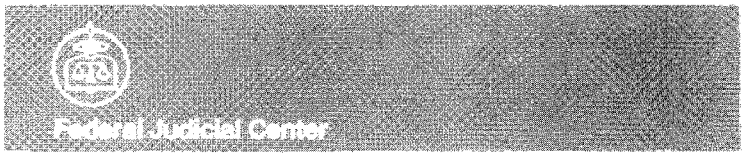
The Impact of the Federal Drug Aftercare Program



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THE IMPACT OF THE FEDERAL DRUG AFTERCARE PROGRAM

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EXECUTIVE SUMMARY

This report presents the findings of a longitudinal study of supervision outcomes among a sample of offenders who participated in the aftercare program for drug-dependent federal offenders. The aftercare program provides urine surveillance along with a variety of drug treatment services to drug-dependent probationers and parolees under federal supervision.

This study was undertaken as the final part of a two-phase evaluation of the aftercare program. The first phase was a process-descriptive study of the program; a report covering that aspect of the evaluation was issued in August 1984.[1] The second phase of the evaluation, described herein, was designed to build on and further explore a number of the findings of the first phase. As such, it had two major objectives:

- To generate comparative and up-to-date descriptive data on a contemporary sample of aftercare program participants under supervision in selected probation offices. Descriptive data on offender characteristics, treatment services received, and aftercare program outcomes were collected and analyzed.
- To identify significant variables or factors that help to explain or "predict" aftercare outcomes. These factors might include offender demographics, nature and extent of prior drug use, criminal history, and treatment services received while in the program.

A retrospective cohort of approximately 1,000 offenders enrolled in the aftercare programs of seven federal probation offices was selected for study. The sample was drawn from the universe of offenders who entered the aftercare program from July 1, 1982, to June 30, 1983. Program outcomes and treatment services received were tracked for each offender for a period of up to one year following entry into the program. The seven federal probation offices selected were the Eastern District of New York, Southern District of New York, Eastern District of Pennsylvania, District of Mary-

1. J. Eaglin, A Process-Descriptive Study of the Drug Aftercare Program for Drug-Dependent Federal Offenders (Federal Judicial Center 1984).

land, District of the District of Columbia, Western District of Texas, and Central District of California.

The principal findings of the study are presented below. An analysis of the descriptive data on offender characteristics, services received, and aftercare outcomes indicates the following:

Characteristics of Aftercare Enrollees

- Parolees constituted the largest category of offenders in aftercare. Overall, 60 percent of the offenders in the program were parolees and 40 percent were probationers. The percentage of parolees ranged from 32 percent in Southern New York to 86 percent in the District of Columbia.
- The average age of offenders at entry into the aftercare program was 32.5 years. The average age ranged from 29.6 years in Maryland to 34.2 years in Central California.
- About 16 percent of the offenders in aftercare were females. The District of Columbia had the smallest number of females in its aftercare program; Southern New York had the largest, with women accounting for 26.5 percent of its program.
- As characterized by the offenders themselves or by the probation officers in the official case files, the aftercare population was about 60 percent black, 30 percent white, and 10 percent Hispanic. The percentage of nonwhites ranged from 51 percent in Western Texas to 98 percent in the District of Columbia.
- About 22 percent of the offenders in aftercare had an instant conviction for a violent offense.[2] In some of the districts, very few of the offenders had been convicted of violent offenses, while in Central California about 43 percent had been convicted of a violent crime. Differences in the overall percentages of violent offenders enrolled in the aftercare programs studied may reflect differences in screening patterns between the districts studied.
- The average sentence imposed on parolees for their instant conviction was 6.8 years. The average time that parolees had served in prison for their offense of instant conviction was 3.7 years. The average time ranged from 2.4 years in Maryland to

2. As used in this report, "instant conviction" refers to the specific conviction that resulted in the offender's having to participate in the aftercare program during the period studied.

4.8 years in Central California. The average number of prior arrests among the sample was 10.1 for parolees and 5.9 for probationers. Overall, the average number of prior arrests per offender ranged from 5.2 in Maryland to 10.5 in the District of Columbia.

- About 54 percent of the offenders had had some form of drug treatment prior to enrollment in the aftercare program. (This finding raises serious questions about the overall impact of such drug treatment programs.)
- About 69 percent of the offenders in aftercare had a documented history of regular heroin use; about one-half of the aftercare enrollees in two of the districts included in the study had such a history.

The picture of the offender that emerges from this study is of an individual who has been seriously involved with the more dangerous drugs, generally heroin. The aftercare enrollee is most likely a black male in his early thirties, on parole after having served approximately four years in a federal institution, who typically has a history of drug treatment failures in other programs prior to entering aftercare.

Services Received by Offenders While in Aftercare

Counseling. During the first six months after program entry, approximately 95 percent of the offenders in aftercare received some counseling. Case files indicate that about 44 percent received counseling from a contract agency during their first year under active supervision. The number of offenders receiving contract counseling services during the latter part of their first year in the program dropped to about one-third. Another 24 percent received counseling primarily from their probation officers, with most of the remaining program participants obtaining counseling from a combination of sources.

During any given month, about half of the offenders enrolled in the program and under active supervision had face-to-face office meetings with their probation officers. Home visits were typically made in about 20 percent of the cases each month.

Case files indicate that during the clients' first year in aftercare, relatively few received any treatment services other than counseling from a contract agency or a probation officer. For example, less than 4 percent of all program enrollees received methadone maintenance. Psychotherapy was provided to 17 percent of the clients,

but most of these were in a single district, Central California. Therapeutic community treatment was provided to 10 percent of the clients but, again, half of these were in Central California.

The average number of home visits made by probation officers varied significantly among the districts.

Urine screening. During the first few months after clients entered the program, an average of three to four urine samples were collected per month. The average number of samples collected per client tended to decline steadily in later months. The decrease in the number of samples collected over time is best explained as a function of Probation Division policy, which directs that the offender's adjustment and length of stay in the program may dictate fewer samples.

Eastern Pennsylvania collected far fewer urine samples per client than the other districts in the study. It should be noted that probation officers, not contractors, were responsible for making most of the collections.

As to services provided to offenders in aftercare, the study suggests that the typical enrollee is likely to receive some counseling during the initial months following program entry. Participants also receive an average of three to four urine screenings per month during the first few months in the program, with the number of screenings declining steadily in the latter part of the offender's first year in the program (if urine screening can be viewed as a service to program participants).

Aftercare Program Outcomes

Termination from program. Study data suggest that about 38 percent of all the offenders are terminated from the aftercare program during their first year. The percentage of offenders terminated appears to increase steadily during the first seven months of enrollment, with a peak of approximately 6 percent terminated during the seventh month in the program.

Continued drug use. About 63 percent of the offenders showed at least one positive urine sample during the first year in the program. The percentage ranged from 44 percent in Maryland to 80 percent in the District of Columbia. The percentage of active cases with positive urine samples declines steadily after the first three months following program entry.

About 55 percent of the offenders in aftercare had at least one positive urine sample for morphine/quinine during the first year in the program, suggesting continued use of heroin. The next most

frequently detected drug among the samples was cocaine (19.5 percent). The drugs detected by urine tests varied widely from district to district.

Arrests. About 27 percent of the aftercare enrollees had at least one arrest during the follow-up. About 35 percent of the arrests were for drug crimes, while property crimes accounted for about 30 percent. The percentage of offenders in aftercare who were arrested began to decline after the fifth full month following program entry.

The percentage of those arrested during the first year of program participation ranged from 19 percent in Western Texas to 43 percent in the District of Columbia.

Technical violations of probation or parole. About 41 percent of offenders in aftercare were charged with at least one technical violation during their first year in the program. Continued drug use was cited as a factor in 28 percent of the alleged violations, while failure to report to the probation officer was a factor in about one-fourth. Rearrest was a factor in 19 percent of the alleged violations.

The percentage of offenders in aftercare who were charged with at least one technical violation during their first year in the program ranged from 21 percent in Eastern Pennsylvania to 59 percent in Central California. The study data suggest that Central California was much stricter than other districts in charging offenders with technical violations for continued drug use.

About 52 percent of the offenders who were charged with technical violations during the period studied had their parole or probation revoked and were reincarcerated. The percentage ranged from 32 percent in Maryland to 78 percent in Western Texas. The study data suggest that there is a wide variance in the districts' guidelines on when to allege a technical violation for particular client behavior.

Employment status. Among offenders whose employment status was known, the percentage who were employed increased steadily during the study period to about 60 percent.

The overall picture of aftercare program outcomes that emerges from the study is not an especially good one. Over a third of the offenders are terminated from the program after less than one year's enrollment in it. The largest percentage of terminations was based either on the offender's reincarceration or on revocation of his or her probation or parole. On one hand, the offender's termination may be viewed as a successful exercise of the probation officer's duty to see that the offender abides by the conditions of his or her probation or parole supervision. On the other, the high percentage of offenders with at least one positive urine sample for an

illegal drug during the period studied can certainly be taken as an indication of less than total satisfactory program adjustment. This is particularly true when one considers that over 55 percent of the positive urine samples detected during the period studied were for morphine/quinine, suggesting continued use of heroin. The overall picture of program outcomes is not, however, entirely negative. Most of the offenders in aftercare had no arrests or actual technical violations during their first year in the program. Similarly, the percentage of offenders in the program who were employed increased steadily during the period studied. Given the myriad of problems confronting the typical offender enrolled in aftercare, holding down a job must be viewed as no small accomplishment for such a person.

Relationship Between Offender Characteristics and Continued Drug Use

Among parolees, the variable that had the strongest relationship with continued drug use (as measured by the average number of positive urine samples per month among clients) was prior use of methadone. The relationship was statistically significant at the .001 level. Other variables that had a statistically significant relationship with the average number of positive urine samples were:

- Offense of instant conviction involved drugs (.05 level)
- Ethnicity of offender was black (.05 level)
- Offender had previously participated in a drug treatment program (.05 level).

While the above variables had a statistically significant relationship with the average number of positive urine samples detected among individuals in the study, the offender characteristic variables that were included in the analysis did not, as a group, account for a very large proportion of the variance in the outcome variable.

Supplemental analyses revealed that the large majority of prior methadone users had previously been in drug treatment, suggesting that they had used methadone primarily in a treatment context.

The District of Columbia accounted for a relatively large percentage of the prior methadone users in the total sample. When the District of Columbia data were excluded from the analysis, the relationship between prior methadone use, previous drug treatment,

and the number of positive urine samples while in aftercare was less clear.

Among probationers, none of the offender characteristic variables included in the multivariate analysis had a statistically significant relationship with the average number of positive urine samples per month among clients.

Relationship Between Offender Characteristics and Arrests

Among parolees, the following variables had a statistically significant relationship with the average number of arrests per month among offenders during the first year in the program:

- Number of prior arrests (.01 level)
- Age at entry into the program (.01 level, negative)
- Ethnicity of offender was black (.05 level).

Among probationers, the following variables had a statistically significant relationship with the average number of arrests during the first year in the program:

- Number of prior arrests (.01 level)
- Age at entry into the program (.01 level, negative).

In combination, the offender characteristic variables did not account for a large percentage of the variation in the outcome variable (arrests per initial twelve months in the program).

The results indicate that the clients at high risk of being arrested while in aftercare are those who have a large number of prior arrests and who are younger than the average client when entering the program. (As noted above, the average age of clients at program entry was 32.5 years.)

Relationship Between Offender Characteristics and Alleged Technical Violations

Among parolees, the following variables had a statistically significant relationship with the average number of alleged technical violations per month among offenders:

- Number of prior arrests (.01 level)

- Prior use of cocaine (.05 level, negative).

When instant offenses were grouped into violent, property, or other crimes, a statistically significant relationship with the average number of alleged technical violations was found. The relationship was strongest for the violent crimes grouping of instant offenses. Statistically significant relationships with the average number of alleged technical violations were found with two other variables:

- Age at entry into aftercare (.05 level, negative)
- Prior use of amphetamines (.05 level, negative).

For both probationers and parolees, the offender characteristic variables in the analysis did not account for a large percentage of the variation in the outcome variable (technical violations during first year in the program).

The interpretation of the data on technical violations is complicated by the apparent differences between districts in their policies of charging offenders with technical violations for specific patterns of behavior.

Relationship Between Treatment Services Received and Offender Outcomes

Four treatment services variables were defined for each offender as part of the multivariate analysis of the possible impact of treatment services received on aftercare outcomes:

- Average number of contract counseling sessions per month
- Average number of visits by probation officers to the offender's home per month
- Average number of office visits per month
- Receipt of psychotherapy.

The analysis revealed the following:

- None of the four treatment services variables had a statistically significant impact upon continued drug use among the sample (as measured by the average number of positive urine samples per month).
- Two of the treatment services variables were found to have a statistically significant relationship with the likelihood of

arrest during the follow-up: (1) average number of contract counseling sessions per month (.001 level) and (2) average number of office visits per month (.01 level).

The study data indicate that the more frequently counseling sessions and office visits occur, the smaller the likelihood that the offender will be arrested during his or her first year in the program. These data do not, however, necessarily establish a causal relationship between the receipt of treatment services and the probability of an arrest.

- Two of the four treatment services variables had a statistically significant relationship with the average number of technical violations per month among offenders studied: (1) average number of office visits (.001 level) and (2) average number of contract counseling sessions (.001 level).
- The greater the number of office visits and counseling sessions an offender makes during his or her first year in the program, the smaller the probability of having a technical violation charged during that time. Again, it should be noted that these data do not necessarily establish that the receipt of the treatment services was causally related to the probability of a technical violation.

I. INTRODUCTION

This report presents the findings of a longitudinal study of supervision outcomes among a sample of offenders who participated in the federal drug aftercare program. It covers the second of two evaluations of the aftercare program undertaken by the Federal Judicial Center with the assistance of Macro Systems, Inc.

Organization of the Report

This introductory chapter focuses on the background and objectives of the drug aftercare program. Some of the findings and results of the Center's initial study of the program are briefly presented as a way of providing some comparisons to the current study. Chapter 2 presents a detailed description of the methodology used in the current study, including sample design, site selection criteria, data items collected, and data collection procedures. Chapter 3 presents a descriptive profile of the sample, including frequencies and cross-tabulations of a number of primary variables of interest such as client characteristics, services provided, positive urine samples, arrests, technical violations, and supervision terminations. Finally, chapter 4 presents the results of the multivariate analysis of factors associated with specific types of supervision outcomes. Confidence intervals for selected regression coefficients presented in chapter 4 are contained in appendix C. Tables 38 to 63 are in appendix B. A copy of the study's data collection instrument is presented in appendix A.

Background and Objectives of the Drug Aftercare Program

The drug aftercare program had its genesis in the Narcotic Addict Rehabilitation Act of 1966 (NARA).[3] Under title II of

3. 18 U.S.C. §§ 4251-4255 (1982 & Supp. 1984).

NARA, authority for providing aftercare services to federal offenders was delegated to the Federal Bureau of Prisons. The sentencing judge committed the drug-abusing offender to the Bureau of Prisons for a period ranging from thirty to ninety days. During that time, the offender was evaluated by NARA staff at the institution of commitment to ascertain his or her suitability for treatment. A report was submitted by the NARA staff to the sentencing judge, who could then commit the offender for treatment under the custody of the attorney general for a period not to exceed ten years. Upon release from an institution, an offender committed under NARA could be required to participate in an aftercare program operated under contract with the Bureau of Prisons. The program expanded eventually to include non-NARA offenders, including all drug-dependent parolees, mandatory releasees, and probationers.

With the enactment of the Contract Services for Drug-Dependent Federal Offenders Act of 1978,[4] responsibility for operating the program was transferred from the U.S. attorney general and the director of the Federal Bureau of Prisons to the director of the Administrative Office of the U.S. Courts. The Probation Division of the Administrative Office was given responsibility for administering the program. Specific authority to contract for aftercare services was delegated to the chief probation officer in each federal judicial district.

The basic operating policies and procedures of the aftercare program are set forth in chapter 10 of the *Guide to Judicial Policies and Procedures.* As described therein, aftercare

> is the treatment and urine surveillance provided addicted or drug-dependent federal offenders after their release from institutions or placement in probation. Treatment and urine surveillance are provided by the direct order of the district court or Parole Commission. Both treatment for drug dependency and urine surveillance may be provided by contracting for the needed services, directly by probation officers or a contractor thereof.[5]

Approximately 6,100 federal offenders were enrolled in the aftercare program at the time the second phase of study began. The program has experienced considerable growth in the last several years: Since 1983, the number of offenders participating has increased by 36 percent.

In the case of offenders who are to be placed on probation, the recommendation for aftercare as a special condition is generally

4. *Id.* § 4255 (1982 & Supp. 1984).

5. Administrative Office of the U.S. Courts, Guide to Judiciary Policies and Procedures: Probation Manual, vol. X-B, ch. 10.

made to the court by the probation officer after completion of the presentence investigation. The court may then order drug treatment as a condition of probation. In the case of parolees, staff at the federal institution from which an offender is to be paroled are responsible for recommending aftercare to the parole commissioner as a condition of release.

A range of drug aftercare services is available under the program. Required services for each offender in the program include urine collection, testing, and reporting, along with some form of counseling (individual, group, family, or a combination of these). A number of additional, optional services may be provided to offenders in the program, including vocational guidance, job placement and skills testing, psychological workups and evaluations, psychotherapy, ambulatory detoxification, inpatient detoxification, methadone maintenance, client transportation, temporary housing, therapeutic community treatment, and emergency financial assistance. Although these services are potentially available in all districts, provision of the services varies widely from district to district.

Aftercare services may be provided in-house by the probation officer, by a community treatment center at no cost to the government, or by a private contractor. If the probation officer provides the aftercare services directly, the services must be of the same intensity and quality as those provided by contract agencies. Of the 6,100 offenders currently participating in aftercare, it is estimated that about 3,300 (54 percent) are receiving some form of contract services.

Some Major Findings of the First Study of the Program

In October 1981, as part of a phased evaluation process, the Federal Judicial Center funded two parallel preliminary evaluation studies of the drug aftercare program. The first study involved interviews with a sample of federal judges, probation officers, regional parole administrators, and administrative hearing examiners in ten federal districts. The purpose of the interviews was to examine the nature and consistency of standards and procedures by which drug-dependent offenders were identified and screened for participation in the aftercare program.[6] The second study in-

6. S. Wolvek, A. D. Audette, Jr., J. L. Williams & J. G. Ross, Preliminary Evaluation of the Drug Aftercare Program for Drug Dependent Federal Offenders: Screening Procedures (Macro Systems, Inc., 1983).

volved a cross-sectional analysis of case-file data on a sample of probationers and parolees enrolled in the aftercare program in the same ten districts. The major goal of the study was to gather preliminary descriptive data on aftercare participants and program services.[7]

Among the principal findings of the first study were the following:

- The decision to recommend probationers for referral to the aftercare program was typically made by a probation officer as part of the presentence investigation.
- Assessments of parolees for participation in the aftercare program were generally made during the initial parole hearing.
- Most of the probation officers and judges based their initial assessments on a combination of factors, including both physical symptoms or behavior of the offender and documentary evidence (records of arrests, medical histories, and treatment records). In addition, probation officers generally utilized a range of methods to corroborate drug dependency among offenders, including urine tests, collateral interviews with family and friends of the offender, and information reported by offenders themselves.
- The majority of parole administrators based both their initial assessment and their corroboration of drug dependency only on information contained in the offender's case file.
- One-fourth of the judges interviewed indicated that they might preclude an offender from participating in the aftercare program if the offender had a history of violent crime. Half of the judges indicated that a long history of treatment failure would preclude eligibility, while one-third of the judges reported that lack of offender motivation would serve to limit eligibility.
- There were significant differences between the districts in terms of the factors considered by judges in screening offenders. Some of the judges reported that they almost always accepted the probation officer's recommendation for an aftercare referral, while other judges reported that such recommendations were only one of many factors taken into account.

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7. J. Eaglin, A Process-Descriptive Study of the Drug Aftercare Program for Drug-Dependent Offenders (Federal Judicial Center 1984).

A Comparison of Principal Findings of the First and Second Studies

Among the principal findings of the second study of the aftercare program as compared to the first were the following:

Offender Characteristics

- The average age of the offenders in the first study was 34 years. There was, however, considerable variation in the age of offenders in aftercare from district to district. At the time of the current study the average age of offenders in aftercare had dropped to 32.5 years.
- Eighty-four percent of those in aftercare during the first study were males. That continues to be true for the current study.
- About 50 percent of the offenders in the program at the time of the first study were white and 50 percent were black. The current study indicates that approximately 60 percent of the offenders in aftercare are black.
- In the first study, parolees accounted for 57 percent of the aftercare population and probationers 43 percent. In some districts, probationers accounted for as much as two-thirds of all offenders in aftercare. In the current study, parolees accounted for 60 percent and probationers 40 percent of the enrollees in aftercare.
- The first study suggested that patterns of drug use varied significantly among the districts, with about two-thirds of the offenders in the sample having a documented history of heroin dependence. About one-quarter had regularly used cocaine before entering the program. Results of the current study indicate that about 69 percent of the offenders in the program have a documented history of regular heroin use prior to entering aftercare.

Prior Criminal Record

- About 40 percent of the offenders in aftercare in the first study had a drug-related crime as their offense of instant conviction. The current study found a relatively comparable percentage of offenders with drug-related instant convictions.
- Among parolees in the first study, the average sentence of imprisonment imposed for the instant conviction was eleven years. The average sentence received by parolees currently en-

rolled in the program is 6.8 years committed to the custody of the attorney general. For probationers, the average sentence is forty-three months of probation.

Urine Surveillance

- Over the six-month period of the first study, the average number of urine samples collected from offenders was fourteen. The district averages ranged from seven to twenty-three. The current study indicates that probation officers and contractors are collecting more urine samples from offenders in the program. This was especially true during the initial months of the offenders' enrollment in the program.
- In most cases examined in the first study, a first or second positive urine sample did not result in either a violation hearing or a change in supervision practices. Even when a third or fourth positive sample was taken from a client, a violation hearing was initiated in only 18 percent of the cases. If a change in supervision status was made by the probation officer in response to a positive sample, the most common changes were either an increase in direct or collateral contacts with the offender or referral to a residential treatment program. The current study suggests that probation officers, the sentencing judges, and the Parole Commission have all become considerably less tolerant of continued drug use by offenders in the program. Approximately 41 percent of the offenders in aftercare were charged with a technical violation at some point during their first year in the program. Over half of these charged violations involved allegations of continued illegal drug use. About 38 percent of the individuals charged with some form of technical violation were actually terminated before the end of their first year in the program. Many of these were terminated for continued drug use.

Treatment Services Provided

- About 95 percent of the offenders in the first study received some type of counseling during the six months prior to the data collection. About 44 percent received counseling primarily from a contract agency and 24 percent primarily from the probation officer, with most of the remaining clients receiving counseling from a combination of sources. This remains true for the current study.
- About 11 percent of the offenders studied had received methadone maintenance in the six months immediately preceding

the study. Services such as vocational training, vocational placement, and psychotherapy had been received by less than 10 percent of the offenders in the study. For the most part, this pattern of service delivery continues to exist.

Supervision Outcomes

- During the six months prior to data collection in the first study, about 43 percent of those studied had had at least one positive urine sample. Among those with positive samples, the average number of positives per offender was 3.7 during the six-month period involved in the study. The current study found a higher percentage of offenders (63 percent) with at least one positive sample during the period examined.
- About 27 percent of the offenders in the first study had been arrested after entering the program, with a range of 15 percent to 44 percent among the districts. Drug offenses accounted for 29 percent of the arrests. The percentage of offenders involved in the second study who had been arrested remained relatively the same.
- About 29 percent of the offenders in the first study had been charged with one or more technical violations of probation/parole conditions since they entered the program. Of those charged with technical violations, 22 percent were accused of absconding, 26 percent allegedly had not reported for counseling, 17 percent were charged with refusing to submit urine specimens, and 28 percent had shown evidence of continued drug use. The current study found that a higher percentage of offenders (41.2 percent) were charged with at least one technical violation. "Failure to report" was a factor in about one-quarter of the alleged violations and "continued drug use" was cited as a factor in 28 percent of the charged violations.
- About half of the sample in the first study was considered to be gainfully or productively occupied (i.e., employed or in school) at the time of data collection. The current study found that about 60 percent of the offenders in aftercare were gainfully or productively occupied at the end of their first year in the program.

Objectives of the Second Study

The primary objectives of this study were the following:

- To produce systematic and up-to-date descriptive data on representative samples of aftercare program participants in selected federal judicial districts. Among the types of data to be gathered were client characteristics, pre- and in-program drug use, pre- and in-program arrests and offense types, in-program alleged and actual technical violations, and treatment services provided.
- To identify significant factors or variables that help to explain or "predict" aftercare client outcomes. These factors might include client demographics, prior drug use, criminal history, treatment services received while in the program, and other related variables.

With regard to these objectives, it was recognized that the methodology employed in the first study had a number of limitations. In that study, a cross-sectional approach was used to select a study sample. The sample was drawn from all offenders in the selected districts who were in the program as of a specific day and who had been in treatment for at least six months. The disadvantages of this design for studying client outcomes and identifying predictive variables are as follows:

- The sample consisted only of individuals who had been in the program for at least six months; no data were gathered on those individuals who had been terminated from the program in less than six months. Accordingly, the sample was not representative of all clients enrolled in the program.
- It was not possible to analyze client outcomes across a standardized follow-up period. The offenders in the sample had been in the aftercare program for varying periods of time, ranging from six months to three years.
- Data had to be collected on the specific points in time at which client outcomes occurred after program entry, increasing the amount of data that had to be collected.

To address these limitations, the approach chosen for the present study consisted of a longitudinal cohort methodology. A longitudinal methodology has a number of advantages over a cross-sectional approach. It allows the researcher to study a sample of individuals that is representative of all individuals entering a program, includ-

ing early terminees. It permits the researcher to examine patterns of attrition among program entrants and to gather data on the reasons for attrition and the times at which attrition occurs following entry into the program. It is ideally suited to analyzing the relationship between offender characteristics, treatment services received, and supervision outcomes. A cohort methodology can be used to profile those individuals who are likely to have favorable treatment outcomes, thereby highlighting the most effective treatment components.

Generally, longitudinal cohort approaches employ one of two types of designs, prospective or retrospective. The prospective design is one in which contemporary data are collected on offenders while they are actually enrolled in the program being evaluated. Under this approach, data collection is usually an ongoing and continuous process. The retrospective approach involves a cohort that is selected from individuals who entered treatment during a specific time frame in the past and is tracked for a defined follow-up period that has already passed by the time the data are collected. Under the latter approach, data collection occurs as a single event rather than as a continuous process. The design does allow for additional follow-up of the cohort, if needed, at successive points in the future.

While the prospective approach usually has certain advantages in comparison to the retrospective, particularly with regard to the availability of data, resource limitations precluded the use of a prospective approach for the current study. Accordingly, it was decided that a retrospective research design would be used and that the sample of aftercare enrollees would be selected from those who had entered the program during a specific time frame in the past. Additional details about the design of the study are presented in the next chapter.

II. METHODOLOGY

In chapter 1, we noted that a longitudinal retrospective cohort design was chosen for the study. In this chapter, we present additional details about the study's methodology, covering the following areas:

- Follow-up period and time frame for selecting the study sample
- Cohort sample size and sample selection
- Data collection procedures
- Limitations of the study.

In selecting a retrospective cohort for the study, two major issues had to be addressed: (1) the specific time frame covering entry into the aftercare program to be selected for study and (2) the length of the cohort follow-up period.

With regard to the first issue, we decided that the time frame during which the cohort entered the program should be as narrow as possible. The objective in selecting a narrow time frame was to minimize the possibility of biases arising from historical effects (e.g., changes in the actual operation of the aftercare program) or other extraneous factors. With regard to the second issue, we decided to choose a follow-up period that was long enough to obtain a representative picture of client outcomes. A primary consideration was avoiding a selection period that could yield a cohort that might no longer be representative of current aftercare population.

As noted in the next section, the target sample size for the cohort was approximately 1,000 offenders. In light of project resource limitations, the goal was to select the entire cohort from a relatively small number of probation offices.

It was determined that the cohort would be selected from clients who entered the program during a one-year time frame, July 1, 1982, to June 30, 1983. Initial plans were to choose a narrower program-entry time frame for selecting the study cohort, but it was not possible to meet our projected sample size requirements with less than a one-year selection period. It was decided that the follow-

up period for each member of the cohort would be twelve months after entry into the aftercare program.

Selection of Cohort Sample

Several factors were taken into account in determining the overall sample size for the study, including the following:

- The statistical precision of findings generated by the planned analysis of data, including interdistrict comparisons
- Resource limitations.

After reviewing these factors, it was determined that a cohort of 1,000 offenders enrolled in aftercare would be optimal for the study.

To select the sample, we began by identifying a preliminary list of federal judicial districts that would be appropriate candidates for inclusion in the study. Because one of the goals of the study was to draw comparisons between the districts, it was necessary to ensure that in each of the sample districts a reasonably large number of clients entered the aftercare program during the one-year cohort time frame.

Districts for study were selected from computerized data maintained by the Administrative Office of the U.S. Courts. This data base includes, among other things, information on all offenders entering federal probation or parole supervision. It does not include information about whether an aftercare condition was required by the court or the Parole Commission for a given offender. Accordingly, we selected a limited number of districts that had the largest numbers of new probationers/parolees during the study's time frame. The Administrative Office was then asked to generate computerized listings for these districts. The listings were sent to the districts, and district officials were asked to review the names of offenders and to check those who had participated in the aftercare program.

As a result of this process, we eliminated a few districts that had insufficient numbers of aftercare entrants during the July 1982 to June 1983 period. A total of seven districts was finally selected, which combined had an estimated 1,050 new aftercare entrants between July 1982 and June 1983. These districts are shown in table 1.

The final sample consisted of 899 offenders, after on-site case reviews revealed that 151 offenders from the original sample were

TABLE 1
Federal Probation Offices Included in Study

District	Jurisdictions Included in District
E.D.N.Y.	Kings (Brooklyn), Queens, and Richmond (Staten Island) counties
S.D.N.Y.	Bronx and New York (Manhattan) counties
E.D. Pa.	Bucks, Delaware, Montgomery, and Philadelphia counties
D. Md.	State of Maryland
D.D.C.	District of Columbia
W.D. Tex.	The sample was drawn from three of the six offices in the district: Austin, El Paso, and San Antonio. These branch offices have jurisdiction over 32 counties in Western Texas.
C.D. Cal.	Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties

not actually in aftercare or had entered outside of the study's time frame.

Unfortunately, much of the attrition in sample size occurred in districts that had relatively few aftercare entrants among the original sample of 1,050. In two of the seven districts, Maryland and Western Texas, the final samples had fewer than 100 offenders. The offender samples in the seven districts are presented in table 2.

TABLE 2
Districts Studied by Sample Size

Probation District Selected for Study	Number of Offenders in District's Sample
E.D.N.Y.	110
S.D.N.Y.	133
E.D. Pa.	121
D. Md.	77
D.D.C.	181
W.D. Tex.	53
C.D. Cal.	224
Total	899

The above samples represented the universe of all offenders who entered the aftercare program in the seven districts between July 1982 and June 1983.

Data Collection Procedures

For purposes of collecting data from the sample of case files, a structured data collection form was produced. Prior to the main data collection effort, a draft version of the form was pretested on a small number of case files from the U.S. Probation Office for the District of Columbia. Following the pretest, a number of revisions were made to the draft form. The final version of the data collection form is presented in appendix A.

As the form suggests, data were gathered on the following sets of variables for each client in the sample:

- Supervision status and date of entry into the program
- Demographic characteristics
- Criminal record (offense of instant conviction, length of sentence, number and types of prior arrests)
- Drug use and drug treatment history
- Positive urine samples and types of drugs detected while in the program
- Treatment services received while in aftercare
- Employment patterns and living situations after entry into the program
- Arrests, convictions, and technical violations following entry into the program
- Revocations and terminations.

For most of the offender outcome variables, information was collected on the date when specific outcomes occurred after program entry.

For purposes of quality control, each of the data collection forms was carefully reviewed for completeness and consistency prior to being shipped to the offices of the Center's contractor. An additional manual edit of all the forms was then conducted. After a computerized data base had been created, a series of automated edits were conducted on the data to resolve inconsistent and out-of-range values.

Limitations of the Study

In interpreting the data presented in this report, it is necessary to be aware of the study's methodological limitations. Some of

these limitations were known before the field work was conducted, while others resulted from unforeseen circumstances that arose during the data collection process.

A major limitation of the study grows out of its reliance on case file data. The data gathered on such items as client characteristics, prior drug use, criminal history, treatment services received, and in-program experiences were drawn exclusively from individual case files. There was some variation between the sample districts in recordkeeping practices and in the completeness of case-record information.

Variations among districts in urine testing practices and technical violation policies presented another limitation to the study. The sample districts varied in terms of their procedures for collecting urine specimens from offenders in the program. In Central California, for example, officials conducted all urine collections on a surprise basis, including unannounced tests on weekends. Other districts tended to tailor their urine collections to a routine schedule. Eastern Pennsylvania gathered relatively few samples compared to other districts. A possible explanation for this was that urine testing there was conducted primarily by probation officers rather than by contractors.

Districts also varied in terms of their policies for issuing technical violations and revocations in response to specific behavior among clients. The data indicate, for example, that Central California was generally much stricter in charging violations and initiating revocation procedures than were any of the other districts in the study.

Two of the key variables that we wished to examine in regard to client outcomes were these:

- Continued drug use
- Continued criminal activity.

Since the study was based exclusively on a review of offenders' case files, we had to rely upon indicators of these outcomes rather than actual measures. Continued drug use was assessed on the basis of urine test results, which typically present only a partial picture of actual drug use patterns. Similarly, continued criminal activity was assessed on the basis of reported arrests of offenders in the study. Obviously, such an indicator provides only an approximate indication of actual criminal behavior.

III. OFFENDER CHARACTERISTICS, SERVICES RECEIVED, AND SUPERVISION OUTCOMES: ANALYSIS OF DESCRIPTIVE DATA

This chapter presents descriptive data (frequencies and cross-tabulations) on selected characteristics and experiences of the aftercare cohort in the seven study districts. Specifically, the chapter presents data on the following:

- Characteristics of the study sample, including supervision status, demographics, prior criminal record, and prior drug use
- Services received by the offender cohort during the one-year follow-up period, including treatment services, home and office visits, and urine surveillance
- Outcomes among the sample during the one-year follow-up period, including positive urine results, arrests, convictions, allegations of technical violations, revocations, terminations, employment patterns, and living situations.

Characteristics of the Phase Two Aftercare Study Cohort

Supervision status. Table 3 shows the supervision status of offenders in the aftercare program during the period studied. Overall, 60 percent of the clients were parolees and 40 percent were on probation. The percentage of parolees to probationers was somewhat higher than in the Center's first study. This suggests, among other things, that the aftercare program appears to be serving an increasingly more needs-intensive population. In the District of Columbia, 86 percent of the sample consisted of parolees, while relatively few of the clients in Southern New York (31.6 percent) and Maryland (35.1 percent) were parolees. The data in the table, therefore, reflect the diversity of the aftercare population across judicial

districts, even among districts that are predominately urban in nature.

TABLE 3
Supervision Status of Offenders in Study: Frequencies by District

Offender Status	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Probationer	55	90	56	50	25	15	67
	(50.0)	(68.1)	(46.3)	(64.9)	(13.8)	(28.3)	(29.9)
Parolee	55	42	65	27	156	38	157
	(50.0)	(31.8)	(53.7)	(35.1)	(86.2)	(71.7)	(70.1)
Total	110	132	121	77	181	53	224

NOTE: Figures in parentheses are column percentages.

Age at entry. Table 4 presents data on the age of the offenders at entry into the aftercare program. The average age of the offenders was 32.5 years at entry, but there was a significant spread in the age distribution of aftercare enrollees, with 10.5 percent being under 25 at entry and 12.5 percent being over 40.

TABLE 4
Age of Offenders in Study at Entry into Aftercare: Frequencies by District

Age in Years	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
17–24	5	16	20	12	9	9	22
	(4.6)	(12.1)	(16.7)	(16.0)	(5.1)	(17.6)	(9.9)
25–29	36	28	30	27	54	12	47
	(33.0)	(21.2)	(25.0)	(36.0)	(30.5)	(23.5)	(21.2)
30–34	37	45	34	24	53	13	63
	(33.9)	(34.1)	(28.3)	(32.0)	(29.9)	(25.5)	(28.4)
35–40	27	26	21	8	36	11	50
	(24.8)	(19.7)	(17.5)	(10.7)	(20.3)	(21.6)	(22.5)
Over 40	4	17	15	4	25	6	40
	(3.7)	(12.9)	(12.5)	(5.3)	(14.1)	(11.8)	(18.0)
Column total	109	132	120	75	177	51	222
Average age	31.6	32.6	31.7	29.6	33.0	31.8	34.2

NOTE: Figures in parentheses are row percentages.

The data also reveal considerable differences between the districts. In Central California, the average age at entry was 34.2 years, and about 40 percent of the sample's offenders were over thirty-five at entry. In contrast, the average age at entry among

the Maryland sample was only 29.6 years, with 52 percent of the sample being younger than thirty at entry. There were also significant variations in the percentage of offenders in the study who were under twenty-five at entry.

TABLE 5
Sex of Offenders in Study: Frequencies by District

Sex	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.
Male	90	97	101	64	164	45	191
	(81.8)	(73.5)	(83.5)	(83.1)	(90.6)	(84.9)	(85.3)
Female	20	35	20	13	17	8	33
	(18.2)	(26.5)	(16.5)	(16.9)	(9.4)	(15.1)	(14.7)
Total	110	132	121	77	181	53	224

NOTE: Figures in parentheses are column percentages.

Sex. Table 5 presents data on the sex of offenders in aftercare. Females make up about 16 percent of the aftercare population. The percentage of females in the sample of the districts studied ranged from only 9.4 percent in the District of Columbia to 26.5 percent in Southern New York.

TABLE 6
Race of Offenders in Study: Frequencies by District

Race	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.
White	36	30	46	32	3	26	102
	(32.7)	(22.7)	(38.0)	(41.6)	(1.7)	(49.1)	(45.5)
Black	65	73	68	45	178	13	94
	(59.1)	(55.3)	(56.2)	(58.4)	(98.3)	(24.5)	(42.0)
Hispanic	9	29	7	0	0	14	27
	(8.2)	(22.0)	(5.8)	(0)	(0)	(26.4)	(12.1)
Native American	0	0	0	0	0	0	1
							(100)
Total	110	132	121	77	181	53	224

NOTE: Figures in parentheses are column percentages.

Ethnicity. Table 6 shows the ethnicity of offenders in aftercare. Among the total aftercare population, almost 60 percent of the enrollees were black, 31 percent were white, and almost 10 percent were Hispanic.

Again, the data reveal significant variations among the districts. In the District of Columbia, 98.3 percent of the cohort studied were black, compared to only 24.5 percent in Western Texas and 42.0 percent in Central California. Districts with large Hispanic popula-

tions included Western Texas (26.4 percent), Southern New York (22.0 percent), and Central California (12.1 percent).

TABLE 7
Offense(s) of Instant Conviction Among Offenders in Sample

Type of Crime	Number of Crimes in Instant Convictions	Percentage of Crimes in Instant Convictions
Violent	201	19.9
Property	274	27.1
Drug	366	36.2
Other	161	15.9
Total crimes	1,002	
Total offenders	899	

Offense of instant conviction. As part of the study, data were collected on the first (and, where relevant, second and third) offense of instant conviction for each offender in the study. Table 7 indicates that about 22 percent of the aftercare enrollees were convicted of violent offenses (including robbery), 30.5 percent were convicted of property-related offenses, and 40.7 percent were convicted of crimes involving drugs.

Table 38 (see appendix B) presents detailed data on the specific offenses for which offenders in the program were convicted. The data reveal that robberies accounted for almost all of the violent offenses among the cohort. Property-related crimes among the sample consisted primarily of larceny, forgery, and embezzlement or fraud, with relatively few convictions for burglary. Among those convicted of drug offenses, the large majority were convicted for possession with intent to distribute drugs.

Table 8 compares the offenders in aftercare in terms of the offenses of instant conviction as indicated in their case files. The data suggest significant differences between districts in the types of offenses for which the clients were convicted. For example, in three of the districts relatively few of those in the sample were convicted of violent crimes: Southern New York (7.5 percent), Eastern Pennsylvania (8.3 percent), and West Texas (5.7 percent). In contrast, 42.9 percent of offenders in Central California and 26 percent of offenders in the District of Columbia were convicted of violent crimes. In addition, convictions for drug-related offenses represented more than half of total instant convictions in three of the districts: Eastern Pennsylvania (61.2 percent), Maryland (58.4 percent), and Western Texas (56.6 percent). In contrast, drug offenses

TABLE 8
Offense(s) of Instant Conviction by Major Offense Category: Frequencies by District

Type of Crime	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.
Violent	25 (12.4)	10 (5.0)	10 (5.0)	10 (5.0)	47 (23.4)	3 (1.5)	96 (47.8)
Property	47 (17.2)	55 (20.1)	21 (7.7)	19 (6.9)	65 (23.7)	14 (5.1)	53 (19.3)
Drug	29 (7.9)	51 (13.9)	74 (20.2)	45 (12.3)	75 (20.5)	30 (8.2)	62 (16.9)
Other	15 (9.3)	26 (16.1)	26 (16.1)	17 (10.6)	43 (26.7)	10 (6.2)	24 (14.9)
Total crimes	116	142	131	91	230	57	235
Total offenders	110	133	121	77	181	53	224

NOTE: Figures in parentheses are row percentages.

represented only about one-quarter of total instant convictions in Eastern New York and Central California.

The data shown in table 8 could be interpreted as suggesting some difference between the study districts with regard to the screening procedures and criteria used for determining the eligibility of offenders for participation in aftercare. Specifically, districts such as Eastern Pennsylvania, Maryland, and Western Texas appear to have been focusing their programs primarily upon the drug abusing offender, while screening out many of the violent offenders. In contrast, districts such as Eastern New York, the District of Columbia, and Central California were apparently not placing much emphasis upon the offense of instant conviction when screening offenders for participation in aftercare.

Length of sentence imposed for the instant offense. Table 9 presents data on the length of sentence imposed for instant offenses among parolees in the program. As the table indicates, the average sentence for all parolees was 6.8 years. About 62.4 percent of offenders in the study had received sentences of five years or more for their instant offense. The table reveals, however, that the districts varied in the length of sentences imposed. Notably, the average sentence given parolees in Eastern Pennsylvania was far lower than in the other districts, perhaps partially reflecting the relatively small percentage of violent and property offenses among the offenses of instant conviction obtained in that district (see table 8).

TABLE 9
Length of Sentence Imposed on Parolees for Offense(s) of Instant Conviction: Frequencies by District

Sentence Imposed	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Less than 3 years	9 (17.0)	4 (10.0)	25 (39.1)	1 (4.0)	19 (12.5)	5 (13.9)	7 (4.5)
3–5 years	14 (26.4)	10 (25.0)	18 (28.1)	9 (36.0)	38 (25.0)	10 (27.8)	28 (18.2)
5–10 years	19 (35.8)	18 (45.0)	16 (25.0)	9 (36.0)	54 (35.5)	7 (19.4)	65 (42.2)
10 or more years	11 (20.8)	8 (20.0)	5 (7.8)	6 (24.0)	41 (27.0)	14 (38.9)	54 (35.1)
Average sentence imposed	6.1	6.1	4.1	6.9	7.4	7.1	7.6

NOTE: Figures in parentheses are column percentages.

In contrast, the relatively long average sentences imposed upon parolees in Central California (7.6 years) and the District of Columbia (7.4 years) probably reflected the large percentage of violent offenses involved in the instant convictions in those two districts.

Length of incarceration among parolees prior to entry into the program. Table 39 (see appendix B) presents data on the actual number of years parolees in aftercare were incarcerated immediately prior to enrolling in the program. Overall, case file data indicate that they had served an average of 3.7 years in prison before entering aftercare. Parolees in three study districts had served relatively short average prison terms: in Maryland, 2.4 years; in Eastern Pennsylvania, 2.7 years; and in Western Texas, 2.7 years. Districts in which the average parolee had served a relatively long term included Central California (4.8 years) and the District of Columbia (3.7 years). Parolees who had served six years or more in prison accounted for a high percentage of sample parolees in Central California (29.8 percent) and the District of Columbia (22.0 percent).

Prior adult arrests. Table 10 presents data on the number of adult arrests among the offenders in aftercare. The data show that the average number of prior adult arrests for the entire sample was 8.4, with an average of 10.1 for parolees and 5.9 for probationers. In two of the districts, the average number of prior arrests was much below the sample average: New York Eastern (6.3 percent) and Maryland (5.2 percent). The low averages in these two districts

TABLE 10
Adult Arrests Among Offenders in Sample Prior to Entry into Aftercare: Frequencies by District

Number of Arrests	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.
0–2	30	34	27	30	13	8	30
	(17.4)	(19.8)	(15.7)	(17.4)	(7.6)	(4.7)	(17.4)
3–5	30	28	26	21	40	17	55
	(13.8)	(12.9)	(12.0)	(9.7)	(18.4)	(7.8)	(25.3)
6–10	29	35	29	16	52	9	76
	(11.8)	(14.2)	(11.8)	(6.5)	(21.1)	(3.7)	(30.9)
11–15	13	16	21	6	32	5	27
	(10.8)	(13.3)	(17.5)	(5.0)	(26.7)	(4.2)	(22.5)
16–52	8	18	16	4	42	12	35
	(5.9)	(13.3)	(11.9)	(3.0)	(31.1)	(8.9)	(25.9)
Average	6.3	7.9	8.0	5.2	10.5	10.0	9.0
Parolees	(7.4)	(8.0)	(9.6)	(8.2)	(11.4)	(12.2)	(10.3)
Probationers	(5.3)	(7.9)	(6.2)	(3.5)	(4.4)	(4.2)	(6.1)

NOTE: Figures in parentheses are row percentages.

apparently reflect the large percentage of probationers in the two districts (see table 3) and the relative youth of the offenders (see table 4).

Conversely, the relatively high average number of prior adult arrests among sample offenders in the District of Columbia (10.5), Western Texas (10.0), and Central California (9.0) probably reflects the relatively large percentage of parolees in these districts and the high average age of offenders studied there. It should also be noted that the parolees in these districts had a higher average number of prior adult arrests than parolees in the other four districts.

Table 40 (see appendix B) shows the types of offenses offenders in aftercare had typically committed prior to program enrollment. About half of them had at least one prior arrest for a violent crime (including robbery). The proportion of offenders in the study with prior arrests for violent crimes, however, varied significantly across the districts. In Maryland, about 36 percent of the sample had been arrested for a violent crime, compared to 65 percent in Central California and 63 percent in the District of Columbia. It should be noted that the latter two districts also had the highest percentage of offenders whose instant conviction was for a violent crime (see table 8).

As table 40 indicates, a majority of offenders in each of the districts had at least one prior adult arrest for a drug crime. However,

the percentage of offenders with a prior drug arrest ranged from a low of 60 percent in Eastern New York to a high of 80.5 percent in Maryland.

Tables 41 to 44 (see appendix B) present data on the prior arrest histories of specific subgroups of offenders enrolled in the aftercare program. Table 41 compares parolees and probationers and indicates that parolees were much more likely than probationers to have had an arrest for a violent crime and were slightly more likely to have had arrests for other types of offenses.

Table 42 shows the prior adult arrest histories for different age groups of offenders. The data indicate that offenders under thirty were less likely than older offenders to have had an arrest for a violent crime. In the seventeen-year-old to twenty-four-year-old age group, only one-third of the offenders had been arrested as adults for a violent crime.

Table 43 presents data on the prior arrest patterns of male and female clients. The data show that males were more than twice as likely as females to have been arrested for a violent crime. Among female clients, the most common types of prior arrests were for property crimes or drug offenses.

Finally, table 44 compares the prior arrest histories of offenders in the program by major ethnic group. The data suggest that blacks were more likely than whites or Hispanics to have had prior arrests for violent offenses and property offenses. Drug crimes were the predominant type of offenses for which whites and Hispanics had been arrested prior to program entry.

Prior drug use. For each offender in the study, case record documents were reviewed to determine the types of drugs that had been used regularly by the individual prior to entry into the aftercare program. For each district, table 11 shows the number and percentage of offenders who had regularly used specific types of drugs.

The data indicate that 68.6 percent of the offenders in the program had regularly used heroin at some time prior to entering the program. The next most commonly used drugs were marijuana (46.1 percent) and cocaine (35.4 percent).

From the data it is clear that the districts varied in the prior drug use patterns of their offenders. In Eastern Pennsylvania and Maryland, only about half of the offenders studied had regularly used heroin prior to program entry, compared to 76.8 percent of offenders in the District of Columbia and almost three-quarters of offenders in the two New York districts and Central California. In addition, the District of Columbia had a much higher percentage of prior methadone users (17.1 percent) and "other opiate" users (17.7 percent) than any other district.

TABLE 11
Drugs Regularly Used by Offenders in Study Prior to Aftercare: Frequencies by District

Drugs Used	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Heroin	80	99	63	39	139	32	165
	(13.0)	(16.0)	(10.2)	(6.3)	(22.5)	(5.2)	(26.7)
Other opiates	3	9	14	6	32	2	19
	(3.5)	(10.6)	(16.5)	(7.1)	(37.6)	(2.4)	(22.4)
Barbiturates	7	9	36	8	12	7	63
	(4.9)	(6.3)	(25.4)	(5.6)	(8.5)	(4.9)	(44.4)
Amphetamines	5	5	50	8	32	16	57
	(2.9)	(2.9)	(28.9)	(4.6)	(18.5)	(9.2)	(32.9)
Cocaine	59	66	36	25	38	9	85
	(18.6)	(20.8)	(11.3)	(7.9)	(11.9)	(2.8)	(26.7)
Marijuana	34	34	57	51	66	33	139
	(8.2)	(8.2)	(13.8)	(12.3)	(15.9)	(8.0)	(33.6)
Hallucinogens	7	5	10	4	5	8	33
	(9.7)	(6.9)	(13.9)	(5.6)	(6.9)	(11.1)	(45.8)
PCP	2	10	12	8	21	0	41
	(2.1)	(10.6)	(12.8)	(8.5)	(22.3)	(0)	(43.6)
Other	6	17	6	2	12	2	8
	(11.3)	(32.1)	(11.3)	(3.8)	(22.6)	(3.8)	(15.1)
Not recorded	4	3	1	5	14	1	2
	(13.3)	(10.0)	(3.3)	(16.7)	(46.7)	(3.3)	(6.7)
Total offenders	110	133	121	77	181	53	224

NOTE: Figures in parentheses are row percentages.

The data in table 11 also indicate the following:

- Eastern Pennsylvania had the highest proportion of offenders who had regularly used barbiturates and amphetamines.
- The two New York districts had the highest percentage of clients who had regularly used cocaine.
- The prior use of hallucinogens was much greater among the Western Texas and Central California samples than in the other districts.
- Central California had a much higher percentage of prior PCP users (18.3 percent) than the other districts.

Previous participation in a drug treatment program. Table 12 shows the proportion of offenders in aftercare who, according to case file records, had participated in a drug treatment program at some time prior to entering the program. The data reveal that about 54 percent of the clients had previously participated in a

TABLE 12
Offenders with Previous Participation in a Drug Treatment Program: Frequencies by District

Prior Drug Treatment	E.D.N.Y.	S.D.N.Y	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Yes	53	81	57	37	113	27	119
	(48.2)	(61.4)	(47.1)	(48.7)	(62.8)	(51.9)	(53.1)
No	57	51	64	39	67	25	105
	(51.8)	(38.6)	(52.9)	(51.3)	(37.2)	(48.1)	(46.9)
Total offenders	110	132	121	76	180	52	224

NOTE: Figures in parentheses are column percentages.

drug treatment program, with the District of Columbia (62.8 percent) and Southern New York (61.4 percent) having the highest percentages.

Slightly less than half of the offenders in Eastern New York, Eastern Pennsylvania, and Maryland had previously participated in a drug treatment program.

The data presented in this section reveal that there are significant variations between the districts with regard to the characteristics of aftercare program clients. Specifically, the districts vary widely in terms of:

- Supervision status
- Demographic characteristics
- Prior criminal record
- Prior drug use patterns.

To some extent, the variations from district to district may reflect differences in the screening criteria used to determine whether offenders should be required to participate in the program. As indicated in chapter 2, the Center's earlier study found that most federal judges, probation officers, and parole officials take account of an offender's prior criminal record, prior drug use patterns, and other factors when referring or recommending the offender for participation in aftercare.

To a great extent, however, the differences between the sample districts in the characteristics of offenders in aftercare may simply reflect basic differences in the nature of the local offender population. It should be noted, for example, that two of the districts—Maryland and Western Texas—include suburban and rural jurisdictions as well as urban areas. In contrast, districts such as East-

ern New York, New York Southern, and the District of Columbia are completely urban. The remaining two districts in the sample—Eastern Pennsylvania and Central California—include a mix of urban and suburban populations.

Given these differences in the overall population characteristics of the sample districts, we would expect to find variations among districts in the nature of the offender populations, not only in terms of demographic characteristics but also in regard to criminal histories and prior drug use patterns.

Services Received by Offenders in Aftercare During the Year in the Program

Treatment services. Table 13 presents data on the number of offenders who received specific types of treatment services each month during the one-year follow-up period. In addition to regular treatment activities, the exhibit includes data on visits made by probation officers to the homes of clients and office meetings between clients and their probation officers. The exhibit also shows the number of clients who were still active in the aftercare program during each month of the follow-up.

The table indicates that during the first few months after program entry, the portion of offenders who received some contract counseling each month was about 40 percent. In later months, about one-third of those studied were receiving contract counseling. The data also indicate that on a monthly basis, slightly more than half of the sample made office visits, while home visits were typically made each month in about 20 percent of the cases.

The data in table 13 reveal that relatively few of the clients received monthly treatment services other than contract counseling (with the exception of psychotherapy) during the follow-up.

Table 14 presents data on the number and percentage of offenders receiving the following services in each district:

- Methadone maintenance
- Psychotherapy
- Therapeutic community treatment.

The data show that only thirty-four (3.8 percent) of those in the sample received methadone maintenance at some time during the follow-up. Most of these were located in the two New York districts.

TABLE 13
Aftercare Services Received by Offenders in Sample: Frequencies by Month of Study

	Treatment Services									Other Services		
Month	Contract Counseling	Methadone Maintenance	Vocational Testing	Vocational Placement	Psychiatric Evaluation	Psychotherapy	Ambulatory Detox	Inpatient Detox	Therapeutic Community	Home Visit	Office Visit	Total Active Clients
Entry	208*	20	2	2	9	57	1	3	42	112	429	899
1	337	21	3	4	14	114	2	4	50	167	506	858
2	299	21	5	6	11	115	2	6	49	186	484	844
3	311	22	2	5	10	120	3	6	48	160	447	815
4	267	23	4	5	10	120	3	5	45	130	429	774
5	251	20	3	4	9	113	4	4	43	134	399	734
6	232	20	3	5	8	103	3	3	41	129	375	707
7	234	20	3	6	6	92	—	2	37	114	357	667
8	220	18	2	4	5	89	—	7	33	106	347	642
9	198	16	2	4	7	79	1	5	30	102	323	624
10	171	16	1	4	6	68	3	2	29	106	303	599
11	158	15	1	3	4	60	2	1	26	94	274	572
12	84*	9	—	1	6	46	—	2	24	65**	182	563

*Missing data on 120 cases. **Missing data on 33 cases.
NOTES: (1) Clients typically received more than one service. (2) Month "1" refers to the first full month after program entry.

TABLE 14
Offenders Receiving Methadone Maintenance, Psychotherapy, or Therapeutic Community Treatment During Period of Study: Frequencies by District

Service Provided	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Methadone maintenance	8 (23.5)	16 (47.1)	4 (11.8)	4 (11.8)	1 (2.9)	1 (2.9)	0 (0)
Psychotherapy	2 (1.3)	19 (12.6)	13 (8.6)	4 (2.6)	2 (1.3)	0 (0)	110 (0)
Therapeutic community	8 (8.7)	15 (16.3)	11 (12.0)	6 (6.5)	4 (4.3)	2 (2.2)	46 (50.0)
Total offenders	110	133	121	77	181	53	224

NOTE: Figures in parentheses are row percentages.

Table 14 also shows that Central California accounted for the majority of all offenders in the study who received therapeutic community treatment during the year. About 20 percent of the aftercare enrollees studied in Central California received this type of treatment during the follow-up.

TABLE 15
Average Contract Counseling Sessions, Home Visits, and Office Visits During Period Studied: Frequencies by District

Type of Contact	Average Number of Contacts per Month						
	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Contract counseling	2.070	0.126	0.930	1.363	0.699	1.325	0.622
Home visits	0.002	0.117	0.275	0.093	0.095	0.173	0.715
Office visits	0.016	1.045	1.526	0.848	0.908	1.725	1.087

Table 15 presents data for each district on the average number of contract counseling sessions per active client per month along with the average number of home visits and office visits per active aftercare client per month.

The table shows that the amount of contract counseling provided to aftercare enrollees varied considerably among the districts. In Eastern New York, enrolled offenders received an average of about two counseling sessions per month during the follow-up. In Southern New York offenders in aftercare received very little contract counseling, largely because of the district's reliance upon its probation officers to provide the counseling.

The average number of home visits made by probation officers also varied significantly between the districts. Central California relied heavily on home visits, while in Eastern New York probation officers conducted virtually no visits to offenders' homes. Presumably, the large amount of contract counseling provided to clients in Eastern New York was regarded as an appropriate substitute for routine home visits.

Finally, the data on office visits by offenders in aftercare reveal that all districts except Eastern New York required a relatively large number of office visits by offenders in aftercare. Western Texas had the most office visits per offender during each of the months studied, averaging 1.725 visits per month. That district was followed by Maryland, with an average of 1.526 visits per month. All other districts except Eastern New York required an average of about one office visit per month per aftercare enrollee.

TABLE 16
Average Number of Urine Tests per Active Client During Period Studied: Frequencies by District

Month	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Entry	3.1	3.0	0.8	1.5	1.5	0.5	1.5
1	6.6	4.0	1.4	2.5	3.6	2.7	2.5
2	5.3	4.4	1.3	2.4	3.8	3.0	2.6
3	4.6	4.5	1.0	2.3	3.9	3.2	2.5
4	4.1	4.3	1.1	2.1	4.0	2.8	2.3
5	4.2	4.6	1.4	2.0	4.0	2.8	2.2
6	3.7	4.2	1.1	1.8	3.7	2.2	2.5
7	3.9	3.2	1.0	1.8	3.8	2.9	2.2
8	3.7	3.1	1.1	1.6	3.7	2.9	2.2
9	3.3	2.4	1.25	1.7	3.6	2.6	2.2
10	3.5	2.7	1.1	1.4	3.5	2.1	2.0
11	3.0	3.1	1.0	1.6	3.25	1.9	2.6
12	2.8	2.7	0.9	1.3	3.1	1.5	1.7

NOTE: For most offenders, the data for the entry month and month 12 do not reflect a full month of activity.

Urine surveillance. Table 16 presents data for each district on the average number of urine tests that were conducted per active aftercare client during each month of the follow-up. The data reveal some degree of variation between the districts in the level of urine surveillance. For example, the average number of urine samples collected from offenders in Eastern Pennsylvania was generally much lower than in other districts. In contrast, the two New York districts and the District of Columbia collected about three to four times the number of samples per client that Eastern Pennsylvania collected.

The data in table 16 also reveal that in most districts there was a steady decline in the level of urine surveillance after the first full month of participation in the program. A likely explanation of this decline is that many of the offenders who continued to abuse drugs were terminated early from the program, and the remaining clients were deemed to require less surveillance.

Supervision Outcomes During the Follow-up Period

This section presents data on selected outcomes among the cohort during the one-year follow-up. Specifically, data are presented on:

- Terminations
- Urine test results
- Arrests and convictions
- Technical violations
- Revocations
- Employment patterns and living situations.

Terminations from the aftercare program. Table 17 presents data on early terminations from the aftercare program among offenders studied in each district. The table shows the number and percentage of offenders who were terminated for specific reasons.

The data indicate that about 38 percent of all offenders were terminated or had the special condition requiring participation in the aftercare program removed during their first year. The percentage was highest in Central California (51.8 percent) and Western Texas (49.1 percent).

The major reason for termination among the sample was incarceration or revocation of probation or parole, for which about 22 percent of the offenders were terminated. Almost one-third of the offenders enrolled in aftercare in Western Texas and Central California were incarcerated or had probation or parole revoked during the year, compared to only 9.8 percent in Southern New York, 10.4 percent in Maryland, and 14.0 percent in Eastern Pennsylvania. More than one-fourth of those studied in the District of Columbia were incarcerated or had probation or parole revoked during the year.

Central California and Western Texas also had the highest percentage of individuals who were terminated for absconding (12.1 percent and 9.4 percent respectively). Very few clients in Maryland

TABLE 17
Offenders Terminated from Aftercare During Period Studied: Frequencies by District

Terminations	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.
Incarceration/ Revocation	20 (18.2)	13 (9.8)	17 (14.0)	8 (10.4)	48 (26.5)	17 (32.1)	72 (32.1)
Absconded	7 (6.4)	11 (8.3)	3 (2.5)	1 (1.3)	8 (4.4)	5 (9.4)	27 (12.1)
Parole or probation expired	11 (10.0)	3 (2.3)	13 (10.7)	3 (3.9)	2 (1.1)	2 (3.8)	14 (6.3)
Other terminations	3 (2.7)	14 (10.5)	6 (5.0)	9 (11.7)	1 (0.6)	2 (3.8)	3 (1.3)
Total terminees*	41 (37.2)	41 (30.2)	39 (32.2)	21 (27.3)	59 (32.6)	26 (49.1)	116 (51.8)
Total sample	110 (100)	133 (100)	121 (100)	77 (100)	181 (100)	53 (100)	224 (100)

*As a percentage of total sample studied in each district.
NOTE: Figures in parentheses are cell percentages.

(1.3 percent) and Eastern Pennsylvania (2.5 percent) were terminated for this reason.

Overall, the percentage of negative terminations (incarceration/revocation/absconding) among the sample ranged from a low of 11.7 percent in Maryland to a high of 44.2 percent in Central California.

One factor that may have been partly responsible for the high rate of reincarceration in Central California, Western Texas, and the District of Columbia was the large percentage of parolees in these districts (see table 3). It is probable that a parolee is more likely than a probationer to be incarcerated for a specific technical violation.

Table 18 shows the number and percentage of active offenders in aftercare who were terminated during each month of the follow-up. The data indicate that with the exception of a decrease during the sixth month after entry, the rate of terminations per month increased steadily during the follow-up, peaking at 5.8 percent in the seventh month. However, after declining significantly in the eighth and ninth months, the termination rate began to increase again in the tenth month. Of those clients who terminated in the first year, 233 (67.9 percent) terminated during the first seven months.

Urine test results. For each month of the follow-up, table 19 shows the number and percentage of active aftercare enrollees who

TABLE 18
Offenders Terminated from Aftercare by Month of Study

Month	Terminations	As a Percentage of Active Clients
Entry	10	1.1
1	21	2.4
2	24	2.8
3	29	3.4
4	41	5.0
5	40	5.2
6	27	3.7
7	41	5.8
8	24	3.6
9	18	2.8
10	25	4.0
11	27	4.5
12	9	1.6
Unknown	6	—
Total	343	899

NOTE: Data for month 12 pertain only to that part of the month for which offenders were tracked.

TABLE 19
Number and Percentage of Active Clients Who Had Positive Urine Samples by Month of Study

Month	Number of Persons with Positive Urine Samples	Offenders in Study at Beginning of Month	Percentage of Active Clients with Positive Urine Samples
Entry	104	899	11.6
1	199	889	22.4
2	200	868	23.1
3	187	844	22.2
4	147	815	18.1
5	154	774	19.9
6	135	734	18.4
7	118	707	16.7
8	112	667	16.8
9	103	642	16.0
10	90	624	14.5
11	64	599	10.7
12	53	572	9.3

had one or more positive urine samples. Excluding the month of entry, the data indicate that the percentage of enrollees who had

positive samples was about 23 percent during the first three months after entry into the program. After the third month, the percentage of individuals with positive samples began to decline, so that in the twelfth month after program entry, only about 9 percent of active enrollees had a positive urine sample.

The data in table 19 may partially reflect the impact of the aftercare program. An alternative explanation for the decline in the percentage of offenders with positive urine samples is that many of those with significant drug abuse problems may have been terminated early from the program because of continued drug use. To examine this question, positive urine results among offenders who remained in the program for the entire twelve-month study period were examined. For these clients, table 19 shows the percentage who had positive urine samples, arranged by months after program entry. The data indicate that after the second full month following program entry, the percentage of clients with positive samples declined steadily during the follow-up. These data suggest that the urine surveillance program may have had an impact upon drug use patterns among offenders who remained in the program for the entire follow-up.

TABLE 20
Offenders Remaining in Program for Entire Study Period: Number ($N = 568$) and Percentage Who Had Positive Urine Samples by Month of Study

Month	Number with Positive Urine Samples	Percentage of Active Clients
Entry	42	7.4
1	106	18.7
2	118	20.8
3	112	19.7
4	89	15.7
5	108	19.0
6	93	16.4
7	91	16.0
8	92	16.2
9	89	15.7
10	85	15.0
11	62	10.9
12	52	9.2

NOTE: Both entry month and month 12 do not represent a full month's data for most offenders included in the table.

Table 20 presents data on the number and percentage of offenders in each district who remained in the program for the entire period of study and who had at least one positive urine sample.

The table also shows the average number of positive samples per month per offender for each district.

TABLE 21
Offenders with Positive Urine Samples During Period Studied: Frequencies by District

	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total
Number of clients with at least one positive sample during year	110	133	121	77	181	53	224	899
Average number of positive samples per month per active client	0.39	0.32	0.36	0.46	0.77	0.52	0.23	0.43

The data in table 21 indicate that 569 (63.2 percent) of the offenders studied had at least one positive urine sample during the follow-up. The percentage for individual districts ranged from a low of 44.2 percent in Maryland to a high of 79.6 percent in the District of Columbia.

The District of Columbia cohort also had the highest average number of positive urine samples per month (0.77), while those in Central California had the lowest (0.23). Offenders in aftercare in Maryland had a relatively high average number of positive urine samples per month (0.44), even though Maryland had the lowest percentage of individuals who had a positive sample during the follow-up. These data suggest that in Maryland a relatively small group of those offenders studied accounted for a very large percentage of all the positive urine samples.

Table 22 presents data for each district on the number and percentage of offenders who had a positive urine sample for specific drugs during the period of study. The data show that 55.2 percent of the total sample had at least one positive sample for morphine and/or quinine, suggesting continued use of heroin. The percentage ranged from a low of 41.6 percent in Maryland to a high of 71.3 percent in the District of Columbia. Eastern New York also had a high percentage of clients (69.1 percent) with morphine/quinine positives.

To some extent, the differences between districts in the percentage of offenders who had morphine/quinine positives may have been a function of the prior drug use patterns. The data in table

TABLE 22
Offenders with Positive Urine Samples for Specific Drugs During Period Studied: Frequencies by District

Drug Type	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total
Morphine/ quinine	76 (69.1)	74 (55.6)	62 (51.2)	32 (41.6)	129 (71.3)	26 (49.1)	97 (43.3)	496 (55.2)
Methadone	35 (31.8)	17 (12.8)	13 (10.7)	7 (9.1)	16 (8.8)	9 (17.0)	18 (8.0)	115 (12.8)
Barbiturates	7 (6.4)	6 (4.5)	15 (12.4)	7 (9.1)	19 (10.5)	9 (17.0)	17 (7.6)	80 (8.9)
Amphetamines	0 —	2 (2.2)	21 (17.4)	5 (6.5)	22 (12.2)	19 (35.8)	20 (8.9)	89 (9.9)
Cocaine	35 (31.8)	26 (19.5)	17 (14.0)	5 (6.5)	32 (17.7)	11 (20.8)	49 (21.9)	175 (19.5)
PCP	2 (1.8)	4 (3.0)	3 (2.5)	9 (11.7)	28 (15.5)	0 —	18 (8.0)	64 (7.1)
Codeine	8 (7.3)	10 (7.5)	8 (6.6)	6 (7.8)	16 (8.8)	10 (18.9)	16 (7.1)	74 (8.2)
Phenothiazines	1 (0.9)	3 (2.3)	1 (0.8)	0 —	11 (6.1)	3 (5.7)	2 (0.9)	21 (2.8)
Dilaudid	1 (0.9)	0 —	2 (1.7)	0 —	6 (3.3)	0 —	0 —	9 (1.0)
Propoxphene	4 (3.6)	13 (9.8)	5 (4.1)	1 (1.3)	7 (3.9)	3 (5.7)	1 (0.4)	34 (3.8)
Other	8 (7.3)	3 (2.3)	16 (13.2)	6 (7.8)	15 (8.3)	2 (3.8)	7 (3.1)	57 (6.3)
Total	110 (100)	133 (100)	121 (100)	77 (100)	181 (100)	53 (100)	224 (100)	899 (100)

NOTE: Figures in parentheses are cell percentages.

21, for example, show that three of the districts—Eastern Pennsylvania, Maryland, and Western Texas—had a lower percentage of prior heroin users than the others. In Central California, however, a large percentage of the sample (73.7 percent) were prior heroin users (see table 11) but only a relatively small percentage of the sample (43.3 percent) tested positive for morphine/quinine during the period studied. A probable explanation for the low rate of morphine/quinine positives in Central California is that the district was following a strict policy of revoking parole or probation as soon as an individual tested positive for morphine/quinine. This point will be illustrated below when data are presented on alleged and actual technical violations.

After morphine and quinine, the next most frequently detected drug among the sample was cocaine; 19.5 percent of those studied had at least one positive urine sample for the drug or its metabolite. The percentage of individuals with cocaine positives

ranged from 6.5 percent in Maryland to 31.8 percent in Eastern New York.

Methadone was the third most commonly detected drug among the enrollees in the program. In Eastern New York a high percentage (31.8 percent) of the cohort had at least one positive test for methadone; Western Texas also had a relatively large percentage (17 percent).

Among other significant findings presented in table 22 are the following:

- 17 percent of the clients in Western Texas had at least one positive for barbiturates.
- 35.8 percent of those studied in Western Texas had at least one positive for amphetamines, a much greater percentage than in any other district in the study.
- Detected PCP use was highest in the District of Columbia (15.5 percent of clients).
- Codeine positives were much higher in Western Texas (18.9 percent of the sample) than in the other districts.

TABLE 23
Prior Heroin Users Who Had Morphine or Quinine Positives During Period Studied: Frequencies by District

	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total
Prior heroin users with a morphine/quinine positive	59 (73.8)	62 (62.6)	39 (61.9)	22 (56.4)	101 (73.0)	21 (65.6)	84 (50.9)	389 (63.0)
Total prior heroin users	80 (100)	99 (100)	63 (100)	39 (100)	139 (100)	32 (100)	165 (100)	617 (100)

NOTE: Figures in parentheses are cell percentages.

Table 23 presents data for each district on the number and percentage of offenders who had regularly used heroin prior to entry and who had at least one morphine or quinine positive during the study period. The data indicate that 63 percent of prior heroin users had at least one morphine/quinine positive while in aftercare. The district percentages ranged from a low of 50.9 percent in Central California to a high of 73.8 percent in Eastern New York. The District of Columbia had the second highest percentage at 73.4 percent.

TABLE 24
Average Monthly Positive Urine Samples per Offender Studied by Selected Offender Characteristics

Characteristic	Average Positive Urine Samples
Entry age	
17–24	0.32
25–29	0.38
30–34	0.46
35–40	0.46
Over 40	0.51
Sex	
Male	0.44
Female	0.38
Ethnicity	
White	0.28
Black	0.51
Hispanic	0.41
Supervision status	
Parolees	0.45
Probationers	0.40
Prior drug treatment	
Yes	0.51
No	0.32

Table 24 presents data on the average number of positive urine samples per month among specific subgroups of offenders in the total sample. The data indicate the following:

- The average number of positive urine samples per month was only slightly higher among parolees than probationers.
- The average number of positive urine samples per month *increased* steadily with the age of offender.
- Males were slightly more likely than females to have a positive urine sample.
- The average number of positive urine samples among blacks was much higher than among whites.
- Offenders who had previously participated in a drug treatment program were much more likely than other offenders to have a positive urine sample.

Arrests and convictions. Table 25 presents data on arrests among individuals in the program during the period of study. The data reveal that 26.9 percent of all offenders studied had at least

TABLE 25
Total Arrests Among Sample During Period Studied

Characteristic	Number of Clients/Crimes	As Percentage of Active Clients
Number of arrests after entering program		
1	170	18.9
2	52	5.8
3	11	1.2
4	5	0.6
5	1	.01
Total arrested	239	26.51
Type of crime*		
Violent	40	13.1
Property	93	30.4
Drug	108	35.3
Other	65	21.2
Total crimes	306	100.0
Month		
Entry	22	2.4
1	26	2.9
2	34	3.9
3	21	2.5
4	23	2.8
5	26	3.4
6	20	2.7
7	15	2.1
8	13	1.9
9	14	2.2
10	6	1.0
11	10	1.7
12	3	0.5
Unknown	6	1.0
Total arrested	239	

*Includes first and second offenses.

one arrest during the follow-up. About 8 percent of all the offenders had more than one arrest.

As part of the study, data were gathered on the first and second offenses for which individuals were arrested during the study period. As table 25 indicates, 35.3 percent of the offenses consisted of drug-related crimes, while 30.4 percent of the offenses were crimes against property. Only 13.1 percent of the offenses were crimes of violence.

An effort was made to determine whether offenders are more likely to be arrested early in the period of their enrollment in aftercare. Table 25 presents data on the months during the one-year period of study when the arrests occurred among the sample.

The data reveal that the percentage of active offenders in the cohort who were arrested each month began to decline after the fifth full month following entry into the program. During the first five months after program entry (including the entry month), a total of 152 offenders were arrested. This represented 63.6 percent of the total 239 arrested during the entire period of study.

TABLE 26
Offenders with at Least One Arrest During Period Studied

E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
29	31	24	18	78	10	50
(26.4)	(23.3)	(19.8)	(23.4)	(43.1)	(18.9)	(22.3)

NOTE: Figures in parentheses are cell percentages.

Table 26 shows the number and percentage of offenders in each district who had at least one arrest during the follow-up. The data indicate that in the District of Columbia, the percentage of aftercare clients who were arrested (43.1 percent) was much higher than in any other district. Eastern New York had the next highest percentage of offenders who were arrested at least once during the follow-up (26.4 percent).

Table 27 presents data on the percentage of arrests among specific subgroups of offenders in the program. The table shows the following:

- Almost one-third of the parolees were arrested during the follow-up, compared to only 18 percent of probationers.
- The age group with the highest percentage of arrests was the thirty-year-old to thirty-four-year-old age group, followed by the twenty-five-year-old to twenty-nine-year-old age group.
- The percentage of males who were arrested was only slightly higher than the percentage of females.
- The percentage of blacks who were arrested was much higher than the percentage of whites or Hispanics.
- There was a clear correlation between the number of prior adult arrests and the probability of an arrest while in aftercare.

Table 28 presents data for each district on the number and percentage of offenders in the study who had at least one conviction during the follow-up. As the data indicate, a total of eighty-five (9.5 percent) of those studied had at least one conviction; of these offenders, seventy-six had one conviction and nine had two convic-

TABLE 27
Percentage of Offenders Who Had One or More Arrests During Period Studied by Selected Offender Characteristics

Characteristic	Percentage Arrested
Entry age	
17–24	25.5
25–29	27.4
30–34	29.4
35–40	25.1
Over 40	18.1
Sex	
Male	27.3
Female	23.3
Ethnicity	
White	21.5
Black	31.2
Hispanic	16.3
Supervision status	
Parolees	32.4
Probationers	18.2
Number prior adult arrests	
0–2	12.8
3–5	18.0
6–10	32.1
11–15	35.8
16 or more	41.5

TABLE 28
Offenders with at Least One Conviction During Period Studied

E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.	Total
4	13	8	5	34	3	18	85
(3.6)	(10.0)	(6.6)	(6.5)	(18.8)	(5.7)	(8.0)	(9.5)

NOTE: Figures in parentheses are cell percentages.

tions. In the District of Columbia, the percentage of offenders convicted of an offense during the follow-up (18.8 percent) was much higher than in the other districts.

Technical violations and revocations. Table 29 summarizes for the entire sample the number and percentage of individuals charged with technical violations of their parole/probation conditions during the follow-up. The table also shows the nature of the technical violations. A total of 370 (41.2 percent) of the offenders

TABLE 29
Frequency and Basis of Alleged Technical Violations

	Number	Percentage
Clients charged with:		
One violation	145	16.1
Two violations	107	11.9
Three violations	74	8.2
Four violations	44	4.9
Total charged with one or more violations	370	41.1
Total violations charged	757	
Basis of alleged violations		
Rearrest	146	19.3
Continued drug use	215	28.4
Refusal to submit to urine tests	87	11.5
Failure to report	198	26.2
Absconded	69	9.1
Other	42	5.5
Total violations charged	757	100.0

were charged with at least one technical violation during the follow-up; about 25 percent were charged with two or more violations.

"Continued drug use" was cited as a factor in 215 (28.4 percent) of the 757 technical violations. "Failure to report" was a factor in slightly more than one-quarter of the technical violations, and "rearrest" was a factor in about 19 percent of the violations.

TABLE 30
Offenders Charged with Technical Violations: Frequencies by District

	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total
Number and percentage of clients with at least one technical violation	34 (30.9)	33 (24.8)	25 (20.7)	22 (28.6)	97 (53.6)	27 (50.9)	132 (58.9)	370 (41.2)
Average number of alleged technical violations per month per active client	0.65	0.44	0.31	0.51	1.3	0.70	1.25	0.85

NOTE: Figures in parentheses are cell percentages.

Table 30 presents data on technical violations among offenders in the program. The data show that more than half of the individuals in three districts were charged with at least one technical violation during the period of study. These districts were Central California (58.9 percent), District of Columbia (53.6 percent), and Western Texas (50.9 percent). In the other four districts, the percentage of offenders charged with technical violations ranged from only 20.7 percent to 30.9 percent.

The District of Columbia and Central California had the highest average number of technical violations per month per active aftercare client, 1.3 and 1.25 respectively. Western Texas averaged only 0.7 technical violations per month per active client, even though a large percentage of them received a technical violation. These data suggest that very few of the sample in Western Texas were charged with more than one technical violation.

TABLE 31
Nature of Technical Violations Charged: Frequencies by District

Cause of Violation	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total Violations (percentage of all violations)
Rearrest	12	12	14	10	53	3	42	146
	(17.4)	(20.3)	(36.8)	(25.6)	(22.5)	(8.1)	(15.1)	(19.3)
Continued drug use	12	8	7	8	64	19	97	215
	(17.4)	(13.6)	(18.4)	(20.5)	(27.1)	(51.4)	(34.8)	(28.4)
Refusal to submit to urine tests	10	3	0	6	42	5	21	87
	(14.5)	(5.1)	—	(15.4)	(17.8)	(13.5)	(7.5)	(11.5)
Failure to report	25	25	11	14	62	4	57	198
	(36.2)	(42.4)	(28.9)	(35.9)	(26.3)	(10.8)	(20.4)	(26.2)
Absconded	10	7	3	1	10	5	33	69
	(14.5)	(11.9)	(7.9)	(2.6)	(4.2)	(13.5)	(11.8)	(9.1)
Other	0	4	3	0	5	1	29	42
	—	(6.8)	(7.9)	—	(2.1)	(2.7)	(10.4)	(5.5)
Total violations	69	59	38	39	236	37	279	757
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

NOTE: Figures in parentheses are row percentages.

Table 31 outlines a number of specific causes cited as the basis for technical violation charges. "Continued drug use" accounted for a relatively large percentage of the technical violations in Western Texas (51.4 percent), Central California (34.8 percent), and the District of Columbia (27.1 percent). "Failure to report" accounted for more than one-third of the technical violations in Southern New York (42.4 percent), Eastern New York (36.2 percent), and Maryland (35.9 percent). Rearrest was a major factor in technical violations in Eastern Pennsylvania (36.8 percent) and Maryland (25.6 percent). "Refusal to submit to urine tests" accounted for more

than 10 percent of technical violations in four districts: the District of Columbia (17.8 percent), Maryland (15.4 percent), Eastern New York (14.5 percent), and Western Texas (13.5 percent).

The data in table 31 provide insights into the policies of the different districts with regard to technical violations. In Central California, for example, a total of ninety-seven clients were charged with a technical violation for "continued drug use."

Data presented in table 21 showed that a total of 125 clients in the Central California sample had at least one positive urine sample during the follow-up. The data from the two tables, therefore, suggest that almost all of those who tested positive for drugs in Central California were charged, at some point during the period studied, with a technical violation.

In contrast, it appears that most of the other districts did not routinely charge offenders with technical violations in response to positive urine tests. In Southern New York, for example, a total of seventy-six individuals in the study had at least one positive urine sample during the follow-up (only eight were charged with a technical violation for continued drug use). A similar pattern was found in Eastern New York, Eastern Pennsylvania, and Maryland.

In the case of the District of Columbia and Western Texas, the data from the two tables suggest that about half of the offenders who tested positive for drugs during the follow-up were charged with technical violations for continued drug use.

With regard to rearrests, the data in table 31—when considered in connection with the data in table 26—suggest that the districts differed in their technical violation procedures in response to arrests among offenders in the study while in the program. In the case of Eastern New York and Southern New York, table 26 showed that twenty-nine and thirty-one offenders, respectively, were arrested during the period studied. However, table 31 reveals that in each of the two districts, only twelve individuals were charged with technical violations for having been rearrested. In contrast, a total of fifty individuals in the Central California cohort were arrested during the follow-up, and forty-two of these were charged with technical violations for rearrest. Similarly, seventy-eight offenders in the District of Columbia were rearrested during the follow-up, and fifty-three were charged with technical violations for rearrest.

Table 32 presents data for specific subgroups on the percentage of clients who were charged with at least one technical violation during the follow-up. The data indicate the following:

TABLE 32
Percentage of Offenders Who Had One or More Technical Violations Charged During Period Studied by Selected Offender Characteristics

Characteristic	Percentage Charged
Entry age	
17–24	40.9
25–29	27.4
30–34	29.4
35–40	25.1
Over 40	18.1
Sex	
Male	27.3
Female	23.3
Ethnicity	
White	21.5
Black	31.2
Hispanic	16.3
Supervision status	
Parolees	32.4
Probationers	18.2
Number prior adult arrests	
0–2	12.8
3–5	18.0
6–10	32.1
11–15	35.8
16 or more	41.5

- Parolees were much more likely to be charged with a technical violation than probationers.
- Age at entry into the program was not a significant factor in technical violations.
- Males were more likely than females to be charged with a technical violation.
- Blacks had a slightly larger percentage of technical violations than whites or Hispanics.
- The probability of being charged with a technical violation was clearly correlated with the number of prior arrests. This relationship presumably reflected the fact that prior arrests were correlated with arrests while in the program (see table 27).

Table 33 shows the actions resulting from technical violations in each district. During the study, we recorded only one "resulting action" for each offender who was charged with a technical viola-

TABLE 33
Actions Taken Regarding Offenders with One or More Charges of Technical Violations: Frequencies by District

Action Taken	E.D.N.Y.	S.D.N.Y.	E.D.Pa.	D.Md.	D.D.C.	W.D.Tex.	C.D.Cal.	Total
No indication of change in supervision	7 (20.6)	9 (27.3)	5 (20.0)	8 (36.4)	39 (40.2)	2 (7.4)	32 (24.2)	102 (27.6)
Revocation of supervision and incarceration	20 (58.8)	13 (39.4)	17 (68.0)	7 (31.8)	37 (38.1)	21 (77.8)	77 (58.3)	192 (51.9)
Increased frequency of contact with offender or his/her family or associates	4 (11.8)	1 (3.0)	0 —	0 —	5 (5.2)	0 —	1 (0.8)	11 (3.0)
Placement in residential program	0 —	1 (3.0)	1 (4.0)	2 (9.1)	3 (3.1)	2 (7.4)	13 (9.8)	22 (5.9)
Increased frequency of urine collection	0 —	1 (3.0)	0 —	1 (4.5)	4 (4.1)	1 (3.7)	0 —	7 (1.9)
Changes in treatment (other than residential placement)	0 —	0 —	1 (4.0)	1 (4.5)	1 (1.0)	0 —	3 (2.3)	6 (1.6)
Other	3 (8.8)	8 (24.2)	1 (4.0)	3 (13.6)	8 (8.2)	1 (3.7)	6 (4.5)	30 (8.1)
Total clients with one or more technical violations	34 (100)	33 (100)	25 (100)	22 (100)	97 (100)	27 (100)	132 (100)	370 (100)

NOTE: Figures in parentheses are row percentages.

tion. Accordingly, the data in the table pertain only to the most significant actions that were taken for each offender and do not include every action that was taken for each violation.

The data in the table show that 192 (51.9 percent) of the 370 clients who were charged with technical violations during the follow-up had their parole or probation revoked and were incarcerated. For individual districts, the percentage ranged from a low of 31.8 in Maryland to a high of 77.8 in Western Texas. Eastern Pennsyl-

vania, like Western Texas, had a high percentage of cases (68.0 percent) that resulted in revocation/incarceration.

The high percentage of revocations in Eastern Pennsylvania probably reflected the fact that a large proportion of the technical violations in that district involved a rearrest (table 31). In Western Texas, however, only a low percentage of technical violations involved rearrests. In addition, other districts that had a high percentage of revocations—Eastern New York (58.8 percent) and Central California (58.3 percent)—did not have a particularly large number of rearrests among their technical violations (table 31). The data presented in tables 31 and 33 indicate, therefore, that the districts responded in very different ways to specific types of technical violations.

The data in table 33 also suggest that the rate of incarceration/revocation among aftercare participants reflects the policies of the different districts as well as the actual behavior of the offenders. For example, the relatively high percentage (32.1 percent) of offenders who were incarcerated/revoked in Central California reflected the high percentage who were charged with technical violations for a given offense and the relatively high percentage of technical violations that resulted in incarceration or revocation.

Table 33 indicates that for 27.6 percent of the offenders in aftercare charged with technical violations, there were no case-file indications of any change in supervision status or supervision activities. Among the individual districts, the percentage ranged from 7.4 percent in Western Texas to 40.2 percent in the District of Columbia. Maryland had the second highest percentage of offenders (36.4 percent) for whom case files contained no indications of changes in supervision status or activities in response to technical violations.

Data on the number and percentage of individuals in the study whose parole/probation was revoked during the period of study are presented in table 34. The data show that most of the revocations during the follow-up occurred after the fifth full month that offenders were in the program, even though, as indicated previously, the rate of arrests and technical violations tended to be highest during the first few months after program entry. Time lags involved in completing revocation hearings no doubt accounted for the patterns observed in table 34.

Table 35 presents data on the employment status of offenders during the follow-up. In considering the table, it should be noted that there were significant amounts of missing data for this variable, especially for the entry month and month twelve. The data in table 35 suggest that among offenders in the study whose employ-

TABLE 34
Offenders Whose Parole or Probation Was Revoked: Frequencies by Month

Month	Number of Clients	As Percentage of Active Clients
Entry	2	0.2
1	7	0.8
2	5	0.6
3	12	1.4
4	9	1.1
5	9	1.2
6	18	2.5
7	16	2.3
8	19	2.8
9	17	2.6
10	19	3.0
11	23	3.8
12	10	1.8
Unknown	24	
Total	192	

NOTE: Data for entry month and month 12 do not usually cover a full month of client activity.

TABLE 35
Employment Status of Offenders During Period Studied

Month	Employed	Self-employed	Unemployed	Terminated	Unknown	Job Change During Month*	Percentage of Active Clients Employed or Self-employed
Entry	296	9	415	11	171	5	42.4
1	370	12	380	32	108	23	50.1
2	381	13	351	58	99	33	52.9
3	367	15	336	92	92	32	53.2
4	355	13	310	130	94	23	54.3
5	338	16	293	161	94	31	54.7
6	323	13	289	194	83	25	53.8
7	315	17	274	228	68	24	54.8
8	315	14	254	254	64	18	56.4
9	293	15	246	271	77	23	55.6
10	283	15	224	293	87	20	57.1
11	277	16	205	320	84	20	58.8
12	263	10	183	321	125	12	59.9

*No data for clients whose employment status was unknown are included in column.

ment status was known, the percentage who were employed or self-employed increased steadily during the study period to about 60 percent.

TABLE 36
Living Arrangements of Offenders at End of Study Period

Arrangement		
With spouse or children	122	(18.0)
With parents or relatives	155	(22.9)
With common-law spouse	27	(4.0)
With girlfriend/boyfriend	64	(9.5)
In institution	32	(4.7)
Incarcerated	212	(31.4)
Alone	44	(6.5)
Other	20	(3.0)
Total clients whose living situation was known	676	(100)

NOTE: Figures in parentheses are row percentages. The living arrangements for an additional 110 offenders who were in aftercare at the conclusion of the study period were unknown. In addition, there were 113 offenders whose participation in aftercare had terminated by the end of the study period for whom living arrangements could not be determined.

Data on the living situation of offenders in aftercare at the conclusion of the study period are set out in table 36. It should be noted that no data were available on the living situations of 117 offenders who had terminated from the program and 110 clients who were still active. Among the 676 clients whose living situation at the end of the follow-up was known, 212 (31.4 percent) were incarcerated, 155 (22.9 percent) were living with parents or relatives, and 122 (18.0 percent) were living with a spouse or children.

TABLE 37
Status of Offenders at Time of Data Collection

Status		
Receiving aftercare services	322	(35.8)
Under supervision but not in aftercare	65	(7.2)
No longer under probation/parole supervision	162	(18.0)
Incarcerated	273	(30.4)
Absconded	45	(5.0)
Deceased	7	(0.8)
Other	20	(2.2)
Unknown	5	(0.6)
Total	899	(100)

NOTE: Figures in parentheses are row percentages.

As shown in table 37, data were collected on the status of offenders in the study from November 1984 to February 1985. At that time, the period since entry into aftercare ranged from seventeen

months to thirty-two months. While the principal focus of this study was on the one-year period discussed earlier in chapter 2, an effort was made to determine the status of each offender in the study as of the time of the actual data collection. The data show that slightly more than one-third of the offenders in the study were still in the aftercare program. About 35 percent of the clients were incarcerated or had absconded, and 18 percent were no longer under probation or parole supervision.

IV. OFFENDER CHARACTERISTICS, SERVICES RECEIVED, AND SUPERVISION OUTCOMES: MULTIPLE REGRESSION ANALYSIS

This chapter presents the results of the multiple regression analysis of the aftercare sample data. The analysis had two major objectives:

- To identify offender characteristics that are associated with positive or negative aftercare outcomes during the period studied
- To assess the impact of specific types of treatment services upon supervision outcomes of the offenders in the study.

The chapter is organized as follows: The first section discusses the overall approach to the regression analysis; the next section presents the results of the analysis, which sought to identify specific offender characteristics that appear to be associated with positive or negative aftercare outcomes; the final section contains a discussion of the impact of treatment services on supervision outcomes of the offenders we studied.

Approach to the Multiple Regression Analysis

Selection and definition of supervision outcome variables. Three outcome variables were used in the multivariate analysis:

- Positive urine samples as an indicator of continued illegal drug use
- Arrests as an indicator of continued criminal activity
- Alleged or determined technical violations as an indicator of apparent failure to comply with the terms and conditions of community supervision.

These outcome variables represented the dependent variables for the multiple regression analysis.

In defining the outcome variables for the analysis, each was structured as an interval scale. The positive urine sample variable was defined as the average number of positive urine samples per month during each offender's enrollment in the program. The arrest variable was defined as the average number of alleged or determined technical violations per month during each offender's stay in the program. The rationale for defining each of the outcome variables in this manner was that it helped to eliminate a number of potential biases associated with different lengths of stay in the program. If, for example, total positive urine samples had been used as an ordinal outcome variable, an offender who stayed in the program for the full year and had an average of one positive sample per month would have the same value (twelve positive urine samples) as one who had twelve positive samples during the first two months and was then terminated. Clearly, the two represent significant differences in program adjustment.

Selection of offender characteristics as independent variables. The following offender characteristics were included as independent variables in the multiple regression analysis of characteristics associated with specific aftercare outcomes:

- Supervision status
- Age at entry into aftercare
- Sex
- Ethnicity
- Offense of instant conviction
- Length of sentence received for instant offense
- Length of time actually incarcerated for instant offense
- Number of prior arrests
- Nature of prior arrests
- Nature of prior drug use
- Previous participation in a drug treatment program.

Selection and definition of treatment services variables. One of the problems encountered in selecting variables pertaining to treatment services was that there was virtually no variation in the nature and type of aftercare services provided to the offenders in our sample. The only aftercare-related services provided in any significant degree were:

- Contract counseling

- Urine collection and screening
- Home visits
- Office visits.

Admittedly, three of the above do not involve the delivery of a specific service to the offenders in aftercare. Nonetheless, they were included in the analysis in an effort to determine whether offender outcomes were in any way related.

In selecting the treatment services variables, it was decided that only the above four should be included in the analysis. In the case of the first three variables, we defined services received on an interval scale as:

- Average number of contract counseling sessions received per month by the offender while in the program
- Average number of visits by the drug program specialist or probation officer assigned the case to the offender's home per month while the offender was in the program.

Stepwise multiple regression procedure used. The specific approach that was used in carrying out the multiple regression analysis was the stepwise inclusion of independent variables on the basis of preestablished statistical criteria. This procedure is designed to identify a subset of predictor variables that produce an optimal prediction equation with as few terms as possible. Under the stepwise procedure, the order of inclusion of the independent variables is determined by the relative contribution of each variable to the explained variance. Using the Statistical Package for the Social Sciences' (SPSS) multiple regression package, the default values of $F = .01$ and $T = .001$ were selected. The default values are not particularly restrictive with regard to the exclusion of independent variables, since the value of $T = .001$ indicates that a variable may be entered into the equation if the proportion of its variance not explained by other independent variables merely exceeds 0.1 percent.

Offender characteristics associated with positive or negative aftercare program outcomes. This section presents the results of multiple regression analysis of the relationship between selected offender characteristics and program outcomes among the sample. Simple correlation coefficients for the independent and dependent variables are presented first. The section then presents the results of multiple regression analysis for the relationship between the offender characteristics variables and the three outcome variables described above.

Table 45 in appendix B contains the simple correlations between major offender characteristics variables and the three outcome variables for the sample. The table also shows the intercorrelations between the supervision outcome variables.

Average number of positive urine samples per month. For this outcome variable, the table indicates that four independent variables had correlation coefficients greater than +0.1. These independent variables included:

- Prior use of methadone (+0.145)
- Ethnicity = black (+0.141)
- Previous participation in drug treatment (+0.133)
- Prior use of barbiturates (-0.119).

Average number of arrests per month. For this outcome variable, a total of four independent variables had correlation coefficients greater than +0.1. These were:

- Number of prior adult arrests (+0.175)
- Status = parolee (+0.135)
- Ethnicity = black (+0.135)
- Length of sentence for instant conviction among parolees (+0.100).

Average number of technical violations per month. For this outcome, a total of eight independent variables had correlation coefficients greater than +0.1. These were:

- Length of incarceration for instant offense among parolees (+0.188)
- Status = parolee (+0.184)
- Number of prior adult arrests (+0.177)
- Length of sentence for instant conviction among parolees (+0.166)
- Prior use of heroin (+0.143)
- Prior arrest for a violent crime (+0.130)
- Offense of instant conviction = violent (+0.129)
- Prior use of cocaine (-0.107).

Intercorrelations among the outcome variables. The data in table 45 reveal a relatively high correlation (+0.364) between two of the outcome variables:

- Average number of arrests per month
- Average number of technical violations per month.

The data reveal, however, that the outcome variable "average number of positive urine samples per month" had only a moderate degree of correlation with the other two outcome variables:

- Average number of arrests per month (+0.137)
- Average number of technical violations per month (+0.158).

Relationship Between Offender Characteristics and Average Number of Positive Urine Samples per Month

Total sample. Table 46 presents the summary results of a stepwise multiple regression analysis of the relationship between selected offender characteristics and average number of positive urine samples per month for the entire sample. The table presents the following:

- The overall multiple correlation coefficient (multiple R)
- The overall R^2 (the percentage of the variance in the dependent variable explained by the independent variables)
- The unstandardized regression coefficient (B) and standardized regression coefficient (beta) for each independent variable in the equation
- The standard error of beta for each independent variable
- The F ratio for each beta
- The relative contribution of each independent variable to the multiple R.

To test the statistical significance of the betas, Student's t values were computed. Independent variables that had a statistically significant relationship with the outcome variable are denoted in the table by asterisks.

As the table indicates, the independent variables that had a statistically significant impact upon the outcome variable (average number of positive urine samples per month) were as follows (in order of statistical significance):

- Prior use of methadone (.001 level, positive)
- Previous participation in drug treatment (.01 level, positive)
- Ethnicity = black (.01 level, positive)

- Offense of instant conviction = drug offense (.01 level, positive)
- Offense of instant conviction = "other" offense (.05 level, positive)
- Prior use of barbiturates (.05 level, negative)
- Prior arrest for a drug offense (.05 level, negative).

In combination, the independent variables in the analysis accounted for 8.8 percent (R^2) of the variance in the outcome variable.

Parolees. Table 47 presents the results of the multiple regression analysis for parolees only. The data indicate that prior use of methadone had the most statistically significant relationship with the outcome variable (.001 level, positive). The following independent variables had a statistically significant relationship with the outcome variable (average number of positive urines per month) at the .05 level:

- Offense of instant conviction = drug offense (positive)
- Ethnicity = black (positive)
- Previous participation in a drug treatment program (positive).

The independent variables in the analysis accounted for almost 11 percent of the variance in the outcome variable.

Probationers. Table 48 presents the results of the multiple regression analysis for the probationers in the sample. The data reveal that none of the independent variables in the equation had a statistically significant impact upon the outcome variable. As a group, the independent variables accounted for only 8.2 percent of the variance in the outcome variable.

Discussion and supplemental analyses. For parolees, the analysis suggests that the types of offenders who are most likely to continue using drugs while in aftercare are those who have a history of prior drug treatment, especially for heroin use, and whose offense of instant conviction was a drug-related offense. It should be noted, however, that the independent variables in the analysis accounted for only 11 percent of the total variance among parolees. Accordingly, the independent variables, as a group, do not represent a particularly strong set of predictors of continued drug use. For probationers, it is not possible from the analysis to identify any specific offender characteristics from those included in the study that predict continued drug use while in the program.

The fact that prior use of methadone had the most significant relationship with positive urine samples among parolees in the sample raises the following questions:

- Did prior use of methadone occur primarily in the context of prior methadone maintenance treatment?
- Were the results of the analysis unduly influenced by the District of Columbia sample, which had by far the highest percentage of prior methadone users (see table 11)?

To address these questions, a number of supplemental analyses of the data were conducted. With regard to the first question, we cross-tabulated prior use of methadone with previous participation in a drug treatment program for the entire sample. The results of that analysis are shown in table 49. As the table indicates, the large majority (80.7 percent) of the eighty-three prior methadone users in the sample had previously participated in a drug treatment program, compared to only 51.8 percent of clients who were not prior methadone users. These data suggest that, in all likelihood, the large majority of prior methadone users had used methadone primarily in the context of drug treatment. To address the second question—whether the results of the regression analyses hold true for all districts in the sample and are not unduly influenced by the District of Columbia data—we conducted supplemental regression analyses breaking out the District of Columbia data.

Table 50 presents the results of a multiple regression analysis of the relationship between offender characteristics and average positive urine samples per month during the follow-up for the District of Columbia sample only. The data show that the following variables had a statistically significant relationship with the dependent variable:

- Previous participation in drug treatment (.01 level)
- Prior arrest for a consensual crime (.01 level)
- Status = parolee (.05 level, negative)
- Prior use of methadone (.05 level)
- Offense of instant conviction = drug use (.05 level).

In combination, the independent variables accounted for about 25 percent of the variance in the dependent variable. Table 51 presents the results of a similar analysis of parolees only in the District of Columbia sample. The table shows that four of the independent variables in the analysis had a statistically significant relationship with the dependent variable:

- Previous participation in drug treatment (.01 level)
- Prior use of methadone (.01 level)
- Prior arrest for a consensual crime (.01 level)
- Offense of instant conviction = drug offense (.05 level).

As a group, the independent variables in the equation accounted for 23.6 percent of the variance in the dependent variable.

The data for the District of Columbia, therefore, indicate that the variables "previous participation in drug treatment" and "prior use of methadone" were significantly related to the average number of positive urine samples per month during the follow-up. Variables that were predictive for the total sample (see table 46) but not for the District of Columbia included:

- Ethnicity = black (more than 98 percent of the District of Columbia's sample was black)
- Prior use of barbiturates (negative)
- Instant conviction = "other" offense
- Prior drug arrest.

Table 52 presents the multiple regression analysis results for all offenders in districts other than the District of Columbia. The table shows that only three variables had a statistically significant relationship with the average number of positive urine samples per month during the follow-up:

- Prior use of methadone (.05 level)
- Prior use of barbiturates (.05 level, negative)
- Offense of instant conviction = "other" (.05 level).

The independent variables in the equation accounted for only 5.4 percent of the variation in the dependent variable. The variables that were predictive for the total sample (see table 46) but were not predictive when the District of Columbia data were excluded are as follows:

- Previous participation in drug treatment
- Ethnicity = black
- Instant conviction = drug offense
- Prior drug arrest.

Finally, table 53 presents the results for parolees in districts other than the District of Columbia. The data indicate that none of

the independent variables in the equation had a statistically significant relationship with the dependent variable. As a group, the independent variables accounted for only 5 percent of the variance in the dependent variable. In interpreting the data in table 53 it must be kept in mind that the number of prior methadone users in districts other than the District of Columbia was relatively small ($n = 52$) as a proportion of the total sample of clients in those districts. In addition, the data in the table pertain only to parolees; it is possible that the low F ratios for "prior use of methadone" may have reflected the small number of prior methadone users in the analysis.

Although the study data suggest that some type of relationship exists between prior drug use/drug treatment and continued drug use while in the aftercare program, the exact dimensions of this relationship cannot be determined on the basis of this study.

Relationship Between Offender Characteristics and Average Number of Arrests per Month

Total sample. Table 54 presents the summary results of the multiple regression analysis of the relationship between selected offender characteristics and arrests during the follow-up for the entire sample. The data reveal that two independent variables had a statistically significant relationship with the outcome variable at the .001 level:

- Number of prior arrests (positive)
- Age at entry into aftercare (negative).

The variable "ethnicity = black" had a statistically significant positive relationship with the outcome variable at the .05 level. Overall, the independent variables in the equation accounted for about 10 percent of the variance in the independent variable.

Parolees. Table 55 presents the results of the multiple regression analysis for parolees only. The data show that two independent variables had a statistically significant impact upon the outcome variable at the .01 level:

- Number of prior arrests (positive)
- Age at entry into the program (negative).

The variable "ethnicity = black" had a statistically significant impact upon the outcome variable at the .05 level. The independent variables in the analysis accounted for 9.4 percent of the variance in the outcome variable.

Probationers. Table 56 presents the results of the multiple regression analysis for probationers. The data indicate that two independent variables had a statistically significant impact upon the outcome variable:

- Number of prior arrests (.01 level, positive)
- Age at entry into aftercare (.01 level, negative).

The independent variables in the equation accounted for 12.3 percent of the variance in the outcome variable.

Discussion. The results of the analysis indicate that the "high risk" offenders in terms of likelihood of being arrested while in aftercare are those who:

- Have a large number of prior arrests
- Are younger than the average offender at the time of entry into aftercare (as indicated in chapter 2, the average age of the sample at entry into the program was 32.5 years).

The results of the analysis indicate that the above two factors are predictive for both parolees and probationers. It should be noted, however, that the independent variables in the analysis accounted for a relatively small percentage of the total variation in the dependent variable and were accordingly not a very strong set of predictors of continued criminal activity.

To illustrate the results of the regression analyses, we conducted a three-way cross-tabulation of the following variables:

- Age at entry into the program
- Number of prior adult arrests
- Average number of arrests per month while in aftercare.

Table 57 shows the results of the analysis. The number of offenders in each cell of the table is included in parentheses. As a note of caution, it should again be emphasized that some of the cell sizes in the table are relatively small.

There are some significant contrasts between the six highest cell values and nine lowest cell values in terms of the average number of arrests per month among individuals studied while in the program. The six highest values are clustered among offenders in the upper right-hand corner of the table, indicating that high-risk offenders are the younger individuals with extensive arrest records. For example, the highest risk group were offenders aged seventeen to twenty-four at entry who had eleven to fifteen prior adult ar-

rests. This group of individuals averaged two arrests per month while in the aftercare program.

In contrast, the nine lowest values are clustered in the lower left-hand corner of the table, indicating that the low-risk offenders are the older individuals with relatively few prior arrests. For example, offenders who were over forty years of age at the time of program entry and who had five or fewer prior adult arrests had no arrests while in the aftercare program.

Relationship Between Offender Characteristics and Average Number of Technical Violations per Month

Total sample. Table 58 presents the summary results of the multiple regression analysis of the relationship between selected offender characteristics and technical violations during the follow-up period for the total sample. The data reveal that two of the independent variables had a statistically significant relationship with the outcome variable at the .01 level:

- Number of prior arrests (positive)
- Prior use of amphetamines (negative).

In addition, four of the independent variables had a statistically significant relationship with the outcome variable at the .05 level:

- Prior use of cocaine (negative)
- Length of incarceration for the offense of instant conviction (positive)
- Supervision status = parolee (positive)
- Age at entry into aftercare (negative).

In combination, the independent variables in the equation accounted for about 10 percent of the variance in the outcome variable.

Parolees. Table 59 presents the results of the multiple regression analysis for parolees in the sample. The data reveal that only two of the independent variables had a statistically significant relationship with the outcome variable:

- Number of prior arrests (.01 level, positive)
- Prior use of cocaine (.05 level, negative).

Overall, the independent variables in the equation accounted for about 8.7 percent of the variance in the outcome variable.

Probationers. The results of the multiple regression analysis for probationers in the sample is presented in table 60. The table reveals that one of the independent variables had a statistically significant relationship with the outcome variable at the .01 level: offense of instant conviction = violent crime (positive).

In addition, five independent variables had a statistically significant relationship with the outcome variable at the .05 level:

- Offense of instant conviction = "other" type of offense (positive)
- Offense of instant conviction = property crime (positive)
- Offense of instant conviction = drug crime (positive)
- Age at entry into aftercare (negative)
- Prior use of amphetamines (negative).

Discussion. The interpretation of the data on technical violations is complicated because, as indicated in chapter 2, there appear to be significant differences between the districts in terms of their policies for charging offenders with technical violations for given patterns of behavior. It is also probable that different probation officers within each of the districts follow different policies of charging offenders with technical violations. Finally, districts may be following different technical violation policies for parolees and probationers for a given pattern of behavior.

The data presented in this section indicate that parolees and probationers differ in terms of the factors associated with technical violations. In the case of parolees, the primary predictive factor—the number of prior arrests—was the same variable that had the most significant relationship with the likelihood of arrest during the follow-up. "Age at entry," however, was not a significant factor in the likelihood of a technical violation, even though it had a strong, statistically significant relationship with the probability of arrest.

The fact that "prior use of cocaine" had a statistically significant negative relationship with the probability of a technical violation might reflect the policies of the two districts that had the highest percentage of prior cocaine users: Eastern New York and Southern New York (table 11). As indicated in chapter 2, these two districts were apparently following a relatively lenient policy as to charging offenders with technical violations for continued drug use.

In the case of probationers, the variable that had the strongest relationship with the outcome variable—"offense of instant conviction = violent crime"—did not have a statistically significant rela-

tionship with either of the other two outcome variables. A partial explanation for the data might be technical violation policies of the Central California district. As indicated in table 8, Central California had by far the highest percentage of total offenders whose offense(s) of instant conviction included a violent crime (42.9 percent). At the same time, Central California appears to have been stricter than most of the other districts in charging offenders with technical violations.

The data on probationers showed that instant convictions for each of the other three types of offenses (property, drug, and "other") also had a statistically significant positive relationship with the outcome variable at the .05 level. While the data on the instant conviction variables may appear contradictory, it must be remembered that many of the offenders were convicted of a number of different instant offenses. Finally, it should be noted that the R^2 for each of the analyses was relatively small, indicating that, as a group, the independent variables were not highly predictive of the probability of technical violations among the sample.

Impact of Treatment Services on Offender Outcomes

This section presents the results of multiple regression analyses of the relationship between selected treatment services and supervision outcomes among the sample. As indicated previously, the services included in the analysis were:

- Average number of contract counseling sessions per month
- Average number of visits by probation officers to the client's home per month
- Average number of office visits by the offender per month
- Receipt of psychotherapy.

The above variables were included as independent variables in the analysis.

The impact of treatment services upon client outcomes was examined for each of the three offender outcome variables described previously:

- Average number of positive urine samples per month
- Average number of arrests per month
- Average number of technical violations per month.

In addition to including each of the four treatment services variables in the analysis, we incorporated a number of offender characteristic variables as independent variables. Rather than including all of the offender characteristic variables that had been used in the previous multiple regression analyses, we selected only those that appeared to have some type of relationship with the outcome variables. As an arbitrary rule, we incorporated only those independent variables that had an F ratio value of 2.0 or greater with respect to specific outcome variables.

Relationship Between Treatment Services and Average Number of Positive Urine Samples per Month

Table 61 presents the summary results of the multiple regression analysis of the relationship between selected independent variables and the average number of positive urine samples per month for the total sample during the follow-up. The independent variables in the analysis include:

- The four treatment services variables
- Each of the independent variables that had an F ratio of 2.0 or greater in the analysis presented previously in table 46.

The data in the table show that none of the four treatment services variables had a statistically significant relationship with the outcome variable. The independent variables that had the strongest relationship with the outcome variable were essentially the same as those identified in the analysis presented in table 46:

- Prior use of methadone
- Previous participation in drug treatment
- Ethnicity = black
- Offense of instant conviction = drug crime
- Prior use of barbiturates (negative)
- Offense of instant conviction = "other" crime.

Overall, the variables in the equation accounted for about 7.9 percent of the variance in the outcome variable.

Relationship Between Treatment Services and Average Number of Arrests per Month

Table 62 presents the results of the multiple regression analysis of the relationship between the four treatment services variables and the average number of arrests per month for offenders during

the follow-up. The independent variables incorporated in the analysis included:

- The four treatment services variables
- The offender characteristic variables in table 54 for which the *F* ratio was 2.0 or greater.

The data in the table reveal that two of the treatment services variables had a statistically significant relationship with the outcome variable:

- Average number of contract counseling sessions per month (.001 level, negative)
- Average number of office visits per month (.01 level, negative).

The fact that the relationship for both variables was negative indicates that the larger the number of counseling sessions and office visits per month, the smaller the likelihood of an arrest while the offender was in the program.

Other independent variables that had a statistically significant relationship with the outcome variable were:

- Number of prior arrests (.001 level, positive)
- Age at entry into aftercare (.001 level, negative)
- Status = parolee (.01 level, positive).

In combination, the independent variables in the equation accounted for about 11.4 percent of the variance in the outcome variable.

Relationship Between Treatment Services and Average Number of Technical Violations per Month

Table 63 presents the results of the multiple regression analysis of the relationship between the four treatment services variables and the average number of technical violations per month for clients during the follow-up. The independent variables that were included in the analysis consisted of:

- The four treatment services variables
- The offender characteristic variables in table 58 for which the *F* ratio was 2.0 or greater.

The data in the table show that two of the treatment services variables had a particularly significant relationship with the outcome variable:

- Average number of office visits (.001 level, negative)
- Average number of contract counseling sessions (.001 level, negative).

The fact that the relationships were both negative indicates that the larger the number of office visits and contract counseling sessions, the smaller the average number of technical violations during the follow-up.

The data suggest that the following additional variables had a statistically significant relationship with the outcome variable:

- Number of prior arrests (.01 level, positive)
- Status = parolee (.01 level, positive)
- Prior use of cocaine (.01 level, negative)
- Age at entry into aftercare (.05 level, negative)
- Length of incarceration prior to entry into aftercare (.05 level, positive).

Overall, the independent variables in the equation accounted for about 14 percent of the variance in the outcome variable.

Discussion. With regard to the outcome variable "average number of positive urine samples per month," we would have expected a strong negative relationship with the variable "average number of contract counseling sessions per month." Based upon the data that were gathered during the study, however, there is no evidence to support the hypothesis that contract counseling had a significant impact upon continued drug use among the sample. It must be noted that we gathered data only on a limited number of variables for each offender. If a more extensive battery of data items were to be collected in future studies, a relationship between the receipt of contract counseling and a decline in drug use might be discernible.

With regard to the outcome variable "average number of arrests per month," the data must be interpreted with caution. Although the analysis indicated that the greater the number of counseling sessions and office visits, the lower the average number of arrests for a given offender, the data do not necessarily establish a causal relationship between the receipt of these treatment services and a lower probability of arrest. For example, it is possible that those in aftercare who were arrested during the period studied were generally uncooperative in their behavior and had a tendency not to show up for scheduled counseling sessions or office visits. If this was the case, the apparent relationship between the receipt of

treatment services and the lower probability of an arrest while in aftercare may have been largely correlational in nature.

With regard to the third outcome variable—the average number of technical violations per month—a similar type of argument might apply to the analysis. For example, the data show that the larger the number of counseling sessions and office visits, the lower the probability of a technical violation. For any given offender in the study, the data do not, however, establish conclusively that the receipt of these treatment services reduced the number of technical violations among individuals in the study. Alternative explanations include the following:

- Offenders charged with a technical violation during the period of study tended to engage in a pattern of uncooperative behavior, including failing to keep scheduled counseling sessions and office visits.
- Many of the offenders who were charged with a technical violation may have been so charged precisely because they had a consistent pattern of not appearing for counseling sessions and office visits. A decision by the probation officer to allege a violation in these instances is indeed consistent with the relevant policies of the Administrative Office and in no way should be viewed as a failure of the supervision process.

APPENDIX A
Case File Data Collection Instrument

FJC PHASE II DRUG AFTERCARE STUDY
DATA COLLECTION FORM

1. Offender's name: _____
   Last First M.I.

2. Case code I.D. number: / / / / /

3. Offender's supervision status:
   [ ] Probation
   [ ] Parole (including mandatory release)
   [ ] Other (specify) _____
   [ ] Missing data

4. Date of entry into supervision: / / / / / / / / /
   Month Day Year

5. Date of entry into Aftercare if later than the date of entry into supervision: / / / / / / / / /
   Month Day Year

6. Sex: [ ] Male [ ] Female

7. Date of birth: / / / / / / / / /
   Month Day Year

8. Ethnicity:
   [ ] White, non-Hispanic
   [ ] Black, non-Hispanic
   [ ] Hispanic
   [ ] Asian/Pacific Islander
   [ ] American Indian/Alaskan Native
   [ ] Other

9. a. Risk classification (at entry into Aftercare):
   [ ] High
   [ ] Low
   [ ] Other (specify) _____

   b. SFS (for parolees): / / /

   RPS 80 (for probationers): / / /

Name of Data Collector: _____

10. Offense of instant conviction (do not include parole or probation revocations). Use the numeric codes below to indicate the nature of the offense, then check if there was an attempt/conspiracy.

First offense:	/ / /	Attempt/conspiracy indicated:	[ ] Yes [ ] No
Second offense	/ / /	Attempt/conspiracy indicated:	[ ] Yes [ ] No
Third offense:	/ / /	Attempt/conspiracy indicated:	[ ] Yes [ ] No

Offense Codes

01	Homicide	13	Prostitution, procuring
02	Robbery	14	Simple assault
03	Aggravated assault	15	Extortion, racketeering
04	Burglary	16	Gambling
05	Larceny and theft	17	Immigration violations
06	Embezzlement and fraud	18	Kidnapping
07	Auto theft	19	Firearms
08	Forgery and counterfeiting	20	Dealing in stolen property
09	Sexual assault	21	Escape
10	Narcotics--Simple possession	22	Liquor law violations
11	Narcotics--Possession with intent to distribute	23	Traffic offenses
12	Narcotics--Other	24	Other (specify with U.S. Code Title) _____

11. If incarcerated for the instant conviction, date when the incarceration began: / / / / / / / / / (Month / Day / Year)

12. Length of sentence for instant offense (in months): / / / /

13. Number of prior adult arrests (including arrest for instant conviction): / / /

14. Types of prior arrests. (For each category, indicate the total number of arrests cited.)

/ / / Violent (homicide, robbery, aggravated assault, rape, kidnapping)

/ / / Property (burglary, larceny, theft, auto theft, embezzlement and fraud, forgery, dealing in stolen property)

/ / / Narcotics/controlled substances

/ / / Consensual offenses (prostitution, procuring, gambling, liquor law violations)

/ / / Other (simple assault, extortion, immigration laws, firearms, escape, traffic, other)

15. Drugs used regularly prior to Aftercare program entry. (If offender was incarcerated prior to Aftercare program entry, list drugs used regularly prior to incarceration.) (Check all that apply.)

[ ] Heroin
[ ] Methadone
[ ] Other opiates
[ ] Barbiturates and other sedatives
[ ] Amphetamines and other stimulants
[ ] Cocaine
[ ] Marijuana
[ ] Hallucinogens
[ ] PCP
[ ] Other (specify): _____
[ ] Missing data

16. Does the casefile indicate that the offender has previously participated in a drug treatment program?

[ ] Yes [ ] No

12. Results of Urine Tests

12a. URINES COLLECTED			12b. POSITIVE URINES							12c. URINE NO-SHOWS								12d. URINE STALLS				
				Date			Drugs Detected**				Date				Date				Date			
Month	Year	Number of Urines Collected*	Number	Month	Day	Year	First	Second	Third	Number	Month	Day	Year	Number	Month	Day	Year	Number	Month	Day	Year
07	82		1							1				25				1			
08	82		2							2				26				2			
09	82		3							3				27				3			
10	82		4							4				28				4			
11	82		5							5				29				5			
12	82		6							6				30				6			
01	83		7							7				31				7			
02	83		8							8				32				8			
03	83		9							9				33				9			
04	83		10							10				34				10			
05	83		11							11				35				11			
06	83		12							12				36				12			
07	83		13							13				37				13			
08	83		14							14				38				14			
09	83		15							15				39				15			
10	83		16							16				40				16			
11	83		17							17				41				17			
12	83		18							18				42				18			
01	84		19							19				43				19			
02	84		20							20				44				20			
03	84		21							21				45				21			
04	84		22							22				46				22			
05	84		23							23				47				23			
06	84		24							24				48				24			

Others (use the following page to list dates and drugs detected)

Others (list dates):

* Do not include no-shows and stalls.

** Drug Codes

1 = Morphine	4 = Methadone	7 = Codeine
2 = Quinine	5 = Barbiturates	8 = Phenothiazines
3 = Cocaine	6 = Amphetamines	9 = Propoxyphene

10 = Dilaudid
11 = Phencyclidine (PCP)
12 = Other (specify)

17h. POSITIVE URINES (continued)

Number	Date			Drugs Detected*		
	Month	Day	Year	First	Second	Third
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

* Drug Codes:

1 = Morphine
2 = Opiates
3 = Cocaine
4 = Methadone
5 = Barbiturates
6 = Amphetamines
7 = Codeine
8 = Phenothiazines
9 = Propoxyphene
10 = Diluadid
11 = Phencyclidine (PCP)
12 = Other (specify)

19. Employment and Residency

		EMPLOYMENT				RESIDENCY	
Month	Year	Employed[1]	Number of Days Worked	Job Change During the Month[2]	If Not Employed, Why Not?[3]	Change of Address[4]	Living Situation at End of Month[5]
07	82						
08	82						
09	82						
10	82						
11	82						
12	82						
01	83						
02	83						
03	83						
04	83						
05	83						
06	83						
07	83						
08	83						
09	83						
10	83						
11	83						
12	83						
01	84						
02	84						
03	84						
04	84						
05	84						
06	84						

[1] 1 = Yes 2 = No 3 = Self-employed

[2] 1 = Yes 2 = No
Do not include transition between employment and unemployment and vice versa.

[3] 1 = In school or training
2 = Disability
3 = Dependent children in home (AFDC)
4 = Unable to find work
5 = Incarcerated
6 = In halfway house, detox facility, or other institution
7 = Other (specify)

[4] 1 = Yes 2 = No
Do not include release from prison, detox facility, etc., as a change of address. Do not include reincarceration, commitment to a detox facility, etc., as a change of address.

[5] 1 = With spouse/children
2 = With parents or other relatives
3 = With common-law spouse
4 = With girlfriend boyfriend
5 = Halfway house, detox facility, or other institution
6 = Incarcerated
7 = Alone
8 = Other (specify)

20. Arrests since entering Aftercare program:

	Date	First Offense*	Second Offense*
First	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Second	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Third	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Fourth	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Fifth	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Other	(List dates and offense types)		

21. Convictions since entering Aftercare program:

	Date	First Offense*	Second Offense*
First	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Second	/__/__/ /__/__/ /__/__/ Month Day Year	/__/__/	/__/__/
Other	(List dates and offense types)		

22. Charged with technical violations:

Since entering the Aftercare program, was the offender charged with any technical violations?

[ ] Yes
[ ] No

If yes, nature of the technical violation(s):

/__/__/

- 01-24 Rearrest (use codes from Item 10)
- 25 Continued drug use
- 26 Refusal to submit to urine tests
- 27 Failure to report for counseling sessions or appointments with probation officer
- 28 Absconded
- 29 Other (specify) ______________________________

---

* Use Offense Codes from Item 10.

22. (continued)

If yes, results of the technical violation(s):

/ /

1 Increased frequency of contact with the offender, his or her family, associates and/or employees
2 Placement in a residential program
3 Changes in treatment other than placement in a residential program
4 Increased frequency of urine collections
5 Offender's supervision was revoked and he or she was imprisoned
6 No indication of change in supervision
7 Combination (list): _____
8 Other (specify): _____

23. Revocations since entering Aftercare program:

a. If a warrant was issued for revocation of parole or probation:

	Date	Primary Cause*
First Warrant	/ / / / / / / / / / / / (Month / Day / Year)	/ /
Second Warrant	/ / / / / / / / / / / / (Month / Day / Year)	/ /

* Cause Codes

01 - 24 Rearrest (use codes from Item 10)
25 Continued drug use
26 Refusal to submit to urine tests
27 Failure to report for counseling sessions or appointments with probation officer
28 Absconded
29 Other (specify): _____

b. If probation or parole was revoked, date of revocation: / / / / / / / / / / / / (Month / Day / Year)

24. At the time of data collection, the offender was:

[ ] Still under Federal probation or parole supervision and receiving Aftercare services
[ ] Still under Federal probation or parole supervision, but no longer receiving Aftercare services
[ ] No longer under Federal probation or parole supervision
[ ] Incarcerated
[ ] Absconded
[ ] Deceased
[ ] Other (specify) _____

APPENDIX B
Tables 38 to 63

TABLE 38
Specific Offense Involved in Instant Convictions

Type of Crime	First Offense No.	First Offense %	Second Offense No.	Second Offense %	Third Offense No.	Third Offense %
Violent						
Homicide	2	0.2	—	—	—	—
Robbery	176	19.5	16	1.8	7	0.8
Aggravated assault	11	1.2	7	0.8	4	0.4
Rape	—	—	2	0.2	—	—
Kidnapping	1	0.1	—	—	1	0.1
Subtotal	190	21.1	25	2.8	12	1.3
Property						
Burglary	21	2.3	4	0.4	1	0.1
Larceny	94	10.4	16	1.8	3	0.3
Embezzlement/fraud	35	3.9	2	0.2	—	—
Auto theft	5	0.6	1	0.1	1	0.1
Forgery	65	7.2	22	2.4	3	0.3
Stolen property	31	3.4	13	1.4	1	0.1
Subtotal	251	27.8	58	6.4	9	1.0
Drugs						
Possession	55	6.1	12	1.3	7	0.8
Intent to distribute	271	30.0	65	7.2	13	1.4
Other	25	2.8	10	1.1	2	0.2
Subtotal	351	38.9	87	9.6	22	2.4
Other						
Prostitution/procuring	1	0.1	1	0.1	—	—
Simple assault	4	0.4	1	0.1	—	—
Immigration	1	0.1	—	—	—	—
Firearms	17	1.9	14	1.6	3	0.3
Escape	6	0.7	5	0.6	1	0.1
Liquor law	2	0.2	1	0.1	1	0.1
Traffic	2	0.2	4	0.4	1	0.1
Other	71	7.9	41	4.5	13	1.4
Subtotal	104	11.5	67	7.4	19	2.1
Total	—	—	247	27.4	62	6.9

TABLE 39
Time Actually Served by Parolees on Instant Conviction: Frequencies by District

Time Served	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Less than 2 years	13 (24.1)	10 (24.4)	27 (41.5)	8 (32.0)	35 (23.3)	13 (37.1)	16 (10.6)
2–3 years	19 (35.2)	17 (41.5)	18 (27.7)	11 (44.0)	48 (32.0)	13 (37.1)	41 (27.2)
4–5 years	16 (29.6)	11 (26.8)	13 (20.0)	4 (16.0)	34 (22.7)	4 (11.4)	49 (32.5)
6 years or more	6 (11.1)	3 (7.3)	7 (10.8)	2 (8.0)	33 (22.0)	5 (14.3)	45 (29.8)
Average years served	3.2	3.1	2.7	2.4	3.7	2.7	4.8

NOTE: Figures in parentheses are column percentages.

TABLE 40
Offenders with Prior Adult Arrests by Major Offense Categories: Frequencies by District

Type of Crime	E.D.N.Y.	S.D.N.Y.	E.D. Pa.	D. Md.	D.D.C.	W.D. Tex.	C.D. Cal.
Violent	47 (10.0)	63 (13.4)	53 (11.3)	28 (6.0)	112 (23.9)	21 (4.5)	145 (30.9)
Property	83 (12.3)	98 (14.5)	87 (12.9)	43 (6.4)	150 (22.3)	36 (5.3)	177 (26.3)
Drug	66 (10.2)	95 (14.7)	91 (14.1)	62 (9.6)	128 (19.8)	35 (5.4)	168 (26.0)
Consensual	9 (6.9)	18 (13.8)	24 (18.5)	12 (9.2)	16 (12.3)	13 (10.0)	38 (29.2)
Other	67 (11.7)	80 (13.9)	91 (15.8)	45 (7.8)	125 (21.7)	35 (6.1)	132 (23.0)
Total	110	131	120	77	179	51	223

NOTE: Figures in parentheses are row percentages.

TABLE 41
Offenders with Prior Adult Arrests by Major Offense Category and Supervision Status

Type of Crime	Parolees	Probationers
Violent	341	128
	(63.6)	(36.0)
Property	424	251
	(79.1)	(70.5)
Drug	418	228
	(78.0)	(64.0)
Consensual	89	41
	(16.6)	(11.5)
Other	377	199
	(70.3)	(55.9)
Total	536	356

NOTE: Figures in parentheses are cell percentages.

TABLE 42
Offenders with Prior Adult Arrests by Major Offense Category and Age at Entry into Aftercare

	Entry Age				
Type of Crime	17–24	25–29	30–34	35–40	Over 40
Violent	31	101	149	111	72
	(33.3)	(43.9)	(55.6)	(62.4)	(64.9)
Property	58	161	210	144	93
	(62.4)	(70.0)	(78.4)	(80.9)	(83.8)
Drug	58	137	203	142	98
	(62.4)	(59.6)	(75.7)	(79.8)	(87.4)
Consensual	9	18	39	29	34
	(9.7)	(7.8)	(14.6)	(16.3)	(30.6)
Other	50	131	168	134	87
	(53.8)	(57.0)	(62.7)	(75.3)	(78.4)
Total	93	230	268	178	111

NOTE: Figures in parentheses are cell percentages.

TABLE 43
Offenders with Prior Adult Arrests by Major Offense Category and Sex

Type of Crime	Male	Female
Violent	433	35
	(57.9)	(24.5)
Property	570	104
	(76.2)	(72.7)
Drug	553	92
	(73.9)	(64.3)
Consensual	105	24
	(14.0)	(16.8)
Other	518	57
	(69.3)	(39.9)
Total	748	143

NOTE: Figures in parentheses are cell percentages.

TABLE 44
Offenders with Prior Adult Arrests by Major Offense Category and Ethnicity

	Ethnicity		
Type of Crime	White	Black	Hispanic
Violent	115	313	39
	(42.3)	(58.8)	(45.3)
Property	180	435	58
	(66.2)	(81.8)	(67.4)
Drug	203	370	72
	(74.6)	(69.5)	(83.7)
Consensual	39	81	9
	(14.3)	(15.2)	(10.5)
Other	163	355	57
	(59.9)	(66.7)	(66.3)
Total	272	532	86

NOTE: Figures in parentheses are cell percentages.

TABLE 45
Correlation Coefficients for Client Characteristic Variables and Outcome Variables: Total Sample

Variable	Outcome Variables		
	Average Positive Urine Samples per Month	Average Arrests per Month	Average Technical Violations per Month
Outcome			
Average positive urine samples per month	—	.137	.158
Average arrests per month	.137	—	.364
Average technical violations per month	.158	.364	—
Client characteristic			
Status = parolee	.034	.135	.184
Age at entry	.051	−.071	.038
Sex = male	.031	.024	.083
Ethnicity			
Black	.141	.135	.070
Hispanic	−.011	−.096	−.023
Offense of instant conviction			
Violent	−.053	.084	.129
Property	−.006	.036	.013
Drug	.056	−.063	−.082
Other	.054	−.014	−.036
Length of sentence (parolees)	.007	.100	.166
Length of incarceration (parolees)	.008	.074	.188
Number of prior adult arrests	.071	.175	.177
Type of prior arrests			
Violent	.051	.082	.130
Property	.008	.087	.134
Drug	−.018	.061	.041
Consensual	.036	.047	−.010
Prior drug use			
Heroin	.085	.075	.143
Methadone	.145	.007	.051
Other opiates	.023	.056	.029
Barbiturates	−.119	.013	−.025
Amphetamines	−.061	−.094	−.067
Cocaine	−.033	−.023	−.107
Marijuana	−.085	−.055	−.016
Hallucinogens	−.080	.019	−.023
PCP	−.016	.037	−.019
Previous participation in drug treatment	.133	.076	.099

TABLE 46
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: Total Sample

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior use of methadone	.3156052	.13083	.08165	14.940***	.14525	.02110	.02110	.14525
Ethnicity—black	.1491680	.10489	.05551	7.222**	.19716	.03887	.01777	.14061
Previous drug treatment	.1390264	.09921	.05111	7.399**	.22262	.04956	.01069	.13321
Prior use of barbiturates	−.1541602	−.08074	.07047	4.786*	.24386	.05947	.00991	−.11922
Instant conviction: drug offense	.2481379	.17470	.09601	6.679**	.25824	.06669	.00722	.05560
Instant conviction: other offense	.1765844	.09696	.07571	5.440*	.26981	.07280	.00611	.05370
Prior drug arrest	−.1325990	−.08490	.06177	4.607*	.27544	.07587	.00307	−.01829
Prior arrest: violent crime	.6202308E–01	.04437	.05897	1.106	.28026	.07854	.00267	.05138
Prior use of marijuana	−.5298908E–01	−.03784	.05001	1.123	.28376	.08052	.00198	−.08537
Prior arrest: consensual crime	.6434093E–01	.03253	.07078	.826	.28607	.08184	.00132	.03598
Prior use of hallucinogens	−.9146824E–01	−.03555	.09168	.995	.28813	.08302	.00118	−.08025
Instant conviction: property crime	.8071873E–01	.05322	.08872	.828	.28969	.08392	.00090	−.00621
Sex—male	.5378950E–01	.02842	.06707	.643	.29109	.08473	.00081	.03056
Prior use of heroin	.4584016E–01	.03046	.05785	.628	.29237	.08548	.00075	.08494
Ethnicity—Hispanic	.6219146E–01	.02633	.08720	.509	.29322	.08598	.00050	−.01061
Length of sentence	−.5037723E–03	−.04177	.00068	.547	.29396	.08641	.00043	.00727
Status—parolee	.3710157E–01	.02601	.06758	.301	.29449	.08672	.00031	.03409
Prior arrest: property crime	−.4005695E–01	−.02462	.06557	.373	.29499	.08702	.00030	.00789
Number of prior arrests	.3357323E–02	.03480	.00443	.574	.29587	.08754	.00052	.07074
Prior use of amphetamines	−.2898253E–01	−.01640	.06437	.203	.29618	.08772	.00018	−.06147
Instant conviction: violent crime	.3413799E–01	.02037	.10230	.111	.29639	.08785	.00012	−.05345
Prior use of other opiates	.2657170E–01	.01113	.08077	.108	.29660	.08797	.00012	.02307
Prior use of PCP	.2320048E–01	.01017	.07899	.086	.29677	.08807	.00010	−.01556
Length of incarceration	−.1655217E–02	−.00674	.01235	.018	.29682	.08810	.00003	.00786
Age at entry	−.4731051E–03	−.00492	.00378	.016	.29685	.08812	.00002	.05148
Prior use of cocaine	−.5449640E–02	−.00373	.04979	.012	.29687	.08813	.00001	−.03323
Constant	.1231579							

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.
NOTE: Multiple R = .29687; R^2 = .08813; adjusted R^2 = .06008; standard error = .67707; regression = 26; residual = 845.

TABLE 47
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: Parolees

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior use of methadone	.4079403	.17369	.10304	15.674**	.18611	.03464	.03464	.18611
Ethnicity—black	.1454024	.10476	.07189	4.091*	.23136	.05353	.01889	.14844
Previous drug treatment	.1270519	.09357	.06289	4.081*	.25799	.06656	.01303	.14097
Prior use of barbiturates	−.1556375	−.08679	.08776	3.145	.28026	.07854	.01199	−.13514
Instant conviction: drug offense	.2874881	.21420	.11654	6.085*	.29681	.08809	.00955	.08585
Number of prior arrests	.6832931E–02	.07772	.00503	1.849	.30296	.09178	.00369	.08870
Prior drug arrest	−.1372444	−.08515	.08037	2.916	.31008	.09615	.00436	−.02257
Prior use of hallucinogens	−.1176948	−.05058	.11008	1.143	.31532	.09942	.00327	−.10324
Ethnicity—Hispanic	.1010648	.04499	.10985	.846	.31774	.10096	.00153	.00000
Instant conviction: other offense	.1188894	.06220	.09271	1.645	.31974	.10223	.00127	.00605
Prior arrest: violent crime	.7429823E–01	.05352	.07474	.988	.32208	.10373	.00150	.05087
Length of sentence	−.5581862E–03	−.04615	.00067	.686	.32484	.10552	.00179	−.02244
Instant conviction: property crime	.1183122	.07425	.10884	1.182	.32610	.10634	.00082	.00831
Instant conviction: violent crime	.1007987	.07029	.11743	.737	.32810	.10765	.00131	−.05004
Prior use of marijuana	−.3180597E–01	−.02363	.06247	.259	.32884	.10813	.00048	−.06956
Age at entry	−.2651524E–02	−.02925	.00491	.291	.32976	.10874	.00061	.03180
Prior use of heroin	.3263985E–01	.02094	.07536	.188	.33036	.10914	.00040	.06668
Prior arrest: consensual crime	.3425740E–01	.01909	.08493	.163	.33093	.10951	.00037	.01396
Prior use of other opiates	.2193422E–01	.01046	.09144	.058	.33109	.10962	.00011	.00992
Length of incarceration	−.2182661E–02	−.00956	.01231	.031	.33117	.10968	.00006	−.02085
Prior use of cocaine	−.8782877E–02	−.00616	.06502	.018	.33123	.10971	.00004	−.05629
Prior use of amphetamines	−.1059967E–01	−.00657	.07602	.019	.33129	.10975	.00004	−.04199
Sex—male	−.1250463E–01	−.00557	.10116	.015	.33134	.10978	.00003	−.00333
Prior use of PCP	−.1215126E–01	−.00541	.10235	.014	.33137	.10981	.00002	−.01889
Prior arrest: property crime	−.8058477E–02	−.00491	.07937	.010	.33140	.10982	.00002	.01104
Constant	.2034853							

*Significant at the .05 level. **Significant at the .001 level.

NOTE: Multiple R = .33140; R^2 = .10982; adjusted R^2 = .06479; standard error = .64644; regression = 25; residual = 494.

TABLE 48
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: Probationers

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Ethnicity—black	.1167241	.07851	.09039	1.667	.12424	.01544	.01544	.12424
Previous drug treatment	.1536534	.10346	.09223	2.775	.16507	.02725	.01181	.11766
Instant conviction: other offense	.1967852	.11257	.14890	1.747	.19633	.03855	.01130	.11563
Prior use of amphetamines	−.6394460E–01	−.03113	.12595	.258	.21558	.04647	.00793	−.10276
Instant conviction: violent crime	−.1930794	−.07114	.23251	.690	.22906	.05247	.00600	−.11382
Prior use of barbiturates	−.1242061	−.05909	.12503	.987	.23669	.05602	.00355	−.09765
Prior use of methadone	.1502083	.06024	.13957	1.158	.24377	.05942	.00340	.09273
Sex—male	.1211731	.07154	.09884	1.503	.25044	.06272	.00330	.04760
Prior arrest: property crime	−.8899732E–01	−.05482	.12449	.511	.25596	.06552	.00280	−.00157
Prior use of marijuana	−.9345257E–01	−.06301	.08889	1.105	.26295	.06914	.00363	−.10294
Prior use of heroin	.8366409E–01	.05569	.09675	.748	.26662	.07109	.00195	.09496
Prior arrest: consensual crime	.1279381	.05521	.13331	.921	.27000	.07290	.00181	.06418
Number of prior arrests	−.5415606E–02	−.04230	.00979	.306	.27317	.07462	.00172	.01896
Prior arrest: violent crime	.6765722E–01	.04384	.10073	.451	.27593	.07614	.00152	.03132
Instant conviction: drug offense	.1564422	.10006	.18587	.708	.27851	.07757	.00143	.00530
Prior drug arrest	−.9041271E–01	−.05848	.10881	.690	.28157	.07928	.00171	−.02666
Prior use of PCP	.8310064E–01	.03573	.13319	.389	.28338	.08030	.00102	−.01034
Prior use of hallucinogens	−.1047814	−.03469	.17463	.360	.28474	.08108	.00078	−.05099
Use of other opiates	.7112254E–01	.02355	.17207	.171	.28548	.08150	.00042	.03832
Prior use of cocaine	.2903127E–01	.01914	.08342	.121	.28607	.08184	.00034	.00638
Instant conviction: property crime	.4568058E–01	.03041	.17498	.068	.28639	.08202	.00018	−.00664
Age at entry	.1480138E–02	.01351	.00637	.054	.28665	.08217	.00015	.06528
Constant	.1305187							

NOTE: Multiple R = .28665; R^2 = .08217; adjusted R^2 = .02004; standard error = .73508; regression = 22; residual = 325.

TABLE 49
Prior Use of Methadone by Previous Participation in Drug Treatment

Client Type	Previous Participation in Drug Treatment: Yes	No	Total
Prior methadone users	67 (80.7)	18 (19.3)	85 (100)
Other clients	414 (51.8)	386 (48.3)	800 (100)

NOTE: Figures in parentheses are row percentages.

TABLE 50
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: District of Columbia

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Previous drug treatment	.5108597	.24500	.16692	9.367**	.20466	.04189	.04189	.20466
Status—parolee	−.7095187	−.24287	.27655	6.582*	.28983	.08400	.04211	−.16278
Prior arrest: consensual crime	.8097190	.22920	.30716	6.949**	.35764	.12790	.04390	.17818
Instant conviction: other offense	.5414806	.26463	.26351	4.223*	.39126	.15308	.02518	.16842
Ethnicity—Black	1.174418	.14876	.63735	3.395	.41881	.17541	.02232	.09903
Prior arrest: property crime	−.3524325	−.12884	.22496	2.454	.43796	.19181	.01641	−.15668
Prior use of methadone	.4298548	.16067	.20729	4.300*	.45730	.20913	.01731	.15244
Prior use of hallucinogens	−.6378007	−.10371	.48785	1.709	.46740	.21846	.00933	−.11324
Prior drug arrest	−.2905900	−.13013	.20758	1.960	.47445	.22510	.00664	−.00887
Prior use of amphetamines	−.2257789	−.08545	.20293	1.238	.48235	.23266	.00756	−.01943
Sex—male	.1413825	.04092	.28343	.249	.48659	.23677	.00411	−.00413
Prior use of cocaine	.8729389E–02	.06614	.01451	.362	.48917	.23929	.00252	.07516
Number of prior arrests	.1796139	.07584	.20596	.761	.49101	.24109	.00180	−.04327
Instant conviction: other offense	.1319800	.05333	.20562	.412	.49274	.24279	.00171	.01430
Prior use of barbiturates	−.1114250	−.02750	.35588	.098	.49398	.24402	.00123	−.07958
Length of sentence	−.8202025E–03	−.05545	.00156	.275	.49493	.24495	.00094	−.14919
Instant conviction: violent crime	.1855971	.08073	.25944	.512	.49673	.24674	.00178	−.09696
Instant conviction: property crime	.1389441	.06613	.23148	.360	.49841	.24841	.00167	−.07473
Age at entry	−.2820982E–02	−.01924	.01431	.039	.49880	.24880	.00040	.08790
Prior use of heroin	.5692344E–01	.02384	.18803	.092	.49918	.24918	.00037	.03329
Prior use of other opiates	−.6360336E–01	−.02407	.20577	.096	.49964	.24964	.00046	−.00326
Prior use of PCP	.4022258E–01	.01278	.24995	.026	.49980	.24980	.00016	.03613
Length of incarceration	−.5113133E–02	−.01547	.03174	.026	.49991	.24991	.00011	−.09373
Prior arrest: violent crime	.2201057E–01	.01057	.20711	.011	.49997	.24997	.00006	−.01442
Constant	−.1649445							

*Significant at the .05 level. **Significant at the .01 level.
NOTE: Multiple R = .49997; R^2 = .24997; adjusted R^2 = .12916; standard error = .94323; regression = 24; residual = 149.

TABLE 51
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: District of Columbia Parolees

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Previous drug treatment	.4773421	.25074	.16123	8.765**	.24239	.05875	.05875	.24239
Prior arrest: consensual crime	.7699782	.25399	.28261	7.423**	.32943	.10852	.04977	.19315
Prior use of methadone	.5447179	.22584	.19842	7.537**	.38080	.14501	.03649	.22755
Instant conviction: drug offense	.5332996	.29311	.26034	4.196*	.42447	.18017	.03516	.19680
Prior use of amphetamines	−.3023427	−.13256	.19240	2.469	.44118	.19464	.01447	−.02020
Prior use of hallucinogens	−.6782029	−.10362	.54270	1.562	.45278	.20501	.01037	−.10305
Instant conviction: violent crime	.2358480	.11964	.24677	.913	.46009	.21168	.00667	−.06985
Ethnicity—black	.8720407	.07742	.94867	.845	.46585	.21702	.00534	.06283
Prior use of marijuana	.1038545	.05497	.16579	.392	.46902	.21998	.00297	.00982
Prior use of barbiturates	−.1498921	−.03888	.36961	.164	.47163	.22243	.00245	−.10342
Length of incarceration	−.9608966E–03	−.00322	.02962	.001	.47407	.22474	.00231	−.03792
Prior use of cocaine	.1043404	.04792	.19877	.276	.47618	.22675	.00201	.05823
Prior drug arrest	−.1409757	−.06985	.20730	.462	.47754	.22805	.00130	.05279
Length of sentence	−.8399109E–03	−.06144	.00146	.333	.47853	.22900	.00095	−.10254
Instant conviction: other offense	.1256622	.05772	.19752	.405	.48020	.23059	.00160	−.06384
Instant conviction: property crime	.1194386	.06422	.21397	.312	.48190	.23223	.00164	−.06744
Number of prior arrests	.7418866E–02	.06281	.01336	.308	.48283	.23312	.00090	.13696
Age at entry	−.9290062E–02	−.06771	.01570	.350	.48417	.23442	.00130	.08451
Prior use of PCP	−.1114498	−.03655	.26724	.174	.48519	.23541	.00099	−.03665
Prior use of heroin	.3263953E–01	.01499	.19424	.028	.48540	.23561	.00020	.01947
Prior arrest: violent crime	.3070590E–01	.01582	.18809	.027	.48556	.23577	.00016	.02605
Constant	−.6239381							

*Significant at the .05 level. **Significant at the .01 level.
NOTE: Multiple R = .48556; R^2 = .23577; adjusted R^2 = .11136; standard error = .85010; regression = 21; residual = 129.

TABLE 52
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: Total Sample, Excluding District of Columbia

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior use of barbiturates	−.1262739	−.08653	.06173	4.185*	.10620	.01128	.01128	−.10620
Prior use of methadone	.1878387	.08637	.08433	4.961*	.14301	.02045	.00917	.09350
Instant conviction: other offense	.1627284	.10699	.08000	4.137*	.16565	.02744	.00699	.07832
Previous drug treatment	.6088676E–01	.05399	.04720	1.664	.18168	.03301	.00557	.08466
Prior use of marijuana	−.6695490E–01	−.05940	.04618	2.102	.19217	.03693	.00392	−.09094
Prior arrest: violent crime	.9247166E–01	.08208	.05393	2.940	.19807	.03923	.00230	.04692
Instant conviction: violent crime	−.5031952E–01	−.03665	.10856	.215	.20860	.04351	.00428	−.05439
Prior use of heroin	.4617899E–01	.03866	.05465	.714	.21202	.04495	.00144	.08324
Instant conviction: drug offense	.1064883	.09284	.10155	1.100	.21510	.04627	.00132	.00763
Prior drug arrest	−.4273806E–01	−.03382	.05722	.558	.21822	.04762	.00135	−.02046
Prior use of amphetamines	−.4052501E–01	−.02864	.06025	.452	.22043	.04859	.00097	−.07825
Ethnicity—Hispanic	.7016347E–01	.04062	.07249	.937	.22192	.04925	.00066	.04170
Ethnicity—black	.3836701E–01	.03405	.04887	.616	.22456	.05043	.00118	.05453
Prior arrest: property crime	.4462343E–01	.03490	.06025	.549	.22575	.05096	.00054	.03494
Number of prior arrests	−.3031261E–02	−.03786	.00419	.523	.22724	.05164	.00067	.01913
Prior arrest: consensual crime	.3818013E–01	.02484	.06303	.367	.22817	.05206	.00042	.02142
Sex—male	.2865861E–01	.01953	.05932	.233	.22893	.05241	.00035	.01291
Prior use of other opiates	−.3824931E–01	−.01774	.08426	.206	.22963	.05273	.00032	−.01799
Age at entry	−.1883653E—02	−.02460	.00342	.304	.23029	.05303	.00030	.02966
Prior use of PCP	−.3990087E–01	−.02139	.07455	.286	.23103	.05337	.00034	−.04901
Prior use of cocaine	.2505570E–01	.02170	.04489	.311	.23189	.05377	.00040	.00065
Status—parolee	.3227385E–01	.02857	.06354	.258	.23264	.05412	.00035	.00341
Instant conviction: property crime	.3084689E–01	.02486	.09587	.104	.23297	.05428	.00015	.00282
Prior use of hallucinogens	−.1698374E–01	−.00876	.07952	.046	.23311	.05434	.00007	−.05299
Length of sentence	−.1735844E–03	−.01631	.00077	.050	.23321	.05439	.00005	.00098
Length of incarceration	.1660631E–02	.00809	.01283	.017	.23326	.05441	.00002	−.00093
Constant	.2259593							

*Significant at the .05 level.
NOTE: Multiple R = .23326; R^2 = .05441; adjusted R^2 = .01777; standard error = .55868; regression = 26; residual = 671.

TABLE 53
Relationship Between Selected Offender Characteristics and Average Positive Urine Samples per Month: All Parolees, Excluding District of Columbia

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior use of barbiturates	−.1096425	−.08728	.07569	2.099	.10850	.01177	.01177	−.10850
Prior use of heroin	.8818596E–01	.07477	.07151	1.521	.13844	.01916	.00739	.09158
Ethnicity—Hispanic	.1158825	.07798	.08841	1.718	.15323	.02348	.00432	.08076
Ethnicity—black	.5871395E–01	.05732	.06278	.875	.16779	.02815	.00467	.05150
Prior use of methadone	.1599843	.07252	.11957	1.790	.17834	.03181	.00365	.06260
Prior use of marijuana	−.5074108E–01	−.04949	.05911	.737	.18548	.03440	.00259	−.08104
Prior drug arrest	−.1128556	−.08799	.07707	2.144	.19154	.03669	.00228	−.04647
Instant conviction: drug offense	.3854650E–01	.03753	.13639	.080	.20171	.04069	.00400	.03423
Prior arrest: violent crime	.7895143E–01	.07502	.07095	1.238	.20741	.04302	.00233	.04336
Instant conviction: other offense	.4159143E–01	.02559	.10767	.149	.21299	.04536	.00235	.00363
Prior use of cocaine	−.4610613E–01	−.04345	.05950	.600	.21758	.04734	.00198	−.07242
Instant conviction: violent crime	−.9094684E–01	−.08334	.13594	.448	.21958	.04822	.00088	−.02878
Prior arrest: consensual crime	−.3440853E–01	−.02656	.07494	.211	.22137	.04901	.00079	−.02816
Prior use of hallucinogens	−.5907250E–01	−.03742	.09303	.403	.22313	.04979	.00078	−.07391
Prior use of PCP	.4583023E–01	.02670	.09835	.217	.22455	.05042	.00063	−.00701
Prior use of amphetamines	.3273891E–01	.02696	.07168	.209	.22561	.05090	.00048	−.04355
Instant conviction: property crime	−.5489756E–01	−.04016	.13398	.168	.22655	.05133	.00043	−.03058
Age at entry	−.1102981E–02	−.01651	.00420	.069	.22707	.05156	.00023	.02178
Sex—male	−.1977703E–01	−.01179	.09178	.046	.22739	.05171	.00015	−.00499
Prior use of other opiates	−.1905139E–01	−.01070	.09721	.038	.22761	.05181	.00010	−.03275
Number of prior arrests	.5796447E–03	.00852	.00461	.016	.22768	.05184	.00003	.01303
Length of sentence	−.6828587E–04	−.00667	.00065	.011	.22775	.05187	.00003	.00796
Constant	.4052311							

NOTE: Multiple R = .22775; R^2 = .05187; adjusted R^2 = .00842; standard error = .51486; regression = 22; residual = 346.

TABLE 54
Relationship Between Selected Offender Characteristics and Average Number of Arrests per Month: Total Sample

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Number of prior arrests	.2034903E–01	.20596	.00449	20.528**	.17535	.03075	.03075	.17535
Age at entry	−.1874962E–01	−.19060	.00384	23.889**	.24128	.05822	.02747	−.07107
Ethnicity—black	.1246380	.08558	.05637	4.889*	.26697	.07127	.01306	.13519
Status—parolee	.1285098	.08799	.06836	3.534	.28284	.08000	.00872	.13482
Prior use of marijuana	−.8822667E–01	−.06153	.05017	3.092	.28710	.08243	.00243	−.05473
Ethnicity—Hispanic	−.1347181	−.05570	.08852	2.316	.29145	.08494	.00251	−.09569
Previous drug treatment	.5764652E–01	.04017	.05174	1.241	.29483	.08693	.00198	.07561
Prior drug arrest	.1181903	.07390	.06272	3.551	.29812	.08888	.00195	.06145
Instant conviction: drug offense	.8017861E–03	.00055	.09723	.000	.30373	.09225	.00338	−.06260
Prior use of other opiates	.9993377E–01	.04089	.08206	1.483	.30670	.09407	.00181	.05608
Prior use of hallucinogens	.9180144E–01	.03484	.09272	.980	.30843	.09513	.00106	.01925
Instant conviction: violent crime	.1583556	.09227	.10389	2.323	.30950	.09579	.00066	.08447
Prior arrest: violent crime	−.6319983E–01	−.04415	.05899	1.148	.31135	.09694	.00115	.08280
Instant conviction: property crime	.1039452	.06692	.09013	1.330	.31286	.09788	.00094	.03588
Prior use of PCP	.6045656E–01	.02587	.07974	.575	.31381	.09848	.00060	.03670
Prior use of amphetamines	−.4679541E–01	−.02586	.06506	.517	.31434	.09881	.00033	−.00937
Prior use of barbiturates	.4717210E–01	.02413	.07147	.436	.31512	.09930	.00049	.01314
Instant conviction: other offense	.3565746E–01	.01912	.07687	.215	.31540	.09948	.00018	−.01448
Prior use of methadone	−.3371602E–01	−.01365	.08283	.166	.31568	.09965	.00017	.00693
Prior use of heroin	.2458781E–01	.01596	.05872	.175	.31593	.09981	.00016	.07487
Length of sentence	−.2079339E–03	−.01684	.00069	.090	.31604	.09988	.00007	.09974
Prior arrest: consensual crime	.1542904E–01	.00762	.07159	.046	.31612	.09993	.00005	.04704
Length of incarceration	.1759693E–02	.00699	.01255	.020	.31615	.09995	.00002	.07354
Prior arrest: property crime	−.7647042E–02	−.00459	.06661	.013	.31617	.09997	.00001	.08662
Constant	.5282826							

*Significant at the .05 level. **Significant at the .001 level.
NOTE: Multiple R = .31617; R^2 = .09997; adjusted R^2 = .07446; standard error = .68801; regression = 24; residual = 847.

TABLE 55
Relationship Between Selected Offender Characteristics and Average Number of Arrests per Month: Parolees

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Ethnicity–black	.1925459	.12012	.08304	5.376*	.13689	.01874	.01874	.13689
Age at entry	−.1848076E–01	−.17651	.00569	10.541**	.17884	.03198	.01324	−.12489
Number of prior arrests	.1894696E–01	.18660	.00583	10.551**	.24325	.05917	.02718	.09947
Prior use of other opiates	.1791590	.07399	.10611	2.851	.25451	.06478	.00561	.06885
Instant conviction: drug offense	−.9175162E–01	−.05919	.12385	.549	.26475	.07009	.00532	−.09438
Prior drug arrest	.1447550	.07776	.09245	2.452	.27233	.07416	.00407	.01453
Prior use of marijuana	−.8773915E–01	−.05644	.07232	1.472	.27752	.07702	.00285	−.04083
Prior use of PCP	.1674147	.06452	.11720	2.040	.28379	.08054	.00352	.07412
Prior use of cocaine	−.9324688E–01	−.05664	.07556	1.523	.28737	.08258	.00205	−.06166
Prior use of hallucinogens	.1379449	.05133	.12719	1.176	.29110	.08474	.00216	.03332
Prior use of methadone	−.1472774	−.05429	.11966	1.515	.29501	.08703	.00229	−.03000
Prior arrest: violent crime	−.9005350E–01	−.05617	.08640	1.086	.29776	.08866	.00163	.01707
Previous drug treatment	.5569959E–01	.03552	.07059	.623	.29929	.08957	.00092	.03830
Prior arrest: consensual crime	.5346048E–01	.02579	.09848	.295	.30089	.09053	.00096	.03014
Instant conviction: violent crime	.1257323	.07591	.12794	.966	.30214	.09129	.00076	.05529
Instant conviction: property crime	.9591145E–01	.05212	.11928	.647	.30356	.09215	.00086	.07863
Prior use of barbiturates	.6879212E–01	.03321	.10184	.456	.30489	.09296	.00081	.02300
Prior arrest: property crime	−.3674494E–01	−.01937	.09210	.159	.30547	.09331	.00035	.04019
Ethnicity—Hispanic	−.5001781E–01	−.01928	.12731	.154	.30597	.09362	.00031	−.09517
Sex—male	−.4485556E–01	−.01729	.11762	.145	.30643	.09390	.00028	−.01769
Prior use of amphetamines	−.2120030E–01	−.01139	.08824	.058	.30658	.09399	.00009	−.00261
Length of sentence	−.2238643E–03	−.01602	.00077	.085	.30674	.09409	.00010	.00413
Length of incarceration	.2806707E–02	.01065	.01417	.039	.30686	.09416	.00007	−.01693
Constant	.7482509							

*Significant at the .05 level. **Significant at the .01 level.
NOTE: Multiple R = .30686; R^2 = .09416; adjusted R^2 = .05216; standard error = .75162; regression = 23; residual = 496.

TABLE 56
Relationship Between Selected Offender Characteristics and Average Number of Arrests per Month: Probationers

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Number of prior arrests	.2522154E–01	.24273	.00781	10.440*	.25128	.06314	.06314	.25128
Age at entry	–.1549675E–01	–.17428	.00505	9.435*	.28521	.08135	.01821	–.05182
Ethnicity—Hispanic	–.2296786	–.11202	.11943	3.698	.30161	.09097	.00962	–.10419
Prior use of heroin	.6561337E–01	.05381	.07781	.711	.31086	.09663	.00567	.13027
Prior use of cocaine	.7470608E–01	.06068	.06617	1.275	.31740	.10075	.00411	.08049
Prior use of amphetamines	–.8044327E–01	–.04825	.09757	.680	.32314	.10442	.00367	–.06273
Prior drug arrest	.5269544E–01	.04200	.08676	.369	.32727	.10710	.00268	.08725
Prior arrest: property crime	.1217416	.09240	.09897	1.513	.33255	.11059	.00349	.13747
Prior use of methadone	.1004727	.04964	.11081	.822	.33558	.11262	.00202	.08102
Instant conviction: drug offense	.1821866	.14357	.14710	1.534	.33860	.11465	.00203	–.04667
Prior use of other opiates	–.1174889	–.04793	.13525	.755	.34146	.11659	.00194	–.01513
Ethnicity—black	.6688923E–01	.05543	.07431	.810	.34416	.11844	.00185	.10123
Prior use of marijuana	–.4478324E–01	–.03720	.07064	.402	.34587	.11962	.00118	–.06164
Instant conviction: violent crime	.1637101	.07431	.18486	.784	.34750	.12076	.00113	.02878
Previous drug treatment	.3298797E–01	.02737	.07288	.205	.34815	.12121	.00045	.10670
Instant conviction: other offense	.7262165E–01	.05118	.11807	.378	.34878	.12164	.00043	–.01291
Prior arrest: consensual crime	–.4710715E–01	–.02505	.10570	.199	.34939	.12207	.00043	.05407
Instant conviction: property crime	.5814321E–01	.04768	.13843	.176	.34998	.12249	.00041	.04889
Sex—male	–.2586623E–01	–.01881	.07838	.109	.35047	.12283	.00034	.00799
Prior arrest: violent crime	–.1279784E–01	–.01022	.08009	.026	.35058	.12291	.00008	.10553
Prior use of PCP	–.1769987E–01	–.00938	.10564	.028	.35066	.12296	.00006	–.01950
Prior use of hallucinogens	.1809492E–01	.00738	.13855	.017	.35073	.12301	.00005	–.03409
Constant	.3102771							

*Significant at the .01 level.

NOTE: Multiple R = .35073; R^2 = .12301; adjusted R^2 = .06365; standard error = .58319; regression = 22; residual = 325.

TABLE 57
Average Number of Arrests per Month per Offender While in Program by Age at Entry and Number of Prior Arrests

	Number of Prior Arrests				
Entry Age	0–2	3–5	6–10	11–15	16+
17–24	0.15** ($n = 33$)	0.27 ($n = 37$)	0.69* ($n = 16$)	2.0* ($n = 4$)	1.0* ($n = 2$)
25–29	0.22** ($n = 72$)	0.31 ($n = 68$)	0.44 ($n = 63$)	0.94* ($n = 17$)	1.2* ($n = 10$)
30–34	0.10** ($n = 41$)	0.19** ($n = 64$)	0.47 ($n = 87$)	0.50 ($n = 42$)	1.03* ($n = 34$)
35–40	0.17** ($n = 18$)	0.19** ($n = 32$)	0.35 ($n = 49$)	0.26 ($n = 31$)	0.50 ($n = 48$)
Over 40	0.00** ($n = 7$)	0.00** ($n = 14$)	0.19** ($n = 27$)	0.27 ($n = 22$)	0.29 ($n = 41$)

*Six highest values. **Nine lowest values.

TABLE 58
Relationship Between Selected Offender Characteristics and Average Number of Alleged Technical Violations per Month: Total Sample

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Length of incarceration	.4977450E–01	.11719	.02117	5.531*	.18763	.03520	.03520	.18763
Number of prior arrests	.2333393E–01	.13991	.00759	9.449**	.22665	.05137	.01617	.17739
Prior use of cocaine	–.2163873	–.08579	.08527	6.439*	.24547	.06026	.00889	–.10661
Age at entry	–.1306386E–01	–.07867	.00648	4.060*	.25824	.06669	.00643	.03775
Prior use of heroin	.1502557	.05776	.09884	2.311	.27086	.07336	.00668	.14321
Prior use of amphetamines	–.2785657	–.09118	.10567	6.950**	.28080	.07885	.00549	–.06747
Prior arrest: property crime	.1749578	.06222	.11180	2.449	.28875	.08338	.00453	.13452
Status—parolee	.2602875	.10557	.11551	5.078*	.29682	.08810	.00472	.18417
Prior arrest: consensual crime	–.1881562	–.05502	.12088	2.423	.30201	.09121	.00311	–.00984
Instant conviction: violent crime	.1662312	.05738	.17528	.899	.30536	.09324	.00204	.12883
Prior use of methadone	.1593435	.03821	.13995	1.296	.30797	.09484	.00160	.05064
Length of sentence	–.1284139E–02	–.06160	.00117	1.210	.31006	.09614	.00129	.16596
Prior use of marijuana	.8619362E–01	.03561	.08495	1.030	.31190	.09728	.00114	–.01560
Prior use of other opiates	.1187960	.02879	.13790	.742	.31323	.09811	.00083	.02904
Instant conviction: property crime	.2085552E–01	.00795	.15135	.019	.31409	.09865	.00054	.01325
Ethnicity—Hispanic	–.9272548E–01	–.02271	.13629	.463	.31474	.09906	.00041	–.02327
Sex—male	.8554381E–01	.02615	.11484	.555	.31529	.09941	.00035	.08274
Prior arrest: violent crime	–.6202464E–01	–.02567	.10072	.379	.31589	.09979	.00038	.13027
Prior drug arrest	.6413212E–01	.02375	.10553	.369	.31629	.10004	.00025	.04084
Instant conviction: drug offense	–.9404393E–01	–.03830	.16407	.329	.31672	.10031	.00027	–.08229
Previous drug treatment	.3723705E–01	.01537	.08760	.181	.31705	.10052	.00021	.09861
Prior use of hallucinogens	–.6242525E–01	–.01404	.15418	.164	.31727	.10066	.00013	–.02308
Instant conviction: other offense	–.3550303E–01	–.01128	.12956	.075	.31739	.10073	.00008	–.03593
Prior use of PCP	.3385682E–01	.00858	.13459	.063	.31749	.10080	.00007	–.01920
Constant	.6350896							

*Significant at the .05 level. **Significant at the .01 level.
NOTE: Multiple R = .31749; R^2 = .10080; adjusted R^2 = .07532; standard error = 1.16088; regression = 24; residual = 847.

TABLE 59
Relationship Between Selected Offender Characteristics and Average Number of Technical Violations per Month: Parolees

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Number of prior arrests	.2665232E–01	.15297	.00970	7.554**	.14838	.02202	.02202	.14838
Instant conviction: drug offense	–.3842219	–.14446	.23145	2.756	.19220	.03694	.01493	–.11315
Prior use of cocaine	–.2582744	–.09142	.13020	3.935*	.21773	.04741	.01047	–.11792
Prior arrest: consensual crime	–.2046526	–.05754	.16977	1.453	.23186	.05376	.00635	–.03527
Prior use of amphetamines	–.2566237	–.08032	.15190	2.854	.24254	.05882	.00506	–.08456
Instant conviction: other offense	–.2436410	–.06432	.18518	1.731	.25200	.06351	.00468	–.03994
Prior use of heroin	.1744256	.05646	.14932	1.364	.25882	.06699	.00348	.11864
Prior use of other opiates	.2192222	.05276	.18293	1.436	.26283	.06908	.00209	.02366
Length of incarceration	.4108178E–01	.09082	.02465	2.777	.26707	.07133	.00225	.10392
Age at entry	–.1154682E–01	–.06427	.00977	1.398	.27160	.07377	.00244	.03344
Prior arrest: property crime	.1833830	.05633	.15869	1.335	.27559	.07595	.00218	.12092
Length of sentence	–.1437155E–02	–.05995	.00135	1.134	.27962	.07819	.00224	.05376
Prior drug arrest	.1736661	.05437	.15996	1.179	.28292	.08004	.00185	.02746
Prior use of PCP	.1699170	.03816	.20446	.691	.28559	.08156	.00152	–.00644
Sex—male	.1619918	.03638	.19898	.663	.28741	.08260	.00104	.06282
Prior use of hallucinogens	–.1764772	–.03827	.21528	.672	.28914	.08360	.00100	–.04510
Prior use of methadone	.1393256	.02993	.20591	.458	.29071	.08451	.00091	.03810
Prior use of marijuana	.8368780E–01	.03137	.12433	.453	.29201	.08527	.00076	–.00600
Previous drug treatment	.7334442E–01	.02726	.12594	.339	.29293	.08581	.00053	.09385
Instant conviction: property crime	–.1189430	–.03767	.21693	.301	.29373	.08628	.00047	.04271
Ethnicity—Hispanic	–.8402386E–01	–.01887	.19829	.180	.29426	.08659	.00031	–.02993
Instant conviction: violent crime	–.5124155E–01	–.01803	.22572	.052	.29440	.08667	.00009	.07962
Prior use of barbiturates	–.3111736E–01	–.00876	.17485	.032	.29450	.08673	.00006	–.04624
Constant	.8801181							

*Significant at the .05 level. **Significant at the .01 level.

NOTE: Multiple R = .29450; R^2 = .08673; adjusted R^2 = .04438; standard error = 1.29499; regression = 23; residual = 496.

TABLE 60
Relationship Between Selected Offender Characteristics and Average Number of Technical Violations per Month: Probationers

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior arrest: property crime	.2152482	.10427	.15748	1.868	.12406	.01539	.01539	.12406
Prior use of amphetamines	−.3120804	−.11948	.15617	3.993*	.15777	.02489	.00950	−.08581
Instant conviction: violent crime	.9156156	.26527	.29363	9.723**	.18853	.03554	.01065	.09165
Age at entry	−.1633268E–01	−.11724	.00805	4.115*	.21072	.04440	.00886	−.07678
Prior use of methadone	.2119495	.06684	.17456	1.474	.22169	.04914	.00474	.08991
Prior use of cocaine	−.1325007	−.06869	.10565	1.573	.22973	.05278	.00363	−.05209
Number of prior arrests	.1547995E–01	.09509	.01229	1.586	.23622	.05580	.00302	.08496
Prior arrest: violent crime	−.1303618	−.06642	.12572	1.075	.24050	.05784	.00204	.03093
Instant conviction: other offense	.4536100	.20405	.18764	5.844*	.24447	.05976	.00192	.02801
Instant conviction: property crime	.5124526	.26824	.22114	5.370*	.25012	.06256	.00280	.07996
Instant conviction: drug offense	.5047327	.25387	.23349	4.673*	.27204	.07400	.01144	−.09216
Prior use of hallucinogens	.2419303	.06299	.22097	1.199	.27664	.07653	.00253	−.00173
Prior use of heroin	.1092669	.05720	.11725	.868	.28023	.07853	.00199	.10661
Ethnicity—Hispanic	−.1243513	−.03871	.19090	.424	.28444	.08091	.00238	−.01446
Prior use of other opiates	−.1418882	−.03694	.21827	.423	.28645	.08205	.00115	−.01383
Prior arrest: consensual crime	−.1194092	−.04052	.16794	.506	.28829	.08311	.00106	.00566
Ethnicity—black	.8853272E–01	.04683	.12159	.530	.28972	.08394	.00083	.04680
Prior use of PCP	−.1026720	−.03472	.16853	.371	.29124	.08482	.00088	−.03194
Prior use of barbiturates	.8369695E–01	.03131	.15777	.281	.29267	.08566	.00084	.00241
Prior use of marijuana	.4260719E–01	.02259	.11123	.147	.29333	.08604	.00039	−.00679
Prior drug arrest	−.2846758E–01	−.01448	.13783	.043	.29353	.08616	.00012	−.01581
Constant	.2953521							

*Significant at the .05 level. **Significant at the .01 level.
NOTE: Multiple R = .29353; R^2 = .08616; adjusted R^2 = .02730; standard error = .93130; regression = 21; residual = 326.

TABLE 61
Relationship Between Selected Treatment Services and Average Number of Positive Urine Samples per Month

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Prior use of methadone	.3124440	.12952	.07975	15.350***	.14525	.02110	.02110	.14525
Ethnicity—black	.1639023	.11525	.04876	11.297***	.19716	.03887	.01777	.14061
Previous drug treatment	.1704272	.12162	.04660	13.376***	.22262	.04956	.01069	.13321
Prior use of barbiturates	−.1884658	−.09871	.06413	8.638**	.24386	.05947	.00991	−.11922
Instant conviction: drug offense	.1761641	.12403	.05363	10.791**	.25824	.06669	.00722	.05560
Instant conviction: other offense	.1402655	.07702	.06077	5.328*	.26981	.07280	.00611	.05370
Prior drug arrest	−.9350044E–01	−.05987	.05747	2.647	.27544	.07587	.00307	−.01829
Received psychotherapy	−.7849464E–01	−.04202	.06358	1.524	.27864	.07764	.00177	−.08501
Counseling sessions per month	.1600338E–01	.02786	.01907	.704	.27978	.07828	.00064	.01027
Office visits per month	.1214094E–01	.01922	.02110	.331	.28039	.07862	.00034	−.00630
Home visits per month	.4478229E–02	.00360	.04234	.011	.28041	.07863	.00001	−.06078
Constant	.1948908							

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.
NOTE: Multiple R = .28041; R^2 = .07863; adjusted R^2 = .06708; standard error = .67454; regression = 11; residual = 877.

TABLE 62
Relationship Between Selected Treatment Services and Average Number of Arrests per Month

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Number of prior arrests	.1950605E–01	.19743	.00372	27.496**	.17535	.03075	.03075	.17535
Age at entry	−.1922510E–01	−.19543	.00359	28.649**	.24128	.05822	.02747	−.07107
Ethnicity—black	.6526142E–01	.04481	.05349	1.489	.26697	.07127	.01306	.13519
Counseling sessions per month	−.7208640E–01	−.12254	.01933	13.911**	.28408	.08070	.00943	−.11084
Status—parolee	.1436035	.09832	.05181	7.681*	.30086	.09052	.00981	.13482
Office visits per month	−.6592320E–01	−.10189	.02117	9.700*	.31871	.10158	.01106	−.10455
Home visits per month	−.7736313E–01	−.06081	.04296	3.243	.32419	.10510	.00352	−.07366
Ethnicity—Hispanic	−.1597876	−.06606	.08498	3.535	.32890	.10818	.00308	−.09569
Instant conviction: violent crime	.9741625E–01	.05676	.05888	2.737	.33208	.11028	.00210	.08447
Prior use of marijuana	−.6505242E–01	−.04537	.04726	1.894	.33480	.11209	.00181	−.05473
Prior drug arrest	.6549205E–01	.04095	.05473	1.432	.33705	.11360	.00152	.06145
Received psychotherapy	−.3752754E–01	−.01962	.06476	.336	.33756	.11395	.00034	−.06602
Constant	.8387842							

*Significant at the .01 level. **Significant at the .001 level.
NOTE: Multiple R = .33756; R^2 = .11395; adjusted R^2 = .67783; standard error = .67783; regression = 12; residual = 866.

TABLE 63
Relationship Between Selected Treatment Services and Average Technical Violations per Month

	Variables in the Equation				Summary Table			
	B	Beta	Std. Error *B*	*F*	Multiple *R*	R^2	R^2 Change	Simple *R*
Length of incarceration	.3692337E–01	.08693	.01744	4.482*	.18763	.03520	.03520	.18763
Office visits per month	−.1863676	−.17064	.03598	26.832***	.24835	.06168	.02647	−.16519
Counseling sessions per month	−.1564041	−.15750	.03189	24.053***	.30094	.09057	.02889	−.15499
Status—parolee	.2917797	.11835	.09835	8.801**	.32292	.10428	.01372	.18417
Number of prior arrests	.2208866E–01	.13244	.00674	10.728**	.33702	.11358	.00930	.17739
Prior use of cocaine	−.2318740	−.09193	.08043	8.311**	.34887	.12171	.00813	−.10661
Age at entry	−.1489517E–01	−.08970	.00611	5.937*	.35679	.12730	.00559	.03775
Prior arrest: property crime	.1741185	.06192	.09634	3.267	.36137	.13059	.00328	.13452
Prior use of amphetamines	−.1751943	−.05734	.09941	3.106	.36562	.13368	.00309	−.06747
Home visits per month	.9857629E–01	.04590	.07050	1.955	.36928	.13637	.00269	.04995
Prior arrest: consensual crime	−.1845666	−.05397	.11546	2.555	.37289	.13905	.00268	−.00984
Prior use of heroin	.7752521E–01	.02980	.08892	.760	.37388	.13978	.00073	.14321
Received psychotherapy	.8235602E–01	.02551	.10698	.593	.37466	.14037	.00059	.01846
Constant	1.128178							

*Significant at the .05 level. **Significant at the .01 level. ***Significant at the .001 level.
NOTE: Multiple R = .37466; R^2 = .14037; adjusted R^2 = .12745; standard error = 1.12768; regression = 13; residual = 865.

APPENDIX C
Confidence Intervals for Selected Regression Coefficients Presented in Tables 45-63

For the regression coefficients asterisked in tables 46 to 63, 95 percent confidence intervals were computed, using the following formula:

Confidence interval = $\hat{\beta}_k \pm (t_{.975}, n - p)(S\hat{\beta}_k)$,

where

$\hat{\beta}_k$ = estimated regression coefficient for the parameter β_k,

k = number of parameters to be estimated, excluding the intercept,

n = sample size,

$p = k + 1$, and

$S\hat{\beta}_k$ = estimated standard error of $\hat{\beta}_k$.

Confidence Intervals for Regression Coefficients Presented in Tables 46-63

Table	Asterisked Coefficients	Estimated Standard Error	Confidence Intervals
46	.3156	.0817	(.1555, .4757)
	.1492	.0555	(.0404, .2580)
	.1390	.0511	(.0302, .2392)
	−.1542	.0705	(−.2924, −.0160)
	.2481	.0960	(.0560, .4363)
	.1766	.0757	(.0282, .3250)
	−.1326	.0618	(−.2537, −.0115)
47	.4079	.1030	(.2060, .6098)
	.1454	.0719	(.0045, .2863)
	.1271	.0629	(.0038, .2504)
	.2875	.1165	(.0592, .5158)
54	.0203	.0045	(.0115, .0291)
	.0187	.0038	(−.0113, −.0261)
	.1246	.0564	(.0141, .2351)
55	.1925	.0830	(.0298, .3552)
	−.0185	.0057	(−.0297, −.0073)
	.0190	.0058	(.0076, .0304)
56	.0252	.0078	(.0099, .0405)
	−.0155	.0051	(−.0255, −.0055)
58	.0498	.0212	(.0914, .0082)
	.0233	.0076	(.0084, .0382)
	−.2164	.0853	(−.3836, −.0492)
	−.0131	.0065	(−.0258, −.0004)
	.2786	.1057	(−.4858, −.0714)
	.2603	.1155	(.0339, .4867)
59	.0267	.0097	(.0077, .0457)
	−.2583	.1302	(−.5135, −.0031)
60	−.3121	.1562	(−.6183, −.0059)
	.9156	.2936	(.3401, 1.4911)
	−.0163	.0081	(−.0322, −.0004)
	.4536	.1876	(.1683, .8213)
	.5125	.2211	(.0791, .9459)
	.5047	.2335	(.0470, .9624)
61	.3124	.0798	(.1560, .4688)
	.1639	.0488	(.0683, .2595)
	.1704	.0466	(.0748, .2617)
	−.1885	.0641	(−.3141, −.0629)
	.1762	.0536	(.0711, .2813)
	.1403	.0608	(.0211, .2595)
62	.0195	.0037	(.0122, .0268)
	−.0192	.0036	(−.0792, −.0121)
	−.0721	.0193	(−.1099, −.0343)
	.1436	.0518	(.0421, .2451)
	.0659	.0212	(−.1075, −.0243)
63	.0369	.0174	(.0028, .0710)
	−.1864	.0360	(−.2570, −.1158)
	−.1564	.0319	(−.2189, −.0939)
	.2918	.0984	(.0989, .4847)
	.0221	.0067	(.0090, .0352)
	−.2319	.0804	(−.3895, −.0743)
	−.0149	.0061	(−.0269, −.0029)

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