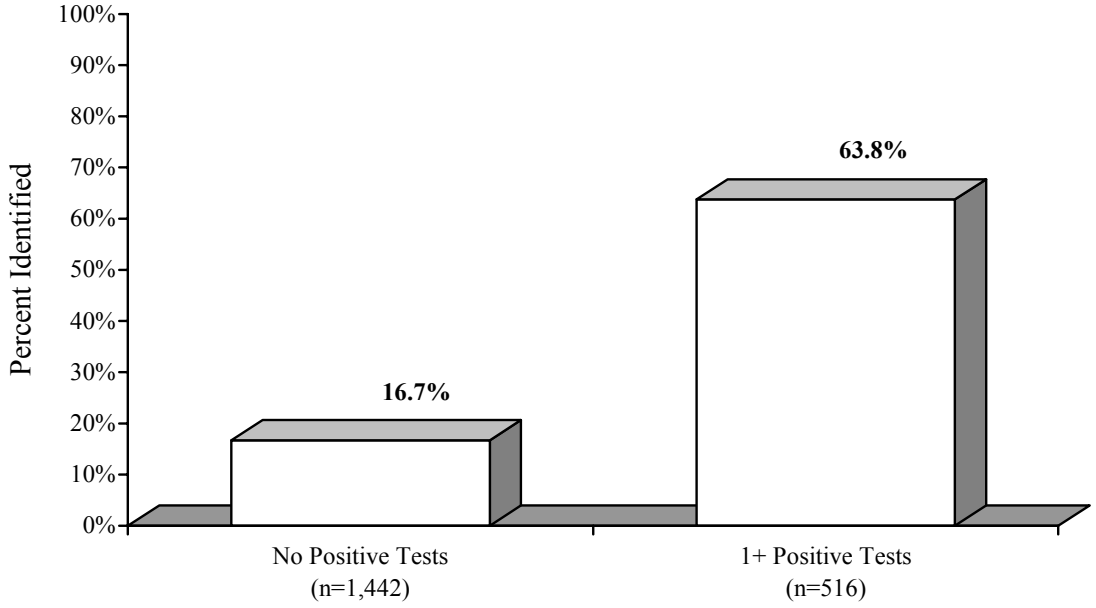

Figure 9: Percentage of cases identified as having a substance abuse treatment need on parole by whether or not they had a positive drug test during parole.

There were 570 cases (29.1%) who were rated either as "3" or "5" on this item. Positive drug tests figured heavily in this assessment, as shown in Figure 9. Nearly two-thirds of those cases with positive drug tests (63.8%) were identified as having a substance abuse problem. Drug testing was not the only way of identifying these problems, however, as indicated by the 16.7% of parolees who were identified as needing substance abuse services despite having no positive drug tests.

These data suggest that drug testing data are an important source of information that parole agents used to identify parolees with substance abuse problems. Differences in drug testing, then, which produced differences in the number of parolees who had positive test results, were also associated with differences in the proportion of parolees for whom drug-related

Table 10
Substance Abuse Problem Identification and Positive Drug Tests

	Group						
	1	2	3	4	5	Total	X^2
Total Cases	442	457	429	445	185	1,958	
1+ Positive Tests	41	97	134	174	70	516	
Percent of all cases	9.3%	21.2%	31.2%	39.1%	37.8%	26.4%	**
Treament Need = 3 or 5	99	116	126	167	62	570	
Percent of all cases	22.4%	25.4%	29.4%	37.5%	33.5%	29.1%	**
Treament Need = 3 or 5 and							
No Positive Test	16.7%	12.5%	10.0%	10.8%	10.3%	12.3%	*
1+ Positive Test	5.7%	12.9%	19.3%	26.7%	23.2%	16.8%	**
No Treament Need Identified and							
1+ Positive Test	3.6%	8.3%	11.9%	12.4%	14.6%	9.6%	**

* $p < .05$ ** $p < .01$

interventions were considered appropriate, as shown in Table 10. The percentages of cases in each group identified as having a drug problem on the Case Review Summary steps up from 22.4% for Group 1 to over 33% for Group 4 and Group 5.

The data in Table 10 also show that the agents did not rely on drug test results alone to identify parolees with drug problems. At low levels of drug testing, agents identified a higher proportion of the sample as having drug problems without positive test results (16.7% for Group 1 and 12.5% for Group 2). This percentage leveled off at about 10% for groups with more regular testing. Conversely, positive tests and drug problem identification did not always go together. With increased testing, the proportion of cases with positive tests and a substance abuse problem identification went up markedly--from 5.7% for Group 1 up to 23.2% for Group 5

cases--but so did the percentage of cases with positive drug tests and *no* substance abuse problem identification (from 3.6% to 14.6%).

Thus, positive tests and identification of substance abuse problems seemed to go together, although the relationship was by no means perfect. Agents relied heavily on drug tests to indicate the need for substance abuse services, but also looked for other indicators of drug use problems, as well. These were used both to identify substance abusers needing treatment and to question the importance of particular instances of use found by drug testing. Higher testing levels meant that agents had more information upon which to base their assessments of substance abuse problems. Drug test results alone, however, were not sufficient for this identification.

Responses to Positive Tests

The use of drug tests to identify parolees with drug problems is not enough to suggest that the drug testing program was working according to the Deterrence/Detection Model. In order to have any deterrent effect or treatment effect, the information gathered from the drug testing must be acted upon, either in the form of sanctions or in the form of treatment referral. Sanctions, according to the model, would lead to deterrence, as the parolees and others come to understand (and take steps to avoid) the consequences of drug use during parole. Treatment is intended to produce a greater ability to overcome the need/desire for drug use and also instill (or enhance) a certain deterrent effect as well (since drug treatment is typically not particularly enjoyable). The issue, then, is the extent to which the identification of drug use through testing led to a response, either deterrent-oriented or treatment-oriented.

As noted in the previous chapter, there were no hard-and-fast rules concerning appropriate responses to dirty drug tests, either as part of the study or as a policy of the

California Youth Authority. Guidelines for parole agents suggested that agents warn parolees on the first occurrence and possibly require some form of community treatment. The second positive test was thought to warrant a referral to a residential drug program operated by the Youth Authority. This referral would be recommended by the agent, but had to be ratified by the YOPB. A third dirty test was felt to warrant a violation and recommendation for revocation by the YOPB. However, positive drug tests rarely occur in isolation, and appropriate responses generally take into account other aspects of the parolees' adjustment to the community and adherence to parole conditions.

A direct measure of parole agents' responses to positive drug tests was not available for this study, but indirect evidence is available from the information collected on parolee "status" during the months they were on parole. These data, which were collected to determine if the parolee was available for testing, served as a rough indicator of what "happened" to a parolee following a positive drug test.

For each parolee, the month of each positive test and the number of that positive test (e.g., 1st, 2nd, 3rd, up to 5th) was determined from the drug lab data. A careful study of a number of cases revealed that it often took several months for a response, such as referral to a residential drug program. Consequently, the information on parole status for the <u>four months</u> following a dirty test were analyzed to determine if there was an action that could reasonably be deemed a response to the positive test. The parolee's status during each month was determined by having at least 16 days in that status during the month. The response to a dirty drug test was indicated by the first status (other than "on parole") occurring in the four months after the positive test. Possible responses included

- *continue on parole* (no changes in status),

- *temporary detention* (at least one month during which status was "temporary detention" unless followed by parole failure),
- *drug program referral* (at least one month during which status was "drug program").

In addition, other possible "outcomes" of the positive test were identified. These included

- *went missing* (at least one month during which status was AWOL, or "absent without leave"),
- *local custody* (at least one month during which status was "in local custody"),
- *parole failure* (parole removal for a violation during the three months if not preceded by local custody), and
- *other parole removal* (parole removal while not on violation, permanent move out of state).

Because temporary detention is often a step in the revocation process, instances of temporary detention followed by a revocation were treated as a parole failure. Further, in order to get the fullest possible picture of the use of residential drug programs, this status took precedence over others (for example, a parolee who went missing or who was placed in local custody before referral to a drug program would still be in the "drug program" category).

These outcomes for all positive tests through the fifth one are shown in Table 11. The table distinguishes between *Parole Action*, which can be thought of as <u>responses</u> to dirty tests, and *Other Outcomes*, which are not responses per se but which help to put the responses into the broader context of events on parole. Individuals with more than one positive test are included in

Table 11
Responses to Positive Drug Tests By The Number of The Positive Test

	Positive Test Number											
	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Positive Tests with Responses	508	100%	164	100%	60	100%	20	100%	8	100%	760	100%
Parole Action	**304**	**59.8%**	**90**	**54.9%**	**33**	**55.0%**	**10**	**50.0%**	**4**	**50.0%**	**441**	**58.0%**
Continue on Parole	190	37.4%	37	22.6%	13	21.7%	1	5.0%			241	31.7%
Temporary Detention	38	7.5%	16	9.8%	6	10.0%					60	7.9%
Drug Program	50	9.8%	29	17.7%	10	16.7%	8	40.0%	3	37.5%	100	13.2%
Parole Failure	26	5.1%	8	4.9%	4	6.7%	1	5.0%	1	12.5%	40	5.3%
Other Outcomes	**204**	**40.2%**	**74**	**45.1%**	**27**	**45.0%**	**10**	**50.0%**	**4**	**50.0%**	**319**	**42.0%**
Went Missing	95	18.7%	37	22.6%	14	23.3%	4	20.0%	3	37.5%	153	20.1%
Local Custody	99	19.5%	32	19.5%	12	20.0%	5	25.0%	1	12.5%	149	19.6%
Other Parole Removal	10	2.0%	5	3.0%	1	1.7%	1	5.0%			17	2.2%
Insufficient Followup*	8		3		4		0		0		15	
Total Positive Tests	516		167		64		20		8		775	

* Less than four months on parole following the positive test.

the statistics for each of their positive tests. The Total column, then, reflects the outcomes for all positive tests up to five for this sample.

Overall, these data suggest that positive drug tests were not simply ignored, either by the agents or by the parolees themselves. As the number of positive tests went up, fewer cases were continued on parole and more cases were referred to drug programs. At no level was a strong punitive approach taken. The most common response for positive tests up to the third was "continue on parole." After the first positive test, however, this response accounted for less than one in four outcomes of positive tests. Even for the first positive test, almost one in ten (9.8%) positive tests resulted in a referral to a residential drug program. This response was increasingly common for additional tests. For the second and third positive tests, about 17% of the parolees

were referred to drug programs; after that, over one-third were referred. Only a small percentage (5.1%) was directly removed from parole (usually on a technical violation).

A substantial number of parolees were in local custody soon after testing positive for drugs; in these cases, the drug test may have even been precipitated by the arrest. Parolees removed for a law violation typically spend time in local custody first, and the local custody would have been their status on this table.

Of interest on this table is that the most common "outcome" for the second and third positive test was for the parolee to go AWOL. In fact, going "missing" was a common response to *all* positive tests, accounting for one-fifth of all outcomes. The substantial proportion of parolees that absconded after submitting a positive urine sample, coupled with the fact that this proportion went up for each successive positive test, suggests that parolees at least *believed* that serious consequences would follow from a positive drug test and that the consequences got more serious as the number of positive tests went up. It appears that rather than face the consequences of failure to stay drug-free (temporary detention, revocation, or drug treatment), the parolee chose instead to go AWOL.

Data on responses to drug tests for the five study groups are shown in Table 12. These data indicate that there was no consistent trend toward various types of responses as the frequency of tests increased. Group 1 cases were more commonly sent to residential drug treatment programs after a dirty test, however, possibly indicating that these parolees had already been identified as having a drug problem on the basis of other kinds of information (Table 12). Group 5 cases seemed to be continued on parole less often, overall, with corresponding increases in the likelihood of options such as temporary detention, referral to drug programs, and parole

Table 12
Responses to Positive Drug Tests By Group

	Group											
	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Positive Tests with Responses	50	100%	132	100%	195	100%	269	100%	114	100%	760	100%
Parole Action	**31**	**62.0%**	**76**	**57.6%**	**124**	**63.6%**	**149**	**55.4%**	**61**	**53.5%**	**441**	**58.0%**
Continue on Parole	12	22.6%	43	31.9%	72	36.5%	89	32.4%	25	21.7%	241	31.7%
Temporary Detention	3	5.7%	10	7.4%	17	8.6%	21	7.6%	9	7.8%	60	7.9%
Drug Program	13	24.5%	14	10.4%	23	11.7%	31	11.3%	19	16.5%	100	13.2%
Parole Failure	3	5.7%	9	6.7%	12	6.1%	8	2.9%	8	7.0%	40	5.3%
Other Outcomes	**19**	**38.0%**	**56**	**42.4%**	**71**	**36.4%**	**120**	**44.6%**	**53**	**46.5%**	**319**	**42.0%**
Went Missing	9	17.0%	25	18.5%	39	19.8%	62	22.5%	18	15.7%	153	20.1%
Local Custody	10	18.9%	29	21.5%	28	14.2%	52	18.9%	30	26.1%	149	19.6%
Other Parole Removal	0	0.0%	2	1.5%	4	2.0%	6	2.2%	5	4.3%	17	2.2%
Insufficient Followup*	3		3		2		6		1		15	
Tests beyond 5th Pos.	3		1		0		0		0		4	
Total Positive Tests	56		136		197		275		115		779	

* Less than four months on parole following the positive test.
Note: Individuals may be in this table more than once. Cases with more than one positive test were included for each positive test.

failure. However, the numbers and the differences were relatively small and were not statistically significant.

Combined, the responses to positive tests, coupled with the fact that the responses for the different groups were similar, produced modest, but statistically significant differences among the groups in drug-related technical violations (sanctions) and referrals to drug programs (treatment), as shown in Table 13. The data on parole removals for technical violations indicate that parolees in the higher testing groups were more likely to be removed for a drug violation than parolees in lower testing groups. Parolees in the lower testing groups were also removed

Table 13
Technical Revocations and Other Statuses During Parole
By Group

	Group					
	1	2	3	4	5	Total
Total Cases	442	457	429	445	185	1,958
Technical Revocations:						
Missing	2.9%	2.6%	3.3%	2.5%	1.1%	2.7%
Drug Use*	1.8%	4.2%	4.7%	4.7%	5.9%	4.0%
Other	3.4%	5.9%	4.4%	5.6%	1.6%	4.5%
Total	8.1%	12.7%	12.4%	12.8%	8.6%	11.2%
Percent of Cases With Any Time:						
Temporary Detention	37.6%	40.5%	42.7%	44.7%	45.9%	41.8%
Missing	34.8%	34.1%	35.7%	40.0%	38.9%	36.4%
In Local Custody	71.0%	68.9%	71.3%	73.3%	75.1%	71.5%
Drug Program**	5.2%	4.8%	8.2%	9.9%	8.1%	7.1%

* $p < .05$ Chi-square test of Drug Use technical vs. all other technical revocations.
** $p < .05$ Chi-square test.

for technical violations, but for violations related to AWOL and other conditions of parole. The CYA operates two, 50-bed residential drug treatment programs for parolees. The percentage of study participants with any experience with these programs was fairly small (because of the limited capacity), but these percentages also differed across groups. Higher levels of drug testing resulted in more substance-abuse-oriented handling of parolees.

Also shown in Table 13 are the percentages of each group who experienced various other statuses during parole. These data indicate considerable experience among all groups with temporary detention, local custody, and "being missing." None of these other statuses differed across groups.

These analyses have demonstrated that the lack of positive relationship between drug testing levels and parole adjustment or criminal behavior among parolees cannot be attributed simply to parole agents not using the drug testing information in accordance with the model of change. Parole agents *did pay attention* to the drug test results, *did consider these results* when making casework decisions about parolees, and *did respond* with increased sanctions and increased drug treatment.

Because there was no direct, independent measure of drug use, it is not possible to determine if drug testing reduced drug use. The data cannot be used, then, to determine whether the weakness of the model is in the assumed relationship of drug testing to drug use among parolees or between the reduction of drug use and the reduction of other forms of criminal behavior. It could be, for example, that drug use can be controlled without reducing criminality.

Chapter 6
Exploratory Analysis: Drug Testing and Risk Assessment

The data on parole outcomes and arrests suggest that higher levels of drug testing levels in regular parole does not produce positive differences in outcomes. There may be other reasons to test for drug use, however, besides its assumed positive effect on the behavior of the parolees. Some of these reasons were mentioned in Chapter 1 and had to do with the day-to-day "work" of parole: structuring contacts, clarifying expectations, substantiating parole violations, and so on. Analysis of the data for this study, however, suggested another possible reason for drug testing, especially early in parole: the predictive value of substantiated drug use.

Early Drug Use and Subsequent Arrests

In Chapter 3 (Implementation), the analyses of actual drug testing levels, as compared to expected levels, differentiated between tests done during the first three months of parole (Re-entry) and those done afterward (Case-management). Exploratory analyses of these data focused on whether the results of the tests during the early period helped predict later test results, parole adjustment, or arrests.

The results suggested that drug testing during the first few months of parole could have substantial predictive value. A large proportion of wards who tested positive (at all levels of drug testing) did so during the first three months of parole; and these parolees also engaged in considerably more crime, both during parole and afterward. This finding suggests the potential

value of drug testing as a means of identifying the parolees that pose the greatest risk of continued criminal behavior.

During the time they were on parole (up to 24 months), 516 of the offenders in this study submitted at least one positive drug test. Of these cases, 235, or 45.5%, had a positive test during the first three months of parole; the remaining 281 had a positive test only after the third month of parole. Follow-up arrest data showed that those parolees who had positive drug tests during the first three months had significantly more arrest charges than the parolees who had no positive tests at all *and* the parolees who had positive tests only after the third month. The average numbers of arrests for these three groups are shown in Table 14 and, for the 42-month follow-up period, shown graphically in Figure 10.

The parolees with positive tests in the first three months had an average of 4.59 arrests over 42 months following parole, compared to 3.23 for parolees with positive tests only after the third month of parole and 3.09 for parolees with no positive tests at all. These kinds of differences, moreover, were found for all the types of offenses: violent, property, and drug. Comparison of each group with the others showed that the parolees with positive tests during the Re-entry period differed significantly from both other groups during parole and afterward. Those parolees with positive drug tests only *after* Re-entry did not differ significantly from those who never tested positive during parole.

Table 14
Average Arrests Within 42 Months By Timing of Positive Drug Tests

	Positive Drug Tests				
	Re-entry (Mos 1-3)	Case-mgt Only (Mos 4-24)	No Positive Tests	Total Sample	
Total Cases	235	281	1,442	1,958	
Cases with Arrest Follow-up Data	226	265	1,361	1,852	
During Parole (to 24 Months)					
Total	2.56	1.89	1.97	2.03	**
Violent	0.84	0.63	0.72	0.72	
Property	0.67	0.39	0.43	0.45	**
Drug	0.53	0.42	0.33	0.36	*
Through 24 Months					
Total	1.86	1.45	1.38	1.45	**
Violent	0.61	0.46	0.51	0.52	
Property	0.49	0.31	0.31	0.33	**
Drug	0.35	0.34	0.22	0.25	**
Through 42 Months					
Total	4.59	3.23	3.09	3.30	**
Violent	1.57	1.09	1.17	1.21	**
Property	1.11	0.69	0.64	0.71	**
Drug	1.04	0.75	0.53	0.63	**

** $p < .01$ (Positive test during Re-entry vs. others)
* $p < .05$ (Positive test during Re-entry vs. others)

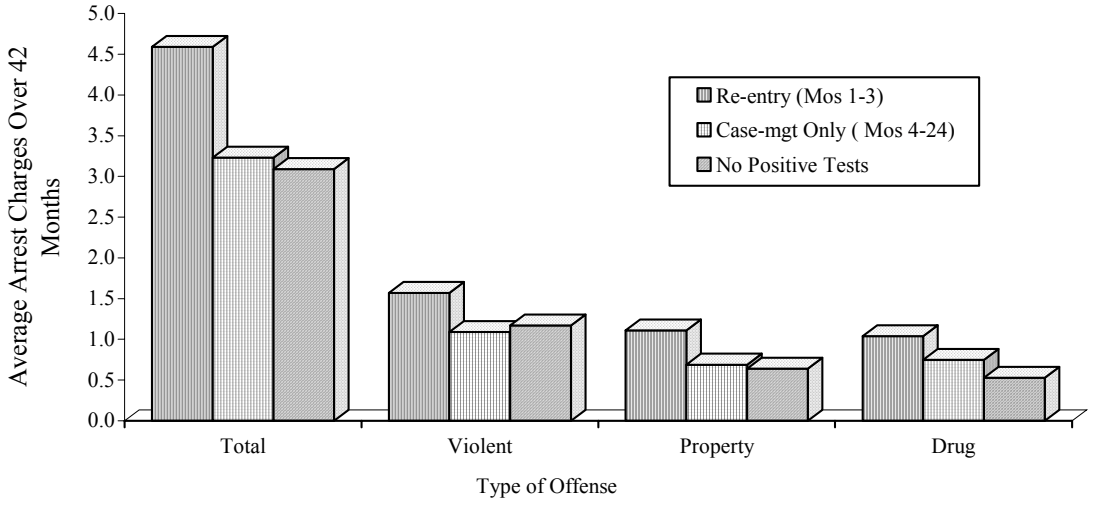

Figure 10: Average arrest charges within 42 months of release by the timing of the first positive drug test.

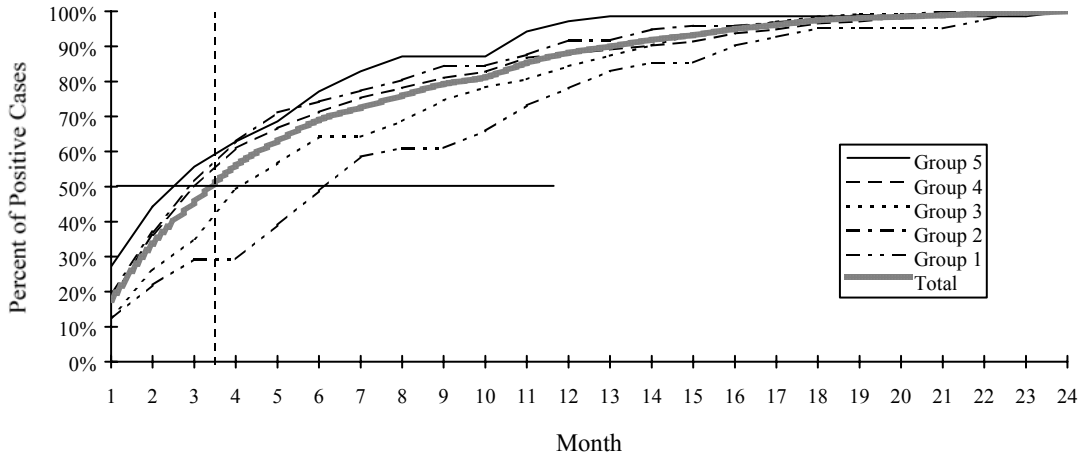

Figure 11: Cumulative proportion of cases ever testing positive by group and month of parole.

Identification of Drug Users During Re-entry

All of the testing levels, with the exception of Group 1 (no testing) were most effective at identifying drug users during the initial, Re-entry, period of parole. This result was expected, because the testing levels for all of the testing groups were higher during that initial period of parole. As shown in Figure 11, 50% of all parolees testing positive were identified within the first 3 ½ months of parole. The tested groups showed a remarkable similarity in the proportions of parolees with positive tests who were identified at various points throughout the first 24 months of parole. Among those in Group 1, the accumulation of parolees with positive drug tests was somewhat more gradual.

Due to the differences in testing frequencies, however, the groups identified different numbers of drug users, as shown in Figure 12. In general, while different testing levels tended to be similar in their rates of accumulating their identified drug users (the proportions of those who eventually test positive at least once), they identified substantially different proportions of their

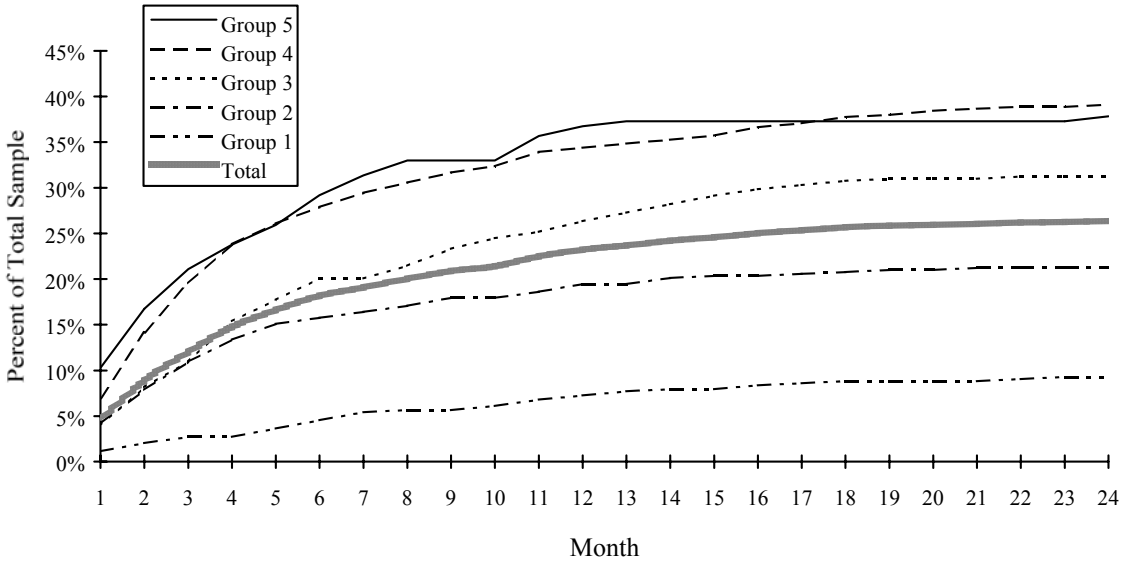

Figure 12: Cumulative proportion of sample testing positive by group and month of parole.

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samples overall. The total percentage of each sample with positive drug tests ranged from about 10% for Group 1 to about 40% for Groups 4 and 5. These two groups had very similar rates of identifying drug users, even though the testing rates were different. This suggests that the Group 4 testing rate might represent an "efficiency" break point, within the present range, for identifying drug users. Group 2 (which was supposed to be tested only during Re-entry) and Group 3 also had similar rates of accumulation for the first four or five months. Their rates diverged at that point, as the Group 3 cases continued to receive routine drug tests.

Differences in Risk Assessment by Group

The next question posed for this exploratory analysis was whether the different levels of drug testing performed differently in identifying these higher-rate offenders. The differences in drug testing should produce different numbers of parolees who test positive during this period, just as they did for the entire parole period (see Table 8). By better identifying these "early drug users" (who were shown to have higher subsequent arrest rates), the higher testing levels should do a better job of identifying the high-rate offenders in the groups. The drug testing should, in effect, "sort" the parolees into higher-rate and lower-rate offenders. Further, since more of the higher-rate offenders are sorted out, the remaining lower-rate offenders should have lower arrest rates than those in groups with less testing.

As expected, increased testing resulted in larger numbers of parolees testing positive during the first three months. As shown in Table 15, only 2.6% of the Group 1 parolees tested positive during Re-entry, compared to 22.1% of Group 5. Further, in all groups, this early drug use was a predictor of subsequent criminality. The average arrests over 42 months, for all offenses and for violent offenses alone, were substantially higher in all groups for cases testing positive during Re-entry than for cases *not* testing positive during that period.

Somewhat puzzling, however, are the differences among the groups. If the detection of drug use during Re-entry was simply a means of sorting the parolees into higher-rate and lower-rate offenders, it would be expected that the arrest rates for the "positives" would be the same, more or less, across groups. However, these averages tend to go up with increased testing, just as the averages for the total sample did. It would also be expected that the arrest charges for the non-positives would be lower with increased testing, as more of the higher-rate offenders were

Table 15
Average Arrests by Test Results During Re-entry
By Group

	Group											
	1		2		3		4		5		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Total Cases	442		457		429		445		185		1,958	
Cases with Arrest Data												
Total Sample	423	100%	433	100%	402	100%	422	100%	172	100%	1,852	100%
No positives in Re-entry	412	97.4%	386	89.1%	355	88.3%	339	80.3%	134	77.9%	1,626	87.8%
1+ positive in Re-entry	11	2.6%	47	10.9%	47	11.7%	83	19.7%	38	22.1%	226	12.2%
Total Arrests in 42 Mos.												
Total Sample	3.00		2.98		3.34		3.68		3.76		3.30	
No positives in Re-entry	2.96		2.88		3.23		3.35		3.39		3.12	
1+ positive in Re-entry	4.64		3.77		4.21		5.04		5.08		4.59	
Violent Arrests in 42 Mos.												
Total Sample	1.01		1.04		1.34		1.34		1.48		1.21	
No positives in Re-entry	1.01		1.01		1.33		1.26		1.32		1.16	
1+ positive in Re-entry	1.00		1.28		1.38		1.70		2.03		1.57	

sorted out. These cases, too, however, showed increasing numbers of arrests, on average, at higher testing levels (Figure 13).

Thus, while drug testing appears to have some utility for identifying parolees with higher future arrest rates, the benefits of increased testing for this purpose are not clear. The higher the testing levels, the more high-rate offenders were found. On the other hand, higher testing was also associated with higher arrests for positive and non-positive alike. Because the study was not able to determine the reason for the increase in arrests associated with increased testing, it is not clear whether increased use of drug testing for risk-assessment purposes is warranted.

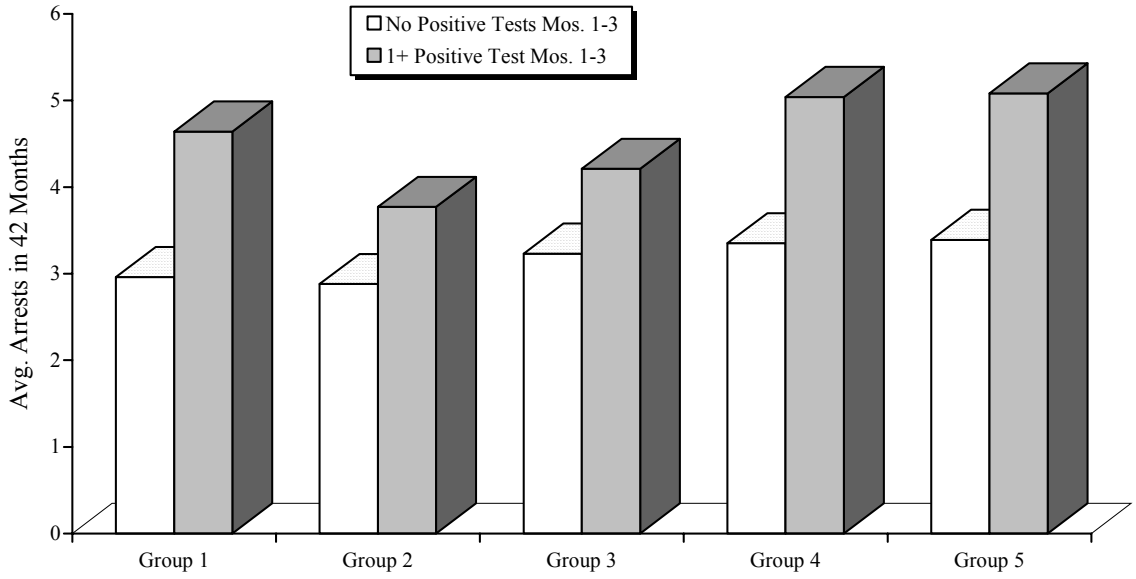

Figure 13: Average arrests in 42 months by positive drug tests during Re-entry by group.

Chapter 7
Summary and Recommendations

Summary

Drug use is believed to contribute to criminal behavior, both directly and indirectly (Chaiken and Chaiken, 1982, 1984; Ball, 1981; Wish and Johnson, 1986; Haapanen, 1990, 1991), and to hinder the establishment of pro-social relationships and lifestyles (Walters, 1992). Reduced drug use is therefore believed to lead to a reduction in other types of criminal behavior as well.

Drug testing is believed to reduce drug use among offenders through *deterrence* and *detection*. The threat of detection through drug testing may *deter* offenders from using drugs. For offenders who are not deterred, drug testing aids in the *detection* of substance abuse, and sets the stage for treatment or sanctions, which may reduce drug use directly and/or bolster future deterrence.

The intent of this study was to determine how much drug testing should be part of regular parole supervision--that is, carried out by parole agents in the context of their regular duties with no reduction in caseload size and no access to additional outside resources, such as testing facilities. The focus was thus limited to a fairly narrow range of drug-testing levels. It was not intended, for example, to determine whether high levels of drug testing could reduce criminality. Rather, it was intended to determine whether having parole agents test more or less often as part of their routine supervision activities would make a difference. The levels were chosen to

provide a reasonable range of possible drug testing frequencies, from "no testing" up to two tests per month.

The study was designed to assess differences in outcome for groups that differed in the amount of drug testing but not in background characteristics or other aspects of supervision. Of primary interest were the crime-reduction, or *public safety*, benefits of these drug testing levels: reduced criminal behavior, measured by arrests, and increases in the number successfully completing parole. While the reduction of drug use is generally considered an important goal in and of itself, the value of drug testing in the parole context is most clearly tied to its assumed effect on criminality in a more general sense.

Implementation

Analyses of descriptive data across groups, drug test information, and supervision levels suggest that the study was, in fact, implemented as designed. Parolees were accepted into the study based upon pre-established eligibility criteria that excluded only those parolees for whom policies regarding routine drug testing of "ordinary" parolees would not apply (parolees who were in special programs or residing in rural areas, for example). No evidence of a breakdown in the sampling procedure, intentional or otherwise, was found, and eligibles actually exceeded the estimated proportion of total parole releases. A total of 1,958 parolees were included in the study.

Group assignments were based on a computerized random assignment procedure that placed parolees in each of the five testing conditions based on pre-determined probabilities. One goal of the group assignment procedure was to establish groups of equal size, except for the high-test group, which was to be about half as large as the other four. The procedure

successfully placed the expected number of parolees in each group. Another goal of the random assignment was to establish groups that were similar in all major respects, thereby minimizing the likelihood that pre-existing group differences would affect outcomes. Comparisons across groups on important background characteristics identified no significant differences, and led to the conclusion that the groups were essentially equivalent. This similarity meant that any differences in outcome among the groups could be attributed to differences in the experiences of the parolees in the groups after entering the study.

Testing levels for the initial three month period (Re-entry) included no-testing, one test every two months, one test per month, two tests per month, and four tests per month. After Re-entry, the testing levels were cut in half (consistent with other aspects of supervision). During this "Case-management" period, the group initially tested once every two months was not to be tested at all.

The groups were tested at different levels throughout parole, although the magnitude of the differences was less than anticipated from the design. The "no testing" group actually turned out to be a "minimal testing" group, with about one in twelve of the parolees tested each month. The high-test group was tested less than once per month, on average, during the Case-management period. Further, there was a considerable amount of variation in testing within groups. However, differences in overall testing levels were statistically significant at the $p < .01$ level. In addition, analysis of testing for each month of parole indicated that differences did not erode appreciably over time—that the groups were tested at different levels throughout parole.

Audits and interviews with parole agents suggested that the failure to reach and maintain anticipated levels was not based, for the most part, on deliberate non-compliance. From the agents' perspective, the problem had more to do with the practical difficulties of maintaining particular, pre-defined testing levels than it did with good faith efforts to comply with the study protocol. Agents seemed to make a good faith effort to comply with difficult expectations that ran counter to normal casework decision-making (for example, not testing Group 1 parolees suspected of drug use and not rewarding parolees who refrain from drug use by reducing the amount of testing). Even the relatively small differences in observed levels of testing in this study were often difficult to maintain.

After-the-fact analysis of budgetary figures suggested another possible factor that may help to explain the failure to achieve the desired levels of drug testing. While drug testing resources, in the form of a contract for drug test analyses, were high enough throughout the study to support the desired level of drug testing, the *average* number of tests per parolee that the budget would support was lower (about 0.50 tests per month) than the overall expected average for the parolees in the study (about 0.64 tests per month). The average testing level for this study was very close (0.52) to the average supported by the budget, suggesting that the study was adapted to the constraints of the available resources for testing. These resources would affect the common set of practices and accepted procedures of the local, street-level unit (Lipsky, 1980;) against which the expectations of any new policy—in this case, the study—would be evaluated (McCleary, 1992; Maupin, 1993).

That the testing levels differed as much and consistently as they did attests to the professionalism of the agents in adhering to the study protocols, simultaneously maintaining several different (and arbitrary) pre-assigned levels of drug testing in the context of their routine

parole supervision. Professionalism, in this sense, refers to the willingness of agents to place the interests of knowledge about drug testing over the interests of being able to exercise discretion over drug testing of their parolees. This value of relying on their own expertise is also, however, an important aspect of professionalism in parole (Simon, 1993; Holt, 1998), and is often referred to as "using professional judgement." In this study, the two aspects of professionalism were somewhat in conflict, and it is not surprising that the result was something of a compromise: significant differences, but not as much as planned.

Other aspects of supervision, such as the number of contacts, did not differ across groups. Data on supervision levels and numbers of face-to-face contacts revealed no tendency to vary other aspects of supervision to accommodate the different testing levels. The only aspect of parole that was different across groups was the amount of drug testing.

Outcomes

The data did not permit an assessment of the impact of drug testing differences on drug *use*, but they did permit an assessment of these differences on criminal behavior. Parolees tested at higher levels did not perform better on parole or afterward. If anything, the differences were in the opposite direction: Over the longer follow-up periods, parolees at higher testing levels had more arrests. At the very least, there was no evidence of a positive impact on public safety.

Comparisons of parole outcomes (types of removal from parole) indicated no overall differences across groups in level of "adjustment:"

1. *good adjustment* (on parole at 24 months or discharged for reasons other than a parole violation);

2. *marginal adjustment* (missing, dishonorably discharged, or revoked for a technical violation of parole); or
3. *poor adjustment* (removed from parole because of criminal behavior or incarcerated for an arrest at 24 months).

There was a slight tendency for the groups with more frequent testing to have fewer cases remaining on parole and therefore to have a lower proportion with "good" adjustment.

Analysis of arrests showed no reduction for the higher test groups in the average numbers of arrests or the proportions of each group with any arrests. Almost 3 out of 5 (59.4%) were arrested at least once during parole. Two out of three (65.9%) were arrested by 24 months and three out of four (76.2%) by 42 months. By 42 months, over half of these offenders had been arrested for at least one violent offense (homicide, rape, robbery, assault, or kidnapping), the most common of these being Assault and Battery (or simple assault). They were less likely (32.1%) to have an arrest for a property offense (burglary, vehicle theft, other theft). About three in five of these offenders had at least one "more serious" arrest charge (any violent or property charge except simple theft).

Like the results for percentages, average arrests showed a slight trend toward *more* offense charges for cases in the higher testing groups, particularly for the full 42-month follow-up. Statistically significant differences in these averages (at the $p < .05$ level) were found for Property Offenses at 24 months and for Total and Violent offenses at 42 months. In terms of specific offenses, statistically significant differences were found for Assault and Battery, Drug Sales, and Miscellaneous Felony offenses. Each of these differences was also associated with a statistically significant linear trend: higher average arrest charges for higher testing groups.

Survival analysis and multivariate analyses, in which possible groups differences that might explain these findings were controlled, showed similar results. These analyses, which employed survival models, logistic regression models, and negative binomial Poisson regression models, provided a similar overall picture as the simple comparisons. There were no groups differences in the time to first arrest of various kinds. After controlling for background variables, logistic regression models found no significant differences in the proportions of each group who were arrested. Negative binomial Poisson regression models found higher testing groups (Groups 3, 4, and 5) to have *higher* levels of arrests than lower testing groups (Groups 1 and 2).

No explanation is offered for this unexpected finding. Simple comparisons across groups for subsets of the sample differing by ethnic group, level of drug problems, history of use, and so on, showed similar patterns of responses: average numbers of arrests increasing with higher levels of drug testing. These differences were not statistically significant, due to smaller sample sizes in the subgroups. However, the stability of the results suggests that the pattern was not produced only by a particular subgroup of the sample. The lack of positive impact (and the possible negative impact) of increased drug testing was found for all types of parolees.

Process Analysis

These analyses indicated that the lack of positive relationship between drug testing levels and parole adjustment or criminal behavior could not be attributed simply to a failure to use the drug testing information in accordance with the model of change (deterrence/detection). Parole agents did pay attention to the drug test results, did consider these results when making casework decisions about parolees, and did respond to positive tests with increased sanctions and increased

drug treatment. As testing levels increased, more parolees were identified as drug users, and this information was used by agents, who applied both sanctions and treatment in an effort to reduce the substance abuse problem.

Results also showed that parole agents did not rely solely on the drug testing information for identifying and assessing substance abuse problems among parolees. As shown in Chapter 5, parole agents identified some parolees as needing treatment despite having no positive tests. They also determined that some parolees who *did* have positive tests did not have a substance abuse problem that interfered with their functioning enough to warrant service. At higher testing levels, agents had more information upon which to base their assessments of substance abuse problems. Drug test results alone, however, were often not considered sufficient for this identification.

The most common response for positive tests up to the third was "continue on parole." After the first positive test, however, this response accounted for less than one in four outcomes of positive tests. As the number of positive tests went up, fewer cases were continued on parole and more cases were referred to drug programs. At no level was a strong punitive approach taken. Even for the first positive test, almost one in ten (9.8%) positive tests resulted in a referral to a residential drug program. This response was increasingly common for additional tests. Only a small percentage (5.1%) was directly removed from parole (usually on a technical violation).

The most common "outcome" for the second and third positive test was for the parolee to go AWOL. In fact, going "missing" was a common response to *all* positive tests, accounting for one-fifth of all outcomes. The substantial proportion of parolees that went missing after submitting a positive urine sample, coupled with the fact that this proportion went up for each

successive positive test, suggests that parolees at least *believed* that serious consequences would follow from a positive drug test and that the consequences got more serious as the number of positive tests went up. It appears that rather than face the consequences of failure to stay drug-free (temporary detention, revocation, or drug treatment), the parolee chose instead to go AWOL.

Exploratory Analysis

Exploratory analyses focused on the potential value of drug testing for identifying parolees that pose a greater risk to public safety. Positive drug tests during the first three months of parole (Re-entry) were found to indicate higher levels of arrest over the follow-up period up to 42 months. These results suggest that drug testing might be used as a risk-assessment tool to identify parolees who demonstrate their higher criminal propensity by submitting positive urine samples early during parole.

Recommendation and Discussion

Based on the results of this study, the general answer to the question of how much drug testing to include as part of routine parole supervision would be *minimal surprise testing, but perhaps with regular, frequent testing during the first three months of parole (Re-entry)*. This recommendation is based on the general results of the study and on results of various specific analyses. It is also based on insights regarding drug testing that were gained through interviews with agents and experience with implementing the study.

This recommendation, however, does not imply that drug use by parolees should no longer be considered a problem. The present study did not address whether or not drug use

information was important or whether attending to the substance abuse problems of parolees had any effect.

Minimal Drug Testing

The outcome comparisons showed no public safety benefit associated with levels of testing beyond that which was given to the No-test groups. From a public safety perspective, therefore, there is little justification for testing beyond a minimum level.[32] By keeping drug testing at a minimum, moreover, the agency can avoid not only a good deal of the dollar cost of drug testing, but can also avoid other opportunity costs associated with potential over-reliance on drug testing. Over-reliance on testing pushes the balance in the agent/parolee relationship toward control and away from service and support. At high levels of drug testing, the parolee/agent relationship may come to be increasingly structured around a failure-oriented, relatively distasteful activity (Torres, 1996b).

Because all of the parolees in this study were subject to testing (whether tested or not), the threat of testing must be included in any recommendation following from the results. In order for that threat to be credible, however, there must be some testing going on. In addition, the general credibility of the agent may depend on administering at least a minimal level of drug testing when parolees and their family members expect to be tested. Parole agents were often called upon to explain why certain parolees in the no-test groups who were suspected of drug use were not tested.

[32] Because some testing went on for these no-test groups, the study cannot, technically, permit conclusions about a true no-test condition.

Reductions in testing would undoubtedly cause some disruption in how parole has come to operate. First and foremost, agents would have to do without this "tool" for assessing drug use and drug problems among parolees. To the extent that agents are expected to monitor the drug use behavior or their parolees, other methods would have to be used. Results of the process analysis, noted above, suggest that such methods are available and are already being used in lieu of, or in combination with, drug tests. Agents identified some parolees as having substance abuse problems despite their not having positive drug tests.

As pointed out in Chapter 1, another basis for the appeal of drug testing is that it provides hard *evidence* of drug use, a legally defensible indicator that parole or probation conditions have been violated. Positive drug test results serve as a "trigger" and a rationale for action that may be only partly based on the drug use. While most parole failures are due to continued criminal behavior, there are a few parolees who adjust poorly enough to warrant parole revocations despite avoiding arrest. These parolees may distinguish themselves by drug use and/or by other behaviors indicative of poor adjustment. A drug testing program will not only help to identify some of these parolees, but also provide the impetus for taking action to revoke their paroles. Drug testing facilitates this process. However, as noted in Chapter 5 (Table 13), although parolees in the higher testing groups were more likely to be revoked for a technical drug violations, they were *not* more likely to be revoked for technical violations overall. This similarity in overall technical revocation rates suggests that these parolees can be identified by other means.

A more subtle change would involve the way agencies like the Youth Authority monitor the progress of parolees and the job performance of parole agents. Parole reports routinely indicate the number of times a parolee was tested and the results of those tests. Drug test

information provides a tangible, empirical basis for describing the parolee's conduct on parole. Drug testing has therefore gained acceptance as a basis for monitoring parole conditions: for evaluating parole performance and readiness for discharge from supervision. Drug testing has also come to serve, informally, as a convenient and quantifiable measure of parole agent activity. Few other aspects of the agents' interactions with parolees are as straightforward, standardized, and measurable. Consequently, drug testing may serve as a convenient way for agencies to assess the performance of agents, and, conversely, for agents to demonstrate that they have been diligent in monitoring the drug use of the parolees. A reduction in drug testing would necessitate a reassessment of these methods for monitoring the performance of parolees and agents.

Drug Testing During Re-entry

While the findings suggest little public safety benefit for testing above a minimum level, the predictive value of early drug use on parole suggests the potential value of regular, fairly frequent drug testing during the Re-entry period. The lack of a good understanding of what to do with parolees who test positive early, however, along with the tendency for parolees to go AWOL after submitting a positive test, suggest a certain caution in this regard.

Cases testing positive in the first three months of parole were much more likely to have arrests during parole and later, indicating that an early positive test is a good indicator of increased risk for criminal behavior. Cases testing positive only after the first three months were no different from cases never testing positive. This finding suggests that a positive drug test

early in parole is a powerful indicator of criminal propensity and that regular, relatively frequent drug testing can provide a relatively straightforward risk-assessment procedure.[33]

A regular pattern of drug testing during the early months of parole would also help to assure parolees of the "reality" of drug testing and thereby help to reinforce the threat of testing later on. Once this threat is established, it may be easier to maintain while keeping drug testing levels during Case-management to a minimum.

A note of caution is called for, however, with regards to this recommendation. In the first place, it is not at all clear what should be done with parolees who demonstrate their higher-than-average criminal propensity through testing positive early in parole. The present data suggested that Youth Authority parole agents did not ignore this information. They responded to these tests in expected ways, identifying the wards as having substance abuse problems and responding with typical kinds of treatment or sanctions. The parolees with early positive tests still proved to have higher levels of arrests later on. There is no way to determine whether these interventions had any effect on the levels of crime (for example, it is possible that these parolees may have engaged in considerably *more* crime if not for the efforts of the parole agents). The point is that there is no research to suggest how best to reduce the future criminality of these parolees.

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[33] Multivariate analyses suggested that early positive tests did not provide much predictive power over what might be obtained from information on past history of drug use and prior criminal history. The reverse, however, was also true, suggesting that early drug use in parole might serve as a simple substitute for these other indicators of criminality. More analyses of this issue are being undertaken to better understand the usefulness of drug test information for predicting future criminality.

It may be tempting to respond to these parolees with increased incarceration (to protect the public for as long as possible) or to require intensive drug treatment (to try to reduce whatever influence drug use may have on their behavior) but that brings up the second basis for caution: The tendency for parolees to "go missing" after submitting a positive test and the finding that this tendency increased as the potential consequences of the dirty test increased (based on the number of prior positive tests). This idea that parolees are likely to abscond in anticipation of consequences for submitting dirty urine samples complicates the issue of how to respond to dirty tests.

As mentioned earlier, agents note that parolees usually know when they have submitted (or will submit) a dirty test. Many, if not most, of the "users" have little to lose by absconding. If they feel they are likely to get in serious trouble for a dirty test, they may abscond in order to avoid getting caught. If they cannot avoid having to submit the specimen, they may simply take off after doing so. As a consequence, agents lose whatever influence they may have had with the parolee, and the parolee may become even more unstable and irresponsible. In short, "getting tough" with these parolees may backfire, resulting in bigger problems than drug use. A similar problem was noted by Britt, et al 1992) in their study of drug testing and pretrial release. In addition to finding that drug testing did not seem to affect drug use or pretrial misconduct among defendants, they also noted that defendants in the drug-testing group were more likely to fail to appear for their trials (flee).

Thus, while drug testing appears to have some utility for identifying parolees with higher future arrest rates, the benefits of increased testing for this purpose are not clear. What is needed is a better understanding of how to respond effectively to this indicator of criminal propensity without, literally, scaring the parolees off.

In summary, this study showed that routine drug testing by parole agents beyond a minimum level did not seem to have a positive impact on the criminal behavior of parolees. While limited in its scope, the study was carried out successfully, providing experimental evidence that the variations in drug testing frequencies that can be implemented as a part of regular parole did not produce expected differences. In fact, all observed differences were in favor of *lower* levels of drug testing. It is not clear why higher levels of drug testing would be associated with higher arrest rates that extended far beyond the time when these offenders were under CYA parole supervision. Further research would be necessary to fully understand and verify this finding. In the meantime, the present results suggest the value of a thorough review of assumptions regarding the benefits of drug testing for parolees.

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Appendix A

Procedure Manual

Drug Testing for Youthful Offenders on Parole: An Experimental Study

April, 1992

Overview

In the fall of 1990, the California Youth Authority was invited to compete for a grant by the National Institute of Justice to assess the effectiveness of routine, unscheduled (random) drug testing as part of parole supervision. Drug testing has been assumed to cause a reduction of drug use, either through deterrence or intervention. Lowered drug use should, in turn, increase an offender's chances of successfully completing parole supervision and avoiding further criminal behavior. To date, however, there have been no well-designed studies to test these assumptions. Meanwhile drug-testing has consumed a large part of many agencies' resources, which could be used in other, possibly more productive ways.

The objective of the study is to *determine the lowest effective level of routine, unscheduled drug tests* for CYA parolees and thereby to facilitate decisions regarding the best allocation of scarce resources. An experimental research design was identified by a task group of parole agents, supervisors, and clerical staff. The design and procedures were chosen with the intent of providing the most valid and useful information possible for CYA decision-making while keeping the workload impact to a minimum. The study focuses on evaluating whether (other things being equal) different levels of random drug testing result in different numbers of crimes and/or parole failures among the young adult offenders on CYA parole supervision. As much as possible, all other aspects of parole supervision were left unchanged and only information that cannot be obtained otherwise will be provided by agents on a checklist form. The sample will include all offenders committed to the Department (no "M" cases) who are *released to parole over the course of* ***one year***. These cases will be tested at specified levels until they are removed from parole through discharge, revocation or recommitment. Cases will be excluded from the study *only* if their possible parole exposure is very limited or if their parole circumstances make unscheduled drug tests impractical or unfeasible. Estimated total sample size will be over 2,000.

The study will focus on five alternative levels of random drug-testing. The random tests would replace tests ordered by agents for probable cause (when they have reason to believe the parolee is using drugs) and any routine tests ordered before YOPB hearings, at discharge, and following arrests. For study cases, the frequency of random drug tests will be at one of the five levels during Re-entry and at the next lower level for the remainder of parole. *Non-study cases will be tested according to current standards.*

The five levels of testing were chosen to provide a range of testing intervals from "none at all" to "prohibitively expensive." By specifying a specific number of tests to be performed over particular periods, these levels all go beyond current *standards* for drug testing. The levels were chosen, however, to produce roughly the same number of (and perhaps fewer) total tests for these cases as would have been performed had the study not been undertaken. Most study cases

will be tested less than once per month after Re-entry. Cases in the highest testing group will be tested twice per month, but this group has been reduced in size so that the number of cases per unit should not exceed 15-20 total.

To the extent possible, the study will not involve any other change in the way parole agents handle their cases, including the way in which they respond to positive tests. The intent is to evaluate these testing frequencies as they would be implemented if they were adopted as policy by the department for the parolees involved. For such an evaluation, we need information not only on effectiveness, but also on the "costs" of maintaining various levels of drug testing. It will be important, in this regard, to understand the kinds of circumstances under which various drug-testing levels pose extreme hardships either to parole agents or to parolees. Therefore, while consideration (in the from of exclusions) has been made for certain anticipated problems arising from the study, and other problems will be handled as they occur, exceptions to the study procedures (in terms of participation by parolees or the maintenance of testing levels by parole agents) must be kept to a minimum. We do not want to devote all this time and effort to a study that is so "artificial" that we do not know if it would be applicable to our parole population. These procedures were developed with that end in mind.

Questions, comments, or suggestions for improving these procedures are welcome. They can be addressed to

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Eligibility Screening and Group Assignment

Parole unit supervisors will be responsible for determining eligibility, for making group assignments, for managing unit caseloads and for documenting the reasons for excluding any case in their units.

1. **When preparing placement plans for wards being considered for parole, the unit supervisor will establish tentative eligibility for the study.**

   Eligibility. The study sample will include all parolees who meet the following criteria:
   1. *CYA cases* (M-cases will be excluded);
   2. *California parole* (no out-of-state cases);
   3. *At least 6 months remaining jurisdiction time;*
   4. *At least 60 days available confinement time (ACT);*
   5. *YOPB conditions for drug testing* (mandatory or at the agent's discretion);
   6. No *YOPB conditions specifying the frequency of drug testing or mandating particular responses to dirty tests* (for example, mandatory detain);

   Exclusions. Certain of the eligible cases may be excluded from the study if their participation is not practical or feasible:
   7. *Certain "special interest" cases*;
   8. *Cases assigned to parole caseloads covering wide geographical areas* (certain resident agent caseloads) . However, because of the lower testing frequencies, it may be possible to include those cases on these caseloads that are in one of the "discretionary testing" groups.
   9. *Cases assigned directly to the Watts Special Drug-testing Caseloads upon release to parole.*

   Note: Cases released into the *Early Release Electronic Monitoring Program* will become eligible for the study after the 60-day program (at the point that they move to Re-entry status). Their files would be reviewed for eligibility in the same way as other cases.

2. **Once eligibility is established, assignment to a level of testing will be made on the basis of a computerized process.**

   Unit supervisors will call in each case to Research staff, who will log whether the case is included or excluded and the reason for exclusion. Included cases will be assigned a group, using a special computer program. Research staff will immediately advise the supervisor of the group assignment. Groups include
   1. *No routine testing* (parolees are tested only after an arrest, either by law enforcement or by parole agents who have probable cause to arrest for drug use);
   2. *No routine testing,* but tested once or twice (*Bimonthly)* during Re-entry;
   3. Once every two months (*Bimonthly*), with one test a month (*Monthly*) during Re-entry;
   4. Once a month (*Monthly*), with one test every two weeks (*Biweekly*) during Re-entry; and
   5. Once every two weeks (*Biweekly*), with one test every week (*Weekly*) during Re-entry.

3. **For all cases, an initial data collection form will be completed (top section only) and placed in the "flimsy" pending file. This form will note the *group assignment* for eligible cases and the *reason for exclusion* for others.**

4. **Eligibility (or reason for exclusion) and group assignment will also be noted in the unit's computerized data base.**

   This data base will be expanded to include one or two additional fields, which will indicate
   1. whether the case is included in the study and, if not, the reason for exclusion (the eligibility or exclusionary criterion not met); and
   2. the group assignment for eligible cases.

   This procedure will make information on the sample easily accessible and may speed data collection.

5. **Once the group assignments are made, parole unit supervisors will have the discretion to assign the study cases (it is not the intent of the study to interfere with regular caseload allocation procedures).**

   Units will have the option to scatter study cases among all agents carrying regular caseloads (to share the workload) or to concentrate them among a few agents (to allow for greater consistency of case management within these caseloads). Parole units will not, however, assign all cases in particular testing groups to the same caseload, because this would make it impossible to separate out the effects of testing levels from the effects of supervision styles. Assuming a 24-month maximum parole period, a one-year sample would comprise *at most* 50% of parolees in each participating unit.

6. **Once cases are included in the study, they will remain in the study *in the same testing-level group* until they leave parole (through revocation, recommitment, discharge, or death). Transferred cases will continue at their assigned levels in their new units.**

   Exceptions: Testing levels of parolees who move to excluded (rural) areas may be reduced or suspended if the agent and supervisor determine that the assigned testing level cannot be maintained. Any change in testing levels for these parolees must be noted on a data collection form so that research staff can note these changes in the main study data base.

Testing procedures

Testing procedures would be essentially the same as they are at the present time, with the exception that a greater emphasis will be placed on ensuring that tests are scheduled on a "surprise" basis and on keeping parolees unaware of the study.

1. **Parole agents will be responsible for administering the random drug tests at the assigned intervals (averaged over each case review period) and, with the exception of the once-a-week group, on a "surprise" basis.**

   To allow for scheduling flexibility and in order for drug tests to truly be "random," they should be scheduled so that they average out to the assigned interval *within case review periods*. For example, for parolees in the every-other-month group, tests may be ordered
   - at the beginning and end of the four-month case review period;
   - near the middle of each two-month period, or even
   - within a week of one another near the end of the 120-day period.

   For parolees in the once-a-week testing group, surprise tests may not be feasible, but the element of surprise will also not be as critical, since testing at that frequency will likely detect any ongoing drug use anyway.
   Current standards for parole agents and supervisors regarding drug testing have been amended to include adherence to the study procedures for study cases.

   Agents will assume responsibility for maintaining the testing levels of study cases transferred into their caseloads from other units and for cases re-assigned to them temporarily due to vacant caseloads.

   Exceptions: During certain periods, maintenance of testing levels may not be practical:
   1. when the assigned agent is on vacation;
   2. when the parolee is in custody;
   3. during residential treatment programs, such as Fouts Springs or El Centro;
   4. during temporary placement on the Watts special drug caseloads;
   5. during periods of extreme hardship (e.g., parolee in the hospital);
   6. when the testing would prevent the parolee's participation in full-time work, full-time school, or a full-time combination of work and school; and
   7. when a caseload is maintained as a "vacant" caseload (cases are not reassigned and are covered for emergencies only).

   Under these circumstances, the parole supervisor will have the authority to *temporarily reduce or suspend* the parolee's drug testing level. If possible, a testing frequency should be established that maintains the parolees level as close to the assigned level as possible. The parolee should be returned to their assigned level whenever it becomes practical to do so. For example, if an agent takes a one-month vacation, it may still be possible to test a once-a-month case four times in the four-month case-review period, while a twice-

a-month case might be tested a total of seven (rather than eight) times during the four-month period. Similarly, if a parolee cannot test at the assigned frequency because of some hardship, it may be possible to maintain testing at a slightly lower level until the parolee can be returned to his/her assigned level.

In addition, *permanent adjustments* to testing levels may be made for parolees who move to rural, or otherwise excluded areas (see #7 above).

If testing for a case is reduced or suspended for one of these reasons, the deviation, its cause, and its duration will be noted on the data collection form (under Comments) so that a full accounting of the problems associated with maintaining the different testing levels can be included in the study report.

Questions concerning these exceptions and/or their handling should be referred to Al Cox, the Branch's Grants Program Coordinator, or Maria Zavala, Grants Coordinator Specialist, at (916) 424-7119 (ATSS: 466-7119).

2. **Instances of possible over-testing and under-testing will be identified and brought to the attention of the unit SPA to obtain clarification and/or to make any required adjustments.**

   As part of the ongoing project monitoring process, the numbers of drug tests per ward will be periodically calculated from the data provided by the drug lab and compared to the expected levels based on group assignments. Unit supervisors will be asked to obtain clarification on instances of apparent over- or under-testing . Any correction or other action will be handled at the unit level.

3. **Drug testing intervals are not to "drive" supervision levels beyond current standards for case management. Cases whose testing levels are higher than their designated supervision levels are to be ordered simply to report to the parole office for testing. They need not be seen by their parole agents.**

   Once contacted, these parolees will be required to report to the office for drug testing *within 48 hours*. This interval is short enough that most drugs could still be detected in the urine and long enough that scheduling should not interfere with employment or other pro-social activities. Other parolees may also be tested in this manner.

   Cases for whom maintaining the assigned testing level poses an extreme hardship on the parolee or the agent should be discussed with the unit supervisor and/or the Grants Program Coordinator for possible exceptions (temporary adjustments) to the testing levels (see #1 above).

4. **Parolees should *not* be advised that they are part of this study.**

Every attempt should be made to prevent the parolees' awareness of the study and of the testing intervals, since offenders with minimal testing schedules may be more tempted to try to "get away with" drug use. Some awareness of these intervals must be expected, however, and surprise testing will be critical to maintaining a semblance of the threat of detection.

5. **In order to isolate the effects of drug testing levels as much as possible, *all other aspects of parole supervision are to be unchanged.***

   As explained earlier, the intent is to study drug testing frequencies in the context of parole supervision as it would normally exist at various levels of drug testing. Cases not involved in the study will be tested according to current parole standards for drug testing. Violations and infractions of parole will be responded to in the usual ways. In order to maintain the integrity of the study, however, a few restrictions must be placed on the treatment of study cases:

   1. agents will be expected to continue the practice of *not* recommending revocation of parole for a single dirty test in the absence of other violations.
   2. agents will be expected *not* to respond to a positive test with a long-term increase in testing, since this would change the study conditions. In order to verify drug use and/or to its cessation, a *single retest* would be allowed. The parolee would then be returned to his/her assigned level of testing.
   3. agents will not be allowed to petition the YOPB to remove a drug-testing requirement for a study case (this would change the make-up of the groups and make it impossible to determine whether differences between groups were due to the testing or to agent decision-making).

6. **The YOPB has agreed not to make changes in the drug-testing conditions of study cases. In order for board members to identify study cases, materials submitted to the YOPB for study cases will be stamped with the "NIJ Study" stamp provided for marking the case files of study cases. The assigned testing level will not be identified for the YOPB.**

Outcome data collection

The issue here is how best to obtain the needed information on study-relevant activities and the parole agent response. These types of information (particularly responses) are not currently documented in a way to be accessible by a data collector. The intent is to keep the overall amount of time spent by parole agents on these tasks to a minimum.

Parole agents will be responsible for entering information on outcomes and types of action taken in response to various activities on the checklist data form. These forms will be maintained in a binder or file for review and collection by project staff.

The forms (example attached) will be completed only when a case leaves the unit (through transfer, discharge or death) or when the study cases do something requiring some response from the agent (dirty tests, parole violations, arrests, missing, etc.). Other methods of collecting this information were considered more time-consuming for agents than this checklist. Completion of these forms may require different procedures at different units, but each unit would be required to have completed (and pending) forms available for the data collector in some designated place. "Pending" is to be used whenever the type of action is unknown at the time a form is filled out (for example, pending court action, missing). The data collector will thereby be able to distinguish between cases for which action is not complete and cases with missing data (the data collector will have to question agents about these cases). The use of "pending" will reduce the number of required checks with parole agents.

Observations and perceptions of parole agents

Information on parole agents' views of drug testing in general, of the study, and of the use of reactive testing will be important for interpreting the results of the study and for describing the various "mixes" of random and reactive tests that will occur for each level of drug testing.

On a voluntary basis, agents will be asked to comment on the study, on the use of random testing in general, and on *their* use of reactive testing for particular parolees.

In order to fully understand the implications of the study for the use of random drug testing, it is necessary to understand the roles of random testing within the overall context of parole supervision in the Youth Authority. This information would be obtained through voluntary interviews. These interviews would be arranged in advance at the convenience of the agents involved. If information on the testing of particular parolees is requested, the agent will be informed in advance of which parolees and which tests are of interest. The information gained in this manner will be used as part of the descriptive material in the study report.

Appendix B

Parole Drug Testing Research Project

Activity Reporting Form

(Please print or type)

YA Number: _____(1-5) **Group:** _____ (6-7) **Date of data collection:** ____/____/____ (14-19)

Ward Name: _____ **Parole Unit:** _____ (20-22)

Activity Date: ____/____/____ (8-13) **Agent:** _____ (23-25)

Type of Activity: (complete a form for each activity and indicate Type of Action)

_____Fail to test (26)
_____Dirty test (27)
_____Missing (28)
_____Technical violation reported (29)
Nature:_____(30-31)
_____Arrest (32)
Reason/charge(s):_____
_____ (33-38)
Disposition:_____
_____ (39-40)

Status Change: (no Type of Action required)

_____Transfer (41)
To (unit):_____(42-44)
_____Dishonorable Discharge (45)
_____General Discharge (46)
_____Honorable Discharge (47)
_____Death (48)
Cause:_____(49-50)

Type of action: (check all that apply)

_____Continue on parole (51)
_____Restoration of parole (missing cases) (52)
_____Narcotics Anonymous/Counseling (53)
_____Warn by staff (54)
_____Home restriction (55)
_____Electronic monitoring (56)
_____Increase in contacts (57)
_____Detoxification (58)
_____Re-test (within two weeks) (59)
_____Change of placement (60)
_____Fouts Springs/El Centro (61)
_____Watts Specialized Drug Caseload (62)
_____Community Drug Program (63)
_____Temporary Detention (64)
_____Revocation (65)
_____Recommitment (66)
_____Commit to CDC/Continue YA parole (67)
_____Commit to CDC/Discharge from YA (68)
_____Pending (69)
_____Other:_____(70-71)

Reason for exclusion: _____ (72-73)

Comments: _____

_____ (74-80)

(FORM292A.DOC)

Appendix C
Case Review Summary
(Front)

Annual Review Date _____ Type of Staffing: (1-5)

Release Date _____ ☐ 1. 30 - Day ☐ 2. 90 - Day ☐ 3. 120 - Day ☐ 4. Crisis ☐ 5. Transfer

YA NUMBER (6-10)	NAME OF WARD (LAST, FIRST, MIDDLE) (11-35)	DOB	TELEPHONE NUMBER	DATE (36-41)

ADDRESS (NUMBER, STREET, CITY, STATE, ZIP CODE)	COUNTY	PAROLE AGENT	UNIT CODE (42-44)

A.C.T. _____ (Days) ☐ BHC # ☐ (45) Specialized Caseload ☐ (46) In Custody (47) ☐ Deported (48) ☐ Missing - - Date _____ (49) ☐ Escapee (50-55)

WARD AND COLLATERAL CONTACTS

LEVEL OF SUPERVISION THIS REPORTING PERIOD MAX MED MIN

LEVEL OF SUPERVISION NEXT REPORTING PERIOD MAX MED MIN

No. Weeks: _____

TOTAL CONTACTS:

Ward (face-to-face) _____

Collateral (inc. phone) _____

Current Employment Status: ☐

0 - Unemployed
1 - Full-time employment
2 - Part-time employment
3 - Full-time school or training
4 - Part-time school or training
5 - Full-time employment & school or training
6 - Part-time employment & school or training
7 - In custody
8 - Missing (AWOL)

Current Wage/hr ___ ___ : ___ ___
Dollars Cents

Restitution Fine: (whole dollars)

Original Amount	Previous Balance	Paid This Period	New Balance
$___ ___ ___ ___	$___ ___ ___ ___	$___ ___ ___ ___	$___ ___ ___ ___

Restitution - Victim

Original Amount	Previous Balance	Paid This Period	New Balance
$___ ___ ___ ___	$___ ___ ___ ___	$___ ___ ___ ___	$___ ___ ___ ___

Special Problems:
____Substance Abuse
____Sex Offender
____Med/Psych
____Gang Involved
____Other _____

0 = none
1 = past only
2 = present

☐ Current Subsidized Placements
0 - None
1 - Foster Home (Individual)
2 - Foster Home (Extra Cost)
3 - Foster Home (Contract Group)
4 - Independent

ARRESTS/VIOLATIONS/DISPOSITIONS

Arrested by	Offense	Date	Disposition

Comments _____

PREPARED BY (Signature) _____ DATE _____ CASE CONFERENCE PARTICIPANTS _____

APPROVED BY (Signature) _____ DATE _____ CASE CONFERENCE PARTICIPANTS _____

Appendix C
Case Review Summary
(Back)
Parole Classification System Form

Service Needs (Next Period)

1. Academic/Vocational skills
   0 = Adequate skills, able to handle everyday requirements.
   2 = Low skill level, causing minor employability problems.
   4 = Minimum skill level, causing serious employability problems.
   (56)

2. Employment
   0 = Secure employment; no difficulties reported (or home-maker, student).
   3 = Unsatisfactory employment; unemployed, but has adequate skills.
   6 = Unemployed and virtually unemployable; needs training.
   (57)

3. Financial management
   0 = Minor difficulties only.
   3 = Dependency on significant others or state agencies.
   5 = Complete dependency on CYA (placements); incapable of basic money management.
   (58)

4. Living arrangement
   0 = Stable, supportive relations with family/living group (or lives independently).
   3 = Occasional, moderate interpersonal problems within living group.
   5 = Serious and frequent interpersonal problems within living group.
   (59)

5. Association with negative peers
   0 = Few adverse relationships
   2 = Some association with negative peers (occasional negative results).
   4 = Associations almost completely negative.
   (60)

6. Mental ability/Emotional stability
   0 = No symptoms of emotional instability; able to function independently.
   4 = Symptoms limit adequate functioning (emotional problems); mild retardation.
   7 = Symptoms prohibit adequate functioning (serious mental illness); moderate retardation.
   (61)

7. Substance abuse
   0 = None.
   3 = Occasional substance abuse; some disruption of functioning.
   5 = Frequent substance abuse; serious disruption of functioning.
   (62)

8. Physical health
   0 = Sound physical health; seldom ill.
   1 = Handicap or illness interferes with functioning on a recurring basis.
   2 = Serious handicap or chronic illness; needs frequent medical care.
   (63)

9. Interpersonal/Social skills
   0 = Adequate skills; adequate social functioning (e.g., work, school, parole contacts).
   3 = Moderately dysfunctional; problems with authority (e.g., employers, parole agents); difficulty dealing with people.
   5 = Severely dysfunctional; unable to maintain employment, meet parole conditions, etc.
   (64)

TOTAL (65-66)

Parole Performance (This Period)

1. Substance abuse (pos. test; arrest)
   0 = None.
   3 = Any.
   (67)

2. Arrests by law enforcement or parole (excluding warrants prior to parole)
   0 = None.
   1 = Not prosecuted.
   3 = Prosecuted (regardless of conviction status).
   (68)

3. Gang involvement
   0 = None.
   1 = Minor (colors; police contacts, etc.).
   3 = Significant (involvement in gang activity).
   (69)

4. Compliance with parole instructions
   0 = No compliance problems.
   1 = Minor infractions only.
   3 = Major pattern of non-compliance.
   (70)

5. Employment/school (disabled = 0)
   0 = Employed or in school at least 50% of period.
   1 = Employed or in school less than 50% of period.
   3 = No employment or school during period.
   (71)

TOTAL (72-73)

Supervision Level (For Next Period)

Current Level* (74)

MIN	MED	MAX
(1)	(2)	(3)

Indicated Change (circle one)

Needs	Performance 0-7	Performance 1-5	Performance 6+
0-7	Down	Same	Up
8-15	Same	Same	Up
16+	Same	Up	Up

Next Period:

Recommended Level (75)			Actual Level (76)		
MIN	MED	MAX	MIN	MED	MAX
(1)	(2)	(3)	(1)	(2)	(3)

If *Actual Level* does not match *Recommended Level*, indicate reason for OVERRIDE (be specific):

_____

_____

_____

_____