Drug Court Services for Female Offenders, 1996-1999: Evaluation of the Brooklyn Treatment Court

Adele Harrell
John Roman
Emily Sack
Drug Court Services for Female Offenders, 1996-1999:
Evaluation of the Brooklyn Treatment Court

Adele Harrell
John Roman
Emily Sack

Contents

Chapter I. Introduction ........................................................................................................1
The BTC Vision ................................................................................................................... 1
The BTC Evaluation .......................................................................................................... 2
Organization of the Report ............................................................................................... 3

Chapter II. Evaluation of the BTC Implementation of the
Drug Court Model and Drug Treatment Services ......................................................... 4
The Drug Court Model as Implemented by BTC .............................................................. 4
Evaluating BTC Implementation: The National Drug Court Institute Guidelines......... 11
Evaluating BTC Implementation: NIDA Principles of Effective Drug Treatment......... 14
Summary .......................................................................................................................... 18

Chapter III. The Impact Evaluation Methodology ......................................................... 19
Overview ........................................................................................................................ 19
The Conceptual Framework ............................................................................................ 19
The Sample and Survey .................................................................................................. 20

Chapter IV. BTC Impact on Drug Use and Crime ......................................................... 28
Overview ........................................................................................................................ 28
Reductions in Drug Use ................................................................................................. 28
Reductions in Criminal Activity ...................................................................................... 32
Improvements in Employment, Social Adjustment, and Health .................................... 39

Chapter V. Summary of Implementation and Impact Evaluation Findings ................. 40
Overview ........................................................................................................................ 40

References

Glossary of Research Variables

Appendix A – Drug Testing Protocol

Appendix B – Consent Forms

Appendix C – Survey Instruments
Chapter I
INTRODUCTION

The Brooklyn Treatment Court (BTC) began in 1996 as a pilot demonstration project at The King’s County Supreme Court. The goal was to test the feasibility and effectiveness of reducing drug use and crime by linking drug-addicted defendants in drug felony cases to drug treatment and support services, under the close supervision of the court. In BTC, the judge, the prosecutor, defense attorneys, and clinical staff collaboratively engage addicted offenders in a recovery program, under conditions intended to protect public safety. BTC services include: 1) pre-arraignment case review and needs assessment to identify non-violent defendants with substance abuse histories who may be eligible for services; 2) post-arraignment assessment and treatment planning; 3) case-management and offender monitoring; and 4) supervised placement in appropriate treatment programs.

The Center for Court Innovation (CCI) led the development of BTC, working closely with partner agencies. Funding for BTC was provided by a number of agencies, including the Drug Court Programs Office (DCPO) of the Office of Justice Programs, the Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration, the State Justice Institute, the Unified Court System of New York State, and the City of New York. This evaluation of the BTC network of services for women was conducted by the Urban Institute under a contract to CCI with funds provided by the Center for Substance Abuse Treatment.

Funds from the Center for Substance Abuse Treatment enabled BTC to develop an extensive network of services tailored to the special needs of female offenders in need of drug treatment. This evaluation of the services for female offenders presents data on court operations for women receiving BTC services, examines the outcomes for a sample of women, and then examines in depth the predictors of these outcomes for the sample.

The BTC Vision

BTC is designed to change the court response to drug-addicted offenders by providing a collaborative network of treatment and supervision that is focused on the goals of promoting the recovery, assisting offender reintegration into the community as productive citizens, and bringing the court into closer partnership with the community it serves. BTC goals were to:

- Promote a broad systemic commitment to addressing the multiple problems of substance-abusing offenders both within the criminal justice community and the community-based treatment network;
• Reduce substance abuse and criminal involvement and improve psychosocial functioning (residential and family stability, access to health care, employment, etc.) among offenders addicted to drugs.

To attain these goals, BTC planned to:

• Establish procedures for ensuring strict accountability and promoting immediate, appropriate responses to designated 'trigger' behaviors;

• Educate substance-abusing offenders about the hazards of alcohol and substance abuse;

• Maximize access to jail-based treatment services for incarcerated network participants;

• Maximize access to services addressing the complex problems of substance-abusing offenders, and female offenders in particular, including domestic violence counseling, parenting skills training and child custody issues;

• Use the court setting to identify and treat the health problems of high-risk offenders and provide health education to reduce high-risk behaviors; and

• Motivate low-level offenders, not eligible for court-ordered long-term treatment, to seek further treatment voluntarily for alcohol and/or substance abuse problems, and refer them to appropriate treatment programs.

The BTC Evaluation

While this final report focuses solely on outcomes for female offenders, the court itself serves both male and female offenders, and our research on BTC has included a process evaluation of BTC program operations, for men and women, from November, 1996 through May, 1999. The process evaluation documented the key steps in organizing the treatment court, the decisions made by BTC, problems encountered, and lessons learned to assist other courts in developing similar programs. It also assessed the outcomes of court intervention and the success of the court in identifying, engaging and treating addicts, in efficient case handling, and in protecting the public safety by imposing sanctions and controls on defendants who are under court supervision (see Harrell and Sack, 1996; Sack and Harrell, 1997; Roman, Sack, and Harrell, 1998; Harrell and Roman, 1999).

This report summarizes the findings of the earlier process evaluation reports, for female offenders only, using two standards to judge BTC implementation of services to drug-involved female offenders. The first criteria come from the standards for drug courts set forth by the National Drug Court Institute. The second consists of the

The impact evaluation is based on a comparison of women found eligible for BTC upon assessment to a comparison group of women eligible for BTC entry, but living in Brooklyn outside the prosecution zones targeted for service or not referred to the court. Data on sample members were collected from the BTC Management Information System, interviews, and official records of arrests during the first two years post entry.

**Organization of the Report**

Chapter 2 outlines the results from the process evaluation by describing BTC and evaluating the extent to which it met the broad parameters of a ‘model court’ as defined by the National Association of Drug Court Professionals, and the general effectiveness of the delivery of treatment services to a drug-involved offender population, using the principles of effective drug treatment outlined by the National Institute on Drug Abuse. The methodology used in this evaluation is described in Chapter 3. The outcomes associated with BTC for a sample of female offenders are presented in Chapter 4. Chapter 5 briefly summarizes the key findings of the process and impact evaluations.
Chapter II
EVALUATION OF THE
BTC IMPLEMENTATION OF THE DRUG COURT MODEL
AND DRUG TREATMENT SERVICES

The Drug Court Model as Implemented by BTC

BTC was designed as a model drug court and, as such, shares certain features with all drug courts. These include: the opportunity to reduce or avoid the criminal penalties in exchange for completing drug treatment and demonstrating a period of drug abstinence, court-supervised drug treatment, case management, drug testing, judicial monitoring, and use of incentives and sanctions to encourage compliance. However, no two drug courts are alike. Notable differences exist among drug courts in admission criteria, the severity of drug problems faced by clients, the duration of court supervision, the kinds of drug treatment available, compliance requirements, and the use of incentives and sanctions. These differences make it extremely risky to compare statistics and evaluation results from different drug courts.

The following sections describe drug court practices in general and those of BTC during the period in which the impact evaluation sample was participating (1996-1998). It is based on findings from the process evaluation of BTC operations from November 1996 through May 1999, undertaken to measure the extent to which BTC was successful in meeting its implementation goals. The data are based on observation of court operation, attendance at planning meetings, review of project reports, interviews with key project staff, analysis of computerized data from the BTC Management Information System (MIS), and data retrieved from court records. During this time, BTC served both men and women: this report details outcomes and services for women.

The description of BTC is followed by two sections that evaluate implementation of the drug court model. Two standards are used to judge BTC performance: drug court guidelines published by the National Association of Drug Court Professionals and the principles of effective drug treatment published by the National Institute on Drug Abuse.

The results indicate that BTC provided lengthy and intensive drug treatment and supervision for severely addicted women facing drug felony charges and that the implementation of the model and provision of treatment was outstanding, when judged against professional standards.

Eligibility Criteria

Although participation in all drug courts is voluntary, the process of identifying eligible candidates varies. In some drug courts, defendants or their attorneys must actively apply for drug court entry. These drug courts thus include defendants who are motivated to seek treatment and are aware of the drug court option. In other drug courts,
including BTC, the courts make a systematic effort to screen incoming cases for eligibility and offer drug court services to all who are found eligible. These courts rely on the incentive of reductions in legal penalties to encourage participation by defendants who might not independently pursue the drug court option through lack of motivation or lack of information about the drug court program.

Restrictions on the kinds of cases that will be admitted also vary. The 1997 Drug Court Survey found that all drug courts include offenders charged with drug possession; 52 percent include those charged with prescription drug fraud; and 35 percent include offenders charged with selling small amounts of drugs (Cooper, 1997). Some drug courts include property offenses (24 percent), forgeries (5 percent), and prostitution (4 percent). Other exclusion criteria reported by courts responding to the survey include offenders on parole (44 percent), on probation (20 percent), or facing other unrelated criminal charges (22 percent). Some limit eligibility to first time offenders or those facing minor charges; others, like BTC, accept felony defendants, including those with prior felony convictions. None of the drug courts that receive federal funds from the Drug Court Programs Office, including BTC, are permitted to accept offenders with pending charges or prior convictions for violent offenses.

Referral to BTC was limited to defendants arrested on a drug felony charge in three participating prosecution zones (out of five total zones) in Brooklyn. Those who had a prior conviction or pending charges for a violent offense and those involved in certain kinds of cases deemed ineligible by the District Attorney (such as drug sales on or near school grounds or offenses that suggested involvement in higher-level drug trafficking) were excluded. At arraignment, some BTC-bound cases were dismissed and some minor misdemeanor cases were settled through a plea offer. Female defendants sentenced on misdemeanor charges at arraignment were eligible for sentencing to a two-day Treatment Readiness Program (TRP) conducted at BTC and were not eligible for entry into the drug court. Those with pending felony charges were referred to BTC for assessment.

Drug courts also vary widely in terms of which defendants are considered eligible on the basis of substance abuse severity. Some drug courts accept defendants whose drug involvement is reflected in their charge alone; these courts thus may include a mix of casual drug users, drug addicts, and nonusers involved in drug possession or distribution. Others, like BTC, accept only addicted defendants and exclude defendants who do not use drugs or do not meet accepted diagnostic criteria upon clinical assessment. Prior to their first appearance in the BTC courtroom (the day after arraignment), legally-eligible defendants were assessed to determine their need for drug treatment. The goal of the clinical assessment by BTC staff was twofold: 1) to determine if the defendant was addicted and eligible for BTC; and, 2) to determine appropriate types of treatment and levels of supervision.

Assessment took place on the first floor of the Kings County Supreme Court building in a BTC clinic that included medical examining rooms, a drug testing laboratory, case management offices, and space for acupuncture and group meetings. The drug testing laboratory was equipped with a Behring EMIT ETS immunoassay
analyzer. The Roche diagnostic cup served as the back-up system for providing immediate feedback about defendants' substance abuse.

The assessment included a physical examination by a nurse practitioner, a drug test for those defendants not held in the jail, and a clinical assessment interview. Originally, the project planned to test all defendants prior to their first BTC appearance, but BTC was unable to reach agreement with the Department of Corrections on procedures for testing detained defendants. The BTC psychosocial assessment instrument combined elements drawn from a standardized psychosocial instrument provided by CSAT. These included the Addiction Severity Index (MacLellan, Luborsky, Woody, and O'Brien, 1980), the Circumstances, Motivation, Readiness and Suitability Scale (DeLeon, Melnick, Kressel, and Jainchill, 1994), the Offender Profile Index (OPI), data elements from instruments used by the Target Cities study (Inciardi, 1994), and elements required for the CSAT-sponsored cross-site evaluation of criminal justice network services.

The steps used to identify the women eligible for BTC are shown in Exhibit 2.1. Defendants are first screened at the arraignment court for legal eligibility (a drug felony charge, arrest in a BTC-prosecution zone, and no prior convictions or pending charges for violent offenses). Of the first 1609 women screened at arraignment to BTC, 912 (57 percent) were misdemeanants sentenced to TRP and not referred to BTC for assessment. The remainder of the defendants that were legally eligible were sent to BTC for additional screening and assessment. At BTC, defendants were excluded from the drug court if the:

- Case involved: 1) co-defendants who were not eligible for BTC, 2) sales in or near schools, and 3) indications of involvement in a drug conspiracy or other criminal activities. Sixty women (9 percent) were excluded on these grounds.
- Case was found upon additional review to be ineligible for other reasons such as inability to provide documentation of legal residence in the U.S., major medical or mental health problems, or case too weak to prosecute. One hundred twenty one women (17 percent) were excluded on these grounds.
- The assessment indicated that the defendant was not addicted to drugs. Of those assessed, eighty women (11 percent) were excluded on these grounds.
- The defendant refused to join or absconded. Forty-four women (6 percent) were excluded on these grounds.

At the time of drug court entry, defendants were offered a reduction in legal consequences for successful completion of the treatment plan. The potential reduction in penalty could be case dismissal, a shorter period of probation, probation instead of incarceration, or a shorter period of incarceration. The vertical line on Exhibit 2.1 shows the point at which defendants were formally admitted to BTC. Of the 384 women admitted to BTC, 378 (93 percent) accepted the plea offer and officially entered the drug court; the remaining 7 percent refused the plea offer of treatment or absconded prior to the plea offer.
Exhibit 2.1
Flow of Female Clients into the Brooklyn Treatment Court

Pre-Placement

- Initial Case Screening and Identification
- DA Assessment
- Early Drug Testing, Intake and Assessment
  - DA Ineligible: n = 60
  - Other Ineligible**: n = 121
  - No Discernible Addiction: n = 80
  - Refused Treatment: n = 36

BTC Clients

- Warranted, Never Assessed: n = 8
- Referred Directly to BTC TRP: Eligible* Arrests in Brooklyn in Target Zones n = 697
  - Assessment Continuing: n = 500
  - Admitted to BTC: n = 384
- Referred to BTC: Eligible* Arrests in Brooklyn in Target Zones n = 697
  - Assessment Continuing: n = 500
  - Admitted to BTC: n = 384
  - Entered Treatment: n = 378
- Completed TRP: n = 441
- Did not Complete TRP: n = 471
- Failed or Final Sentence Imposed: n = 201
  - Absconded/ Never Treated: n = 6
- Graduated, n = 122
  - Treatment Continuing: n = 55

*Excludes those with prior convictions or current charges on violent offenses and defendants charged with selected drug offenses (e.g., drug sales at or near a school).
**Includes defendants found legally ineligible. Some may have been assessed.
**BTC Requirements**

According to a survey of drug courts (Cooper 1997), requirements for successful completion typically require a year or more of treatment participation. Most programs require at least three contacts per week with a treatment provider, and one or more drug tests per week during the first month or two of participation. Some drug courts require restitution and community service as part of a broader goal of promoting restorative, community-oriented justice. Over two-thirds require at least one year of drug treatment; monitoring of other requirements, such as employment and attending NA/AA meetings often extends beyond the end of treatment.

BTC requirements depended on the charge to which the defendant pled at the time of drug court entry as follows:

- Defendants who pled guilty to misdemeanor charges (down from an initial felony charge) faced a sentence of up to one year in jail. They were required to spend eight months in BTC without receiving a sanction, including four sanction-less months in Phase I, and two sanction-less months in both Phases II and III (receipt of a sanction returned the client to the beginning of the Phase). In addition, misdemeanants were required to graduate from a treatment program, participate in two community service events, and have made significant progress toward receipt of a high school diploma or GED and/or finding employment.

- Defendants who pled guilty to their first felony faced sentences of 1 to 3 years for conviction. They were required to complete twelve months of sanction-less participation in BTC, and meet all the other requirements described above for misdemeanants, plus one additional community service event.

- Defendants with prior felony convictions, defined as predicate (repeat) felons under New York law faced enhanced sentences, and were required to complete 18 months of sanction-less BTC participation, and meet all other requirements.

At the time of entry, participants entered into an agreement that promised them dismissal of the charges for successful completion of the required treatment and if they failed, they would receive the original sentence, without opportunity for appeal.

**BTC Case Management**

Case managers included both Fund for the City of New York personnel and contractual employees from key partners experienced in linking court-mandated clients to services, including the Women’s Prison Association, Treatment Alternatives to Street Crime (TASC) and the Osborne Association. The BTC had offices on the first floor of the courthouse in a section with a drug testing laboratory, medical examining rooms, a group meeting room, and space for acupuncture. The case managers assessed clients...
referred to BTC and prepared individualized treatment plans for eligible defendants at the time of referral (within 2-3 days of arrest). They were responsible for placing defendants under court supervision in appropriate treatment; monitoring compliance with treatment and drug testing requirements; making recommendations for sanctions or changes in the treatment plan; working with clients to gain access to supplementary social and health services; and providing continued aftercare services. The project’s Resource Coordinator, stationed in the courtroom, reviewed and recommended treatment plans to the court for approval.

BTC Treatment and Drug Testing

As a large drug court located in an area rich in treatment providers, BTC was able to offer a wide range of treatment options tailored to the needs of clients. BTC established an extensive network of over 150 treatment providers who entered into agreements with the court outlining the services standards and establishing requirements for reporting client attendance and progress to the case managers at the court. This arrangement allowed BTC to accommodate considerable diversity in the treatment needs (intensity and type of drug) and needs of clients for services that were culturally appropriate, although treatment for clients with mental health problems and inpatient treatment for clients with children were difficult to obtain.

The treatment plans developed by the case managers included assignment to one of six categories that defined the treatment modality (residential, day treatment, outpatient), urine test frequency, the frequency of program attendance, the frequency of court appearances and the frequency of case management visits. Most BTC women entered into one of the two most intensive treatment categories that required either residential treatment or intensive outpatient treatment five days a week, monthly court visits, drug screens twice a week, and meetings with a case manager once every two weeks. They could be moved to less intensive categories as they progressed in treatment, as treatment plans were regularly reevaluated. The least intensive category required drug treatment once a week, monthly meetings with the case managers, and court visits every six weeks. Clients remaining in treatment until graduation would be expected to change categories several times over the course of their treatment. In BTC treatment progression in all treatment categories was divided into three phases with clearly defined criteria for advancing from one phase to the next. Clients who relapsed could be moved back to an earlier phase. Case managers and treatment agencies monitored compliance and progress, using drug tests as one monitoring strategy.

BTC criteria for client graduation included completion of the appropriate phase structure described above, as well as significant progress toward completing ‘life goals’ that strive to help clients live independently. In addition, clients had to submit a written graduation application describing their goals and accomplishments. When clients complete their treatment or mandated period of court supervision, case managers provided continued aftercare services for network participants and follow-up efforts to sustain treatment participation on a voluntary basis. After two full years, 122 female BTC clients had completed successfully (32 percent) and 55 (15 percent) remained active in
the program. Clients who graduated from the program fell into three categories; those who completed the program, but whose charges were not dismissed, due to insufficient progress toward recovery (1 percent); those who completed a short-term treatment mandate (5 percent) and those who completed the full BTC program (27 percent).  

BTC clients were terminated from the drug court for a variety of reasons. For the 201 clients terminated within two years of entry, the reasons included: 1) arrested on a new charge (1 percent); 2) absconded from the program after receiving some treatment (9 percent), 3) absconded from the program without entering treatment (2 percent); 4) violated BTC conditions repeatedly (25 percent); 5) failed to complete due to injury or death (2 percent), or 6) resigned from the program voluntarily and accepted imposition of the alternative sentence (16 percent).

**BTC Sanctions and Incentives**

Drug courts use incentives and sanctions to encourage compliance with requirements and treatment progress. The 1997 Drug Court Survey found that 60 percent of the 93 drug courts surveyed used jail sanctions. Other sanctions include heightened supervision through more frequent status hearings (90 percent), more frequent drug testing (80 percent), and/or more intensive treatment requirements (80 percent).

At drug court admission, defendants were advised of the program requirements for advancement and the consequences of violating program rules. The rules offered sanctions and rewards they could control through their behavior (see Inciardi et al., 1996; Prendergast et al., 1995). Studies that have examined participant views of their experience in drug courts report satisfaction, particularly with their increased participation in the court process (see Colydas and McLeod, 1997 and Butler-Mejia 1998 on teen courts; Harrell, Smith, and Cavanagh, 1996 and Cooper, 1997 on drug courts).

BTC developed a somewhat complex set of rules and corresponding sanctions for infractions of these rules. Infractions were classified into three categories, reflecting the level of severity, as follows:

- Level C infractions included failed urine tests and missed appointments. Three of these infractions within a 30 day period resulted in an immediate court appearance for imposition of a sanction which began with treatment-oriented (attending workshops, written assignments) sanctions and graduated to days in jail.

- Level B infractions included tampering with a urine sample or termination or walking away from a treatment program, followed by a voluntary return to case management. Every Level B infraction results in an immediate court appearance. Sanctions for this level range from two days in the jury box to jail.

---

1 Percentages may not add due to rounding error.
• Level A infractions included termination from or absconding from a program without voluntarily returning to case management. These infractions always result in the issuing of a warrant. Sanctions range from short-term detention through the imposition of the alternative jail sentence. Over two-thirds of the women had a warrant issued for noncompliance, although most returned to the court voluntarily.

There is, however, considerable variation in the extent to which drug courts respond consistently and swiftly with anticipated rewards and penalties, with some judges preferring to tailor rewards and penalties to specific defendants and their circumstances. The BTC judge and case managers made considerable use of sanctions for rule violations (over 40 percent of the women received a jail sanction) and did so at the time of the next regularly scheduled review hearing (within a month) or when a participant who absconded from treatment was returned on a warrant. However, the nature of the response was typically governed by both the treatment phase and individual circumstances, so it is unlikely participants knew specifically what penalty would be applied for a given violation.

BTC clients also received rewards for being clean and in compliance for 90 days, for four months with no sanctions, and for four to six months with no additional sanctions, and for generally doing well. The rewards included receipt of a hard cover journal to record treatment progress, and advancement to the next treatment phase.

Judicial Review

Drug court judges play a major role in offering incentives and rewards. At regular review hearings, judges use praise and personal interaction to encourage the drug court participant. They reward participants with small token gifts for progression from one phase of treatment to the next and preside at drug court graduation ceremonies. The personal involvement of the judge appeared to play a significant role in motivating BTC participants. Drug court judges also have a central role in sanctioning all but minor infractions of the rules.

The BTC judge established a personal relationship with each client, reviewing their progress regularly across the mandated period and in compliance hearings. This was facilitated by access to in-depth information on the client, the case, and recent treatment and drug test results on a computer screen located at the bench.

Evaluating BTC Implementation: The National Drug Court Institute Guidelines
Data from the process evaluation of implementation between November 1996 and September 1999 are used to assess the extent to which BTC complied with the guidelines laid out by the National Association of Drug Court Professionals (NADCP 1997). The findings, summarized below each guideline, indicate that BTC met or exceeded expectations in eight of ten areas and continued to work on strategies for early treatment placement and for engaging community residents and other agencies in BTC activities.

(1) Drug courts integrate alcohol and other drug treatment services with justice system processing.

BTC implementation was outstanding. As part of BTC, court staff worked with a network of treatment providers to identify appropriate treatment placements and exchange information on client participation and treatment progress.

(2) Drug courts use a non-adversarial approach, with prosecution and defense counsel promoting public safety while protecting participants’ due process rights.

BTC implementation was outstanding. A dedicated courtroom staff comprised of prosecutors, public defense counsel, and a resource coordinator worked together to offer treatment options in a manner that allowed defendants to refuse entry or, after entry, offered multiple chances to reenter treatment, imposing sentences only as a last resort. On average, participants were given 3 additional chances following program lapses before imposition of the alternative sentence.

(3) Eligible participants are identified early and promptly placed in the drug court program.

BTC implementation was satisfactory. Eligible defendants were assessed prior to the drug court offer, within a day of their first court appearance after arrest. The median time between initial screening and first day in treatment was about four weeks. However, difficulty in placing some clients and temporary absconding extended the average time to eight weeks.

(4) Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.

BTC implementation was outstanding. BTC established network agreements with over 150 treatment providers and worked to match treatment program to clients through: 1) initial assessments, and 2) reassignment to other programs for those for whom the initial placement proved unsatisfactory. All clients completed an initial assessment. Shifts in program placement to meet client needs are reflected in the finding that participants averaged about 2.5 different program placements.
(5) Abstinence and use of alcohol and other drugs are monitored through frequent drug testing.

BTC implementation was outstanding. Participants were drug tested at BTC an average of once per month in the program, including days where participants were in the program but out on warrant or otherwise unavailable for testing. When the client was not out on warrant and not in residential treatment, the number of tests per month averaged 2.18 (about every two weeks). This is almost exactly the testing frequency called for in the BTC schedule. The testing of clients in residential treatment was conducted at the discretion of the treatment program.

(6) A coordinated strategy governs drug-court responses to participants’ compliance.

BTC implementation was outstanding. BTC established a sanctioning policy that was designed to be flexible enough to respond to individual circumstances and individual's cumulative history of compliance and treatment progress. As a result, it was complex and not rigidly applied with exceptions made on the basis of extenuating circumstances. Infractions were almost always followed by sanctions, although there was an average of 2 infractions per sanction and the time between the first new infraction and the subsequent sanction averaged 30 days. These numbers reflect the accumulation of multiple infractions during periods of unauthorized absence from treatment: 492 warrants were issued for BTC participants. While warrants were outstanding, infractions for missed drug tests continued to accumulate.

(7) Ongoing participation with each drug-court participant is essential.

BTC implementation was outstanding. BTC participants averaged almost 2 court appearances per month in the program (excluding days when warrants were outstanding).

(8) Monitoring and evaluation measures the achievement of program goals and gauges effectiveness.

BTC implementation was outstanding. In addition to the Urban Institute evaluation, BTC conducted operations research on a continuing basis and quarterly reports on performance measures.

(9) Effective drug court operations require continuing interdisciplinary education.

BTC implementation was outstanding. BTC staff participate in, and provide, training on services for drug-addicted offenders.

(10) Forging partnerships among drug courts, public agencies, and community-based organizations enhances drug court effectiveness and generates local support.
BTC implementation was satisfactory. BTC explored a variety of strategies to engage community members and other agencies in the drug court programs, but with limited success. Descriptions of their efforts and results are presented in Harrell & Bryer (1998).

**Evaluating BTC Implementation: NIDA Principles of Effective Drug Treatment**

Our assessment of the treatment provided to women participating in the BTC network of services is based on reviewing the extent to which BTC implements the research-based principles of drug addiction treatment identified by the National Institute on Drug Abuse (see NIDA 1999). Although many drug court evaluations fail to examine, or even to document, the treatment services delivered to participants, the quality of treatment is central to the prospects for client success. The process evaluation findings on how BTC practices relate to the principles of effective treatment are summarized below, using data on services received by impact evaluation sample.

Principle 1. No treatment is appropriate for all individuals.

BTC implementation was outstanding. The approximately 150 BTC treatment partners, provided treatment in six general modalities: detoxification, short-term inpatient, long-term inpatient, intensive outpatient, other outpatient and methadone. On average, women were placed in about 2.5 different treatment modalities, with a maximum of 12 different placements for any individual. Many women repeated treatment modalities: it was common for a woman to move back and forth between outpatient treatment and inpatient treatment, for example, or to interrupt a treatment placement for a period of detoxification. Of the 83 percent of the sample of female offenders who received at least one day of services at an off-site treatment provider, 33.1 percent had at least one episode of detoxification; 26.1 percent received short-term inpatient treatment; 77.4 percent received long-term inpatient treatment; 22.6 percent received short-term outpatient and 34.6 percent received long-term outpatient. Just 5 percent of women in the sample were placed in methadone maintenance. As the above suggests, women averaged more time in long-term inpatient treatment than any other type of treatment modality.

Principle 2. Treatment needs to be readily available.

BTC implementation was outstanding. Upon entry into BTC, after completion of the psychosocial assessment, the case manager developed a treatment plan for each client, and an appropriate treatment placement was selected from the BTC network of providers. Clients received on-site services, including acupuncture, before their initial placement and while they were between placements. The lag before an appropriate provider could be found to accept a client was generally very brief. Median time to first attendance at a treatment facility was about four
weeks, and the average client was placed within 57 days. While clients were expected to report to BTC daily while awaiting their first placement, a substantial portion absconded and as a result, for more than 10 percent of clients a period of 100 days or more passed before they attended treatment.

Principle 3. Effective treatment attends to multiple needs of the individual, not just his or her drug use.

BTC implementation was **outstanding**. In addition to referring clients to off-site drug treatment, BTC provided a variety of health services on-site. BTC court-based services included New York City Department of Health (DOH) primary health services, screening and voluntary testing for tuberculosis, sexually transmitted diseases, pregnancy and HIV, and health education and counseling services, addressing risky sexual behavior. These services were provided in a Primary Health Care clinic located on the first floor of the court building. In addition, a mental health nurse practitioner was on-site to conduct screening and psychiatric evaluations, deliver services, manage client care (including writing prescriptions) and conduct educational programs and ongoing training for BTC staff. In addition, BTC provided a treatment readiness program for clients facing less serious charges, cultural sensitivity workshops, and counseling groups for domestic violence and parenting skills. BTC also referred clients to off-site health and counseling as needed.

Principle 4. An individual’s treatment and services plan must be assessed continually and modified as necessary to ensure that the plan meets the person’s changing needs.

BTC implementation was **outstanding**. In addition to the initial screening, clients progress was continually monitored by the court and case managers. Clients underwent a more formal review of the appropriateness of their treatment placements following a serious infraction, or other evidence that they were not doing well in treatment. During the course of their treatment, clients averaged more than two unique placements in treatment. In addition, it was common for clients to have a break in treatment to address specific short-term needs, such as detoxification, and then return to treatment.

Principle 5. Remaining in treatment for an adequate period of time is critical for treatment effectiveness.

BTC implementation was **outstanding**. The treatment literature, as reflected in the NIDA principles, suggests a strong correlation between treatment retention and positive outcomes. In order to measure these effects, this evaluation looked not at the number of days assigned to treatment, which may include weekends and other days where no treatment was scheduled, or days when the client was not in attendance (whether that absence was excused or not), but rather examined the number of days a client was reported to be in attendance at a treatment provider.
BTC clients remained in treatment for substantial periods: 76 percent of clients admitted into BTC completed at least one day of treatment; 62 percent completed at least 30 days of treatment; 52 percent were in attendance in treatment for at least 90 days; 40 percent of clients completed at least 6 months of treatment; and 25 percent completed their BTC mandated period of treatment (see above) and graduated from the program (at the time the data were collected, about 15 percent of clients were continuing in treatment). On average, including those clients who failed early in their BTC mandate, BTC clients had a median of 181 days in treatment.

Principle 6. Counseling (individual and/or group) and other behavioral therapies are critical components of effective treatment for addiction.

BTC implementation was outstanding. BTC services included an assessment both by BTC case managers and the treatment facility. As noted earlier, most BTC clients were assigned to intensive treatment options, including residential and intensive outpatient services. Treatment approaches varied by provider, but generally included cognitive-behavioral approaches to managing drug addiction.

Principle 7. Medications are an important element of treatment for many patients when combined with counseling and behavioral therapies.

BTC implementation is unknown. The evaluation did not collect information regarding the extent to which treatment providers used medications in the course of treatment. However, methadone maintenance was only allowed as part of an abstinence program.

Principle 8. Addicted or drug-abusing individuals with coexisting mental disorders should have both disorders treated in an integrated way.

BTC implementation was satisfactory. BTC faced many challenges in responding to the needs of clients with dual diagnoses. As noted in principle 3, BTC had a mental health nurse practitioner on staff on-site to monitor clients with mental health disorders and to train BTC staff on the special needs of the population. The program was less successful in referring clients with substance abuse and mental health problems to appropriate treatment for a variety of reasons including: bureaucratic restrictions, both within the New York City government and the Department of Corrections; general political reluctance from the treatment providers to work with a population perceived as a substantial risk to public safety; and limited treatment facilities.
Principle 9. Medical detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug use.

BTC implementation was outstanding. In general, BTC clients were referred to, and received, medical detoxification only as a medical intervention in the course of treatment, rather than as a treatment in lieu of another placement. Twenty-five percent of all clients and 33 percent of clients attending at least one day of treatment received at least one day of medical detoxification. For many of these clients, the detoxification episode was not their initial treatment placement: rather, they relapsed during the course of other treatment, received detoxification, and were returned to treatment. Clients that entered detoxification averaged 10.5 days of medical detoxification during the course of their treatment (about 5 percent of clients received detoxification services more than once).

Principle 10. Treatment does not need to be voluntary to be effective.

BTC implementation was outstanding. As described under NADCP principle 6, BTC utilized two approaches to using legal incentives to encourage clients to remain in treatment. First, although clients were given the opportunity to volunteer for participation in BTC, their treatment mandate was correlated with their alternative sentence. Although the alternative sentence length is not available for all BTC clients, in general, the program established guidelines wherein the phase structure detailing the length and type of treatment and judicial supervision was less than the length of the alternative sentence faced by defendants. Clients were thereby offered a strong incentive to enter the program (only 5 percent of clients found to be eligible for the court chose not to accept a treatment offer). In addition, BTC engaged in the use of sanctions and incentives to continue to encourage clients, through these coercive instruments, to remain in treatment. The use of legal incentives and sanctions in BTC is described above.

Principle 11. Possible drug use during treatment must be monitored continuously.

BTC implementation was outstanding. BTC continuously monitored client drug use during their period of program enrollment (see NADCP principle 5 and Appendix A for a list of the drug testing protocols as clients progressed through the treatment phases). In general, clients were frequently tested during the early periods of treatment, and less frequently as they successfully completed treatment (with the exception that clients were only randomly drug tested during periods of inpatient treatment). Clients averaged about one drug test per month (which includes periods, often prolonged, where the client had absconded from the program or was in jail). For periods where clients were not on warrant, clients average about 1.5 tests per month, which includes often extensive periods in residential treatment, where drug testing was random, at the provider’s discretion. For the period when clients were directly under BTC supervision (where clients
were not on warrant or attending residential treatment) clients averaged 2.2 drug tests per month.

Principle 12. Treatment programs should provide assessment for HIV/AIDS, hepatitis B and C, tuberculosis and other infectious diseases, and counseling to help patients modify or change behaviors that place themselves or others at risk of infection.

BTC implementation was outstanding. As described above in NIDA principle 3, BTC provided extensive on-site health services to clients, including primary health care, and testing for a variety of infectious diseases.


BTC implementation was outstanding. As described throughout this chapter, the BTC philosophy was based on an acceptance that most drug-addicted clients would relapse at some point in their treatment. BTC clients were given multiple opportunities to succeed in treatment. On average, BTC clients received three additional opportunities to return to the program after committing a program violation that was substantial enough to warrant the issuance of a sanction. Clients averaged about three treatment episodes during their period of treatment, and averaged about six months of total time in treatment. This philosophy is most graphically illustrated by looking at the experience of program graduates. These clients averaged 430 days in attendance at treatment, averaged almost four infractions per client, averaged 25 days on warrant during their tenure, 1.7 jail episodes, and tested positive on 11 percent of their drug tests.

Summary

The Brooklyn Treatment Court did an outstanding job of meeting standards for effective treatment outlined by NIDA, as well as the model drug court principles outlined by NADCP. Clients in the program had substantial criminal justice oversight while receiving drug treatment directed by case managers and the court that were intended to meet their particular needs. The court demonstrated an understanding of the unique needs of drug-addicted offenders by responding to their successes and relapses with a graduated program of sanctions and incentives. In general, the few weaknesses in the courts programming appear to be a function of early failures to engage a high-risk set of clients, rather than systematic mistakes in serving this population.
Chapter III
THE IMPACT EVALUATION METHODOLOGY

Overview

The impact evaluation tested the general hypothesis that BTC participants were less likely than a comparison group of similar women to use drugs, commit crimes, and experience social, health, and employment problems during the follow-up period. The quasi-experimental design compares BTC participants to women arrested on drug felony charges not referred to BTC for assessment or arrested in other areas of Brooklyn. In addition to the quasi-experimental comparison, the impact evaluation examines treatment sample outcomes as a function of the services received during the program.

The Conceptual Framework

The conceptual framework guiding the study design and choice of data to be collected is shown in Exhibit 3.1. The evaluation examined the outcomes illustrated in the boxes on the far right. Goals for offenders include decreased drug and alcohol use and negative consequences associated with use, reduced criminal activity, longer time to re-arrest, improved economic well-being and increased rates of employment, improved family and social functioning, and improved physical and psychological health.

The center column illustrates BTC services hypothesized to affect the outcomes. These include drug treatment placements, type and duration of drug treatment, drug testing, frequency of judicial monitoring, intensity of contact with case managers or court supervision staff, the types of incentives and sanctions, and the timeliness and consistency of sanctioning.

Individual characteristics that may affect both the type of services received and the response are shown on the far left of the exhibit. They include demographic or background characteristics of the offender such as age, prior drug use pattern, employment, family status, physical and mental health, prior arrests, and current charge. When possible, these variables are included in the analysis to control for their effects on outcomes.

Data to measure the concepts illustrated in this framework were collected from three sources: 1) official records on arrests that resulted in conviction, 2) interviews with defendants, and 3) the BTC MIS. Official records of arrests were provided by the New York State Division of Criminal Justice Services (DCJS) for all sample members. The arrests are limited to arrests in the state of New York, and include any arrest before November 1, 2000. Interviews with sample members were scheduled at baseline and at follow-up. BTC MIS data were used to measure individual characteristics as baseline for
those sample members who did not complete the baseline ASI interview. MIS data were also used to indicate the kinds and amount of service received by BTC participants.

**Exhibit 3.1 Conceptual Framework for the Evaluation of The Brooklyn Criminal Justice Network for Female Offenders**

<table>
<thead>
<tr>
<th>Offender Characteristics</th>
<th>Interventions/Services</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Characteristics</td>
<td>Court Assessment and Treatment Planning</td>
<td>Reduced Drug Use</td>
</tr>
<tr>
<td>Substance Abuse History</td>
<td>Type and Duration of Drug Treatment</td>
<td>Reduced Criminal Activity</td>
</tr>
<tr>
<td>Employment</td>
<td>Drug Testing Schedule and Procedures</td>
<td>Longer Time to Rearrest</td>
</tr>
<tr>
<td>Family Composition and Living Situation</td>
<td>Judicial Monitoring</td>
<td>Improved Social Functioning</td>
</tr>
<tr>
<td>Criminal History</td>
<td>Intensive Case Management and Court Supervision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of Incentives and Sanctions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social and Health Services Received</td>
<td></td>
</tr>
</tbody>
</table>

**The Sample and Survey**

The BTC sample is composed of 283 women entering the Brooklyn Treatment Court between June, 1997 and January, 1999.² The comparison sample is composed of 114 women arrested in Brooklyn on eligible drug felony charges during the same period: 66 were arrested in a non-participating prosecution zone; 12 were arrested in the BTC prosecution zone, but not referred to BTC; 46 were referred to BTC but did not enter the court because they never appeared at BTC or were not eligible for other reasons unrelated to their drug use (unable to provide documentation of legal residence in the U.S. or case too weak to prosecute).

During the project, the sample recruitment process was significantly revised. The initial data collection plan called for telephone interviews with 225 treatment group members and 75 comparison group members shortly after arraignment, three brief interim

---

² During this period, all women arrested in three of Brooklyn’s five prosecutorial zones were eligible for participation, if they met other program entry criteria (see Chapter II for criteria).
interviews on service participation, and follow-up interviews 12 months later. The goal was to complete follow-up interviews with 150 members of the treatment group and 50 members of the comparison group. The plan was based on strategies used in earlier treatment outcome studies by the subcontractor, the Treatment Research Institute (TRI). The baseline questionnaire included an expanded version of the Addiction Severity Index with additional questions mainly on criminal activity, and the Risk of AIDS Behavior Scale. The interim interviews planned to use the Treatment Services Review, and the follow-up interviews were to include all three instruments.

TRI recruiters were assigned to the Brooklyn Arraignment Court holding facility in the morning and evenings five days a week. At the start of each shift, the recruiter checked for eligible cases awaiting arraignment by reviewing the paper file that accompanies the defendant (placed on the shelf outside the holding cell) or from the case file on the table at the front of the courtroom. The recruiter attempted to recruit eligible defendants in the holding cell. If an eligible defendant was located, they were asked for consent to take part in the study and locating information and given a card with information on how to contact TRI (a copy of the consent form is shown in Appendix B).

The effort to recruit and interview sample members encountered a number of problems and delays. The number of cases eligible for BTC was far lower than initially projected. Initial projections suggested that as many as 2,000 women per year might be served. In fact, the number was closer to a few hundred per year. This drastically increased the difficulty of contacting sufficient numbers of eligible cases, tripling the time that would be needed to identify the desired number of sample members under ideal conditions. Conditions were not ideal. At the arraignment court, access to defendants and their case files was poor. Interviewers had to compete with attorneys for space and the time between reaching the holding cell and the arraignment was often too brief to allow a contact. The flow of eligible women was so low that large blocks of time were spent waiting for eligible cases to appear. The tracking information provided to the interviewers was frequently inadequate and many women lacked a telephone or stable address. TRI tried a number of strategies for increasing the survey response rate with limited success. These included increasing incentive payments, contacting respondents at their BTC or other court hearings, and field tracing. In addition, TRI was unable to staff the on-site research position consistently. In eighteen months, TRI obtained consent from 370 defendants, with 128 initially identified as comparison group cases and 242 treatment group cases.

These problems led to major changes in the evaluation design and work plan. The changes included:

- Changing the strategy for collecting data on treatment participation by dropping interim telephone Treatment Services Review interviews and adding questions on treatment received to the follow-up questionnaire;

- Hiring the Research Triangle Institute (RTI) to complete the survey;
Expanding the pool of women eligible for follow-up interviews to include both those interviewed by TRI who were still within the time frame that made them eligible for a follow-up-interview (n=135) and those women entering BTC one-year prior to the time RTI follow-ups began (n=262), using MIS assessment data in lieu of the baseline interview for these sample members; 

Shifting the way comparison group members were identified from contacts in the holding cell by a recruiter to a file review by the BTC court clerk;

Reclassifying some initial group assignments of sample members recruited by TRI based on information found in the file review.

Dropping 34 members from the comparison sample after the baseline interview because they denied ever using cocaine/crack, heroin or opiates to make the group more equivalent to the BTC sample, which was restricted to women found to be addicted as a condition of program eligibility.

Exhibit 3.2 shows the data sources used in the analysis. Follow-up data on recidivism is based on the arrest records of all sample members (283 in the BTC group and 114 in the comparison group). Follow-up data on self-reported drug use, criminal activity, and problems related to drug involvement is confined to those sample members who completed the follow-up interviews: 109 members of the BTC group and 26 members of the comparison group. Copies of the survey questionnaires are shown in Appendix C.

---

**Exhibit 3.2. Survey Respondents by Group**

<table>
<thead>
<tr>
<th>Initial BTC Group (n=283)</th>
<th>Initial Comparison Group (n=114)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Arrest Records (n=283)</td>
<td>Prior Arrest Records (n=114)</td>
</tr>
<tr>
<td>MIS Baseline Interview (n=225)</td>
<td>MIS Baseline Interview (n=51)</td>
</tr>
<tr>
<td>ASI Baseline Interview (n=58)</td>
<td>ASI Baseline Interview (n=63)</td>
</tr>
<tr>
<td>Follow-up Arrest Records n=283</td>
<td>Follow-up Arrest Records n=114</td>
</tr>
<tr>
<td>ASI Follow-up n=109</td>
<td>ASI Follow-up n=26</td>
</tr>
</tbody>
</table>

---

3 TRI conducted a baseline interview with 35 members of the BTC group and 7 members of the comparison who were subsequently dropped from the sample because the window for follow-up had expired.

4 Efforts to complete follow-up interviews with BTC participants entering the court after January 1, 1998 were halted when the sample size reached 130.
On average, baseline interviews were conducted with BTC sample members about 25 days after their entry into BTC and with the comparison group members about 20 days after consent or first contact with BTC. The difference in time to baseline interview between the two groups was not significant. On average, 367 days elapsed between the initial baseline interview and the follow-up interview for comparison group members. For the BTC group, the average period from baseline until follow-up was longer (408 days). The difference between the groups was significant at p<.05.

Survey attrition presents a major threat to the representativeness of the sample used in the analysis of the survey data. In all, only about one-third of those included in the baseline sample were interviewed at follow-up. The attrition analysis began with a traditional examination of differences in baseline characteristics of the sample that completed the follow-up interviews and the sample that did not. Table 3.1 illustrates the differences in follow-up completion between the two groups based on analysis of baseline variables available in both the questionnaire and BTC MIS. The results show that the follow-up survey was significantly more likely to have been completed with members of the BTC sample than with members of the comparison group and those interviewed at follow-up were significantly older, although the difference in age of 1.4 years is relatively small. Age is included as a control variable in the analysis of outcomes. However, on a number of key variables, including drug use, prior involvement with the criminal justice system, employment, race, and family composition, this analysis did not find significant group differences.

Table 3.1.
Characteristics of Sample Members by Survey Completion Status (n=397)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Variable</th>
<th>No follow-up sample (n=262)</th>
<th>Follow-up sample (n=135)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Assignment</td>
<td>BTC Participant</td>
<td>66.4%</td>
<td>80.7%***</td>
</tr>
<tr>
<td>Demographics</td>
<td>Age</td>
<td>35.1</td>
<td>36.5*</td>
</tr>
<tr>
<td></td>
<td>% African-American</td>
<td>68.3%</td>
<td>70.3%</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td>11.4%</td>
<td>12.6%</td>
</tr>
<tr>
<td></td>
<td>Number of children</td>
<td>2.40</td>
<td>2.33</td>
</tr>
<tr>
<td></td>
<td>Number of children at home</td>
<td>0.48</td>
<td>0.71</td>
</tr>
<tr>
<td>Drug Use</td>
<td>Any drug use – last 30 days</td>
<td>55.7%</td>
<td>56.3%</td>
</tr>
<tr>
<td></td>
<td>Ever used cocaine/crack</td>
<td>75.6%</td>
<td>71.1%</td>
</tr>
<tr>
<td></td>
<td>Ever use heroin/opiates</td>
<td>81.2%</td>
<td>77.8%</td>
</tr>
<tr>
<td></td>
<td>Used heroin in last 30 days</td>
<td>25.6%</td>
<td>32.7%</td>
</tr>
<tr>
<td></td>
<td>Number of prior treatment episodes</td>
<td>0.96</td>
<td>1.11</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>Any arrest prior to program entry (official)</td>
<td>20.6%</td>
<td>22.2%</td>
</tr>
<tr>
<td></td>
<td>Number of prior arrests (official)</td>
<td>4.07</td>
<td>3.31</td>
</tr>
<tr>
<td></td>
<td>Mean time served in days (self-report)</td>
<td>122.1</td>
<td>120.1</td>
</tr>
</tbody>
</table>

*p<.10 **p<.05 ***p<.01
The analysis then tested for differential attrition by sample group following Biglan, Hood, Brozovsky, Ochs, Ary and Black (1991) to assess the potential threat to internal validity. These analyses examined baseline characteristics as a function of sample group and interaction between sample group and response (yes/no) to the survey. The results, shown in Tables 3.2 and 3.3 indicate no differential attrition by group (no significant interaction term) by employment status at baseline, race, or prior arrest (criminal risk).

Table 3.2.
Logistic regression predicting risk factors as a function of follow-up status and group assignment (n=397)

<table>
<thead>
<tr>
<th></th>
<th>Employed at baseline</th>
<th>African-American</th>
<th>Any previous arrests (official)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>-0.93* (0.39)</td>
<td>0.24 (1.28)</td>
<td>0.34 (1.41)</td>
</tr>
<tr>
<td>Follow-up</td>
<td>-0.53 (2.54)</td>
<td>0.39 (1.48)</td>
<td>-1.64 (0.20)</td>
</tr>
<tr>
<td>Group*Follow-up</td>
<td>1.05 (2.87)</td>
<td>-0.41 (0.67)</td>
<td>1.86 (6.45)</td>
</tr>
</tbody>
</table>

Odds ratios in parentheses. * p<.05  **p<.01  ***p<.001

The findings also show no overall difference in attrition by race or prior arrest, or employment at baseline. However, the number of prior drug treatment episodes reported at baseline was significantly higher among those who completed the follow-up survey than those who did not after entering the interaction term.

Table 3.3.
OLS regression predicting risk factors as a function of follow-up status and group assignment (n=397)

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Total time served at baseline</th>
<th>Number of prior treatment episodes</th>
<th>Official arrests prior to entry (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>-1.00 (-1.10)</td>
<td>-51.94 (-1.11)</td>
<td>0.02 (0.17)</td>
<td>0.83 (0.93)</td>
</tr>
<tr>
<td>Follow-up</td>
<td>1.57 (1.01)</td>
<td>38.33 (0.48)</td>
<td>0.58* (2.43)</td>
<td>-0.45 (0.77)</td>
</tr>
<tr>
<td>Group*Follow-up</td>
<td>0.11 (0.06)</td>
<td>-40.78 (-0.45)</td>
<td>-0.52 (1.94)</td>
<td>-0.54 (-0.31)</td>
</tr>
</tbody>
</table>

T-values in parentheses. * p<.05  **p<.01  ***p<.001

Table 3.4 shows the differences between the treatment and comparison groups at baseline in the final samples used for analysis of outcomes based on survey data. Some significant differences were found between the groups at baseline. Comparison group members were significantly less likely to have had at least one arrest before entry into the
program \((t=2.21)\), although there was no difference in the mean number of prior arrests \((t=0.73)\) The treatment group was marginally significantly less likely to be employed at baseline \((t=1.89)\), and was significantly more likely to have used heroin in their lifetime \((t=5.87)\). The treatment group reports significantly more children \((t=2.91)\), but no difference in the number of children in the home \((t=0.11)\). Given that there is no difference in ages between the two groups, this implies that women in the BTC sample had lost custody of more children than comparison group members, although this information was not directly available for both groups. These differences suggest that women in the BTC had more severe problems in several domains (more likely to have lost custody of a child, less likely to have a job at time of arrest, higher levels of past arrest, and more likely to have used heroin). Thus, if any bias exists, it seems likely that the findings will underestimate, not overestimate, the impact of BTC.

\[ \text{Table 3.4.} \]
\text{Sample Differences at Baseline}

<table>
<thead>
<tr>
<th>Domain</th>
<th>BTC Group (n=283)</th>
<th>Comparison Group (n=114)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>35.3</td>
<td>36.0</td>
</tr>
<tr>
<td>% African-American</td>
<td>70.0%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Employed</td>
<td>9.9%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Number of children</td>
<td>2.6</td>
<td>1.9**</td>
</tr>
<tr>
<td>Number of children at home</td>
<td>0.58</td>
<td>0.54</td>
</tr>
<tr>
<td>Drug Use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever used heroin</td>
<td>87.3%</td>
<td>62.2%***</td>
</tr>
<tr>
<td>Ever used cocaine/crack</td>
<td>72.4%</td>
<td>78.0%</td>
</tr>
<tr>
<td>Any drug use – last 30 days</td>
<td>55.1%</td>
<td>57.9%</td>
</tr>
<tr>
<td>Used heroin in last 30 days</td>
<td>27.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Number of prior treatment episodes</td>
<td>0.99</td>
<td>0.90</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any arrest prior to program entry (official)</td>
<td>24.0%</td>
<td>14.0%*</td>
</tr>
<tr>
<td>Number of prior arrests (official)</td>
<td>3.97</td>
<td>3.42</td>
</tr>
<tr>
<td>Mean time served in days (self-report)</td>
<td>103.7</td>
<td>165.3</td>
</tr>
</tbody>
</table>

Two-sided t-tests of baseline differences. \(* p<.05\) \(** p<.01\) \(*** p<.001\)

The analysis of BTC impact began with efforts to identify differences in the two samples, using procedures designed to identify and control for possible selection and/or attrition bias due to omitted variables. A two-stage estimation procedure was used to capture the effects of unmeasured sample differences (Heckman 1978, 1979). This procedure creates an instrumental variable to control for the effects of unmeasured...
variables related to both the dependent variable and group assignment (Barnow, Cain, & Goldberger 1980; Smith & Paternoster 1990; Winship & Mare 1992). At the first-stage, the likelihood of being a treatment group member was estimated using predictors believed to differentiate the two groups. The product of this first-stage equation is a correction factor, the inverse mills ratio, which is included in a second-stage equation as an independent variable along with other variables hypothesized to effect the outcome of interest (see Winship & Mare 1992; or Winship & Morgan 1999).

The model selected for the first-stage equation was chosen on the basis of its predictive power and parsimony (Table 3.5). In this model, group assignment (1=treatment group) was the dependent variable and predictors of group membership were the independent variables. Independent variables included employment status at baseline (employed=1), number of children, age, race (1=African-American), ever used heroin at baseline (yes=1), any previous official arrests (yes=1), and total time served in their lifetime prior to baseline. These variables measure the constructs of criminal history, seriousness of substance abuse problem, ties to the community, and demographic factors. Collectively, these variables produce an adjusted pseudo-$R^2$ of .11. The addition of more variables (any prior drug arrests, number of prior treatment episodes, self-reported baseline drug use, number of children living at home, prior use of cocaine) did not significantly improve the model fit to the data.

<table>
<thead>
<tr>
<th>Table 3.5. Binomial Probit Regression Predicting BTC sample Membership (n=387)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coefficient</strong> (Standard Error)</td>
</tr>
<tr>
<td>Constant</td>
</tr>
<tr>
<td>Age at baseline</td>
</tr>
<tr>
<td>Employed</td>
</tr>
<tr>
<td>Number of children</td>
</tr>
<tr>
<td>Used heroin prior to baseline</td>
</tr>
<tr>
<td>African-American</td>
</tr>
<tr>
<td>Any previous (official) arrest</td>
</tr>
<tr>
<td>Total time served lifetime</td>
</tr>
</tbody>
</table>

*p<.10, ** p < .05, *** p < .01,

Two findings emerge from these analyses. First, it appears that only two variables are significant predictors of group assignment in multivariate models: any
previous official arrests and self-reported prior heroin use. As noted, no other combination of variables explains a meaningful proportion of the variation as a function of group assignment; therefore this remains the best possible model to detect selection bias, although these caveats suggest that selection bias is not a serious problem within this model. There does not appear to be any unmeasured variables that are related to group differences. Therefore, our models will use the variables that have been identified as predictors of group assignment as controls.

The second-stage models used to estimate BTC impact included variables to control for the group differences identified in the tests of selection bias, including confinement in a controlled environment and prior arrests. In addition, although they do not predict group assignment in multivariate models, age and employment status at baseline were included as control variables in the model due to their hypothesized theoretical relationship to program outcomes. The models also include controls for baseline measures of the outcomes being examined. The measures on baseline characteristics of sample members is limited to the variables which were included in both the BTC MIS and the questionnaires.5

All estimation models, in their simplest form, can be expressed as:

\[ Y_i = f(b_0 + b_1X_i + b_2D_i) + u_i \]

where \( Y_i \) is the outcome for individual \( i \); \( X_i \) are the set of variables measuring non-treatment (control) variables expected to affect \( Y_i \) or to control for selection bias; \( D_i \) is a categorical variable =1 for the treatment group and 0 for the comparison group; and \( u_i \) is a random error term. The b's are parameters to be estimated, with \( b_2 \) providing an estimate of the impact of BTC on outcome \( Y_i \). The function (f) may be linear or non-linear. To identify subgroups of residents for whom the BTC is especially effective (or ineffective), selected terms will be added to the model to test for interactions between some antecedent variables, \( X_i \). Binary dependent variables were estimated using logistic regression. Models with counts as dependent variables (e.g., number of arrests), were estimated using negative binomial regression. To estimate post-baseline recidivism, proportional hazards models were estimated (Cox 1972). All models were estimated in LIMDEP 7.0 (Greene 1995) or SAS. 6.12.

5 Questions with inconsistent time frames in different instruments were excluded from the analysis data set, but those with only slight differences in wording were included. When necessary, answer categories were recoded to achieve comparability across instruments.
Chapter IV.
BTC IMPACT ON DRUG USE AND CRIME

Overview

This chapter describes the outcomes associated with two quasi-experimental comparisons: 1) comparing the 110 BTC group members who were interviewed one year after program entry to the 26 comparison group members interviewed at follow-up on drug use, criminal offending, and social well-being, and 2) comparing the full sample of 283 BTC group members to the full sample of 114 comparison group members on rearrest during the first two years after program entry.

BTC was found to result in reduced likelihood of self-reported use of drugs in the 30 days prior to the follow-up interview on four of the five measures: 1) any drug use, 2) any stronger drug use, 3) any "other" drug use (including amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants), and 4) any use of alcohol to intoxication. BTC was also found to reduce crime as measured by: 1) the likelihood of self-reported criminal offending in the six months before the follow-up interview, 2) the likelihood of self-reported drug offending in the six months before the follow-up interview, 3) the likelihood of arrest in the year after sample entry, 4) the number of arrests in the first year post-entry, 5) the number of arrests in the first two years post-entry, and 6) the days to first arrest. The analysis did not find improvements in self-report measures of economic well-being and health following participation in BTC.

Reducions in Drug Use

BTC’s impact on drug use was measured by self-reported drug use in the 30 days prior to the follow-up interview. The dependent variables include: 1) use of any drug (yes/no), 2) any stronger drugs (i.e., heroin and/or cocaine use) (yes/no), 3) any marijuana use, and 4) any use of other drugs (including inhalants, hallucinogens and non-narcotic prescription drugs) during the 30 days prior to follow-up. Table 4.1 displays the percentages of clients by group who reported drug use prior to the follow-up interview. These bivariate results, which do not control for sample differences, indicate that the comparison sample members were significantly more likely to report drug use in the 30 days before the follow-up interview in each drug category except marijuana use. However the two groups did not differ on the likelihood of reporting drug use in the prior six months (a period during which most BTC sample members were in treatment).

---

6 This drug use measure includes use of heroin, other opiates, cocaine, marijuana, amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants.

7 The sample is limited to known drug users and excludes 32 BTC sample members put in BTC for urine monitoring because they had been charged with a felony drug offense and subsequently discharged because they did not test positive for drugs while in BTC.
Table 4.1.
Percentage of Sample Reporting Drug Use at Follow-up

<table>
<thead>
<tr>
<th></th>
<th>BTC (n=110)</th>
<th>Comparison (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past 30 Days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any drug use</td>
<td>13.8%</td>
<td>42.3%***</td>
</tr>
<tr>
<td>Any stronger drug use</td>
<td>9.0%</td>
<td>26.9%*</td>
</tr>
<tr>
<td>Any marijuana use</td>
<td>3.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Any other drug use</td>
<td>3.6%</td>
<td>19.2%**</td>
</tr>
<tr>
<td>Drinking to intoxication</td>
<td>5.5%</td>
<td>23.1%**</td>
</tr>
<tr>
<td>Past 6 Months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any drug use</td>
<td>33.9%</td>
<td>46.2%</td>
</tr>
<tr>
<td>Any stronger drug use</td>
<td>25.0%</td>
<td>36.0%</td>
</tr>
<tr>
<td>Any marijuana use</td>
<td>7.4%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Any other drug use</td>
<td>7.3%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Drinking to intoxication</td>
<td>12.3%</td>
<td>33.3%*</td>
</tr>
</tbody>
</table>

* p<.05  **p<.01  *** p<.001

To isolate the effects of BTC, multivariate logistic regression was used to test the hypothesis that BTC participants were less likely than the comparison sample to report drug use on the follow-up interview. The independent variables in the models include: 1) BTC participation, 2) any use of heroin prior to entry into the sample, 3) age at baseline, 4) any arrest in past five years prior to the current arrest, 5) employed at baseline, and 6) number of children (see the Glossary for definitions of the variables).

For comparisons with the sample that received the follow-up interview, total number of days in the last 30 in a controlled environment (to measure exposure, i.e. the opportunity to use drugs) were also included. In the month before the interview, the BTC sample reported an average of about three days in a controlled environment, one in jail and two in a residential drug treatment program, and less than one in another controlled environment such as a hospital. During the same period, the comparison group reported about eight days in a controlled environment, four in jail and between three and four in a residential drug treatment program, and less than one day in another controlled environment. Overall, during the month before the interview, the percentage reporting any time in a controlled environment was 50 percent for the comparison group and 21 percent for the BTC group (24 percent were still active in BTC).

The significance of the odds ratios in Table 4.2 shows a significant relationship between BTC enrollment and reduced (self-reported) use of drugs in the 30 days prior to the follow-up interview on four of the five measures: 1) any drug use, 2) any ‘serious’ drug use (including cocaine/crack and heroin), 3) any ‘other’ drug use (including amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants), and 4) any use...
of alcohol to intoxication. The prevalence of past month marijuana use was too low for estimation.

Table 4.2. Logistic Regression (Odds Ratios) Predicting Self-Reported Drug Use in 30 Days Prior to Follow-up (n=136)

<table>
<thead>
<tr>
<th></th>
<th>Any drug use last 30 days</th>
<th>Any stronger drug use last 30 days</th>
<th>Any other drug use last 30 days</th>
<th>Used alcohol to intoxication last 30 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment</td>
<td>0.16**</td>
<td>0.19*</td>
<td>0.16**</td>
<td>0.12*</td>
</tr>
<tr>
<td>(1=BTC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any arrest last 5 years</td>
<td>1.63</td>
<td>2.32</td>
<td>0.84</td>
<td>2.28</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>0.59*</td>
<td>0.59</td>
<td>0.83</td>
<td>0.99</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.83</td>
<td>0.84</td>
<td>0.88</td>
<td>1.12</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>0.51</td>
<td>0.71</td>
<td>0.98</td>
<td>0.48*</td>
</tr>
<tr>
<td>Days in controlled environment in 30 days before follow-up</td>
<td>0.91*</td>
<td>0.88</td>
<td>0.94</td>
<td>0.88</td>
</tr>
<tr>
<td>Age at baseline</td>
<td>1.10*</td>
<td>1.08</td>
<td>1.07</td>
<td>0.97</td>
</tr>
</tbody>
</table>

p< .05. ** p<.01 *** p<.001

The odds ratios reported above show that BTC sample members were far less likely than comparison group members to report drug use at follow-up. One way of describing the results is to convert these parameter estimates into predicted probabilities (see Long 1997) that show the likelihood of drug use, holding all variables except BTC treatment at their means. These probabilities represent the “average” effect of BTC on drug use, if all other variables were the same.8 Presented this way (see Figure 4.1), the predicted probability of any drug use in the 30 days before follow-up is 42 percent for the comparison group and 11 percent for the BTC sample. Similarly, the predicted probability of any serious drug use in the 30 days before follow-up is 20 percent for the comparison group and 7 percent for the BTC group. For any other drug use in the 30 days before follow-up the predicted probability is 15 percent for the comparison group and 2 percent for the BTC sample, while the probability of drinking to intoxication in the 30 days before follow-up is 16 percent for the comparison group and 3 percent for the BTC sample.

8 Throughout this report parameter estimates are converted into predicted probabilities when significant differences emerge. These predicted probabilities should be interpreted in the manner given in the above example.
The multivariate models testing the significance of differences in drug use in the six months before the follow-up, shown in Table 4.3, were not significant.

**Table 4.3.**

Logistic Regression (Odds Ratios) Predicting Self-Reported Drug and Alcohol Use in Six Months Prior to Follow-up (n=136) \(^1\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Any drug use last 6 months (^1)</th>
<th>Any stronger drug use last 6 months (^1)</th>
<th>Any marijuana use last 6 months (^1)</th>
<th>Any other drug use last 6 months (^1)</th>
<th>Used alcohol to intoxication last 6 months (^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment (1=BTC)</td>
<td>0.46</td>
<td>0.32*</td>
<td>1.15</td>
<td>0.22*</td>
<td>0.35</td>
</tr>
<tr>
<td>Any arrest last 5 years</td>
<td>1.39</td>
<td>2.05</td>
<td>0.47</td>
<td>0.77</td>
<td>1.26</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>1.06</td>
<td>0.54</td>
<td>1.74</td>
<td>1.66</td>
<td>0.87</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.97</td>
<td>0.95</td>
<td>0.87</td>
<td>1.04</td>
<td>0.99</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>1.95</td>
<td>1.88</td>
<td>0.42</td>
<td>4.80</td>
<td>0.20*</td>
</tr>
<tr>
<td>Days in controlled environment in 30 days before follow-up</td>
<td>0.97</td>
<td>0.95</td>
<td>1.01</td>
<td>0.98</td>
<td>0.96</td>
</tr>
<tr>
<td>Age</td>
<td>1.02</td>
<td>1.00</td>
<td>0.98</td>
<td>1.06</td>
<td>1.01</td>
</tr>
</tbody>
</table>

\(^1\)Model fit was not significant.
In addition to self-reported drug use, defendants were asked about the extent to which they experienced problems resulting from their use of drugs and alcohol, and the amount of money that they had spent on drugs and alcohol in the 30 days prior to follow-up. The comparison group reported being significantly more troubled by problems with alcohol than BTC participants, in both the bi-variate models present in Table 4.4, and in multivariate models controlling for other factors (p<.05). Other differences between the two samples, while appearing large, are not statistically significant.

Table 4.4.
Self-Reported Problems Resulting From Drug Use in the 30 Days Prior to Follow-up (group means)

<table>
<thead>
<tr>
<th></th>
<th>BTC (n=110)</th>
<th>Comparison (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days experiencing alcohol problems</td>
<td>0.29</td>
<td>1.61</td>
</tr>
<tr>
<td>Money spent on alcohol</td>
<td>$1.80</td>
<td>$5.55</td>
</tr>
<tr>
<td>Troubled by alcohol problems</td>
<td>5.4%</td>
<td>22.6%*</td>
</tr>
<tr>
<td>Number of days experiencing drug problems</td>
<td>2.33</td>
<td>2.19</td>
</tr>
<tr>
<td>Money spent on drugs</td>
<td>$41.1</td>
<td>$52.9</td>
</tr>
<tr>
<td>Troubled by drug problems</td>
<td>22.5%</td>
<td>38.7%</td>
</tr>
</tbody>
</table>

*Reductions in Criminal Activity*

One of the key premises of the drug courts is that criminal activity will decline if drug dependent offenders receive appropriate treatment. The following analysis utilizes official arrest and self-report data to test the hypothesis that BTC reduced continued criminal activity. The analysis also assesses whether BTC reduced the likelihood of any recidivism, and whether BTC reduced the number of offenses committed in both the official and self-report data.

In order to test whether BTC reduced criminal offending, respondents at follow-up were queried about the number of times they had committed 14 types of offenses in the 30 days and in the 6 months prior to the follow-up interview. Their answers were combined across offenses to form the following variables in each time frame (any offense, number of offenses, any drug offense). The percentage of the samples reporting any offenses and the number of offenses is shown in Table 4.5. In every category except the total number of offenses in the past six months, the BTC sample members were significantly less likely to report crime and reported significantly fewer offenses than the comparison sample.

9 The fourteen types of offenses were: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses.
Table 4.5.
The Percentage Reporting Criminal Behavior on the Follow-up Survey (n=131)

<table>
<thead>
<tr>
<th>Crimes Committed Prior to Follow-up</th>
<th>BTC (n=110)</th>
<th>Comparison (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In the Past 30 Days</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any criminal offense</td>
<td>1.9%</td>
<td>15.4%***</td>
</tr>
<tr>
<td>Number of criminal offenses</td>
<td>0.43</td>
<td>1.76***</td>
</tr>
<tr>
<td>Any drug offense</td>
<td>0</td>
<td>11.5%***</td>
</tr>
<tr>
<td><strong>In the Past 6 Months</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any criminal offense</td>
<td>14.8%</td>
<td>46.2%***</td>
</tr>
<tr>
<td>Number of criminal offenses</td>
<td>1.47</td>
<td>3.85</td>
</tr>
<tr>
<td>Any drug offense</td>
<td>8.5%</td>
<td>34.6%***</td>
</tr>
</tbody>
</table>

* p<.05   **p<.01  *** p<.001

Table 4.6 displays the odds ratios and their significance resulting from multivariate logistic regression models that controlled for group differences. The models are limited to offending in the six months before the follow-up because the BTC group reported so few offenses. The results show that the BTC sample members were significantly less likely (29 percent as likely) than the comparison group to report either any criminal offense in the past six months or any drug offense in the last six months.

Table 4.6.
Logistic Regression (Odds ratios) Predicting Self-Reported Offending Prior to Follow-up (n=131)

<table>
<thead>
<tr>
<th></th>
<th>Any criminal offense (last 6 months)</th>
<th>Any drug offense (last 6 months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment (1=BTC)</td>
<td>0.29*</td>
<td>0.29*</td>
</tr>
<tr>
<td>Any arrest last 5 years</td>
<td>0.90</td>
<td>1.02</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>0.34</td>
<td>0.60</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.87</td>
<td>0.75</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>0.27*</td>
<td>0.24*</td>
</tr>
<tr>
<td>Age</td>
<td>0.95</td>
<td>1.01</td>
</tr>
</tbody>
</table>

* p<.05   **p<.01  *** p<.001
The analysis of BTC effects on criminal behavior then examined the official arrest records available for the full BTC and comparison samples. Official records were used to measure officially detected re-offending. The advantage to this indicator is that re-arrests are not subject to the reporting bias introduced by respondents hoping to make a good impression on the survey. On the other hand, arrest records suffer from well-documented problems, including errors in data entry, limitations in reporting jurisdictions, and shifts in enforcement policy. They do provide, however, an independent indicator of the impact of BTC on criminal offending. The measures of arrest include: 1) days to first arrest, 2) any arrest in the first year and the first two years after program entry, and 3) number of re-arrests in these time periods.

The bivariate analysis of differences in rearrest by group is shown in Table 4.7. None of the differences in Table 4.7 in either prevalence or incidence of re-arrest between the two groups in any of the post-program periods were significant at p<.05. However, except for days to first re-arrest, all of the differences were significant at p<.10. In addition, the BTC group was less likely to be re-arrested, and had fewer arrests, in every period.

Table 4.7.
Re-arrests by Group and Time Period

<table>
<thead>
<tr>
<th></th>
<th>BTC</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=283)</td>
<td>(n=114)</td>
</tr>
<tr>
<td>Any arrest post sample entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in first year</td>
<td>19.1%</td>
<td>25.4%</td>
</tr>
<tr>
<td>in two years</td>
<td>28.6%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Number of arrests post sample entry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in first year</td>
<td>0.28</td>
<td>0.40</td>
</tr>
<tr>
<td>in two years</td>
<td>0.60</td>
<td>0.83</td>
</tr>
<tr>
<td>Average days to first arrest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(if at least one arrest)</td>
<td>255.6</td>
<td>240.6</td>
</tr>
</tbody>
</table>

* p<.05   **p<.01   *** p<.001

The timing of arrests is illustrated by the bar chart below, showing the percentage of each group arrested by quarter following sample entry, controlling for group differences. With the exception of one quarter, the sixth quarter, the likelihood of arrest was consistently higher for the comparison group.
Logistic regression models were used to test the hypothesis that BTC sample members were less likely to be arrested in the first year or in the first two years after sample entry, controlling for group differences and any arrest in the five years before sample entry. For this analysis, the number of days in jail or prison was used to control for the time which sample members were not at large and able to commit new offenses. The estimates of jail time were based on criminal history records that specified the date of a sentence and the expected number of days of incarceration. The sentences included those related to the offense that brought them into the sample and those for subsequent offenses. Days in jail due to BTC sanctions were not included. The records indicated that the BTC sample had 71 days in jail for reasons other than a BTC sanction during the first two years (35 in the first year and 36 in the second), while the comparison group had 74 days in jail (28 in the first year and 45 in the second). Overall, during the first two years, the percentage who spent time in prison or jail due to a sentence was 44 percent for the comparison group and 56 percent for the BTC group (17 percent were still active in BTC).

The results, show that the BTC group was significantly less likely to be arrested in the first year after entry after controlling for group differences on the powerful predictors of age and prior use of heroin, and number of days in jail during the two years (Table 4.8). Differences in the two groups in re-arrest prevalence in the two years after sample entry were significant at p<.10.
Table 4.8.
**Logistic Regression (Odds Ratios) Predicting Arrest Following Sample Entry (n=397)**

<table>
<thead>
<tr>
<th></th>
<th>Any official arrest in 1st year post-entry</th>
<th>Any official arrest in 2 years post-entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment (1=BTC)</td>
<td>0.52*</td>
<td>0.66</td>
</tr>
<tr>
<td>Any arrest in 5 years before entry</td>
<td>0.57</td>
<td>0.48*</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>0.89</td>
<td>0.77</td>
</tr>
<tr>
<td>Number of children</td>
<td>1.08</td>
<td>1.07</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>2.44</td>
<td>1.29</td>
</tr>
<tr>
<td>Number of days in jail in follow-up period</td>
<td>2.44</td>
<td>1.29</td>
</tr>
<tr>
<td>Age</td>
<td>1.01***</td>
<td>1.01***</td>
</tr>
</tbody>
</table>

* p< .05. ** p<.01  *** p<.001

The analysis then tested the hypothesis that BTC sample members had fewer arrests than those in the comparison sample, using log negative binomial regressions to model these counts. Again, control variables used in these models include number of prior arrests and other variables identified as controls for possible selection bias. The results in Table 4.9 show significant differences in the number of arrests between the two groups after controlling for other variables at p<.05 for both periods.

Table 4.9.
**Negative Binomial Regression Predicting Number of Post-Enrollment Arrests (n=397)**

<table>
<thead>
<tr>
<th></th>
<th>Number of arrests in 1st year post-entry</th>
<th>Number of arrests in 2 years post-entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment (1=BTC)</td>
<td>-0.60*</td>
<td>-0.48*</td>
</tr>
<tr>
<td></td>
<td>(4.60)</td>
<td>(3.34)</td>
</tr>
<tr>
<td>Any arrest in 5 years before entry</td>
<td>-0.48</td>
<td>-0.73**</td>
</tr>
<tr>
<td></td>
<td>(2.56)</td>
<td>(7.81)</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>-0.01</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.09</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>(3.21)</td>
<td>(1.29)</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>0.67</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>(1.97)</td>
<td>(0.39)</td>
</tr>
<tr>
<td>Days in controlled environment in follow-up period</td>
<td>0.01*</td>
<td>0.01***</td>
</tr>
<tr>
<td></td>
<td>(6.40)</td>
<td>(12.55)</td>
</tr>
<tr>
<td>Age at baseline</td>
<td>-0.04</td>
<td>-0.04**</td>
</tr>
<tr>
<td></td>
<td>(3.70)</td>
<td>(7.04)</td>
</tr>
</tbody>
</table>

Chi-square ratio’s are reported in parentheses below the parameter estimates.
* p< .05. ** p<.01  *** p<.001
The predicted probability of any official arrest in the year after entry into the sample is 23% for the comparison group and 16% for the BTC sample (Figure 4.3). The predicted probability of any official arrest in the two years after entry into the sample is 33% for the comparison group and 26% for the BTC sample. From self-report data, the probability of any self-reported offending in the six months prior to follow-up was 48% for the comparison group and 13% for the BTC sample, while the self-reported probability of any drug offenses was 34% for the comparison group and 7% for the BTC group.

![Figure 4.3. Predicted differences between BTC and comparison samples on criminal offending, at the mean value of other variables in the model](image)

The final official records recidivism data tested was that of the number of days to first arrest, as a function of group assignment. The mean time for re-arrest for those re-arrested in the comparison group was 216 days, with a median time to re-arrest of 158 days. For the BTC group, the mean time to re-arrest was 270 days, with a median time to re-arrest of 206 days. Exhibit 4.4 shows the relative rate at which members of each group ‘survived’ in the program (e.g. were not re-arrested) without controlling for group differences.
A number of approaches were used to measure differences in the days to first re-arrest. Using Cox proportional hazards models that controlled for group differences, days before the first re-arrest that were spent in a controlled environment (jail or prison), and other predictors described earlier. Table 4.10 presents the results of models predicting the number of days sample members were in the community and at risk before the first re-arrest. The proportional hazards model show a significant reduction in time to re-arrest for the treatment group, with the BTC group estimated to have about 69 percent of the risk to the comparison group (the risk ratio). To confirm this result, the model was also run predicting days to first re-arrest, controlling for days at risk. The models again showed a risk ratio of about 69 percent.

10 The number of days in a controlled environment other than a correctional setting, such as a residential treatment facility were not available for the comparison group. However, results from the survey sample suggest that the comparison group spent more time in a controlled treatment environment than the BTC group (see page 30), suggesting that differences between the two groups would tend to mediate any treatment effect.
Table 4.10.
Proportional Hazards Model of Days to First Re-Arrest (n=387)\(^1\):
Parameter Estimates (Risk Ratios)

<table>
<thead>
<tr>
<th>Days to First Re-arrest</th>
<th>Days to First Re-arrest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group assignment (1=BTC)</td>
<td>-0.37* (0.69)</td>
</tr>
<tr>
<td>Any arrest last 5 years</td>
<td>-0.66** (0.52)</td>
</tr>
<tr>
<td>Employed at baseline</td>
<td>-0.17 (0.85)</td>
</tr>
<tr>
<td>Number of children</td>
<td>0.06 (1.06)</td>
</tr>
<tr>
<td>Any prior heroin use</td>
<td>-0.05*** (0.95)</td>
</tr>
<tr>
<td>Age at baseline</td>
<td>0.47 (1.59)</td>
</tr>
</tbody>
</table>

\(^1\)Ten observations were deleted due to missing data for explanatory variables.
* p<.05.  ** p<.01  *** p<.001

Improvements in Employment, Social Adjustment, and Health

Reductions in drug use are expected to be associated with reductions in problems in other areas. On the follow-up questionnaire, sample members were asked how many days they had employment or health problems in the past 30 days and whether they were troubled by these problems and if they had any problems getting along with family members or friends. Table 4.11 describes differences between the BTC and comparison groups. There were no significant differences between the groups on these outcomes, a finding confirmed by multivariate analysis controlling for group differences (not shown).

Table 4.11.
Self-Reported Problems in the 30 Days Prior to Follow-up (group means)

<table>
<thead>
<tr>
<th>BTC (n=110)</th>
<th>Comparison (n=26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days experiencing employment problems</td>
<td>6.0</td>
</tr>
<tr>
<td>Troubled by employment problems</td>
<td>28.1%</td>
</tr>
<tr>
<td>Experienced problems with family</td>
<td>13.5%</td>
</tr>
<tr>
<td>Experienced problems with peers</td>
<td>2.7%</td>
</tr>
<tr>
<td>Number of days experiencing psychiatric problems</td>
<td>3.9</td>
</tr>
<tr>
<td>Troubled by psychiatric problems</td>
<td>27.9%</td>
</tr>
<tr>
<td>Number of days experiencing medical problems</td>
<td>5.5</td>
</tr>
<tr>
<td>Troubled by medical problems</td>
<td>36.0%</td>
</tr>
</tbody>
</table>

* p<.05  **p<.01  ***p<.001
Overview

The results of the evaluation of the Brooklyn Treatment Court indicate that BTC provided substantial drug treatment and supervision for severely addicted women facing drug felony charges and that the program resulted in significant improvements in the level of drug use and re-offending among program participants. Using high professional standards for treatment in general, and drug courts in particular, BTC’s implementation of the model and provision of treatment was outstanding. The Brooklyn Treatment Court did an exceptional job of meeting standards for effective treatment outlined by NIDA, as well as the model drug court principles outlined by NADCP. Clients in the program had substantial criminal justice oversight while receiving drug treatment directed by case managers and the court that were intended to meet their particular needs. The court demonstrated an understanding of the unique needs of drug-addicted offenders by responding to their successes and relapses with a graduated program of sanctions and incentives. In general, the few weaknesses in the courts programming appear to be a function of early failures to engage a high-risk set of clients, rather than systematic mistakes in governing this population.

BTC was found to result in reduced likelihood of self-reported use of drugs in the 30 days prior to the follow-up interview on three of the five measures: 1) any drug use, 2) any stronger drug use, 3) any "other" drug use (including amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants), and 4) any use of alcohol to intoxication. BTC also reduced the likelihood that the sample member would report problems with alcohol in the 30 days before the follow-up interview.

BTC was found to reduce crime as measured by: 1) the likelihood of self-reported criminal offending in the six months before the follow-up interview, 2) the likelihood of self-reported drug offending in the six months before the follow-up interview, 3) the likelihood of arrest in the year after sample entry, 4) the number of arrests in the first year post-entry, 5) the number of arrests in the first two years post-entry, and 6) the days to first arrest. The analysis did not find improvements in self-report measures of economic well-being and health following participation in BTC.

One somewhat surprising finding was that BTC did not significantly reduce the use of jail or prison beds. During the first two years, the BTC sample was significantly more likely to have a sentence involving incarceration imposed on them (56\% compared to 44\%, p<.05). In addition, the BTC group averaged about a week in jail on sanctions and those BTC sample members still in the program at the end of two years
(16 percent of the sample) still faced the risk of future incarceration on their original charge.

The impact evaluation encountered significant difficulties in implementation. Recruiting was more difficult than anticipated; survey attrition was high; and the final sample sizes are small. Extensive analysis of potential selection and attrition bias indicated, however, that at baseline the BTC sample was characterized by more severe problems than the comparison sample which would be expected to produce underestimates, not overestimates, of treatment effect. Because the samples were small and multiple control variables were included in the sample, the statistical power of the analysis was limited and only very large effects could be detected.

In addition, treatment group members were significantly more likely to be in treatment at the time of the follow-up interview. Therefore, the interview sample over-represents defendants who would have been less likely to be re-arrested because of their status. While the study controls for the number of days defendants were in a controlled environment prior to follow-up, the significant differences in treatment status may contribute to the observed differences.

For the full sample, no data was available to determine how many days defendants in the comparison group were on the street during the evaluation period. As some members of the comparison group were likely sentenced and incarcerated during some or all of this period, our analysis will underestimate differences due to the differences in opportunities to commit crime. Further analysis will attempt to address these differences.

Nonetheless, the analysis consistently found significant differences in the predicted direction. Therefore, despite the limitations of the study we have some confidence that BTC was effective in reducing drug use and crime, particularly during the period where defendants remained in the program.
References


GLOSSARY OF RESEARCH VARIABLES

Alcohol and Drug Use – Self-report

Any lifetime drug use. This variable indicates the self-reported consumption of any kind of illegal drug (heroin, other opiates, cocaine, marijuana, amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) at any time before arrest. Responses were coded as 0 = no and 1 = yes. The mean was 1.00 for those in the comparison group, and 1.00 for those in the treatment group.

Any drug use during month before arrest. This variable indicates the self-reported consumption of any kind of illegal drug (heroin, other opiates, cocaine, marijuana, amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) during the month before arrest. Responses were coded as 0 = no and 1 = yes. The mean was 0.58 for those in the comparison group, and 0.55 for those in the treatment group.

Any drug use during the month before follow-up. This variable indicates the self-reported consumption of any kind of illegal drug (heroin, other opiates, cocaine, marijuana, amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.42 for those in the comparison group and 0.14 for those in the treatment group.

Any drug use during the six months before follow-up. This variable indicates the self-reported consumption of any kind of illegal drug (heroin, other opiates, cocaine, marijuana, amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.48 for those in the comparison group and 0.34 for those in the treatment group.

Any lifetime serious drug use. This variable indicates the self-reported consumption of any kind of serious illegal drug (heroin, other opiates, and cocaine) at any time before arrest. Responses were coded as 0 = no and 1 = yes. The mean was 1.00 for those in the comparison group and 1.00 for those in the treatment group.

Any serious use during the month before follow-up. This variable indicates the self-reported consumption of any kind of serious illegal drug (heroin, other opiates, and cocaine) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.23 for those in the comparison group and 0.09 for those in the treatment group.

Any serious use during the six months before follow-up. This variable indicates the self-reported consumption of any kind of serious illegal drug (heroin, other opiates, and cocaine) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.30 for those in the comparison group, and 0.25 for those in the treatment group.

Any other drug use during the month before follow-up. This variable indicates the self-reported consumption of any kind of illegal drug (amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.16 for those in the comparison group and 0.07 for those in the treatment group.

Any other drug use during the six months before follow-up. This variable indicates the self-reported consumption of any kind of illegal drug (amphetamines, barbiturates, other sedatives, hallucinogens, and inhalants) during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1 = yes. The mean was 0.16 for those in the comparison group and 0.04 for those in the treatment group.

Any marijuana use during the six months before follow-up. This variable indicates the self-reported consumption of marijuana during the month before the follow-up interview was administered. Responses
were coded as 0 = no and 1= yes. The mean was 0.20 for those in the comparison group and 0.07 for those in the treatment group.

**Any marijuana use during the month before follow-up.** This variable indicates the self-reported consumption of marijuana during the month before the follow-up interview was administered. Responses were coded as 0 = no and 1= yes. The mean was 0.13 for those in the comparison group and 0.04 for those in the treatment group.

**Any lifetime heroin use.** This variable indicates the self-reported consumption of any kind of heroin use (heroin or other opiates) at any time before arrest. Responses were coded as 0 = no and 1= yes. The mean was 0.48 for those in the comparison group and 0.71 for those in the treatment group.

**Any lifetime cocaine use.** This variable indicates the self-reported consumption of any kind of serious illegal drug (cocaine or crack) at any time before arrest. Responses were coded as 0 = no and 1= yes. The mean was 0.83 for those in the comparison group and 0.70 for those in the treatment group.

**Number of days experiencing alcohol problems in the month before follow-up.** This variable indicates the number of days the defendant reported experiencing any problems with alcohol in the 30 days before the follow-up interview. The mean for the comparison group was 1.60. The mean for the treatment group was 0.29.

**Number of days experiencing drug problems in the month before follow-up.** This variable indicates the number of days the defendant reported experiencing any problems with drugs in the 30 days before the follow-up interview. The mean for the comparison group was 2.20. The mean for the treatment group was 2.33.

**Amount spent on alcohol in the month before follow-up.** This variable indicates the number of days the defendant reported spending on alcohol in the 30 days before the follow-up interview. The mean for the comparison group was $5.54. The mean for the treatment group was $1.80.

**Amount spent on drugs in the month before follow-up.** This variable indicates the number of days the defendant reported spending on drugs in the 30 days before the follow-up interview. The mean for the comparison group was $52.94. The mean for the treatment group was $41.14.

**Criminal Justice Contact – Official Records**

**Number of arrests prior to program entry.** This variable indicates the number of arrests prior to sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 2.80. The mean for the treatment group was 3.50.

**Any arrest prior to program entry.** This variable indicates whether the defendant was ever arrested prior to sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.12. The mean for the treatment group was 0.31.

**Number of days on the Street to First Arrest.** This variable indicates the number of days the defendant was on the street to first arrest, and includes only those who were re-arrested. The mean for the comparison group was 225 days. The mean for the treatment group was 254 days.

**Any arrest after sentencing.** This variable indicates whether any arrests occurred in the two years following sample entry. Data were collected from DCJS official crime records. Crimes included:
shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses;
burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter;
prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.33. The
mean for the treatment group was 0.30.

**Number of arrests after sentencing.** This variable indicates the number of arrests occurring in the two
years following sample entry. Data were collected from DCJS official crime records. Crimes included:
shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses;
burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter;
prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.33. The
mean for the treatment group was 0.30.

**Any arrest in the first year after sentencing.** This variable indicates whether any arrests occurred in the
first year following sample entry. Data were collected from DCJS official crime records. Crimes included:
shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses;
burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter;
prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.33. The
mean for the treatment group was 0.30.

**Number of arrests in the first year after sentencing.** This variable indicates the number of arrests occurring in the first year following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.40. The mean for the treatment group was 0.31.

**Any arrest in the second year after sentencing.** This variable indicates whether any arrests occurred in the second year following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.33. The mean for the treatment group was 0.30.

**Number of arrest in the second year after sentencing.** This variable indicates the number of arrests occurring in the second year following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.36. The mean for the treatment group was 0.27.

**Any arrest in the first quarter after sentencing.** This variable indicates whether any arrests occurred in the first three months following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.12. The mean for the treatment group was 0.10.

**Any arrest in the second quarter after sentencing.** This variable indicates whether any arrests occurred in the months four through six following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.07. The mean for the treatment group was 0.05.

**Any arrest in the third quarter after sentencing.** This variable indicates whether any arrests occurred in the months seven through nine following sample entry. Data were collected from DCJS official crime records.
Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.05. The mean for the treatment group was 0.05.

**Any arrest in the fourth quarter after sentencing.** This variable indicates whether any arrests occurred in months ten and twelve following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.07. The mean for the treatment group was 0.05.

**Any arrest in the fifth quarter after sentencing.** This variable indicates whether any arrests occurred in months thirteen through fifteen following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.11. The mean for the treatment group was 0.05.

**Any arrest in the sixth quarter after sentencing.** This variable indicates whether any arrests occurred in months sixteen through eighteen following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.05. The mean for the treatment group was 0.08.

**Any arrest in the seventh quarter after sentencing.** This variable indicates whether any arrests occurred in months nineteen through months twenty-one following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.07. The mean for the treatment group was 0.04.

**Any arrest in the eighth quarter after sentencing.** This variable indicates whether any arrests occurred in months twenty-two through twenty-four following sample entry. Data were collected from DCJS official crime records. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.07. The mean for the treatment group was 0.06.

**Criminal Justice Contact – Self-Report**

**Any criminal offense in six months prior to follow-up.** This variable indicates whether the defendant committed any crimes in the six months prior to follow-up. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.35. The mean for the treatment group was 0.15.

**Any criminal offense in the 30 days prior to follow-up.** This variable indicates whether the defendant committed any crimes in the 30 days prior to follow-up. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.19. The mean for the treatment group was 0.06.
Any drug offense in six months prior to follow-up. This variable indicates whether the defendant committed any drug crimes in the six months prior to follow-up. The mean for the comparison group was 0.12. The mean for the treatment group was 0.08.

Any drug offense in the 30 days prior to follow-up. This variable indicates whether the defendant committed any crimes in the 30 days prior to follow-up. The mean for the comparison group was 0.00. The mean for the treatment group was 0.00.

Committed any criminal offense prior to arrest. This variable indicates whether the defendant committed any crimes prior to sample entry. Crimes included: shoplifting or vandalism; parole or probation violations; drug offenses; forgery; weapons offenses; burglary, larceny, or breaking and entering; robbery; assault; arson; rape; homicide or manslaughter; prostitution; contempt of court; and any other offenses. The mean for the comparison group was 0.54. The mean for the treatment group was 0.86.

Committed any drug offense prior to arrest. This variable indicates whether the defendant committed any drug offenses prior to sample entry. The mean for the comparison group was 0.51. The mean for the treatment group was 0.31.

Total time served prior to arrest. This variable indicates the total amount of time served in jail or prison prior to entry into the sample. The mean for the comparison group was 165 days. The mean for the treatment group was 103 days.

Number of prior treatment episodes. This variable indicates the total number of prior treatment episodes the defendant had experienced (entered or completed) prior to entry into the sample. The mean for the comparison group was 1.07. The mean for the treatment group was 0.98.

In treatment at program entry. This variable indicates whether the defendant was in treatment at the time of entry into the sample. The mean for the comparison group was 0.33. The mean for the treatment group was 0.37.

Demographics

Age at start of case. This variable indicates the defendant’s age at the time of arrest. The mean age for the comparison group was 36.0. The mean age for the treatment group was 35.3.

Employed at baseline. This variable indicates whether a defendant was employed at the time of intake. Responses were coded as 1= yes and 0 = no. The mean was 0.17 for the comparison group and 0.10 for the treatment group.

Number of children. The mean number of children at intake was 1.86 for the comparison group and 2.58 for the treatment group.

Number of children at home. The mean number of children living with the defendant’s at intake was 0.52 for the comparison group and 0.57 for the treatment group.

Pregnant at intake. This variable indicates whether a defendant was pregnant at the time of intake. Responses were coded as 1= yes and 0 = no. The mean was 0.00 for the comparison group and 0.03 for the treatment group.

Race. The percentage of African-American defendants was 0.67 for the comparison group and 0.70 for the treatment group.
Usual Living Arrangement at follow-up. This variable indicates the number of days a defendant was living in a controlled environment (in jail or in a residential treatment facility) at the time of the follow-up interview. Responses were coded as 1 = yes and 0 = no. The mean was 2.2 for the comparison group and 7.9 for the treatment group.

Employment, Social Adjustment and Health

Number of days paid for working in the month before follow-up. This variable indicates the number of days the defendant reported being paid for working in the 30 days before the follow-up interview. The mean for the comparison group was 2.59. The mean for the treatment group was 1.79.

Number of days paid for working in the six months before follow-up. This variable indicates the number of days the defendant reported being paid for working in the 30 days before the follow-up interview. The mean for the comparison group was 7.61. The mean for the treatment group was 2.74.

Number of days experiencing employment problems in the month before follow-up. This variable indicates the number of days the defendant reported experiencing any employment problems in the 30 days before the follow-up interview. The mean for the comparison group was 8.00. The mean for the treatment group was 6.01.

Number of days experiencing medical problems in the month before follow-up. This variable indicates the number of days the defendant reported experiencing any medical problems in the 30 days before the follow-up interview. The mean for the comparison group was 4.26. The mean for the treatment group was 5.46.

Number of days experiencing psychiatric problems in the month before follow-up. This variable indicates the number of days the defendant reported experiencing any psychiatric problems in the 30 days before the follow-up interview. The mean for the comparison group was 5.70. The mean for the treatment group was 3.89.

Any serious psychiatric problems in the month before follow-up. This variable indicates whether the defendant reported experiencing any serious psychiatric problems in the 30 days before the follow-up interview. The mean for the comparison group was 0.50. The mean for the treatment group was 0.39.

Any peer problems in the month before follow-up. This variable indicates whether the defendant reported experiencing any serious conflicts with people (excluding family) in the 30 days before the follow-up interview. The mean for the comparison group was 0.06. The mean for the treatment group was 0.03.

Any family problems in the month before follow-up. This variable indicates whether the defendant reported experiencing any serious conflicts with their family in the 30 days before the follow-up interview. The mean for the comparison group was 0.23. The mean for the treatment group was 0.14.

Any serious problems in the month before follow-up. This variable indicates whether the defendant reported experiencing any serious conflicts with their family or with other people in the 30 days before the follow-up interview. The mean for the comparison group was 0.23. The mean for the treatment group was 0.14.
**Appendix A**  
**Drug Testing Protocol**

### BAND 6 (RESIDENTIAL)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random/upon suspicion - 1x/month</td>
<td>7x / week</td>
<td>1x / month</td>
<td>1x / month</td>
</tr>
</tbody>
</table>

### BAND 5 (DAY TREATMENT)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x / week</td>
<td>5x / week</td>
<td>1x / month</td>
<td>1x / 2 weeks</td>
</tr>
</tbody>
</table>

### BAND 4 (OUTPATIENT 3)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x / week</td>
<td>3x / week</td>
<td>1x / month</td>
<td>1x / 2 weeks</td>
</tr>
</tbody>
</table>

### BAND 3 (OUTPATIENT 2)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x / week</td>
<td>2x / week</td>
<td>1x / month</td>
<td>1x / 2 weeks</td>
</tr>
</tbody>
</table>

### BAND 2 (OUTPATIENT 1)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x / week</td>
<td>1x / week</td>
<td>1x / month</td>
<td>1x / month</td>
</tr>
</tbody>
</table>

### BAND 1 (OUTPATIENT)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random</td>
<td>1x / week</td>
<td>1x / 6 weeks</td>
<td>1x / month</td>
</tr>
</tbody>
</table>

### BAND M (METHADONE To ABSTINENCE)

<table>
<thead>
<tr>
<th>Urine Testing</th>
<th>Program Attendance</th>
<th>Court Hearings</th>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x / week</td>
<td>5x / week</td>
<td>1x / month</td>
<td>1x / week</td>
</tr>
</tbody>
</table>
Appendix B
Consent Forms

TREATMENT GROUP

Hello, my name is ____________________ and I represent Research Triangle Institute (RTI), a not-for-profit research firm. I am calling (here) to ask you to participate in a study of the court services for female defendants in Brooklyn. The study will determine whether providing assistance to women entering the courts with health and social services needs helps reduce their medical and social problems and the likelihood of future illegal behavior.

As a study participant, you will be asked to complete a 45-minute interview. You will receive $25 for completing this interview. The interview includes questions about your history with drug and alcohol use and any treatment you have received for drug or alcohol abuse, your past involvement with illegal activities and the justice system, your education and employment history, and your family relationships.

In addition, information will be collected for research purposes about you from the courts. This may include information on hearings, services received, violations of conditions of probation/parole, disciplinary actions, and contacts with the justice system. If you are participating in court-monitored drug treatment or receive health or social services through the courts, information on your participation in these services will also be collected.

Everything you report in the interview and all information collected from court records will be kept in strictest confidence. Everyone who works on this study has signed a Pledge of Confidentiality requiring them not to reveal to anyone outside the research team anything you tell me during the interview. The only exception is, if you tell the interviewer about your intention to harm yourself or commit a specific crime against someone else it may have to be reported.

Participation in this research is strictly voluntary. Your decision on participating will not affect the way your case is handled or any of the services you will receive. You can refuse to answer any questions or stop the interview at any time. Do you have any questions?

For telephone consents: Do you agree to participate in the study? Yes            No

For in-person consents: I am signing this form to show that I have read the information to you and have promised confidentiality. Then, I would like you to sign the form to show that I have explained this information to you and that you agree to be interviewed.

___________________________________________________
Interviewer’s Signature and Date

I consent to participate in this study. I understand that my participation is voluntary and will not affect how my case is handled or the services I receive. I understand that I can stop participating at any time or refuse to answer any specific questions in the interview.

Name ___________________________________________________________
Signature __________________________________ Date ______________________
Social Security Number __________________________ Date of Birth____________
Hello, my name is _______________ and I represent Research Triangle Institute (RTI), a not-for-profit research firm. I am calling (here) to ask you to participate in a study of the court services for female defendants in Brooklyn. The study will determine whether providing assistance to women entering the courts with health and social services needs helps reduce their medical and social problems and the likelihood of future illegal behavior.

As a study participant, you will be asked to complete two interviews, a 40-minute interview now and 45-minute interview a year from now. You will receive $25 for completing each of these interviews. The interviews include questions about your history with drug and alcohol use and any treatment you have received for drug or alcohol abuse, your past involvement with illegal activities and the justice system, your education and employment history, and your family relationships.

In addition, information will be collected for research purposes about you from the courts. This may include information on hearings, services received, violations of conditions of probation/parole, disciplinary actions, and contacts with the justice system. If you are participating in court-monitored drug treatment or receive health or social services through the courts, information on your participation in these services will also be collected.

Everything you report in the interviews and all information collected from court records will be kept in strictest confidence. Everyone who works on this study has signed a Pledge of Confidentiality requiring them not to reveal to anyone outside the research team anything you tell me during the interview. The only exception is, if you tell the interviewer about your intention to harm yourself or commit a specific crime against someone else it may have to be reported.

Participation in this research is strictly voluntary. Your decision on participating will not affect the way your case is handled or any of the services you will receive. You can refuse to answer any questions or stop the interview at any time. Do you have any questions?

For telephone consents: Do you agree to participate in the study? Yes       No

For in-person consents: I am signing this form to show that I have read this information to you and have promised confidentiality. Then, I would like you to sign the form to show that I have explained this information to you and that you agree to be interviewed.

________________________________________________________________________
Interviewer’s Signature and Date

I consent to participate in this study. I understand that my participation is voluntary and will not affect how my case is handled or the services I receive. I understand that I can stop participating at any time or refuse to answer any specific questions in the interview.

Name ___________________________________________________________

Signature ___________________________ Date ________________________

Social Security Number ___________________________ Date of Birth_____________
Appendix C
Survey Instruments