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The New York State Adult Drug Court Evaluation

Policies, Participants and Impacts

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Executive Summary

By combining drug treatment with ongoing judicial supervision, drug courts seek to break the cycle of addiction, crime, and repeat incarceration. While practice varies widely from state to state (and county to county), the outlines of the drug court model are clear: addicted offenders are linked to treatment; their progress is monitored by a drug court team composed of the judge, attorneys, and program staff; participants engage in direct interaction with the judge, who responds to progress and setbacks with a range of rewards and sanctions; and successful participants generally have the charges against them dismissed or reduced, while those who fail receive jail or prison sentences.

This report evaluates adult drug courts in New York State, one of a handful of states that is engaged in a coordinated effort to institutionalize drug courts statewide. With funding from the Bureau of Justice Assistance of the U.S. Department of Justice, the Center for Court Innovation, in collaboration with the New York State Unified Court System, has spent the past three years documenting the policies, participant characteristics, and performance of participants in eleven of the state's oldest and largest drug courts. Among other analyses, this report evaluates the impact of six drug courts on recidivism and identifies the participant characteristics and programmatic features that increase the likelihood of successful drug court outcomes.

Methodology

This report includes an analysis of drug court policies and participant characteristics in eleven drug courts.[1] Four are from large urban counties of New York City (Bronx, Brooklyn, Manhattan, and Queens); one is suburban (Suffolk); three are from medium-sized cities (Syracuse, Rochester, and Buffalo); and three are from small city/semi-rural areas (Tonawanda, Lackawanna, and Ithaca).

This study is also among the first to demonstrate consistent and meaningful recidivism impacts across a large number of sites and over a relatively long-term tracking period. At each of six sites, the recidivism analyses compare the reconviction rates of drug court participants with similar defendants *not* entering the drug court. These comparisons include among the longest measurement periods in the research literature – at least three years following the initial arrest (four years in Brooklyn and Rochester); and, in separate analyses, at least one year after program completion or final case disposition (two years in Brooklyn and Rochester).[2]

[1] Quantitative findings were based on analyses of program participation data provided by the New York State Unified Court System and criminal history and recidivism data provided by the New York State Division of Criminal Justice Services. Drug court policy information was obtained from two surveys administered in April 2001 and July 2002; and from stakeholder interviews and court observations during site visits at nine of the eleven courts.

[2] The post-program period begins on the graduation date for drug court graduates, the release date from jail or prison for drug court failures, and, for the comparison group on the release date or if there was no sentence of incarceration on the disposition date. Defendants were assumed to serve two-thirds of any jail sentence (a standard "good time" assumption) and the minimum prison sentence if there was a range.

In developing comparison group criteria, a uniform set of research design principles was implemented. Comparison defendants had to have no contact with the drug court on the instant case, meet the same paper eligibility criteria as drug court participants, and be convicted on the instant case. In four sites (Bronx, Queens, Suffolk, and Syracuse), the comparison group consisted of defendants arrested just prior to the opening of the drug court. In two sites (Brooklyn and Rochester), the comparison group consisted of defendants arrested during a contemporaneous period but who were not referred to the drug court for reasons unrelated to program eligibility or defendant interest in participating.[3]

For each site, comparison samples were further refined using a *propensity score matching* methodology (e.g., see Rubin 1973; and Rosenbaum and Rubin 1983). Propensity score matching is among the strongest methodological alternatives to random assignment, since the approach ensures that each drug court's final comparison sample closely matches the drug court participant sample across a range of important background characteristics, such as sex, age, race/ethnicity, specific charges and criminal history.

Impact on Recidivism

All six drug courts (Bronx, Brooklyn, Queens, Suffolk, Syracuse, and Rochester) produced recidivism reductions compared with conventional case processing. The six courts represent a mix of geographic areas and policies (e.g., regarding eligibility criteria, screening and assessment protocols, graduation requirements, approach to sanctions, and supplemental services). Since the measurement periods tracked defendants at least three years after the initial arrest and at least one year after program completion, the results indicate that positive drug court impacts are durable over time.

The six drug courts generated an average 29% recidivism reduction over the three-year post-arrest period and an average 32% reduction over the one-year post-program period. Major findings are as follows:

- *Reduced post-arrest recidivism:* Drug court participation led to a lower probability of recidivism three years after the initial arrest (significant in five courts and $p < .10$ in the sixth). Depending on the drug court, recidivism reductions ranged from 13% to 47% (average reduction = 29%) relative to the comparison group level.

- *Reduced post-program recidivism:* Drug court impacts extended beyond the period of program participation. Drug court participation led to a lower probability of recidivism at one year post-program (significant in three courts, $p < .10$ in one court, and suggested by the numbers but not significant in two). Post-program recidivism reductions ranged from 19% to 52% (average reduction = 32%).

[3] In the first four years of the Brooklyn program, defendants were not routed to the drug court if arrested in two of five geographic arrest zones in Brooklyn; hence defendants arrested mainly in those zones could comprise the comparison group. In Rochester, in the early years of the program, certain arraignment judges did not refer cases to the drug court; hence defendants arraigned by one of those judges could comprise the comparison group.

- *Survival over time:* When comparing *in-program* to *post-program* recidivism rates for drug court participants, recidivism did *not* rise in the post-program period, but rather *declined* in three of the six courts. Further, when comparing participant and comparison group recidivism rates after each additional year following the initial arrest (a "survival analysis"), in only one of the six courts was there clear evidence of *attenuation* of the drug court impact over time. This was contrary to the expectation that the magnitude of the drug court impact would peak immediately following the arrest (when judicial monitoring is most intensive); instead, results in most sites revealed positive *long-term* impacts persisting beyond the period of active judicial supervision.

- *Impact of drug court graduation:* Drug court graduates were *far* less likely than comparison defendants to recidivate in all six courts; however, drug court failures were as likely, if not more so, as comparison defendants to recidivate in four of the six courts. Translation: the benefits of drug court participation largely accrue to those who successfully graduate.

- *Impact of arrest charge:* In Rochester, participants arrested on drug charges performed better relative to the comparison group than participants arrested on a select number of non-drug charges. Although the analysis is relatively limited in scope and requires future replication, the findings suggest that drug courts may be more successful in curtailing drug-based criminal behavior (indicated by *drug* charges) than in curtailing criminal behavior driven by other criminal propensities.

- *Other predictors of recidivism:* Among drug court participants and comparison defendants alike, those with prior misdemeanor convictions and of younger age were generally more likely than others to recidivate across all courts and analyses.

Impact on Case Processing and Case Outcomes

For the same six sites, the impacts of drug courts on criminal case processing and case outcomes were analyzed. Key findings include:

- *Initial case processing speed:* Drug court cases reach initial disposition more quickly than conventional court cases. Participants in all six drug courts spent significantly *less* time from arrest to initial disposition/program entry than comparison defendants.

- *Total Time Pending:* When in-program participation time was included in the calculation, processing time for participants was far *longer* than for comparison defendants (due to the length of the drug court program). Hence to achieve positive impacts such as lower recidivism, drug courts require a significant up-front investment of court resources.

- *Sentencing:* Average sentence length stemming from the initial criminal case is sometimes shorter than in conventional prosecution – and sometimes not. Whereas graduates are never sent to jail or prison, drug court failures receive *longer* incarceration

sentences than comparison defendants in five of the six courts. This highlights the importance of drug court graduation in reducing the use of incarceration. When considering initial case outcomes for all participants at once (combining graduates and failures), drug court participants averaged significantly *shorter* jail or prison sentences in three of six courts; but in one court, drug court participants were sentenced for significantly *longer* on average and in the remaining two courts, there was no significant difference.

Program Retention Rates

Retention is a key measure of program success. A one-year retention rate indicates the percentage of participants who, exactly one year after entering drug court, had either graduated or remained active in the drug court program. Earlier research finds that retention not only indicates success in treatment but also predicts future success in the form of lower *post-program* recidivism and drug use. Drug courts generally produce *higher* retention rates than community-based treatment programs accepting a combination of voluntary and court-mandated treatment participants.[4] Key findings about program retention and graduation rates across the eleven drug courts studied here include:

- *Retention rates:* The one-year retention rate exceeds the national standard of 60% for drug courts in eight of eleven courts studied (five New York State courts exceeded 70%).

- *Long-term retention/graduation rates:* When the retention period is extended to two and three years, more than half of participants in eight of eleven New York State courts are retained – and the rate exceeds 60% in three courts. The three-year retention rate gives a close approximation of each drug court's final graduation rate.

Predictors of Success

Across five drug courts (Bronx, Brooklyn, Queens, Suffolk, and Syracuse), several characteristics consistently predicted both drug court graduation and lower recidivism:

- *Participant characteristics:* Consistent with earlier studies, age predicted success; older defendants were more likely to graduate and less likely to recidivate. A primary drug of heroin made graduation *less* likely (in two of three courts examined for this effect) and prior criminal convictions were near universally predictive of future recidivism. Also, participants entering on *property* charges were somewhat more likely to return to criminal activity than those entering on *drug* charges.

[4] Belenko (1998) estimates that drug courts nationwide have an average one-year retention rate of 60%, which substantially exceeds retention rates outside of drug courts. *Three-month* retention rates range from just 30% to 60% across a nationwide sample of community-based treatment programs (Condelli and DeLeon 1993) and one-year retention rates range from 10-30% across a sample of therapeutic communities, a common residential treatment modality (Lewis and Ross 1994).

- *Immediacy:* Immediate engagement in treatment (e.g., avoidance of early warranting) universally and strongly predicted drug court graduation.

- *Importance of graduation:* Graduation is itself a powerful predictor of avoiding *post-program* recidivism; those who failed drug court were *far* more likely to recidivate in the post-program period.[5] Further, contrary to previous research with non-drug court populations, no benefit was found to spending more total *time in treatment* only to fail in the end. Among those who failed, more time in the drug court program (measured in four courts) or more days specifically attending treatment (measured in one court) had no impact on post-program recidivism. These results strongly point to drug court *graduation* as the pivotal indicator of long-term outcomes.

Drug Court Policies and Participant Characteristics

In considering the drug court policies and participant characteristics in eleven courts, the analysis produced four general findings:

- *Diversity of approaches:* There is no single drug court model. All eleven courts mandate community-based treatment, regular drug testing, case management visits, updates before a dedicated judge, and rewards and sanctions in response to progress or noncompliance. However, policies vary considerably across several domains – legal eligibility criteria, whether a guilty plea is required prior to entry (the pre-plea or post-plea models), approach to treatment and case management, specific sanctioning practices, graduation requirements, legal consequences of graduation (e.g., case dismissal or charge reduction), and legal consequences of failure (e.g., length of resulting jail or prison sentence).

- *Drug use patterns:* The eleven courts also treat participants with different presenting problems. The median duration of drug use ranges from eight years (Manhattan and Queens) to eighteen (Brooklyn); and while the five most common primary drugs are similar statewide (heroin, crack, cocaine, marijuana, and alcohol), they are used in different proportions in each jurisdiction.

- *Socioeconomic disadvantage:* In all eleven courts, nearly half of the participants (and a much higher percentage in several) were neither employed nor in school at intake. More than a quarter of participants were currently or formerly homeless in seven courts.

- *Female participants:* The challenges faced by female drug court participants were particularly acute (including *more* severe drug use, treatment histories, and socioeconomic disadvantage than males), highlighting the need for supplemental services for this population.

[5] The impact of graduation status on post-program recidivism was significant in three of four courts tested. In Queens, the fourth court, there was a small sample of drug court failures available for the analysis, leading the effect to be non-significant; but the odds ratio of .311 suggests the possibility of a similarly powerful impact.

Treatment and Recovery

Major findings about the treatment and recovery process include:

- *Treatment capacity:* Despite early questions about whether there is sufficient treatment capacity in New York State to serve the increased demand for treatment generated by drug courts, so far participants have been able to enter treatment rapidly. The median time from drug court intake to treatment placement is less than one month in eight of nine courts examined and less than ten days in three courts.[6]

- *Treatment modality:* Over half of participants begin in an outpatient modality, in all but two courts. When clinically feasible, most courts prefer to begin participants in *outpatient* treatment and then upgrade to inpatient in response to relapses or other compliance problems. Characteristics generally indicating a higher probability of inpatient care are primary drug of choice (heroin), living situation (homeless), employment status (unemployed) and age (younger defendants).

- *Relapse:* Relapse and noncompliance are common, even among those who ultimately succeed. In seven of eight courts examined, at least half of all graduates had at least one positive drug test, and many had several positives – usually in the earlier stages of participation. This highlights the value of drug courts according multiple chances to participants experiencing early problems.

- *Graduated sanctions:* In responding to noncompliance, drug courts apply sanctions, such as writing an essay, observing drug court for several days from the jury box, more frequent court appearances or case management visits, community service, or short jail stays. However, drug courts vary widely in the type and severity of sanctions most frequently used. Across three courts examined in depth (Brooklyn, Queens, and Suffolk), none routinely follow a "graduated sanctions" model, where successive infractions are met with increasingly severe sanctions. Instead, some infractions are *always* met with a similar sanction response. For example, a warrant or new arrest in Brooklyn nearly always incurs a jail sanction. Also, drug court teams frequently make individualized decisions based on what they believe will be most effective with a particular participant rather than adhering to a rigid schedule of graduated sanctions.

- *Achievements beyond substance abuse recovery:* Beyond substance abuse recovery, drug courts seek to promote further achievements and lifestyle changes in the areas of employment, education, vocational training, housing, and family reunification. Consistent with these goals, across all nine courts examined, graduates were significantly *more* likely to be employed at graduation than intake. Also, graduates in five of the nine courts were significantly more likely to be in school at graduation than intake.

[6] Many courts do experience delays placing certain categories of participants: (1) with co-occurring mental health disorders, (2) requiring residential treatment, and (3) experiencing a case processing delay between intake and formalization of drug court participant status. This last finding highlights the need for streamlined referral and intake processes designed to move cases rapidly through the system.

Conclusion

This study provides strong evidence that drug courts produce lasting changes in their participants, persisting even after the period of active judicial supervision. In general, the study reveals impacts consistent with those detected in other evaluations that covered shorter timeframes and fewer courts. This study also finds that final program status is a critical predictor of subsequent outcomes. Drug court graduates had far lower recidivism rates than comparable defendants not entering the drug court, while drug court failures had similar or, in some courts, higher recidivism rates than the comparison group. Accordingly, future research should seek to pinpoint which policies and practices can help drug courts produce both more graduates and lower recidivism rates. With drug courts demonstrating considerable diversity in their geography, policies, and practices, the next generation of studies should seek to answer *why* drug courts work and *how* they can produce positive outcomes for more of their participants.

PART ONE

Description of Drug Court
Policies and Participants

Chapter One
Introduction

When the Miami Drug Court opened its doors in 1989, it spawned a major shift in responding to the criminal behavior of drug-involved defendants. While the initial goals of this first drug court were largely about more efficient case processing and better pre-disposition monitoring of drug defendants, what progressively took hold were promises of substance abuse treatment, recovery, and reduced recidivism. By the mid-1990s, the *drug court model* embraced the ambitious agenda of breaking the costly and personally damaging cycle of addiction, crime and repeat incarceration. This agenda required both rehabilitating the individual offender and creating social benefits through improved public safety, lower recidivism, and cost savings for the criminal justice system, gained by diverting offenders away from jail or prison.

This apparent potential to alleviate the scourge of addiction-related crime, along with growing disenchantment with the "War on Drugs" policies of the 1980s, led drug courts to spread rapidly. By 1995, 86 drug courts had opened nationwide. Eight years later, by September 2003, this figure ballooned to 1,078, with 693 drug courts serving adult criminal defendants and the others serving juveniles or respondents in family court abuse or neglect cases (Office of Justice Programs 2003). Drug courts were either operational or in planning in all fifty states, plus the District of Columbia, Puerto Rico, and Guam (Cooper 2002). Many states, including New York, Florida, California, Ohio, Louisiana, and Missouri, initiated coordinated efforts to institutionalize drug courts statewide.

Amidst this expansion is a continuing need for research concerning overall program effectiveness as well as specific policy questions such as how drug courts work, for whom they work best, what types of participants need extra attention, and from what alternative policies new drug courts can choose in devising their unique approach. As more states undertake coordinated efforts, the *state* becomes an appropriate level for analysis. Yet, Ohio is the only state to have completed a statewide study of its drug courts (Latessa, Shaffer and Lowenkamp 2002); and only three other studies use comparable methods to analyze results at more than one court (Goldkamp, White, and Robinson 2001; Peters and Murrin 2000; and Truitt, Rhodes, Seeherman, Carrigan, and Finn 2000). Further, only a handful of studies have examined the *long-term* impacts of drug courts beyond the first one or two years after program participation begins.

This provides the setting for the current statewide evaluation of New York's adult drug courts. This study focuses on eleven of New York's oldest and largest programs, four from New York City (Bronx, Brooklyn, Manhattan, and Queens), one from New York's suburbs (Suffolk); three from medium-sized cities in the upstate area (Syracuse, Rochester, and Buffalo); and three from semi-rural areas in upstate (Tonawanda, Lackawanna, and Ithaca). This study also includes *impact evaluations* – comparing case outcomes and recidivism between drug court participants and similar defendants *not* entering the drug court – in six courts (Bronx, Brooklyn, Queens, Suffolk, Syracuse, and Rochester). Expanding on the literature to date, the recidivism analyses all involve long-term follow-up periods of at least three years after the initial arrest (four years in two courts) and at least one year after program completion (two years in two courts).

In this introduction, we highlight key features of the adult drug court model. We also describe the local policy context, which involves an almost three year-old coordinated effort to

institutionalize drug courts statewide. Lastly, we introduce the research design and organization of the report.

The Adult Drug Court Model

Court-mandated treatment (requiring defendants to attend treatment as part of the disposition of their case) existed well before the advent of drug courts. However, drug courts are distinctive for requiring intensive, ongoing judicial supervision of the treatment process. This can involve a wide range of practices, including: close, regular communication between treatment agencies and the court; required court appearances for monitoring and drug screening; personal interaction with the judge; a non-adversarial, team-based approach; rewards for interim progress; and sanctions for noncompliance. Judicial supervision, coupled with the overarching threat of jail or prison facing those who fail drug court, is thought to produce better treatment and recidivism outcomes than both standard prosecution and earlier court-mandated treatment approaches.

In 1997, the National Association of Drug Court Professionals attempted to summarize the drug court model with a list of ten key components (NADCP 1997). The following draws from that list but is revised to emphasize common components of the New York programs featured in this report.

- *Alternative to Incarceration:* Defendants receive treatment instead of jail or prison.

- *Early Identification and Treatment Placement:* The court attempts to identify eligible defendants soon after the arrest (or probation violation where applicable) and to assist in rapidly locating a community-based treatment slot.

- *Community-Based Treatment:* Treatment is deemed essential to recovery. It occurs at either residential or outpatient facilities, where participants must complete a significant treatment stay, typically ranging from six to eighteen months.

- *Legal Incentives to Succeed:* Participants receive a positive legal incentive to graduate (e.g., case dismissal or charge reduction) and a negative incentive to avoid failing (threat of jail or prison).

- *Collaborative Team Approach:* Court and clinical staff work as a team to assist each participant's recovery; drug courts employ a non-adversarial process in the courtroom.

- *Judicial Monitoring:* Specific policies vary, but drug courts have ongoing monitoring (e.g., drug testing, case management visits, and court appearances before the drug court judge).

- *Rewards and Sanctions:* The court administers rewards in response to progress (e.g., journal, fewer days of treatment per week, fewer court appearances) and sanctions in response to noncompliance (e.g., essay, sitting in the jury box, community service, or a short jail stay).

- *Dedicated Drug Court Judge:* The same judge monitors participants throughout their participation, and the relationship between judge and participant is deemed important in motivating and assisting participants in their recovery.

Policy Context: The Institutionalization of Drug Courts in New York State

The drug courts studied in this report opened prior to any statewide initiative, largely through the assistance of federal funding.[1] However, this report may be seen against the backdrop of the current project to institutionalize drug courts throughout the New York State court system.

New York's institutionalization efforts began in October 1999 when the state's Chief Judge, Judith S. Kaye, appointed a special commission to explore how the court system might better respond to the cycle of addiction, crime, and recidivism among drug offenders. At that time, New York's courts had been increasingly flooded with drug cases, with many believed to stem from an underlying drug use or addiction problem. For example:[2]

- *Rising drug arrests:* In 1980, there were 27,407 statewide drug arrests. That figure skyrocketed to 103,834 in 1990 and then jumped to 145,694 in 2000. The latest 2000 figure represented a dramatic 432% increase from 1980.

- *Rising imprisonment:* Coinciding with the rise in arrests was an even greater rise in the number of drug offenders sentenced to prison – from just 470 offenders in 1970 to 886 in 1980 to 10,785 in 1990, and then declining to 8,521 in 1999. The latest 1999 figure still represents a 1,730% increase from 1970 and an 862% increase from 1980.

- *High recidivism rates:* Of drug offenders released from New York State prison in 1998, 34% were re-arrested within one year, and 56% were re-arrested within three years.

- *Severe caseload implications:* By fiscal year 1999-2000 (April 1999 through March 2000), 26% of misdemeanors handled by New York State's lower courts and 41% of felony indictments involved drug possession or sales charges.

- *Underlying drug use and addiction problems*: In New York City, 76.1% of males and 77.4% of females tested positive for drugs in a 2001 sample. Based on interviews, 50.0% of the same males and 44.9% of females were engaged in "heavy use" of illegal drugs, defined as use in thirteen or more days of the previous thirty (ADAM 2001).

After considering various policy alternatives, the special commission recommended that treatment be extended statewide to all nonviolent, drug-addicted defendants. In October 2000, the Chief Judge created a new office to implement this recommendation, the New York Office of Court Drug Treatment Programs (OCDTP), and named Deputy Chief Administrative Judge

[1] Ten of the eleven drug courts considered received an implementation and / or enhancement grant from the U.S. Department of Justice between 1995 and 1998, and some received additional enhancement grants. The final drug court, Manhattan's, was assisted with federal block grant funding.

[2] The source of data in this section pertaining to arrests, imprisonments, recidivism, and court caseload is the New York State Commission on Drugs and Courts (2000), citing other New York State government sources. The New York State Division of Criminal Justice Services is the original source for all recidivism data.

Table 1.1. New York State Adult Drug Court Participants as of December 31, 2002

N.Y.S. District	Drug Court	Date Implemented	Total Number Participants	Out on Open	Out on Warrant	Graduated	Failed
Focal Courts for the Statewide Evaluation							
NYC	Bronx	3/99	755	264	48	233	210
NYC	Brooklyn[1]	6/96	2,217	290	181	919	827
NYC	Manhattan Felony	9/98	533	253	67	94	119
NYC	Queens Felony	5/98	765	198	25	376	166
5	Syracuse City	1/97	906	229	73	221	383
6	Ithaca City	1/98	223	39	6	78	100
7	Rochester City	1/95	2,985	351	164	727	1,743
8	Buffalo City	1/96	1,562	387	121	432	622
8	Tonawanda City	4/98	259	60	17	151	31
8	Lackawanna City	1/96	277	32	12	143	90
10	Suffolk County	9/96	759	163	29	348	219
	Total		11,241	2,266	743	3,722	4,510
Other Operational Drug Treatment Courts							
NYC	Queens Misdemeanor	1/02	62	47	9	1	5
	Staten Island	3/02	26	25	0	0	1
3	Rensselaer County	6/98	65	14	1	37	13
	Troy City	6/98	83	9	0	49	25
	Albany City - Regional[2]	1/00	88	24	1	27	36
	Ulster County	9/01	37	32	2	0	3
	Albany County	2/02	36	35	0	0	1
	Hudson City	6/02	16	13	0	1	2
4	Fulton County	7/99	86	32	1	30	23
	Montgomery County	2/01	18	12	0	6	0
	Washington County	12/02	19	17	1	0	1
	Schenectady County	8/02	109	75	5	3	26
	Schenectady City	11/02	36	27	0	0	9
	Warren County	10/02	13	13	0	0	0
5	Oswego County	8/99	139	64	1	22	52
	Jefferson County	2/02	15	13	0	0	2
	Utica City	10/02	71	50	6	0	15
6	Tompkins County	6/00	62	36	3	15	8
	Otsego County	4/00	50	3	0	34	13
	Binghamton City	6/02	9	8	0	0	1
	Schuyler County	5/02	11	11	0	0	0
7	Canandaigua City	7/00	58	39	3	5	11
	Wayne County	2/02	16	16	0	0	0
	Ontario County	6/02	22	21	0	0	1
8	Niagara Falls	12/96	683	78	8	330	267
	Lockport City	9/00	144	73	7	16	48
	Jamestown City	2/00	113	42	3	49	19
	Batavia City	2/99	131	66	1	43	21
	Dunkirk City	9/02	10	9	1	0	0

Table 1.1. ***Continued***

N.Y.S. District	Drug Court	Date Implemented	Total Number Participants	Out on Open	Out on Warrant	Graduated	Failed
9	Mt. Vernon	10/00	110	48	4	15	43
	Yonkers City	1/01	78	35	6	11	26
	Putnam County	1/02	24	20	0	0	4
	Beacon City	3/02	9	7	0	0	2
	Poughkeepsie City	3/02	9	6	0	0	3
	Orange County	2/02	18	18	0	0	0
	Rockland County[3]	1/98	136	46	4	61	25
	White Plains City	10/02	5	5	0	0	0
10	Nassau County	2/02	78	50	12	0	16
	Total		2,695	1,139	79	755	722
Town and Village Drug Treatment Courts[4]							
	Amherst[5]	9/96	855	196	100	387	172
	Cheektowaga[5]	6/97	849	162	112	429	146
	Kingsbury Town	5/00	46	12	0	23	11
	Total		1,750	370	212	839	329
Short-Term Drug Treatment Courts							
	Manhattan Misdemeanor[6]	7/00	450	9	50	368	23
Total Participants in New York State Drug Courts			***16,136***	***3,784***	***1,084***	***5,684***	***5,584***

Source : New York State Unified Court System (UCS), Special Projects Unit. Data was submitted to UCS by each drug court.

[1] The Brooklyn Treatment Court numbers include 118 participants enrolled in a separate "short-term treatment" program requiring only ninety consecutive drug-free and sanction-less days of treatment.

[2] Albany City includes case transferred from the Colonie Town Drug Court. The two drug courts were merged into one program.

[3] Data for the Rockland program is incomplete.

[4] The three drug courts listed in this section of the table are not part of the state's Unified Court System but are run by independent Town and Village Courts.

[5] Data for the Amherst and Cheektowaga programs is as of September 30, 2002.

[6] The Manhattan Misdemeanor Treatment Court, as represented in this chart, mandates participants to one of three tracks respectively involving 2, 30 or 90 days of treatment. The current Manhattan Misdemeanor Treatment Court is no longer a short-term treatment program. In May 2003, Manhattan changed the program to a persistent misdemeanor drug court.

Joseph J. Traficanti, Jr. its director. The state was divided into three regions, and a dedicated project manager was hired to coordinate institutionalization efforts in each one. The OCDTP agenda included:

- Making treatment available to nonviolent addicted defendants in every county statewide;
- Implementing centralized screening to effectively identify substance-abusing defendants;
- Expanding court-based psychosocial assessment and monitoring capacity;
- Developing pilot programs for juveniles (i.e., juvenile drug courts);
- Designing “persistent misdemeanor” courts in New York City to extend court-mandated treatment to city-based misdemeanor offenders with particularly long rap sheets;
- Conducting a statewide training and education campaign; and
- Supporting statewide data collection and evaluation efforts.

To date, the OCDTP has issued two progress reports covering Year One and Year Two activities (see Office of Court Drug Treatment Programs 2002, 2003).

Concerning the results of statewide expansion efforts, Table 1.1 lists all operational adult drug courts statewide, along with the total number of participants enrolled through December 2002. The eleven focal courts studied in this report are distinguished in the upper portion of the table. The table shows that 16,136 defendants have been enrolled in New York's adult drug courts. Of those, 5,684 (35%) have graduated, 5,584 (35%) have failed, and the rest have yet not completed the program. Further, over the two years of the OCDTP, the number of adult drug courts increased substantially from 28 to 53. Also, comparing Year Two of the OCDTP to the year just prior to OCDTP creation, the number of new adult drug court participants rose by 36% from 2,718 to 3,701. This growth shows that for a confluence of reasons, New York's drug courts are indeed expanding and can be expected to continue doing so in the years ahead.

The New York State Drug Court Evaluation

The eleven drug courts covered in this report include eleven of the fourteen largest drug courts, eleven of the eighteen oldest, and the three with the most total participants enrolled to date. All serve adult criminal defendants, ages sixteen years or older. The courts were selected based on their size and for data availability considerations.[3]

As Chapter Two will indicate, the courts demonstrate considerable diversity on specific program factors such as geography (e.g., urban, suburban, semi-rural), eligibility criteria, (felony or misdemeanor charges, drug or non-drug charges), program intensity (e.g., required time in treatment), and legal consequences of graduating and failing the drug court. Although the eleven courts all opened prior to statewide institutionalization efforts, they have, in many cases, served as models for the newer courts that opened as a direct impact of OCDTP efforts. Accordingly, these courts provide a reasonably representative sampling of adult drug courts now open throughout the state.

Topics Covered

The initial half of this report examines court policies, operations, compliance behavior, and program outcomes in all eleven courts. Information in this part of the report includes:

- *Policies:* e.g., legal eligibility criteria, clinical eligibility criteria, graduation requirements, and legal consequences of graduation and failure.
- *Participant profile:* e.g., demographics, drug use history, and prior criminal history;
- *Time to treatment placement:* time from identifying eligible offenders to locating an appropriate treatment slot;
- *Treatment modality:* e.g., relative use of different modalities (detox, residential, outpatient, etc.) and relative frequency of changing modalities during participation;
- *Participant compliance:* e.g., drug test results, prevalence of warranting, and incurring sanctions for noncompliance;

[3] In Brooklyn, Queens, and Manhattan, this study exclusively focuses on drug courts serving defendants arrested on *felony* charges. Separate drug courts serving defendants arrested on misdemeanors opened within the past two years in those jurisdictions, but due to their recent opening, those programs are not considered here.

- *Sanctioning policies:* e.g., preferred sanctions at each court, sanction severity, and use of a "graduated" approach to sanctions (involving a more severe sanction for each subsequent infraction);
- *In-program achievements:* e.g., percentage of graduates who obtained employment, a G.E.D., high school diploma, or custody of their children in the course of drug court participation;
- *Retention rates:* percentage retained by the drug court program as of key periods of time following program entry (e.g., one year, two years, and three years); and
- *Predictors of graduation and recidivism:* what participant characteristics or programmatic components lead to a higher or lower probability of drug court graduation and of subsequent recidivism both during and after drug court participation;

The second half of the report includes *impact evaluations* comparing case outcomes and recidivism between drug court participants and non-participating but otherwise similar defendants for six courts, Bronx, Brooklyn, Queens, Suffolk, Syracuse, and Rochester. The recidivism analyses for these courts include separate results for: (1) recidivism up to three years after the initial arrest (and up to four years in Brooklyn and Rochester), and (2) recidivism up to one year after program graduation or failure (and up to two years in Brooklyn and Rochester). These *post-arrest* and *post-program* measurement periods are among the longest in the literature to date. In fact, previous studies have been criticized for failing to establish the long-term impacts of drug court participation – especially over a *post-program* period when participants are no longer under court supervision (Belenko 2001). Only a few studies have measurement periods extending up to three years after the initial arrest or program entry; and only three studies specifically *isolate* recidivism in a *post-program* period of time.[4]

The impact evaluation portion of the report presents the results of separate studies of each of the six courts. A separate comparison group is identified for each court, and no attempt is made to pool participant and comparison group data across courts. However, analyses follow a uniform methodological framework, and results are comparable for that reason. Across all six sites, common features of weak research designs were consistently rejected, such as comparing drug court participants to defendants found ineligible or to defendants found eligible but refusing treatment. Also, similar *propensity score matching* techniques were used at each site to maximize the comparability of each court's comparison group to its participant sample on a number of important background characteristics, including criminal history, charges, age, sex, and race. The impact of this approach was to generate final participant and comparison group samples that were statistically identical (or nearly so) on every one of these key characteristics. The rigorous matching approach used to generate the samples yields a particularly high level of confidence in the validity of all reported recidivism impacts.

Sources of Data and Information

This report obtained data and information from several sources. First, a comprehensive survey was distributed to all twenty-nine adult drug courts operational as of April 2001,

[4] For studies including a three-year measurement period, see Goldkamp, White, and Robinson (2001) on the Portland and Las Vegas drug courts; and see Gottfredson, Najaka, and Kearley (2002) on the Baltimore City Drug Treatment Court. For studies expressly *isolating* recidivism during a *post-program* period only, see Bavon (2001) on the Tarrant County, Texas drug court, Fielding et al. (2002) on the Los Angeles drug court, and Harrell, Cavanagh, and Roman (1998) on a Washington, D.C.-based drug diversion program.

requesting information on the policies and procedures of each court. Second, a briefer follow-up survey was distributed to those same courts in July 2002 (see Appendices A and B). Third, several of the coauthors conducted one or two day structured site visits at nine drug courts (except Buffalo and Tonawanda). And finally, three coauthors work for the New York State Office of Court Administration and were able to answer additional questions concerning legal, drug court policy, and data interpretation issues.

For quantitative analyses, with the exception of Table 1.1, participants were included if they entered drug court by June 30, 2002. This means the evaluation is retrospective – examining the drug court participation of those who, in many cases, went through the program several years ago.

The report's primary quantitative data source was the New York State Universal Treatment Application (UTA), a statewide management information system used by most of the state's adult drug courts. The system was built to house comprehensive data on drug court participant characteristics and program compliance, including:

- *Eligibility:* eligible or ineligible, and reasons for ineligibility for those screened but not entering drug court;
- *Program mandate information:* length of minimum time in treatment and length of jail or prison alternative to be imposed in the event of drug court failure;
- *Current program status:* e.g., graduated, failed, incomplete, warranted, or still active in the program, and for failed and incomplete cases, the specific reason for that status (e.g., new arrest, voluntary failure, involuntary failure due to repeat noncompliance, etc.);
- *Psychosocial assessment characteristics*: e.g., sex, age, race/ethnicity, current socioeconomic status, employment history, educational background, living situation, mental health status, physical health status, and substance abuse history;
- *Criminal justice characteristics:* e.g., top arrest or arraignment charge, warrant status, and disposition at each appearance before the drug court judge;
- *In-program compliance:* e.g., data on all infractions and achievements, drug test results, attendance for scheduled days in treatment, and court-imposed rewards and sanctions;
- *Treatment programs:* information on programs and modalities for all community-based treatment placements;
- *Case flow tracking data:* e.g., key dates such as arrest date, drug court intake date, date became participant or found eligible, start and end dates for each community-based treatment program placement, and drug court exit date; and
- *Exit status:* participant status on issues such as employment status, educational status, child custody, and aftercare plans at the time of exiting the drug court.

All of the eleven focal courts except Brooklyn currently use the UTA. Brooklyn uses an earlier system that served as the model for the UTA (and plans to convert to the UTA in 2004). Although Buffalo now uses the UTA, it used its own system until mid-2002.[5] Also, Rochester was the first drug court to open in the state (January 1995), but its database was not converted to the UTA until March 2001. For this reason, in some places data is unavailable for Rochester, this largely reflects a reliance on data fields that were not available or could not be readily converted

[5] Since Buffalo's conversion to the UTA occurred after the June 30, 2002 cut-off date for this report's participant sample, we opted to analyze Buffalo's data largely based on an extract from their original system, obtained in May 2002. Appendix C describes the process of converting Buffalo's source data to categories consistent with those used to analyze the UTA and Brooklyn Treatment Court data.

from Rochester's original system. Finally, data on criminal history and recidivism, as well as additional data on defendant sex, age, and race, was obtained from the New York State Division of Criminal Justice Services (DCJS) for all participants and comparison group defendants.

Organization of the Report

Part One provides an overview of drug court policies and participant characteristics. Chapter Two compares drug court policies across the eleven focal courts; and Chapter Three profiles participant characteristics, including demographics, socioeconomic background, drug use history, criminal history, and current charges.

Part Two explores data on the treatment and recovery process. Chapter Four focuses on treatment issues. The chapter briefly describes several models of organizing relationships with community-based treatment providers. The chapter also presents data on case processing time from drug court intake to treatment placement and on the relative use of different treatment modalities at each court (e.g., residential, short-term inpatient, or outpatient). Chapter Five presents data on in-program compliance: drug test results, warrants, and sanctions. Chapter Six compares drug court sanctioning policies at three drug courts with particularly rich sanction data, Brooklyn, Queens, and Suffolk. This chapter assesses the degree to which these three courts use a *graduated* approach to sanctions, whereby each subsequent infraction leads to a progressively more severe sanction response. Chapter Seven analyzes results of an exit interview administered to drug court participants to determine whether employment, school, child custody, and other social outcomes improved between intake and graduation.

Part Three focuses on retention, graduation, and recidivism outcomes among drug court participants only. Chapter Eight presents retention rates for each of the eleven courts. Also, separate analyses consider whether, in each program, retention rates rise or fall over time, perhaps due to policy changes. Chapter Nine includes both a detailed literature review and new systematic analyses of the background predictors of drug court failure and recidivism, focusing on five drug courts with a sufficient sample size to generate meaningful results.

Part Four presents the six *impact evaluations*. Chapter Ten reviews the literature to date on drug court recidivism impacts. Chapter Eleven describes the standard methodology employed in all six evaluations. Chapters Twelve through Seventeen then presents results for each drug court. Each chapter includes: (1) an extended discussion of the specific drug court policies adopted at the court in question, (2) methodological details specific to that court's evaluation, and (3) results concerning recidivism impacts over both *post-arrest* and *post-program* timeframes. Chapter Eighteen provides a separate analysis of the impact of the six drug courts on case outcomes related to the initial drug court or comparison group arrest case. This chapter assesses whether drug court cases were processed more or less rapidly, and whether final case outcomes and sentences differed between drug court participants and comparison groups. Finally, Chapter Nineteen synthesizes impact results across all six sites.

Chapter Twenty identifies major lessons learned and key directions for future drug court research suggested by this and other recent studies.

Chapter Two
Drug Court Policies

This chapter explores the core policies of the eleven focal drug courts, highlighting innovative practices. Drug court policies are the product of a number of court characteristics, including geography, local politics, the amount of legal leverage the court can hold over its participants, treatment resources, and the interests and needs of the drug court team and its partners. For example, it is conceivable that drug courts in large urban areas may have different policies and services than those in rural environments; and that a drug court serving a younger population may have different graduation requirements, such as obtaining a high school degree.

This chapter examines policies on program eligibility, graduation requirements, legal consequences of graduation and failure, and factors used in determining a participant's first treatment modality. In general, the results demonstrate the diversity of adult drug court programs in New York, underlining that there are, in fact, multiple drug court models springing from the core principles common to all drug courts. Tables 2.1-2.4 provide a summary reference to understand the core policies at all eleven drug courts discussed throughout this report.

Following a description of the methodology for obtaining court policy data, this chapter reviews policies in the following key areas:

- ✓ Paper / legal eligibility;
- ✓ Clinical eligibility;
- ✓ Necessary steps to initiate drug court participation;
- ✓ Determination of first treatment modality;
- ✓ Program completion; and
- ✓ Innovative programs.

Further policy details concerning the six drug courts for which impact evaluations were conducted are provided in Part Four.

Methodology

The data for this chapter comes from three primary sources: (1) a policy survey sent in April 2001 to all twenty-nine adult drug courts in operation at that time (see Appendix A); (2) a follow-up survey sent in April 2002 to the same twenty-nine courts (see Appendix B), and (3) site visits to nine courts. This chapter focuses on results for the eleven courts analyzed throughout this report. Responses for the other courts are found in Appendix D.

The two policy surveys asked the drug courts to answer questions on the following topic areas:

- *Eligibility requirements*: charge, criminal history, and clinical exclusions;
- *Initiating drug court participation*: adjudication (pre- or post-plea), jail or prison alternatives in the event of program failure, and treatment mandate;
- *Treatment policies*: modalities used (e.g., detox, residential, or outpatient), criteria in determining first and subsequent modalities, and methadone policy;

- *Judicial supervision*: case management, phases of treatment, infractions and sanctions, achievements and rewards, warrants; and
- *Program completion*: graduation requirements, and legal consequences of graduation and failure.

All identified policies in this chapter reflect the timeframe of the first survey (April 2001). However, throughout the report, significant policy changes between early 2001 and early 2003 are noted in footnotes; and several are also described in Appendix G.

To assist in fully understanding each court's specific policies and overall approach, three of the coauthors made one- or two-day structured site visits to nine of the focal courts (except Buffalo and Tonawanda); and a fourth made separate one-day site visits to three of the courts and spoke at length with the project coordinator from a fourth. Also, several coauthors participated in comprehensive conference calls with staff at Buffalo. During site visits, the coauthors attempted to meet with many, if not all, members of the drug court team, sit in on status meetings to discuss participant progress, and observe a drug court session for several hours. The last section of this chapter, Innovative Programs, grew almost entirely out of site visits.

Due to the significance of geography and regional characteristics, the eleven courts are grouped according to *jurisdiction size* (large urban, suburban, mid-sized city, and small city/semi-rural); or by a dichotomous *New York City courts* (Bronx, Brooklyn, Manhattan, and Queens) *versus non-New York City courts* distinction.

Paper Eligibility

This section delineates which defendants meet each drug court's "paper eligibility" criteria, primarily with respect to *current charges* and *criminal history*. Defendants reach the drug court through many sources and at various points of case processing, but an early stage of review is a "paper" screen for basic legal eligibility. The paper screen is a review of current case information and the defendant's criminal history and is conducted by various players depending on the drug court, including an assistant district attorney, court clerks, and/or the drug court coordinator, based on a review of the rap sheet and court report on the case.

The following sub-sections review paper eligibility restrictions with respect to charge severity (violation, misdemeanor, or felony level), charge type (e.g., drug-related charges or property, prostitution, or other types of charges), criminal history, and probation violator status.

Charge Severity Restrictions

Based on federal guidelines, drug courts in New York State have generally considered defendants ineligible, if they have currently pending violent charges or a prior violent conviction. Although federal guidelines only consider a violent offender one with a prior conviction for a violent *felony* level offense, some drug courts also exclude defendants with a prior violent misdemeanor level conviction. In addition, all of the drug courts exclude defendants with pending A-level felony charges (the most serious felony level). Table 2.1 shows other paper eligibility criteria.

The four New York City courts – Bronx, Brooklyn, Manhattan, and Queens – are felony-only courts. They do not accept defendants arrested on a misdemeanor, although in Brooklyn, defendants may sometimes plead guilty to a misdemeanor to formally enter the drug court. Conversely, none of the eleven courts are misdemeanor-courts only, although Tonawanda and

Table 2.1. Paper Eligibility
Criteria for Referral to the Drug Court for Screening

	New York City - Major Urban				*Suburban*	*Medium-sized Urban*			*Small city/Semi-rural*		
	Bronx	**Brook-lyn**	**Manhat-tan**	**Queens**	**Suffolk**	**Syra-cuse**	**Roch-ester**	**Buffalo**	**Lacka-wanna**	**Tona-wanda**	**Ithaca**
A) Arraignment Charges											
Drug sales felony[1, 2]	Y	Y	Y	Y	N	Y	N	N	Y	Y	N
Drug possession felony[1]	Y	Y	Y	Y	Y	Y	Y	Y[4]	Y	Y[5]	Y[5]
Drug misdemeanor	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
DWI/DUI	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
Non-drug felony	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
Non-drug misdemeanor	N	N	N	N	Y	Y	Y	Y	Y	Y	Y
Violation	N	N	N	N	N	N	Y	N	Y	Y	N
B) Other Eligible Populations											
Prior felony conviction	N	Y	N	N[3]	Y	Y	Y	Y	Y	Y	Y[6]
Violator of probation	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

Data as of 4/01.
Note: Y = Eligible

[1] None of these courts accept cases arraigned on A felony charges.
[2] Although some courts define as "paper eligible" cases arraigned on a drug sales felony, these cases are excluded if an A.D.A. determines that substantial drug trafficking was involved.
[3] Queens has accepted several defendants with prior felony convictions from more than twenty years ago.
[4] Buffalo formally began accepting felonies in January 2002.
[5] Defendants are only eligible if the charges are subsequently reduced to a misdemeanor. This is largely due to the jurisdictional limitations of the court that preclude hearing cases disposed as felonies.
[6] Defendants are not eligible if they have a prior felony conviction for criminal sale of a controlled substance.

Ithaca are close. To be paper eligible in these two courts, the felony charge would have to be reduced to a misdemeanor before drug court entry.

Rochester, Tonawanda, and Lackawanna generally accept the widest range of arrest charges. These three drug courts accept defendants charged with only a violation, in addition to felony and misdemeanor cases.

Finally, Suffolk, Syracuse, and Buffalo accept defendants arrested on either select felony or misdemeanor cases – but not on a violation. (Although Buffalo was officially a misdemeanor-only court until January 2002, when it formally began to accept felonies as well.)

Charge Type Restrictions

Beyond charge *severity* restrictions, drug courts often have eligibility requirements concerning the *types* of charges defendants can face. The eligibility of defendants with a drug *sale* felony charge (e.g., as opposed to drug possession) is handled differently across the state. Even though every drug court admits felony level arrest charges (with the caveat that it must be reduced to a misdemeanor in Tonawanda and Ithaca), only seven of the eleven courts accept a drug *sale* felony – Bronx, Brooklyn, Manhattan, Queens, Syracuse, Tonawanda, and Lackawanna. Courts that technically allow drug sale felony cases usually require an Assistant District Attorney (A.D.A.) review to rule out suspected heavy trafficking, involvement in an illegal commercial operation, and/or sales near school property.

Additionally, the four New York City Courts will only allow *drug-related* charges, while the others all allow property, prostitution, and other nonviolent charges.[1] All of the non-New York City courts also accept DUI/DWI cases.

Criminal History Restrictions

Six of the eleven courts, Brooklyn, Suffolk, Syracuse, Rochester, Buffalo, and Lackawanna, admit *predicates*, defendants pleading at the felony level who also have at least one prior felony conviction. In New York State, predicates face mandatory prison terms according to New York's Rockefeller Drug Laws. These mandatory sentencing laws for drug offenders are among the strictest in the nation. Enacted in 1973 during the gubernatorial tenure of Nelson A. Rockefeller, these laws established mandatory prison sentences for the unlawful possession and sale of controlled substances, with the length of the sentence keyed to factors such as the weight of the drugs involved and the offender's prior felony history. Therefore, when potential predicates enter a drug court, they tend to face the most serious legal consequences in the event of failing the program, typically a mandatory prison term involving a minimum sentence of at least two years and a maximum that can reach nine years (and even higher in some cases).

Three courts, Queens, Bronx, and Manhattan, are first-time felony courts only.[2] And two, Tonawanda and Ithaca, admit defendants with a prior felony conviction, but since their drug court participants are exclusively disposed at the misdemeanor level, none face predicate status.

Probation Violators

All of the drug courts except Brooklyn will accept probation violators. While Queens technically allows these cases, they only accept a few each year. Also, Bronx admits probation violators based on referrals from the Department of Probation or other judges; but Bronx tends to place them on a different treatment mandate track that does not involve an identical set of participation and graduation requirements as other drug court participants. Similarly, Manhattan currently accepts a large number of probation violators but does not impose exactly identical graduation requirements as other participants.

Clinical Eligibility

This section examines how each of the drug courts assesses defendants' *clinical* eligibility (e.g., the presence or absence of an eligible "drug problem"). Typically, after defendants are found "paper" eligible, a member of the drug court team will conduct a clinical assessment. The format of the assessment varies throughout the state from a comprehensive, several-hour interview to a several-minute quick snapshot, followed by a more detailed assessment at a later time. The assessment may be conducted in a court office, treatment agency, jail cell, or in the courtroom itself, depending on the defendant's release status and on the specific protocols of each drug court. The drug court coordinator, a representative from a treatment program, or a case manager will administer the assessment, depending on the court.

At the assessment stage, there are two standard disqualifications. First, all courts exclude defendants without a drug problem, although it is clear from site visits that the threshold for "drug problem" (e.g., substance use, abuse, or dependence) varies across different programs. Second, in all drug courts, defendants may refuse to participate at any stage prior to signing a

[1] The Bronx and Queens courts have more recently begun to accept non-drug first felony cases, as well.
[2] Queens has accepted several defendants with prior felony convictions from more than twenty years ago.

Table 2.2. Drug Court Clinical Assessment Policies

	New York City - Major Urban				*Suburban*	*Medium-sized Urban*			*Small city/Semi-rural*		
	Bronx	**Brook-lyn**	**Manhat-tan**	**Queens**	**Suffolk**	**Syra-cuse**	**Roch-ester**	**Buffalo**	**Lacka-wanna**	**Tona-wanda**	**Ithaca**
Courts will allow potential participants with:											
Addiction to marijuana only	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Addiction to alcohol only	Y	N	N	Y	N	Y	Y	Y	Y	Y	Y
Severe medical / mental health barriers	N	Y	Y	N	N	N	N	Y	Y	N	Y
Lack of motivation / treatment readiness	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y
High methadone levels at intake	Y	N[1]	N[2]	N[3]	Y	Y	Y	Y	Y	Y	Y

Data as of 4/01.
Note: Y = Eligible

[1] Defendants may become participants if on less than 80 milligrams of methadone at intake but must then enter a methadone to abstinence program, must indicate a willingness to detox off methadone, and must detox completely by the end of Phase Two (of three phases).
[2] Defendants may become participants if on less than 70 milligrams of methadone at intake but cannot accrue compliance time until their dosage has been cut in half and must completely detox off methadone by the end of Stage Two (of three stages).
[3] Defendants may become participants if on less than 40 milligrams of methadone at intake but cannot accrue compliance time until detox is complete.

contract; drug court participation is voluntary. Table 2.2 summarizes other *clinical* criteria for eligibility.

Of the courts surveyed, Brooklyn arguably focuses on the most severely addicted defendants. Brooklyn is the only court of all twenty-nine surveyed that did not allow marijuana-only addicted defendants into its program.[3] Brooklyn is also one of three of the focal courts – along with Manhattan and Suffolk – that will not accept those addicted to alcohol only.

Five courts (Brooklyn, Manhattan, Buffalo, Lackawanna, and Ithaca) accept defendants with severe medical or mental health barriers. In other courts, the exclusion of these defendants may reflect the difficulties drug courts commonly face in finding appropriate treatment slots for dually diagnosed participants suffering from substance-related *and* other mental health disorders.

Defendants who are perceived to lack motivation or "readiness" to enter treatment are still eligible in eight of the courts, excluding Queens, Suffolk, and Syracuse. The basis for this policy decision is that once engaged in the treatment process, defendants who may at first appear to lack motivation may gain a different perspective on the benefits of participating. The four courts that exclude defendants based on lack of apparent motivation typically cite limited resources as an important reason for doing so.

Methadone Eligibility

A final clinical eligibility criteria stems from each court's policies regarding the use of methadone. This issue is inherently complicated. Drug courts require abstinence from illegal drugs; yet some clinicians believe methadone is necessary for healthy detoxification off of heroin. (And methadone maintenance is the modality recommended by the National Institute on Drug Abuse for treating heroin dependence.) All eleven courts will allow a participant to enter drug court while using methadone, but some drug courts impose various restrictions and requirements regarding methadone use for graduation. In Brooklyn, Manhattan and Queens, if a

[3] Brooklyn recently began accepting misdemeanor-only addicted defendants since April 2003.

defendant's methadone dosage is higher than a certain level, it is judged that the defendant cannot safely detox off methadone in the time span of drug court, and the defendant is found ineligible. The other eight courts do not have a dosage level required for entry.

Of those courts that admit defendants using methadone at entry, six of the eleven (Bronx, Brooklyn, Manhattan, Queens, Lackawanna, and Tonawanda) require participants to enter a *methadone-to-abstinence* program, where they must move toward detoxification before graduation. In Queens, "compliance time" does not accrue until detox is complete, and in Manhattan, compliance time does not accrue until the dosage is cut in half. Suffolk, Syracuse and Rochester, on the other hand, do *not* require abstinence for graduation. While Syracuse often encourages abstinence and works with participants towards that goal, the court does not withhold graduation from someone still in a methadone clinic. In Buffalo, the court will follow the medication recommendation of a licensed and credited treatment agency as long as a physician approves the recommendation. Rochester's policy is to require a reduction in the level of methadone use, but not outright abstinence, for graduation. As these examples make clear, methadone policy is a court-by-court decision.

Initiating Participation

Eligible defendants may formally enter the drug court through one of two general methods – post-plea or pre-plea. The "post-plea" method requires a defendant to formally plead guilty to an agreed-upon charge. Sentencing is then deferred until program completion; participants in some courts know what their sentence will be before they begin participation, and in other courts they simply know they will be sentenced to jail or prison, but not the length. The "pre-plea" or "deferred adjudication" method does not require the defendant to plead guilty. Instead, the defendant enters the drug court *before* pleading to a charge. Upon failure in a pre-plea court, the participant has an opportunity to argue the criminal case, whether in front of the drug court judge or another judge.

According to Table 2.4, all eleven drug courts allow participants to enter post-plea, and five will also allow a pre-plea adjudication in some cases – Syracuse, Rochester, Buffalo, Lackawanna, and Tonawanda. In addition, in these five courts, there is also the possibility of switching from pre-plea to post-plea before drug court participation ends. Sometimes the Judge will require a guilty plea before allowing a noncompliant participant to continue in the drug court. This will generally happen after significant noncompliance and is often considered a last resort before program failure.

First Treatment Modality

Once it has been determined that a defendant is going to enter the drug court, a clinical decision must be made about the first treatment assignment – e.g., to a residential or outpatient program. In some drug courts, this decision is made during a second clinical assessment, while in others this decision is made at the same time as determining whether there is an eligible drug problem. Whenever the decision occurs, various factors are considered, encompassing more than just addiction severity and other drug use-specific factors. Courts were asked to rank the importance of eight factors used in determining the initial modality on a scale of one to three

Table 2.3. Factors Influencing the Determination of First Treatment Modality

	New York City - Major Urban				*Suburban*	*Medium-sized Urban*			*Small city/Semi-rural*			
	Bronx	**Brook-lyn**	**Manhat-tan**	**Queens**	**Suffolk**	**Syra-cuse**	**Roch-ester**	**Buffalo**	**Lacka-wanna**	**Tona-wanda**	**Ithaca**	**AVG Value**
Addiction severity	3	3	3	3	3	3	3	3	3	3	3	**3.0**
Staff professional judgment	3	3	3	3	3	3	3	3	3	3	3	**3.0**
Residential stability / homeless status	3	3	3	3	2	3	3	2	3	3	3	**2.8**
Level of family / household support	2	3	2	2	3	2	2	1	2	2	3	**2.2**
Primary drug of choice	1	3	2	2	2	2	1	3	2	2	2	**2.0**
Criminal justice considerations	1	3	3	3	1	1	2	1	3	2	2	**2.0**
Feedback from community contact[1]	2	2	2	2	1	2	2	1	2	2	3	**1.9**
Employment or educational status	2	2	2	3	2	2	2	1	1	2	2	**1.9**

Data as of 4/01.

Rating on a Scale of 1-3 (1 = Not Important at All; 2 = Somewhat Important; 3 = Very Important)

[1] A community contact can be a family member, friend, employer, or other acquaintance.

(1 = "not important at all", 2 = "somewhat important" and 3 = "very important").[4] Table 2.3 presents the results.

Across all eleven courts, two tiers of factors emerged. The higher tier included those criteria that were considered most important across the courts: addiction severity (average score = 3.0), staff professional judgment (average score = 3.0), and residential stability / homeless status (average score = 2.8). Only two of the courts, Buffalo and Suffolk, did not rate residential stability / homeless status as "very important"; both rated it as "somewhat important."

The lower tier of criteria included all of the other factors that courts were asked to rate: level of family / household support, primary drug of choice, criminal justice considerations, feedback from a community contact (defined as a family member, friend, employer, or other acquaintance of the participant), and employment or educational status.

Among the lower tier, criminal justice considerations was the one that elicited the sharpest contrasts. Bronx, Suffolk, Syracuse and Buffalo all considered this factor as "not important at all" with respect to treatment placements. (These issues may be important with respect to the initial eligibility decision, however; staff from Buffalo stressed that both "community safety and an offender's needs" affect the initial legal and clinical assessment process.) Brooklyn, Manhattan, Queens and Lackawanna, on the other hand, defined criminal justice considerations as "very important" in determining the appropriate first modality. This contrast reflects a common debate concerning alternative-to-incarceration programs. On the one hand, there are courts that take the position that since the participants are criminally involved, the programs are expected to ensure public safety by enforcing strong judicial monitoring and treatment supervision. On these grounds, participants with more serious criminal charges or criminal history might be mandated to an inpatient facility, because of the greater restrictions and closer supervision associated with that modality. On the other hand, other courts believe that once a defendant has been accepted into the drug court, criminal justice factors should not by themselves influence clinical decisions, such as modality assignment. (See Chapter Four for a discussion of related topics.)

[4] The surveys were mailed to the coordinator in each court, but various members of the team contributed to the answers. Therefore, some courts present the opinions of clinical staff while others are legal or administrative in perspective.

Among the other factors, Brooklyn, Suffolk and Ithaca are the only courts that ranked the level of family / household support as "very important." Primary drug of choice was considered a "very important" factor only in Buffalo and Brooklyn; residential treatment is generally recommended for persons addicted to heroin in Brooklyn. Also, Ithaca ranked feedback from a community contact as "very important," while Suffolk and Buffalo thought it was "not important at all." All other courts considered this "somewhat important."

There was a fair amount of diversity in practices related to considering employment / education status. Queens considered this a "very important" factor in determining first modality, while Buffalo and Lackawanna thought it was "not important at all"; other courts ranked it in the middle. Site visits revealed that, in certain courts, if participants had a job or were in school, case managers would try not to send them to a residential program. The reason given was, generally, that if a participant is actively involved in a "constructive activity," such as employment or education, it is considered important to enable them to continue that activity if clinically possible.

Program Completion

Graduation Requirements

Each court has a distinct set of drug court graduation requirements. Usually, courts establish formal expectations such as completion of recovery, self-sufficiency, or progress toward educational or employment opportunities. Table 2.4 compares the courts on the more quantifiable kinds of requirements that all participants must fulfill, including:

- Minimum months required in the drug court program;
- Time required to be sober and clean;
- Time required to be sanction-less;
- Employed / in school at graduation;
- Employment training;
- High school degree / G.E.D.;
- Community service; and
- Aftercare.

Six of the eleven courts require at least one year of drug court participation before graduation. In Brooklyn, there are three tracks of participation, which create requirements of at least eight months (misdemeanor plea), twelve months (first felony plea) and eighteen months (multiple felony plea or predicate felony plea). Bronx requires eleven months and Ithaca nine. Buffalo and Lackawanna require eight months, and Tonawanda six.[5]

Drug courts often require more than just a certain time spent participating in the program. Often, participants are required to spend a significant amount of that time clean and sober (without a positive drug test) and/or sanction-less.

In courts with additional clean and/or sanction-less requirements, average time to graduation may be substantially longer than the minimums noted in Table 2.4. As the table indicates, Queens does not technically require any consecutive clean and sober time, although Queens does

[5] Note that as of the second survey administered in July 2002, Buffalo, Lackawanna and Tonawanda had increased their program minimum to twelve months.

Table 2.4. Participation and Program Completion

	New York City - Major Urban				*Suburban*
	Bronx	**Brook-lyn**	**Manhat-tan**	**Queens**	**Suffolk**
A) Adjudication					
Post-plea adjudication?	Y	Y	Y	Y	Y
Pre-plea adjudication?	N	N	N	N	N
If pre-plea, ever upgrade to post-plea?					
B) Graduation Requirements					
Minimum months required	11	8 / 12 / 18 [1]	12	12	12
Some/all time sober & clean	Some	All	All	None	Some
Some/all time sanctionless	All	All	Some	Some	None
Employed/in school at graduation	Y	Y[2]	Y	N	Y
Employment training	N	N	Y	N	N
HS degree / GED	N	N	N [4]	Y [5]	Y
Community Service	N	Y	Y	Y	N
Aftercare	Y	Y	N	N	Y
C) Legal Consequences of Graduation					
Pending criminal charges	Dismissed or reduced to misdemeanor	Dismissed	Dismissed	Dismissed	Dismissed or reduced to misdemeanor or violation
D) Legal Consequences of Failure					
Predetermined jail alternative?	Y	Y	Y	Y	Y
If yes, how long is most common jail alternative?					
Violation					
Misdemeanor		6 months			6 months
First felony	2-6 yrs[3]	1-1 1/2 yrs[3]	1 year[3]	1 year[3]	1 year[3]
Predicate felony		3-4 1/2 yrs[3]			at least 1 year[3]
Can predetermined sentence change during participation?	Y	Y	Y	Y	Y
If yes, why?	Mental or physical illness; methadone	New arrest	New arrest	New arrest	New arrest or warrant

Table 2.4. *(continued)*
Participation and Program Completion

	Medium-sized Urban			*Small city/Semi-rural*		
	Syra-cuse	**Roch-ester**	**Buffalo**	**Lacka-wanna**	**Tona-wanda**	**Ithaca**
A) Adjudication						
Post-plea adjudication?	Y	Y	Y	Y	Y	Y
Pre-plea adjudication?	Y	Y	Y	Y	Y	N
If pre-plea, ever upgrade to post-plea?	Y	Y	Y	Y	Y	
B) Graduation Requirements						
Minimum months required	12 [6]	12	8	8	6	9
Some/all time sober & clean	Some	All	Some	Some	Some	All
Some/all time sanctionless	None	None	None	None	None	None
Employed/in school at graduation	Y	Y	Y	Y	Y	Y
Employment training	Y	Y	Y	Y	Y	N
HS degree / GED	Y	Y	Y	Y	Y	N
Community Service	Y	N	N	N	N	Y [10]
Aftercare	N	Y	Y	Y	Y	Y
C) Legal Consequences of Graduation						
Pending criminal charges	Misd: Dismissed Fel: Dismissed or reduced	Misd: CD Fel: reduced to misdemeanor	Misd: CD Fel: B misd &/or probation	Charges dismissed or reduced	Favorable dispos. that does not include jail time; could be dismissed	Misd. might be reduced to a viol. or ACD; sentence held in abeyance then receive CD
D) Legal Consequences of Failure						
Predetermined jail alternative?	N	Y/N [7]	Y/N [8]	Y/N [9]	Y/N [9]	N [11]
If yes, how long is most common jail alternative?					Maximum	
Violation			A Misd. - 1 year		sentence	A Misd. - 1 Year
Misdemeanor	1 year maximum	1 year maximum	B Misd. - 90 days		allowed by law	B Misd. - 90 Days
First felony	at least 1 year [3]	1 year and				
Predicate felony	2-4 years [3]	probation				
Can predetermined sentence change during participation?	N/A	Y	Y	Y	N	N/A
If yes, why?	Pre-plea may become post with new arrest	New arrest	New arrest or noncompliance	New arrest or noncompliance		

Data as of 4/01.

[1] There are three distinct treatment mandates, respectively for participants pleading to a misdemeanor (shown at left), participants pleading to a single felony (shown at center), and participants pleading to multiple felonies or pleading to a felony with a prior felony conviction (shown at right).

[2] The participant may be actively seeking employment at graduation.

[3] Where a prison sentence is involved, numbers represent the minimum length of the most common prison alternative.

[4] This may be required as a condition of acceptance into the drug court.

[5] Technically, a GED or high school diploma is required for graduation, but since there are no education services on site, this requirement is not a strict one.

[6] There is not an objective total time required for graduation, although in practice, the minimum time to graduate is one year.

[7] Pre-plea cases have no predetermined alternative. The arraigning judge may determine the jail alternative for post-plea cases, but does not always set one.

[8] Pre-plea cases know there will be jail upon failure, but often do not know the specific length; it depends on the judge. Post-plea cases have a jail alternative.

[9] Post-plea cases have a jail alternative; pre-plea cases will be determined as prescribed by law.

[10] Restorative Justice Project is an individualized project that encourages each graduate to give back to their community through service work.

[11] Failures will almost always receive jail, the length to be determined by the Judge. Mitigating circumstances are considered including mental illness and length of participation.

require sanction-less time, which of course means that when a positive drug test results in a sanction, the participant will be setback. Only the four New York City drug courts require "some" or "all" time to be sanction-less. Brooklyn, Bronx, and Queens require all time to be sanction-less. However, in Bronx, it is only in Phase Three that participants must complete a significant period of *consecutive* sanction-less time (four months). In earlier phases, Bronx employs a time clock, which is stopped when a sanction occurs and may then be restarted afterwards. Somewhat similarly, Manhattan has a 365-day clock that represents the one-year needed to graduate from that court. A participant's behavior may then stop and start the clock; for example, a positive drug test or other sanction may take days off the clock. Each infraction does not usually result in the clock starting back at zero, but could mean setting back a phase or resulting in a change of treatment modality.

In Suffolk, the last six months of the required twelve must be clean and sober. While clean time does not accrue until the six-month mark, participants are sanctioned and are in danger of failing the program if they consistently use during the early portion of their participation.

In addition to time-related graduation requirements, several courts identify other objective requirements. Every court has some variety of an educational or employment requirement. All of the upstate courts, except Ithaca, require participants to obtain a high school degree or G.E.D. Of the remaining courts, Queens also requires participants to have a high school degree or G.E.D., but this requirement is rarely enforced, because Queens does not have an educational consultant on staff. Manhattan, on the other hand, does not have a blanket educational requirement but can sometimes mandate it as part of the plea and participation agreement. Although Suffolk technically requires both employment and a high school degree or G.E.D., the practice is closer to a requirement of doing something "constructive", whether that be employment, school, or caring for children.

The concept of requiring offenders to give back to their communities is common in drug courts. Accordingly, five of the courts have a community service requirement – Brooklyn, Manhattan, Queens, Syracuse, and Ithaca. While some of the other courts do not require community service as a graduation requirement, they may use it as a sanction in response to noncompliance. (See Chapter Five for a more detailed description of infractions and sanctions.) In Ithaca, community service is a graduation requirement in the form of a Restorative Justice Project. The philosophy, as is often the case with community service in a drug court, is that participants should give restitution to the communities where they used to engage in destructive behavior. Unlike in other courts where community service is usually an anonymous activity, such as cleaning graffiti at an assigned site, the Restorative Justice Project at Ithaca is meant to be a personalized effort on behalf of each participant to consciously determine what to give back to the community.

Lastly, eight of the eleven courts require a plan for continuing care. "Aftercare" is often used to describe, broadly, what an addicted person will do to maintain abstinence after completing treatment. It often includes attendance at support groups, individual therapy, an alumni group, or plans for how to deal with "trigger" events and people formally associated with the drug problem. Manhattan, Queens, and Syracuse do not require an aftercare plan per se; however, all encourage, support, and assist with aftercare planning. In addition to the above specific graduation requirements, most courts require a formal graduation application or interview.

Legal Coercion

The theory of legal coercion is central to the drug court model. Participants have both a positive legal incentive to succeed (a promised benefit upon graduation) and a negative incentive (the threat of incarceration upon failure). Joining a drug court is therefore a calculated risk for the defendant. On the one hand, upon graduation the defendant will almost never receive jail or prison time, and will graduate with a reduction or even dismissal of charges. On the other hand, the defendant must spend months in treatment and, upon failure, will almost always receive a jail or prison sentence,[6] sometimes a sentence greater than they would have received had they not joined the program in the first place.

In some courts, participants know exactly how much incarceration time they are facing, while in others, participants know they will receive jail or prison, but do not know the amount time in advance. When participants enter a drug court on a pre-plea basis, they do *not* know the consequences of failure, since no plea has been entered yet.

Incentives for Graduation. Policies regarding what to do with pending criminal charges in the event of graduation (or failure) vary from court to court. Eight of the eleven courts allow some opportunity for a dismissal of the criminal charges upon graduation. However, that option is not available to participants in Rochester, Buffalo, or Ithaca. In New York City, three of the four felony-only courts dismiss the cases of all graduates, and many are dismissed in the fourth court. Generally, across courts, a felony charge is commonly reduced to a misdemeanor if not dismissed. None of the eleven courts studied here requires a graduate to serve jail or prison time after leaving the program.

Incentives to Avoid Failing. As Table 2.4 indicates, specifics vary in each court, but most have reasonably standard incarceration alternatives for each eligible disposition status (e.g., misdemeanor, first felony, or predicate). In the five downstate courts (the four in New York City plus Suffolk), incarceration alternatives are predetermined at the time of plea – i.e., when the drug court contract is signed, in advance of participation. Two of these courts, Brooklyn and Suffolk, accept participants pleading guilty to a misdemeanor; and both have typical jail alternatives of six months. All five downstate courts accept participants pleading guilty to a first felony; four of the five have typical alternatives of one year in jail or one to three years in prison, while the fifth downstate court, Bronx, has a longer alternative of two to six years in prison.

In the six upstate courts, incarceration alternatives are not always determined in advance of participation. In the five upstate courts that accept pre-plea cases (all except Ithaca), participants do not receive preset alternatives, and policies vary with regard to post-plea cases. In Syracuse, for example, upon failure, participants may argue the merits of the criminal case before the drug court judge. In the end, Syracuse failures with a misdemeanor charge typically receive the one-year maximum. First felony cases will typically receive at least one year in prison, and predicates will often receive the maximum prison sentence for their particular conviction charge; however, participation time and behavior during program participation may be taken into account at the judge's discretion.

In Rochester, misdemeanor cases receive up to one year in jail; felony cases often receive one year and possibly probation in addition. In Ithaca, failures know in advance that they will receive a jail sentence, but the specific length is not determined until sentencing, after drug court failure occurs. At this time, what happened during drug court participation may be considered

[6] Some drug court failures may receive probation rather than incarceration time.

before making the sentencing decision (e.g., in-program achievements, new arrests, or warrants); but failures in Ithaca typically receive the maximum allowed by law, one year for those pleading to an A-misdemeanor and 90 days for those pleading to a B-misdemeanor. Tonawanda and Buffalo also indicated that their post-plea failures typically receive the maximum allowable sentence (same as Ithaca). In the other upstate court, Lackawanna, the drug court establishes predetermined incarceration alternatives, but did not indicate the typical or standard alternatives associated with each eligible disposition charge.

Notably, some courts that have predetermined incarceration alternatives, at times, adjust them during participation. Eight of the eleven courts (excepting Bronx, Tonawanda, and Ithaca) indicated that a new arrest may result in a longer alternative. Bronx indicated that it sometimes shortens the alternative in the event of a severe medical or mental health problem.

The first policy survey asked the drug courts to consider whether they believed the incarceration alternatives set for failing drug court tended to *differ* from the sentences that would have been imposed if the cases were prosecuted in the normal fashion. Eight of the eleven drug courts responded that the drug court imposed more severe sentences on its failures. Graduates, on the other hand, are virtually never sentenced to a period of incarceration. In Chapter Nineteen, it will be tested whether, on net, drug court participants in six courts – graduates and failures – average more or less incarceration time than those processed conventionally.

Innovative Programs

During site visits, the research team observed several innovative or special programs. Many of the eleven drug courts implemented special employment and/or vocational programs onsite. The vital need for such programs will become apparent in Chapter Three, which delineates the socioeconomic disadvantages faced by many drug court participants across the state. Several other innovative programs are described below.

Brooklyn

In fall 2000, Brooklyn initiated the BTC Women's Program to address the multiple needs of female participants with substance dependence and other co-occurring disorders (e.g., major depression, bipolar, or post-traumatic stress syndrome). The program involves collaborating with Palladia Inc., a local substance abuse treatment provider. It includes adding to the Brooklyn Treatment Court staff a psychiatric nurse practitioner to evaluate participants that may have co-occurring disorders and, when appropriate, refer them to a residential treatment facility run by Palladia. Participants there take part in group interventions and individual counseling, as well as an array of occupational and educational workshops, recreational therapy, health education sessions, and parenting skills workshops. With this initiative, Brooklyn has sought to provide additional targeted services to a drug court sub-population facing particularly serious challenges to recovery.

Queens

As will become clear in Chapter Three, the Queens drug court has a mostly young, male, marijuana-addicted population. From observation and interviews, the judge at Queens, the Honorable Leslie Leach, approaches his interactions with participants with a keen eye to the particular issues, challenges, and attitudes of this young population. In addition, the court sponsors both a Young Men's Day and a Women's Day for its participants. Speakers at the first

Young Men's Day focused on issues related to gangs and parenting. The second Women's Day covered topics on health, education, spirituality, and featured a motivational speaker. Lastly, the drug court sponsors an annual visit to York College for its younger participants. This is intended to introduce the idea of college as an accessible goal, even for drug-addicted youth.

Suffolk

The judge at the Suffolk drug court, the Honorable Salvatore Alamia, also expressed an interest in encouraging participants to pursue educational goals, although his efforts were quite different from those in Queens. After participants are settled into treatment, the Judge asks each participant to bring to a subsequent court appearance three questions from American or World History. The goal is to ask the Judge, a self-proclaimed history buff, these questions in an attempt to stump him or the court staff. The catch is that the participants must know the answers to all of their questions to determine if the Judge is correct, or to provide the answer if he is, in fact, stumped. The judge's goals with this game are two-fold. First, he believes that this works as an effective icebreaker with participants. Second, Judge Alamia uses this technique as a fun way to encourage participants to use the internet, go to the library, read the newspaper, talk with friends and family, or even watch Jeopardy. From the observations, this goal was clearly achieved, putting participants at ease and generating dialogue, and even laughter. One participant was particularly anxious to "stump the judge" and appeared to have brought with him many more than the required number of questions.

Syracuse

At the site visit to the Syracuse drug court, the Coordinator, Kim Kozlowski, expressed that they often assess non-addicted misdemeanor offenders who are not appropriate for the drug court. These are young, marijuana users who are, perhaps, abusing drugs, but do not have an *addiction* per se. Rather than pass on these cases and leave them to standard criminal justice prosecution, Syracuse places these cases into an unofficial educational track that is separate from the drug court, but remains on the drug court judge's calendar. These defendants participate in a treatment educational program for eight or sixteen weeks while continuing to receive monitoring, services and encouragement from the drug court. The coordinator expressed that the goal is to prevent these young offenders from reentering the system with a more serious offense, and that often these "kids" just need a little attention.

Rochester

There are two innovative programs underway at the Rochester drug court. There is a "truth policy" for participants with respect to drug testing. At the beginning of each drug court session, a somewhat random list of participants is required to take a drug test. As the judge calls the names of participants who must temporarily leave the courtroom to take the test, the judge asks each of them if they will test clean. Any participants who answer honestly that they will test positive will not have to proceed to the test and will receive a moderate-level sanction. On the other hand, any participants saying they are clean but then testing positive will receive a severe response from the court, i.e. a one- or two-week jail sanction. While this policy was initiated early on in the operation of the drug court for the purpose of saving money on drug tests, it has continued to the present day because staff like the message it sends to participants, which is that honesty, truth, and trust in the system are rewarded.

The second innovative program at Rochester involves alumni of the court. The "Clean Slate" program has three main characteristics. First, alumni run a "relapse panel" every two to three weeks for participants who are "falling off the wagon" and need a jumpstart to keep them on the recovery track. The judge can use the relapse panel as a sanction, or participants can choose to go voluntarily. At the panel, only alumni and participants are present, no court or treatment staff; and there is an anonymous question basket for topics to be discussed in that day's panel. Second, members of the Clean Slate program are often asked to be speakers in the drug court and in the community. They also assist in running an orientation group for new drug court participants. Third, alumni participate in a support group for themselves that meets once a month. Continued support can be instrumental in maintaining sobriety, especially after the judicial supervision and legal incentives provided by the court are over.

Lackawanna

Taking the participation of alumni one step further, the Lackawanna Mentor program incorporates drug court graduates in providing intervention services to active participants who are having difficulty stabilizing in treatment and in the drug court program. Mentors also assist with drug testing and collection during drug court status hearings, provide educational presentations and lectures, and act as facilitators in self-help meetings.

Ithaca

In Ithaca's Restorative Justice Project, participants design and implement their own personalized community service project. In the Life Skills Program, a member of the drug court staff or an outside community member teaches life skills each Tuesday afternoon. Past sessions have included love and relationships, anger management, conflict resolution, money management, bowling, and how to make cookies. Participants are required to attend five sessions throughout their participation, but they can choose which ones to attend. It is also possible that the judge might use a life skills session as a sanction if the topic is particularly appropriate for a specific participant. The goal of these sessions is for participants to have fun while learning skills that will be helpful in their sober lives. Equally important, these sessions are meant to highlight for participants that there are plenty of socially acceptable activities available, without having to rely on drugs.

The Graduation Panel is another notable program. All prospective graduates come before the entire drug court team for about fifteen minutes to defend why they should graduate. The judge leads the panel, and the assigned case manager summarizes the participant's struggles and progress while in the drug court. The purpose is to allow participants the opportunity to think through their time in the drug court, and all of the barriers they faced and overcame on their way to graduation. Participants are also provided an opportunity to give feedback to the drug court team on what were the most or least helpful components of the drug court program.

Chapter Three
Profile of Drug Court Participants

Drug courts throughout New York State target widely varying populations, based on court policies, the constituency of the jurisdiction, and a number of less apparent factors. By understanding the participant *profile*, it is possible to see where clinical or other needs are greatest and where gaps may exist in available services. For example, if most participants in a drug court have a long history of drug use, that might suggest a need for a large number of intensive residential treatment slots in the community. Or if many have a poor work record or minimal educational credentials, that might suggest a need for supplemental vocational or employment services. In addition, the participant profile allows researchers to determine whether drug courts are in fact reaching their intended target populations. For example, if the predominant local drug problem is crack, but most drug court participants turn out to have a marijuana addiction, that knowledge could stimulate creation of new eligibility or assessment policies.

The presentation of results from eleven drug courts provides the opportunity to see where the statewide population shares common traits and where, conversely, the profile varies across individual courts or geographic regions.

After briefly describing the methodology, this chapter will introduce a few basic census characteristics of each of the eleven underlying jurisdictions. Next, drug court participant profile information will be presented and compared among the eleven courts, followed by a comparison of the female and male participants at all courts. The final section in this chapter compares program graduates and failures, previewing a more in-depth treatment of the factors that predict graduation and failure in Chapter Nine.

Methodology

All participants included in the analysis had entered drug court by June 30, 2002. Participants entering Suffolk's drug court before August 26, 1999, the date that Suffolk began using New York's statewide database, are excluded.[1]

Further, analyses in this chapter and those that follow only consider participants enrolled in "full-scale" drug court programs involving the key components outlined at the beginning of Chapter One (e.g., significant stay in treatment, judicial monitoring, rewards and sanctions, etc.). Finally, due to data availability limitations, a number of variables that would have been interesting to examine – e.g., household income and mental health measures – are excluded

[1] For this reason, some participants in Brooklyn and Lackawanna were excluded throughout the report, due to experiencing an abridged form of the model. In Brooklyn, just over one hundred participants were excluded who entered one of two "short-term treatment" programs requiring only a short treatment stay, usually ninety drug-free and sanction-free days. In Lackawanna, the drug court began in 1996 as a pilot project, which did not incorporate several key components. (For instance, treatment mandates often lasted only about three to four months.) Thus data analyses of the Lackawanna program were limited to participants entering September 1997 or later, when the court's current model was adopted.

Table 3.1 Jurisdictional Characteristics

	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk	Syra-cuse	Roch-ester	Buffalo	Tona-wanda	Lacka-wanna	Ithaca
TOTAL POPULATION	1,332,650	2,465,326	1,537,195	2,229,379	1,419,369	147,306	219,773	292,648	16,136	19,064	29,287
DEMOGRAPHICS											
A. Median Age	31.2	33.1	35.7	35.4	36.5	30.5	30.8	33.6	38.9	37.5	22.0
B. Male	45%	45%	47%	47%	48%	47%	48%	47%	49%	48%	51%
C. Race											
Caucasian	32%	43%	57%	47%	86%	67%	50%	56%	99%	87%	77%
Black	38%	38%	18%	21%	7%	26%	40%	38%	0%	10%	7%
Native American	1%	0%	1%	1%	0%	1%	0%	1%	0%	0%	0%
Asian/Pacific Islander	3%	8%	10%	19%	3%	4%	2%	1%	0%	0%	14%
Other	26%	11%	15%	12%	4%	2%	7%	4%	0%	2%	2%
D. Ethnicity											
Hispanic/Latino	51%	21%	28%	27%	11%	5%	13%	8%	1%	5%	5%
SOCIOECONOMIC STATUS											
E. Estimated Median Household Income[1]	$27,611	$32,135	$47,030	$42,439	$65,288	$25,000	$27,123	$24,536	$37,523	$29,354	$21,441
F. Families in Poverty [1]	28%	22%	18%	12%	4%	22%	23%	23%	5%	13%	14%
G. Unemployed	14%	11%	9%	8%	4%	9%	10%	13%	5%	7%	9%
H. Has at Least a High School Degree / GED	62%	69%	74%	74%	86%	76%	73%	75%	85%	76%	90%

Note: Census geographic distinctions include Bronx County, Kings County (Brooklyn), New York County (Manhattan), Queens County, Suffolk County, Syracuse City, Rochester City, Buffalo City, Lackawanna City, Ithaca City, and Tonawanda City. All data comes from the 2000 census (U.S. Census Bureau 2002).

[1] Household income and percent of families in poverty information represent data from the 1999 census.

across all courts. In addition, variables with more than 50% of the data missing for a given court are excluded from the analysis for that court. (See shaded cells in Tables 3.2-3.4.) Variables with more than 35% but less than 50% of responses missing are denoted by a footnote in the tables. In addition to data drawn from New York's drug court information systems, data provided by the New York State Division of Criminal Justice Services (DCJS) was used to create a more reliable record of criminal history and instant case information.

Jurisdiction Characteristics

Table 3.1 presents data from the 2000 census for the eleven jurisdictions examined. The courts included in the profile analysis represent the diverse geography of New York State, from the semi-rural town of Ithaca to the large metropolis of New York City. Even within the boroughs of New York City, population figures range from the Bronx's 1,332,650 inhabitants to the nearly two and a half million inhabitants of Brooklyn. The median age ranges from the lower- to upper-thirties in all courts but Ithaca, where the median age is much lower (22). This may be due to the large college population in Ithaca. The gender distribution is fairly consistent across sites, with males representing slightly less than half of the population in all jurisdictions except in Ithaca, where males make up 51% of the population.

There is great variation in the racial distribution across locations. Caucasians make up a particularly large proportion of the population in Suffolk, Tonawanda, Lackawanna, and Ithaca. Blacks comprise a substantial percentage of the population across the more sizeable cities in both downstate and upstate; at least a quarter of the population is black in all three mid-sized cities – Syracuse, Rochester, and Buffalo – as well as in Bronx and Brooklyn. Additionally, 21% of the

population is black in Queens. Finally, the Hispanic/Latino population is notably larger in New York City than in the rest of the state. In particular, Bronx stands out as having more than 50% of the population identified as Hispanic/Latino; also, Bronx is the only jurisdiction in which there is a higher proportion of black than Caucasian residents.

Estimated income and poverty levels vary dramatically across New York State. While the median incomes in the upstate sites fall within $5,000 of each other with one exception (Tonawanda is higher), socioeconomic status in the downstate sites varies greatly. Extremes in this area are found between the low-income, high-poverty borough of the Bronx (28% poverty) and the suburban county of Suffolk (only 4% poverty and highest median income of the eleven jurisdictions). As in both Bronx and Brooklyn, the percentage of families living in poverty is relatively high in the three upstate cities (Syracuse, Rochester, and Buffalo). Unemployment and educational attainment are variable throughout the state. Average educational attainment is relatively low in Bronx and Brooklyn. Bronx also has the highest level of unemployment. Suffolk, Ithaca, and Tonawanda stand out as having low unemployment figures and highest percentages with at least a high school degree or GED.

The census data presented here is particularly informative when compared with the demographic characteristics of the drug court population. Drug courts face not only the challenge of treating serious issues of addiction and criminality, but often these programs draw a population facing numerous other social burdens, such as unemployment and low levels of education, in much greater proportions than the general population.

Comparing New York's Drug Court Participants

The eleven drug courts were compared on six general categories – demographics, socioeconomic status (SES), drug use/treatment history, criminal history, top charge on the drug court instant case, and drug court mandate. All findings are in Table 3.2. Key trends are noted below.

Demographics

- Drug court participants throughout the state tend to be male and single; and
- Caucasians are underrepresented in the drug court population relative to their prevalence in the general population.

Across courts, participants are overwhelmingly male and single; from 58% to 85% of participants are male in all courts, which is largely a function of the predominantly male character of the underlying criminal justice population.

Participants in Queens are notably younger than participants in any other court. Queens participants have a median age of 23, in contrast to a median age of 30 across all eleven courts.

Not surprisingly, New York City participants are more likely than participants in other jurisdictions to be non-Caucasian; over 80% of participants in all four New York City drug courts are black or Hispanic. Buffalo (55%) and Syracuse (61%) have the highest black population of the eleven courts. Interestingly, in nearly all eleven courts, the racial composition of the drug court is not representative of the jurisdiction's overall population according to census data; blacks are noticeably and consistently over-represented in the drug court population. Conversely, in all courts, Caucasians comprise a smaller proportion of the drug court population than the general population. In most cases, the disparity likely stems from the racial distribution

Table 3.2 General Profile of Participants

	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk[1]	Syra-cuse	Roch-ester	Buffalo	Tona-wanda	Lacka-wanna	Ithaca	Median all courts
Number of Participants	698	1990	394	674	350	755	2985	1501	291	200	215	
DEMOGRAPHICS												
A. Median Age at Entry	29	34	27	23	29	30	33	34	26	30	30	30
B. Median Age of First Drug Use	16	15	15	15	15	15	17 [2]	19 [7]	15	15	16	15
C. Male	72%	60%	74%	83%	69%	67%	68%	58%	85%	80%	70%	70%
D. Race/Ethnicity												
Caucasian	2%	8%	5%	11%	75%	29%	43%	37%	92%	65%	55%	37%
Black	48%	51%	57%	52%	16%	61%	55%	61%	4%	19%	32%	51%
Hispanic/Latino	48%	40%	36%	32%	6%	7%	2%	2%	1%	13%	5%	7%
Asian/Pacific Islander/Other	2%	1%	2%	4%	3%	2%	-	-	3%	4%	8%	3%
E. Marital Status												
Married/Life Partner	22%	8%	10%	12%	14%	8%	12%	11%	13%	13%	11%	12%
Divorced/Separated/ Widowed	12%	-	14%	10%	14%	19%	18%	18%	17%	12%	23%	16%
Single/Never Married	66%	92%	76%	78%	72%	73%	70%	71%	70%	75%	66%	72%
SOCIOECONOMIC STATUS												
F. Ever Homeless	38%	27%	30%	7% [2]	35%	35%			13% [2]	22% [2]	41%	35%
G. High School Degree/GED	41%	41%	39%	45%	65%	58%		60% [8]	61% [2]	60% [2]	65%	45%
H. Employed/In School	34%	16%	28%	55%	41%	26%			31% [2]	52% [2]	47%	34%
I. Primary Source of Support												
Legal Employment	24%	17%	21%	40% [2]	32%	21%		22%	57% [2]	33% [2]	34%	22%
Government Assistance	29%	32%	20%	7% [2]	9%	28%		41%	13% [2]	29% [2]	35%	29%
Hustling	3%	19%	13%	1% [2]	17%	2%		-	-	-	-	13%
Spouse/Family/Friends	26%	25%	29%	43% [2]	34%	28%		15%	26% [2]	16% [2]	21%	26%
None/Other	18%	7%	16%	9% [2]	8%	22%		22%	3% [2]	22% [2]	9%	16%
DRUG USE/TREATMENT HISTORY												
J. Median Years of Drug Use[3]	11	18	8	8	13	15	12 [2]		10	14	12	12
K. Primary Drug of Choice												
Heroin	21%	38%	18%	6%	20%	5%	10%	13%	1%	11%	9%	11%
Cocaine	12%	7%	14%	20%	14%	14%	50% [6]	7%	1%	14%	7%	13%
Crack	22%	33%	21%	8%	28%	33%	2% [6]	33%	4%	26%	24%	25%
Marijuana	40%	14%	45%	56%	11%	32%	24%	17%	35%	32%	28%	32%
Alcohol	3%	5%	1%	9%	2%	13%	14%	29%	57%	13%	31%	13%
Poly Drug or Other	2%	4%	2%	-	24%	2%	-	-	1%	6%	-	2%
Cocaine/Crack/Heroin	*55%*	*78%*	*53%*	*34%*	*62%*	*53%*	*62%*	*53%*	*6%*	*51%*	*41%*	*53%*
L. Previously In Drug Treatment	55%	51%	38%	51%	71%	68%	95%		69%	59% [2]	86%	68%

Table 3.2 *Continued*

	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk [1]	Syra-cuse	Roch-ester	Buffalo	Tona-wanda	Lacka-wanna	Ithaca	Median all courts
Number of Participants	698	1990	394	674	350	755	2985	1501	291	200	215	
CRIMINAL HISTORY												
M. Mean Days of Prior Incarceration	29	103	7	16	83	239	217	198 [9]	75	67	78	76
N. Priors												
Number - All convictions (mean)	2.02	1.90	1.36	0.59	2.46	4.03	3.11	3.34	1.04	1.15	2.07	2.02
Any Conviction(s)	39%	41%	30%	19%	53%	69%	62%	59%	33%	42%	56%	42%
Any Misdemeanor Conviction(s)	39%	35%	28%	19%	51%	66%	58%	56%	30%	38%	54%	39%
Any Felony Conviction(s)	2%	17%	4%	1%	18%	28%	29%	20%	10%	13%	22%	17%
Any Drug Conviction(s)	26%	27%	22%	12%	28%	28%	18%	22%	8%	17%	17%	22%
CURRENT CHARGES												
O. Charge Severity												
Felony	100%	100%	100%	100%	34%	25%	23%	20%	12%	22%	9%	25%
Misdemeanor	-	-	-	-	64%	73%	70%	76%	45%	68%	74%	70%
Violation/Infraction	-	-	-	-	1%	2%	6%	4%	43%	10%	17%	6%
P. Charge Type												
Drug Sales	95%	90%	71%	63%	1%	2%	2%	-	2%	-	-	33%
Drug Possession	4%	10%	29%	35%	67%	41%	33%	40%	15%	49%	23%	33%
Other Drug Charges[4]	-	-	-	-	2%	1%	4%	3%	22%	6%	12%	4%
Prostitution	-	-	-	-	-	5%	7%	22%	-	-	-	7%
Property Offense	-	-	-	-	16%	26%	34%	25%	20%	26%	40%	26%
Other	-	-	-	-	14%	12%	20%	10%	40%	21%	26%	20%
Violation of Probation (VOP)[5]	-	-	-	-	1%	13%	-	-	-	-	-	7%
DRUG COURT MANDATE												
Q. Pre-Adjudication (no plea required)	-	-	-	-	-	60%			20%		-	40%
R. Jail or Prison Alternative												
< 6 months	-	-	-	-	16%						18%	17%
6 months to < 1 year	-	30%	1%	-	56%						3%	16%
1 year	3%	51%	98%	98%	21%						79%	65%
> 1 year	97%	19%	1%	1%	6%						-	6%

Note: Criminal history data was from DCJS. Dashes in cells represent less than 0.5% of cases. If not otherwise noted, the percentages of missing cases for variables included is less than or equal to 35%. Also, in the shaded cells where no percentages are displayed, 50% of cases or more are missing data.

[1] Suffolk cases include those participants who entered after August 26, 1999.

[2] This signifies from 36-49% missing cases.

[3] Since the median is reported for participant age, age at first drug use, and years of drug use, years of drug use is not equal to the difference between participant age and age at first use.

[4] These include misdemeanor marijuana sales, unspecified drug charges, and DUI/DWI/Driving with chemical impairment. The latter make up 13% of charges in Tonawanda, 4% in Lackawanna, and 9% in Ithaca.

[5] Depending on each court's policies, the violation can be for a new arrest and/or a technical violation of probation rules. In the case of a new arrest, some courts specifically identify the new arrest charge, while others will identify the original arrest charge on which the probation sentence was imposed.

[6] During the initial stages of the Rochester drug court, cocaine and crack use were not differentiated in the database used by the drug court. Therefore, cocaine and crack are combined here.

[7] The original database used by Buffalo did not record the specific age of first drug use, but instead had age ranges from which to choose for each participant. The median value was in the 17-20 years old category.

[8] Buffalo records education information somewhat differently than the other courts, due to differences in their initial database. Rather than recording separate information on whether defendants received a high school diploma and whether defendants received a G.E.D., education information is collected in one variable indicating the highest year of education completed by the defendant. In addition, those individuals with a G.E.D. are identified by this variable.

[9] There is a highly skewed distribution for this variable in Buffalo. The median is actually zero days, and the 75th percentile is only 95 days. But due to the wide range of values, the mean is 198 days. There was one outlier removed from the analysis with 9,125 days incarcerated before entering the drug court.

of the arrestee population, not from drug court policies. It is important to note that Hispanic/Latino ethnicity cannot be directly compared, as the census records this information in a separate question specifically asking about Hispanic ethnicity, while it is coded in the same race/ethnicity question as all other racial/ethnic categories in the statewide drug court information system.

Socioeconomic Status

- Socioeconomic disadvantage afflicts drug court participants throughout the state;
- Across the courts, the median percent of participants who have received a GED or high school diploma is 45%; and
- Median percent employed or in school is 34%.

Substance abuse is not the only problem faced by drug court participants. Socioeconomic disadvantage afflicts many in this population, although the degree to which socioeconomic status (SES) hinders drug court participants varies by court. History of homelessness, educational background, current employment status, and primary source of income serve as indicators of SES.

With the notable exceptions of Queens (7%) and Tonawanda (13%), in all seven other courts with available data more than 20% of respondents report that they have been homeless at some time; in six of the eleven courts more than a quarter of the participants report a history of homelessness; surprisingly, homelessness does *not* appear to be more prevalent in downstate or upstate courts.

Participants across the New York City courts have similar levels of education, with 39-45% of New York City participants having a high school degree or GED; but participants in these courts vary widely with regard to current employment status. Participants in Brooklyn are least likely to be employed or in school (16%), while Queens participants are the most likely from New York City to be employed or in school (55%). Participants in Queens are likewise most likely among the New York City courts to report legal employment (40%) or family, friends, or a spouse (43%) as their primary source of support. Conversely, Queens participants are the *least* likely among the New York City courts to report public assistance as their primary source of support (7%). Not only do Queens participants fare well relative to other New York City participants, but they are also less likely to have been homeless, more likely to be employed or in school, and less likely to report public assistance as their primary source of support than participants in *any* of the remaining nine courts with available information. Some portion of the Queens-specific findings may be a function of the relatively young age of the participants, as many may be living as legal dependents while they complete their education. In any case, the clear conclusion is that the participants in Queens average a higher SES than participants in virtually all of the other courts. Census data somewhat supports the finding that the population of Queens has a slightly higher SES than the population in other sites, with the notable exception of Suffolk. The median income of all Queens residents is notably higher than the income of residents of all courts except Manhattan and Suffolk (see Table 3.1 above). Hence, underlying jurisdiction demographics appear partly but not entirely to explain the findings in Queens.

In general, participants in Suffolk and the three semi-rural drug courts fare better than participants in the seven urban courts across most socioeconomic measures. However, even among the relatively advantaged courts, large numbers of participants report having been homeless at some time (except in Tonawanda, 13%) and many participants rely on public

assistance as their primary source of income. Hence it appears that drug court participants across New York State face a large number of socioeconomic stresses, including high rates of prior homelessness, low levels of employment, and high levels of reliance on government assistance and/or friends and family members for primary income. Even in the courts with the lowest levels of unemployment – Queens and Lackawanna – nearly half of participants are neither employed nor in school. After Queens and Lackawanna, participants in the seven remaining drug courts with available data fare far worse, with a cross-court average of only 32% being employed or in school.

Drug Use and Treatment History

- Primary drug of choice varies across the state and is partly a function of differing drug court policies; and
- In all but three courts, more than half of the participants identify their primary drug as a "hard" drug – cocaine, crack, or heroin;
- In all but one court with available information, the majority of participants have been in drug treatment at some point prior to entering drug court.

Studies have often found that severity of addiction is an important factor in determining ultimate program failure or success (e.g., Babor, Dolinsky, Rounsaville, and Jaffe 1988). While all courts assess participants for addiction severity, the detailed series of questions usually asked on this subject are not always available for data analysis. As a proxy, data is available on duration of drug use and primary drug of choice. Several studies focusing on court-mandated populations report that primary drug is a critical indicator of outcomes, with heroin or crack emerging as the most difficult addictions from which to recover (Peters, Haas, and Murrin 1999; Rempel and DeStefano 2001; Young, Dynia, and Belenko 1996).

The results show that median age of first drug use is fairly stable, occurring at 15 or 16 years of age in nine of the eleven courts, with participants in Rochester (17) and Buffalo (19) slightly older at first use. In spite of the similarity in age at first use across courts, differences in participant age at drug court entry lead the median *duration* of drug use to vary widely.

Participants in Bronx, Brooklyn, Manhattan, and Suffolk are far more likely to identify heroin as their primary drug of choice than participants in other courts. Participants in Queens stand out among the New York City participants as having a relatively low percent of participants using primarily heroin (6%); they are more likely than those in any other court to identify marijuana as their primary drug of choice (56%). Buffalo (29%), Ithaca (31%), and Tonawanda (57%) have particularly high levels of primary alcohol use. The relatively higher levels of alcohol use in Tonawanda are in part the result of that court's policy of accepting defendants charged with DUIs and DWIs. Because defendants addicted to alcohol only are not drug court eligible in Brooklyn, Manhattan, and Suffolk, it is not surprising that there are low levels of primary alcohol use in these courts. In every court except Queens (34%), Tonawanda (6%), and Ithaca (41%), at least half of the participants identify a "hard" drug – cocaine, crack, or heroin – as their primary drug of choice. The number of Brooklyn participants identifying one of these "hard" drugs as primary is exceptionally high at 78%. This can be explained partly by the seriousness of the local drug problem in Brooklyn but also by the Brooklyn drug court's policy of excluding defendants who are addicted to marijuana and alcohol only.

In nine of the ten courts with available information (except Manhattan), more than half of participants had been in drug treatment at some time prior to entering drug court. Such high

levels of previous treatment additionally indicate extensive addiction among the drug court population.

Criminal History

- Drug court participants throughout the state have considerable criminal histories.

On the whole, the drug court population is extensively involved in criminal activity, indicated by the large number of participants with prior convictions. However, the level of prior criminal activity varies widely by court, with New York City participants generally being *less* likely to have prior convictions. In large part, this difference is due to a policy decision in Bronx, Queens, and Manhattan not to accept participants who have prior felony convictions. Participants in Brooklyn, the only New York City court that does accept participants convicted of prior felonies, are only slightly more likely than participants in any other New York City court to have at least one prior, either misdemeanor or felony level (41%), but are substantially more likely to have prior *felony* convictions (17%). Not only have more participants in six of the remaining seven courts (except Tonawanda) had at least one prior conviction, but also, with the exceptions of Lackawanna and Tonawanda, non-New York City participants average more *total* prior convictions. Syracuse, Buffalo, and Rochester participants stand out as having the greatest average number of priors. The majority of priors in all courts were at the misdemeanor level. Also, *less than one-third* of prior convictions in all courts were drug-related, indicating that participants are involved in a wide array of criminal activities beyond drug use or sales.

Current Charges

- Drug court participants in the four New York City courts all enter on felony-level drug charges; and
- Participants in the remaining seven courts enter on a wider variety of drug and non-drug charges.

In some drug courts, participants can enter with both drug and non-drug charges. As shown in Table 3.2, the most prevalent of the non-drug charges include prostitution and property offenses. Due to policy decisions, all participants in the four New York City courts enter drug court only on a felony level drug charge. In contrast, with the exception of Suffolk (65%), at least three-quarters of the participants in the remaining courts enter the drug court on a misdemeanor charge or lower; and many of these participants (over 45% in all upstate courts) enter on a non-drug charge, property crimes especially. These patterns are all principally a reflection of the drug court policies regarding eligibility criteria discussed in Chapter Two, although some of the variations may partly reflect variations in the local arrestee populations.

Drug Court Mandate

- The majority of participants in all courts with available information except Bronx receive a year or less incarceration in the event of drug court failure;
- In Bronx, drug court failures typically receive longer sentences (usually 2-6 years); and
- Participants convicted of misdemeanor charges often face more potential incarceration time outside the New York City courts.

While five of the eleven courts allow participants to defer their plea until after they have failed out of drug court (i.e., pre-plea or deferred adjudication), specific data regarding adjudication type (pre- versus post-plea) is available only in Syracuse (where 60% enter pre-plea) and Tonawanda (where 20% enter pre-plea).

The majority of participants in Brooklyn (51%), Manhattan (98%), Queens (98%), and Ithaca (79%) face a one-year jail sentence if they do not graduate from drug court. The similarity of Ithaca to the three larger courts is notable, given that the majority of Ithaca's participants enter drug court on a misdemeanor (74%), while the other three courts are comprised exclusively of more serious felony charges. This finding reflects the greater tendency of jurisdictions outside of New York City to sentence misdemeanants to jail time. Moreover, it is partly a result of the greater legal leverage that upstate courts hold over misdemeanants that enables these drug courts to interest and enroll so many misdemeanor defendants. In New York City, by comparison, misdemeanor convictions generally result in less jail time, if any, so the option to enter drug court may not be as enticing, on average, as in other jurisdictions. The exception is found in cases where the defendant had numerous *prior* convictions (felonies or misdemeanors). Recognizing this, new "persistent" misdemeanor treatment courts have opened in Brooklyn, Queens, and Manhattan over the past two years, that only serve defendants with large numbers of prior convictions. Early indications suggest that these courts have been able to enroll a significant number of participants.[2]

Bronx imposes the longest incarceration alternatives of the eleven courts; nearly all participants (97%) face a prison sentence of 2-6 years in the event of failure. (Although in Brooklyn, the predicate sub-population typically faces an even longer 3-6 year sentence.) In Suffolk, on the other hand, a substantial portion of the population (72%) faces *less* than a one-year sentence in the event of failing drug court. (Jail or prison alternative data was not systematically available for five of the six upstate courts, excepting Ithaca.)

Differences between Male and Female Participants

- Female drug court participants face more severe socioeconomic disadvantages than male participants;
- Female participants face more severe addiction problems, as measured by primary drug of choice and previous treatment episodes; and
- Female participants have more extensive criminal histories than male participants.

Table 3.3 presents profile data separated by sex. It is widely believed that women in drug courts face particularly severe barriers to recovery, including more severe addictions, greater socioeconomic disadvantages, and a greater frequency of co-occurring mental health disorders such as bipolar disorder, major depression, and schizophrenia. This has already been shown to be the case in a separate study of the Brooklyn drug court (D'Angelo 2002). Also, several studies of non drug-court clients find that women are less likely than men to be retained in treatment (e.g., Beckman 1979). With eleven drug court populations available for study, this presented an

[2] For example, the Brooklyn Misdemeanor Treatment Court, which opened January 22, 2003 and serves misdemeanor defendants with twelve or more prior convictions, enrolled over 140 new participants in its first five months of operations.

Table 3.3 Males v. Females

	Bronx		Brooklyn		Manhattan		Queens		Suffolk[1]	
Participant Gender	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Number of Participants	504	191	1199	791	292	102	560	114	242	108
DEMOGRAPHICS										
A. Median Age at Entry	25	36***	33	35***	23	37***	22	33***	27	31*
B. Median Age of First Drug Use	16	16 [6]***	15	16***	15	17**	15	15	15	15
C. Race/Ethnicity										
Caucasian	2%	2%	8%	6%+	6%	5%	11%	12%	76%	73%
Black	44%	60%***	42%	65%***	53%	69%**	50%	63%*	16%	18%
Hispanic/Latino	52%	37%***	48%	28%***	40%	24%**	34%	22%**	7%	5%
Asian/Pacific Islander/Other	2%	1%	1%	1%	1%	3%	5%	4%	2%	5%
SOCIOECONOMIC STATUS										
D. Ever Homeless	32%	54%***	22%	36%***	24%	47%***	5%[2]	16%[2]*	32%	42%+
E. High School Degree/GED	43%	39%	42%	38%	40%	35%	44%	47%	65%	65%
F. Employed/In School	40%	21%	23%	5%***	33%	12%*	60%	31%[2]*	48%	24%
G. Primary Source of Support										
Legal Employment	29%	11%***	26%	5%***	27%	4%***			40%	15%***
Government Assistance	21%	50%***	26%	41%***	11%	47%***			8%	11%
Hustling	3%	4%	16%	23%***	12%	15%			15%	23%+
Spouse/Family/Friends	30%	16%***	24%	25%	33%	17%**			32%	37%
None/Other	18%	20%	8%	6%	16%	16%			5%	13%*
DRUG USE/TREATMENT HISTORY										
H. Median Years of Drug Use[3]	9	17***	17	19**	7	14**	7	16***	12	14
I. Primary Drug of Choice										
Heroin	19%	27%*	40%	36%	14%	31%**	5%	11%+	19%	22%
Cocaine	11%	15%	9%	3%***	15%	10%	18%	30%*	18%	7%**
Crack	15%	39%***	22%	50%***	14%	39%***	5%	23%***	23%	38%**
Marijuana	50%	16%***	20%	4%***	54%	19%***	62%	29%***	14%	6%*
Alcohol	3%	2%	40%	4%**	1%	1%	10%	6%	2%	2%
Poly Drug or Other	2%	2%	3%	3%	2%	- *	-	1%	24%	25%
Cocaine/Crack/Heroin	*45%*	*80%***	*71%*	*89%***	*43%*	*80%***	*28%*	*64%***	*60%*	*67%*
J. Previously In Drug Treatment	48%	73%***	45%	60%***	31%	56%***	47%	70%***	72%	68%
K. PRIOR CRIMINAL HISTORY										
Any Convictions	37%	43%	35%	49%***	24%	44%**	17%	27%*	54%	50%
Any Misdemeanor Conviction(s)	37%	42%	31%	42%***	23%	42%**	17%	27%*	52%	47%
Any Felony Conviction(s)	1%	2%	12%	23%***	2%	9%*	1%	- **	19%	16%
Any Drug Conviction(s)	25%	29%	21%	37%***	18%	32%*	10%	22%*	28%	30%
CURRENT CHARGES										
L. Charge Severity										
Felony	100%	100%	100%	100%	100%	100%	100%	100%	33%	36%
Misdemeanor	-	-	-	-	-	-	-	-	65%	63%
Violation/Infraction	-	-	-	-	-	-	-	-	1%	2%
M. Charge Type										
Drug Sales - Felony	95%	97%	89%	93%**	70%	72%	61%	75%**	-	1%
Drug Possession - Felony	5%	3%	11%	7%**	30%	28%	38%	23%**	14%	9%
Drug Possession - Misdemeanor	-	-	-	-	-	-	-	-	55%	52%
Other Drug Charge[4]	-	-	-	-	-	-	-	-	2%	2%
Prostitution	-	-	-	-	-	-	-	-	-	1%
Property Offense	-	-	-	-	-	-	1%	1%	18%	11%+
Other	-	-	-	-	-	-	-	1%	9%	24%**
Violation of Probation (VOP)[5]	-	-	-	-	-	-	-	-	1%	-

Table 3.3. *Continued*

	Syracuse		Rochester		Buffalo		Tonawanda		Lackawanna		Ithaca	
Participant Gender	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Number of Participants	502	243	2005	979	628	461	248	43	159	41	150	65
DEMOGRAPHICS												
A. Median Age at Entry	29	31**	32	33	33	34***	25	33*	30	31	26	34**
B. Median Age of First Drug Use	15	15 [6]*	17 [2]	19 [2]***	18 [8]	19 [8]***	15	17*	14	16	15	16**
C. Race/Ethnicity												
Caucasian	25%	37%**	42%	44%	41%	32%**	92%	93%	62%	78%*	57%	52%
Black	64%	57%+	55%	55%	56%	67%***	4%	5%	19%	17%	29%	38%
Hispanic/Latino	9%	3%**	2%	1%**	2%	1%	1%	-	15%	2%**	5%	5%
Asian/Pacific Islander/Other	2%	2%	-	-	1%	0%	3%	2%	4%	2%	10%	5%
SOCIOECONOMIC STATUS												
D. Ever Homeless	31%	42%*							22% [2]	13%	42%	38%
E. High School Degree/GED	56%	61%			63% [9]	55% [9]*	60%	68%	58% [2]	66%	69%	57%
F. Employed/In School	33%	12%					71% [2]	59% [2]	52% [2]	34%	52%	33%
G. Primary Source of Support												
Legal Employment	25%	10%***			28%	11%***	60% [2]	42% [2]	38% [2]	17%*	38%	22%*
Government Assistance	19%	46%***			30%	56%***	11% [2]	29% [2]+	27% [2]	34%	27%	55%***
Hustling	1%	3%			-	-	-	-	-	-	1%	-
Spouse/Family/Friends	31%	20%**			20%	11%***	26% [2]	29% [2]	12% [2]	28%+	24%	16%
None/Other	22%	22%			22%	22%	4% [2]	- *	23% [2]	21%	10%	7%
DRUG USE/TREATMENT HISTORY												
H. Years of Drug Use [3]	14	17*	12 [2]	12 [2]			9	14	15	14	11	17*
I. Primary Drug of Choice												
Heroin	6%	5%	9%	11%	14%	11%*	1%	3%	10%	15%	11%	6%
Cocaine	12%	19%*	44%	64%***	8%	6%	1%	3%	15%	7%	5%	12%
Crack	27%	47%***	2% [7]	3% [7]	24%	44%***	4%	3%	21%	46%**	17%	40%**
Marijuana	41%	14%***	29% [7]	12% [7]***	23%	9%***	38%	20%*	36%	12%***	33%	15%**
Alcohol	13%	13%	16%	10%***	29%	28%	55%	63%	14%	5%*	33%	26%
Poly Drug	1%	2%	-	-	2%	2%	1%	7%	3%	15%+	-	-
Cocaine/Crack/Heroin	*44%*	*70%***	*53%*	*78%***	*46%*	*61%***	*6%*	*10%*	*46%*	*68%***	*33%*	*18%***
J. Previously In Drug Treatment	62%	79%***	94%	96%*			70%	68%	58%	59%	85%	86%
K. CRIMINAL HISTORY												
Any Convictions	65%	75%*	65%	57%***	61%	64%	33%	34%	44%	35%	57%	52%
Any Misdemeanor Conviction(s)	61%	74%**	60%	54%*	57%	62%	31%	29%	40%	32%	55%	52%
Any Felony Conviction(s)	33%	22%**	34%	20%***	25%	15%***	9%	14%	14%	12%	24%	19%
Any Drug Conviction(s)	29%	27%	20%	14%***	25%	23%	7%	14%	18%	15%	16%	19%
CURRENT CHARGES												
L. Charge Severity												
Felony	29%	17%***	26%	17%***	27%	11%***	11%	15%	22%	20%	10%	7%
Misdemeanor	69%	81%**	66%	79%***	67%	88%***	47%	36%	67%	73%	74%	75%
Violation/Infraction	2%	2%	8%	3%***	6%	1%***	42%	49%	11%	8%	16%	18%
M. Charge Type												
Drug Sales - Felony	2%	1%	2%	3%	-	-	2%	2%	-	-	-	-
Drug Possession - Felony	10%	7%	10%	5%***	15%	4%***	3%	5%	12%	10%	-	-
Drug Possession - Misdemeanor	33%	30%	26%	23%	35%	19%***	13%	7%	34%	46%	22%	25%
Other Drug Charge [5]	1%	1%	5%	1%***	5%	'-***	22%	22%	6% [10]	5% [10]	11% [10]	13% [10]
Prostitution	-	14%***	1%	21%***	2%	50%***	-	-	-	-	-	-
Property Offense	27%	24%	39%	25%***	32%	17%***	21%	15%	27%	22%	40%	39%
Other	11%	13%	19%	22%+	11%	10%	39%	49%	22%	17%	27%	23%
Violation of probation (VOP)	15%	9%*	-	-	-	-	-	-	-	-	-	-

+ p<.10 * p<.05 ** p<.01 *** p<.001

Note: Criminal history data was from DCJS. Levene's Tests for Equality of Variance indicate that equal variances cannot be assumed. Dashes in cells represent less than 0.5% of cases. If not otherwise noted, the percentage of cases with missing data is less than or equal to 35%. Also, in the shaded cells where no percentages are displayed, 50% of cases or more are missing data.

[1-3] See footnotes 1-3, Table 3.2.

[4] Other drug charges include misdemeanor drug sales (Marijuana only), unspecified drug charges, and DUI/DWI/Driving with chemical impairment charges.

[5] See footnote 5, Table 3.2.

[6] While the median age of males and females in these courts are the same, the mean age of first drug use for males in Bronx is 16, while it is 19 for females. In Syracuse, the mean age of first drug use for males is 14, while it is 16 for females. Because t-tests for significance are based on means rather than medians, these differences result in a significant difference between males and females, although the median age is the same.

[7-9] See footnotes 6-8 respectively in Table 3.2.

[10] DUI/DWI/Driving with Chemical Impairment charges make up 6.3% of males' and 11% of females' charges in Lackawanna and 15% of males' and 11% of females' charges in Ithaca.

unprecedented opportunity to test whether men and women in drug courts in fact differ systematically across multiple characteristics.[3]

Overall, the findings are as expected. Female drug court participants are older and somewhat less socioeconomically advantaged than their male counterparts. Also, in many of the drug courts, females have more extensive criminal justice and treatment histories and are more likely than male participants to identify a "hard" drug as their primary drug of choice, particularly crack. In contrast, males are more likely than females to identify marijuana as their primary drug of choice. There do not appear to be consistent differences in the current charges or sentences faced by men and women in drug court (and results pertaining to some of those latter variables are omitted from Table 3.3 in light of space considerations).

Demographics

Female participants are significantly older than male participants in all courts but Rochester and Lackawanna. Also, female drug court participants in Bronx, Brooklyn, Manhattan, Queens, and Buffalo are significantly more likely to be black, while males are significantly more likely to be Hispanic in seven of the eleven courts (except Suffolk, Buffalo, Tonawanda, and Ithaca).

Socioeconomic Status

Female drug court participants appear to be slightly less socioeconomically advantaged than male participants. While female participants are significantly less likely to have a high school degree or GED in only one of the ten courts with available information (Buffalo), in five of the eight courts with available information, female participants are significantly more likely to have been homeless at some time (and homelessness is greater among females at the .10 level in a sixth court). In one-third of courts with available information, female participants are significantly less likely to be employed or in school at drug court intake. In general, legal employment is the primary source of income for more male than female participants, while female participants are more likely to depend on public assistance as their primary source of income in Bronx, Brooklyn, Manhattan, Syracuse, Buffalo, and Ithaca (and Tonawanda at the .10 level).

Drug Use and Treatment History

Using prior treatment episodes and primary drug of choice as indicators of addiction severity, female participants appear to face more severe addiction problems than males. In eight of the eleven courts (except Suffolk, Tonawanda, and Ithaca), females are significantly more likely than males to list "hard" drugs (cocaine, heroin, or crack) as their primary drug of choice. By contrast, in all eleven courts, males are more likely to list marijuana as primary. Also, in six courts (the four New York City courts, Syracuse, and Rochester), female participants are more likely to have had previous treatment episodes than males.

Other Characteristics

Overall, female drug court participants have higher levels of prior criminality than male participants. In Brooklyn, Queens, Manhattan, and Syracuse, male participants are less likely to have at least one prior conviction. Female participants in Syracuse, Rochester, and Buffalo are less likely to enter the drug court on a felony charge and more likely to enter on a misdemeanor

[3] Due to the small female sample sizes in Lackawanna (41), Tonawanda (43), and Ithaca (65), differences that would be statistically significant in courts with larger sample sizes may not reach significance in these courts.

Table 3.4 Graduates v. Failures

	Bronx		Brooklyn		Manhattan		Queens		Suffolk[1]	
Participant Status	Grads	Failures	Grads	Failures	Grads	Failures	Grads	Failures	Grads	Failures
Number of Participants	263	245	741	670	104	124	424	160	166	101
DEMOGRAPHICS										
A. Median Age at Entry	31	27*	36	32***	32	22**	25	20***	29	28
B. Median Age of First Drug Use	16	15	15	15	16	15*	15	15**	15	14*
C. Male	71%	72%	63%	59%	80%	73%	82%	87%	75%	55%**
D. Race/Ethnicity										
Caucasian	2%	3%	7%	6%	5%	5%	14%	6%**	80%	68%*
Black	55%	46%*	60%	49%***	54%	62%	48%	62%**	12%	23%*
Hispanic/Latino	41%	50%+	32%	45%***	40%	31%	32%	29%	5%	6%
Asian/Pacific Islander/Other	2%	-	1%	- *	1%	2%	5%	3%	4%	3%
SOCIOECONOMIC STATUS										
E. Ever Homeless	36%	39%	28%	28%	21%	31%			33%	41%
F. High School Degree/GED	44%	43%	43%	37%	46%	28%*	49%	36%**	69%	60%
G. Employed/In School	35%	38%[2]***	17%	15%	36%	22%[2]***	63%[2]	41%[2]	51%	29%
DRUG USE/TREATMENT HISTORY										
H. Years of Drug Use[3]	11	10 [2]*	20	15***	11	8*	8	6 [2]***	12	13
I. Primary Drug of Choice										
Heroin	14%	22%*	30%	43%***	15%	21%	5%	9%	20%	23%
Cocaine	15%	13%	8%	6%+	25%	5%***	24%	14%**	15%	16%
Crack	26%	25%	40%	29%***	20%	20%	8%	9%	25%	33%
Marijuana	42%	35%	13%	14%	38%	50%+	52%	61%+	13%	7%
Alcohol	2%	4%	6%	5%	2%	1%	10%	8%	3%	2%
Poly Drug or other	1%	1%	3%	3%	-	3%*	1%	1%	24%	19%
Cocaine/Crack/Heroin	*56%*	*60%*	*78%*	*78%*	*61%*	*46%**	*37%*	*17%*	*60%*	*72%**
CRIMINAL JUSTICE FACTORS										
J. Any Prior Conviction(s)	35%	45%*	38%	45%**	24%	35%+	19%	20%	48%	66%**
K. Current Charge Severity										
Felony	100%	100%	100%	100%	100%	100%	100%	100%	42%	28%*
Misdemeanor	-	-	-	-	-	-	-	-	56%	71%*
Violation/Infraction	-	-	-	-	-	-	-	-	2%	1%
L. Jail or Prison Alternative										
< 6 months	-	-	-	-	-	-	-	-	9%	16%+
6 months to < 1 year	-	-	31%	37%*	-	-	-	1%	63%	51%*
1 year	-	4%**	49%	48%	98%	98%	98%	97%	25%	19%
> 1 year and < 2 years	100%	96%**	9%	10%	1%	1%	2%	2%	2%	8%*
> 2 years	-	-	11%	5%**	1%	1%	-	-	1%	5%+

Table 3.4 *Continued*

	Syracuse		Rochester		Buffalo		Tonawanda		Lackawanna		Ithaca	
Participant Status	Grads	Failures	Grads	Failures	Grads	Failures	Grads	Failures	Grads	Failures	Grads	Failures
Number of Participants	264	371	609	2033	389	653	196	48	89	86	77	101
DEMOGRAPHICS												
A. Median Age at Entry	31	29*	34	32***	33 [2]	33	27	25	32	31	31	29
B. Median Age of First Drug Use	15	15			18 [6]	18 [6]	16	15	14	15 [2]	16	15
C. Male	64%	70%+	66%	67%	63% [2]	61%	82%	94%*	79%	85%	66%	72%
D. Race/Ethnicity												
Caucasian	33%	27%	54%	40%***					64%	65%	66%	48%*
Black	57%	66%*	45%	58%***					17%	21%	21%	39%**
Hispanic/Latino	8%	6%	1%	1%					15%	12%	6%	5%
Asian/Pacific Islander/Other	2%	1%	-	-					4%	2%	6%	9%
SOCIOECONOMIC STATUS												
E. Ever Homeless	35%	36% [2]							21% [2]	20% [2]	26%	45%**
F. High School Degree/GED	64%	52%**			69% [7]	57% [7]***	63% [2]	59% [2]	62%	58% [2]	66%	62%
G. Employed/In School	26%	25%***							47% [2]	49% [2]	64%	40%
DRUG USE/TREATMENT HISTORY												
H. Years of Drug Use [3]	16	14					11	9	16	12 [2]	12	12
I. Primary Drug of Choice												
Heroin	7%	4%+	7% [2]	9%	10%	16%*	1%	3% [2]	8%	14%	12%	8%
Cocaine	14%	16%	47% [2,5]	54% [5]*	9%	7%	-	3% [2]	16%	10%	6%	7%
Crack	33%	34%	1% [2,5]	2% [5]*	33%	34%	3%	10% [2]	26%	24%	16%	34%**
Marijuana	30%	33%	24% [2]	21%	20%	15%*	36%	21% [2]+	38%	27%	29%	28%
Alcohol	14%	12%	20% [2]	13%**	27%	27%	59%	62% [2]	6%	19%**	38%	24%*
Poly Drug	2%	1%	1% [2]	-	1%	1%	1%	-	7%	6%	-	-
Cocaine/Crack/Heroin	*54%*	*54%*	*55%* [2]	*65%****	*52%*	*57%*	*4%*	*17%* [2] +	*49%*	*49%*	*34%*	*49%**
CRIMINAL JUSTICE FACTORS												
J. Any Prior Conviction(s)	66%	71%	51%	67%***	47%	66%***	28%	51%*	38%	46%	46%	65%*
K. Current Charge Severity												
Felony	32%	23%*	21%	22%	25%	17%*	11%	12%	22%	14%	3%	11%*
Misdemeanor	67%	74%+	70%	73%	71%	79%*	42%	48%	68%	73%	69%	78%
Violation/Infraction	2%	3%	9%	6%*	4%	4%	47%	40%	10%	12%	29%	10%**
L. Jail Alternative												
< 6 months	N/A	N/A									25%	16%
6 months to < 1 year											1%	4%
1 year											73%	80%
> 1 year and < 2 years											-	-
> 2 years											-	-

+ p<.10 * p<.05 ** p<.01 *** p<.001

Note: Criminal history data was from DCJS. Levene's Tests for Equality of Variance indicate that equal variances cannot be assumed. Dashes in cells represent less than 0.5% of cases. If not otherwise noted, the percentage of cases with missing data is less than or equal to 35%. Also, in the shaded cells where no percentages are displayed, 50% of cases or more are missing data.

[1-3] See footnotes 1-3, Table 3.2.

[4] While the median ages of males and females in Queens are the same, the mean age of first drug use for graduates is 16, while it is 14 for failures. Because t-tests for significance are based on means rather than medians, these differences result in a significant difference between graduates and failures, although the median age is the same.

[5-7] See footnotes 6-8 respectively in Table 3.2.

than male participants. There do not appear to be other systematic differences relating to current charges, the drug court mandate, or the length of the jail or prison alternative in the event of program failure.

Differences Between Graduates and Failures

- New York drug court graduates are older than failures;
- Graduates appear to have a somewhat higher socioeconomic status than failures;
- Failures are more likely to be heroin users in three courts; and
- Failures have more extensive criminal histories than graduates.

Table 3.4 compares graduates and failures on select characteristics. Although these findings indicate the presence or absence of a significant bivariate relationship, no causal argument is put forth here.[4] However, results give a preliminary indication of some of the important factors that may affect drug court outcomes. They will be used to shape the more rigorous multivariate framework developed in Chapter Nine to examine predictors of drug court graduation and recidivism.

In six courts – Bronx, Brooklyn, Manhattan, Queens, Syracuse, and Rochester – graduates are significantly older than failures and, accordingly, in four of these courts (Bronx, Brooklyn, Manhattan, and Queens), graduates have been using drugs for a longer period of time. In five of the nine courts with available data, failures are more likely than graduates to be black. In Bronx and Brooklyn the reverse is true; graduates are more likely than failures to be black.

Socioeconomic status, as measured by educational attainment and employment status, generally has a positive relationship with participants' graduation status (with the exception of Bronx, where the opposite is true). For example, in Manhattan, Queens, Syracuse, and Buffalo, graduates are significantly more likely than failures to have a high school degree or a GED.

In the Bronx and Brooklyn, the two courts with the largest percentages of participants with a primary drug of heroin, as well as in Buffalo, failures are significantly more likely than graduates to be heroin users.

With respect to criminal justice factors, graduates are significantly less likely than failures to have prior convictions in seven courts. Among courts that accept both felons and misdemeanants, graduates are significantly more likely to be charged with a felony in three courts (although significantly less likely to be charged with a felony in a fourth). The greater average success of the felony population could reflect the greater legal leverage the drug courts have over felony cases. There does not appear to be a strong relationship between final program status and specific charge (those results not shown).

Summary

In general, the results of the profile analysis indicate that participant characteristics vary widely by court. The most typical New York State drug court participant is a single male in his

[4] A "bivariate" relationship concerns the simple association of just two variables (e.g., as in Table 3.4, sex and graduation status, age and graduation status, or employment status and graduation status). On the other hand, multivariate analyses simultaneously, within a single statistical analysis, distinguish the respective impacts contributed by multiple distinct factors on a single outcome of interest (e.g., simultaneously distinguishing the independent impacts of sex, age, race, employment, or other factors on graduation status).

mid-twenties to early thirties who first tried drugs at 15 to 16 years of age and faces serious socioeconomic disadvantages apart from the presenting drug problem. However, there remain substantial variations in these measures, and few other generalizations can be made across courts. Other key findings from this chapter include:

- Female drug court participants are consistently older than their male counterparts, with greater socioeconomic disadvantages and more extensive criminal and treatment histories; and
- Compared with those failing drug court, graduates are slightly older; also, in some (but not most) courts, graduates have a significantly higher socioeconomic status, are less likely to be heroin users, and are less likely to have prior convictions.

While there are some recognizable trends across courts, perhaps the most striking result of the participant profile is the considerable diversity of New York State's drug court populations.

PART TWO

The Treatment and Recovery Process

Chapter Four
The Treatment Component of Drug Courts

The drug court model relies on the combination of judicial supervision and community-based treatment to motivate recovery. *Judicial supervision* encompasses regular court appearances, direct in-court interaction with the judge, scheduled case manager visits, and/or judicial rewards and sanctions. *Treatment* involves referral to a community-based substance abuse treatment program, usually for six to eighteen months depending on the clinical need and the drug court's participation requirements. Judicial supervision, as well as the overarching threat of incarceration in the event of failure, is seen as motivating participants to remain in the program, thereby giving treatment an opportunity to have its impacts. The notion that treatment works so long as participants remain active for long enough is bolstered by a body of research linking more time in treatment to better post-treatment outcomes, even for those that do not formally complete the treatment (e.g., Anglin, Brecht, and Maddahian 1989; DeLeon 1984; Simpson, Joe, and Brown 1997).

This chapter explores how New York State drug courts implement their treatment services:

- *Treatment and Case Management Models:* How do drug courts organize their relationships with the local treatment community? Do the drug courts provide case management services in addition to the services delivered at the treatment programs?
- *Treatment Capacity:* What is the length of time spent from drug court intake to placement in a suitable community-based treatment program? Is local treatment capacity sufficient for all participants?
- *Modality:* Which treatment modalities are most frequently used at each court (e.g., detoxification, residential, or outpatient)? How is the most appropriate modality determined for each participant?
- *Modifications to the Treatment Plan:* During drug court participation, how common are changes in the treatment plan (e.g., upgrades from outpatient to inpatient treatment or downgrades from inpatient to outpatient)?
- *Length of Participation:* How long does it take to graduate from drug court, and how long do failures remain active?

This chapter provides results for all eleven focal courts. As in other chapters, the data includes participants with intake complete by June 30, 2002. For those participants, data was updated through November 30, 2002, except for Buffalo, where we used a single May 2002 data extract. For certain analyses, some drug courts are excluded based on data availability.

Models of Drug Court-Treatment Provider Relationships

Four basic models for organizing treatment and case management services emerged from the nine programs where site visits were conducted. They may be loosely termed (1) court-employed case management, (2) outsourced case management, (2) probation monitoring, and (4) provider-centered treatment.

Drug court-employed case management best describes the Brooklyn, Manhattan, Lackawanna, and Syracuse models, although Syracuse recently adopted this model in September 2001. It accords a pivotal organizational role to a team of onsite, drug court-employed case managers. The case managers report exclusively to supervisory staff of the drug court (e.g., the clinical director or project coordinator) and are not affiliated with another governmental or nonprofit agency. They administer the initial clinical assessment, determine whether a drug problem is present, recommend a treatment plan, locate an appropriate community-based treatment program and recommend changes to the treatment plan if indicated by subsequent progress, relapses, or other circumstances. In deciding where to place a participant, the case managers often have available a long list of treatment programs spanning all modalities. For example, the Brooklyn list exceeds 140 programs, and the Manhattan list comes close to 100. (The Lackawanna and Syracuse provider lists are smaller, in part reflecting inherent limitations in the options for smaller jurisdictions.) The typical philosophy is to have available a large number of programs, so that the case management team can utilize its expertise in each individual case to locate the most appropriate referral. Available programs typically include ones serving many special needs populations (e.g., dually diagnosed, Spanish-speaking, or women with children). However, the case managers also meet regularly with participants, providing encouragement when they are doing well, motivation when doing poorly, and trouble-shooting when problems or barriers to treatment arise.

Outsourced case management best describes the Queens model, and described Syracuse until September 2001. It accords the same role as above to a team of case managers, but the team has organizational ties to an independent agency instead of the drug court exclusively. For example, the Queens team works for Treatment Alternative for Safer Community (TASC), an agency with vast citywide involvement monitoring criminal offender populations. The TASC case managers work onsite and are fully integrated as part of the drug court team but are also institutionally connected to the larger TASC agency and its policies. Compared to the first model, this one obviously requires greater inter-agency coordination; the drug court may have unique needs that the outside agency is not predisposed to address. On the other hand, this model also presents the potential advantage of drawing on the institutional expertise of an outside agency with experience and resources already in-hand. Also, from a cost perspective, there is an economy-of-scale gained by outsourcing case management to a larger agency, rather than employing and supervising a small staff that only serves one program.

Probation management best describes the Suffolk and Ithaca models. It involves bringing in dedicated staff from the local Department of Probation to perform case management functions after participants enter drug court – via regular, mandatory visits with probation officers, home visits, or other required contacts. As with the case management teams under the first two models, probation officers can recommend changes to the treatment plan during drug court participation. However, at least in Suffolk and Ithaca, the officers do not perform a "therapeutic" role per se and do not conduct the *initial* clinical assessment performed at intake. In Suffolk, dedicated staff from the Division of Community Mental Hygiene / Alcohol and Substance Abuse Services (DCMH/ASAS) of Suffolk County conducts all clinical assessments and recommends all aspects of the *initial* treatment plan for new participants. Thus Suffolk draws on the clinical expertise of DCMH/ASAS staff in performing initial assessments, while drawing on the classic monitoring and service linkage skills of Probation. Notably, in the Suffolk model, probation officers only serve as case managers for participants assigned to outpatient treatment (over half of the total), while Suffolk utilizes TASC to perform case management for participants assigned to inpatient

treatment. The use of probation officers entails some unique advantages, since probation officers can perform home visits in addition to visits at the courthouse or probation offices. As with outsourced case management, this model entails the potential challenge of inter-agency coordination.

Finally, *provider-centered treatment* best characterizes the Bronx and Rochester models, and to some degree Ithaca as well. It involves a pivotal role for a small, core group of local treatment providers. For instance, Bronx works with a core group of ten providers and Rochester with a core of approximately twelve. On a rotating basis, each day of the week, *treatment liaisons* from several of the core providers come to the drug court and report directly on the progress of participants treated at their programs. Also, the treatment liaisons perform the initial assessment.

Another distinguishing feature of the provider-centered model is that case management functions are largely folded into those of the treatment programs. For instance, although there are two court-employed case managers in the Bronx, they do *not* meet regularly with participants, as in the first three models. Instead, monitoring, support, and trouble-shooting are mainly functions of each participant's substance abuse counselor at their assigned program. The two onsite case managers in the Bronx play more of a coordinating role than a direct service / case management role. They link new defendants to a treatment liaison for the assessment, participate in a team meeting to make a final decision on the initial treatment plan, and trouble-shoot with participants when requested. Unlike Bronx, Rochester does maintain a slightly independent case management function. For instance, if Rochester participants switch treatment programs during drug court participation, participants will generally retain as their case manager the treatment liaison from their initial program.

Ithaca uses what can only be described as a *hybrid* model involving a combination of the provider-centered model and probation monitoring. In Ithaca, probation officers are responsible for ongoing case management; but new participants are sent to an affiliated community-based treatment program for the initial assessment. But in addition, representatives from a core group of treatment programs are closely integrated into operations. Treatment liaisons sometimes come to drug court on participants' scheduled court appearance dates to report on progress. Also, in Ithaca and Syracuse, treatment program representatives fully participate in team meetings held prior to each drug court session to discuss rewards, sanctions and other issues related to the treatment of participants scheduled for an appearance that day.

The provider-centered model carries several potential advantages. First, it is the least costly because case management functions are largely scaled-back or folded into functions of the local treatment programs. Second, the provider-centered model offers the potential to achieve extremely rapid placement time. In Bronx, for example, once a defendant agrees to participate in drug court, the defendant is placed almost immediately, usually the same day, into a treatment slot at one of the core programs (see Table 4.1 below). Third, by incorporating representatives from community-based programs into drug court operations and decision-making, the drug court institutionalizes regular, expert input from the providers of treatment. This model also raises several challenges. It limits the role of drug court case management, independent of what is provided at the treatment programs. Also, working with a small number of providers may limit the ability of a court to meet the special needs of all participants. However, in Bronx, for example, relationships exist with many providers outside the core group that serve special needs populations, such as the dually diagnosed; and staff at Bronx indicated that they will always seek to locate a provider able to meet each participant's specific clinical needs.

Table 4.1. Time to First Treatment Placement

	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk	Syra-cuse	Tona-wanda	Lacka-wanna	Ithaca
# Participants in the Analysis	428	1878	277	409	594	697	107	123	173
Time from Drug Court *Intake Date* to First Treatment Placement[1]									
Placed within two weeks	77%	45%	42%	18%	58%	31%	67%	62%	46%
Placed in two to four weeks	10%	22%	30%	16%	19%	19%	8%	15%	14%
Placed in more than four weeks	13%	33%	28%	65%	23%	49%	27%	24%	40%
Median days, Intake Date to First Placement in Treatment	***1***	***17***	***18***	***37***	***13***	***28***	***8***	***7***	***18***
Time from Date Formally Became a Participant to First Treatment Placement[2]									
Placed prior to formal participant status	8%	4%	31%	20%	9%	43%	29%	50%	48%
Placed within two weeks	77%	55%	61%	59%	73%	27%	45%	30%	26%
Placed in two to four weeks	6%	19%	2%	9%	7%	10%	6%	4%	6%
Placed in more than four weeks	9%	22%	5%	12%	11%	20%	22%	15%	20%
Median days, Participation Date to First Placement in Treatment	***0***	***10***	***0***	***2***	***2***	***1***	***5***	***-1***	***0***

Note: Participants are included in the analysis if a first placement is recorded in the database. Also, for each court included, assessments were conducted to determine the reliability of the data across different time periods, and data was only analyzed for time periods in each court where it was consistently available. (This often applied only to recent periods after courts received the UTA). Lackawanna participants are excluded if their intake date preceded 1999, Manhattan and Queens participants are excluded if intake preceded 2000, and Tonawanda participants are excluded if intake preceded 2001.

[1] Intake date is the date of first contact with the drug court. In some courts (e.g., Brooklyn and Bronx), this occurs within one to three business days of the arraignment date. However, in other courts, this may occur somewhat later.

[2] The date that drug court participation formally begins is the date that a participant signs a contract and/or pleads guilty to a drug court-eligible offense, thereby formally agreeing to become a drug court participant. Courts vary in the amount of time that usually passes between intake and formal participant status. For instance, Buffalo allows participation to begin on a trial basis before requiring a formal participation agreement. For this reason, in many courts, a significant percentage of participants are placed in treatment before formal participation status is established.

At this time, there is no demonstrable evidence or reason to believe that one model is preferable to another. This discussion, however, serves to bring into sharper focus the options that different drug courts currently choose from as well as some of the issues to consider in making the choice.

Treatment Capacity: Time to First Treatment Placement

The drug court model assumes that the precipitating arrest represents a "crisis moment" when the court system can most effectively intervene to help change the lifestyle of participants (NADCP 1997). Accordingly, a key drug court performance indicator is the time from first drug court contact to actual placement into treatment. The more rapid the placement time, the more the court has taken advantage of the crisis moment. Several studies confirm that an initial delay in placing participants increases their probability of failing to attend their first treatment appointment and of subsequent attrition (Leigh, Ogborne, and Cleland 1984; Maddux 1983; Mundell 1994; Rempel and DeStefano 2001).

Table 4.1 provides data for nine courts. In some, for data availability reasons, analyses were limited to participants entering during select time periods.[1] The top of the table gives time from

[1] Based on analyses of data availability during various participant intake periods, all periods were included at Bronx, Brooklyn, Suffolk, Syracuse, and Ithaca. Lackawanna participants were excluded if they entered drug court prior to

intake – date of first drug court contact – to placement. This is the most relevant performance indicator, since the drug court can logically intervene beginning with the moment a new defendant reaches the program for intake and assessment. The bottom of the table gives placement time from the *participation date* – when a defendant formally agrees to become a participant by signing a contract and/or pleading guilty to an eligible offense.[2] Key results are:

- Median time from *intake to placement* is less than 10 days in three courts (Bronx, Lackawanna, and Tonawanda), and is less than 30 in all courts except Queens (37 days)[3];
- Bronx has the most rapid intake-to-placement time (median = 1 day), stemming largely from its treatment-centered model, in which treatment liaisons appear in court every day and are usually able to place new participants immediately into their programs;
- Median time from the *participation date* to placement is less than 6 days in all courts except Brooklyn (10 days); and
- Most programs place at least some participants *before* participation status is formalized. This is typically done when it is clear to all parties that a defendant will become a participant, but it is necessary to wait for a subsequent court appearance to formalize that status. Also, it sometimes happens that a participant is already in treatment at the time of the arrest. In six of the nine courts, at least 20% of participants entered treatment *prior* to formalizing their participation status; and in Syracuse, Lackawanna, and Ithaca, more than 40% were placed prior to that point.

On average, New York State drug courts are able to place participants rapidly into treatment. Since some individuals do take long to place, however, a key policy question is whether placement delays are especially likely for participants with certain background characteristics. For example, in some cases when it is known that a participant will take long to place, it may be

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1999; Manhattan and Queens participants were excluded if they entered prior to 2000; and Tonawanda participants were excluded if they entered prior to 2001. Also, data from Rochester and Buffalo had to be excluded due to issues related to data availability and the recent conversion process of their management information systems to the statewide UTA. In Buffalo, it should be noted that the relevant data elements *were* available nearly 80% of the time, which in other courts would generate inclusion of the data; but many of the time to placement numbers were *negative*. This may be a quite logical function of the unique C.O.U.R.T.S. program run at Buffalo, which is essentially a court-mandated program that refers and screens defendants to treatment programs as well as providing case management services without the judicial monitoring component. It sometimes occurs that a participant is switched from the C.O.U.R.T.S. program to the drug court in mid-participation, and this is the most likely scenario under which a negative time would arise (i.e., placement occurring *before* drug court intake). Since it was impossible to control for and analyze this dynamic, Buffalo had to be excluded from this analysis.

[2] The definitions of both intake date and participation date may vary slightly across drug courts. For instance, intake may be recorded as the date a defendant was first referred to drug court (e.g., from arrest or arraignment), the date that a legal screening process began, or the date of a psychosocial assessment. In practice, however, it is unlikely to vary much based on these alternative definitions. We define it simply as date of *first contact* with drug court – e.g., when the defendant reaches the drug court for the first time and the various screening and assessment processes can begin. In most drug courts, this accurately or near accurately describes how intake date is entered into the database. Similarly, participation date typically signifies the date that formal drug court participation can begin, although in some courts, treatment and monitoring often begins earlier (e.g., if a defendant is clearly set to become a drug court participant but has not yet formally signed a formal contract).

[3] With respect to the longer time for Queens, most of the median of 37 days tends to precede the point in time when the case can first appear in the QTC court part. Felony drug cases are always routed before that time to the AP-N (Narcotics) Part. The first AP-N appearance is typically two weeks after the arrest; and subsequent adjournments tend to occur in two-week intervals. The psychosocial assessment (and hence intake) may begin prior to the first appearance in QTC (e.g., between court appearances), but adjournment practices may still create a delay before the QTC court has a chance to formally accept a plea – enabling a treatment placement to proceed.

Table 4.2. Predictors of Days from Intake to First Treatment Placement: Beta Coefficients from the O.L.S. Regression of Time to First Treatment Placement on Select Variables (Dependent Variable = Natural Log of Time to First Placement)

	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk	Syra-cuse
# Participants in the Analysis	406	1809	245	349	565	666
Adjusted R^2	.033	.202	.292	.224	.204	.092
Male sex	-.077	-.116***	-.094	.038	.000	.039
Primary drug of heroin	-.069	-.054	.058	.035	.039	-.093*
Primary drug of crack or cocaine	-.090	-.092*	-.130	-.018	.062	.020
Primary drug of marijuana	-.053	-.034	.039	-.006	.066	.053
Detox		-.031				
Short-term rehabilitation (typically 30 days)		.080***			.083*	.046
Residential	.034	.374***	.113*	.052	.099*	.055
Time from Intake Date to Date Became Participant	.192***	.173***	.504***	.479***	.433***	.295***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Participants are included if a first placement is recorded in the database and intake occurred during a period when data was available for most participants (see note under Table 4.1). Shaded areas show courts or variables excluded due to low N or lack of variation in the data. Note also that the three listed primary drug categories are in comparison to "other" (mostly alcohol responses); for modality, the comparison is to outpatient.

possible to place the participant temporarily in a treatment modality with more slots rapidly available or to have participants more regularly see their case managers until a slot is located. (In other cases, this may not be possible, because the participant may be deemed a flight risk and hence may be detained in jail pending location of a first placement.)

From staff interviews at many of the drug courts, it is apparent that lengthy placement delays are common for participants with co-occurring mental health disorders, but we could not quantify this with available data. We instead examined the impact of a variety of other demographic and psychosocial status measures and found that across several courts, participants with a primary drug of heroin and participants requiring *residential* treatment generally took longer to place than others; otherwise, no other factor was significant ($p < .05$) in more than one drug court (results not shown).

We were also interested in understanding the role of case processing speed on placement time. We tested whether a delay between the intake and participation dates – e.g., due to case processing delays, delays in defendant agreement to enter drug court, or other factors – in turn generated a delay in the time from intake to placement. Since courts place some participants *before* participation status is formalized (see Table 4.1), it was not intuitively clear whether the time from intake to participation date would matter. The results confirm that it did. In seven of nine courts examined (except Ithaca and Tonawanda), participants with more than a two-week delay between the intake and participation dates took significantly longer to place than others (and in Ithaca the pattern was the same but the difference did not reach significance).

For the six drug courts with sufficient sample size, Table 4.2 presents results of linear regressions to clarify the relative influence on placement time of several factors that appeared potentially significant in the bivariate comparisons. The dependent variable was the natural

logarithm of days from intake to first placement. (Calculating the logarithm of days to first placement creates a less right-skewed distribution.) The results demonstrate that when controlling for all variables in a single analysis, *case processing speed* – days from intake to participation date – was the most powerful predictor. This factor was significant across all six courts ($p < .001$ in all six), and the beta coefficient exceeded .150 in all six courts and exceeded .400 in three (Suffolk, Queens, and Manhattan). Evidently, an efficient system for referring defendants to drug court for intake, completing the initial legal and clinical screening, and formalizing the defendant's agreement to become a participant is critical to the ability of a drug court to achieve a rapid placement time from the point of intake. Additionally, in three of the six courts (Brooklyn, Manhattan, and Suffolk), *residential* placements took significantly longer than placements in other modalities.[4] Also, placement time was significantly longer for women in Brooklyn ($p < .001$), but sex was not a relevant factor elsewhere.

Two caveats are in order regarding the finding that residential placements took longer than placements in other modalities in some courts. First, defendants must obtain complete medical reports (results of TB tests, current prescriptions, etc.) before they can be admitted to a residential program, whereas outpatient programs do not typically require this information. Especially for defendants who are in jail while awaiting placement, it may take time to gather the required medical paperwork; and this paperwork delay may lead to a delay in the commencement of a residential placement. Second, while we could not explicitly control for the impact of mental health factors, from staff experience it is clear that placements for dually diagnosed participants usually take longer than others; since dually diagnosed participants tend to require a residential placement, these participants may have led average residential placement times to rise.

First Treatment Modality

New York State drug court participants receive treatment in one of several modalities:

- *Detoxification* usually involves a 3-10 day stay at a hospital-based facility. Detox referrals stem from a judgment that the participant may experience severe withdrawal at the outset of recovery, necessitating intensive hospital-based services;
- *Residential* treatment involves a 6-24 month stay at a 24-hour inpatient facility. Besides substance abuse treatment, most residential programs offer supplemental services, such as vocational counseling, employment assistance, or health services;
- *Short-term inpatient rehabilitation* (henceforth short-term rehab) is a brief, usually 28-day, inpatient program. Upon successful completion, the participant switches to an outpatient modality. Thus in analyses below, "short-term rehab" is always short for "short-term rehab followed by outpatient";
- *Intensive outpatient* usually runs five days per week, although in Suffolk, intensive outpatient usually means 3-4 days per week;
- *Outpatient* usually runs three days per week or less and for only part of the day, although in Suffolk, outpatient usually refers to less than three days; and
- *Methadone* is an outpatient modality for participants using methadone at the time of intake to help control their addiction, generally to heroin. Many courts insist on the use of

[4] Note that when controlling for other factors, primary drug was *not* a meaningful predictor of placement time, achieving significance in just two courts and not for the same drug. The general dynamic would seem to be that primary drug predicts the kind of modality that the participant will need – e.g., those addicted to heroin are more likely to need residential – but first modality in turn is the factor most directly related to placement time.

Table 4.3. First Treatment Modality

# Participants Placed in At Least One Modality During Drug Court Participation	Bronx 453	Brook-lyn 1928	Manhat-tan 288	Queens 426	Suffolk 600	Syra-cuse 745	Roch-ester 271	Buffalo 1220	Tona-wanda 114	Lacka-wanna 145	Ithaca 213
Initial Referral to Detox[1]	1%	17%	5%	1%	3%	1%	2%	3%	0%	0%	1%
First Treatment Modality (excluding any initial social service or detox referrals)											
Long-term residential[2]	12%	46%	53%	22%	18%	3%	6%	3%	2%	1%	7%
Short-term Rehab	1%	11%	5%	5%	24%	29%	9%	11%	10%	15%	12%
Intensive Outpatient	75%	21%	18%	23%	22%	8%	31%	0%	8%	1%	1%
Outpatient	12%	19%	23%	51%	35%	60%	53%	86%[3]	81%	81%	79%
Methadone	0%	4%	1%	0%	1%	0%	2%	0%	0%	1%	1%
Total	100%	101%	100%	101%	100%	100%	101%	100%	101%	99%	100%

Note: Percentages may not add up to 100% due to rounding. Participants are included in this analysis if at least one treatment program and modality is recorded in the database. Note, however, that for most courts, a cut-off date is used, before which data was not consistently available. No information is reported before each court's cut-off; it was deemed more reliable to limit reporting to periods when data was nearly always recorded. Brooklyn, Syracuse, Buffalo, Lackawanna, and Ithaca did not need a cut-off. Cut-offs for the other courts were as follows: Suffolk (participants entering 5/1/97 or later) Queens (9/1/98 or later), Bronx and Manhattan (1/1/2000 or later), and Tonawanda (8/1/2000 or later). Also, results were reported for cases open and active in treatment as of the analysis date of November 30, 2002.

[1] Note that some participants may have a detox referral recorded but not a subsequent treatment modality, either because assignment to a subsequent modality had not yet occurred as of the analysis or because the participant failed the program before such assignment could ever occur. The numbers of participants with a detox referral only are 29 in Brooklyn, 1 in Bronx, 2 in Manhattan, 3 in Suffolk, 7 in Buffalo and 1 in Rochester.

[2] One participant in Manhattan, 2 in Suffolk, 1 in Syracuse, 9 in Rochester, and 1 in Ithaca were first assigned to a halfway house. They are listed under long-term residential in the table.

[3] In the original Buffalo database used for analysis, there is no distinction between intensive and regular outpatient, so the entry in the outpatient box reflects either or both categories.

"methadone-to-abstinence" programs, designed to achieve rapid reductions in methadone dependence; but some allow a "methadone-maintenance" approach, which permits taking a more cautious approach to reducing the methadone dose (see Chapter Two); and

- *Halfway house* is not a substance abuse treatment modality per se; but as used by some courts, it involves assignment to residential housing for participants without an otherwise stable living situation, coupled with a separate outpatient substance abuse treatment program placement.

Some drug courts also use social service modalities (e.g., employment or training programs). Also, some courts require participants to report to their case manager or to court staff daily, either at the outset of participation or as part of a sanction in response to non-compliance.

Table 4.3 shows percentages of participants at each court initially assigned to each substance abuse treatment modality.[5] Key results are as follows:

- *Detox:* Brooklyn (17%) is the only court to refer a substantial percentage to detox at the outset of participation, indicating the especially severe addiction level of its participants;

[5] For some courts, data was limited to certain intake periods for which data was consistently available. All time periods were included at Brooklyn, Syracuse, Buffalo, Lackawanna, and Ithaca. Suffolk participants were excluded if drug court intake occurred prior to 5/1/97; Queens participants were excluded if intake was prior to 9/1/98, Bronx and Manhattan participants were excluded if intake was prior to 1/1/00, and Tonawanda participants were excluded if intake was prior to 8/1/00. In Rochester, we included cases open and active in treatment as of the analysis date of November 30, 2002. While a small sample, there was no reason to believe it would be substantially biased, since it comprises a nearly complete sample of all open cases as of that November 30th snapshot date.

- *Residential:* Only Manhattan (53%) and Brooklyn (46%) begin by referring over one-quarter of their participants to long-term residential treatment (not counting any initial social service or detox referrals towards the total);
- *Any inpatient (combining long-term residential and short-term rehab)*: Manhattan begins 58% of its participants in one of the two inpatient modalities, Brooklyn begins 57%, Suffolk 42%, Syracuse 37%, Queens 27%, and all six other courts less than 20%; and
- *Intensive outpatient:* Bronx is unique in initially referring 75% of its participants to an intensive outpatient modality. This is largely a result of the treatment philosophy and core programs used by Bronx, most of which provide intensive outpatient services.

These tendencies partly reflect the constitution of each court's underlying population. Of the eleven courts, participants at Brooklyn have the longest median duration of drug use (18 years), the highest percentage listing heroin as primary (38%), and a relatively low percentage listing marijuana as primary (14%). Also, Brooklyn's policy of excluding defendants addicted to "marijuana only" means that every one of its participants uses a "hard" drug, mainly heroin, crack or cocaine, even when those drugs are not "primary." Corresponding to these profile characteristics, Brooklyn has the highest percentage initially referred to detox and one of the two highest percentages, along with Manhattan, initially referred to long-term residential treatment. On the opposite end of the spectrum, in the six upstate New York drug courts (see right-most six columns of Table 3.2), just 1-13% of participants list heroin as their primary drug of choice; and correspondingly, those six courts have the *lowest* respective percentages of initial referrals to long-term residential (less than 8% in all six).

At the same time, certain differences among the courts appear more attributable to court policies than participant characteristics. For instance, in Brooklyn, policies slightly increase the percentage of initial residential referrals. This is because by agreement with the Brooklyn District Attorney's Office, all Brooklyn participants entering drug court on a plea to multiple felonies or to one felony with a prior felony conviction must enter residential treatment. Thus, of the 46% of Brooklyn's participants initially referred to residential treatment, criminal justice reasons dictated the referral for 11%, while clinical reasons (e.g., encompassing addiction severity, housing, and other non-criminal justice factors) applied to the remaining 35%.

As another example, Bronx refers to residential treatment less than its participant profile might suggest (see Chapter Three). This stems from Bronx' intensive outpatient-oriented core treatment providers. Also, staff at Bronx expressed in interviews a philosophical preference for a "least restrictive environment approach." Bronx begins participants in outpatient whenever feasible; and then upgrades to inpatient later, only if deemed clinically necessary.

For the six courts where sample size was sufficient, analyses were performed to distinguish more systematically which participant characteristics influence the assignment of first treatment modality. In Brooklyn, which maintains comprehensive data on a large number of characteristics, a separate research project linked the following to an initial *residential* referral (see Rempel and DeStefano 2001a): (1) currently homeless, (2) primary drug of heroin and not marijuana, (3) does not live with spouse, (4) neither employed nor in school, (5) younger age, (6) more severe addiction severity score, and (7) female sex. Of these characteristics, the addiction severity score was not available for statewide research; and certain other variables were not available at specific courts.

For the final statewide analysis, a standard logistic regression model was developed, varying as little as possible across courts, to predict the probability of an initial *inpatient* referral

Table 4.4. Predictors of First Treatment Modality: Odds Ratios from the Logistic Regression Predicting a First Modality of Inpatient (Either Residential or Short-term Rehab)

# of Participants Available for Analysis	Bronx 328	Brook-lyn 1709	Queens 233	Suffolk 194	Syra-cuse 472	Buffalo 690
Male sex	.693	.612***	1.550	.513+	.561*	1.029
Age	.955*	.984*	.954+	.965	.979	.999
Employed or in school at intake	.870	.479***	.173***	.161***	.577*	.465*[2]
Homeless at intake		12.015***		1.204	1.488	
Living at home with spouse at intake	1.856	.317***	.618	.141+	.623	.824[3]
Prior criminal history						
Prior misdemeanor conviction(s)	1.705	1.474**	1.075	1.056	1.197	1.089
Prior felony conviction(s)		1.981***		1.248	1.586+	1.613+
Primary drug of choice[1]						
Heroin	1.414	2.375***	11.293**	2.098*	1.420	1.088
Crack	1.832*	1.138	2.025	1.690	1.996***	1.350
Marijuana	.406**	.451***	.141***	.208*	.427***	.437*
Alcohol[4]						1.226
Co-occurring diagnosis[5]						
Depression, personality, schizophrenia, mixed, or other						1.705*
Generalized anxiety or stress						.333

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Participants are included in this analysis if at least one treatment program and modality assignment is recorded in the database. (Also, see note under Table 3 regarding court-specific date cut-offs.) Due to low available N, Manhattan, Rochester, Tonawanda, Lackawanna, and Ithaca were not included in multivariate analyses. Shaded areas indicate variables excluded due to low N or lack of variation in the data.

[1] The fourth unlisted category is "other" (mostly alcohol or cocaine responses). A deviation coding scheme was used for this analysis, meaning that all comparisons are to the average.

[2] In Buffalo, due to data availability, this variable is legal employment as primary means of financial support (1 = yes, 0 = no).

[3] In Buffalo, due to data availability, this variable is married or not (1 = yes, 0 = no).

[4] Alcohol is added as its own category for Buffalo, since it is the primary drug of 29% of Buffalo's participants, a substantially higher percentage than for any other court in the analysis.

[5] Unlike other courts in the analysis, Buffalo keeps diagnosis information for co-occuring disorders. Hence a diagnosis variable could be added for that court. The third unlisted category is none (no co-occurring diagnosis). An indicator coding scheme was used, meaning that all comparisons are to none.

(includes both residential and short-term rehab referrals, since only Brooklyn refers a substantial percentage of participants to residential only). Results in Table 4.4 indicate that the following factors increased the probability of an inpatient referral across multiple courts:

- *Primary drug of choice:* heroin, crack, and *not* marijuana;
- *Living situation:* homeless at intake, and not living with a spouse at intake (the latter significant in one court and p < .10 in a second);
- *Employment / educational status:* neither employed nor in school at intake; and
- *Young age*.

The significant relationship of young age to inpatient modality in two of the six courts (and at the weaker .10 level in a third court, and same direction more weakly suggested in the three others) could reflect the generally weaker social controls constraining the behavior of young persons and hence their greater need for supervision in an intensive, inpatient setting. Drug court staff often comment that younger participants are often more likely to return to peer groups with

whom they got in trouble with drugs and crime in the first place; and research generally confirms that on average, social controls tend to be less prevalent and less strong among younger than older persons (e.g., see Sampson and Laub 1990).

Interestingly, a prior conviction variable was only significant in one court (Brooklyn) and at the weaker .10 level in just two more courts (Syracuse and Buffalo). Although Taxman (1999) proposes that criminal justice risk should be considered when determining how restrictive a modality to use with court-mandated clients, most of the drug courts analyzed here apparently consider these factors minimally or not at all. Indeed, at site visits to Suffolk, Syracuse, and Ithaca, drug court project staff forcefully expressed their sense that non-clinical factors were altogether *irrelevant* to a proper determination of first modality and other aspects of the treatment plan.

Also notable, women were significantly more likely to receive an inpatient referral in two courts (and in a third court when using a weaker .10 standard). However, it remains unclear whether sex is inherently related to modality or whether certain unmeasured characteristics related to modality are more prevalent among women, such as co-occurring disorders or unmeasured socioeconomic disadvantages. Indeed, in Buffalo, the only court where the existence of co-occurring disorders could be measured, those with such disorders (except where it was anxiety or stress only) were both more likely to be female and more likely to require residential treatment, while sex had no *independent* impact on the chosen modality.

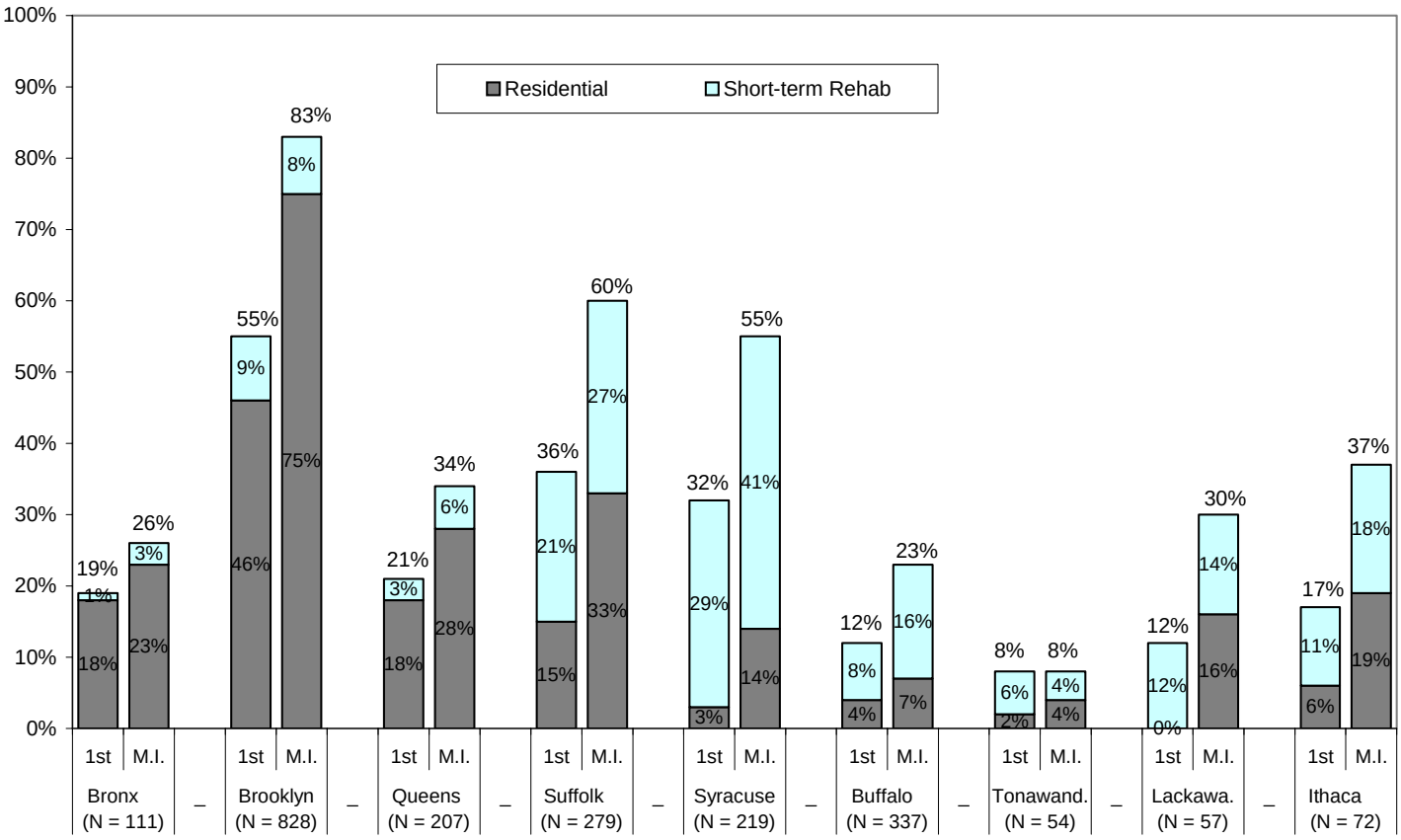
Modifications to the Treatment Plan

In the literature, there are two basic models for constructing the treatment plans of offender populations. The *continuum of care* approach explicitly embraced by Taxman (1999) recommends beginning this population in a relatively *restrictive* setting (e.g., residential) and then downgrading over time to less restrictive modalities in response to progress. The philosophy is that criminal offenders require tight initial supervision due to the risks to public safety and the risks of continued, counter-productive associations with criminally involved peer groups; but since the eventual goal is community reintegration, it is also important to loosen supervision over time. In contrast, the *steps* approach recommends beginning this population in the *least* restrictive setting feasible and then, in the event of problems, progressively *upgrading* later. The philosophy here is this may enable them to transition more gradually to an acceptance of the treatment regimen. Further, it provides the drug court team with the ability to increase the intensity of treatment modality as a court response to early problems – an option that is not available if the participant begins in residential treatment. Also, if healthy family or community ties exist, the philosophy is that participants should be encouraged to take advantage of those ties by continuing to live in their communities while attending treatment on an outpatient basis.

Of the two approaches, the continuum of care model has little practical support in the state. As shown in Table 4.3, only two of eleven drug courts begin more than one-quarter of their participants in residential treatment (Manhattan and Brooklyn), and one of those two, Brooklyn, treats a population at the highest end of the addiction severity range. On the other hand, consistent with the steps approach, although most of the courts begin participants in outpatient, most will *upgrade* the modality later to residential or short-term rehab in response to continued relapses or other problems.

Figure 4.1 provides a visual demonstration of the pattern in nine courts (excluding two for data availability / sample size reasons). The figure only gives results for drug court graduates

Figure 4.1. Distribution of Inpatient Referrals for Graduates: First Modality (1st) versus Most Intensive Modality Attended (M.I.)



who, by virtue of having completed the program, remained active long enough to be switched across different modalities if deemed necessary.[6] For each court, the figure displays two bars. The left bar shows the percentage of participants first referred to residential or short-term rehab (with the remainder having been referred to outpatient). The right bar shows the cumulative percentage whose most intensive modality ever attended was residential or short-term rehab.

Visual inspection shows a comparable pattern across most of the nine courts. Although there are vast differences in the overall use of inpatient modalities, with respect to *upgrades*, in all nine courts analyzed except Bronx and Tonawanda, a substantially *higher* percentage of graduates *eventually* received inpatient treatment than originally began there. The five upstate drug courts have the five lowest percentages of graduates *initially* referred to residential, but, with the exception of Tonawanda, showed substantial relative *jumps* in the percentages eventually referred to inpatient by the end of drug court participation. In Syracuse, 32% began in one of the two inpatient modalities, but 55% eventually received inpatient treatment; in Buffalo, the jump was from 12% to 23%, in Lackawanna from 12% to 30%, and in Ithaca from 17% to

[6] The focus on graduates creates the bias of only looking at the trajectories of those who succeeded, but avoids the second bias of looking at participants who may not have remained in the drug court for long enough to have their modality changed – even if such a change would have occurred had participation time been longer.

37%. As for the four downstate courts represented in Figure 4.1, Brooklyn had the largest percentage of graduates in any court both initially (55%) and eventually (84%) referred to inpatient. As indicated in the profile analysis in Chapter Three, Queens tends to have a relatively lightly addicted population (primary drug of marijuana over half of the time); and correspondingly, only 21% began in an inpatient modality, but subsequent upgrades led 34% eventually to receive inpatient treatment. In Suffolk, the jump was from 36% to 60%. Finally, contrasting with the other courts, Bronx is notable for both beginning with a low percentage in inpatient (19%) and for upgrading in only a small number of cases, leading to an eventual inpatient percentage (26%) that is just 7% higher than the original.

With respect to *downgrades*, of graduates beginning in the most intensive *residential* modality in Bronx, Brooklyn, Queens, and Suffolk, the only courts with a sample size of at least 20 graduates meeting this condition, tests were conducted to determine the percentage subsequently *downgraded* to outpatient (results not shown). The percentages downgraded ranged from 27% to 50% in those four courts: 27% in Queens, 36% in Brooklyn, 45% in Suffolk, and 50% in Bronx. These proportions do *not* indicate a predominant tendency to downgrade over time. Part of the reason for this – indeed, a quite frequent phenomenon in Brooklyn – is that participants have not always completed the requirements of their residential treatment program upon completing the drug court's graduation requirements. In these cases it is hoped that participants will continue treatment after drug court participation ends, ideally transitioning themselves from residential to aftercare and/or outpatient modalities on their own.

Length of Drug Court Participation

As discussed in Chapter Two, each drug court establishes minimum time requirements for program participation. Also, each court sets additional requirements, such as that some or all of the time must be completed as consecutive drug-free and/or sanction-less time, a certain amount of community service must be completed, or certain employment or educational credentials must be obtained. These requirements lead *actual* participation time to exceed the minimums in nearly all courts.

Table 4.5 presents both the formal minimums and actual median and mean (average) times to graduation and failure across all eleven courts. The formal minimums in this table applied to the participants included in the quantitative analysis, although some courts have recently changed the minimums applied to new participants, as reported in Chapter Two. To avoid over-sampling participants who graduate or fail relatively quickly, participants had to have entered drug court at least two years prior to the analysis date of November 30, 2002 to be included. This assures that more recent entrants who happened to graduate or fail after little time do not skew the results. For Brooklyn, since there are three separate sets of time requirements varying by participant criminal history and current charges (see Chapter Two), results are given separately for each track. Key findings are as follows:

- Actual median months to graduation range from 9.5 in Tonawanda (the only court falling under one year) to 25.7 for participants in the longest treatment track in Brooklyn;
- Actual median months to graduation exceed the formal minimums, often substantially. The difference ranges from 0.9 months in Syracuse to over 6.0 months in six of the eleven courts (Bronx, Brooklyn, Manhattan, Rochester, Buffalo, and Ithaca); and

Table 4.5. Length of Time Spent in Drug Court Prior to Graduation or Failure

	Bronx	Brooklyn	Manhat-tan	Queens	Suffolk	Syra-cuse	Roch-ester	Buff-alo[3]	Tona-wanda	Lacka-wanna	Ithaca
# Graduates in the Analysis	196	764	78	296	287	141	551	246	121	75	64
# Failures in the Analysis	172	647	60	112	170	179	1673	298	28	54	80
Time to Graduation											
Minimum months required to graduate	11.0	8 / 12 / 18 [1]	12.0	12.0	12.0	12.0 [2]	12.0	8.0 [4]	6.0 [4]	12.0	9.0
Mean months to graduation	19.0	16.8 / 22.8 / 28.7	20.2	16.9	15.2	14.3	21.0	15.6	12.8	16.1	20.1
Median months to graduation	18.1	15.2 / 20.7 / 25.7	18.9	14.9	13.8	12.9	18.5	14.1	9.5	14.3	20.6
Median months over the minimum	7.1	7.2 / 8.7 / 7.7	6.9	2.9	1.8	0.9 [2]	6.5	6.1	3.5	2.3	11.6
Time to Failure											
Mean months to failure	14.8	12.3 / 16.6 / 19.0	16.5	13.4	10.3	12.7	12.2	11.0	13.5	9.5	11.1
Median months to failure	14.0	8.9 / 13.1 / 15.8	12.4	11.8	8.6	11.0	9.0	8.9	10.5	8.1	8.9
Additional Requirements											
Some/all time sober & clean	Some	All	All	None	Some	None	All	Some	Some	Some	All
Some/all time sanctionless	All	All	Some	Some	None	None	None	None	None	None	None

[1] There are three distinct treatment mandates, respectively for participants pleading to a misdemeanor (show at left), participants pleading to a single felony (shown at center), and participants pleading to multiple felonies or pleading to a felony with a prior felony conviction (shown at right).

[2] There is not an objective total time required for graduation, although in practice, staff projects a typical minimum time to graduation of one year.

[3] For Buffalo, a data element is not available for date formally became a participant and entered drug court, so the drug court intake date is used for all computations in the table.

[4] Tonawanda changed its required minimum time to twelve months in April 2002, and Buffalo also changed recently to twelve months; but since the data in this analysis reflects policies before these new requirements, the old requirements are listed.

- Median months to failure are shorter than the graduation medians in every court except Tonawanda; median months to failure range from 8.6 in Suffolk to 15.8 for participants in the longest treatment track in Brooklyn.

These statistics show that New York State drug courts typically require one to two years of treatment, and even more in certain cases. Hence most New York State drug courts require completion of a fairly rigorous treatment regimen. However, for participants who eventually fail, the investment in treatment is not nearly as substantial. First, median times to failure are substantially shorter than median times to graduation. Second, for those who fail, most of the time technically enrolled in the drug court tends not to be spent active in treatment but on warrant status (i.e., disappeared from program contact) or other non-treatment statuses (e.g., such as awaiting placement). For example, in Brooklyn, where such data is available, median participation time in the *program* for failures across all three tracks is 11.4 months, but median time spent *actively attending treatment* is only 1.6 months. Hence the drug court investment in the *treatment* of those who will eventually fail appears to be limited: participants who fail tend to fail quickly.

Summary

In the nine drug courts where site visits were conducted, there were four basic ways of organizing treatment and case management services. The drug court-employed case management model involves case managers working for the drug court in performing initial assessments, case management services, and treatment referrals. The outsourced model involves case managers with links to an outside agency in contracting to perform similar services. The probation

monitoring model involves officers from the local Department of Probation in performing case management, home visits, and ongoing monitoring. Finally, the provider-centered model utilizes *treatment liaisons* from a core group of community-based treatment providers in performing assessments, treatment, and case management services.

All drug courts were able to place participants into treatment without lengthy delays. Median time from intake to first placement was less than a month in eight of the nine drug courts analyzed and. Median time in Bronx was just one day. Across several courts, the time from intake to first treatment placement increased most significantly in response to case processing delays between intake and formalization of participation status. This suggests a need for efficient screening mechanisms to move participants rapidly from the intake to participation stages.

Overall, most drug courts tended to begin only a small percentage of participants in residential treatment. Only Manhattan (53%) and Brooklyn (46%) began more than one-quarter of their participants in residential treatment. Across most drug courts analyzed, there was a greater probability of an inpatient referral among participants using a primary drug of heroin, crack, and not marijuana; those in unstable living situations; and those neither employed nor in school at intake. Also, in Buffalo, the only court where this relationship could be tested, participants with any of several co-occurring disorders, including depression, personality disorders, and schizophrenia, were more likely to be placed in an inpatient setting.

Although the "continuum of care" approach recommends beginning criminal justice clients in a more restrictive setting and then transitioning them to less restrictive setting over time, New York's drug courts generally applied the "steps" approach of beginning participants in a *less* restrictive setting while they acclimate to treatment and then upgrading later (e.g., to residential treatment) if problems arise.

Although the eleven focal courts have minimum graduation requirements generally ranging from six to twelve months, actual average and median times to graduation are consistently and in some drug courts substantially longer. This is mainly due to added requirements to complete time as drug-free and/or sanction-less time. Thus in six of the eleven courts, actual median times to graduation were more than six months higher than the formal minimums.

Chapter Five
Participant Compliance During Program Participation

While participating in the drug court, participants are not only required to attend treatment but also to appear in court on a regular basis and follow other rules that are specific to each court. These rules can involve, but are not limited to, policies on drug testing, case manager or probation officer visits, school or job attendance, support groups, and graduation requirements. The degree to which each participant follows these rules, attends the appropriate meetings, reaches various thresholds of success, and proceeds towards recovery indicates the level of participant compliance. Each court has a formal or informal schedule of sanctions issued in the event of program infractions, and rewards in response to various achievements. This chapter focuses on the negative side of behavior – infractions and sanctions.

There are two comparisons to make – across courts, and within courts between graduates and failures. Both perspectives are considered. There are three main sections of the analysis:

- Drug tests and warrants (Tables 5.1 – 5.2);
- Other infractions (Tables 5.3 – 5.4); and
- Sanctions (Table 5.5).

There are two major conclusions, with only the second one possibly surprising to readers: 1) failures have worse compliance than graduates; and 2) although graduates do better than failures, relapses, warranting, and other program violations are prevalent aspects of recovery, even among those who are eventually successful.

Any court with data for a meaningful sample size was included in all possible analyses. The data includes recorded infractions and sanctions as of December 31, 2002.[1]

Drug Tests and Warrants

This section includes participants from eight courts: Bronx, Brooklyn, Manhattan, Queens, Suffolk, Syracuse, Rochester, and Ithaca.[2]

[1] Compliance data stored in the Universal Treatment Application (UTA) had varying degrees of data quality for each court. This has to do in large part with the varying clinical uses that different courts make of the UTA. In particular, there are a large number of infractions without an associated sanction recorded. There are two possible reasons: 1) inconsistent or missing data, or 2) there was no sanction imposed in response to the event. We cannot be certain which infractions incurred no sanction, and which infractions had a sanction that was not recorded in the UTA. Also, other than for drug tests and warrants, which are tracked in a separate part of the UTA, we cannot be certain whether all other infractions are in fact recorded, especially in cases where they did *not* lead to a sanction – e.g., some courts may record an infraction only when a sanction was also involved. To address these uncertainties, analyses of infractions other than drug tests and warrants count the infraction only if there was an associated sanction recorded. This creates a bias, since it means infractions are not counted if a sanction was not imposed. Hence the analysis probably excludes some minor infractions, although it is likely that all *serious* infractions do receive a sanction. Lastly, drug tests that were not collected because the participant refused to be tested, self-admitted substance use, or tampered with the test were counted as positive drug tests for these analyses.

[2] Note that the drug test data is only for those participants that had had at least one drug test recorded in the database. This was done to address data entry concerns, since the expectation is that all participants should have had

Table 5.1. Drug Tests and Warrants for All Participants At Eight Drug Courts

	Bronx	Brooklyn	Manhattan	Queens	Suffolk	Syracuse	Rochester	Ithaca
# Participants	**797**	**2093**	**524**	**769**	**775**	**888**	**3457**	**229**
A. DRUG TESTS								
(ONLY FOR THOSE WITH AT LEAST ONE DRUG TEST RECORDED)								
% Participants w/ At Least One Positive Drug Test[1]	52%	74%	71%	52%	58%	67%		78%
Avg % Tests = Positive[1]	14%	52%	16%	9%	9%	28%		19%
Avg % Tests = Positive for "Hard" Drugs[2]	8%	18%	6%	3%	6%	13%		9%
B. WARRANTS								
% W/ At Least 1 Warrant	52%	65%	35%	29%	43%	53%	50%	36%
Avg Warrant Rate[3]	1.33	2.12	1.40	0.63	1.97	2.14	2.54	1.75
% Warranted W/in First 30 Days	13%	22%	11%	6%	14%	12%	15%	8%

Note: Tests that were not collected because the participant refused to be tested, self-admitted substance use, or tampered with the test, were counted as positive drug tests.

[1] Positive tests exclude alcohol.

[2] These drugs include cocaine, crack, and heroin.

[3] Per participant per year. Warrant rate is calculated for time at risk only; it does not include days spent out on warrant, since once a first warrant is issued, the participant is not at risk of incurring another.

It is important, at this point, to define the "warrant" that is referred to throughout this study. This is a *bench* warrant, not a warrant to arrest for a new crime. A judge issues a bench warrant when a defendant fails to make a scheduled court appearance. The police or warrant squad are ordered to produce the defendant before the same judge that issued the order. Courts in this analysis reported that they issued bench warrants for a variety of reasons in addition to failing to appear in court, including missed scheduled appointments with case managers or treatment representatives.

All Participants

Across all seven courts examined, at least 50% of participants had at least one positive drug test, and the percentage is much higher in Brooklyn (74%) and Ithaca (78%). In an alternative analysis, for each participant we obtained the percentage of drug tests with a positive result, and then by court, we obtained the *average* percentage of drug tests taken with a positive result. Brooklyn averaged the highest percentage of positive drug tests (52%) as well as the highest percentage of positive drug tests for a "hard" drug (i.e., cocaine, crack, or heroin). Overall, at least approximately 30% of positive drug tests across the seven courts involved a hard drug.

Warranting behavior by participants is similar. At least 29% of participants had at least one warrant across the eight courts analyzed, and over 50% had at least one warrant in four courts. In Brooklyn, almost a quarter of the participants warranted within the first thirty days of participation, indicating the difficulty of quickly engaging participants.[3]

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at least one drug test administered at some point during their participation. The courts excluded entirely from this section had a large group of participants without a recorded drug test in the UTA.

[3] Responding to this research, in late 2002 Brooklyn initiated a program of onsite pre-placement groups, led by either a case manager or social work intern, for participants not immediately placed in a community-based treatment

Table 5.2. Drug Tests and Warrants for Graduates and Failures at Seven Drug Courts

	Bronx		Brooklyn		Queens		Suffolk		Syracuse		Rochester		Ithaca	
# Participants	**281**	**267**	**741**	**670**	**440**	**169**	**393**	**241**	**295**	**416**	**698**	**1671**	**80**	**102**
	Grads	**Fails**	**Grads**	**Fails**	**Grads**	**Fails**	**Grads**	**Fails**	**Grads**	**Fails**	**Grads**	**Fails**	**Grads**	**Fails**
A. DRUG TESTS														
(ONLY FOR THOSE WITH AT LEAST ONE DRUG TEST RECORDED)														
% Participants w/ At Least One Positive Drug Test[1]	45%	38%+	76%	72%	51%	42%*	60%	50%*	65%	66%			63%	87%***
Avg % Tests = Positive[1]	5%	22%***	12%	46% ***	6%	17%***	6%	18%***	12%	43%***			5%	29%***
Avg % Tests = Positive for "Hard" Drugs[2]	3%	11%***	9%	30% ***	2%	5%***	4%	12%***	5%	19%***			2%	14%***
Avg % Tests = Positive for THC Only	2%	10%***	4%	14% ***	3%	11%***	1%	3%*	4%	13%***			2%	12%***
B. WARRANTS														
% W/ At Least 1 Warrant	35%	70%***	48%	87% ***	16%	63%***	28%	69%***	30%	75%***	22%	75%***	11%	55%***
Avg Warrant Rate[3]	0.31	2.92***	0.46	4.72 ***	0.13	2.17***	0.31	5.44***	0.49	4.12***	0.17	4.76***	0.08	3.53***
% Warranted W/in First 30 Days	8%	21%***	14%	34% ***	2%	14%***	8%	26%***	2%	20%***	5%	23%***	1%	14%***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Tests that were not collected because the participant refused to be tested, self-admitted substance use, or tampered with the test, were counted as positive drug tests.

[1] Positive tests exclude alcohol.

[2] These drugs include cocaine, crack, and heroin.

[3] Per participant per year. Warrant rate is calculated for time at risk only; it does not include days spent out on warrant, since once a first warrant is issued, the participant is not at risk of incurring another.

Although one expectation might be that those courts accepting participants with more severe charges (i.e., felonies) would have larger compliance problems among its participants, that expectation does not bear fruit in this analysis. Although Brooklyn has the highest percentage of positive drug tests, as well as warrants, Ithaca, primarily a misdemeanor court, is not far behind on drug test results.

Graduates versus Failures

The expectation for all graduate-versus-failure analyses is that the failures will perform significantly worse than graduates, and that expectation was confirmed throughout. In drug test results, the largest differences were found in the average percentage of positive drug tests; differences between graduates and failures were statistically significant in all seven courts at the .001 level.

Failures also perform much worse than graduates in all of the warrant categories. Failures warrant more often, spend more time out on warrant, and are more likely to leave the drug court on a warrant within the first thirty days after program entry. At least half of the failures in all seven courts analyzed incurred at least one warrant during their participation.

It is equally, if not more, interesting to consider graduates independently. The results indicate that even those who are eventually successful in drug court tend first to relapse, warrant, and violate other program rules. The drug court model assumes that relapses are often a common part of the process moving towards achieving eventual sobriety for some participants, and the results

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program. The groups are designed to assure immediate, early engagement with treatment issues for all participants, regardless of how rapidly they can be placed in an offsite program.

Table 5.3. Infractions Leading to Sanctions for All Participants At Four New York State Drug Courts

	Brooklyn	Queens	Suffolk	Ithaca
% Serious Infractions	**69%**	**31%**	**41%**	**19%**
(Includes new arrests & warrants)				
INFRACTION TYPE				
1. New Arrest	**7%**	**9%**	**5%**	**6%**
2. Warrant	**62%**	**22%**	**36%**	**13%**
Abscond, Vol. ROW	14%			
Abscond, Invol. ROW	44%			
Abscond, return unknown	4%			
3. Dirty or Substituted Urine [1]	**21%**	**29%**	**44%**	**23%**
4. Program Violation	**11%**	**32%**	**10%**	**54%**
Missed appointment	9%	24%	4%	25%
Rule-breaking	1%	8%	6%	29%
5. Other	**0%**	**8%**	**5%**	**4%**

[1] Note that although grouped together for data recording purposes, a substituted urine would generally be considered a relatively more serious infraction than a dirty urine, since the former connotes cheating and dishonesty, whereas the latter relapse only and hence a need for continuing efforts in treatment.

confirm as much. At least half of all graduates had at least one positive drug test in all of the courts analyzed, except for the Bronx (45%).

Unlike positive drug tests, warranting is not as common among those who eventually go on to graduate. Although there are graduates who had warranted, it is much less frequent than graduates with a positive drug test. The highest percentage of graduates with at least one warrant was in Brooklyn (48%); and percentages with at least one warrant in the other courts ranged from 11% to 35%.

Other Infractions

This section includes participants from four courts: Brooklyn, Queens, Suffolk, and Ithaca. As noted earlier, the infractions included in this section are those that had a sanction response recorded in the drug court database. Also, for data purposes, substituted and dirty urines are grouped together. But in practice, a substituted urine would generally be considered a relatively more serious infraction than a dirty urine, since the former connotes cheating and dishonesty, whereas the latter connotes only relapse and hence a need for continuing efforts in treatment. Although most courts will differentiate the specific response based on this distinction, the resulting sanctions will most often not be in the most serious response category commonly reserved for criminal justice violations (e.g., warrants and new arrests).

All Participants

Table 5.3 highlights the diversity of participant behavior throughout these four courts. The new arrest infraction is the least frequent one in all four courts (except for the catch-all “other”

Table 5.4. Infractions Leading to Sanctions for Graduates and Failures At Four New York State Drug Courts

	Brooklyn		Queens		Suffolk		Ithaca	
	Graduates	Failures	Graduates	Failures	Graduates	Failures	Graduates	Failures
% Serious Infractions (Includes new arrests & warrants)	35%	62% ***	17%	65%***	23%	58%***	4%	21%***
INFRACTION TYPE								
1. New Arrest	**7%**	**7% ***	**5%**	**22%*** **	**4%**	**7%**	**2%**	**5%**
2. Warrant	**28%**	**55% *** **	**12%**	**43%*** **	**18%**	**51%*** **	**2%**	**16%*** **
Abscond, Vol. ROW	9%	7% ***						
Abscond, Invol. ROW	13%	36% ***						
Abscond, return unknown	6%	12%						
3. Dirty/Substituted Urine [1]	**36%**	**19% *** **	**38%**	**14%*** **	**57%**	**31%*** **	**17%**	**28%***
4. Program Violation	**26%**	**17% *** **	**36%**	**16%*** **	**13%**	**7%***	**78%**	**47%*** **
Missed appointment	18%	10% ***	28%	10%***	6%	2%*	31%	15%*
Rule-breaking	8%	7% **	8%	6%	7%	5%	47%	32%*
5. Other	**3%**	**2%**	**9%**	**5%***	**8%**	**4%**	**1%**	**4%+**

+ p<.10 *p<.05 **p<.01 ***p<.001

[1] Note that although grouped together for data recording purposes, a substituted urine would generally be considered a relatively more serious infraction than a dirty urine, since the former connotes cheating and dishonesty, whereas the latter relapse only and hence a need for continuing efforts in treatment.

category). Well over half of the infractions in Brooklyn are warrants, mostly involuntary returns.[4] In general, Brooklyn sees the most serious infractions, including new arrests and warrants, while Ithaca sees the least serious of the four courts. Queens and Suffolk see diverse infractions, although most of Suffolk's are warrants or dirty/substituted urines. Over half of the infractions in Ithaca are program violations split equally between missed appointments and other types of rule breaking.

Graduates versus Failures

Table 5.4 provides further evidence for the expectation that failures would exhibit worse behavior than graduates. With the exception of Ithaca, the most common infraction for a failure is a warrant, and about 60% of all infractions for failures are *serious* ones (either a new arrest or warrant). Graduates most frequently commit program violations, dirty urines, or substituted urines – i.e., relatively less serious behavior to the court than the *criminal justice infractions* entailed by new arrests or warranting.

Ithaca varies somewhat from this pattern, in that neither graduates nor failures commit many serious infractions (although serious infractions are still relatively more common among failures than graduates). Almost all of the infractions for graduates, and about half for failures, are program violations in Ithaca. This could be related to the relatively less addicted and socially disadvantaged nature of the population served by Ithaca (e.g., as compared with Brooklyn).

[4] Voluntary versus involuntary returns could only be distinguished for Brooklyn.

Table 5.5. Sanctions for All Participants At Four New York State Drug Courts

	Brooklyn	Queens	Suffolk	Ithaca
% W/ At Least 1 Sanction	**76%**	**58%**	**56%**	**74%**
% W/ At Least One Jail Sanction	**66%**	**33%**	**38%**	**44%**
SANCTION TYPE				
1. Essay	**2%**	**14%**	**0%**	**2%**
2. Jury Box	**6%**	**5%**	**0%**	**0%**
3. Court Monitoring Upgrade [1]	**2%**	**12%**	**6%**	**1%**
4. Treatment Increase [2]	**19%**	**15%**	**18%**	**6%**
5. Jail	**64%**	**37%**	**39%**	**30%**
Less than 1 week	28%	15%	28%	15%
7-11 days	26%	9%	4%	4%
More than 11 days	10%	0%	0%	0%
Length unspecified	0%	13%	7%	11%
6. Other	**7%**	**17%**	**37%**	**61%**
Verbal admonishment	0%	8%	34%	11%
Community service	0%	1%	0%	46%
Other [3]	7%	8%	3%	4%

[1] Court monitoring upgrade sanctions include increased court appearances, even daily court reporting.

[2] Treatment increase sanctions include increased contact with case manager, mandatory AA/NA, detox/rehab, increase in frequency of drug tests, increase in modality or treatment level.

[3] "Other" sanctions are usually specific to each court, but include sanctions like a Life Skills class in Ithaca, Relapse Panel in Rochester (both described in Chapter 2).

Sanctions

Similar to the other infractions analyses, this section includes participants from four courts: Brooklyn, Queens, Suffolk, and Ithaca. Based on the above results, the expectation was that the Brooklyn sanctions would be the most severe, Ithaca the least, and Suffolk and Queens in the middle.

As Table 5.5 demonstrates, over half of the participants in these four courts incurred at least one sanction, and over a third incurred at least one jail sanction. Brooklyn and Ithaca have the highest percentage of participants with a sanction, around three-quarters, as well as the highest percentage of participants with a jail sanction.

Perhaps because of the diversity of infractions throughout the courts, but also in light of the unique policies of each program, there is great variety in the sanctions used to respond to participant behavior. Jail is the most prevalent sanction in all courts, except for Ithaca. Brooklyn is the only court where over 60% of sanctions are jail, but Brooklyn also sees the most serious infractions in the first place. Queens uses the essay and court monitoring upgrade more than the other courts. Suffolk does not use the essay or jury box at all, but frequently uses verbal admonishment by the judge. Instead of using jail sanctions, Ithaca often imposes a community

service sanction. This appears consistent with Ithaca's status as a small, semi-rural community, as well as its stated goal of increasing participants' sense of restorative justice (see Chapter Two).

A graduate versus failure analysis of assigned sanctions (results not shown) continues to emphasize the same two points evident throughout this analysis. First, failures are less compliant than graduates. There was a statistically significant (at the .001 level) difference between the percentages of sanctions involving jail for failures as compared with graduates in all four courts. Second, there are serious repercussions for noncompliance, even among those who eventually graduate. In Brooklyn, over half of the sanctions incurred by *graduates* are jail – this is a higher percentage of jail sanctions than for any group across the other three courts, including failures.

Summary

There are three major conclusions to highlight. First, every drug court uses a different schedule of sanctions in order to respond to participant noncompliance. Even courts that see similar infractions respond in varying ways. Second, as expected, failures exhibit more severe behavior than graduates. But third, and most importantly, even those who are eventually successful in drug court first suffer the stumbling blocks of initial noncompliance. Graduates frequently relapse, warrant, and otherwise break drug court rules before finding their way towards success.

This chapter explored drug test results, warrant behavior, and the prevalence of various other infractions, as well as each court's use of sanctions to respond to noncompliant behavior. This simple examination of sanctioning policies throughout the courts leads the discussion to the next chapter on the degree to which different drug courts generally follow a "graduated" sanctioning approach, where each successive infraction incurs a more severe sanction, or a different approach.

Chapter Six

The Relationship Between Infractions and Sanctions at Three Drug Courts

Building upon the previous chapter, this analysis will focus on the specific relationship between infractions and sanctions. It is often assumed that drug courts follow a model of "graduated sanctions," where sanctions become progressively more severe in response to repeated infractions. However, this chapter will show that drug courts are not following this model as closely as might be expected. To varying degrees, courts will also consider the seriousness of the individual infraction. That is, drug courts often impose a severe sanction in response to a serious infraction, even if it is the *first* infraction committed during drug court participation. Also, deciding which sanctions to apply, or even whether or not to respond at all, is often based on case-by-case decisions that consider overall impressions of the judge, attorneys, case manager and/or treatment providers, and the particular circumstances surrounding the individual participant's actions. All of these factors are taken into consideration to varying degrees in each court, resulting in a pattern of sanctions that is often *not graduated*.

This chapter first reviews the relevant literature discussing the role and significance of a graduated sanctions model within drug courts. It then introduces two alternative approaches to sanctions that may affect drug court decision-making. Following this discussion is a quantitative examination of infractions and sanctions in three actual drug courts. After reviewing results, the chapter ends with a discussion and suggestions for future sanctions research.

Similar to the previous chapter on general compliance, the only infractions included in this analysis are ones that actually led a sanction to be recorded in the database. Due to data availability and sample size concerns, there are only three courts included in this analysis – Brooklyn, Queens, and Suffolk.

The Graduated Sanctions Model

"Defining Drug Courts: The Key Components" (NADCP 1997) outlined the necessary policies and procedures that all drug courts should employ. The sixth enumerated component recommends that, "a coordinated strategy governs drug court responses to participants' compliance." The document further suggests that a "continuum of responses" is needed to appropriately respond to progress or noncompliance. Relapses and program violations are expected, but should not be condoned, so each consecutive noncompliant act should result in an increasingly more serious response, i.e. a graduated sanctions model.

Since 1997, use of graduated sanctions has become the widely accepted method for dealing with participant noncompliance. Marlowe and Kirby (1999) further elaborated on the best sanctioning practices. Drawing on theories from behavioral psychology and research with other criminal justice populations, they maintained that drug courts should respond increasingly more severely, and relatively quickly after each infraction occurs. The rationale for a "graduated" approach is that the participant should not have the opportunity to become used to each level of sanctions (thus each one should be more severe than the last); but also, the drug court should begin with less severe sanctions so that it does not quickly run out of options.

Most recently, Harrell, Roman, Mitchell, and Marlowe (2000) collaborated on a study of sanctions in three pretrial programs designed to reduce drug use. For each program, they considered the certainty, celerity (swiftness after the infraction), and severity of the sanctions employed. The major finding was that the role of the judge and the *severity* of the sanctions were the two most important factors affecting participant compliance.

Other Sanctioning Models

The graduated sanctions model is the primary one formally recognized in the literature and in official drug court policies. This chapter attempts to determine to what extent the graduated sanctions model is utilized in reality, using three drug courts in New York State as case studies – Brooklyn, Queens, and Suffolk. The other two models that will be considered and tested as a part of this analysis are the isolated response model and the case-by-case discretionary model. Neither is documented explicitly in the literature.

Isolated Response Model

Whereas the graduated sanctions model examines each infraction with consideration to the number of infractions that came before, the *isolated response model* considers each infraction as an "isolated" incident. Following this model, each specific infraction should result in the same specific sanction – or at least a sanction of the same severity level – every time, for all participants within the court. Each infraction is considered in a vacuum in that the prior history of noncompliance is not a factor in determining the severity of the response. Therefore, if a drug court followed the isolated response model, one would expect the same type of infraction to always result in the same type of sanction for all participants, regardless of whether it was the first, second, or tenth violation. For example, a new arrest, if not resulting in drug court failure, would almost always result in a jail sanction.

The analysis does not presuppose that there is any drug court in the country that is strictly using the isolated model. But to the surprise of the authors, it will become clear that drug courts are following this model more than would have been expected, to the point that the drug court literature may need to more explicitly consider alternative sanctioning perspectives.

Case-by-Case Discretionary Model

It seems that there are always mitigating and complicating factors surrounding participant violations, and these circumstances are sometimes taken into consideration by the drug court team. According to the case-by-case discretionary model, what is important is not only the type of infraction, or how many infractions were committed beforehand, but also what specific circumstances led to the infraction and what type of response might be most effective with a particular individual. For example, was it the participant's anniversary on the date of a positive drug test for alcohol? Or did the participant miss a case manager appointment because of a job interview? Or is the participant young or, for some other reason, deemed unlikely to respond well to a severe sanction such as jail? Case managers, treatment providers, probation officers, attorneys and/or judges frequently are able to make more informed decisions through the increased interaction with participants, often being able to consider each case independently when determining a court response. Both models, graduated and isolated, may in this sense be too formulaic to account for what factors are in fact considered in each case.

Table 6.1. Jail Sanctions for Graduates and Failures at Three Drug Courts

	Brooklyn		Queens		Suffolk	
	Graduates	Failures	Graduates	Failures	Graduates	Failures
Prevalence of Jail Sanctions						
% W/ At Least One Jail Sanction	58%	79% ***	23%	68%***	31%	44%***
% Jail Sanctions of all Sanctions	56%	73% ***	22%	67%***	32%	47%***
(*ONLY FOR THOSE WITH AT LEAST ONE JAIL SANCTION)*						
Total Days in Jail Sanctions	15	22 ***	4	6*	5	5
First Jail Sanction						
% Jail on 1st Sanction	56%	70% ***	37%	61%***	33%	52%**
When is 1st Jail Sanction?[1]	1.63	1.39 ***	2.52	1.63***	2.67	2.28

+ p<.10 *p<.05 **p<.01 ***p<.001

[1] This number represents the average sanction number (1st sanction imposed, 2nd sanction imposed, 3rd sanction imposed, etc.) where jail is imposed for the first time. For example, for an individual participant, if a non-jail sanction is imposed for the first sanction and jail for the second, the first jail sanction was imposed for sanction 2.00.

Results of the Analysis

Prevalence of Jail Sanctions Overall

The use of jail sanctions – frequency, length, in response to which infractions – is central to the analysis, since jail sanctions are interpreted as the most *severe* sanction type. By way of introduction, Table 6.1 provides summary statistics on each court's use of jail sanctions. In Brooklyn and Queens, jail sanctions comprise the large majority of sanctions imposed on participants who eventually fail. Also, failures have significantly more days spent on jail sanctions than graduates in Brooklyn and Queens (at the .001 and .01 levels, respectively). Considering both graduates and failures, participants in Brooklyn overall are more likely than those in the other two courts to receive a jail sanction, to be serving jail sanctions for more total days, and to receive a jail sanction early on – i.e., as the first or second sanction imposed.

Testing the Graduated Sanctions Model

The graduated sanction model asks drug courts to issue sanctions with increasing severity, which means that a jail sanction should almost never be the first court response to the first infraction. Also, once jail *has* been given as a sanction, the length of subsequent jail sanctions should increase to escalate the severity of court responses. Consider then the following tests of this model's actual use.

Jail as the First Sanction. Overall, Brooklyn imposes a jail sanction over half of the time in response to the first infraction; Queens and Suffolk impose a jail sanction about a third of the time in response to the first infraction. When the infraction is a relatively less serious or moderate-level one, such as a dirty or substituted urine or program violation, all three courts are much less likely to give a jail sanction[1]. On the other hand, when the first infraction is a more serious and has already involved the *criminal justice system* in a response – a new arrest or a

[1] As discussed in Chapter Five, although a substituted urine is often considered more serious than a dirty urine, they are grouped together for data purposes.

Table 6.2. First Test of the Graduated Sanctions Model: Jail Sanctions on the First Infraction

Hypothesis **:** *If the drug court is using a graduated model, then jail should almost never result from a first infraction.*

Brooklyn Treatment Court

			FIRST SANCTION	
		n	jail	low
	FIRST INFRACTION	1597	**56%**	**18%**
FIRST	New Arrest	94	83%	12%
INFRACTION	Warrant	859	85%	8%
	Involuntary Return	606	97%	1%
	Voluntary Return	215	56%	22%
	Dirty or Substituted Urine	483	14%	24%
	Program Violation	161	10%	62%

Queens Treatment Court

			FIRST SANCTION	
		n	jail	low
	FIRST INFRACTION	446	**29%**	**46%**
FIRST	New Arrest	43	61%	16%
INFRACTION	Warrant	71	79%	7%
	Dirty or Substituted Urine	224	9%	58%
	Program Violation	62	34%	53%
	Other	46	11%	61%

Suffolk County Drug Court

			FIRST SANCTION	
		n	jail	low
	FIRST INFRACTION	442	**34%**	**44%**
FIRST	New Arrest	21	24%	43%
INFRACTION	Warrant	95	54%	16%
	Dirty or Substituted Urine	252	30%	48%
	Program Violation	52	27%	65%
	Other	22	23%	59%

Note: Moderate-severity sanctions (not reflected) include increases in court monitoring, changes to the treatment plan, or community service. They are not shown on this table, but are included in the total 100% count. Low-severity sanctions include essays, journals, time in the jury box, observing court, or verbal admonishments. Note also that although grouped together for data reporting purposes, a substituted urine would generally be considered a more relatively serious infraction than a dirty urine, since the former connotes cheating and dishonesty, whereas the latter simply relapse only and hence a need for continuing efforts in treatment.

warrant – the three courts do not act in the same manner. In Brooklyn, and to a lesser degree in Queens, a new arrest or warrant, even if it is the first one, will be met with a jail sanction much more frequently than not. Suffolk is the least likely court to impose a jail sanction as the first sanction used, *even when the infraction was serious* (new arrest or warrant). To summarize, then, none of the three courts follow a strict graduated model; but Suffolk seems closest to the graduated end of the spectrum.

Length and Frequency of Jail Sanctions. A graduated model would dictate that courts impose jail sanctions more frequently with each successive infraction, and that once the jail sanction threshold has been reached, courts should increase the *length* of the jail sanction as another

Table 6.3. Second Test of the Graduated Sanctions Model: The Increase of Jail Sanctions

Hypothesis: *If the drug court is using a graduated model, then the frequency, and length, of jail sanctions, should increase with each progressive infraction.*

Brooklyn Treatment Court

		Sanction			
		First	Second	Third	Fourth
	n	1597	1152	739	450
JAIL SANCTION SEVERITY	**% JAIL**	**56%**	**64%**	**65%**	**61%**
	% less than 11 days	54%	51%	50%	47%
	% more than 11 days	2%	13%	15%	14%

Queens Treatment Court

		Sanction			
		First	Second	Third	Fourth
	n	446	264	162	111
JAIL SANCTION SEVERITY	**% JAIL**	**29%**	**34%**	**42%**	**58%**
	% 1-7 days	13%	15%	24%	33%
	% 8-11 days	7%	9%	8%	8%

Suffolk County Drug Court

		Sanction			
		First	Second	Third	Fourth
	n	442	297	208	154
JAIL SANCTION SEVERITY	**% JAIL**	**34%**	**37%**	**39%**	**46%**
	% 1-7 days	26%	31%	31%	34%
	% 8-11 days	3%	1%	1%	5%

Note: Each court uses different jail sanction ranges in the MIS applications; we assumed the participant would actually serve the middle number of days. So if the sanctioned range is 8-15 days, we would count that sanction as 11 days. Specifically, Brooklyn is the only court that uses a jail sanction longer than 11 days.

method of graduating the court responses. In fact, Brooklyn gives a jail sanction about 56% of the time on the first infraction, and only increased to 61% by the *fourth* infraction. There is, however, a strict increase in the *length* of the jail sanction between the first and second responses in Brooklyn. As Table 6.3 shows, both Queens and Suffolk show the expected increase in jail sanction frequency with each progressive infraction – although the increased probability of jail is not as dramatic as one might expect. Also, neither Queens nor Suffolk shows an increase in the *length* of each successive jail sanction. Inspection of the results indicates that Queens uses the graduated sanctions model most on this measure, while Brooklyn also demonstrates a graduated approach with respect to the growing length of the jail sanction.

Testing the Isolated Response Model

Unlike the graduated sanction model, the isolated response model does not ask drug courts to progressively increase the severity of court responses. Instead, the underlying model holds that the same behavior should result in the same response each time. Each event is considered in an *isolated* respect and not as part of a larger behavioral history. Therefore, each infraction should

Table 6.4. Test of the Isolated Response Model

Hypothesis: *If a drug court is using an isolated model,*
then the same infraction should almost always result in the same sanction.
Threshold: *at least 65% of the time would be evidence of the isolated model in effect.*

Brooklyn Treatment Court

			SANCTION SEVERITY			Isolated?
		n	jail	moderate	low	
INFRACTION	New Arrest	238	**70%**	20%	10%	Y
	Warrant	1246	**82%**	9%	9%	Y
	Involuntary Return	960	**95%**	4%	1%	Y
	Voluntary Return	535	63%	16%	21%	N
	Dirty or Substituted Urine	701	32%	51%	17%	N
	Program Violation	409	29%	29%	42%	N

Queens Treatment Court

			SANCTION SEVERITY			Isolated?
		n	jail	moderate	low	
INFRACTION	New Arrest	97	**69%**	17%	14%	Y
	Warrant	139	**76%**	17%	7%	Y
	Dirty or Substituted Urine	260	15%	37%	48%	N
	Program Violation	140	42%	18%	40%	N

Suffolk County Drug Court

			SANCTION SEVERITY			Isolated?
		n	jail	moderate	low	
INFRACTION	New Arrest	68	35%	29%	36%	N
	Warrant	196	53%	32%	15%	N
	Dirty or Substituted Urine	318	44%	20%	36%	N
	Program Violation	132	24%	11%	**65%**	Y

Note: Moderate-severity sanctions include increases in court monitoring, changes to the treatment plan, or community service. *Low-severity* sanctions include essays, journals, time in the jury box, observing court, or verbal admonishments. Note also that although grouped together for data recording purposes, a substituted urine would generally be considered a more relatively serious infraction than a dirty urine, since the former connotes cheating and dishonesty, whereas the latter simply relapse only and hence a need for continuing efforts in treatment.

have the same sanction a large majority of the time – or at least the same level of sanction. In Table 6.4, if an infraction leads to the same severity of sanction more than 65% of the time, that is interpreted as evidence of the isolated response model.

Brooklyn and Queens both show an isolated response to serious infractions – new arrests and warrants. When the warrant has an involuntary return in Brooklyn, arguably more serious than when the participant returns to court without a police escort, there is virtually always a jail sanction (95%) in response. When the infraction is of a moderate type, and does not initially involve criminal justice institutions such as the courts or police (dirty or substituted urine or program violation), there is more diversity in the responses of Brooklyn and Queens.

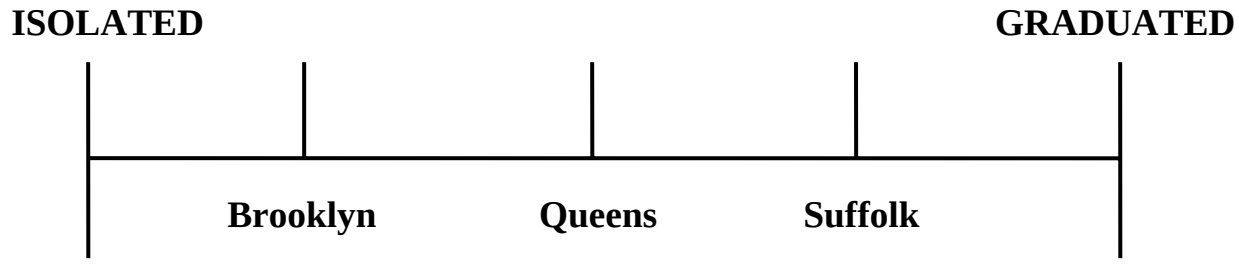
Interestingly, in Suffolk, the only infraction/sanction severity pair that approaches a 65% consistency is the lower-level infraction, program violations; these infractions consistently receive a verbal admonishment response. Tables 6.2 and 6.3 demonstrate that Suffolk did not use a jail sanction very frequently, regardless of the infraction, and that is further exhibited in this table. Even a warrant will only incur a jail sanction only 53% of the time.

Summary and Discussion

It seems that both Brooklyn and Queens show evidence of using the isolated response model at times, with Brooklyn closest to that end of the spectrum of the three courts. Suffolk, on the other hand, seems closest to the graduated sanctions end of the spectrum, although Suffolk also does not adhere strictly to a graduated sanctions model. All three courts fall on a continuum, with Tables 6.1-6.4 indicating much variation in the responses – with the distinct exception of *serious infractions* in Brooklyn, which almost always lead to a jail sanction.

The two infractions that we have often simply denoted as "serious" (new arrests and warrants) can more precisely be defined as *criminal justice infractions* and compared with *clinical infractions* (e.g. relapses, failing to attend treatment, or violations of the rules of the treatment program). Having made this distinction clear, the isolated approach of consistently giving jail sanctions in response to warrants (with involuntary returns in particular) and new arrests stems from the perspective that criminal justice infractions should receive a criminal justice response, i.e., jail, and that the clinical infractions should receive clinical responses, such as increased case manager visits, drug testing, or court monitoring. Since Brooklyn has the largest number of criminal justice infractions, they logically also have the most criminal justice responses, jail sanctions. At the same time, Table 6.3 demonstrates that among criminal justice responses, there is a graduated approach in the sense that the length of the jail sanctions grows after successive criminal justice infractions.

In the overall spectrum, the graduated sanctions model would be all the way on one end, and the isolated response model on the other end. The results of this analysis show that all three of the courts considered, and likely most drug courts, actually find themselves at various points along the spectrum, sometimes closer to the isolated model, sometimes closer to the other end, but very infrequently right on the graduated model. The figure below provides a general approximation of where each of the three courts falls. The analyses above of course make clear that the specific *type of infraction* is a critical, mediating factor affecting whether a drug court will invoke isolated versus graduated responses in a specific case.



As a whole, much of the drug court literature takes the graduated sanctions model for granted as the modus operandi of drug courts across the country. This analysis shows that courts in fact consider other factors when determining a sanction. The discussion of sanctions must be broadened to include other possible response mechanisms. Like the graduated model, the isolated response model did not seem to be the overriding schedule at any of the three courts studied here, and site visits did not indicate that there was another court in the state that was following this

model exclusively. But this analysis demonstrates that this type of thinking – the isolated framework – does occur within a drug court setting at least to the same degree as the graduated model, and arguably to a greater degree in courts such as Brooklyn that see a large number of serious infractions and have tailored their approach accordingly.

If none of these three courts strictly follows either the graduated sanctions or isolated response models, then what type of schedule are they following? Perhaps neither model really meets the needs of the drug court team on a practical level. At times, or in some courts most of the time, the team needs to be free to act independently of any type of schedule, on a *case-by-case basis* – in order to respond to unique circumstances and participant personalities.

This analysis highlights the critical significance of a third approach, which we term the *case-by-case discretionary model*. Any staff member of a drug court will tell stories of aggravating or mitigating circumstances that forced the team to give a harsher or lighter sanction than might otherwise be called for. Drug courts not only play a role in reducing addiction, but also in reforming lives. A participant is asked to follow rules that are more extensive than just abstaining from drugs or alcohol. Therefore, when a participant wakes up sick and chooses not to make their scheduled court date before the judge, he must learn to call someone and let them know he will not be in court that day. The lesson is not that one cannot become sick and miss appointments at will, but that when one is going to miss that appointment one needs to be responsible about letting someone know about it. Drug courts ask participants to learn appropriate workplace behavior, honesty, respect for others, and respect for oneself. Although the decision to stray from the graduated sanctions model is often unconscious, drug court staff frequently expresses the need for greater flexibility when responding to participant behavior.

Future Research Questions

Limitations in sample size and data quality provided barriers to conducting more comprehensive research on the case-by-case discretionary model. Future research might further divide our infraction and sanction groups to tease out the underlying logic in the responses to different infractions – e.g., what are the specific types of new arrests that result in different sanctions; was the dirty urine for the participant's primary drug or a "less hard" drug such as marijuana; or how many days was the participant out on warrant before returning. Perhaps there is, in fact, a structured schedule of responses, but we have been unable to identify it at this point because we are using broad categories and relatively crude measurements.

Most interestingly, this chapter establishes that there are factors other than a graduated sanctions schedule at work when determining a sanction response. The question to be asked then, in subsequent studies, is what works best to motivate participants to graduate and avoid recidivism? Are there different sanctioning approaches used within the same court based on varying participant characteristics? Does the drug court team respond to the same behavior differently if the perpetrator is a predicate felon, or a pregnant woman, or a younger participant, or a heroin or marijuana abuser? And does that differing behavior make an impact on graduation or recidivism?

Questions of court responses to participant behavior are essential in trying to get inside the "black box" of drug court operations and why they seem to work for some participants and not for others.

Chapter Seven
Additional Achievements During Drug Court Participation

In addition to the explicit goals of public safety and treating defendants' addiction, drug courts seek to address a variety of other, interrelated problems. By supplying services beyond substance abuse treatment, drug courts aspire to restore defendants to drug-free lives as well as to help them become contributing members of their communities. This is achieved by directing participants toward obtaining their high school diploma or G.E.D., participating in job training or parenting programs, gaining employment, restoring the family unit, and so forth. Problems in these areas may have initially contributed to or resulted from a defendant's drug use and addiction; hence addressing these multiple concerns is critical to the larger recovery process.

This section looks at the additional achievements of drug court graduates during their program participation. Many of the questions asked at exit are identical or nearly identical to those asked at intake, allowing direct measurement of change in the course of participation. The questions cover employment status, educational status, whether participants obtained a high school diploma or G.E.D., whether they are receiving Medicaid or other government assistance, continued participation in volunteer work, and the custodial status of participants' children.

At this time, only graduates can be included in the analysis due to an insufficient amount of data for failures. Also, data is available for many fewer than the total number of graduates at each drug court, in large part due to the relatively recent implementation of the exit interview in 2001 (although some systematic biases in what data is missing are also possible). Graduates from nine courts are included: Bronx, Manhattan, Queens, Suffolk, Syracuse, Rochester, Tonawanda, Lackawanna, and Ithaca.[1]

Achievements of Drug Court Graduates

Employment and Educational Status

In all nine courts, graduates were significantly more likely to be unemployed at the time of intake than exit. Conversely, graduates were significantly more likely to be employed full-time at exit, again consistently across all nine courts.

In eight of the nine courts, participants were also more likely to be attending school (full-time or part-time) when they graduated than when they entered the drug court. This finding was statistically significant in five of the eight courts. As all but one of the drug courts *require* participants to be employed or in school in order to be eligible to graduate, these results are not surprising.[2]

High School Diploma / GED

Across the courts a large percent of graduates had entered the drug court with their high school diploma or GED. In five courts (Queens, Suffolk, Syracuse, Rochester, and Ithaca) a

[1] Since Buffalo has only recently converted to the statewide Universal Treatment Application, and Brooklyn is still not converted, we do not have available exit status data for their participants.

[2] Interestingly, participants are more likely to be in school at exit in Queens, the only one of these courts that does *not* require participants to be employed or in school in order to graduate.

Table 7.1 Additional Achievements of Drug Court Graduates: A Comparison of Intake and Graduation

	Bronx		Manhattan		Queens		Suffolk		Syracuse		Rochester		Tonawanda		Lackawanna		Ithaca	
Total Number of Graduates	256		103		411		363		263		707		189		151		77	
	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit	Intake	Exit
Employment	N = 114		N = 43		N = 182		N = 89		N = 129		N = 59		N = 34		N = 38		N = 48	
Employed full time	11%	48%***	14%	79%***	36%	61%***	24%	62%***	10%	41%***	54%	70%**	53%	74%*	34%	74%***	31%	73%***
Employed part time	11%	13%	12%	9%	18%	10%*	20%	30%	9%	12%	7%	12%	9%	15%	8%	5%	23%	13%
Unemployed/Not in labor force	79%	39%***	74%	12%***	46%	29%***	56%	8%***	81%	47%***	39%	19%***	38%	12%**	58%	21%***	46%	15%***
Education	N = 123		N = 49		N = 159		N = 123		N = 142		N = 76		N = 35		N = 38		N = 46	
In school (full-time/part-time)	5%	35%***	6%	16%	15%	33%***	6%	33%***	9%	26%***	25%	22%	11%	37%**	5%	13%	15%	20%
Not in school	95%	65%***	94%	84%	86%	67%***	94%	67%***	92%	74%***	75%	78%	89%	63%**	95%	87%	85%	80%
H.S. Diploma/G.E.D.	N = 178		N = 69		N = 263		N = 127		N = 145		N = 188		N = 82		N = 49		N = 65	
Attained H.S. diploma or GED	62%	63%	64%	68%	67%	77%***	89%	94%**	64%	72%***	86%	91%***	88%	89%	78%	80%	72%	85%**
No H.S. diploma or GED	38%	37%	36%	32%	33%	23%***	11%	6%**	36%	28%***	14%	9%***	12%	11%	22%	20%	28%	15%**
Receiving Government Assistance	N = 120		N = 48		N = 159		N = 108		N = 130		N = 45		N = 34		N = 34		N = 43	
Yes	35%	50%	29%	31%	15%	24%**	18%	7%	42%	46%	82%	53%***	9%	3%	41%	27%**	47%	21%**
No	65%	50%	71%	69%	86%	76%**	82%	94%	59%	54%	18%	47%***	91%	97%	59%	74%**	54%	79%**
Receiving Medicaid	N = 111		N = 38		N = 140		N = 113		N = 110		N = 100		N = 32		N = 30		N = 37	
Yes	38%	62%***	47%	53%	17%	44%***	15%	8%	46%	44%	23%	35%**	9%	9%	43%	30%	41%	8%**
No	62%	38%***	53%	47%	83%	56%***	85%	92%	55%	56%	77%	65%**	91%	91%	57%	70%	60%	92%**
Custodial Status	N = 126		N = 47		N = 240		N = 133		N = 146		N = 110		N = 35		N = 43		N = 41	
With children		68%		47%		54%		46%		72%		75%		31%		74%		59%
No change		91%		91%		85%		82%		96%		93%		91%		91%		79%
Regained custody		2%		5%		5%		12%		2%		7%		9%		6%		13%
Gained visitation rights		7%		5%		10%		7%		2%		-		-		3%		4%
Lost custody		-		-		-		-		-		-		-		-		4%
Steady Volunteering	N = 125		N = 49		N = 240		N = 133		N = 141		N = 114		N = 35		N = 44		N = 46	
Yes		10%		8%		28%		1%		50%		25%		0%		16%		17%
No		90%		92%		73%		99%		50%		75%		100%		84%		83%

**p<.05 **p<.01 ***p<.001 (2-tailed t-test)*

Note: Detail may not add to total because of rounding. Shaded cells indicate variables that were not recorded at drug court intake.

[1] Some participants may complete the graduation requirements of the drug court without completing all requirements of their treatment program.

significant number of graduates who did not have their diploma / GED at the time of intake obtained one or the other by the time they graduated. As discussed above, participants are provided assistance in reaching this goal and many of the courts require this as a condition to be eligible to graduate.

Government Assistance and Medicaid

Government assistance is a somewhat complicated measure of in-program achievement. On one hand, as programs succeed in getting participants enrolled in educational programs and employed, the number of participants relying on government assistance should decline. However, drug courts also help participants by connecting them to services that will make their recovery process easier and their drug-free lives sustainable. Since a high proportion of drug court participants come from low socioeconomic backgrounds, many of these participants would be greatly helped if they were made aware of and enrolled in various government assistance programs. In addition, some participants may have medical or mental health conditions that may not be resolved upon their recovery from their drug addiction; hence they may continue to require government aid after graduation. Given this perspective, seeing an increase in the number of participants successfully linked to government assistance could also represent a positive outcome. The complex nature of the relationship should be considered when examining the results below.

Three courts (Rochester, Lackawanna, and Ithaca) had a significant decrease in the number of graduates receiving government assistance when they graduated as compared to when they entered the program. Two additional courts (Suffolk and Tonawanda) also saw a slight decline in participants receiving government assistance, but the difference was not significant. On the other hand, four courts experienced an increase in the number of graduates who were receiving government assistance when they graduated, with this increase significant only in Queens. In Ithaca, there was a significant decrease in the number of graduates receiving *Medicaid* when they graduated compared to when they entered the drug court program. The Bronx, Queens and Rochester all saw a significant increase in the number of graduates receiving Medicaid when they graduated compared to when they entered the drug court program.

Also, in New York State, persons court mandated to treatment are eligible for Medicaid if they do not have insurance and cannot afford to pay for treatment. Therefore, if a graduate did not complete treatment prior to graduating or was still completing the aftercare component of their treatment, this may be another possible explanation as to why some graduates were still receiving Medicaid.

Custodial Status of Children

Of those graduates with children, a small percentage regained custody by the time of graduation and an additional small percentage obtained visitation rights. This area of inquiry would obviously benefit from an impact study comparing drug court participant outcomes to those of similar parent defendants who did not have a drug court option.

Volunteering

A number of drug courts require community service as part of their graduation requirements (see Chapter Two) to give back to the particular community where criminal activity had formerly occurred; this assignment is often intended as restorative and not punitive. One possible

indication of this is the number of graduates who continue to do volunteer work even after completing their drug court mandate. In Syracuse, for example, 50% of graduates were continuing to volunteer at the time of graduation. In most of the other courts, a percentage of graduates were continuing to volunteer at the time of graduation. Among the additional seven drug courts with some percentage of graduates volunteering at graduation, the exact range varied from 1% in Suffolk to 28% in Queens.

Summary

The findings in this chapter suggest that the drug courts not only address substance abuse problems, but also seek to improve other areas of participants' lives - such as education and employment needs. In particular, drug court graduates demonstrated the following outcomes in addition to completing their required substance abuse treatment:

- Graduates across all nine programs examined were significantly more likely to be employed full-time or part-time at the time they completed the drug court program;
- Graduates in five of the nine drug courts were significantly more likely to be attending school full-time or part-time at the time they completed the drug court program;
- Some graduates of each court regained custody or obtained visitation rights with their children; and
- Some graduates of each court were volunteering in the community at the time of graduation, although doing so was not court-mandated.

The analysis of these in-program achievements is preliminary due to the small number of cases with available data, the lack of data for drug court failures, and the lack of an appropriate comparison group against which to compare these graduate outcomes. Considering these limitations, results nonetheless suggest that, at least among those able to complete their drug court mandate successfully, drug courts can help participants achieve positive life changes beyond sobriety.

PART THREE

Drug Court Retention and Recidivism

Chapter Eight
Drug Court Retention Rates

Retention rates are a critical measure of program success. A *one-year retention rate* indicates the percentage of participants who, exactly one year after entering drug court, had either graduated or remained active in the program. Belenko (1998) estimates that drug courts nationwide have an average one-year retention rate of 60%. This greatly improves upon results typically obtained by community-based treatment programs, where many of the participants are entering treatment voluntarily, without the pressure of a court mandate. Nationwide, community-based programs have *three-month* retention rates ranging from as low as 30% to 60% (Condelli and DeLeon 1993). Since attrition always increases over time, one-year retention rates across these same programs, if they were available, would presumably drop much lower than the 30-60% three-month range. Indeed, focusing on therapeutic communities only (involving residential treatment), Lewis and Ross (1994) reported one-year retention rates ranging from just 10-30%.

Retention rates are important not only for indicating the percentage of participants with positive outcomes *within* the drug court but also for signifying long-term outcomes such as post-program recidivism and drug use. The substance abuse treatment literature consistently links more time retained in treatment to more favorable post-treatment outcomes on measures such as drug use, criminal activity, and employment (Anglin, Brecht, and Maddahian 1989; DeLeon 1988; Peters and Murrin 1998; Taxman 1998; Taxman, Kubu, and DeStefano 1999). Although this report only includes impact evaluations of post-treatment recidivism at six of the eleven drug courts studied, one-, two-, and three-year retention rates can be reported for all eleven courts, providing an initial sign of the outcomes at courts for which recidivism is not directly analyzed.

Retention Rates

Table 8.1 presents one-year, two-year, and three-year retention rates for all eleven courts. The table shows the breakdown for those who had graduated (retained), those still open and active (retained), those who had failed (not retained), and those who had disappeared on a warrant (not retained) as of the date in question (the one-year, two-year, or three-year anniversary dates following drug court entry). Note that graduation and failure status is final, not subject to change in the future. On the other hand, participants *open* at the one-year mark, for example, may either graduate or fail as of a subsequent date; and participants on *warrant status* at the one-year mark may return from the warrant and also either graduate or fail as of a subsequent date. The analysis was performed using data updated through December 2002, except in Buffalo where we used a data extract obtained in May 2002. Thus, except in Buffalo, the maximum number of participants analyzed for the one-year retention rate analysis included all those entering drug court by December 31, 2001, one year prior to the analysis date.

The results show that the one-year retention rate exceeds Belenko's standard 60% in eight of the eleven courts, with the exceptions of Syracuse, Rochester, and Buffalo. In Syracuse and Buffalo, the one-year retention rate is just slightly lower than 60% (56% and 59% respectively). Also, some of the courts show substantially higher retention. The one-year retention rate reached 82% in Tonawanda, 81% in Queens, 73% in Manhattan, 72% in Bronx, and 70% in Suffolk.

Table 8.1 Drug Court Retention Rates

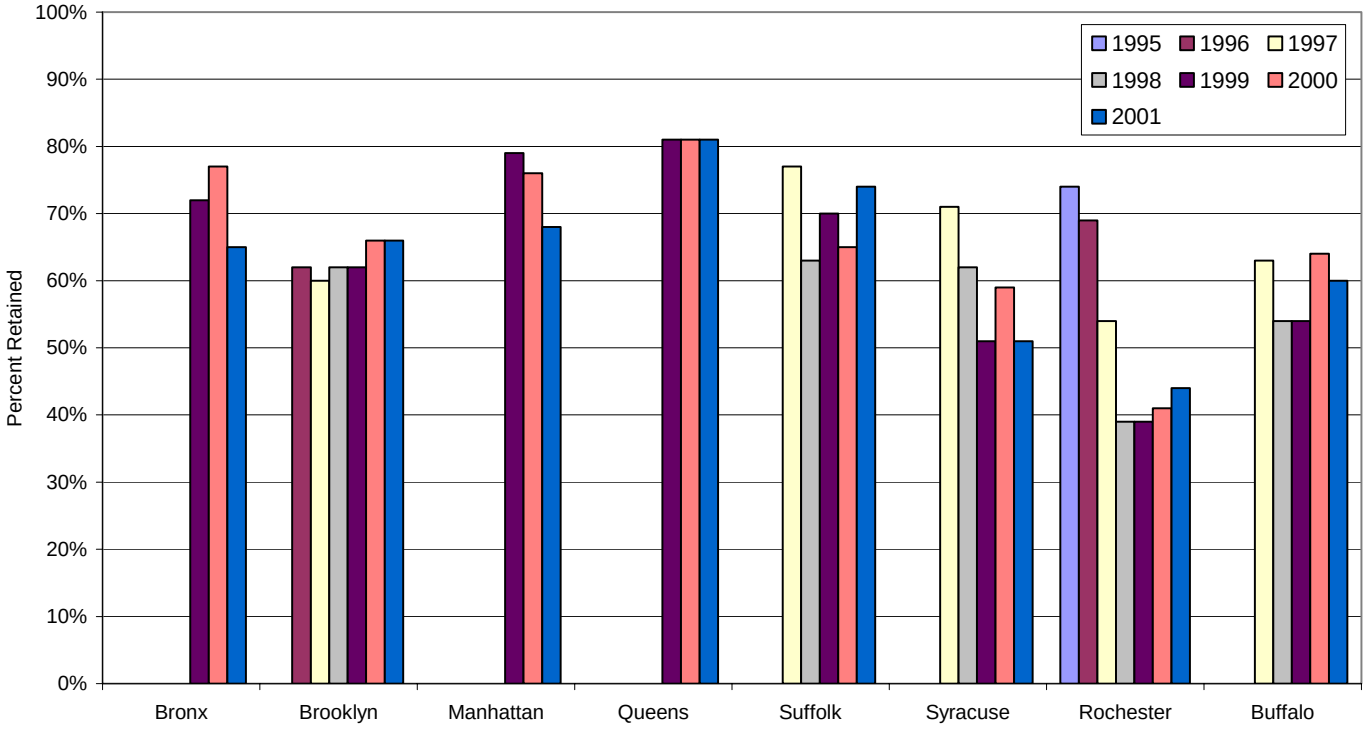
	Bronx	Brook-lyn	Manhat-tan	Queens	Suffolk	Syra-cuse	Roch-ester	Buffalo	Tona-wanda	Lacka-wanna	Ithaca
Program Status After One Year	*649*	*1904*	*211*	*605*	*617*	*640*	*2774*	*1165*	*252*	*92*	*196*
Graduated	1%	4%	1%	3%	6%	15%	2%	11%	48%	9%	12%
Open	71%	59%	72%	78%	64%	41%	46%	48%	33%	58%	54%
Warranted	10%	16%	9%	6%	6%	11%	8%	13%	8%	9%	3%
Failed	18%	21%	18%	13%	23%	34%	44%	28%	11%	25%	32%
One-Year Retention Rate	***72%***	***63%***	***73%***	***81%***	***70%***	***56%***	***47%***	***59%***	***82%***	***66%***	***65%***
Program Status After Two Years	*483*	*1651*	*164*	*472*	*484*	*352*	*2331*	*830*	*166*	*117*	*165*
Graduated	34%	33%	35%	60%	58%	40%	17%	24%	65%	44%	35%
Open	27%	23%	31%	14%	4%	7%	15%	22%	13%	14%	19%
Warranted	6%	11%	7%	4%	3%	6%	5%	16%	8%	3%	1%
Failed	33%	33%	27%	23%	35%	47%	63%	38%	15%	39%	45%
Two-Year Retention Rate	***61%***	***56%***	***66%***	***74%***	***62%***	***47%***	***32%***	***46%***	***78%***	***58%***	***54%***
Program Status After Three Years	*275*	*1349*	*126*	*261*	*377*	*262*	*1837*	*518*	*116*	*107*	*110*
Graduated	44%	44%	49%	66%	62%	41%	23%	30%	74%	50%	50%
Open	9%	8%	8%	3%	1%	2%	5%	12%	3%	5%	3%
Warranted	2%	8%	5%	3%	1%	3%	3%	17%	4%	4%	0%
Failed	46%	40%	38%	29%	36%	54%	69%	41%	18%	40%	47%
Three-Year Retention Rate	***53%***	***52%***	***57%***	***69%***	***63%***	***43%***	***28%***	***42%***	***78%***	***54%***	***53%***

Note: For Manhattan and Lackawanna, the one-year retention rate excluded cases if the one year anniversary date preceded the installation of the Universal Treatment Application (UTA). The two-year retention rate for these two courts excluded cases if the two year anniversary data preceeded the installation of the UTA. Due to uncertainties concerning the interpretation of certain date variables, Buffalo participants that entered in 1996 are excluded: 97 excluded in total (e.g., out of 1,262 Buffalo participants in the one-year retention analysis). Finally, a small number of participants whose cases are listed as incomplete (e.g., due to medical or mental health reason) are defined as not retained and, therefore, are grouped with those who failed. Note that certain graduated plus open percentages do not add up to the retention rate exactly, and certain program status percentages do not add up to 100%, due to rounding.

Since some participants who are *open* as of the one-year mark subsequently fail drug court, two-year and three-year retention rates are always lower than the one-year rates. Nonetheless, both the two-year and three-year rates exceeded 50% in eight of the eleven courts, excepting Syracuse, Rochester, and Buffalo (with rates again just slightly lower in Syracuse and Buffalo). While most of the drug courts have three-year retention rates in the fifties, three produce higher rates, Tonawanda (78%), Queens (69%), and Suffolk (63%). Of these three, Queens and Suffolk are both included in subsequent impact evaluation chapters. Based on the retention data, a preliminary hypothesis is that those two courts will fare particularly well when measuring their impact on recidivism.

Notably, the *graduation rate* of each drug court should be approximately equal to the three-year retention rate, since nearly all participants have reached their final status (graduation or failure) by three years after program entry. In the impact evaluation chapters to follow, a complex methodology is implemented to estimate graduation rates at the six courts studied there; a simple rule to generate a quite reasonable estimated range, however, is to assume that it will be plus or minus 3% from the three-year retention rate. The range exists because some participants who are open at three years (retained) may eventually fail, while others who are on warrant at three years (not retained) may eventually return and graduate. After applying this range to all eleven courts, eight of the eleven courts clearly exceed the 48% national average graduation rate estimated by the Congressional General Accounting Office (1997).

Figure 8.1. One Year Retention Rates by Participant Cohort (Calendar Year of Entry)



Note: Only those cohorts with at least 50 participants are included. The earliest cohorts in several courts are excluded due to insufficient sample size. The three semi-rural courts, Tonawanda, Lackawanna, and Ithaca, were excluded entirely as the population in those courts ranges from 30 to 70 participants in all cohorts and, thus, was not considered to offer a statistically meaningful analysis of cohort-based trends.

The Impact of Year of Entry on Retention

In studying the Portland and Las Vegas drug courts, Goldkamp et al (2001) found that participant outcomes varied substantially depending on the year of program entry. Those entering in some years had significantly lower recidivism than the comparison group, whereas those entering in other years did not fare differently. The authors attribute these results to changes in the Portland and Las Vegas drug court programs over time, leading the programs to be more efficiently and effectively run in some years than others. In this section, we undertake a similar analysis, distinguishing the one-year retention rates by participant cohort (calendar year of entry). If the earliest cohort(s) in a court had less than 50 participants, they were excluded. Also, the three semi-rural courts, Tonawanda, Lackawanna, and Ithaca, were excluded, since their cohorts all ranged from 30-70 participants, too low to yield a meaningful analysis of cohort-based trends. Results are in Figure 8.1.

Overall, the results show greater variation in retention between different drug courts than between different cohorts of the same courts. Of the eight courts analyzed, only two, Syracuse and Rochester, showed more than a 15% disparity between the retention rates of its best- and worst-performing cohorts. Also, some of the courts showed remarkable consistency. The one-year retention rate for Queens was exactly 81% for all three cohorts measured; the rate varied only from 60-66% across Brooklyn's six cohorts; and the rate varied only from 54-64% across

five cohorts studied in Buffalo. While the retention rate in Bronx ranged from 65-77% across its three cohorts, there was no discernible trend, since the highest performing cohort was the middle one. Similarly, Suffolk's retention rate fluctuated between 63% and 77% across the five years measured, but no trend spanning two or more years was in evidence.

Distinct trends *were* evident in some courts. Over the three cohorts measured, Manhattan's retention rate declined from 79% in 1999 to 68% in 2001. Further inspection suggests that this may partly stem from a policy change initiated around September 2001 to accept violation of probation cases (with the violation potentially stemming from either a new arrest or a technical violation such as testing positive for drugs). These cases tend to be challenging ones, since probation violators, by definition, have already demonstrated post-arrest noncompliance at the point when they reach the drug court. For the duration of the Manhattan court, those entering on probation violations have a one-year retention rate of 65%, noticeably lower than the rate of 76% for all other participants. Since probation violators began entering Manhattan's drug court in large numbers only toward the end of 2001, they pull down the court's overall retention rate for that *recent* year only. At the same time, the retention rate for the non-probation violator subgroup appeared also to decline slightly from 79% in 1999 to 70% in 2001, suggesting that other factors may affect the trend over time – or the latter trend may be only a temporary blip.

Syracuse's retention rate began at 71% for the cohort entering in 1997 and appears, generally, to have declined since then, reaching lows of 51% for the 1999 and 2001 cohorts (with an upward shift to 59% for the 2000 cohort). Without a clear linear trend across the five cohorts measured, interpretation is difficult. We considered whether a change in judge could explain the trend but found that it did not.

Rochester's retention rate began at 74% for the cohort entering in 1995 and then declined between that time and 1998, when the rate was 39%. After remaining at 39% in 1999, the rate rose slightly until reaching 44% for the most recent cohort entering in 2001. As in Syracuse, we again considered the possible role of a change of judge. We found a correlation between the tenure of Rochester's original judge and the higher retention rates obtained during the early years of the program; but again, the precise dates when presiding judges changed did *not* clearly correspond with the timing of the changes in retention rates. Also, Rochester has experienced a number of policy changes over time with respect to screening, assessment, and other program components, but these too did not clearly correspond to the change in observed outcomes.

Finally of note, Brooklyn's retention rate varied little over time, but the last two cohorts, the 2000 and 2001, both achieved a 66% retention rate, exceeding all others. One explanation may stem from subtle implementation improvement over time, as the court and clinical staff gained experience. (The original judge who began with the program in 1996 still presides; and the project director has been with the court since 2000 as either the director or deputy director.) Also, caseloads of the court's case managers declined from a high of over seventy cases each in 1998 and 1999 to approximately fifty cases each in 2001; it is possible that lower caseloads facilitate greater individual attention to each participant, thereby improving outcomes for some.

Summary

Retention rates are important for indicating the ability of the drug court to engage a significant percentage of its participants. Also, retention rates offer a preliminary indication of long-term outcomes, since longer retention is associated in the literature with less post-treatment drug use and recidivism. Major findings across the eleven courts studied in this report are:

- Eight of the eleven courts have one-year retention rates exceeding 60% and two- and three-year retention rates exceeding 50%, results which compare positively both to the voluntary treatment population and to other drug courts nationwide;
- Several drug courts demonstrate particularly high retention; for instance, three years after program entry, the retention rate exceeds 60% in Tonawanda (78%), Queens (69%), and Suffolk (63%); and
- Variations in the retention rates are generally greater between different drug courts than between different cohorts from the same drug courts, although three drug courts did show notable changes in retention over the tenure of their programs.

Chapter Nine
Predictors of Success in Drug Courts

As discussed in Chapter Eight, one of the key measures of drug court success is the ability of the program to retain and graduate a significant percentage of its participants. Nearly all drug court studies have found that graduates have lower recidivism rates than failures. This makes it important to understand what individual and program factors lead to a higher relative probability of graduation or failure. With this knowledge, courts might provide extra assistance to those known to be at higher risk of failure and implement general program features known to maximize the probability of graduation.

Additionally, perhaps the *ultimate* measure of program success is whether or not the drug court can keep offenders from returning to the criminal justice system. This makes it as important to understand what factors are associated with a higher or lower probability of recidivism, both during the in-program period when participants are actively enrolled in the drug court and during the post-program period after direct judicial supervision has ended. Accordingly, two separate analyses are presented regarding the predictors of recidivism. First, a *post-intake* analysis measures what factors predict recidivism within two years after drug court intake; and second, a *post-program* analysis measures what factors predict recidivism in the one- or two-year period immediately following program completion. Completion is defined as the graduation date for those successfully completing the drug court mandate and the jail or prison release date for those who fail.

Analyses focus on five of the larger New York State drug courts: three large urban courts (Brooklyn, Bronx and Queens), one suburban court (Suffolk), and one medium-sized city court (Syracuse). After first reviewing the relevant literature and developing a number of hypotheses, the specific variables and methodology are described. Successive sections then analyze the predictors of program failure, post-intake recidivism, and post program recidivism in the five courts. Results from all three analyses are synthesized in a single discussion section at the end of the chapter.

Possible Predictors of Drug Court Success

The literature points to a number of potentially important predictors of success. In this section, the literature is briefly recounted and utilized to develop testable hypotheses.

Demographic and Socioeconomic Characteristics

Several drug court studies indicate that demographics affect program outcomes. For instance, an analysis of the Miami Drug Court found lower one-year post-entry recidivism rates for participants who were Caucasian, had higher levels of education, and were currently or previously married (Goldkamp and Weiland 1993). A study of the Escambia County (Florida) Adult Drug Court found that graduates were more likely to have received a high school diploma or G.E.D. and more likely to be employed full-time at intake (Peters, Haas, and Murrin 1999). Similar factors were found to influence *recidivism* among Escambia participants in a thirty-

month post-entry follow-up period: younger age, lack of high school degree or G.E.D., and single status. The following reviews expectations for several specific factors.

Age: Treatment research (not specifically conducted with drug court populations) shows that *older* participants are generally more likely to graduate and less likely to recidivate (e.g., Grella, Wugalter, and Anglin 1997; Longshore, Evans, Urada, Teruya, Hardy, Hser, Prendergast, and Ettner 2003). Common explanations are that delinquent drug behavior peaks in late adolescence and declines thereafter (Hirschi and Gottfredson 1983). Involvement in deviant peer groups and the quest for autonomy also tend to decrease with age. Another explanation may be that participants mature as they grow older and are more capable of facing their addiction and engaging in treatment. In addition, as participants grow older, they are more likely to have stabilizing factors, such as marriage and steady employment (see Laub, Nagin, and Sampson 1998).

Hypothesis 1a. Younger age predicts a lower probability of drug court success.

Sex: Previous research often shows that women's outcomes in treatment settings are poorer than men's (Beckman 1979; Mammo and Weinbaum, 1993). Treatment programs often cannot meet childcare and pregnancy needs, which are more likely to affect women. In contrast to these *treatment* findings, *criminal justice* research (not drug court-specific) indicates that males are more likely than females to recidivate (e.g., U.S. Department of Justice 2002). These opposing findings lead to contrasting predictions regarding the relationships between (1) sex and drug court program completion and (2) sex and recidivism.

Hypothesis 1b. Female sex predicts a lower probability of drug court success as measured by graduation/failure status.

Hypothesis 1c. Female sex predicts a higher probability of drug court success as measured by recidivism.

Race/Ethnicity: Research on the relationship of race/ethnicity and treatment success has produced inconsistent results (e.g., Longshore et al. 2003; Condelli and Hubbard 1994; McFarlain, Cohen, Yoder, and Guidry 1977; Peters and Murrin 1998). Race and ethnicity are intimately linked to other participant characteristics, such as socioeconomic status, indicating that a cautious interpretation of results is necessary. In a study of the Brooklyn drug court, Rempel and DeStefano (2001) found that, although there was a significant relationship between race and program retention in bivariate analyses, that relationship disappeared once other factors were controlled. This mixed literature leads to no hypothesis.

Socioeconomic Status: Previous research finds that higher socioeconomic status, as measured by educational attainment and employment status, predicts success. Several studies report a positive relationship between educational background and success (Hiller, Knight, Broome, and Simpson 1998; Sampson, Savage, Lloyd, and Sells1978) and between employment and success (Hser, Andlina, and Liu 1990). Those with higher socioeconomic status also tend to have stronger community and family ties, which may prove helpful by providing social support during the recovery process.

Hypothesis 1d. Lower socioeconomic status predicts a lower probability of drug court success. Specifically, those participants who are neither employed nor in school, or have attained lower levels of education, will be less likely to succeed.

Substance Abuse and Treatment History

It seems logical that factors pertaining specifically to the presenting drug problem, and to previous experiences in substance abuse treatment, would affect the chances of recovery within the drug court. This is explored below.

Addiction Severity: In general, participants with a more severe addiction have been found less likely to succeed in treatment. Primary drug of choice has often been used to indicate addiction severity, with those using "hard drugs" – e.g., heroin and cocaine – found to have a more difficult time managing their addiction (Grella et al. 1997; Peters and Murrin 1998; Peters et al.1999).

As a result of the often severe physical symptoms that accompany withdrawal, a heroin addiction may be a particularly difficult to overcome; indeed, previous research at the Brooklyn Treatment Court (Rempel and DeStefano 2001) and also across recent court-mandated treatment initiatives throughout California (Longshore et al. 2003) indicates that participants with a heroin addiction were less likely than others to be retained for significant periods. Further, findings reported earlier in this report (Chapter Four) indicate that in two of three drug courts, participants with a heroin addiction were more likely than others to require inpatient treatment. Considering all available literatures, we propose the following:

Hypothesis 2. More addictive primary drugs of choice predict a lower probability of drug court success. Specifically, heroin use predicts a lower probability of drug court success.

Initial Treatment Modality: Predictions regarding initial modality are difficult to determine. Inpatient treatment may signal a more severe addiction, suggesting that those initially assigned to inpatient are less likely to succeed. Conversely, inpatient treatment is coupled with closer monitoring, which may have a positive impact on program success. Moreover, as discussed in Chapter Four, the decision to place a participant in inpatient treatment may sometimes be driven by policies, as opposed to pure clinical reasons. Mixed expectations lead to no particular hypothesis.

Treatment History: Prior treatment episodes may indicate a more severe addiction level and, thus, a higher probability of drug court failure and recidivism. However, Rempel and DeStefano's (2001) recent literature review reported mixed results, and that study's analysis of Brooklyn found no effect of prior treatment. Thus no particular hypothesis is advanced.

Prior Criminal History

Previous contact with the criminal justice system is consistently utilized as a predictor for future contact with the criminal justice system (Elliott and Menard 1996; Thornberry, Lizotte, Krohn, Farnworth, and Jang 1994). Indeed, Peters et al. (1999) found that drug court participants with fewer prior convictions had higher rates of success than those with extensive criminal records.

Hypothesis 3. Prior criminal activity predicts a lower probability of success, in particular with respect to future criminal recidivism.

Legal Coercion

Earlier research has shown that legal coercion is a sizeable force in determining both short-term and long-term outcomes (e.g., Anglin et al., 1989; DeLeon 1988; Trone and Young 1996). It is held that the higher the degree of legal coercion – that is, the higher the cost of failure – the larger the incentive to succeed (Rempel and DeStefano 2001). The threat of the higher penalty is believed to comprise a strong incentive for participants with prior criminal histories, felony charges, and/or higher jail or prison alternatives faced in the event of program failure. Earlier research suggests that the extent of coercive power is a key determinant of retention rates. Rempel and DeStefano (2001) found that at the Brooklyn Treatment Court, retention is higher for those facing a longer jail or prison alternative in the event of program failure. Brooklyn only handles defendants arrested on felony drug charges, but with respect to a misdemeanor population, findings may vary across different programs, particularly those in upstate New York versus New York City. Misdemeanors in upstate are generally more likely to result in lengthy jail sentences, while in New York City, due to high court volume, long jail sentences rarely stem from misdemeanor arrests. Hence while observing that the dynamics may vary by jurisdiction, in general we expect the following:

Hypothesis 4. Increased legal coercion predicts a higher probability of success.

Hypothesis 4a. Entering drug court on a felony charge predicts a higher probability of drug court success.

Hypothesis 4b. Longer incarceration alternatives in the case of failure predict a higher probability of success.

Charge Type

While the current literature makes explicit predictions based on charge *severity*, until now there has been little discussion of specific charge *type* in the drug court literature. In part, this is due to the changing composition of drug courts; while drug court participants were initially limited primarily to defendants facing *drug charges*, some drug courts have recently widened their scope to include a broader array of nonviolent charges. One study that does examine charge type finds that participants entering on a drug possession charge were slightly more likely than others to graduate and slightly less likely to be rearrested within thirty months (Peters, Haas, and Murrin 1999). However, it is not clear in this study what type of charge led the remainder of non-possession participants to drug court, as the additional charges are listed merely as "other charges." The current analysis will bring charge type into the discussion more explicitly, examining whether participants charged with a variety of non-drug offenses have significantly different chances of success than those charged with drug offenses. The dearth of previous research leads to no particular hypothesis.

In-Program Behavior

While only a small number of studies have examined the impact of in-program factors, the research does suggest that participants' first few weeks in treatment are highly predictive of ultimate success (Leigh, Ogborne, and Cleland 1984; Mundell 1994; Rempel and DeStefano 2001). That is, participants who are thoroughly engaged *early* in the drug court process, as often measured by whether a participant began attending treatment within the first thirty days after

formal program entry, are more likely to stay in drug court and to have successful long-term outcomes.

> *Hypothesis 5a. Rapid and thorough initial integration into drug court predicts a higher probability of success.*

In addition to making it through the initial stages of the program without problems, it is predicted that continued compliant behavior throughout program participation leads to higher levels of long-term success.

> *Hypothesis 5b. Higher levels of compliance with drug court program regulations and requirements predict program success. Noncompliance predicts recidivism.*

Finally, final program status (graduation or failure) will be included below as a potential predictor of post-program recidivism. It is predicted that those participants reaching the first measure of drug court success – graduation – will be more likely than others to continue successfully *after* the program, indicated by post-program recidivism.

> *Hypothesis 5c. Initial non-success in the form of drug court failure predicts future non-success, in the form of post-program recidivism. Drug court participants who fail are predicted to be more likely to recidivate than drug court graduates.*

The Role of Treatment

Several treatment studies (not drug court-specific) find that those who remain in treatment *longer* are less likely to engage in subsequent criminal activity and that completing at least ninety days of treatment is critical (De Leon, Holland, and Rosenthal 1972; Simpson, Joe, and Brown 1997; Sirotnik and Roffe 1977). Interestingly, Wexler, Falkin, Lipton, and Rosenblum (1992) report that treatment participants who remained in a treatment program for at least nine months and less than one year have a longer period between release and rearrest than those participants who drop out before nine months, as well as those who remain in the program for more than one year. Van Stelle, Mauser, and Moberg (1994) find that more time in treatment, *regardless of final program status*, is predictive of lower recidivism rates for offenders. Similarly, a great deal of clinical literature indicates that it is not only the final outcome of treatment (graduation or failure), but the amount of time spent active in treatment affects future relapse rates (e.g., Wexler et al.1992; Field 1992). Based on these results, one would conclude that total time spent in a treatment program would be a more important predictor of post-program recidivism than drug court graduation or failure status per se. However, these results stem from literature about treatment in general. There remains uncertainty about whether these findings pertain to a *drug court* (i.e., court-mandated) population in particular.

In their evaluation of the Baltimore City Drug Treatment Court, Gottfredson, Najaka, and Kearley (2003) find that within a drug court, treatment itself does contribute to lower recidivism. The participants in this study who participated in at least ten consecutive days of treatment were less likely to recidivate within a two-year follow-up period than the comparison group. However, this analysis did *not* control for final program status (graduation or failure) or, for that matter, for any other aspects of drug court participation (e.g., number of status hearings attended, rewards,

sanctions, etc.). Thus the exact dynamics at work in drug courts are under-explored. Nonetheless, given the thrust of the existing literature, we hypothesize the following:

> *Hypothesis 6. More total time in treatment predicts positive post-treatment outcomes. Also, failures remaining in the program for longer than ninety days are predicted to recidivate at a lower level than those failing prior to ninety days.*

Data and Methodology

Defining the Samples

Five courts were included: Brooklyn, Bronx, Queens, Suffolk, and Syracuse. Also, three analyses were conducted, each requiring a somewhat distinct sample definition. The first was for predicting *drug court program failure*. For this analysis, data was updated as of the end of June 2002. This means that participants could be included if they had either graduated or failed drug court by that time. An additional restriction was that participants had to have entered drug court at least two years earlier (by the end of June 2000). This was to allow all participants in the sample a reasonable amount of time to reach final completion status. Otherwise, the analysis would have over-represented those entering drug court recently and spending a relatively short amount of time in it prior to failure.

The second analysis was for predicting *post-intake recidivism* within the first two years after initial intake. Naturally, in order for participants to be analyzed over a two-year period, they had to have entered drug court at least two years prior to the analysis date (when recidivism data was obtained). In four of the courts, recidivism incidents were obtained through June 30, 2002, meaning the sample could include all participants with their intake occurring by June 30, 2000. In Brooklyn only, recidivism incidents were obtained through December 31, 2001, meaning the Brooklyn sample could include all participants with intake occurring by December 31, 1999.[1] Note that for all participants, some or all of the two-year post-intake measurement period includes time spent *in the program* – actively under the drug court's supervision. This fact makes the third analysis critical, since it expressly *isolates* and measures recidivism *only* during the period after drug court supervision ends.

The third analysis was for predicting *post-program recidivism* within the first year after program completion in Queens, Suffolk, and Syracuse, and within two years after program completion in Brooklyn. The Brooklyn analysis could be extended to two years post-program since that court is older and has a higher cumulative participant population than the other courts, leading sample size to remain high for a longer measurement period. Expanding the timeframe beyond one year in the other courts led to greatly reduced sample size, rendering multivariate analysis problematic. In addition, because the Bronx court is relatively new (opening in 1999), too few participants had accumulated enough post-program time for a robust multivariate analysis there, even at the one-year mark. Hence Bronx was excluded from this analysis.

Measures of Success: Dependent Variables

The dependent variable, success, was measured in three ways for the three respective analyses. In the predictors of failure analysis, success is a dichotomous variable measuring whether or not the participant successfully completed the drug court (graduation = 0, failure = 1).

[1] The data distinction for Brooklyn is solely because of different dates that data was requested and received from the New York State Division of Criminal Justice Services.

If the participant was still active in the program or was on warrant status as of the analysis date, they were not included.

In the predictors of post-intake recidivism analysis, success is a dichotomous variable measuring whether the participant was arrested for another offense within two years of intake, with the arrest subsequently leading to a felony or misdemeanor conviction (no new convictions = 0, new conviction = 1). In effect, the measure of recidivism is the new *conviction*, not the arrest. But the timing of the conviction is not as important; an incident counts as recidivism so long as the arrest occurred within two-years post-intake, even if delays in case processing led the conviction to occur at a later date.

In the predictors of post-program recidivism analysis, success is a dichotomous variable measuring whether participants were arrested for another misdemeanor or felony within one year after completing drug court, or within two years in Brooklyn only, with that arrest subsequently leading to a conviction (no new convictions = 0, new conviction = 1). For graduates, the calculation of time after completion begins on the date of drug court graduation. The calculation for program failures is based on an estimated incarceration release date for those participants sent to jail or prison, and on the program failure date for those not incarcerated (e.g., sentenced to probation instead). See Chapter Eleven for a more complete discussion of methodological issues related to recidivism definitions and measurement periods.

Predictors of Success: Independent Variables

Participant Characteristics: Basic demographics include age at intake, sex, and race/ethnicity. In all courts except Bronx, two racial/ethnic groups (the ones most prevalent in each court) are compared to all others, which are grouped together in the third category, "other".[2] In the Bronx, because this third category comprises such a small group, only 4% of the valid population, "other" races are collapsed into Hispanic/Latino instead of a third "other" category. Variables measuring whether participants have a high school diploma or GED and whether participants are employed or in school serve as proxies for socioeconomic status.

Drug use and treatment history are measured with three variables. First, similar to race/ethnicity, primary drug of choice is limited to the two or three most prevalent primary drugs found in each court. All other substances are grouped together as "other" drugs of choice. Second, prior treatment is a dichotomous variable based on the participant's self-report of previous substance abuse treatment. Third, first treatment modality assignment is a dichotomous variable (1 = inpatient, 0 = outpatient).[3] It is largely intended as a proxy for addiction severity. However, it is notable that first modality assignment may also reflect various court policies, such as preferring an intensive outpatient modality in Bronx, and socio-demographic characteristics, such as placing all homeless participants in inpatient facilities (see Chapter Four).

Finally, a variable indicating whether the participant had any prior convictions reveals participants' criminal history.

Legal Coercion: A number of variables are used to indicate the amount of legal coercion facing participants. Both the type and severity of the charge leading participants to enter drug court are considered in all courts in which there is sufficient variation in the court. Charge type is

[2] For example, in Suffolk, 16% of participants are Black and 75% are Caucasian. The remaining 9% are a combination of Hispanic/Latino, Asian, Pacific Islander, and non-specified others.

[3] The numerous possible initial treatment modality categories were reduced to these two categories. In this instance, inpatient includes both 30-day short-term residential stays as well as long-term residential treatment. Outpatient subsumes all outpatient treatment options.

limited to the two or three most common charges. Syracuse and Suffolk share the same charge categories, namely, felony drug possession, misdemeanor drug possession, property crimes, and various "other" crimes. Because Queens only accepts felony drug charges, the charge variable in this court is limited to felony drug sales versus felony drug possession. In Brooklyn and Bronx, nearly all participants enter on felony drug sales, so a charge type variable is not included.

The length of incarceration time participants face if they fail drug court is included only in Suffolk. Jail or prison alternatives in the Bronx and Queens do not vary enough (that is, nearly all participants face the same sentence upon failure) to make the inclusion of this variable useful. In Syracuse, there is typically no official alternative; participants are given their sentence only after they fail. Treatment mandate, as explained in Chapter Two, is used as a proxy for jail or prison alternative in Brooklyn, as there is a fairly uniform sentencing approach based on treatment mandate in that court. To review, the four Brooklyn mandates are: misdemeanor, single first felony, multiple first felony, and predicate (felony with a prior felony conviction). Treatment mandate is coded by ascending severity (misdemeanor = 0, predicate felony = 3).

In-Program Behavior: The variable used to measure participation immediately after program entry is whether the participant absconded from program contact, prompting the issuance of a bench warrant, within the initial thirty-day post-entry period. Overall in-program compliance is measured through the warrant rate – the number of warrants divided by the total number of days in the program (less days on warrant). Final program status is graduation/failure status. It is used to determine whether initial program failure is predictive of further failure, as measured by post-program recidivism.

The Role of Treatment: Brooklyn was the only court in which variables were available to test the role of treatment in shaping post-program recidivism. Although a number of potential measures of the role of treatment were explored, the final measure utilized to quantify treatment's role is a continuous variable measuring the total number of days a participant was *present* in treatment. Other variables examined but not included in the final analysis include total time spent in inpatient treatment, total time spent in outpatient treatment, total days present for case management visits, and total number of court appearances. The inclusion of these various measures did not change the overall significance of the model, and including multiple measures in the same model raised issues of multicollinearity. Therefore, the models presented in Table 9.3 (for Brooklyn) include the single variable that best reflects the issue, days present in treatment. In all four courts, a second measure of the role of treatment, time from drug court program entry to failure, is measured in days to determine whether a longer stint under drug court supervision, regardless of a final failed outcome, predicts greater success in terms of future recidivism. Due to data quality issues, it was unfeasible outside of Brooklyn to measure actual days in treatment prior to failure. Consequently, the number of days in the drug court is used as a proxy for days present in treatment.

Results

Predictors of Program Failure

Key findings concerning the predictors of drug court program failure include (see Table 9.1):

- Age significantly predicted failure in three of five drug courts, with younger participants more likely than older ones to fail;
- In two of three courts in which heroin use was prevalent, heroin users were significantly more likely than others to fail; and

Table 9.1. Odds Ratios from the Logistic Regression Predicting Program Failure on Select Independent Variables

	BRONX	BROOKLYN	QUEENS	SUFFOLK	SYRACUSE
N	**298**	**1244**	**343**	**411**	**272**
Valid N	**205 (69%)**	**1098 (88%)**	**236 (69%)**	**329 (80%)**	**241 (89%)**
Age	0.939**	0.941***	0.961	0.965+	0.946**
Male	1.212	0.772+	2.100	0.369***	1.841+
Race/Ethnicity					
Caucasian				0.823	1.171
Black	1.415	0.991	0.764	1.487	1.272
Hispanic	0.811	1.187	1.714*		
High School Degree/GED	0.988	1.033	0.550		
Employed or In School at Intake	0.987*	0.898			0.998
Primary Drug					
Heroin	3.023**	1.574***		0.816	
Crack	0.859	0.767*		1.499	1.143
Cocaine			0.730	0.938	
Marijuana	0.361**		0.958		0.755
Previously in Drug Treatment	0.715	1.029	1.288	1.197	1.589
First Treatment Modality (Inpatient)	1.287	0.971	2.353*	1.237	0.743
Any Prior Convictions	1.485	1.393*	2.028	2.249**	1.458
Charge Type					
Felony Drug Sales			1.181	0.841	
Felony Drug Possession			0.563+	0.914	0.605
Misdemeanor Drug Possession					1.638*
Property Crime				1.221	1.098
Jail Alternative					
One Year or more				0.921	
Treatment Mandate[1]		0.715***			
Warranted Within 30 Days	3.349*	3.454***	8.011*	2.565*	6.494**
Nagelkerke R^2	0.201	0.200	0.190	0.195	0.179
Chi-Square	32.480**	176.918***	32.102**	49.904***	34.629**

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Odds ratios greater than 1.000 indicate a positive relationship. Shaded areas indicate variables that were not included in the given model due to high levels of missing data or too little variance among participants. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

[1] Treatment mandate is treated as a continuous variable.

- Rapid, initial engagement in treatment strongly predicted success. Across all courts, those who warranted within the first thirty days after drug court intake, suggesting a lack of initial engagement, were significantly more likely to fail.

Table 9.1 presents odds ratios from separate logistic regression equations predicting drug court failure for each court. In addition to the main results reported just above, there were several other findings common to more than one court. In Suffolk, women were significantly more likely than men to fail ($p < .001$), and some evidence of the same pattern was found in Brooklyn ($p < .10$). Surprisingly, prior conviction status was *not* a consistent, significant predictor of program outcomes. This was contrary to the expectation that priors would be associated with failure. Although the direction of the odds ratios was consistent in all five courts, priors only had a statistically significant relationship to failure in two courts (Brooklyn, $p < .05$; Suffolk, $p < .01$).

Table 9.2. Odds Ratios from the Logistic Regression Predicting Recidivism Within First Two Years of Drug Court Intake

	BRONX	BROOKLYN	QUEENS	SUFFOLK	SYRACUSE
N	**364**	**1305**	**382**	**406**	**301**
Valid N	**259 (71%)**	**1179 (90%)**	**272 (71%)**	**340 (84%)**	**262 (87%)**
Age	0.923***	0.969***	0.891**	0.936**	0.927***
Male	1.112	1.171	1.445	0.907	2.052*
Race/Ethnicity					
Caucasian				0.521**	0.814
Black	1.126	0.914	1.045	1.287	1.714*
Hispanic	0.575[2]+	1.074	1.898*		
High School Degree/GED	0.819	1.277	1.145		
Employed or In School at Intake	1.294	0.644*			0.651
Primary Drug					
Heroin	1.408	1.234+		0.806	
Crack	1.099	0.999		1.399	1.629*
Cocaine			1.272	0.794	
Marijuana	0.526+		0.655		0.437**
Previously in Drug Treatment	0.916	0.725*	0.769	2.154*	0.872
First Treatment Modality (Inpatient)	1.691	1.580**	0.860	0.710	1.052
Any Prior Convictions	5.919***	2.158***	2.520+	4.555***	2.328*
Charge Type					
Felony Drug Sales			1.046		
Felony Drug Possession			0.956 [3]	0.682	0.824
Misdemeanor Drug Possession				0.799	1.093
Property Crime				2.147**	1.550+
Jail Alternative					
One Year or more				1.390	
Treatment Mandate[1]		0.820*			
Warranted within 30 Days	0.693	2.005***	1.106	1.441	1.550
Nagelkerke R^2	0.210	0.105	0.153	0.255	0.188
Chi-Square	40.434***	84.219***	25.320*	68.076***	39.240***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Odds ratios greater than 1.000 indicate a positive relationship. Shaded areas indicate variables that were not included in the given model due to high levels of missing data or too little variance among participants. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

[1] Treatment mandate is treated as a continuous variable .

[2] Bronx participants who are neither black nor Hispanic make up only 4% of the valid population. Consequently, they are collapsed into the Hispanic race category.

[3] Queens participants facing a non-felony drug charge comprise only 4% of the valid population. Thus, they are collapsed into the Felony Drug Possession category.

Also surprising, variables designed to tap legal coercion did not have consistent effects across the three courts where such variables could be included, Brooklyn, Suffolk, and Syracuse. In Brooklyn, as expected, participants with a more serious treatment mandate (i.e., facing more jail or prison time) were significantly *less* likely to fail ($p < .001$). Also as expected, in Syracuse those arrested on less serious misdemeanor drug possession charges were more likely to fail than those arrested on other charges ($p < .05$). But in Suffolk, none of the variables designed to tap coercion (arrest charges or jail/prison alternative) were significant.

Recidivism Rates for Drug Court Participants in All Eleven Focal Courts

With respect to recidivism, the substantive question of interest in this chapter is which background characteristics lead recidivism rates to be relatively higher or lower among participants in five New York State drug courts. In addition, as a separate part of this study, we obtained recidivism data from the New York State Division of Criminal Justice Services for *all eleven focal courts*. Appendix E presents complete post-intake recidivism results, and complete post-program results separated by graduation and failure status, for all eleven courts. These results are relegated to an appendix, as they were judged *not* to be meaningful per se for evaluative purposes, except as feedback for individual courts to compare against whatever expectations they may have had. In general, recidivism results are meaningful when they are *compared* to results for similar defendants that did *not* enter drug court. In other words, knowing that a particular drug court generated a recidivism rate of X% becomes meaningful if we know that, without the drug court, the recidivism rate for those defendants would have most likely been Y%. That enables us to draw conclusions about whether the drug court generated or did not generate a relative reduction in recidivism. Note that complete impact evaluations are included for six drug courts in Part IV of this report. Accordingly, Part IV is the proper reference point for readers seeking general evaluative conclusions on the net drug court impact on recidivism.

Predictors of Post-Intake Recidivism

This analysis examines the relationship between participant characteristics and the probability of recidivism within two years post-intake. Notable findings from Table 9.2 include:

- Younger age was a universally strong predictor of post-intake recidivism;
- In four courts, prior criminal convictions significantly predicted post-intake recidivism;
- In contrast to findings from the above analysis of program failure, the level of early integration into the program, as measured by early warranting, was only a significant predictor of post-intake recidivism in one court; and
- In both courts with substantial Caucasian populations, Suffolk and Syracuse, race/ethnicity was a significant predictor of post-intake recidivism, indicating blacks were more likely to recidivate.

Table 9.2 presents odds ratios for separate logistic regression equations for each court predicting post-intake recidivism within two years. The most consistent results concern the impact of age and prior criminal history. As expected, in all five courts, younger drug court participants were significantly more likely than older ones to recidivate. And in four courts, participants with prior criminal records were significantly more likely than others to recidivate (with the fifth court showing evidence of the same finding at $p < .10$). Somewhat unexpectedly, early warrant status was only significantly related to post-intake recidivism in Brooklyn, although participants who warranted within thirty days of program entry were significantly more likely to fail drug court across all five courts measured.

There were several other findings common to more than one court. Race/ethnicity significantly affected recidivism in three of five courts. In both courts with a substantial Caucasian population, Suffolk and Syracuse, the odds of recidivism were relatively higher among blacks and lower among Caucasians. In Queens, the odds of recidivism among Hispanic/Latino participants were greater than among participants from other racial/ethnic groups ($p < .05$). In both courts accepting defendants charged with both drug and non-drug offenses, Suffolk and Syracuse, post-intake recidivism was higher among those charged with

property crimes (although the finding in Syracuse only met a .10 significance threshold). Finally, as in the first analysis, greater legal coercion led to a lower probability of recidivism in Brooklyn, but relative coercion was not a significant factor in either Suffolk or Syracuse.

Predictors of Post-Program Recidivism

This analysis examines the relationship between participant characteristics and the probability of recidivism within one year of *program completion* (or two years in Brooklyn). The most striking findings from Tables 9.3-9.6 include:

- Across all courts, final program status (graduation or failure) was a powerful predictor of post-program recidivism; those who failed drug court were in turn more likely to recidivate;
- Younger age significantly predicted post-program recidivism in all courts;
- Prior criminal history was a significant predictor of post-program recidivism in all courts except Syracuse; and
- Active time spent present in treatment was *not* a significant independent predictor in Brooklyn, the only court in which this relationship was tested.

Complete results of the logistic regression analyses are presented by court in Tables 9.3-9.6. Each analysis includes multiple models. Each model considers the impact on post-program recidivism of a somewhat different although overlapping set of background characteristics and in-program participation variables (e.g., compliance, time in treatment, etc.). The shaded areas in the tables indicate which variables were *not* considered in a given model.

Model 1 includes the same predictor variables as those included in the above analyses of program failure and post-intake recidivism. The one exception is that the variable measuring whether participants warranted within thirty days of drug court intake is excluded. This is due to its high inter-correlation with other in-program measures used in Models 2-5. Model 2 includes all the variables from Model 1 plus a compliance measure (warrant rate) and, in Brooklyn, another in-program measure, total days present in treatment. Model 3 includes final program status (graduation versus failure). To avoid issues of multicollinearity, the compliance measure added in Model 2 (warrant rate) is excluded from Model 3. Model 4 includes all variables that show evidence of a relationship ($p < .10$) in one of the earlier three models. Finally, in all courts but Queens, Model 5 includes only failures and, in addition to the independent variables in Model 4, contains a variable measuring how quickly failures failed out – before or after ninety days in the drug court. In Queens, due to the substantial decrease in sample size brought about by including only program failures ($N = 24$), Model 5 was omitted.

Numerous models as well as disparate court policies make cross-court comparisons difficult, but a few cross-court trends are worth noting. First, age is a significant predictor in at least two models in all courts, with younger participants consistently more likely to recidivate. Second, in every court except Syracuse, having prior convictions is significantly and positively related to post-program recidivism; and even in Syracuse, the direction of the effect is the same, although the odds ratio (indicating strength of the relationship) is smaller than elsewhere and did not reach statistical significance.

Additional court-specific findings are below. An in-depth discussion of these findings then follows in a separate discussion section.

Table 9.3. Logistic Regression - 2 Year Post Program Recidivism in Brooklyn

	Model 1	Model 2	Model 3	Model 4 [2]	Model 5
N	511	511	511	511	217
Valid N	466 (91%)	466 (91%)	466 (91%)	466 (91%)	179 (82%)
Age	0.958**	0.965*	0.978	0.984	1.003
Male	0.786	0.828	0.939		
Race/Ethnicity					
Black	0.656*	0.669*	0.598*	0.587*	0.315***
Hispanic	0.993	0.978	0.997	0.971	0.816
High School Degree/GED	1.469	1.529	1.443		
Employed or In School at Intake	0.775	0.744	0.790		
Primary Drug					
Heroin	1.198	1.088	0.958	0.996	0.934
Crack	1.232	1.420+	1.592*	1.593*	1.220
Previously in Drug Treatment	0.528*	0.469**	0.418**	0.411**	0.324**
First Treatment Modality (Inpatient)	1.887*	2.016*	2.156**	2.098**	3.029**
Any Prior Convictions	2.706**	2.754**	2.530**	2.429**	2.208+
Treatment Mandate[1]	0.621**	0.861	0.823	0.726	0.586
Compliance					
Warrant Rate		1.066+		1.010	0.980
Final Program Status (Grad)			0.142***	0.091***	
Total Days Present in Treatment		0.997**		1.002	
At Least 90 Days in Treatment					1.025
Nagelkerke R^2	0.163	0.246	0.317	0.316	0.266
Chi-Square	53.628***	83.640***	110.719***	110.487***	39.585***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Shaded areas indicate variables that were not included in the model. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

[1] In the regression analysis, treatment mandate is treated as a continuous variable.

[2] Warrant rate and final program status are intercorrelated (-.701***), as are warrant rate and total days present in treatment (-.605***), and final program status and total days present in treatment (.792***).

Brooklyn: The results of the post-program recidivism analysis are displayed in Table 9.3. Among demographics, while age is a significant predictor of two-year post-program recidivism in the first two models, once final program status is introduced, age disappears. That is, age predicts the probability of graduation/failure, which *in turn* directly predicts post-program recidivism. Also, in all models, blacks are significantly less likely to recidivate than other racial/ethnic groups. Neither socioeconomic status nor sex predicts recidivism in any model.

Crack users are significantly more likely to recidivate once final program status is added in Models 3 and 4. However, the impact of a crack addiction again disappears in Model 5, which includes in-program measures but only includes drug court failures in the sample. These results essentially mean that graduates whose primary drug was crack are at a particular risk of returning to their drug habit and to criminal activity *after* leaving the drug court.

Concerning other drug use and treatment measures, the probability of recidivism is higher for those initially assigned to inpatient treatment. Prior treatment episodes are also significantly related to post-program recidivism in all models; however, this relationship is negative – prior experience with treatment before drug court participation leads to a *lower* probability of post-program recidivism.

Table 9.4. Logistic Regression - 1 Year Post Program Recidivism in Queens

	Model 1	Model 2	Model 3	Model 4
N	174	174	174	177
Valid N	166 (95%)	166 (95%)	166 (95%)	166 (95%)
Age	0.762**	0.751**	0.778**	0.750**
Male	2.994	2.628	2.585	
Race/Ethnicity				
Black	1.159	1.582	1.389	
Hispanic	0.964	0.820	0.747	
High School Degree/GED	0.595	0.803	0.610	
Primary Drug				
Cocaine	2.862+	3.817*	2.989+	2.004
Marijuana	0.305	0.262*	0.316*	0.369*
Previously in Drug Treatment	2.978	4.994	2.325	
First Treatment Modality (Inpatient)	1.151	1.711*	0.878	
Any Prior Convictions	16.855**	16.507**	13.673**	14.909**
Charge Type[1]				
Felony Drug Sales	0.534	0.491	0.585	
Felony Drug Possession	1.871	2.037	1.708	
Compliance				
Warrant Rate		1.711*		1.439*
Final Program Status (Grad)			0.311	
Nagelkerke R^2	0.357	0.420	0.382	0.348
Chi-Square	30.418**	36.503***	32.779**	29.640***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Shaded areas indicate variables not included in the model. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

[1] Queens participants facing a non-felony drug charge comprise only 2% of the valid population. Thus, they are collapsed into the Felony Drug Possession category.

As in all other courts, prior criminal history significantly predicts post-program recidivism. Also, treatment mandate, used as a proxy for jail/prison alternative, has a negative relationship to post-program recidivism only in Model 1. In that model, as expected, the probability of post-program recidivism is *lower* for those facing a more serious mandate (i.e., facing more jail or prison time in the event of failure). However, with the inclusion of in-program measures and final program status in Models 2-5, this impact of treatment mandate disappears. As with age, this signifies a dynamic whereby the mandate affects graduation/failure status, while the latter directly affects recidivism.

In Model 2, participants who have a higher warrant rate are more likely to recidivate (but $p < .10$ only; and drops-out when controlling for final program status). Final program status itself is highly significant ($p < .001$) in both models in which it is included. Graduates are appreciably less likely to recidivate than failures; phrased in the reverse, the odds of post-program recidivism is 7.04 times greater for failures than for graduates.

Finally, while more days present in treatment lead to less recidivism in Model 2, this factor fails to reach significance in Model 4, when also controlling for graduation/failure status. In other words, if it is known whether a participant graduated or failed, it is not also important to

Table 9.5. Logistic Regression - 1 Year Post Program Recidivism in Suffolk

	Model 1	Model 2	Model 3	Model 4	Model 5
N	304	304	304	304	99
Valid N	289 (95%)	289 (95%)	289 (95%)	289 (95%)	92 (93%)
Age	0.948*	0.949*	0.957+	0.957*	0.950
Male	1.938+	1.941+	2.474*	2.242*	0.968
Race/Ethnicity					
Caucasian	0.456**	0.456**	0.471**	0.481**	0.464+
Black	1.314	1.313	1.232	1.183	1.273
Primary Drug					
Heroin	0.901	0.901	0.929		
Crack	1.417	1.416	1.288		
Cocaine	0.792	0.793	0.777		
Previously in Drug Treatment	2.110+	2.110+	2.180+	1.930+	3.685*
First Treatment Modality (Inpatient)	0.643	0.643	0.619		
Any Prior Convictions	4.273***	4.265***	3.808**	3.118**	1.250
Charge Type					
Felony Drug Possession	0.547+	0.547+	0.553+	0.571+	0.943
Misdemeanor Drug Possession	1.237	1.237	1.276	1.371	2.052+
Property Crime	1.977*	1.977*	2.019*	1.758+	1.026
Jail Alternative					
One Year or more	0.557	0.557	0.565		
Compliance					
Warrant Rate		1.001			
Final Program Status (Grad)			0.372**	0.370**	
Time to Failure (90+ Days)					1.080
Nagelkerke R^2	0.241	0.241	0.279	0.256	0.194
Chi-Square	50.836***	50.837***	59.813***	54.274***	14.127

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Shaded areas indicate variables not included in the model. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

know how many days of treatment were completed. And the results in Model 5 show that failures that spend less than ninety days in the program are *not* any more or less likely to recidivate than failures who spend more time in the program. This all means that *no independent treatment effect could be detected*.

Queens: As indicated in Table 9.4 (previous page), age is a significant predictor of post-program recidivism in all four models, with younger participants more likely to recidivate than older participants. No other demographic factors are significant. Primary drug is significant (or at least meets .10 threshold) across all models. Cocaine users are more likely to recidivate and marijuana users less likely. The odds of post-program recidivism among those with prior convictions range from 13.67 times (Model 3) to 16.86 times (Model 1) higher than among those who have not previously been convicted. The only additional significant predictor is warrant rate. In both models in which warrant rate is included, participants with more warrants per year are more likely to recidivate after program completion ($p < .05$). Also, the odds ratio for graduation/failure status obtained in Model 3 suggests that the odds of post-program recidivism are more than three times greater for drug court failures than for graduates, but due to the small number of failures available for analysis, this effect did not reach significance.

Table 9.6. Logistic Regression - 1 Year Post Program Recidivism in Syracuse

	Model 1	Model 2	Model 3	Model 4	Model 5
N	224	224	224	224	117
Valid N	222 (99%)	222 (99%)	222 (99%)	222 (99%)	117 (100%)
Age	0.957*	0.957*	0.969	0.987	1.012
Male	1.392	1.392	1.193		
Race/Ethnicity					
Caucasian	1.495	1.495	1.549	1.404	0.920
Black	2.127+	2.127+	1.995+	1.880	1.915
Employed or In School at Intake	0.735	0.735	0.566		
Primary Drug					
Crack	1.201	1.201	1.134		
Marijuana	0.675	0.675	0.730		
Previously in Drug Treatment	1.026	1.026	0.917		
First Treatment Modality (Inpatient)	0.751	0.751	0.817		
Any Prior Convictions	1.345	1.345	1.280		
Charge Type					
Felony Drug Possession	0.883	0.883	1.005		
Misdemeanor Drug Possession	0.939	0.939	0.833		
Property Crime	1.344	1.344	1.379		
Compliance					
Warrant Rate		1.000			
Final Program Status (Grad)			0.295**	0.291***	
Time to Failure (90+ Days)					1.149
Nagelkerke R^2	0.077	0.077	0.153	0.126	0.045
Chi-Square	11.860	11.860	24.241*	19.727**	3.898

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Shaded areas indicate variables that are not included in the model. Unless otherwise indicated, variables with multiple categories include an "other" category, for which odds ratios are not given. Race is based on a deviation coding scheme; the race indicated was tested against the average of all the other races. Primary Drug is based on a deviation coding scheme; the drug indicated was tested against the average of all the other drugs. Charge is based on a deviation coding scheme; the charge indicated was tested against the average of all the other charges.

Suffolk: Post-program recidivism analysis results for Suffolk are presented in Table 9.5 (previous page). As expected, younger age predicts post-program recidivism. Also, unlike Brooklyn and Queens, males are more likely than females to recidivate. Race/ethnicity generates a quite powerful finding in Suffolk. The odds of recidivism among Caucasian participants are less than half the odds for other groups in all models. As in the other courts, prior criminal history is a strong predictor. Participants with prior convictions are at least three times as likely to recidivate in Models 1-4. Offering marginal support to legal coercion theory, participants entering drug court on a more serious felony level drug charge are less likely to recidivate than those entering on other charges, although this finding only meets a weaker .10 significance threshold. Also, participants entering on property offenses are significantly more likely to recidivate than those entering on other charges. Finally, the odds of recidivism among failures are more than two and a half ($p < .01$) times greater than the odds for graduates in the models that include the graduation/failure status variable (Models 3 and 4).

Syracuse: The results from the Syracuse regression analysis, presented in Table 9.6, are the least robust of the four courts. Models 1, 2, and 4 do not reach statistical significance and the Nagelkerke R^2 values reach only .077 in Models 1-2 and .153 at the highest (Model 3). Among individual parameters, as in other courts, younger age significantly predicts post-program

recidivism ($p < .05$). Also, in Models 1-3, black participants appear more likely to recidivate ($p < .10$). This finding is essentially consistent with Suffolk's that Caucasians were less likely to recidivate. The only other notable finding is that as in other courts, the odds of post-program recidivism among program failures are substantially higher than the odds among graduates (over three times higher, both Models 3 and 4).

Discussion

The following reviews the performance of the original hypotheses in light of all analyses presented above.

Hypothesis 1a. Younger age predicts a lower probability of drug court success.

This is confirmed. Younger participants were significantly less likely to succeed in all courts and on all measures. However, final program status (graduation/failure) may *mediate* the effect of age. In both Brooklyn and Syracuse, the impact of age on post-program recidivism disappears once final status is included as a variable in the model. In other words, younger age leads to a higher probability of drug court failure, and that in turn leads to a higher probability of post-program recidivism. These findings do not repudiate Hypothesis 1a, but merely indicate that age may act through final status to affect recidivism in these courts.

Two explanations for the impact of age were proposed. The first was that younger persons tend to have more involvement with deviant peer groups and hence to be more disposed toward continued deviant behavior. The second was that older participants have grown tired of the addicted lifestyle. Without supplemental qualitative research, it is difficult to evaluate these explanations.

Hypothesis 1b. Female sex predicts a lower probability of drug court success as measured by graduation/failure status.

There is a significant relationship between sex and program completion in Suffolk only, with women more likely to fail drug court. There is also evidence of a relationship in Brooklyn and Syracuse ($p < .10$), but those two courts yielded opposing findings concerning which sex performed better. Moreover, given the overwhelming differences in the background characteristics of male and female drug court participants detected in Chapter Three – with females generally facing more severe socioeconomic disadvantages and drug use histories – and given limitations in the available background characteristics for our regression models, it remains quite plausible that the impact of sex would disappear if other, unmeasured sex-based differences could be properly controlled.

Hypothesis 1c. Female sex predicts a higher probability of drug court success as measured by recidivism.

Participant sex does not appear to be a good predictor of post-intake recidivism in any court except Syracuse. In Syracuse, post-intake recidivism trends follow those of the broader crime-committing population, with males more likely than females to recidivate. Also, sex is *not* a significant predictor of post-program recidivism in Brooklyn, Queens, or Syracuse. However, in

Suffolk, male participants were more likely to recidivate within one year of program completion. Thus, while male participants in Suffolk are more likely to reach graduation status, female participants are more likely to have long-term success in terms of recidivism. These findings are in fact *both* consistent with our hypotheses (1b and 1c respectively).

Given the dearth of significant results across all five of the courts, the findings generally provide weak support for hypotheses related to sex (both 1b and 1c).

Impact of Race/Ethnicity (no hypothesis advanced)

Although participant race/ethnicity is significantly related to *final program status* (graduation or failure) in several bivariate correlation analyses (results not shown), when other factors are controlled through multivariate analyses, race/ethnicity loses most of its explanatory significance. This indicates that, in accordance with findings from earlier research, relationships sometimes uncovered between race and success may not be due to race per se but to the correlation between race and other independent variables (e.g., age or socioeconomic status). Once these other variables are properly controlled, race no longer exerts an independent effect. In one exception, this analysis does find a significant result in Queens, where Hispanics are *less* likely than others to graduate from drug court. Since we could not control for a comprehensive array of socio-demographic and drug use factors, it remains possible that Hispanic race in Queens happens to be inter-correlated with other, more important but unmeasured attributes. Hence caution is advised in interpreting this particular finding.

With respect to *recidivism*, there *are* some interesting relationships with participant race/ethnicity. In Queens, a similar relationship to that found in the program status analysis is found; i.e., Hispanic/Latino participants are more likely than others to recidivate. The opposite is found in Bronx, where Hispanic/Latino defendants are *less* likely to recidivate, but this result is not statistically significant ($p < .10$). Finally, in Brooklyn, blacks are significantly less likely to recidivate than others in the post-program analysis. These varying patterns suggest the lack of any clear pattern and hence of any general dynamic that can be convincingly attributed to participant race, rather than to other unmeasured characteristics that may correlate with race differently in different courts.

On the other hand, in both courts with a substantial Caucasian population, Suffolk and Syracuse, it is notable that there was a significant and consistent relationship between race/ethnicity and recidivism. In Suffolk, Caucasians were less likely to recidivate than members of other racial/ethnic groups. In Syracuse, blacks were more likely to recidivate than members of other racial/ethnic groups. In both courts, Caucasians and blacks essentially fall on opposite ends of the recidivism spectrum. These same findings were obtained in the *post-program recidivism* analysis for Suffolk and Syracuse. These findings may be seen in light of an ongoing debate in criminology and policy literatures regarding the role of race in the context of arrest and prosecutorial practices. While some research maintains that blacks are unfairly targeted by police surveillance and action, leading to a disproportionate number of arrests, others contend that such profiling does not occur, but that arrest and incarceration rates are reflective of higher levels of criminal behavior in specific populations or of other unmeasured factors that may logically lead members of a particular race to be arrested more often. In this connection, it may be relevant to observe that in New York City, and possibly in other jurisdictions in the state, the police tend to target areas for relatively greater law enforcement activity based largely on rates of violence, not on the racial distribution or drug activity per se. However, where rates of violence are more

concentrated in areas where members of a particular racial or ethnic group tend to reside, members of that group also become more likely to be arrested for other, nonviolent types of crimes. This serves only to provide greater context and interpretive qualification to the findings reported here.

> *Hypothesis 1d. Lower socioeconomic status predicts a lower probability of drug court success. Specifically, those participants who are neither employed nor in school, or have attained lower levels of education, will be less likely to succeed.*

Overall, the support for hypothesis 1d is weak. As seen in the predictors of drug court failure analysis (Table 9.1), participants employed or in school at intake in the Bronx have a greater chance of graduating drug court. However, these findings are not duplicated in any other court. Also, education is not a significant predictor of final program status in any court. Similarly, the post-intake recidivism analysis offers only weak support for hypothesis 1d. While those participants who are employed or in school at the time of intake are less likely to recidivate within the first two years after intake in Brooklyn, educational attainment has no effect on recidivism. Likewise, no other court sees a meaningful relationship of socioeconomic measures to post-intake or post-program recidivism. Overall, while previous literature maintains that low socioeconomic status is associated with decreased social ties and low levels of social control, leading to less incentive to abstain from drug use and other criminal behavior, these hypotheses do not gain much support from the current research.

> *Hypothesis 2. More addictive primary drugs of choice predict a lower probability of drug court success. Specifically, heroin use predicts a lower probability of drug court success.*

The results confirm hypothesis 2, but with some qualifications. In two of three courts where heroin is a primary drug category (Brooklyn and Bronx), heroin users are less likely to graduate drug court. However, before generalizing, it is worth considering the impact of each court's methadone policies. In Brooklyn, there is a drug-free approach. This means that heroin users on methadone at the time of program entry must cut their dosage in half before qualifying for completion of the first phase of treatment. Similarly, in Bronx, defendants on methadone at intake may become participants only if they agree to enter a methadone to abstinence program. Yet *methadone maintenance* is recommended for heroin dependence by the National Institute on Drug Abuse, due to the ability of methadone to alleviate heroin withdrawal symptoms. Accordingly, it is possible that in drug courts that do not require a methadone-to-abstinence approach, such as Suffolk and Syracuse where methadone may be used throughout drug court participation if deemed clinically advisable, a heroin addiction would have different implications. Indeed, the findings in Suffolk indicate that heroin users in that court are *not* more likely to fail drug court. In court-mandated treatment programs recently implemented across California, Longshore et al. (2003) similarly report that a heroin addiction was associated with a lower probability of retention but also offer the caveat that the methadone maintenance modality was infrequently used; thus it is difficult to establish what the results would have been if methadone was used more often.

As predicted, marijuana users in the Bronx have a greater likelihood of graduating. Marijuana users in Queens, the court with the highest percentage of primary marijuana users, are significantly less likely to recidivate in the one-year post-program recidivism analysis. And in

Syracuse, the pattern is generally consistent, although the effect of marijuana does not reach significance in the post-program analyses.

Although hypothesis 2 poses no predictions about users of crack, the analyses reveal some interesting and contradictory findings. In Brooklyn, crack users are more likely to graduate from drug court. However, they are also more likely to recidivate within the first two years post-program when in-program factors are controlled. Likewise, crack users in Syracuse are more likely to recidivate within the first two years following drug court intake. Overall, these findings indicate that, while an initial crack addiction may be more easily overcome than some other addictions (e.g., than heroin in particular), continued crack abstinence may be more difficult to maintain – hence crack is particularly related to poorer outcomes in the long-term recidivism analyses.

Impact of First Treatment Modality (no hypothesis advanced)

The results provide some indication that initial assignment to inpatient treatment indicates a more severe addiction and, therefore, those assigned to inpatient do not perform as well as others. In Queens, drug court participants sent to inpatient treatment have a higher chance of failing drug court and a somewhat higher likelihood of recidivism within one year post-program. Also, in Brooklyn, those initially assigned to inpatient treatment are more likely to recidivate both within the first two years after intake and within two years after program completion. The findings in Queens and Brooklyn support the supposition that those participants who are initially assigned to inpatient treatment face more severe levels of addiction and, thus, have a more difficult time overcoming their addiction problems. However, the fact that this finding is not replicated in any of the remaining three courts may indicate that the additional supervision imposed in inpatient treatment facilities may be enough to counter more severe addiction problems. Because drug court treatment assignment policies vary greatly – for instance, inpatient treatment tends to be reserved for noncompliant participants in Bronx and is rarely assigned initially, while inpatient assignments are commonly given to heroin users and homeless participants in Brooklyn – broad, cross-court generalizations are difficult to make.

Drug Treatment History (no hypothesis advanced)

The findings conform to the conflicting results of earlier research. There is only a significant relationship of prior treatment to outcomes in two courts, Brooklyn and Suffolk, and the findings go in opposite directions. Brooklyn participants who have had prior drug treatment episodes are less likely to recidivate both within the first two years after drug court intake and within two years from program completion. Some previous literature predicts that those who have been in treatment previously will be more receptive to the therapeutic model and, thus, more likely to succeed in drug court. However, the findings in Suffolk indicate the opposite; Suffolk participants who have previously undergone drug treatment are more likely to recidivate in the post-intake time period, and failures with prior treatment episodes are more likely to recidivate in the one year post-program. Some earlier literature also indicates that prior treatment episodes can be used as a proxy for severity of addiction with those participants who have previously gone through drug treatment being assumed to have the most severe addictions. Our analyses are inconclusive.

Hypothesis 3. Prior criminal activity predicts a lower probability of success, in particular with respect to future criminal recidivism.

Prior criminal activity is significantly related to program failure in two of the five courts, Brooklyn and Suffolk. As hypothesized, participants with prior criminal convictions are found to have a greater chance of failing the program. While prior convictions did not predict drug court failure in the remaining three courts, this hypothesis could be expected to have less dramatic effects on final program status than on recidivism. While recidivism indicates repeated criminal activity, drug court failure can occur for a multitude of reasons, only some of which are criminal in nature.

Indeed, hypothesis 3 gains near-universal support in the recidivism analyses. In four of the five courts, excepting Syracuse, those participants who have previous convictions are more likely to recidivate within two years of drug court intake. Likewise, in all courts except Syracuse, those with a prior criminal history are more likely to recidivate within one or two years of program completion (the effects of Syracuse are in the same direction but did not reach significance).

Hypothesis 4. Increased legal coercion predicts a higher probability of success.
Hypothesis 4a. Entering drug court on a felony charge predicts a higher probability of drug court success.
Hypothesis 4b. Shorter incarceration alternatives in the case of failure predict a lower probability of success than longer sentence alternatives.

Overall, the legal coercion theory gains partial support. The relationship between greater legal leverage and a higher probability of drug court graduation confirms the predictions of legal coercion theory in Brooklyn and Syracuse. In Brooklyn, those participants facing relatively more incarceration time (as indicated by treatment mandate) are more likely to graduate, as predicted by hypothesis 4b. Similarly, in Syracuse, participants charged with misdemeanor possession have a greater chance of failing the program, as predicted by hypothesis 4a. These participants also face a shorter potential sentence length, supporting hypothesis 4b. In Suffolk, the only other court in which there is sufficient variability to test for coercion effects, there is *not* a significant relationship between charge severity and final program status.

With respect to recidivism, in no court is charge severity (felony/misdemeanor) significantly related to post-intake recidivism. However, in Suffolk, those participants facing felony drug possession charges are less likely to recidivate in four of five post-program models but those results did not reach statistical significance, providing weak support for hypothesis 4a. Yet, also in Suffolk, the only court with sufficient variance in jail/prison alternative to warrant the inclusion of that variable, there is no significant difference in recidivism – post-intake or post program – between those participants who face a jail sentence of less than a year and those participants who face incarceration of a year or more. Finally, as in the program status analysis, Brooklyn participants receiving higher level treatment mandates and, thus, longer potential jail/prison sentences, are less likely to recidivate than those with lower-level treatment mandates, as predicted by hypothesis 4b. This relationship drops out when in-program factors are added to the model indicating a dynamic whereby level of coercion affects graduation/failure status, which in turn affects recidivism.

By way of review, in the three courts where we had the capacity to test the impact of different relative amounts of legal coercion, Brooklyn, Suffolk, and Syracuse, the relationship of

at least one coercion measure to at least one of the three measures of success supports the two hypotheses derived from legal coercion theory. However, the relationship of coercion to outcomes is neither consistent nor strong across all measures and analyses in Suffolk or Syracuse.

Charge type (no hypothesis advanced).

Interestingly, the recidivism results indicate that there is a relationship between charge type and re-offending in the two courts with a significant percentage of non-drug charges, Suffolk and Syracuse. In Suffolk, participants who enter the drug court on property charges are more likely than those who enter on other charges to recidivate, both post-intake and post-program. The results in Syracuse did not quite reach significance, but indicate that defendants entering the drug court on a property crime are also more likely to have recidivated at two years post-intake and at one year post-program. During a discussion with the Syracuse Treatment Court project coordinator, she hypothesized that this may be due to the nature of the issues addressed by drug court treatment. It was suggested that, while drug courts are able to address issues of addiction and to curb drug-related re-offending, they are less successful in curtailing non-drug-related criminal propensities, such as theft and other property crimes. The drug court coordinator in Suffolk County offered a similar explanation.

Hypothesis 5a. Rapid and thorough initial integration into drug court predicts a higher probability of drug court success.

The results for all five courts indicate a strong relationship between participation immediately after program entry and program graduation. This critical finding stresses the importance of rapidly placing participants into treatment in order to reduce the probability of their disappearing on a warrant shortly after formally agreeing to enter the program. However, the universally strong findings in the program failure analysis are not duplicated in the post-intake recidivism analysis. While warranting within thirty days of drug court entry is a significant predictor of post-intake recidivism in Brooklyn, this finding is not replicated in any of the four other courts.

Hypothesis 5b. Higher levels of compliance with drug court program regulations and requirements predict program success. Noncompliance predicts recidivism.

As predicted by hypothesis 5b, compliance, as measured by warrant rate, is a significant predictor of post-program recidivism in Model 2 in Queens.

Hypothesis 5c. Initial non-success in the form of drug court failure predicts future non-success, in the form of post-program recidivism. Drug court participants who fail are predicted to be more likely to recidivate than drug court graduates.

Hypothesis 5c is formidably supported in all courts except Queens. Across-the-board, graduates are significantly less likely to recidivate in every model in which final program status is included. Even in Queens, there are strong odds ratios in the same direction as in the other courts, but the finding does not reach significance, most likely due to the small number of failures available for analysis in that court. This finding indicates that drug courts achieve an

impact on recidivism to a great extent through the intervening mechanism of graduating a high percentage of their participants.

> *Hypothesis 6. More total time in treatment predicts positive post-treatment outcomes. Also, failures remaining in the program for longer than ninety days are predicted to recidivate at a lower level than those failing prior to ninety days.*

Treatment effects could only be tested in Brooklyn. Although more days present in treatment led to a lower probability of post-program recidivism in Model 2, the significance disappeared once final program status was added in Model 3 (see Table 9.3). That is, those participants who are active in treatment for more days were more likely to reach graduate status, but once graduate status is controlled, treatment is not independently predictive of subsequent recidivism.

Kleiman (2001) has suggested that the impact of drug courts could be increased if the current model including judicial monitoring and drug treatment was replaced with a model based on strict substance abstinence, reinforced through rigid screening and guaranteed sanctions for noncompliant behavior. Personalized monitoring and treatment, Kleiman argues, are inefficient tools for addressing the massive quantity of addicted offenders entering the criminal justice system. Although others have contested this stance, maintaining that *drug treatment* is a crucial component of the drug court model (e.g., see Gottfredson et al 2003), the results of the post-program analysis in Brooklyn do not support this claim. This does not mean that treatment is unimportant but that, in Brooklyn, we could not expressly distinguish a treatment effect, apart from other factors (e.g., case management, judicial feedback, or rewards and sanctions) that may also increase the probability of graduation. That is, we can say that drug court graduates do better than failures, but it remains unclear which components of the drug court are the most critical in producing graduation and, ultimately, lower recidivism. Since no other New York State court had available treatment data, hypothesis 6 was not tested in any other court.

Finally, in three drug courts, Brooklyn, Suffolk, and Syracuse, a model was used to test whether, for failures only, those with more time spent under court supervision were less likely to recidivate. However, time to failure did *not* have a significant effect anywhere. This appears in opposition to clinical research, which has indicated that the length of *time* in a program is essential in determining long-term drug use and recidivism outcomes, even among those who ultimately fail the program. However, we should note that due to data availability limitations, rather than measuring time active in treatment, as in past studies, this model only included a variable for time spent as a drug court participant (only some of which may actually be spent actively attending treatment).

Summary

The findings of these analyses are consistent with a number of prior studies regarding predictors of drug court success. In addition to the findings regarding the relationship between age and success and criminal history and success, several other characteristics confirmed expectations in predicting dropout and recidivism, albeit less powerfully. Additional findings consistent with the earlier literature include:

- In one court only (Suffolk), female participants are significantly less likely to graduate drug court;
- Early warranting strongly predicts future drug court failure;

- Heroin users tend to be more likely to fail, while marijuana users are less likely to recidivate; and
- Early drug court *program* success, as measured by graduation, predicts future success, in the form of non-recidivism.

In addition to the results of this study that conform to earlier findings, a number of unexpected results were found. Findings of note include:

- While earlier research has achieved mixed results when examining the impact of race on drug court participants, this research indicates that race may play a role in courts with sizeable Caucasian populations (although caution is advised in interpreting these results);
- Crack users may be more successful initially, but are more likely to return to criminal activity than users of other drugs; and
- The drug court model may be more successful in curtailing *drug-based* criminal behavior. That is, defendants entering the drug court on non-narcotics charges are *less* successful in avoiding subsequent convictions.

Despite some of the overall trends noted above, results vary widely by court. Due to disparate court policies, divergent populations, as well as other factors, it is difficult to make a universal statement regarding which background factors shape drug court success.

In addition to background characteristics, the findings indicate that those participants who graduate drug court are less likely to recidivate. Additional factors that occur once defendants enter the criminal justice system, such as early warranting and compliance, illustrate that events occurring within the criminal justice system and within the drug court can greatly affect program outcomes.

Although an attempt to examine the impact of treatment per se was made here, the lack of significant results raises a number of interesting questions: Does the lack of significant results indicate that the black box of treatment has no impact upon recidivism or is it merely impossible to disaggregate the whole of drug court participation into meaningful component parts? Is it drug court as an entirety rather than its discrete components (e.g., treatment, judicial monitoring, rewards, sanctions, case management, etc.) that culminates in altered behavior? As the impact of both background personal characteristics and in-program factors becomes clearer, it is important for research to look more closely at the treatment and recovery process in drug courts. In this regard, there is a compelling need to undertake more qualitative projects that attempt to learn from participants, through focus groups and open-ended interviews, the crucial barriers they faced, the factors motivated their success, and how drug courts can improve their services. With the recent proliferation of drug courts nationwide, researchers should have ample opportunities to explore these many questions.

PART FOUR

Impact Evaluation

Chapter Ten
Review of Prior Recidivism Studies

Despite the surging popularity of drug courts throughout the 1990's and early 2000's, a consensus is only beginning to emerge concerning their effectiveness. For many years, most studies reported generally positive findings, but serious weaknesses and inconsistencies among the research designs led to questions about their validity. This contrasts with the present situation in which a number of rigorous studies have recently emerged, one using a "random assignment" experimental design (Gottfredson et al. 2003), and most reporting favorable results. The latest research has begun to spur a new perception among some of the field's most prominent researchers that drug courts indeed successfully reduce recidivism (see Goldkamp 2003; Harrell 2003).

At the same time, critical qualifications and unanswered questions persist. First is the lingering question of efficacy: While the existing literature indicates positive *short-term* effects of drug court participation, long-term outcomes remain largely unexplored. Most studies measure recidivism or other outcomes over only a one- or two-year period following the initial arrest or program entry. Only a small few studies extend the measurement period beyond two years or isolate *post-program* outcomes during a period of time after drug court participation is complete. This leaves unexamined whether the impact of drug courts persists once participants are no longer under active court supervision. It is possible that drug courts reduce recidivism while participants are actively enrolled, but this effect does not last following participation.

In addition, specific policies vary substantially across drug courts on questions such as legal eligibility, clinical eligibility, approaches to treatment and case management, sanctioning practices, graduation requirements, legal consequences of graduation, and legal consequences of failure (see this report, Chapter Two). Yet it is largely unknown which policies are most or least effective, and most effective – and for which sub-populations.

This chapter summarizes the findings of several meta-analyses seeking to evaluate the drug court literature as a whole and then reviews the results of several particularly influential studies.

Meta-Analyses: The Findings of Systematic Literature Reviews

Until the past year, the primary reference for synthesizing the drug court literature has been three comprehensive literature reviews published by Steven Belenko (1998, 1999, and 2001). Of 26 studies discussed in the last two of these reviews, our own reclassification of his reported results indicates that:

- Eight studies reported statistically significant reductions in recidivism;
- One study reported a statistically significant increase in recidivism;
- Fifteen studies reported either mixed results depending on the measure used or did not report a statistically significant impact; and

Of this last group of fifteen showing no significant effect, the raw percentages in approximately half do point to reductions of recidivism. Often, aspects of the study (low sample size, for example) rather than the court may have been responsible for an effect not reaching significance.

Taken together, these results suggest that drug courts reduce recidivism more often than not. However, this review also draws attention to the need for more rigorous study. Most studies included in Belenko's analysis employ weak research designs that do not identify an ideal comparison group on the front-end and do not apply proper statistical controls on the back-end to address remaining sample biases.

To give a rough indication of the study quality spectrum, a recent literature review by Roman and DeStefano (2002) identified a total of three experimental designs, twelve "strong" quasi-experimental designs, fourteen "weak" quasi-experimental designs, and twelve non-experimental designs (lacking a comparison group). The definition of "strong" quasi-experimental design was generous, requiring only some attempt somewhere in the analysis to control in at least some minimal way for background differences between the drug court and comparison samples. In fact, most of the "strong" quasi-experimental designs also included problematic methodological features. Most prevalent was a failure to identify an appropriate comparison group. For example, as discussed in the next chapter, it has been common to compare drug court participants to defendants who are either drug court-ineligible or eligible but refused to participate. Yet, ineligible defendants provide a patently poor match to participants; and defendants refusing to participate may refuse because they have a less serious drug problem, less motivation to change a drug problem, or other significant differences from those who do opt to participate in drug court. These differences could all comprise important sources of bias in a recidivism analysis. Nonetheless, these and other problematic comparison group designs are pervasive in the literature. These kinds of methodological weaknesses led the General Accounting Office (2002) to conclude that the evidence was as yet unreliable regarding the effectiveness of drug courts.

An influential new review by Wilson, Mitchell, and MacKenzie (2002) agrees that there are "few high quality studies" but states that despite this limitation, a preponderance of evidence indicates that drug courts are usually effective. This review reported that 35 of 41 studies (85%) found lower recidivism in the drug court than the comparison group; and across all 41 studies, the mean odds ratio was 1.81, and the recidivism rate was on average 14.4% higher for comparison group defendants than drug court participants. This review also differentiated studies by type of comparison group and found that the results did not differ systematically based on specific qualities of the research design. In other words, both strong and weak research designs tended to show lower recidivism in the drug court.

Original Results: The Impact of Drug Courts on Recidivism

This section highlights results from several significant recidivism studies. Studies were included if they met one or more of the following criteria: (1) experimental (random assignment) research design, (2) significant follow-up period (more than two years post-entry or one year post-program), and (3) multi-site focus (comparable methodology used to examine results at multiple sites). This review is not exhaustive but meant to draw attention to theoretically or empirically significant findings. Table 10.1 synthesizes key methodological features and results.

By way of introduction, the evaluation of the first Miami Treatment Court continues to be influential, largely because of its impact in legitimating the spread of the drug court innovation. Over an eighteen-month period following admission, the Miami evaluation found that 33% of drug court participants had at least one re-arrest compared to 48-55% of defendants from each of

Table 10.1. Results of Select Recidivism Studies

Drug Court	Study Citation	Measurement Period	Comparison Group	Key Outcome Finding
Miami, FL	Goldkamp and Weiland (1993); Goldkamp (1994)	2 years post-entry	4 separate comparisons: 2 pre-post / 2 contemporaneous (similar charges / did not enter)	Re-arrested: 33% drug court vs. 48-55% comparison groups
Maricopa County, AZ	Deschenes, Turner, and Greenwood (1995)	1 year post-entry	Randomly assigned to standard probation	Re-arrested: 31% drug court vs. 33% comparison group
Washington, D.C.	Harrell, Cavanagh, and Roman (1998)	1 year post-sentence (= post-program)	Randomly assigned to "standard docket"	Re-arrested: 19% drug court vs. 27% comparison group
Baltimore, MD	Gottfredson, Najaka, and Kearley (2003)	2 years post-randomization	Randomly assigned to standard processing	Re-arrested: 66% drug court vs. 81% comparison group
Escambia County, FL	Peters and Murrin (2000)	30 months post-entry	Contemporaneous period: placed on probation for similar offenses	No analysis of net impact; Re-arrested: 48% graduates, 86% failures, 63% comparison
Okaloosa County, FL	Peters and Murrin (2000)	30 months post-entry	Contemporaneous period: placed on probation for similar offenses	No analysis of net impact; Re-arrested: 26% graduates, 63% failures, 55% comparison
Portland, OR	Goldkamp, White, and Robinson (2001)	3 years post-entry	2 contemporaneous comparisons: (1) never referred to drug court and (2) referred but refused treatment	Re-arrested: 50% drug court vs. 60% and 61% for the two respective comparison groups
Las Vegas, NV	Goldkamp, White, and Robinson (2001)	3 years post-entry	Contemporaneous period: did not enter drug court (most were not made aware of drug court option)	Re-arrested: 65% drug court vs. 79% comparison group
Tarrant County, TX	Bavon (2001)	1 year post-program	Contemporaneous period: refused treatment in drug court	Re-arrested: 13% drug court vs. 17% comparison group
Los Angeles County, CA	Fielding, Tye, Ogawa, Imam, and Long (2002)	1 year post-program	2 contemporaneous comparisons: (1) entered 20-week drug diversion program and (2) entered neither drug court nor diversion program	Re-arrested: 24% drug court vs. 37% and 51% for the two respective comparison groups
Escambia County, FL	Truitt, Rhodes, Seeherman, Carrigan, and Finn (2000)	2 years post-entry	Pre-post: arrested on similar charges before drug court opened	Re-arrested: for any offenses: no statistically significant effect; for felonies only: estimate of 12% drug court vs. 40% comparison
Jackson County, MO	Truitt, Rhodes, Seeherman, Carrigan, and Finn (2000)	2 years post-entry	Pre-post: arrested on similar charges before drug court opened	Re-arrested: estimate of 45% drug court vs. 65% comparison
Ohio Drug Courts: Statewide Evaluation	Latessa, Shaffer, and Lowenkamp (2002)	unspecified	Contemporaneous period: eligible but not participating	Re-arrested: 2 pooled samples: sample 1 (pools 4 sites): 32% drug court vs. 44% comparison; sample 2 (pools 3 sites): 41% drug court vs. 49% comparison

four comparison groups drawn from cases arrested before the drug court opened or cases arrested in the first year of operations but not entering drug court for various reasons. This study also found that of those re-arrested, participants averaged over two times longer to first re-arrest than comparison group defendants, suggesting that judicial supervision in a drug court significantly delays or dampens criminal propensities (Goldkamp 1994).

Experimental Studies

Three studies have employed experimental designs in which defendants were randomly assigned to the drug court or comparison group. The first of these looked at a Maricopa County, Arizona program (Deschenes, Turner, and Greenwood 1995). At one-year follow-up after program entry, drug court participants were less likely to test positive for heroin or cocaine than the comparison group. However, there were no significant differences in re-arrest rates (31% versus 33%). Two process findings may partly explain this lack of impact. First, the evaluation reported that drug court participants averaged *fewer* face-to-face contacts with probation officers and *less* frequent drug tests than the comparison group. This suggests that implementation problems may have partly contributed to the program's ineffectiveness. Second, the Maricopa program apparently offered participants a poor legal incentive to succeed; both program graduates and failures alike were always convicted and sentenced to probation. At most, graduates might sometimes have the length of their probation reduced. But by requiring all participants to remain on probation even after successful participation, Maricopa did not provide as much of a positive incentive to succeed as most drug courts nationwide, including all of the New York courts analyzed in this report, which reward graduates with the end of the criminal case (e.g., dismissal, conditional discharge, or a "time served" sentence).

In a second random assignment study, defendants in a Washington, D.C. program assigned to receive *judicial sanctions* in response to noncompliance had a lower probability of re-arrest one year after sentencing (19% versus 27%) than those assigned to a "standard docket" (Harrell, Cavanagh, and Roman 1998). Since the judicial sanctions track did not involve mandatory treatment or other aspects of the drug court model, this positive finding served to isolate the impact of judicial sanctions specifically in generating improved outcomes. This study is also significant for looking at *post-program* outcomes, rather than outcomes in a period overlapping with program participation. (Sentencing occurred at the end of program participation, meaning that the one-year post-sentence analysis covers a one-year post-program period.)

The results of a third experimental study of the Baltimore City Treatment Court were just recently published (Gottfredson et al. 2003). The results measure recidivism over a two-year period following the date of random assignment to the drug court or control group, but the authors have already since extended their analyses to a three-year follow-up. The published results show that within two years, 66% of participants compared with 81% of the comparison group were re-arrested ($p < .05$). Participants also averaged significantly fewer *total* re-arrests and significantly fewer re-arrests on drug charges. This study has immediately become among the most influential in the literature. This stems both from the use of a strong experimental design and the existence of process findings suggesting that Baltimore's program had adopted a reasonably typical drug court model, including frequent meetings with probation officers, regular status hearings, judicial sanctions in response to noncompliance, and jail or prison sentences in response to program failure (see Gottfredson et al 2003: 176-178). The Baltimore program contrasts with that in Maricopa, which had several problematic implementation features, and

with the Washington, D.C. program, which operated more as an enhanced sanctions track than a drug court per se. Of course, as this report demonstrates (see Chapters Two through Six especially), even programs sharing all of the basic features of a drug court have numerous policy, implementation, and population differences that may or may not affect outcomes. Thus the impact of court-specific variations remains a critical area of inquiry.

Studies with a Substantial Follow-Up Period or With Post-Program Results

Combining our own review with findings in the three literature reviews by Belenko (1998, 1999, 2001), we located only four studies with a measurement period exceeding two years following arrest or intake, with one of those studies the aforementioned analysis of Baltimore. We also identified three additional studies isolating outcomes during a *post-program* period, with one of these the Washington, D.C. study already summarized.[1] Four studies not already discussed are summarized in this section.

Peters and Murrin (2000) studied outcomes in the Escambia, Florida and Okaloosa, Florida drug courts. Participants at each site were matched to comparison group defendants placed on probation supervision for similar offenses during the same period (1993-1995). It is not made clear why comparison defendants were sentenced to probation in lieu of the drug court. The follow-up period was thirty months, and only graduates and failures were analyzed – not participants still active after the thirty-month period. This was to make sure that at least some of the measurement period for those in the participant sample would cover a post-program period of time, but this creates the bias of excluding participants who took a particularly long time before graduating or failing.[2] In Escambia, the study found that 48% of drug court graduates, 86% of failures, and 63% of comparison group members were re-arrested; in Okaloosa, 26% of graduates, 63% of failures, and 55% of comparison group members were re-arrested. Since the study makes no direct comparison between all participants combined and the comparison group, the exact nature of the net drug court impact is unclear. However, the study effectively highlights the mediating role of graduation status on outcomes, since graduates had lower recidivism than both failures and the comparison group at both sites. This is consistent with our own findings (see Chapter Nine).

A second two-site study with a substantial follow-up period of three years after program admission focused on the Portland and Las Vegas drug courts (Goldkamp, White, and Robinson 2001). This study drew its comparison groups from cases arrested on comparable charges as drug court participants but that did not enter the drug court due to refusal or other reasons (Portland) or because they were not made aware of the drug court (Las Vegas). Due to the sizable three-year follow-up period, a significant amount of post-program time was probably covered for most participants, although not isolated. In Portland, after three years, 50% of participants and 60-61% of two respective comparison groups were re-arrested, although the difference was *not* significant at the .05 level. In Las Vegas, 65% of participants and 79% of comparison group defendants were re-arrested, although again the difference was not significant. After further inspection, Goldkamp et al (2001) noted that in both courts, for participant cohorts entering in

[1] In his literature reviews, Belenko (1998, 1999, 2001) appears to suggest that more post-program studies exist than three. However, our review indicates that most studies classified in these reviews as covering a post-program period include a post-entry measurement period that mixes in-program and post-program time within a single measure.

[2] Such a bias could be avoided by attempting to model any differences in background characteristics or outcomes between participants included and excluded in the final samples for the recidivism analysis. However, it does not appear that such modeling was attempted.

some years, there *was* a significant difference in re-arrest rates, while for other cohorts there was not. They conclude that researchers should attend to policy and practice changes over time (for example, changes in the judges assigned to the court), as well as to basic variations between programs, which may lead drug courts to be more successful in some years than others, and may lead some drug courts in general to be more successful than others.

A study of the Tarrant County drug court intervention isolated re-arrests that occurred during a one-year *post-program* follow-up period beginning on the date of the final drug court contact (Bavon 2001). The comparison group consisted of defendants who could have entered drug court but "opted out." Re-arrest rates were 13% for drug court participants versus 17% for the comparison group. This suggests a modest drug court effect, although the difference was not significant. As in the Peters and Murrin study, this one also found that the re-arrest rate was much higher among drug court failures (21%) than graduates (3%).

Finally, a study of the Los Angeles County drug court also isolated re-arrests during a one-year post-program follow-up (Fielding, Tye, Ogawa, Imam, and Long 2002). This study included two comparison groups. One consisted of defendants referred to a twenty-week drug diversion and education program. The second comparison group consisted of other defendants arrested on similar charges as drug court participants (felony level) but that were either not told about the drug court option or refused to participate. Overall, one-year post-program re-arrest rates were 24% for drug court participants, 37% for the drug diversion sample, and 51% for the other felony sample. However, the three samples differed significantly in the area of criminal justice risk, defined by a combination of criminal history, instant case arrest charges, and measures of community ties. The drug diversion sample scored significantly *lower* than the other two in risk level and the other felony comparison sample scored significantly *higher* than the other two in risk level. Separate comparisons for each of three risk levels, low, medium, and high, revealed that the drug court did not generate significantly different re-arrest rates among low risk defendants but *did* generate considerably lower re-arrest rates among both medium and high risk defendants. Hence the drug court was particularly effective for those entering with a *more* serious criminal record and *weaker* community ties. These results carry the policy implication that it would be a mistake to limit the drug court option to less serious defendants.

Other Multi-Site Studies

Two additional significant studies have been completed. Each analyzes results at two sites. Truitt, Rhodes, Seeherman, Carrigan, and Finn (2000) analyzed recidivism at the Escambia County, Florida and Jackson County, Missouri drug courts, utilizing a pre-post design and a series of statistical modeling procedures designed to generate estimated re-arrest rates.[3] In Escambia, the estimated re-arrest rate within two years of program entry was not significantly

[3] The design strategy of Truitt et al (2000) was somewhat novel. It involved comparing re-arrest rates among all offenders with drug court-eligible charges and criminal histories in the years before and after the drug court opened. Since the drug courts enrolled increasing numbers of participants during each successive year of operations, the technique involved estimating the impact of drug court participation by modeling the overall change in re-arrest rates in years where more offenders entered the drug court. Presumably, since a higher percentage of defendants in fact entered the drug court from each successive arrest cohort, if the drug court is having an impact, each cohort's total re-arrest rate should decline. The weakness of this strategy is that it relies on an extensive series of regression equations and modeling assumptions that, if inappropriate, could lead to seriously biased results. The authors themselves make this point in cautioning against literally interpreting the estimated differences in recidivism rates as reflecting their proper magnitude in the real world. The strength of this design is in the tremendous care taken to control for multiple defendant characteristics and jurisdictional trends in the analysis.

different between participants and the comparison group, although when isolating results for more serious *felony* level offenses, recidivism was significantly lower for participants. In Jackson, the estimated re-arrest rate was significantly lower in the drug court (45% versus 65%). The application of a single, sophisticated research strategy across more than one site makes this study important. Methodologically, it is one of the strongest quasi-experimental studies in the literature.

A year ago, a statewide evaluation was completed on Ohio's drug courts (see Latessa, Shaffer, and Lowenkamp 2002). This study analyzed the impact of drug court participation within each of two pooled samples of adult drug court participants and comparison group members.[4] The comparison groups consisted of defendants found eligible for the drug court but not participating, in some cases due to refusing treatment. The first "Common Pleas" analysis included four drug court sites and reported re-arrest rates of 32% for participants versus 44% for comparison defendants. The second "Municipal Courts" analysis included three drug court sites and reported re-arrest rates of 41% for drug court participants versus 49% for comparison group defendants. The study does not clarify its measurement period. The study also does not explain the basis for pooling multiple drug court sites into single large-scale analyses; presumably drug courts falling within each of the pooled samples bear important programmatic similarities. Despite these ambiguities, this study is important for representing the first attempt to evaluate drug courts on a statewide level.

Summary

Despite serious methodological weaknesses in much of the completed research, several rigorous studies have recently emerged, and a consensus is growing that drug courts usually produce lower recidivism. A recent review reported that across 41 studies, the comparison group averaged a recidivism rate that was 14.4% higher than the drug court.

At the same time, not all studies have yielded positive results, and the exact magnitude of the drug court effect varies across sites. As one study highlighted (Goldkamp et al 2001), there is even variation in the drug court impact within different program years at the same site. This raises questions about which program factors lead some programs to be more or less successful than others; or leading the same programs to be more successful some years than others. Also, extremely few studies have measurement periods exceeding two years after initial arrest or intake; and only two studies specifically *isolate* outcomes during a *post-program* period. Hence it remains largely unknown whether drug courts have a lasting rehabilitative impact. Finally, although several two-site studies have been completed, there has been only one large-scale effort (in Ohio) to evaluate multiple drug courts on a statewide level with the use of a comparable methodology.

The next chapter provides an overview of the methodology used in this report's impact evaluations of six New York State drug courts. The subsequent chapters present results for each respective site. Comparison groups are carefully constructed to match charge, criminal history, and demographic characteristics of each site's drug court participants; and weak designs are avoided, such as filling the comparison groups with ineligible or refused treatment cases. Perhaps most significant, is that recidivism is examined over an extended timeframe, at least three years after the initial arrest and at least one year after program completion at all six sites;

[4] The study also included a third pooled sample of drug court participants and comparison group defendants at three juvenile drug court sites, but these results are less relevant to the adult drug court focus of the present study.

and at two sites, analyses are extended to four years post-arrest and to two years post-program. Since the six impact sites represent much of the diversity of drug courts nationwide, varying in jurisdiction characteristics (e.g., large urban, suburban, or mid-sized city), eligibility criteria, treatment and case management policies, and other program characteristics, this study can also advance the literature towards a greater understanding of the universality of drug court impacts across different types of jurisdictions and drug court program models.

Chapter Eleven
Research Design and Analysis Plan

This chapter provides an overview of the research design, statistical methods, and analysis plan developed for all six impact evaluations. Since we adapted the general framework to each court separately, each of the following six chapters also includes court-specific methodology sections.

For all six courts, we implemented quasi-experimental designs that involved comparing recidivism over both post-arrest and post-program periods of time between drug court participants and comparison groups of similar defendants not screened by the drug court. For four sites (Bronx, Queens, Suffolk, and Syracuse), we used *pre-post* designs comparing drug court participants to similar defendants arrested just prior to the opening of the drug court. For two sites (Brooklyn and Rochester), we used *contemporaneous* designs comparing participants to similar defendants arrested during the same period of time but not referred to the drug court for reasons unrelated to program eligibility or defendant interest in participating.

In defining each site's comparison group, we began by identifying a sample of identical defendants in terms of the drug court's paper eligibility criteria. This primarily involved choosing cases for comparison group consideration based on top arrest charge and criminal history. We then employed a *propensity score matching* methodology designed to further refine the comparison sample and ensure that it in fact matches the drug court participant sample on defendant sex, age, race, specific charges, and criminal history details (e.g., number of prior misdemeanors, number of prior felonies, number of prior drug offenses, etc.). Since matching participants to comparison group members who are identical on every one of these characteristics is unfeasible, propensity score matching summarizes these characteristics into a single variable for each defendant (the propensity score). Matching can then proceed on this one summary variable.

The first section below discusses general issues surrounding the choice of a comparison group and introduces this study's basic approach. The second section describes the propensity score matching techniques used to improve the quality of each court's comparison group. The third section discusses recidivism measures and measurement periods. The fourth section discusses specific methodological challenges in conducting *post-program* recidivism analyses, and how those challenges were resolved. Finally, the fifth section outlines and explains the common analysis plan applied to the six drug courts (e.g., which recidivism analyses we performed and why).

Comparison Group Identification

General Issues in Comparison Group Design

A critical decision in any drug court study is how to define the *comparison group* against which participant outcomes will be evaluated. A comparison group is necessary to measure the impact of the drug court on recidivism and other outcomes of interest. Ideally, the comparison group is equivalent to drug court participants in every respect, except for not having participated in the program. This allows differences in recidivism or other outcomes to be causally attributed

to the impact of the drug court, rather than to other factors that might also differentiate the samples.

The "gold standard" is an experimental design in which defendants are *randomly assigned* to either the participant or comparison samples. In order to achieve random assignment in a drug court, all "paper eligible" defendants would be screened and assessed for eligibility. Those found fully eligible would be offered a contract or plea agreement to enter the drug court; presumably, some would accept while others would refuse. Of those prepared to accept, some would in fact become drug court participants, while others would be re-routed to conventional prosecution based on a random assignment process devised by the researcher. Those returned to standard prosecution would comprise the comparison group. Random assignment ensures that the drug court participant and comparison samples will not differ either on *observed* characteristics (e.g., demographics, drug use history, criminal history, current charges) or on *unobserved* characteristics (e.g., motivation, treatment-readiness, or other characteristics for which specific data is unavailable), since the randomization process should have assured that these factors did not influence sample assignment.

For obvious ethical reasons (e.g., denying a treatment thought to be effective in order to conduct a study), randomization designs are rare. Most drug court evaluations, including this one, are based on "quasi-experimental" designs in which the assignment of defendants to a drug court or comparison group is not random. Without randomization, we cannot be certain that drug court participants and the comparison group are *identical* on all relevant factors, observed and unobserved. The possible existence of confounding differences between the samples makes it more difficult to measure the impact of drug courts.

The goal of a "quasi-experimental" design is to reduce *selection bias* (i.e., the impact of confounding factors) by constructing a comparison group whose characteristics match drug court participants as closely as possible. For example, the comparison group must include defendants who did *not* participate in the drug court. Hence for evaluation purposes, it is not appropriate to compare drug court graduates to failures – this essentially rigs the results by taking participants known to have done well in the drug court and comparing them to participants known to have done poorly. Neither is it appropriate to identify a separate comparison group but then to compare its recidivism rate only to graduates. Since drug courts attempt to serve *all* of their participants, including both those who end up graduating and failing, *all* participants comprise the participant sample. The comparison sample should then be drawn from defendants whom the drug court has never attempted to serve. The drug court must be evaluated by its success, or failure, with *all* that it reaches.

Further, certain previous studies relying on quasi-experimental designs compare drug court participants to *ineligibles* (referred to drug court but denied admission) or *refusals* (referred and found eligible but refused to participate); but these designs seriously compromise the potential comparability of the samples. Ineligibles may differ from drug court participants in their legal status or drug use; refusals may have less motivation for change or other differences leading them to be less interested in pursuing the drug court option. If these differences affect outcomes (e.g., if less motivated defendants are more likely to recidivate), then biases inherent in the research design may bias the outcomes.

Identification of Comparison Groups for This Study

As the above discussion makes clear, great care must be taken in choosing a comparison group for a drug court study. The quasi-experimental design for this study emerged from three

basic principles, each designed to ensure a comparison group as identical as possible to drug court participants.

1. Comparison defendants had to be "uncontaminated" by any contact with the drug court. That is, defendants who were screened by the drug court on the instant case arrest but then found ineligible (e.g., due to not having an addiction or for other reasons) or found eligible but refusing to participate, were *not* considered for the comparison group. As noted above, ineligibility or refusing to participate creates potential biases we sought strictly to avoid.

2. Comparison defendants had to meet the drug court's "paper eligibility" criteria: drug court-eligible arrest charges, criminal history and age (if applicable). Since each of the six drug courts we evaluated has different paper eligibility criteria, this meant that the criteria for each court's comparison group would also vary.

3. Comparison defendants had to be *convicted* on their instant case arrest. While requiring a conviction might seem to limit the comparison group to more serious cases, based on our site visits at each of the impact courts, we concluded that this restriction was appropriate. This was based on the assumption that defendants able to achieve a dismissal of the instant case arrest charges would *not*, in practice, agree to enter a drug court. These defendants and their attorneys would proceed instead to seek the dismissal and hence the end of the criminal case. This means that for purposes of constructing a comparison group whose criminal justice situation matches that of participants, cases resulting in a dismissal do *not* comprise a viable match to drug court participants. Hence a felony or misdemeanor conviction was required.

In applying these principles, four of the six drug court evaluations utilized a *pre-post* design, comparing drug court participants to paper-eligible defendants arrested prior to the opening of the drug court in the same jurisdiction. Two (Brooklyn and Rochester) used a *contemporaneous* design. This type of design is feasible and appropriate if purely logistic or organizational factors – factors *unrelated* to recidivism and other outcomes of interest – lead some defendants not to be routed to drug court during a time when it was otherwise available. During the first four years of the Brooklyn Treatment Court, for example, defendants were not routed to drug court if arrested in two of five geographic arrest zones in Brooklyn (Kings County); hence defendants drawn mainly from these two zones, and certain other defendants not routed to the drug court for reasons involving bureaucratic oversight, comprise the comparison group. In Rochester, during the early years of the program, a number of arraignment judges refused to refer cases to the drug court; hence defendants arraigned by one of those judges could be used for the comparison group. Since the assignment of arraignment judges stems from a judicial rotation system, not from defendant charges or other characteristics, this provides for a quite strong quasi-experimental design, and is stronger than the pre-post design because participant and comparison cases were processed during the same time period. (See details on Brooklyn and Rochester in Chapters Thirteen and Seventeen.)

In determining which charges to include in each court's comparison group, we only included those that were *prevalent* among drug court participants. Even if technically eligible, if only a small percentage (5-10%) of drug court participants entered on a certain arrest charge, we did *not*

identify any comparison group defendants with that charge. The rationale for this decision can be illustrated with reference to Bronx, Suffolk, and Syracuse. The Bronx technically considers defendants arrested on drug felony charges to be eligible, but in practice, only 1% of Bronx drug court participants were arrested on drug *possession* felonies; hence the comparison group was limited to drug *sale* felonies only. Both the Suffolk and Syracuse courts have formal systems to identify and screen potential drug court participants arrested on certain *drug* charges but rely on informal mechanisms, such as referral by an individual judge or attorney, or identification by the drug court project coordinator, to identify potential participants arrested on *non-drug* charges (e.g., property charges, trespass, misdemeanor assault, or others). As a result, a small number of drug-related charges account for about half of the cases in both of those courts; the other half were arrested on any from a long list of other charges – with no one "other" charge accounting for a meaningful percentage by itself. Since we had no systematic way to replicate the informal mechanisms leading a small number of defendants with each "other" charge to end up in the drug court, we confined the Suffolk and Syracuse comparison groups to defendants arrested on drug charges only.

We then had to confront the question of whether the participant samples for Suffolk and Syracuse should be similarly limited. That is, should we remove drug court participants arrested on non-drug charges from the participant samples in those two courts, given that those charges were un-represented in the comparison groups? As discussed in Chapters Fifteen and Sixteen, we made different decisions for Suffolk and Syracuse, based on a determination of whether charge type (drug vs. non-drug charges) was, in fact, a predictor of recidivism among program participants. Where charge type was a significant predictor of recidivism in a multivariate model (which it was in Suffolk, but without statistically significant evidence in Syracuse), we eliminated participants arrested on non-drug charges in order to avoid biasing the analysis.

Implementation of Propensity Score Matching

Our initial process of identifying comparison groups ensured that they would closely match each drug court's formal "paper eligibility" criteria. However, this does not guarantee that all initial comparison group defendants would truly have entered the drug court if the option were available. Some might have been found ineligible on criteria not captured by formal charges (e.g., if deemed involved in heavy trafficking); others might have been found not addicted to drugs; still others might have refused to participate.

Furthermore, on a patterned basis, paper eligible defendants with certain characteristics may be particularly likely or unlikely to participate. For example, in Brooklyn, young defendants are usually found drug court-*ineligible* due to lacking an addiction. Therefore, a Brooklyn comparison group defined only by paper eligibility would most likely include too many young defendants. If young defendants have a particularly high recidivism rate (which they do), and if the comparison group contained a disproportionately high number of young defendants, the comparison group might show higher recidivism, due not to an impact of the drug court but to the younger age of the comparison sample. In short, additional steps are needed to refine the initial comparison sample so that the final sample is truly comparable to drug court participants. Propensity score matching techniques are designed to do this (see Rubin 1973).

The Propensity Score Matching Process

The propensity score matching approach essentially replaces an approach of "exact matching on covariates," whereby each participant would be matched to a comparison group defendant that is entirely identical on all known characteristics (e.g., same sex, age, race, criminal history) that affect both participation in the program and outcomes of interest. Exact matching becomes problematic where, as is the case in this study, many covariates are involved.

Propensity score matching solves the problem by matching, not on each and every *individual* characteristic, but on the *overall* effect of all characteristics in generating a predicted probability of participation. After the matching process ends, participants and comparison group members may still diverge on certain characteristics, but participants and comparison group members will be "balanced" on all background characteristics taken in totality. This balancing outcome is the critical quality that enables the net effect of the technique to be an artificial re-creation, or at least approximation, of the experimental situation present in a random assignment study (e.g., see Bryson, Dorsett, and Purdon 2002).

Propensity score matching requires that we begin with a representative, highly comparable sample of drug court participants and non-participants. The steps discussed above are designed to achieve such comparability across samples. The first step in the matching process is to pool the two samples and estimate a logistic regression model of program participation based on a number of known background characteristics (demographics, criminal history, etc.). This step involves, separately for each court, developing a logistic regression model, where the dependent variable is participation status (0 = comparison group candidate; 1 = participant), and the independent variables are background characteristics that differ between the initial samples, based on bivariate comparisons.[1]

The next step is to create predicted values for each defendant included in the logistic regression – that is, the propensity score. The propensity score represents the predicted probability of participation in the drug court, given the observed set of background characteristics (Rosenbaum and Rubin 1983). Even though it is not known for sure whether a comparison group member would have in fact entered the drug court if given the opportunity, this step entails estimating the *probability* that each comparison candidate would have entered, given existing knowledge of comparison group background characteristics and of the relationship between particular characteristics and participation status.

We then matched each drug court participant to the comparison group candidate with the nearest propensity score.[2] As discussed by Dehejia and Wahba (1998), there are several matching methods available. For example, in a "one-to-one" system, each participant must match a unique comparison group candidate, whereas in a "nearest neighbor" system, each participant must match the comparison candidate with the nearest score, even if multiple participants are matched to the same comparison candidate. We used the latter, nearest neighbor method, which generates higher quality matches, and thus more accurate estimates of drug court impact. It does, however, also have the effect of reducing the statistical power of these estimates because the

[1] Variables were included in the logistic regression model if they met a .10 standard in bivariate t-test comparisons.

[2] Just prior to this point, we determined that if some comparison candidates had such a low propensity score that there has never been an actual participant who entered drug court with such a score those candidates should be removed from the sample, thus improving the final comparability of the samples. In practice, however, this step did not need to be implemented in any of the six impact courts; none of the six courts had a block of comparison candidates all with scores falling well below the lowest scoring participant.

final comparison group sample size is reduced when one comparison group member is matched to multiple drug court participants.

When implementing the matching process – performed manually within the SPSS data editor – if a series of participants and comparison group candidates all had the exact same propensity score, the participant with the most recent arrest date was matched to the comparison group defendant with the most recent arrest date; the participant with the next most recent arrest date was matched to the comparison group defendant with the next most recent arrest date; and so forth. Recent arrest dates were privileged, mainly in light of the pre-post research designs used in four of the impact evaluations. Since comparison groups in the pre-post designs were arrested prior to the opening of the drug court, it made sense to privilege more recent comparison group arrestees in order to minimize historical biases that could arise from using a comparison group arrested during an earlier time. Whenever there was not an equal number of participants and comparison group defendants with the same propensity score, multiple participants were matched to single comparison group defendants resulting in a many-to-one relationship.

To summarize, the propensity score matching process resulted in each drug court participant being matched to a comparison group defendant. The matches are based on the propensity score – a single measure that summarizes the impact of potentially confounding factors on program participation. The participant-comparison match then forms the unit of analysis for estimating the drug court's impact. The average difference in outcomes across all matches is used to estimate the overall drug court impact.

Note that complete participant and comparison samples were not always available for all analyses, depending on whether sample members had accumulated the requisite amount of post-arrest or post-program time. For example, in Bronx, Queens, Suffolk, and Syracuse, all sample members had accumulated at least two years of post-arrest time by definition of the time criteria used to identify the initial samples; but not all sample members had accumulated *three years* of post-arrest time; and not all sample members had accumulated one year of post-program time. In order to preserve the comparability of the participant and comparison samples, whenever a participant or comparison group defendant became unavailable for a given analysis – due to not accumulating the requisite amount of time for it – the match for that defendant was also taken out of the analysis. The exception is that if multiple participants were matched to a single comparison defendant, the latter would not be excluded unless *all* of the matched participants had become unavailable for an analysis. In reporting results, available sample sizes are clearly indicated for each analysis.

Propensity score matching techniques were applied exactly as described above in all courts except Bronx, where we opted for a variant of the same basic approach. Chapter Twelve describes the Bronx methodology in detail.

Implications of the Approach

Propensity score matching ensures that final participant and comparison samples are as comparable as possible on key background characteristics, thereby reducing selection biases that might result if the samples had significant differences on factors (other than participation in the drug court) that affect recidivism and other outcomes.

Propensity score matching reduces but does not eliminate selection bias. The approach is most effective when it is possible to develop a model that matches on all relevant characteristics that affect both program participation and key outcomes of interest. However, based on available record data for the present study, it was not possible to include in the propensity score model

baseline socioeconomic characteristics, drug use characteristics, mental health status, or other psychosocial measures. We cannot ensure that drug court participants and comparison group members do not differ on these unobserved characteristics. In particular, some non drug-using and non-addicted defendants are inevitably included in the comparison group, since we lacked information on the full psychosocial history of potential comparison defendants.

This represents a notable study limitation, although it may not be as important as it may seem for two reasons. First, a previous study of the Brooklyn Treatment Court has shown that (in a multivariate model that included drug use and multiple psychosocial measures), age, sex, race, and prior misdemeanor convictions, all variables available for the present study, were, in that order of strength, the strongest predictors of whether a screened paper eligible defendant ultimately became a participant (Rempel 2002). This suggests that the available characteristics in the present study may serve as strong proxies for characteristics that are not available, particularly drug use. Second, the underlying reason to utilize a matching strategy is to avoid selection bias, whereby differences in baseline characteristics lead either the participant or comparison samples to begin from a point of having a higher probability of the outcome in question (e.g., recidivism). In this respect, for the six impact courts, age and prior criminal history, both variables available for matching, were consistently among the strongest predictors of recidivism among program participants (see Chapter Nine). Race and arrest charge were also significant predictors of recidivism in many courts, and those variables were also available for matching. This again suggests that the characteristics available to the present study comprise the most important ones on which to match.

Recidivism Measurement Periods and Measures

Measurement Periods

With few exceptions, most previous studies define their measurement period to begin either on the arrest, intake, or program entry dates – i.e., on a date falling at the outset of program participation. This means that *in-program* time is included and, when the measurement period extends for two years or longer, some post-program time as well. Evaluating recidivism in this way – largely during an *in-program* period – is important, because it tests whether judicial supervision by the drug court can produce an immediate impact in preventing criminal behavior. However, drug courts typically present themselves as having long-term behavioral effects, leading their participants towards fundamental lifestyle changes away from a life of drugs and crime. Therefore, evaluating *post-program* recidivism, after drug court graduation or failure, provides the ultimate measuring rod of whether drug courts have achieved their goals (see Belenko 2001). Hence studies are needed with a longer measurement period, or with a period beginning on the program completion date rather than the entry date.

This study examines recidivism over both post-arrest and post-program periods. The post-arrest period begins at the time of the arrest that led either to drug court participation or comparison group membership. For some drug court participants, arrest date was unavailable, leading drug court intake date to be used in those cases. We generally preferred arrest date, since there is no equivalent to intake for the comparison groups – arrest date provides for a standard starting point for participants and comparison groups alike.[3] For all six courts, the measurement

[3] We also considered beginning the measurement period on the participation date – the date of formal agreement to become a drug court participant – for participants and on the disposition date for the comparison group. These two dates are conceptually equivalent. However, we decided this would be inappropriate, since participant recidivism

period extended to three years post-arrest; for Brooklyn and Rochester, the period extended to four years. Longer post-arrest and post-program periods are possible for Brooklyn and Rochester, since those two courts began serving a high volume of participants at an earlier point in time.

The post-program period begins at slightly different starting points for drug court graduates, failures, and comparison group members respectively. For graduates, the post-program clock begins on the graduation date, for failures on the estimated release date from jail or prison, and for comparison group members on the estimated release date or, if there was no sentence of incarceration, on the disposition date. For purposes of the analysis, defendants were assumed to serve two-thirds of any jail sentence (a standard "good time" assumption) and the minimum prison sentence if there was a range. For all six courts, the post-program measurement period extended to one year post-arrest; for Brooklyn and Rochester, it extended to two years.

Measures

All data for recidivism analyses were obtained from the New York State Division of Criminal Justice Services (DCJS). The DCJS data set includes comprehensive criminal record information for all defendants in the study, including both criminal history and recidivism. The data was obtained as of December 31, 2001 for Brooklyn and Rochester and as of June 30, 2002 for the four other courts (we chose this somewhat later date to increase available sample size in the newer courts).

An important qualification is that the DCJS data enabled us only to use conviction-based recidivism measures. That is, an incident is considered as recidivism only if the new arrest leads to conviction. In this respect, our study differs from most drug court evaluations reviewed by Wilson et al (2002), which use arrest-based measures. In New York State, arrests resulting in a dismissal are *sealed*. This does not preclude obtaining the data; but it does mean that DCJS will only provide data after removing all person-based and case-based identifiers. DCJS replaces those with a pseudo-identifier – bearing no connection to any living person – to enable performing person-based aggregate analyses. For logistical reasons, it was not feasible for us to request data on sealed cases and thereby receive the data without real person identifiers. We needed these to be able to merge the DCJS data with program participation data obtained from the drug court management information systems for participants.[4]

Although all recidivism events involve convictions, the measurement periods are based on the date of the new arrest. For example, in analyzing recidivism within three years post-arrest, a recidivism event counts if the *arrest* occurred within three years, even if the resulting conviction

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that occurs after intake but before the formalization of participation status is clearly relevant to the evaluation. Part of the drug court model embraced by all drug courts in the study is to achieve the rapid identification and placement of eligible defendants. Therefore, if some drug courts average a significant delay between intake and formalization of participant status, and if recidivism occurs in that intermediate time period, we considered it an appropriate conservative assumption to *count* such recidivism against the drug court in the analysis.

[4] In theory, it is possible to obtain data on sealed cases from DCJS and then to merge it with other data sets. The researcher would need to submit all pre-existing program data sets to DCJS. DCJS would then add an equivalent pseudo-identifier to both its own recidivism data set and to the researcher's program data set. Thus merging could occur on the new pseudo-identifier, although that identifier would bear no relation to any actual person. However, at the time we began our recidivism analyses, we had a variety of outstanding data collection and coding questions for several drug courts that necessitated our retaining the ability to re-merge program with recidivism data as corrections were made in the former. Hence we needed a recidivism data set with real rather than pseudo-identifiers, so that we could have an ongoing ability to update program data and then re-merge.

occurred later. This was done so that delays in case processing between arrest and conviction would not affect whether a recidivism event was counted in any given analysis. While controlling for processing delays, the approach taken here means that some cases still *open* at the time we received recidivism data may have later resulted in a conviction. Yet, these cases would not be identified as involving recidivism given their open status as of the date data was received from DCJS. Given the small number of cases whose recidivism tracking periods (one year post-arrest, two years, three years, etc.) in fact ended right before the date that data arrived, of which only an additional small fraction would have had an arrest before but a conviction after that date, this biasing scenario likely applies to an exceptionally small number of cases.

The Challenge of Analyzing Post-Program Recidivism

A critical methodological challenge in analyzing post-program recidivism arises due to the non-availability for the analysis of a substantial portion of each court's participant sample. Since it usually takes at least one to two years to graduate from a drug court and this must be followed by at least one more year to attain a viable post-program measurement period, many graduates in our participant samples had not completed enough post-program time for inclusion. Also, since drug court failures are nearly always incarcerated after drug court participation ends, and the post-program clock cannot begin until after their release from this term of incarceration, many failures in our sample had not accumulated enough post-program time. Finally, some participants in our sample had *still*, as of the analysis date, not yet reached final status – it was unknown whether they would eventually graduate or fail. Yet, it is vital to know what proportion of the participant sample comprises graduates and failures respectively, since graduation status is a crucial predictor of recidivism (see Chapter Nine). If the sub-sample available for a post-program analysis included a disproportionately high number of graduates, that would inevitably lead to an underestimate of participant recidivism, whereas if the sub-sample included a disproportionately high number of failures, that would lead to an overestimate. In short, it is critical that there be an equal rate of attrition between eventual graduates and failures who are present in our *initial* samples and graduates and failures accumulating enough time to be included in our post-program analyses.

To avoid possible biases involved in having an improper ratio of graduates and failures available for post-program analysis, we implemented an estimation method designed to impute final program status to all participants who had not in fact reached final status as of the analysis. Having estimated the overall graduation rate for each court's participant sample, we then weighted graduates and failures actually available for each post-program analysis to reflect that graduation rate. In effect, our estimated graduation rate served as a correction factor, ensuring that the available sub-samples for post-program analyses do not reflect a disproportionate sample of either graduates or failures.

The specific procedure was as follows. First, graduation or failure status was determined just prior to performing the analysis for all members of the drug court participant sample. For participants who had neither graduated nor failed as of the analysis date – due to taking a particularly long time in the program – their background characteristics were utilized to *predict* whether they were likely to graduate or fail. The prediction model was derived from the analysis of the predictors of drug court graduation reported in Chapter Nine.[5] Independent variables in the

[5] Since Rochester was not included in that earlier analysis, a new prediction model was devised for Rochester and is included in Chapter Seventeen.

models included sex, age, race/ethnicity, current charges, prior conviction(s), high school degree/G.E.D. (y/n), employed or in school at intake (y/n), primary drug of choice, previously in treatment (y/n), first treatment modality, severity of jail or prison alternative in event of failure, and whether the participant disappeared on a warrant within 30 days of drug court entry. Each of these variables was not necessarily included in the model for all drug courts, depending on data availability and on whether the variable made sense in light of court-specific policies.

All variables reaching a threshold of $p < .10$ from the analysis predicting drug court failure were then entered into a new logistic regression model predicting graduation/failure status that only used graduates and failures from the final participant samples in each court's impact evaluation. The resulting logistic regression equation took the following form:

LOGODDS(graduation) = B1X1 + B2X2 + B3X3 + BiXi + constant

Where B1, B2, B3, etc. represent the resulting logit coefficients and X1, X2, X3, etc. represent the independent variables included in the model. The logodds of graduation, computed based on the above parameter estimates, was then transformed into a probability as follows:

PROB(graduation) = 1 / (1 + exp(-logodds(graduation))).

For participants with indeterminate completion status – who had not graduated or failed as of the analysis date – the above equations could be used to *estimate* final status. First, we decided to make the conservative assumption that any participant on warrant for over one year would eventually fail the program. Second, of those remaining, if the predicted probability of graduation generated by the above equations exceeded 50%, the participant was predicted to be a graduate; if the probability was less than 50%, the participant was predicted to be a failure.

At this point, an estimated drug court graduation rate could be produced, combining what was factually known about participants that had reached final status as of the analysis date with what was predicted for the remaining participants. Having produced this estimate, the participant sub-samples accumulating enough post-program time to be included in each post-program analysis (one year post-program in all six courts, and two-years post-program in Brooklyn and Rochester) could be properly weighted. That is, for each post-program analysis, graduates could be weighted so as to contribute a proportion of the results equaling the court's estimated graduation rate and failures could be weighted so as to contribute a proportion of the results equaling the court's estimated failure rate.

In reflecting on this methodology, it bears mention that imputation of outcomes becomes problematic when applied to a large percentage of cases. However, this was not the case in any of the six impact courts. For most participants in each site's impact sample, final graduation / failure status was factually known. Imputation of final outcomes was performed for 12.8% of the Bronx drug court participant sample and for less than 8% of the participant samples at all five other sites (see the following individual impact chapters). Thus the estimated graduation rates used to determine each site's weighting formula were largely derived from factual information about the final status of each site's participants.

Analysis Plan for All Six Impact Evaluations

The first six impact chapters all follow a common analysis plan. As a result, some of the writing and section introductions may be repetitive. Acknowledging this, we were nonetheless concerned that some readers might focus on only one drug court, so we wanted to allow each evaluation chapter to stand on its own to the extent possible, without assuming previous impact chapters had been read. We also considered treating all six courts simultaneously in a single analysis, but that seemed both unwieldy and inadvisable, given that the courts are not alike in the defendants they serve or in other participation policies. Instead, this section serves as a guide to the organization of all six chapters. In addition, Chapter Eighteen examines case processing and outcomes in the six courts and Chapter Nineteen reviews major recidivism findings cutting across the individual impact chapters.

Each of the six initial chapters begin with a more detailed discussion of the particular drug court's model and policies, covering eligibility criteria, screening protocols, the organization of relationships with local treatment programs, case management, and supervision by the drug court judge. All six also detail court-specific aspects of the research design and propensity scoring matching process. The overarching matching principles were identical in five of the six evaluations; only in Bronx, a slightly alternative approach was used in response to an initial empirical examination of the Bronx data.

Results are reported in three sections covering impacts on: (1) post-arrest recidivism, (2) post-program recidivism, and (3) recidivism among specific defendant subgroups.

1. Post-Arrest Recidivism: This concerns recidivism impacts during the period immediately following the initial arrest. We performed separate comparisons covering drug court impacts on:

- The *probability* of at least one new conviction;
- The total *number* of new convictions;
- The probability of at least one new conviction for each of three *general types of charges,* felony, misdemeanor, and drug-related;
- The *specific conviction charges* involved in the first reconviction (among those with at least one reconviction in total);
- The *number of crime-free days* prior to the first re-arrest leading to a conviction (among those with at least one reconviction); and
- Survival patterns over the total post-arrest period (including separate survival curves for drug court participants and comparison defendants mapping the percentage that remained crime-free after the passing of each additional post-arrest month).

We also performed multivariate analyses that investigated the drug court impact on recidivism after simultaneously controlling for the impact of other factors (demographics, charges, and criminal history). For each drug court, logistic regressions were performed to determine the impact of the drug court and other factors on the probability of at least one reconviction; and negative binomial analyses were performed to determine the impact of the drug court and other factors on the total number of reconvictions. The proper multivariate technique for analyzing what predicts the total number of events on some dependent variable, where that variable has a distribution including many zeros (e.g., zero reconvictions), some ones, and a decreasing number of other values, is the Poisson. The caveat is that where the dependent variable's variance significantly exceeds its mean – indicating a heavily right-skewed

distribution with a small number of very high values (e.g., a small number of defendants with more than ten reconvictions) – it is preferable to switch to the negative binomial specification. It operates to collapse the distribution's right tail by using the logarithm function. After examining the data, we found in all six impact courts that the variance of key recidivism variables indeed exceeded the mean, leading the negative binomial specification to be used in all cases. For each impact court, logistic and negative binomial models were included for the latest two available post-arrest periods (three and four years for Brooklyn and Rochester and two and three years for the four other courts).

While these results are not displayed, we considered controlling for *time at risk* when performing multivariate analyses. This would enable controlling for the amount of time over the given post-arrest period when the defendant was not already incarcerated and hence was in fact available to commit new crimes. We did not ultimately control for this variable, since there were rarely significant or systematic differences between drug court participants and the six respective comparison groups. In test analyses, we generally found that greater time at risk predicts a lower probability of recidivism; this is because those with less time at risk were often taken out of circulation as a direct result of a recidivism event followed by a jail or prison sentence. In other words, recidivism tended to *cause* less time at risk, rather than the amount of time at risk causing a higher or lower probability of recidivism. This complexity concerning time at risk variable interpretation, coupled with the lack of significant differences between drug court participants and comparison defendants, led us to excise it from all final regression models.

2. Post-Program Recidivism: This concerns recidivism impacts during the period immediately following exit from the criminal justice system on the initial case. We performed a more limited set of post-program than post-arrest analyses, given that the measurement periods were shorter (up to one or two years instead of three or four years for post-arrest computations); and a full reiteration of all equivalent analyses would have been repetitive in substance. Analyses covered drug court impacts on:

- The *probability* of at least one new conviction; and
- The probability of at least one new conviction for each of three *general types of charges*, felony, misdemeanor, and drug-related.

In addition, at the beginning of each post-program recidivism section, we included a separate analysis that did *not* compare participants to comparison defendants but, for participants only, compared their recidivism rates between *in-program* and *post-program* periods of time. The hypothesis motivating this analysis was that the drug court would prove particularly effective at reducing recidivism while participants were subject to the stringent judicial monitoring that accompanies in-program time; but this impact would diminish once participants were no longer under direct court supervision.

Finally, when measuring program impacts on the probability of at least one reconviction, we reported results of both bivariate comparisons and logistic regression analyses that looked at the impacts of drug court participation as well as other background characteristics.

3. Recidivism Impacts Among Specific Defendant Subgroups: This concerns recidivism impacts among members of specific subgroups (e.g., separate comparisons for women, men, older, younger, those with priors, those without priors, those arrested on felony charges, those arrested on misdemeanor charges, etc.). The purpose is to determine whether particular

categories of defendants perform especially well in the drug court. Findings obviously carry policy implications. If certain drug courts appear to generate recidivism impacts of an especially large magnitude with certain types of defendants, that could recommend efforts to ensure that more such defendants have the drug court option available. All subgroup analyses compare impacts over the three-year post-arrest measurement period.

Summary

This chapter described the common research design, statistical methodology, and analysis plan for six impact evaluations. The following six chapters present the respective evaluations of recidivism impacts, adding further discussions of methodology primarily where needed to supplement the above description (e.g., for court-specific components). Impact analyses then continue in Chapter Eighteen, which evaluates, for all six courts, the drug court impact on case processing speed and on sentencing outcomes pertaining to the initial drug court or comparison group case. These chapters are followed by a synthesis of major results in Chapter Nineteen.

Chapter Twelve
Impact Evaluation of the Bronx Treatment Court

The Bronx Treatment Court (BxTC) was established in March 1999 by the Bronx County Criminal Court in collaboration with the Office of the Chief Administrative Judge of New York City, the Bronx District Attorney's Office, the Legal Aid Society, and the Osborne Association. BxTC is the most recent of the six impact drug courts to open. From inception, BxTC emerged as a high volume drug court, with 298 participants entering during the first year and 376 during the second year of operations. Despite the court's recent opening, its high early volume generated a sufficient sample size for measuring recidivism up to three years after the initial arrest and up to one year after program completion.

The impact evaluation utilized a *pre-post* design, comparing the recidivism of BxTC participants to a comparison group consisting of similar drug felony defendants arrested prior to the opening of the drug court. BxTC participants were matched to comparison group defendants using a somewhat different variant of the propensity score matching methodology described in the preceding chapter. After first introducing the BxTC court model in more detail, we describe the variant of propensity score matching used for the evaluation. All results are then presented for the post-arrest and post-program recidivism analyses.

The Bronx Treatment Court Model

Screening and Eligibility

Defendants are *paper eligible* if they are arrested on nonviolent drug felony charges[1], do not have a prior felony conviction, are aged 19 or older, and are not arrested on charges involving drug sale near school property. The most serious A-1 and A-2 felony charges are excluded.

Paper eligibility is established through an automatic screening process. Pre-arraignment, an Assistant District Attorney (A.D.A.) conducts an objective review of the case to see if the defendant is eligible. This A.D.A. review is strictly a paper eligibility screen and does *not* involve a detailed examination of case-specifics, such as the exact amount of money transacted in an alleged sale or other circumstances of the arrest. The A.D.A. does, however, find some defendants ineligible at this point due to sales near school property. Although BxTC also does not accept defendants with a prior felony conviction, the Bronx District Attorney's Office runs a separate Drug Treatment Alternatives to Prison (DTAP) program targeting those defendants.

At arraignment, paper eligible cases are adjourned to the drug court. The BxTC project director indicated that a case typically reaches the drug court on the third business day after arrest (and thus two or three days after arraignment). At this point, a treatment liaison from a local treatment program or, in some cases, a case manager employed by the drug court, conducts a clinical assessment. There are three possible outcomes:

[1] The Bronx Treatment Court originally accepted *drug felony* cases only, but has since changed this policy to admit those arrested on certain non-drug felony charges as well. The policy was changed on June 28, 2002. Note that all participants in the impact evaluation entered prior to this change and were thus arrested on drug felony charges only.

1. The defendant may refuse treatment either prior to or immediately after the assessment. The drug court judge will typically retain the case, enabling the defendant to enter drug court subsequently in the event of a change of mind. (There is no adverse implication, apart from the delay, if a defendant reconsiders and later decides to enter drug court.)

2. The defendant is deemed not to have a discernible drug addiction. The drug court judge will typically retain the case, but the defendant will not become a drug court participant.

3. The defendant is found eligible, pleads guilty to a drug felony, and becomes a participant.

In the clinical assessment, the drug court screens for an addiction, not merely casual use, considering factors such as frequency of use, physical symptoms suggestive of an addiction, and the relationship between the symptoms and what might be expected in the event of an addiction to the primary drug in question. For instance, one treatment liaison explained that physical effects such as withdrawal, body aches, and trouble sleeping would be typical of a heroin addiction, whereas fewer physiological and more psychological effects would be typical of a cocaine addiction. BxTC also admits participants addicted to marijuana only, and marijuana is the primary drug of choice of 40% of participants entering through June 2002 (see Chapter Three). Many participants listing marijuana as primary may use or abuse other drugs as well. Finally, BxTC will occasionally find defendants ineligible if they have a severe medical or mental health issue that could compromise the effectiveness of court-mandated treatment. Defendants on methadone at the time of intake may enter the drug court but must agree to enroll in a methadone-to-abstinence program.

Of defendants screened through June 2002 (i.e., of defendants found paper eligible based on charges, criminal history, and age but then screened on the additional legal and clinical criteria), 63% became participants and 37% did not. Of the latter group, there was no predominant reason for not participating. Reasons included D.A. ineligibility (i.e., due to sales near school property), not having an addiction, mental health or medical reasons, or "other" reasons. Only 8% did not enter due to refusing treatment. This last finding is critical for purposes of the quasi-experimental impact design. A common source of selection bias in such designs is that the treated group (drug court participants) volunteered for treatment and, therefore, begins with greater motivation or interest in participating than the comparison group to perform well during and after program participation. In BxTC, since only a small percentage of eligible defendants opt not to participate, willingness to volunteer for the program is *not* a significant biasing variable.

Participation Requirements

BxTC uses a *post-plea* model whereby defendants plead guilty to an eligible drug charge in advance of participation and agree to a specific sentence to be imposed in the event of program failure, nearly always 2-6 years in prison but occasionally 1-3 years. Except in rare cases, participants always plead guilty to a felony. For this reason, 4% of screened defendants were found ineligible for the reason that the criminal case only merited conviction at the misdemeanor level.

In the event of BxTC graduation, some participants have the case dismissed, while others are convicted of a misdemeanor but with the sentence not involving incarceration. The general tendency is for graduates without any prior convictions to have the case dismissed, and for those

with priors to receive the misdemeanor conviction. Graduates with a prior from a long time ago, typically ten years or more, may have the case dismissed as well.

All participants agree to the same treatment mandate, involving at least eleven months of participation, divided into three phases of treatment. Phase One requires sixty days of drug-free and compliant time. Phase Two requires five months of general compliance. Phase Three requires four consecutive months of drug-free and compliant time. In the earlier two phases, the primary expectation is compliance (e.g., efforts to maintain abstinence, attending treatment, attending all scheduled court appearances, and avoidance of warranting). Phase Three is the only phase officially requiring an extended consecutive drug-free period. However, staff at Bronx indicated that in practice, participants rarely advance to Phase Three without at least a three-month period of abstinence immediately preceding the Phase Three promotion. In an interview, the BxTC judge clarified that early positive drug tests for heroin or cocaine will be taken more seriously than for marijuana, particularly given that once abstinence begins, marijuana takes longer to leave the body's system (about thirty days). Besides the above time requirements, graduates must be working, in a full-time training program, in school, or with a Supplemental Security Income (SSI) application pending.

The Case Management and Treatment Model

BxTC employs a unique case management and treatment model involving close, institutionalized ties with a core group of ten treatment providers. These providers doubly serve as the primary providers of treatment and also as the onsite clinical assessment team. Nine of these ten providers run outpatient programs. One runs a mother-child outpatient program for female participants with children, and a second also focuses on women. Two of the outpatient providers run methadone-to-abstinence programs for participants needing to detox off methadone. Only three of the ten run residential programs, with some providers running both inpatient and outpatient programs.[2]

On a philosophical level, the low proportion of residential core programs reflects the BxTC preference to use an outpatient modality when possible. Since the drug court presents itself as an alternative to incarceration, the overall philosophy is to provide a community-based alternative in practice, enabling participants to continue living at home if at all possible. BxTC will generally refer to a thirty-day inpatient rehabilitation program or to residential only if the participant first tries outpatient and encounters problems, or if the participant is homeless at the time of intake. In addition, referrals for residential treatment will always be made at the request of the participant.

Treatment liaisons from each core provider come to the court regularly on different days of the week, assessing new defendants, finding a suitable placement, and reporting to the court on the progress of participants already enrolled in their programs who are scheduled for court appearances. The liaisons tend to place participants they assess in their own programs, but this does not always occur if the clinical needs of the participant dictate a different placement. The final placement decision is made in a case conference including the treatment liaison, a court-employed case manager (see below), and either the project director (who directs the drug court's operations and supervises all non-court staff) or the community treatment coordinator (who coordinates offsite treatment services).[3] Besides the core provider group, BxTC has ties with two

[2] At the time of the release of this report, Bronx now works with seven core providers.

[3] The community treatment coordinator position existed at the time of our site visit but has been vacant since February 2003.

MICA treatment providers serving dually diagnosed participants. Also, several residential providers are available outside the core group, and these additional providers, numbering five as of February 2002, occasionally send a liaison to the court.

The relationship with a core provider group enables BxTC to achieve exceptionally rapid placement time, usually within one day of an agreement to participate (see Chapter Four). Overall, BxTC has the shortest median and average times from intake to placement of the eleven drug courts analyzed in this report. This finding reflects the combined impact of an efficient, automatic screening process and of BxTC's treatment and case management model.

BxTC also has two case managers who work directly for the drug court. They connect new cases with a treatment liaison to perform assessments or perform assessments themselves when no liaisons are available. They also serve as the communication link between treatment programs and the court. One case manager focuses specifically on outpatient cases, while the other focuses on residential cases. These case managers are always available if a participant wants to meet with them about a problem, although unlike case managers at most other New York State drug courts, they do not meet with participants *regularly*.[4]

Judicial Supervision

BxTC requires appearances before the drug court judge twice per month in Phase One and once per month in subsequent phases. The judge administers a system of rewards and sanctions. Every morning, the judge, the judge's law clerk, a dedicated Legal Aid attorney, and a representative from the D.A.'s office attend a case conference to discuss each case on the day's calendar. This conference usually ends in decisions related to phase promotion, sanctions, or other compliance issues. BxTC has a formal sanctions schedule indicating which infractions or sequences of infractions should lead to particular types of sanctions, but from interviews with staff, it is clear that BxTC views this schedule as advisory in nature, so it should not be assumed that individual decisions adhere to it.

During court appearances, the judge, the Honorable Laura Safer-Espinoza, has a conversation with each defendant, typically observing any progress or noncompliance and sometimes asking questions about how treatment is going or why there has been a problem. The judge often expresses disappointment to noncompliant participants and stresses that they should not commit the same infraction again. From observing court and speaking with Judge Espinoza, it is apparent that she employs an even, low-key style with all participants, including those who are doing poorly. She explained that she considers it important to remain respectful of *all* participants and of their potential to do well, especially given that many of them have not been treated well for much of their lives. She also commented that she tries in court not to look down at her notes; through preparation in the morning case conference, she becomes fully acquainted with each case. Judge Espinoza's high level of effectiveness is indicated by the BxTC process evaluation (Porter 2001). It reported that a sample of 69 participants found "praise from the judge" (average utility rating of 4.5 out of 5.0) and "direct interaction with the judge" (average utility rating of 4.3) as two of the three most useful drug court policy components.

Participants can fail the drug court due to repeated noncompliance, a new arrest, or opting-out voluntarily. Typically, a participant will *not* fail due to noncompliance unless terminated from an outpatient program and from at least two inpatient programs. Also, as a policy matter, a

[4] Please note that as of the mid-2003 issuance of this report, BxTC currently employs three, rather than two, case managers, one senior case manager and two case managers.

disappearance on a warrant for more than a year will automatically lead to program failure. A new arrest may or may not lead to failure depending on specifics of the new case.

Research Design and Methodology

The methodology for the BxTC impact evaluation is generally consistent with what was described in Chapter Eleven for the evaluations of all six courts. However, there were important differences in the implementation of propensity score matching techniques in the Bronx. These and other details of the BxTC research design are described below.

Definition of the Comparison Sample

The initial comparison group was drawn from all defendants arrested in the Bronx on a top charge of criminal sale of a controlled substance in the third degree, a B-felony, in the four months prior to the opening of the drug court in March 1999. The reason for limiting the comparison group to this charge is that it is the predominant charge among actual BxTC participants, accounting for 90% of participant cases. By contrast, in Bronx overall, that charge accounts for only 76% of drug felony arrests. This means that if the comparison sample had been drawn evenly from *all* drug felony arrests during the same time period, the sample would have under-represented the key criminal sale in the third degree charge. Also, only 2% of actual BxTC participants were arrested on *any* non-sale drug charge, indicating the importance of excluding drug possession felonies from the comparison sample.

The initial sample excluded defendants younger than age 19, those with a prior felony conviction, and those for whom the instant case did not result in a conviction. This was to match additional aspects of the BxTC paper eligibility criteria. Notably, although nearly all BxTC participants pled guilty to a felony, the comparison group *included* defendants with their final disposition charge reduced to a misdemeanor. Of defendants in fact screened by BxTC, 4% were found ineligible due to a charge reduction to a misdemeanor. Yet, 24% of comparison group defendants had their charges reduced. This second statistic means that under conventional prosecution, 24% of felony drug arrests in Bronx were ultimately convicted at the misdemeanor level. The difference between these two statistics led us to infer that some portion of defendants who agreed to the required felony plea needed to enter drug court would have, without drug court, most likely had their charges reduced to a misdemeanor. Hence it would have been inappropriate to limit the comparison sample to felony pleas only. The initial comparison sample had 374 defendants.

Definition of the Participant Sample

The initial drug court participant sample included all 375 participants available for at least a two-year post-arrest recidivism analysis. Since recidivism data was available through June 2002, all participants in the sample had to have been arrested by June 2000 (at least two years earlier).

Implementation of a Propensity Score Weighting Methodology

Statistical analyses proceeded as described in Chapter Eleven, but led ultimately to a modification of the propensity score techniques used in the other five impact evaluations below. The first step was to compare the initial samples on all available and relevant background characteristics. The purpose of this comparison was to determine whether the initial drug court participant and comparison samples differed significantly in any important respects (basic

Table 12.1. Logistic Regression Model Predicting BxTC Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	747
Participants	375
Comparison Group Candidates	372
Chi-square for model	9.769**
Logistic Regression Coefficients	
Prior drug conviction(s)	.307+
Male sex	-.424*
Constant	.251

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether the defendant is a BxTC participant or comparison group candidate. The two variables included in the model were the only ones significant at the .10 level or better in separate bivariate comparisons (see Table 12.2).

demographics, criminal history, etc.). Accordingly, the samples were compared on the following background characteristics: prior misdemeanor conviction (y/n), prior drug conviction (y/n), sex, age, and race/ethnicity (divided into black, Hispanic, and other). In contrast to the five other impact courts, there was no need to compare on a current arrest charge variable since all but 2% of drug court participants, and all comparison group candidates, were arrested on a *drug sales* charge.

Bivariate comparisons revealed that participants were disproportionately likely to be female ($p < .05$) and to have a prior *drug* conviction (not significant, but $p < .10$), but there were no other significant differences. In other words, the *initial* comparison sample already provided a close match to the characteristics of actual BxTC drug court participants. Thus only sex and prior drug conviction status were entered into the logistic regression model predicting the probability of drug court participation. Two comparison group defendants were excluded at this point due to missing information for sex. Thus a total of 747 defendants were in the regression model, 375 participants and 372 comparison group candidates. Table 12.1 gives the regression coefficients and significance levels.

Since only two dichotomous variables entered the regression model (sex and prior drug conviction(s)), *there were only four possible propensity scores*. Deviating from the approach described in Chapter Eleven and applied to the five other impact courts, this led to a decision to retain the initial participant and comparison samples *in full* but to assign to those comparison group defendants with each of the four propensity scores a different relative *weight*. The impact of weighting was to make the cumulative weighted size of the comparison group within each propensity score equal to the size of the participant sample with that same score.

To illustrate the weighting process, there were initially 193 participants and 234 comparison group defendants with the lowest of the four possible propensity scores. So each of the 234 comparison defendants with that score was assigned a weight of .8247863, making the cumulative weight of the comparison sample exactly equal to the weight of the 193 participants with that propensity score (234 * .8247863 = 193). This weighting technique achieved the same

Table 12.2. Baseline Characteristics of Bronx Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	(N = 375)	(N = 374)	(N = 375)	(N = 372)	
Prior misdemeanor conviction(s)	41%	37%	41%	42%	-3%
Prior drug conviction(s)	28%	22%+	27%	27%	-6%
Male sex	71%	79%*	71%	71%	-8%
Average age	31.9	30.7	31.9	31.1	-0.4
Race/ethnicity					
Black	49%	43%	49%	45%	-2%
Hispanic or other	51%	57%	51%	55%	-2%

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: The pre- and post-matching samples are virtually identical, since the only reason for excluding a participant in the final sample is if there was missing data on one or more of the variables included in the regression model predicting participation (see Table 12.1). The difference is that the final comparisons weight comparison group defendants based on their propensity score.

general effect that propensity score matching achieved in the other impact evaluations – namely, using propensity scores to generate greater comparability between the final samples. The Bronx approach carried the additional advantage of retaining all available information by not removing any comparison group defendants from the final sample.

Table 12.2 compares the participant and comparison samples on all characteristics both before and after implementation of propensity score weighting. After weighting, there were no significant differences at all between the samples (see Table 12.2, right columns). Hence the final participant and comparison samples were highly comparable.

Post-Program Methodology for BxTC

As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the *post-program* analysis. First, it takes drug court graduates one to two years to complete the program and an additional year of post-program time before analysis can be performed. Second, BxTC failures are usually sentenced to 2-6 years in prison, and their post-program count cannot begin until their release. Hence they also may not, as of the analysis date, have achieved the requisite year of post-program time. Finally, a number of participants had not, as of the analysis date, reached final status (graduation or failure). As Chapter Eleven explains, it is important to have an accurate ratio of program graduates to failures in the available participant sample. This is because graduation / failure status strongly predicts recidivism (graduates are far less likely and failures more likely to recidivate); hence if the ratio of graduates-to-failures in this analysis is factually incorrect, the recidivism outcomes obtained when averaging *all* participants in the sample may be skewed one way or the other.

In order to investigate and correct for biases, the final status of all program participants in the impact sample was determined as of November 3, 2002, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were utilized to *predict* whether they were more likely to graduate or fail. The prediction model was

derived from the predictors of drug court failure analysis reported in Chapter Nine.[5] Significant predictors were entered into a new logistic regression model predicting graduation. This new model *only* included the 375 cases from the final participant sample used for the impact analysis. Significant predictors included age, employment/school status, primary drug, and whether the participant warranted within thirty days of drug court entry. The resulting equation was as follows:

LOGODDS(graduation) = (.034 * AGE) + (.011 * EMPLOYED) + (-1.018 * PRIMDRUG-HEROIN) + (.327 * PRIMDRUG-CRACK) + (.892 * PRIMDRUG-MARIJUANA) + (-.863 * WARR30) + (-.499).

This equation was used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). In other words, we used available baseline information about each participant to *estimate* whether graduation or failure was the more likely program outcome. The resulting probabilities were then used to estimate the final program status of those participants who had not yet completed drug court as of the analysis date. Of 375 participants in the impact sample, 48 (12.8%) had not reached final status as of that time. Hence we used our estimation method to impute graduation / failure status to these 48 BxTC participants. Of these, if the predicted probability of graduation generated by the above equation exceeded 50%, the participant was predicted to be a graduate; if the probability was less than 50%, the participant was predicted to be a failure. At this point, a BxTC graduation rate could be produced, combining what was factually known about 327 (87.2%) participants from the sample with what was predicted for the final 48.

The resulting estimated graduation rate was 51.7%. This graduation rate applied to the full participant sample (N = 375). However, only 132 participants were available for the one-year post-program analysis, 94 graduates and 38 failures. As these numbers make clear, the available sample includes a disproportionately high number of graduates and a disproportionately low number of failures. Accordingly, these graduates and failures were adjusted; the 94 graduates were weighted so as to contribute 51.7% towards all post-program recidivism outcomes for participants, and the 38 failures were weighted so as to contribute 48.3%. This process ensures that the average recidivism rates ascribed to all BxTC participants would not be biased based on the disproportionately high number of graduates who happened to have accumulated enough post-program time for inclusion in the one-year post-program recidivism analysis.[6]

Impact on Post-Arrest Recidivism

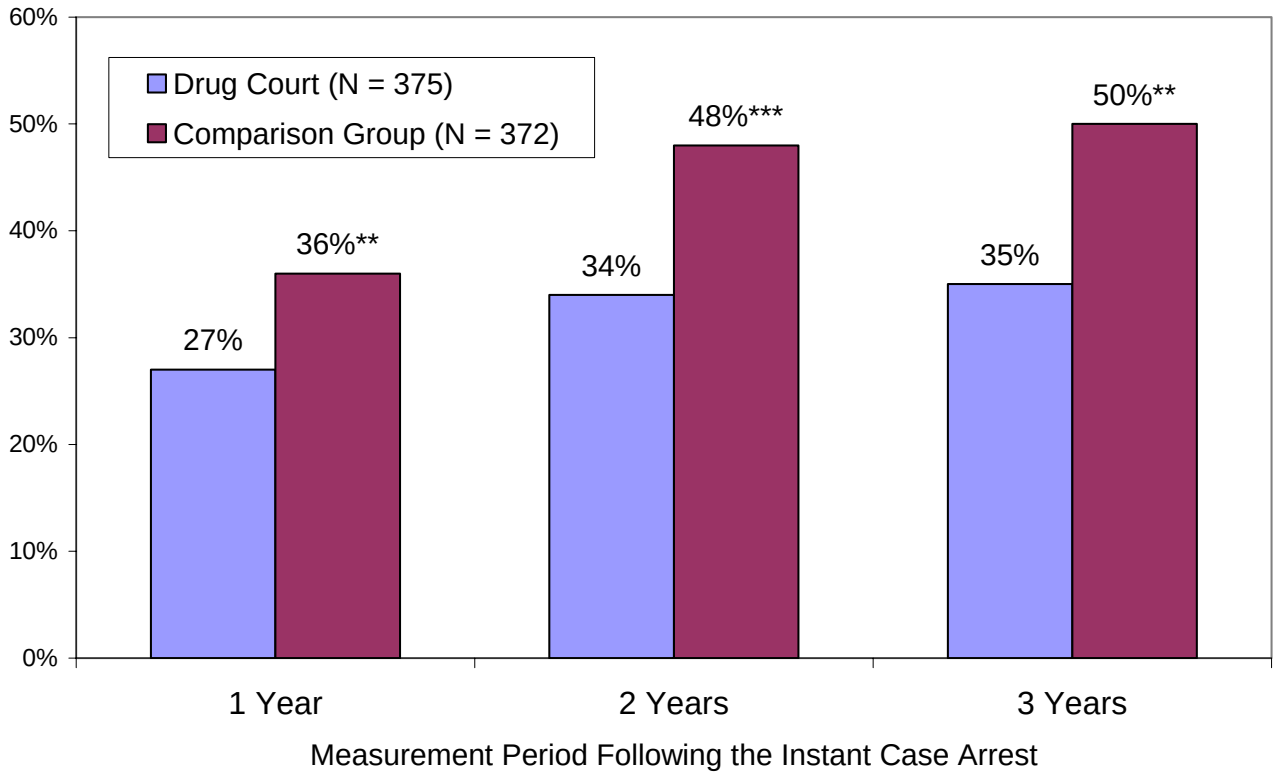
Bivariate Comparisons

As shown in Figure 12.1, BxTC generated significant reductions in recidivism up to three years after the initial arrest ($p < .01$ or better for all comparisons). After one year, 27% of drug court participants versus 36% of the comparison group had a new conviction; after two years, the

[5] Possible predictors were sex, age, race, employment/school status at intake, high school graduation status, primary drug of choice, prior treatment episode(s), first treatment modality in the drug court, prior conviction(s), and whether the participant disappeared on a warrant within 30 days of drug court entry.

[6] To proportion the 94 graduates and 38 failures according to the estimated graduation rate, all graduates received a weight of .726, and all failures received a weight of 1.6777894. As these numbers make clear, without implementation of a weighting methodology, graduates would have been greatly and improperly over-represented in post-program analyses, which would have created biased recidivism results.

Figure 12.1. Impact of BxTC on Recidivism within Three Years of Initial Arrest
(Percentage with a New Arrest Leading to a Conviction)



+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)
Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later. At 3 years, drug court participants were only available that entered by June 1999. Thus the 3-year drug court N declines to 141; comparison group N remains 372.

difference was 34% versus 48%; and after three years, the difference was 35% versus 50%. As a different way of framing the results, the three-year difference means that the drug court generated a 30% relative recidivism reduction compared with the comparison group level.

Table 12.3 compares the drug court and comparison group on additional recidivism measures after three years post-arrest. When examining the total *number* of recidivist convictions, the comparison group had almost twice as many (0.68 versus 1.20). However, of those with at least one new conviction, the results did *not* show a meaningful difference in the average *time* to first re-arrest leading to a conviction. Thus the drug court generated about half as much recidivism, but of those who did recidivate, drug court recidivists did not remain crime-free for any longer.

The results further show that BxTC generated comparable, significant reductions in the probability of felony, misdemeanor, and drug-related re-offending (although only meeting a .10 significance threshold for felony recidivism).

Adding detail to the examination of specific recidivist charges, Table 12.4 compares the relative prevalence of various charges only among those with at least one reconviction within three years. First, reconvictions were for drug offenses about the same proportion of the time

Table 12.3. Impact of BxTC on *Post-Arrest Recidivism*

Recidivism Measure	Drug Court	Comparison Group
Recidivism within 3 Years Post-Arrest	(N = 141)	(N = 372)
Average days in-program for participants	588	n/a
Any new conviction	35%	50%**
Any felony conviction	19%	27%$^{+}$
Any misdemeanor conviction	26%	36%*
Any conviction for drug offense	30%	40%*
Average number of convictions	0.68	1.20**
Of those with at least 1 new conviction:	(N = 50)	(N = 180)
Days to first new arrest (led to conviction)	244	267

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 1, 2, or 3 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time.

Table 12.4. Types of Charges in Recidivism Cases:

Top Disposition Charge in the First New Arrest Leading to a Conviction within Three Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Three Years	50 (35% of sample)	180 (50% of sample)
Top Disposition Charge		
1. Drug Charges	***70%***	***72%***
Felony drug sales	*28%*	*29%*
Felony drug possession	*2%*	*1%*
Misdemeanor drug possession	*36%*	*39%*
Misdemeanor marijuana sales	*4%*	*3%*
2. Property Charges	***18%***	***11%***
Robbery, burglary, or grand larceny	2%	1%
Petit larceny, theft, criminal possess. of stolen property, trespass, or criminal mischief	16%	10%
3. Other Violent Charges	***2%***	***8%****
Sexual misconduct	0%	1%
Felony assault	0%	1%
Misdemeanor assault	0%	5%**
Criminal possession of a weapon	2%	1%
4. Prostitution	***2%***	***2%***
5. Other (includes criminal facilitation, menacing, forgery, harassment, criminal contempt, obstructing govt. admin., prison-based offenses, gambling, and lewdness)	***8%***	***8%***
Total	***100%***	***100%***

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: One participant case with a new arrest leading to a conviction is missing charge data.

Table 12.5. Multivariate Results Predicting the Impact of BxTC on Recidivism within Two and Three Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions[1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	2 Years	3 Years	2 Years	3 Years
Total Sample Size	745	513	745	513
Drug Court	373	141	373	141
Comparison Group	372	372	372	372
	Odds Ratios:		*Regression Coefficients:*[3]	
Drug court participant	.592***	.555**	-.506***	-.458**
Prior misdemeanor conviction(s)	3.065***	3.228***	.744***	.722***
Male sex	1.055	1.082	-.997	-.707
Age	.978**	.978*	-.661*	-.583
Black race[4]	.908		.364	

+ p<.10 *p<.05 **p<.01 ***p<.001

[1] The dependent variable is whether there was at least one new arrest within the measurement period (2 or 3 years) that led to a conviction.

[2] The dependent variable is the total number of new arrests within the given measurement period (2 or 3 years) that led to a conviction. A poisson regression specification was rejected, since the variance was more than two times greater than the mean at 2 years and more than three times greater than the mean at 3 years.

[3] Numbers in parentheses represent the regression coefficient divided by the standard error.

[4] The race variable was omitted from the regression at 3 years, given its insignificance in the 2-year regression and to avoid excessive collinearity among the independent variables.

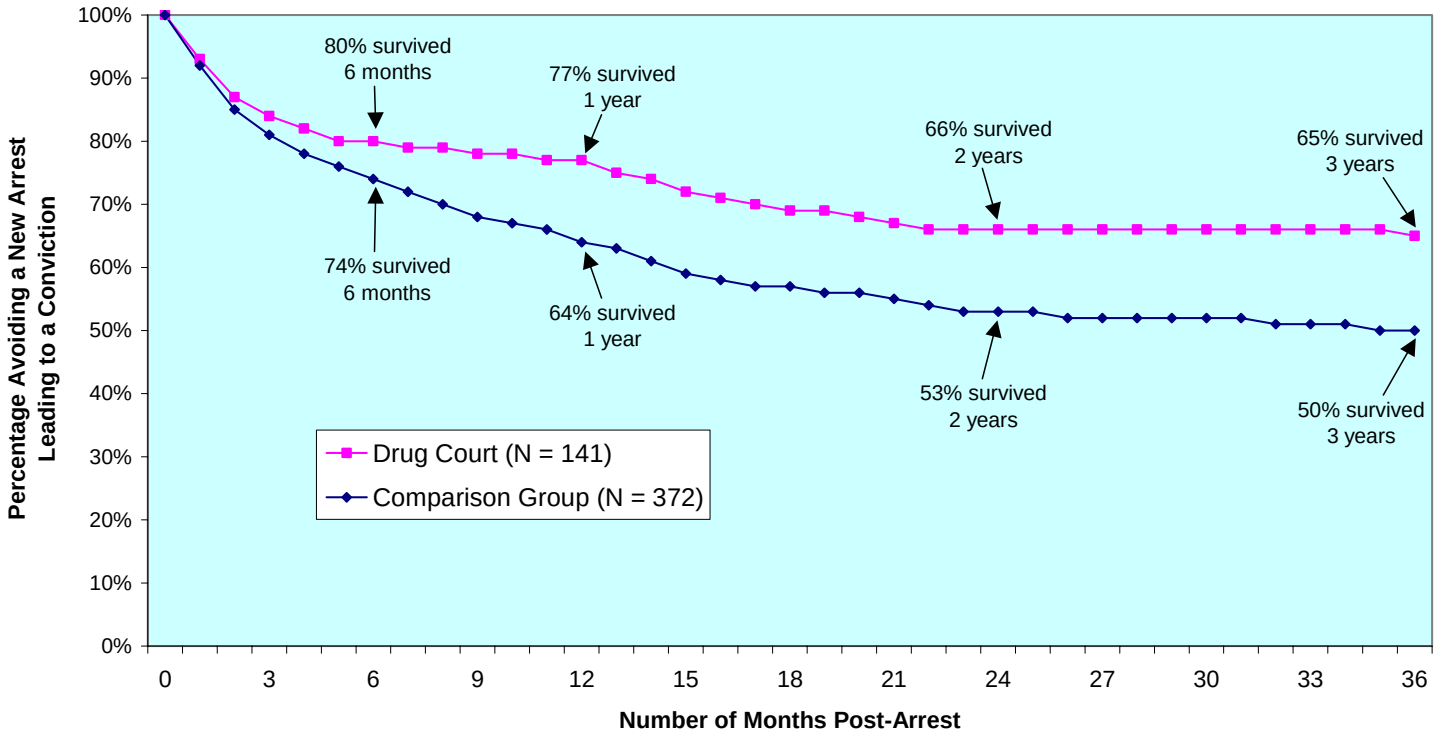
among participant and comparison group recidivists. Distinguishing the samples, however, new participant offenses were somewhat more often for property crimes (although this difference did not reach statistical significance); and new comparison group offenses were more often violent ($p < .05$), particularly with respect to misdemeanor assault ($p < .01$).

Multivariate Comparisons

Since significant differences did not exist between the final (weighted) samples on any observed characteristics, the propensity score weighting methodology succeeded in making multivariate methods unnecessary to verify the existence of an independent drug court effect. Nonetheless, multivariate techniques still supply important information by revealing the full range of factors, besides drug court participation status, that predict defendant recidivism. Accordingly, multivariate analyses were conducted to measure both the probability of at least one reconviction (logistic regression analysis) and the total number of reconvictions (negative binomial regression analysis) at two and three years post-arrest. (See Table 12.5.)

All multivariate models confirm the strong impact of the drug court. In addition, prior conviction status (always prior misdemeanors in Bronx) and younger age consistently predicted greater recidivism. Moreover, the regression coefficients suggest that despite the substantial impact of the drug court in generating reduced recidivism, prior criminal behavior was an even more powerful predictor.

Figure 12.2. Survival Curve:
Survival of BxTC Drug Court versus Comparison Group Defendants Up to Three Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .001 level (p = .0000 for Wilcoxon statistic).

Survival Analysis

Figure 12.2 presents survival curves for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. The results show that the greatest risk to survival for both groups was during the first six months post-arrest. By that point, for both drug court participants and the comparison group, more defendants failed to survive than the additional number that failed to survive over the subsequent thirty-month period. For drug court participants in particular, the nature of the survival curve suggests that participants are most vulnerable in the first six months after the initial arrest – prior to fully engaging in the drug court treatment process.

With respect to how the survival trajectories differed between the two groups, their divergence largely occurred in the course of the first year post-arrest, such that after one year, 77% of participants but only 64% of the comparison group had survived (avoided re-arrest). Between one and three years, the disparity between the groups remained approximately the

Table 12.6. In-Program Versus Post-Program Recidivism Among BxTC Participants

Measurement Period	In-Program	Post-Program
Length of Measurement	Mean = 357 Days	One Year
Sample: Same Sample in Both Periods	N = 132	N = 132
No new conviction	70%	84%**
Any new conviction	30%	16%
One (1)	21%	9%
Two (2)	3%	4%
Three (3) or more	6%	3%
Average number of new convictions	0.49	0.41
New conviction rate (convictions/year)[1]	0.74	0.24**

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)

Note: The new arrest must have occurred within the given measurement period (in-program or 1 year post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures. Drug court graduates and failures were weighted based on an estimated drug court sample graduation rate of 51.7% (see discussion in text). That is, graduates combined to contribute .517 of the drug court total results, and failures combined to contribute .483 of the total. To be included in the sample, a participant had to be available for a one-year post-program analysis. Paired samples t-tests were not conducted for each specific number of new convictions (1, 2, or 3 or more).

[1] Six outliers were deleted due to an in-program rate far higher than 10, and two were deleted due to a post-program rate of 14 as compared to a maximum of 3 among all others. One defendant was an outlier on both measures, meaning that only 7 total outliers were in fact omitted.

same, and ended up increasing just slightly to 15% at the three-year mark (65% versus 50% surviving). Since the two trajectories never converge, and both curves level off by the third year – i.e., few additional defendants have their first re-arrest between the second and third years, this suggest a long-term impact of the drug court, likely to last well beyond the period measured.

Impact on Post-Program Recidivism

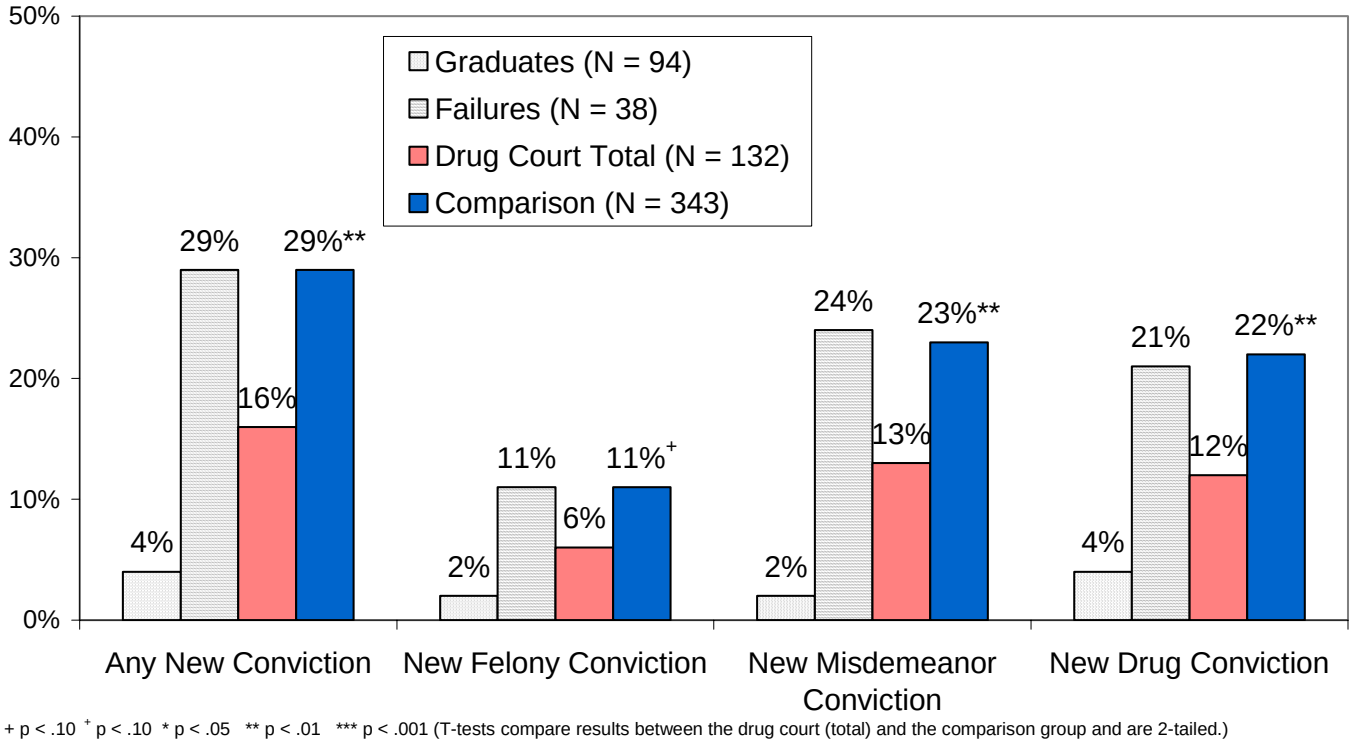
This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to ascertain more clearly whether the positive impacts of BxTC in fact persist after the drug court mandate ends and participants are re-released into the community. As explained in Chapter Eleven, the post-program measurement period begins on the graduation date for drug court graduates, on the jail or prison release date for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

In-Program Versus Post-Program Recidivism

The hypothesis driving this analysis was that the drug court would prove particularly effective at reducing recidivism while participants were subject to the stringent judicial monitoring that accompanies in-program time, but that the impact would diminish once

Figure 12.3. Impact of BxTC on One-Year *Post-Program* Recidivism
(Percentage with New Arrest Leading to a Conviction)



+ p < .10 + p < .10 * p < .05 ** p < .01 *** p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)
Note: The new arrest must have occurred within one year post-program, although the conviction may have occurred later. To compute the drug court total, graduates and failures are weighted as described in the text.

participants were no longer under direct court supervision. Accordingly, we compared in-program and post-program recidivism for participants only, including all participants available for the one-year post-program analysis. The measurement periods were almost identical, since average in-program time was 357 days; and all participants were tracked over a 365-day (one-year) post-program period.

The results are in Table 12.6. Paired samples t-tests were performed to determine whether recidivism differed significantly between the two measurement periods. Contrary to expectations, recidivism was significantly more common during the in-program, not the post-program period. Whereas 70% of participants were crime-free during the in-program period, 84% were crime-free in the post-program period ($p < .01$). Other measures yielded similar findings of somewhat greater recidivism during the *in-program* period. As the above survival curve further demonstrates (Figure 12.2), in-program recidivism occurs mainly during the first six months post-arrest, not during the latter part of drug court participation.

The results therefore did not confirm the expectation that recidivism would increase once drug court program participation ended. The results were, however, quite consistent with those reported above for the survival analysis, which indicated that the gap between participant and

Table 12.7. Odds Ratios from the Logistic Regression Predicting a New Arrest Leading to a Conviction within One Year Following Program Completion

Post-Program Measurement Period	1 Year
Total Sample Size	474
Drug Court	132
Comparison Group	342
Chi-square for model	32.429***
Odds Ratios:	
Drug court participant	.452**
Prior misdemeanor conviction(s)	2.233***
Male sex	.497**
Age	1.003
Black race	.760

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether there was at least one new arrest within one year that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, the estimated release date from jail or prison for failures, and the estimated release date or disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted as described in the text.

comparison group recidivism *widened* – indicating a *greater* impact as more time elapsed – over the three year post-arrest measurement period.

Impact of BxTC on Post-Program Recidivism

Figure 12.3 illustrates the impact of drug court participation one year after program completion. Participant results are further sub-divided by final program status (graduate or failure). The results demonstrate that the drug court generated a substantial reduction in post-program recidivism. Whereas 29% of the comparison group recidivated within a year of exiting the criminal justice system, only 16% of participants recidivated in this time ($p < .01$). Hence BxTC generated a 45% post-program recidivism reduction relative to the initial comparison group level of 29%. Also, BxTC participants were less likely to engage in each specific type of re-offending ($p < .01$ for misdemeanor and drug-related offenses; and $p < .10$ for new felony offenses).

Figure 12.3 also includes a breakdown of drug court participants by final program status. Only 4% of graduates as compared with 29% of failures had a new conviction within one year post-program; and graduates were far less likely than failures to engage in each specific type of re-offending displayed in the figure. Essentially, the post-program recidivism of BxTC failures and the comparison group was nearly identical on all measures. Thus the benefits of the drug court appear to be primarily experienced by those who successfully complete the program.

As shown in Table 12.7, when controlling for other factors in a logistic regression, drug court participants remain significantly less likely than the comparison group to re-offend. In addition, as in the post-arrest analyses, defendants with at least one prior misdemeanor conviction are

Table 12.8. Impact of Drug Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage Reduction in Recidivism
Sample Group	Drug Court	Comparison	
Sample Size	141	372	
1. Prior Misdemeanor History			
No prior misdemeanor conviction	28%	38%	26%
Prior misdemeanor conviction(s)	45%	66%**	32%
2. Age			
Younger offenders (ages 16-25)	37%	48%	23%
Older offenders (ages 26 and higher)	35%	51%**	31%
3. Sex			
Female	35%	48%	27%
Male	35%	51%*	31%

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)
Note: All percentages are simply the percentage of defendants in the given subgroup with at least one new arrest within the given measurement period that led to a conviction.

substantially more likely than others re-offend (odds ratio = 2.233); however, unlike in the post-arrest analysis, the impact of age is not significant when isolating recidivism during the post-program period. Also, defendant sex has a significant impact, with the odds of post-program recidivism just over two times higher for women as compared with men.

Impact on Recidivism for Select Offender Subgroups

Results in the two previous sections indicate that, overall, BxTC led to reduced recidivism, but these results do not address whether certain *categories* of defendants perform particularly well. Accordingly, Table 12.8 examines drug court impacts within three years of the initial arrest separately for defendants in several key subgroups: with and without prior misdemeanor convictions, older and younger defendants, and male and female defendants.

From inspecting the percentages in the rightmost column of Table 12.8, the drug court appears to have a relatively comparable impact across all defendant subgroups. The impact appears just somewhat greater in magnitude for participants *with* priors rather than without; and for participants who are older (ages 26 or older). Since prior conviction status and age are inter-correlated (pearsons's R = .217), it is difficult to interpret these two results without further multivariate analysis. Thus a logistic regression was performed predicting recidivism at three years post-arrest (results not displayed). The model included participation status, age, prior misdemeanor conviction(s), and two interaction terms: participation status*age and participation status*prior misdemeanor conviction(s). The first interaction term was designed to measure whether older defendants performed better in the drug court relative to younger ones; and the second interaction term was designed to measure whether defendants with priors performed better relative to those without priors. The interaction term for age had a significant impact ($p < .05$), but the interaction term for priors did not. This indicates that when controlling for all

relevant characteristics, older drug court participants performed particularly well; but no other subgroup differences were significant.

Summary

The Bronx Treatment Court generated a significant 30% reduction in recidivism within three years after the initial arrest; and generated an even greater 45% reduction when isolating the one-year post-program timeframe. Impacts were particularly pronounced for drug court graduates, as only 4% of graduates were reconvicted within the one-year post-program. On the other hand, drug court failures and the comparison group had an identical post-program recidivism rate (29%). The drug court also generated comparable reductions in felony, misdemeanor, and drug-related recidivism. With respect to whether certain categories of participants performed better than others, BxTC appeared somewhat more effective with older than younger defendants.

Chapter Thirteen
Impact Evaluation of the Brooklyn Treatment Court

The Brooklyn Treatment Court (BTC) opened in June 1996 as a demonstration project implemented by the Center for Court Innovation in collaboration with the New York State Unified Court System, the Brooklyn District Attorney's Office, the Legal Aid Society, and the City of New York. The Center for Court Innovation is a nonprofit organization specializing in the planning, development, and research of "problem-solving courts," such as drug courts, which seek to address the underlying problems faced by defendants, victims, and communities.[1] The Brooklyn Treatment Court was the first drug court to open in New York City. With 2,217 participants enrolled through December 2002, only Rochester's drug court has enrolled more participants in the state.

BTC serves defendants arrested on drug felony charges without any record of violence. From June 1996 through August 2000, BTC only accepted defendants arrested in three of five geographic arrest zones of Brooklyn. Although BTC has since expanded to the two remaining zones, because it limited eligibility to three-fifths of Brooklyn during its early years, its impact evaluation could utilize a *contemporaneous* research design. The evaluation compares BTC participants arrested in 1997 and 1998 to a comparison group consisting of similar drug felony defendants arrested in 1997 but *not* screened by the drug court – usually due to an arrest in one of the ineligible zones.[2] Analyses compare recidivism up to four years after the initial arrest and up to two years after program completion (or an equivalent period for the comparison group). As a result of the long tenure and high volume of the BTC program, these measurement periods are both one year longer than those available for the other impact drug courts, except Rochester which has the same measurement periods as BTC.

This chapter first reviews the BTC drug court model. After summarizing results from an earlier impact evaluation (Harrell, Roman, and Sack 2001), this chapter then describes specifics of the evaluation methodology used here and all post-arrest and post-program results.

The Brooklyn Treatment Court Model

Screening and Eligibility

Defendants are *paper eligible* if arrested on drug felony charges within three of five geographic arrest zones of Brooklyn until September 2000 and within any zone thereafter. The most serious A-1 and A-2 level felonies are excluded; those charges account for an extremely small percentage of drug felony cases, less than 3.5% from 1998 through 2000.

[1] By way of full disclosure, five of this report's coauthors work for the Center for Court Innovation, and one formerly had an onsite research position at the Brooklyn Treatment Court. All of the Center coauthors are members of the organization's research department, and none contributed to the planning or implementation of the Brooklyn Treatment Court.

[2] As discussed below, certain defendants from the three BTC-eligible zones could also be included in the comparison group. This applied to cases where a "paper eligible" defendant was not routed to BTC for further screening due to technical oversight at the point of arraignment.

With respect to criminal history, defendants cannot have a prior violent felony conviction and cannot have any pending violent charges (felony or misdemeanor). Until September 1998, BTC also excluded defendants with a prior violent *misdemeanor* conviction. Since this study uses a 1997 comparison group, the prior misdemeanor violence exclusion applies when identifying appropriate comparison defendants. Also, during its first seven months of operation, BTC excluded defendants with any prior *nonviolent* felony conviction (predicates), but these defendants were admitted beginning January 1997. Over time, an agreement emerged between BTC and the Brooklyn District Attorney's Office that *male* defendants with a nonviolent prior felony conviction would be referred to the D.A.'s Drug Treatment Alternatives to Prison (DTAP) program instead of BTC. DTAP mandates participants to eighteen months of treatment but, unlike BTC, DTAP does not incorporate intermediate judicial sanctions and rewards during the participation process. Also, the D.A.'s office exerts greater control over eligibility, graduation, and failure criteria; as well as over case-by-case decisions on whether participants may be re-referred to another community-based treatment program after dropping-out of a previous program (see CASA 2003; and Swern 2001). The dividing of defendants between BTC and DTAP leads BTC to screen a lower percentage of all defendants with a prior felony conviction than their overall percentage in Brooklyn's drug felony defendant population.

As of September 2000, defendants younger than age 19 were no longer considered paper eligible, although these defendants could still enter drug court through an informal referral process if the defendant and defense attorney expressed an interest. Since the present study draws on 1997 and 1998 entrants, this new restriction does not have any evaluation implications; that is, 16-18 year-old defendants are *included* in the impact analysis.

BTC establishes paper eligibility through an automatic screening process beginning at arraignment. There, paper eligible cases are identified and referred to BTC for legal and clinical screening on the next business day. The legal screening, conducted by a dedicated A.D.A. assigned to BTC, is to determine whether the case involves heavy trafficking (e.g., if a defendant is caught possessing more than $4,000 of illegal drugs), as opposed to sales to support a drug habit, whether the sale occurred inside a store, and whether the sale was near school property during school hours. Through June 2002, the A.D.A. found 17% of paper eligible cases legally ineligible for these reasons. Also, in 3% of cases, the A.D.A. found the defendant ineligible because the criminal case appeared too weak to sustain a conviction on an eligible drug charge.

Typically, the clinical screening occurs later on the same day for those cases found legally eligible. Its purpose is to determine whether the defendant has a discernible drug addiction and whether certain other criteria are met, such as U.S. legal residence, no severe co-occurring physical or mental illness (although only the most severe cases are excluded), and no methadone use in excess of 80 milligrams per day. This screening is based on an approximately 45-minute psychosocial assessment conducted by one of BTC's onsite case managers. An exception concerns defendants younger than age 22, who in the first two years of the program were found to have an addiction in only a small proportion of cases. Thus in July 1998, BTC began administering to these defendants only a brief, five-question screen and a drug test. Case managers would proceed to the full assessment only if the screen or drug test revealed the possibility of an addiction.

Through June 2002, case managers found 32% of all screened defendants ineligible for not having an addiction and found 11% ineligible for one of the other reasons noted just above. Also, of those defendants whose eligibility determination was solely a function of the presence or absence of an addiction (i.e., not counting those found ineligible for any other reason), 51% of

this group was found *not* addicted. In explaining this relatively high percentage of defendants found not addicted, a key factor has to do with the BTC policy to exclude those addicted to marijuana only. Participants may list marijuana as their *primary* drug of choice, but BTC will only admit those who also use a "hard" drug, usually heroin or some form of cocaine. As discussed in Chapter Two, BTC was the sole one of twenty-nine New York State drug courts to exclude "marijuana only" defendants. In April 2003, BTC began admitting these defendants as part of a new "Young Adult Program."

Of those found to use an illegal drug other than marijuana (usually heroin or cocaine), BTC case managers carefully assess for a drug *addiction*, not merely casual *use*. These policies lead BTC to focus resources on a seriously addicted population. This can be seen in findings that the median duration of drug use is 18 years and the primary drug of choice is heroin, crack, or cocaine for 78% of participants, in both cases the highest figures of the eleven drug courts analyzed in this report.

The final reason that a paper eligible defendant may not end up participating is treatment refusal. Through June 2002, only 7% of all screened defendants refused treatment, either before the clinical assessment or after a finding of eligibility. Of the smaller subgroup assessed and actually found eligible, only 11% of this group refused treatment. The low percentage of refusals among actual participants means that the BTC evaluation is unlikely to be biased by disproportionately high "would-be" refusals appearing in the comparison sample. This bias arises in those non-random assignment studies (the vast majority of drug court studies) where there *is* a high refusal rate, since it is impossible to identify and select out those who would have refused from the comparison group.

Participation Requirements

BTC uses a *post-plea* model whereby participants plead guilty to an eligible drug charge in advance of participation and agree to a specific jail or prison sentence to be imposed in the event of program failure. Upon graduation, the plea is vacated and the case is always dismissed.

The plea charges do not always remain at the felony level. Through June 2002, 34% of participants pled guilty to a misdemeanor, even though the arrest was for a felony. The standing policy is that the A.D.A. assigned to BTC will offer an equivalent plea as to what would most likely have been offered in the event of conventional prosecution. Thus if the criminal case appears to merit felony prosecution, the A.D.A. offers a plea to a felony, whereas if the case appears to merit reduction to a misdemeanor, the A.D.A. offers a plea to a misdemeanor.

Depending on the charges in the plea agreement and the defendant's prior criminal history, participants must agree to one of four treatment mandates, which define the minimum length of participation overall and the length of three distinct phases of treatment.[3] All phase minimums must be completed as *consecutive drug-free and sanction-less time*. For instance, Phase One

[3] In addition to formal treatment mandates discussed throughout this report, 118 BTC participants entered one of two discontinued short-term treatment programs. Most of these, 108, entered a track designed for participants arrested on a felony but pleading guilty to a misdemeanor on a case too weak to sustain the requirement of the full misdemeanor mandate (at least 8 months of program participation). Instead, these participants had only to complete ninety consecutive drug-free and sanction-less days. The second track, discontinued after admitting only ten participants and replaced by a fully separate Brooklyn Misdemeanor Treatment Court program, was designed for participants arrested on a misdemeanor who had multiple prior convictions. It too had a more limited treatment mandate. These tracks were deemed qualitatively different from the full-length adult drug court tracks that comprise the subject of this report, all of which require six (and in most courts twelve) or more months of treatment. Hence all short-term treatment participants were excluded from analyses both in this chapter and elsewhere in this report.

requires four consecutive drug-free and sanction-less months for all participants. Thus upon any positive drug test or sanction, the time count starts over at month zero. The four treatment mandates are:

1. *Misdemeanor:* Participants pleading to a misdemeanor are mandated to a minimum of eight months in BTC, dividing into four months in Phase One, two in Phase Two and two in Phase Three. These participants typically face six months in jail if they fail the program.

2. *First Felony:* Participants pleading to a single first felony are mandated to a minimum of twelve months in BTC, which divides into four months per phase. These participants typically face one year in jail or a 1-3 years prison sentence if they fail the program.

3. *Multiple Felony:* Participants pleading guilty to two or more felonies, but who do not have a prior felony conviction, are mandated to a minimum of eighteen months in BTC, which divides into four months in Phase One, eight in Phase Two, and six in Phase Three. These participants typically face a prison sentence of 1½-4½ years or 2-6 years depending on the specifics of the criminal case, the exact severity of the felony charges (e.g., B, C, D, or E level felony charges), and the prior criminal record. These participants often begin with single first felony status but, upon the advent of a second arrest during participation, the second case is consolidated with the first and the treatment mandate is upgraded to the multiple felony level.

4. *Predicate Felony:* Participants pleading guilty to a *predicate* felony – pleading guilty to a felony and having at least one prior felony conviction – have the same treatment mandate as the multiple felony subgroup (eighteen total months) but face a longer prison alternative, usually a 3-6 year prison sentence but in some cases $4^{1}/_{2}$–9 years or even longer.

In addition to these time requirements, BTC requires misdemeanants to complete two community service events and requires other participants to complete three.

At the time of plea, BTC participants must agree to a treatment plan that specifies an initial assignment to one of the treatment modalities discussed in Chapter Four. The treatment plan stems from a recommendation of the BTC case manager. This recommendation is submitted to the court via the resource coordinator but may be modified following further discussion among the judge, resource coordinator, and attorneys. An exception to this process is that multiple and predicate felony participants are required by agreement with the Brooklyn District Attorney's Office to attend a long-term residential treatment program. Once participation begins, the court can change the treatment plan as deemed appropriate, and it is common for participants beginning in outpatient to be upgraded to residential later on (see Chapter Four).

The Case Management and Treatment Model

BTC employs a case management team that works inside the court building and reports directly to the court's clinical director and project director. This team is responsible for all key clinical decisions, including eligibility, initial treatment plan, placement in a specific program, and decisions to change the treatment plan during participation. BTC also employs a resource

coordinator who works in the courtroom when it is in session and serves as a communication link between the court and case managers. In deciding where to place a participant, case managers can draw from a list of over 140 community-based treatment programs spanning all modalities. Case managers consider modality, special needs issues, and the rapid availability of a treatment slot when locating a suitable placement.

Once treatment begins, participants continue to see their case manager and discuss progress or problems on the same days they appear in court (usually monthly). Also, most participants assigned to outpatient programs see their case manager at the two-week interval between court appearances. At these visits, the case managers encourage those who are doing well, provide support or in some cases warnings to those who are doing poorly, and trouble-shoot on matters such as physical health issues or problems at the assigned program. Participants are drug tested whenever reporting for a scheduled case management visit.

Judicial Supervision

In addition to case management visits, BTC requires regular court appearances before the drug court judge. The appearances are usually every week or two at the outset of participation and monthly thereafter. The judge administers a system of rewards and sanctions, as discussed in Chapters Five and Six. BTC has a formal schedule designed to standardize and express clearly to participants the likely consequences of each type of infraction; but the judge, in consultation with court and clinical staff, can deviate from the schedule on a case-by-case basis. While the schedule has recently been adjusted, the following principles apply to nearly all participants analyzed in this report.

1. *New arrest or involuntary return on warrant:* The schedule calls for a jail sanction, unless the new arrest is serious enough to trigger immediate program failure (e.g., if it involves violence or high quantity sales).

2. *Voluntary return on warrant or a tampered drug test:* The schedule calls for a non-jail sanction the first time and a jail sanction on any subsequent occasion.

3. *Three or more positive or missed drug tests, missed appointments, or instances of rule-breaking at the treatment program within a 30-day period:* The schedule calls for a non-jail sanction the first time and a jail sanction on any subsequent occasion.

During court appearances, the judge, the Honorable Jo Ann Ferdinand, will discuss the progress or problems of participants, making specific mention of accomplishments, such as completing significant drug-free, sanction-less time, or problems, such as testing positive or missing scheduled days in treatment since the last court appearance. The judge often expresses particular praise and encouragement to participants who are doing well after experiencing earlier relapses, or to participants reaching significant milestones, such as the first ninety consecutive drug-free and sanction-less days or completing Phase One of the program. When a participant reaches these milestones, Judge Ferdinand will stand-up and offer a congratulations and request for applause from those in the courtroom. If the participant struggled prior to reaching these milestones, Judge Ferdinand will often mention aspects of that struggle and offer further congratulations for overcoming initial obstacles.

Conversely, Judge Ferdinand will forcefully admonish participants who have failed to comply with their mandate, particularly if they have already received multiple chances following past noncompliance. Judge Ferdinand will often indicate her knowledge of the case by referring to specifics such as the exact number of missed days of treatment. If the participant still does not remember the noncompliance or denies that it occurred, she will often refer to the specific dates that were involved as well.

In consultation with case management and court staff, the judge may fail participants for repeated noncompliance, a violent or otherwise ineligible new arrest (e.g., usually for repeated trafficking), or because the participant voluntarily opted-out. The official schedule calls for automatic failure when a participant totals three involuntary returns from a warrant. However, as with other decisions, the judge can apply discretion to individual cases in coordination with input from the A.D.A. and defense attorney.

Previous Impact Evaluation Results

The Brooklyn Treatment Court is the only New York State drug court to have previously been the subject of a rigorous impact evaluation with a comparison group (Harrell, Roman, and Sack 2001). The participant sample included 283 female participants (limited to females due to grant requirements) arrested June 1997 through January 1999. The comparison sample included 114 female non-participants arrested during the same period. The comparison defendants were either arrested on comparable charges in an ineligible arrest zone or were screened at BTC but found ineligible for reasons other than drug use, such as failure to document U.S. legal residence or D.A. ineligibility because the case was too weak to sustain a conviction. The study involved comprehensive baseline interviews with the entire sample and follow-up interviews one year after intake with sub-samples of 110 participants and 26 comparison defendants. The follow-up interviews enabled collecting data on outcomes other than recidivism, including drug use, employment, and physical health indicators.

Summary of Findings

Impact on Recidivism. The BTC sample was significantly less likely to be re-arrested in the first year after intake (16% versus 23%) and was also less likely to be re-arrested two years after intake (26% versus 33%), but this latter difference did not reach statistical significance.

Impact on Drug Use. The BTC sample reported significantly less drug use in the thirty days prior to the one-year follow-up interview. In particular, the BTC sample reported a lower probability of *any* drug use (14% versus 42%), *serious* drug use, defined to involve heroin or crack/cocaine (9% versus 27%), and *drinking to intoxication* (6% versus 13%).

Impact on Social and Economic Functioning. BTC did not have any statistically significant social and economic impacts, such as reductions in family, psychiatric, medical, or employment problems, based on the one-year follow-up interviews. However, part of the reason for this lack of an effect may have been the small sample size for follow-up interviews (total N = 136). From inspecting the raw percentages, 28% of participants as compared with 61% of comparison defendants reported that they were “troubled by employment problems” at follow-up, indicating the possibility of a rather substantial impact in this area.

Importance of this Evaluation

The earlier evaluation represents a valuable contribution to the literature, particularly in that the research team reached a sample of female defendants for both baseline and follow-up interviews. This enabled collecting detailed psychosocial information on drug use patterns, employment, educational background, and other characteristics not generally available for both drug court and comparison samples at both baseline and follow-up periods.

As with most drug court studies, the timeframe did not extend to a *post-program* period but focused on the initial one and two years following intake. Also, in constructing the comparison group, some use was made of defendants screened by the drug court but found ineligible due to a weak criminal case or other reasons. As discussed in Chapter Eleven, these reasons may comprise a source of bias if factors that led to program ineligibility also predict recidivism. Finally, the study only focused on females (due to specifics of the funding source).

In sum, the earlier study will continue to yield the only direct evidence of the BTC impact on drug use and other non-criminal justice outcomes. It is one of only a handful of drug court studies measuring impacts on other outcomes besides recidivism. The present study evaluates recidivism among both men and women and does so over a longer timeframe. Ultimately, as will become clear below, the substance of most overlapping results are consistent, and the two studies are best viewed as complementary.

Research Design and Methodology

The research design and analysis implemented the general framework described in Chapter Eleven. This section discusses their specific application in the BTC evaluation.

Definition of the Comparison Sample

The initial comparison group was drawn from all defendants arrested in Brooklyn in 1997 on a top charge of either criminal sale or criminal possession of a controlled substance in the third degree, both B-level drug felonies. These charges match the most prevalent top arrest charges among BTC participants. Of participants arrested in 1997, 83% were arrested on the above criminal sale charge and 7% on the above criminal possession charge. The remaining 10% were distributed across a long list of other felony sale and felony possession charges.

The initial sample excluded defendants screened by the Brooklyn Treatment Court (BTC), even if the screening process resulted in a finding of ineligibility. Defendants were only considered viable comparison cases if they had no contact whatsoever with BTC on the instant case. This meant that most comparison cases fell within the two ineligible arrest zones of Brooklyn, but others undoubtedly fell within the three eligible zones. The latter group consisted of defendants that should have been screened by BTC but were not due to technical oversight in the arraignment process. The comparison group also excluded defendants if their criminal record had a prior violent felony or misdemeanor conviction (as per the violence exclusion in effect until September 1998) or if the 1997 instant case arrest did not result in a conviction. The initial sample had 1,435 defendants.

Definition of the Participant Sample

The initial drug court participant sample included all 797 participants arrested in 1997 or 1998. Two changes evident beginning January 1997 changed the participant pool, strengthening the rationale for omitting those entering during the initial June-December 1996 start-up period.

First, defendants with a prior felony conviction became drug court-eligible. Also, in 1996, 24.2% of BTC participants entered with a primary drug of marijuana, nearly double the percentage entering from 1997 through 2002 (12.9%). Although there is no particular policy underlying this finding, it further confirmed that we would obtain a more representative sample by beginning with 1997 entrants. On the other hand, excluding more recent cohorts than 1998 gained the design advantages of (1) comparison to a closely overlapping 1997 comparison group cohort and (2) availability of a substantial follow-up timeframe for all participant sample members.

Implementation of Propensity Score Matching

Statistical analyses proceeded as discussed in Chapter Eleven. The first step was to compare the initial samples on all available and relevant background characteristics. The purpose was to determine whether the drug court participant and comparison samples differed significantly in any important respects (basic demographics, criminal history, etc.). The subsequent propensity score matching process would then seek to eliminate or at least reduce those differences prior to beginning the recidivism analysis. Samples were initially compared on the following variables:

- *Criminal history:* prior misdemeanor conviction (y/n), prior felony conviction (y/n), and prior drug conviction (y/n);
- *Current charges:* arrested on top charge of felony drug *sales*; and pled guilty to a top charge at the *felony* level; and
- *Demographics:* sex, age, and race/ethnicity (divided into black, Hispanic, and other).

With particular respect to felony plea severity, this variable is important in Brooklyn, since the severity of the plea upon drug court entry (felony or misdemeanor) affects the length of both the required treatment mandate and the jail or prison alternative faced in the event of drug court failure. However, bivariate comparisons revealed significant differences on all variables *except* for plea severity. The nature of the differences between participants and initial comparison group candidates were as follows:

- *Criminal history:* Participants had a *less* serious prior criminal history (less likely to have a prior misdemeanor, felony, and drug conviction);
- *Current charges:* Participants were *more* likely to be arrested on a top charge of felony drug *sales* and hence less likely to be arrested on possession charges; and
- *Demographics:* Participants were older, less likely to be male, and more likely to be from a Caucasian/other race/ethnicity (as opposed to black or Hispanic).

Some of these differences represent what would reasonably be expected. For example, since many predicates (defendants with a prior felony conviction) are screened by Brooklyn's DTAP program instead of BTC, that could explain why the population reaching BTC has a generally less serious prior criminal history than our complete sample of all paper-eligible comparison group defendants. Also, since BTC only admits defendants addicted to drugs, participants are naturally more likely to be older and female than the general population – since older age and female sex are both strongly associated with having a drug addiction.[4]

[4] In this connection, as discussed in Chapter Eleven, it is notable that we could *not* directly measure addiction status for the comparison group; however, since sex and age are the most powerful available predictors of that status specifically in BTC (see Rempel 2002), matching on those two demographics vastly improves our ability to, in effect, match on addiction severity status as well. Still, as in all retrospective drug court studies, it is necessarily the case that were the proper measures available, we would find higher average addiction severity in the final

Table 13.1. Logistic Regression Model Predicting BTC Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	2217
Participants	793
Comparison Group Candidates	1424
Chi-square for model	422.584***
Logistic Regression Coefficients	
Prior felony conviction(s)	-1.342***
Prior misdemeanor conviction(s)	-.511***
Arrested on felony sales top charge	1.047***
Male sex	-1.219***
Age	.033***
Race/ethnicity[1]	
Black	-.504*
Hispanic	-.241
Constant	-.699*

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether the defendant is a BTC participant or comparison group candidate. All variables included in the model were significant at the .10 level or better in separate bivariate comparisons (see Table 13.2). The exception is that prior drug conviction(s) was significant in the bivariate comparison but was not included due to its strong inter-correlation (r > .500) with the prior felony and prior misdemeanor conviction variables.

[1] Race/ethnicity has a third, unlisted "other" category to which black and Hispanic participants are compared.

All significant variables were entered into a logistic regression model predicting the probability of drug court participation. An exception is that the prior drug conviction variable was excluded due to its strong inter-correlation (R > .500) with both of the other criminal history measures. Also, fifteen defendants were excluded due to missing data on at least one of the independent variables. A total of 2,217 defendants were in the regression model, 793 participants and 1,424 comparison group candidates. Table 13.1 gives the regression coefficients and significance levels.

Overall, the logistic regression strongly predicted participation, meaning that taken as a whole, the background characteristics included in the model were important predictors of which defendants were more or less likely to be drug court participants (Nagelkerke pseudo R^2 = .238). Thus the regression results signify that the initial set of comparison group *candidates*, despite their comparability in formal paper eligibility criteria, did *not* comprise a good match to actual BTC participants. Every one of the variables entered into the logistic regression model significantly predicted participation status (in the same directions as the bivariate comparisons).

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participant than in the final comparison sample. Some of the other initial differences between the participant and comparison samples do not have clear explanations For example, BTC participants are significantly more likely to be Caucasian; but the difference in raw percentages is small, 5% versus 8%, and does not elicit a plausible explanation; hence other unmeasured factors (e.g., different average socioeconomic status or average addiction severity among Caucasians versus others) likely create the observed 3% difference.

Table 13.2. Baseline Characteristics of Brooklyn Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	797	1435	793	504	
Prior felony conviction(s)	17%	44%***	17%	22%*	-22%
Prior misdemeanor conviction(s)	34%	49%***	34%	38%+	-11%
Prior drug conviction(s)	27%	47%***	27%	31%	-16%
Arrested on felony sales top charge	92%	82%***	92%	91%	-9%
Felony plea at entry (participants) or convicted of *felony* (comparison)	66%	64%	66%	67%	1%
Male sex	60%	84%***	60%	72%***	-12%
Average age	33.5	31.3***	33.5	32.4+	-1.3
Race/ethnicity					
Black	56%	58%	56%	54%	0%
Hispanic	36%	38%	36%	42%*	2%
White / other	8%	5%**	8%	4%**	1%

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: For each variable in the pre-matching comparisons, the number of missing cases ranges from 0-4. The pre- and post-matching participant samples are virtually identical, since the only reason for excluding a participant in the final sample is if there was missing data on one or more of the variables included in the regression model predicting participation (see Table 13.1).

Accordingly, propensity scores were obtained from the regression model, and each participant was matched to the comparison candidate with the nearest score. The matching process then proceeded as outlined in Chapter Eleven. After completing the process, 793 participants were matched to 505 comparison group defendants, with 18% of the final comparison sample matched to more than one participant. The fact that a large number of initial comparison candidates were removed, 919 of the original 1424, highlights the need to have undertaken this process to assure a final comparison sample that, in fact, mirrors participants on relevant background characteristics. That is, the matching process served to remove from the comparison sample a large number of defendants whose criminal justice and demographic attributes led them to comprise a poor match to real drug court participants. More substantively, the outcome of the matching process highlights the extent to which the characteristics of BTC participants vary tremendously from the initial paper eligible pool in Brooklyn. In interpreting the BTC evaluation results, it should be noted that the impact of the program is experienced by a distinct subset of all drug felony defendants in the county.

Table 13.2 compares the participant and comparison samples both before and after implementation of the propensity score matching. The rightmost column of Table 13.2 shows to what extent the percentage differences on each variable were reduced in the *final* samples between the *pre-matching* participant and comparison samples. The results show that the matching process greatly improved the comparability of the comparison group. Nonetheless, participants remained significantly more likely than the final comparison sample to be female, without a prior felony conviction, non-Hispanic, and white ($p < .05$); and also differed on prior misdemeanor conviction(s) and age at the weaker .10 level. For this reason, it remains important in the analyses below to employ multivariate methods to verify whether BTC in fact has an independent program impact on recidivism.

Post-Program Methodology for BTC

As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the post-program analysis. First, it usually takes drug court graduates one to three years to complete the program and an additional one and two years respectively before the one-year and two-year post-program tracking periods are complete. Second, BTC failures are always incarcerated after drug court participation ends, and the post-program count cannot begin until after release. Hence they also may not, as of the analysis date, have achieved the requisite amounts of post-program time. Finally, a number of participants had still not, as of the analysis date, reached graduation or failure status. As Chapter Eleven describes, it is important to have an accurate ratio of program graduates to failures in the participant sample. This is because graduation / failure status strongly predicts recidivism (graduates are less likely and failures more likely to recidivate); hence if the ratio of graduates-to-failures available for analysis is incorrect, the recidivism rates obtained when averaging *all* participants in the sample may be skewed one way or other.

In order to investigate and correct for biases, for all program participants in the impact sample (1997 and 1998 participant cohorts, N = 793), graduation or failure status was determined as of November 3, 2002, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were used to *predict* whether they were more likely to graduate or fail. The prediction model was derived from the analysis of the predictors of drug court graduation reported in Chapter Nine.[5] Significant predictors were entered into a new logistic regression model predicting graduation for *only those drug court participants included in the final impact sample*. These predictors included participant sex, age, primary drug, any prior conviction(s), treatment mandate (coded 1-4 depending on the length of the accompanying jail or prison alternative), and whether the participant warranted within thirty days of drug court entry. The resulting equation was as follows:

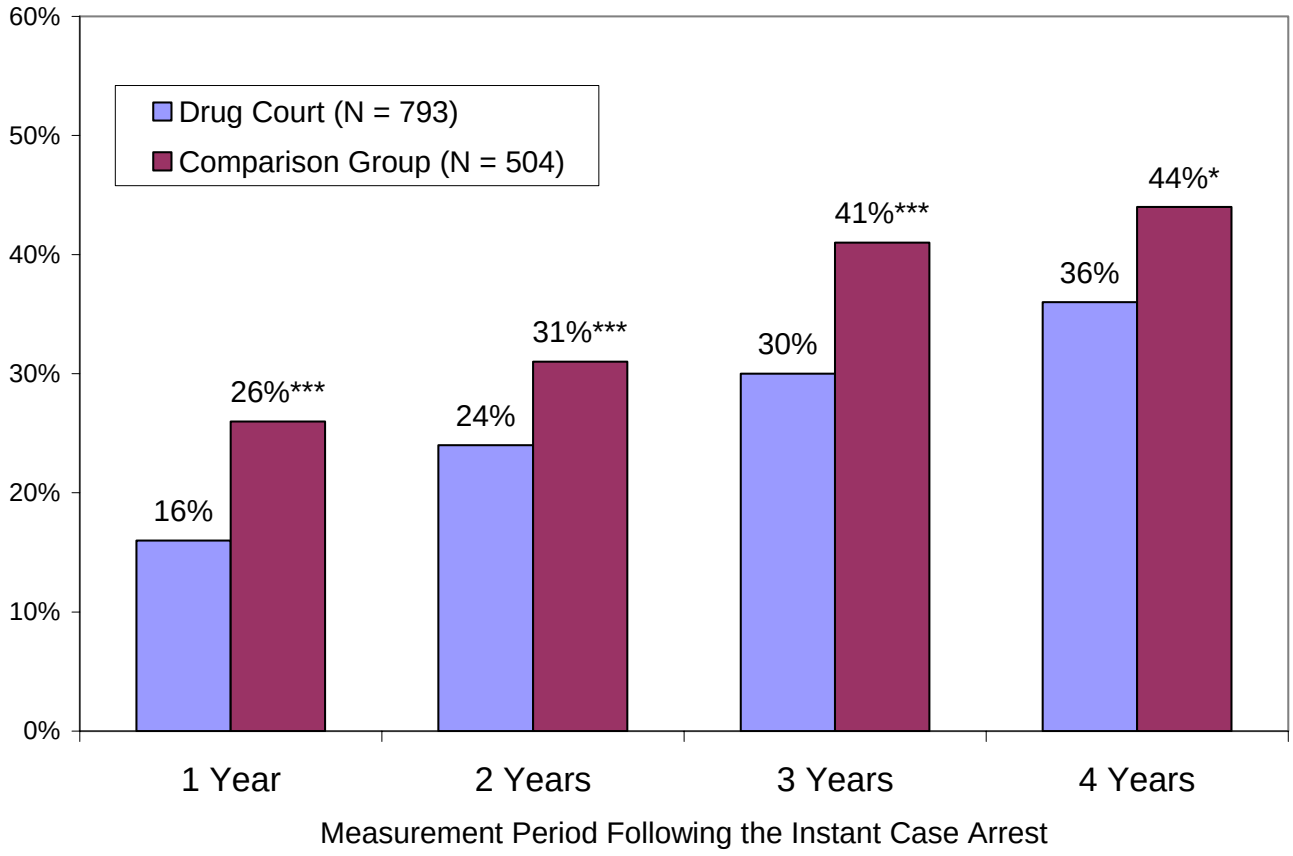
LOGODDS(graduation) = (.242 * SEX) + (.055 * AGE) + (-.779 * PRIMDRUG-HEROIN) + (-.096 * PRIMDRUG-CRACK) + (-.560 * ANYPRIOR) + (.555 * TXMANDATE) + (-1.210 * WARR30) + (-4.345).

This equation was used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). In effect we used available baseline information about each participant to *estimate* whether graduation or failure was the more likely program outcome. The resulting probabilities were then used to estimate the final program status of participants who had not yet completed drug court as of the analysis date. Of 793 participants in the impact sample, 61 (7.7%) had not yet reached final status. Thus our estimation method was only necessary to impute final status to 7.7% of all BTC participants in the 1997 and 1998 impact sample.

Of the 61 participants for whom an estimate was necessary, 39 had been missing on a warrant for over one year and, as per conservative assumptions discussed in Chapter Eleven, were predicted eventually to fail the drug court. Of the remaining 22 participants, if the predicted probability of graduation generated by the above equations exceeded 50%, the participant was

[5] Possible predictors were sex, age, race, employment/school status at intake, high school graduation status, primary drug of choice, prior treatment episode(s), first treatment modality in the drug court, prior conviction(s), severity of jail or prison alternative in the event of failure (coded on 1-4 continuous scale for the 4 treatment mandates), and whether the participant disappeared on a warrant within 30 days of drug court entry.

Figure 13.1. Impact of BTC on Post-Arrest Recidivism
(Percentage with a New Arrest Leading to a Conviction)



*+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)*
Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later. At 4 years, drug court participants were only available that entered in 1997. Thus 4-year sample sizes decline to 429 for drug court and 307 for comparison group.

predicted to be a graduate; and if the probability was less than 50%, the participant was predicted to be a failure.

Using the predicted final outcomes produced with the above method and the known final status of 732 (92.3%) participants, a graduation rate for BTC was estimated at 50.1%. This graduation rate was based on the full participant sample (N = 793). Since only 556 participants (308 graduates and 248 failures) were available for the one-year post-program analysis; and only 342 participants (187 graduates and 155 failures) were available for the two-year post-program analysis, the available samples then had to be weighted in order to reproduce the proper 50.1% graduation rate within the available samples. That is, for each post-program recidivism analysis, graduates were weighted to contribute 50.1% towards the participant total and failures to contribute 49.9%. This weighting process assured that average reported recidivism rates would not be biased based on whether graduates or failures happened to be more likely to have

Table 13.3. Impact of BTC on *Post-Arrest Recidivism*

Recidivism Measure	Drug Court	Comparison Group
1. Recidivism within 3 Years Post-Arrest	(N = 793)	(N = 504)
Average days in-program for participants	573	n/a
Any new conviction	30%	41%***
Any felony conviction	11%	21%***
Any misdemeanor conviction	21%	26%*
Any conviction for drug offense	21%	28%**
Average number of convictions	0.64	0.89*
Of those with at least 1 new conviction:	(N = 234)	(N = 206)
Days to first new arrest (led to conviction)	436	389
2. Recidivism within 4 Years Post-Arrest	(N = 429)	(N = 307)
Average days in-program for participants	587	n/a
Any new conviction	36%	44%*
Any felony conviction	15%	22%*
Any misdemeanor conviction	26%	28%
Any conviction for drug offense	25%	31%$^{+}$
Average number of convictions	0.81	1.07
Of those with at least 1 new conviction:	(N = 153)	(N = 135)
Days to first new arrest (led to conviction)	524	391**

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 1, 2, 3, or 4 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time.

accumulated enough post-program time for inclusion in one-year or two-year post-program recidivism analyses.[6]

Impact on Post-Arrest Recidivism

Bivariate Comparisons

As shown in Figure 13.1, BTC generated a significant reduction in recidivism across all post-arrest measurement periods (up to four years). After one year, 16% of drug court participants versus 26% of the comparison group had a new conviction. After two years, the difference was 24% versus 31%; after three years it was 30% versus 41%; and after four years, the gap narrowed from the third year but remained significant at 36% versus 44%. As a different way of understanding the magnitude of the drug court impact, BTC reduced recidivism by 27% relative to the initial comparison group level after three years and by 18% after four years.

[6] By way of review, for one-year post-program analyses, 308 graduates and 248 failures accumulated enough post-program time to be included. To proportion them according to the estimated graduation rate, all graduates received a weight of .9044025, and all failures received a weight of 1.1187258. For two-year post-program analyses, 187 graduates and 155 failures accumulated enough post-program time to be included. Thus all graduates in these analyses received a weight of .9162673, and all failures received a weight of 1.1010193. As these numbers make clear, without implementation of a weighting methodology, graduates would have been improperly over-represented in post-program analyses, which would have created biased recidivism results.

Table 13.4. Types of Charges in Recidivism Cases:
Top Disposition Charge in the First New Arrest Leading to a Conviction within Four Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Four Years	153 (36% of sample)	135 (44% of sample)
Top Disposition Charge		
1. Drug Charges	***63%***	***60%***
Felony drug sales	*27%*	*24%*
Felony drug possession	*3%*	*7%*
Misdemeanor drug possession	*33%*	*26%*
Misdemeanor marijuana sales	*0%*	*1%*
Driving while intoxicated	*0%*	*2%*
2. Property Charges	***24%***	***16%***
Robbery, burglary, or grand larceny	2%	2%
Petit larceny, theft, or criminal possession of stolen property	22%	14%+
3. Other Violent Charges	***3%***	***10%****
Manslaughter	0%	1%
Rape, sodomy, or sexual abuse	0%	1%
Felony assault	1%	1%
Misdemeanor assault	1%	3%
Criminal possession of a weapon	1%	4%
4. Prostitution	***3%***	***4%***
5. Other (includes criminal facilitation, menacing, welfare fraud, forgery, false impersonation, prison--based offenses, witness tampering, resisting arrest, bail jumping, gambling, and riot)	***6%***	***10%***
Total	***100%***	***100%***

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Table 13.3 presents results for additional recidivism measures after three and four years post-arrest. In addition to reducing the probability of recidivism, BTC generated fewer *total* recidivist convictions after both three and four years, although this difference was not significant in the four-year analysis.

Of those who did recidivate at least once, drug court participants remained crime-free for substantially longer; the average number of days to the first recidivist re-arrest within four years was 524 days for participants versus 391 for the comparison group ($p < .01$). Hence even among those who re-offended, BTC generated a significant *delay* in the first onset of recidivism.

With respect to specific charges, BTC had its greatest impact on the most serious, felony level, type of re-offending. After three years, drug court participants were about half as likely as the comparison group to have a new *felony* conviction (11% versus 21%); and a significant difference persisted at four years as well (15% versus 22%). Drug court participants were also less likely to have a new misdemeanor and new drug conviction at both three and four years,

Table 13.5. Multivariate Results Predicting the Impact of BTC on Recidivism within Three and Four Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions[1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	3 Years	4 Years	3 Years	4 Years
Total Sample Size	1297	736	1297	736
Drug Court	793	429	793	429
Comparison Group	504	307	504	307
	Odds Ratios:		*Regression Coefficients:* [3]	
Drug court participant	.640***	.729*	-.252*	-.111
Prior felony conviction(s)	.897	.914	-.254+	-.272
Prior misdemeanor conviction(s)	2.884***	2.331***	1.213***	1.102***
Arrested on felony sales top charge	1.044	.845	.121	.471*
Felony plea entry (participants) or convicted of *felony* (comparison)	.634***	.687*	-.510***	-.423**
Male sex	.904	.850	-.206+	-.329*
Age	.957***	.953***	-.263***	-.023**
Race/ethnicity[4]				
Black	1.509	.927	.423*	.226
Hispanic	1.726+	.901	.573**	.331

+ p<.10 *p<.05 **p<.01 ***p<.001

[1] The dependent variable is whether there was at least one new arrest within the measurement period (3 or 4 years) that led to a conviction.

[2] The dependent variable is the total number of new arrests within the given measurement period (3 or 4 years) that led to a conviction. A poisson regression specification was rejected, since the variance was more than three times greater than the mean at both 3 and 4 years.

[3] Numbers in parentheses represent the regression coefficient divided by the standard error.

[4] Race ethnicity has a third, unlisted category (Caucasian / Asian / other) with which black and Hispanic participants are compared.

although the gap was smaller than for felony recidivism, and these differences were not significant at the .05 level at four years.

The results in Table 13.4 reveal that of those who recidivated within four years, first reconvictions were for drug offenses about the same proportion of the time among participant and comparison group recidivists. Distinguishing the samples, as in Bronx, new participant offenses were more often for low-level property crimes (petit larceny, theft, or criminal possession offenses, $p < .10$), and new comparison group offenses were more often violent (mainly assault or criminal possession of a weapon, $p < .05$).

Multivariate Comparisons

Although the propensity score matching process substantially reduced the baseline differences between the drug court and comparison samples, significant differences remained on three variables, prior felony conviction(s), sex, and race/ethnicity. This made it important to verify whether BTC leads to lower recidivism even after controlling for these variables. Analyses reported in Table 13.5 measure the drug court impact on both the probability of at least one reconviction (logistic regression) and the total number of reconvictions (negative binomial regression) at three and four years post-arrest.

The results confirm that, after controlling for background characteristics, drug court participants had a significantly lower probability of recidivism at both measurement periods (three and four years). However, the negative binomial results only show a significant drug court impact on the total *number* of new convictions at three years post-arrest, not at four years (although the direction of the coefficient continued to suggest a small effect). This is consistent with the bivariate results reported above, in which most analyses revealed significant effects, but the impact of the drug court appeared to attenuate slightly at the four-year mark. Since the four-year analysis does not include later 1998 drug court entrants, it is possible that once a larger sample can be retained for four-year or longer post-arrest measurement periods, results may change.

Other Predictors of Recidivism: Several additional factors strongly predicted greater recidivism in all multivariate analyses:

- Prior misdemeanor conviction(s) – but not prior felonies;
- Current misdemeanor level plea/conviction charge (versus felony level); and
- Younger age.

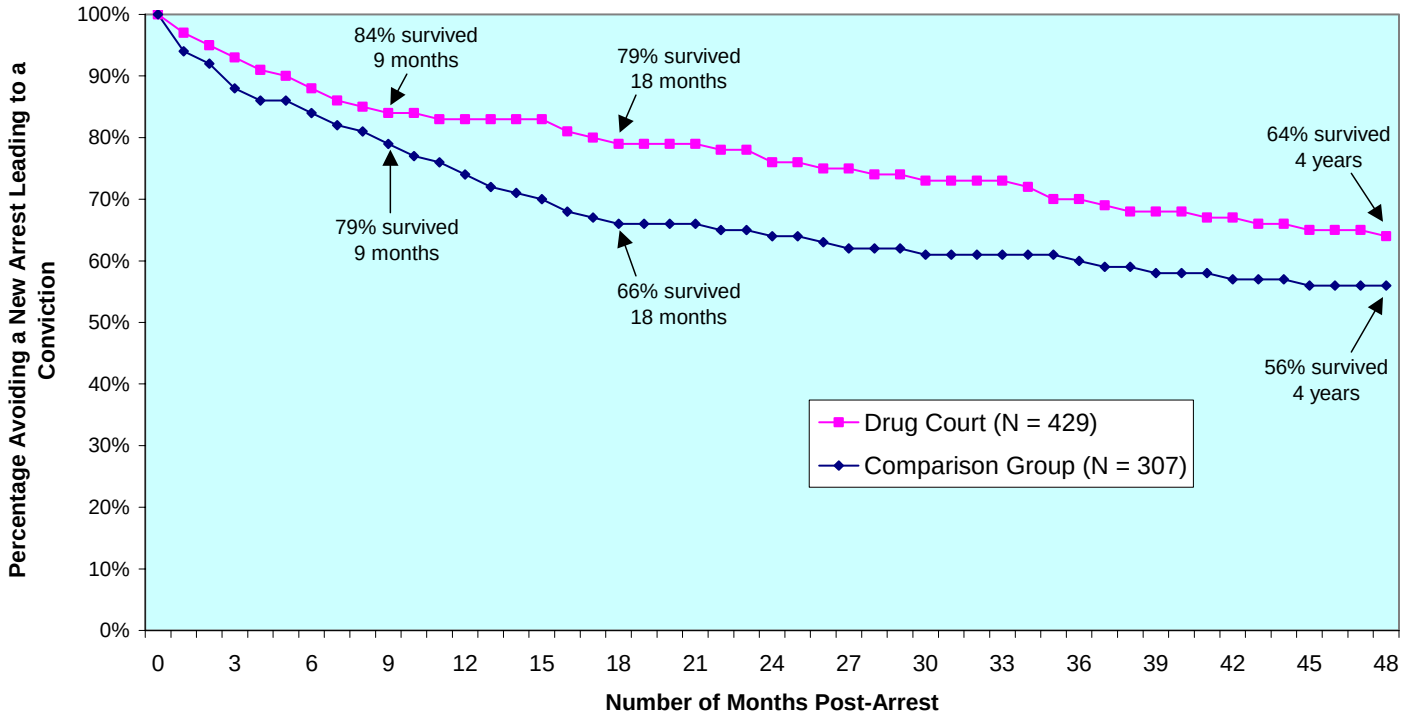
Of these factors, it is notable that *misdemeanor* offending – *prior* misdemeanor convictions and a misdemeanor rather than a felony plea/conviction on the current case – were associated with greater recidivism. Several explanations are possible. First, defendants pleading to a misdemeanor may be more likely to re-offend simply because their less serious charges lead them to be less likely to be incarcerated on the instant case – and thus more likely to be on the street and "at risk" of recidivating for more time, on average, than those pleading to a felony. But in test regression analyses controlling for time at risk, misdemeanants were still significantly more likely to re-offend. Another more plausible explanation relates to the perception of several BTC staff members that repeat involvement in nonviolent misdemeanor crime tends to go hand-in-hand with more severe underlying problems – which are *not* independently accounted for in the regression models. Hence it may be that underlying the observed relationship between misdemeanor crime and recidivism is greater psychosocial disadvantage in the misdemeanor population. Yet another possible explanation is that in the Brooklyn drug court, those pleading to a misdemeanor have a shorter period of court supervision (minimum mandate of eight as opposed to twelve or eighteen months for more serious offenses).

Besides the factors highlighted above, males somewhat *less* often recidivated than females, although this relationship was significant only in the negative binomial models predicting the quantity of re-offending within four years post-arrest (and three years at the .10 level); hence it was a comparatively weak finding overall.

Survival Analysis

Figure 13.2 presents *survival curves* for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. Over the first nine months, there was little difference in the survival experience of the two groups; but between nine and eighteen months, the curves diverged, such that by the eighteen-month mark, 79% of participants but only 66% of the comparison group had survived (avoided re-arrest). Then between eighteen months and four years, the curves slightly converged again, such that by four years, the difference between the groups had declined from a peak of 13% to 8%. Since both curves began to level off by the

Figure 13.2. Survival Curve:
Survival of BTC Drug Court versus Comparison Group Defendants Up to Four Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .01 level (p = .0046 for Wilcoxon statistic).

fourth year – that is, few new defendants had their first re-arrest between the three and four-year marks – this suggests that despite the slight observed convergence, a permanent difference would likely remain if the measurement period was extended further.

Impact on Post-Program Recidivism

This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to evaluate whether drug court impacts in fact persist after the drug court mandate ends and participants are re-released into the community. As explained in Chapter Eleven, the measurement period begins on the graduation date for drug court graduates, on the release date from jail or prison for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

Table 13.6. In-Program Versus Post-Program Recidivism Among BTC Participants

Measurement Period	In-Program	Post-Program	
Length of Measurement	Mean = 396 Days	One Year	Two Years
Sample: Same Sample in Both Periods	N = 343	N = 343	N = 343
No new conviction	83%	82%	73%***
Any new conviction	17%	18%	27%
One (1)	14%	10%	11%
Two (2)	2%	3%	5%
Three (3) or more	1%	5%	13%
Average number of new convictions	0.22	0.37*	0.71***
New conviction rate (convictions/year)[1]	0.30	0.37	0.35

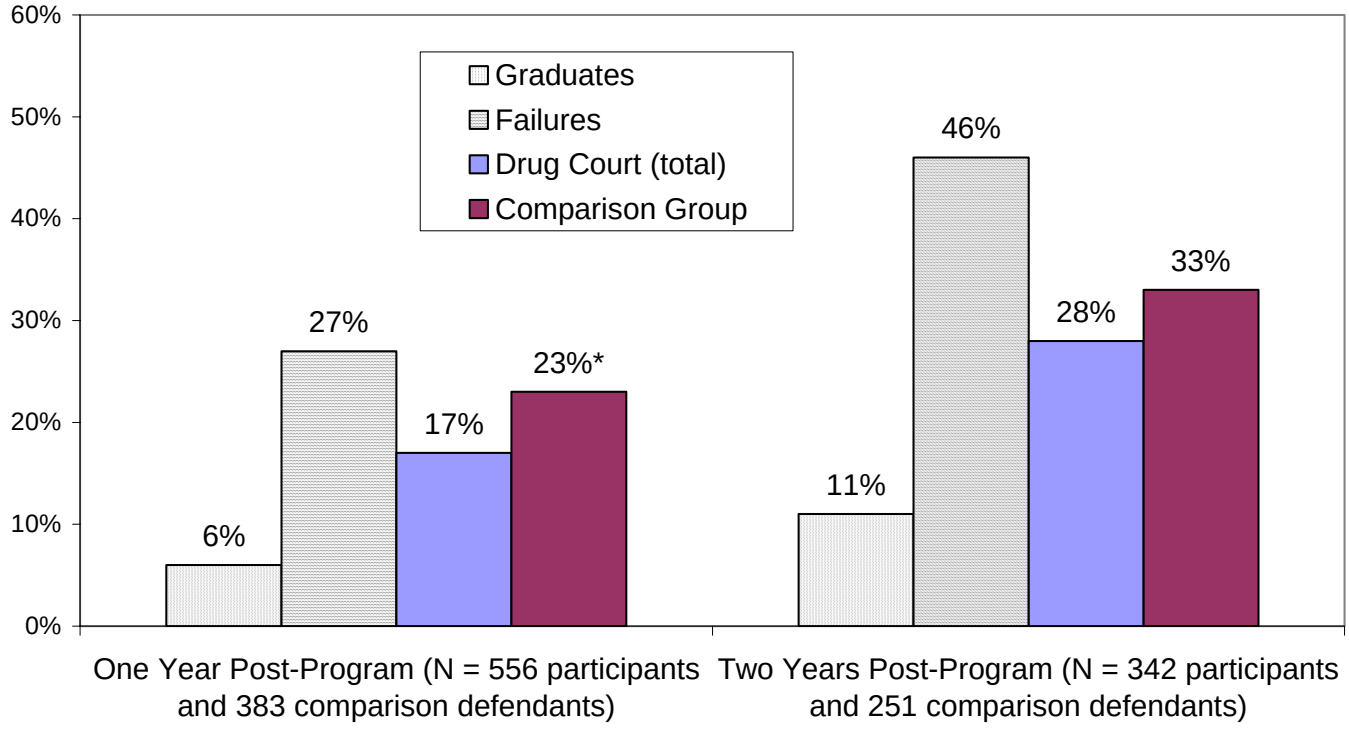
All comparisons to in-program recidivism: $^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)
Note: The new arrest must have occurred within the given measurement period (in-program or 1 or 2 years post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures. Drug court graduates and failures were weighted based on an estimated drug court sample graduation rate of 50.1% (see discussion in text). That is, graduates combined to contribute .501 of the drug court total results, and failures combined to contribute .499 of the total. To be included in the sample, a participant had to be available for a two-year post-program analysis. Paired samples t-tests were not conducted for each specific number of new convictions (1, 2, or 3 or more).
[1] Six outliers were deleted due to an in-program rate between 5.0 and 13.0, as compared to all other participants, whose rates were from zero (0) through 4.31.

In-Program Versus Post-Program Recidivism

The underlying hypothesis driving this analysis was that the drug court would be particularly effective at reducing recidivism while participants were subject to the stringent judicial monitoring that accompanies in-program time; but the impact would diminish once participants were no longer under court supervision. Accordingly, we compared in-program and post-program recidivism for BTC participants only.

Results are in Table 13.6. The sub-sample of 343 participants only includes those available for a two-year post-program analysis. Their in-program recidivism rates were compared to post-program recidivism after both the one-year and two-year post-program measurement periods. Paired samples t-tests were performed to determine whether recidivism differed significantly between each of the two post-program periods and the in-program period. Although the amount of recidivism was higher after two years of post-program time than during the in-program period, this was partly a function of the longer two-year measurement period than the average of 396 in-program days. When comparing in-program recidivism to one-year post-program, the post-program recidivism levels were just slightly higher than the in-program levels. The percentage of all participants (including both graduates and failures) with at least one reconviction was 17% in-program versus 18% at one-year post-program; and the total number of reconvictions averaged 0.22 in-program versus 0.37 post-program ($p < .05$). While this suggests slightly higher post-program recidivism, when controlling for the differential *time at risk* for each participant in the in-program versus post-program periods, reconvictions per year at risk were nearly identical: 0.30 in-program, 0.37 at one year post-program, and 0.35 at two years post-program. Overall, these results suggest just slightly higher post-program than in-program recidivism, but the difference is substantively negligible and did not reach statistical significance on nearly all

Figure 13.3. Impact of BTC on *Post-Program* Recidivism
(Percentage with New Arrest Leading to a Conviction)



+ p < .10 * p < .05 p < .01 p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)
Note: N for graduates is 308 in the 1-year and 187 in the 2-year analysis; for failures, it is 248 and 155. Graduates and failures are weighted as described in the text.

comparisons. In short, there is only negligible to weak evidence that the impact of the drug court attenuates once participants are no longer under court supervision.

Impact of BTC on Post-Program Recidivism

The results presented in Figure 13.3 show that drug court participants had a significantly lower probability of reconviction than comparison defendants after one-year post-program (17% versus 23%). After two years, the apparent magnitude of the impact was similar (28% versus 33%), but it did not reach statistical significance. The one-year results show that the drug court generated a 26% relative reduction in re-offending.

The principal results just reported compare all drug court participants (combining graduates and failures) to the comparison group. This is the most relevant comparison for understanding the net impact of the drug court on all participants formally entering the program. However, Figure 13.3 also provides a breakdown of recidivism rates among graduates and failures respectively. This shows that BTC graduates had particularly low recidivism after both one and two years post-program. After one year, 6% of graduates but 27% of failures had a new conviction; and after two years, the difference was 11% versus 46%. Hence BTC participants completing drug court successfully have exceptionally low recidivism rates.

Table 13.7. Odds Ratios from Logistic Regressions Predicting a New Arrest Leading to a Conviction within One and Two Years Following Program Completion

Post-Program Measurement Period	1 Year	2 Years
Total Sample Size	939	593
Drug Court	556	342
Comparison Group	383	251
Chi-square for model	100.640***	76.756***
Drug court participant	.662*	.785
Prior felony conviction(s)	1.311	1.311
Prior misdemeanor conviction(s)	3.614***	3.579***
Arrested on felony sales top charge	.849	.494*
Felony plea entry (participants) or convicted of *felony* (comparison)	.572**	.728
Male sex	.562**	.603*
Age	.967**	.964**
Race/ethnicity[1]		
Black	.669	.674
Hispanic	1.064	.993

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether there was at least one new arrest within the given measurement period (1 or 2 years) that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures, and on the estimated release date or on the disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted as described in the text.

[1] Race/ethnicity has a third, unlisted "other" category (Caucasian and Asian-American) to which black and Hispanic participants are compared.

Further, among drug court failures, additional analyses sought to determine whether those who received more treatment prior to dropping-out performed better. This was not the case. BTC failures that never attended any treatment (i.e., agreed to participate but then failed before ever showing-up at a community-based treatment program) had a one-year post-program reconviction rate of 25%, as compared with 28% among failures who attended treatment (non-significant difference). Additional multivariate analyses (results not shown) confirmed that attending more total days of treatment did *not* lead to improved outcomes among drug court failures. Evidently, in a drug court context, treatment only has positive impacts when it ends in program graduation. (See also similar results reported in Chapter Nine.)

With respect to specific types of offenses (results not displayed), drug court participants were half as likely as the comparison group to have a new *felony* conviction after one year (4% versus 8%), but there were not statistically significant differences in misdemeanor or drug-related re-offending.

As shown in Table 13.7, the results of a logistic regression analysis predicting the probability of reconviction at one and two years post-program confirm the bivariate results. Drug court participation predicted significantly lower recidivism at one year. Although not significant at two years, the odds ratio suggests a similar positive impact. In addition, consistent with the post-arrest results, defendants with a prior misdemeanor conviction were far more likely than those without a prior misdemeanor to be reconvicted at both one and two years. The odds ratios for

Table 13.8. Impact of Drug Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage
Sample Group	Drug Court	Comparison	Reduction in
Sample Size	793	504	Recidivism
1. Treatment Mandate			
Misdemeanor	35%	48%**	27%
First felony (either single or multiple felonies)	28%	39%***	28%
Predicate: felony with prior felony conviction (at least 365 days at risk)	20%	33%[1]	39%
2. Prior Misdemeanor History			
No prior misdemeanor conviction	23%	34%***	32%
Prior misdemeanor conviction(s)	43%	52%+	17%
3. Age			
Younger offenders (ages 16-25)	35%	42%	17%
Older offenders (ages 26 and higher)	28%	40%***	30%
4. Sex			
Female	30%	46%***	35%
Male	29%	39%**	26%

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: All percentages are simply the percentage of defendants in the given subgroup with at least one new arrest within the given measurement period that led to a conviction. The comparison for predicates only includes those with at least 365 days at risk, given that a large number of predicates in the comparison group are incarcerated for much of the measurement period.

[1] N = 120 for this comparison (80 drug court and 40 comparison group defendants); the p-value = .134.

both the one- and two-year post-program analyses translated into a 28% difference in the simple probability of a reconviction, resulting merely from the fact of whether or not the defendant had a prior misdemeanor conviction.[7] Also generally consistent with the post-arrest results, younger defendants, women, and those pleading guilty to a misdemeanor charge on the instant case were more likely than others to engage in post-program re-offending. The finding on the impact of female sex is consistent with the Bronx results reported in the last chapter and also with more qualitative research suggesting that women in drug courts tend to face particularly serious challenges in attempting to overcome their addiction and change their lifestyle (see D'Angelo 2002).

Impact on Recidivism for Select Offender Subgroups

Table 13.8 examines whether certain categories of defendants performed better than others in the drug court. The table compares the three-year post-arrest reconviction rates for key defendant subgroups defined by: (1) treatment mandate, (2) prior misdemeanor record, (3) age, and (4) sex. Concerning the first criteria, treatment mandate, defendants were divided into those with their

[7] The one-year and two-year odds ratios of 3.614 and 3.579 respectively by the prior misdemeanor conviction(s) variable were translated into percentage differences using the formula: (odds ratio / odds ratio + 1) / .5.

charges reduced to a misdemeanor at disposition, those disposed on a first felony, and predicates (disposed on a felony with a prior felony conviction). This three-fold distinction represents three of the four BTC treatment mandate categories. The fourth category, for participants pleading to *multiple* first felonies but without a prior felony conviction, could not be distinguished for the comparison group, so drug court participants falling into this category were placed in the first felony subgroup. In addition, predicates are only included if they had at least one year *at risk* during the three year total post-arrest measurement period. That is, predicates had to have had at least one year when they were not in prison as a result of the sentence they received on the initial case. The existence of long mandatory minimum sentences for convicted predicated in New York State led a relatively larger portion of comparison group predicates (40 of 59) versus participant predicates (80 of 82) to have at least one year at risk and, therefore, to be available for this analysis. The reason for the difference is that participant predicates that graduate have their case dismissed, thereby avoiding the mandatory sentences received by others.

From visually inspecting the percentage reductions in recidivism produced for each participant subgroup relative to the equivalent comparison cases, none of the subgroups performed dramatically better than any other. The percentages do suggest that (1) predicates, (2) those without prior misdemeanor convictions, (3) older participants, and (4) women performed somewhat better in the drug court than their respective counterparts. Yet, none of these subgroup effects were statistically significant when evaluated in additional logistic regression analyses.[8]

Summary

The Brooklyn Treatment Court generated a significant reduction in recidivism up to four years after the initial arrest and up to one year after program graduation or failure. BTC also had a small but non-significant impact on recidivism after two years post-program. Impacts were strongest for drug court graduates; only 6% of graduates were reconvicted within the one-year post-program and only 11% within two years. Also, for all participants combined, the recidivism reduction was most pronounced for the most serious *felony* level category of re-offending. Finally, among recidivists, drug court participants averaged significantly more *crime-free time* before the first recidivist arrest occurred. Hence the drug court generated less recidivism overall and a delay in the onset of recidivism among those who did re-offend.

[8] These analyses included significant variables from the previous regression predicting recidivism within three years post-arrest (see Table 13.5) as well as interaction terms designed to test whether participants with certain added characteristics were particularly likely or unlikely to recidivate. None of the interaction terms tested (participation status*predicate status, participation status*prior misdemeanor conviction(s), participation status*age, and participation status*sex) were significant in separate test analyses (one for each hypothesized interaction effect).

Chapter Fourteen
Impact Evaluation of the Queens Treatment Court

The Queens Treatment Court (QTC) opened in May 1998 through the collaboration of the Queens District Attorney's Office, the Legal Aid Society, the Queens County Supreme Court, the New York State Unified Court System, and the Office of the Chief Administrative Judge of New York City. Motivating its implementation, planners found that first-time drug felony cases accounted for an escalating percentage of criminal court arraignments in Queens. QTC planners determined to focus on the first felony population, since the Queens District Attorney's Office runs a separate Drug Treatment Alternatives to Prison (DTAP) program serving repeat drug felons (see Porter 2000).

The impact evaluation utilized a *pre-post* design. The comparison group consisted of defendants arrested on comparable charges in the year prior to the opening of the drug court. Available sample sizes enabled analyzing recidivism up to three years after the initial arrest and up to one year after program completion (or an equivalent post-disposition period for the comparison group). This chapter describes the QTC drug court model and then presents Queens-specific aspects of the research design and the results of all recidivism analyses.

The Queens Treatment Court Model

Screening and Eligibility

Defendants are *paper eligible* for QTC if they are arrested on drug felony charges,[1] do not have a prior felony conviction, and do not have a prior violent misdemeanor conviction. The most serious A-1 and A-2 drug felony charges are excluded.

At arraignment, all potentially eligible cases are adjourned to the AP-N (Narcotics) court part previously established in Queens to hear drug felony cases. The first appearance in AP-N is usually two weeks after arraignment. Before that appearance, the Narcotic's Trial Bureau Chief or the Deputy Bureau Chief reviews the defendant's rap sheet and determines whether the defendant is paper eligible. Defendants involved in heavy trafficking are excluded at this point. Heavy trafficking is objectively indicated by the existence of an A-1 or A-2 level felony charge. By comparison, B-felony (or lower) sale and possession charges are automatically eligible, with the caveat that they are still subject to A.D.A. review to rule out the possibility that an otherwise high-level seller could enter QTC.

Upon a finding of paper eligibility, the District Attorney's Office typically presents the defendant and defendant's attorney with an offer. The offer involves a choice between referral to the drug court or pleading guilty and receiving five years of felony probation. The probation sentence option is replaced by a jail or prison sentence. A subsequent AP-N court date is then set for approximately two weeks later. In the interim, if the defendant indicates a preference for the drug court referral, the clinical assessment process commences. By the time of the next AP-N

[1] The Queens Treatment Court also accepts defendants who are arrested on select *non-drug* felony charges (mainly nonviolent property offenses) but only began doing so in 2002. Hence the defendants in the impact analysis sample were all arrested on *drug* charges.

court appearance, the assessment will have been completed and a final clinical eligibility determination made.

The clinical assessment is conducted by Treatment Alternative for Safer Community (TASC). This independent agency is used for case management services by many of New York City's court-mandated treatment programs, including most of its DTAP programs. TASC uses the UTA assessment designed for all New York State adult drug courts. The assessment questions cover drug use, criminal history, educational and employment background, physical and mental health, and sources of social support. Following the assessment, TASC may find some defendants ineligible due to not needing treatment, not having an interest in treatment, or having a severe mental health disorder. In general, TASC tends to find defendants eligible even if they use drugs infrequently, such as three times per week or even just one or two times per month. This is because TASC sees current illegal use, even at low levels, as a potential gateway for a future addiction. In this regard, QTC assessment practice stands at the opposite end of the spectrum from Brooklyn, which excludes defendants not deemed to have a current *addiction*, even if they *use* illegal drugs to some degree. QTC also excludes defendants on more than 40mm of methadone at intake, while defendants on a lower dosage must agree to enter a methadone-to-abstinence program before being considered eligible.

As described in Chapter Three, QTC serves the youngest participants of the eleven drug courts analyzed in this report (median age = 23). The TASC case managers explained that this is largely because QTC excludes defendants with a prior felony conviction, leaving an eligible pool consisting only of those not old enough to have accumulated a felony record. Also, because the clinical practice is to intervene early among at-risk defendants who currently *use* illegal drugs but may not yet be addicted, QTC targets a young user population that some drug courts would exclude. Coinciding with the population's young age, 56% list marijuana as their primary drug of choice, the highest percentage of this report's eleven drug courts.

If TASC determines that a defendant is clinically eligible, and the defendant wishes to participate, at the second AP-N court appearance (approximately four weeks post-arrest) the case is referred to QTC for a second appearance later that day. In QTC, the defendant then pleads guilty to a felony and enters the drug court. Of all screened defendants since January 2000, 56% became participants, and only 13% refused the program, with the remaining 31% not entering for other reasons (e.g., no addiction, severe mental health or medical issues, or D.A. determination). The 13% refusing the program is a relatively low statistic (although slightly higher than the percentages at Bronx and Brooklyn). This raises the prospect of slight selection bias in the impact evaluation – that is, the comparison sample most likely *includes* some defendants that would *not* have agreed to enter the drug court if they were eligible. Importantly, compared with the broader spectrum of social policy interventions subject to quasi-experimental evaluations, the 13% refused program percentage remains small, and the resulting selection bias should be relatively small as well.

Participation Requirements

QTC uses a *post-plea* adjudication model whereby defendants plead guilty to an eligible drug charge before participation begins. QTC uses a standard formula to determine the severity of the top charge in the plea agreement. A B-felony arrest is reduced to a C-felony plea, a C-felony arrest is reduced to a D-felony, a D-felony is reduced to an E, and an E remains at the E level.[2]

[2] As of April 2003 (past this evaluation's analysis timeframe but prior to report completion), the assigned A.D.A. charges the defendant, whenever possible, with a complete crime (e.g., not an attempt). This means, for example, if

Participants cannot plead guilty to a misdemeanor. The typical predetermined jail alternative is one year, although violators of probation or defendants with a prior youth offender conviction may receive a 1-3 years prison alternative instead. Also, occasional cases that are deemed particularly serious may be required to plead to a B felony and be subject to a 2-6 year prison alternative. The assigned A.D.A. could recall only a few instances of this in her tenure. QTC graduates always have their case dismissed.

All participants agree to the same treatment mandate, involving at least twelve months of participation, divided into three phases of treatment. Each phase requires 4 consecutive sanction-less months of participation. In Phase One, the time count begins when the participant has actually been placed in treatment and begun to attend. For graduation, QTC also requires participation in three community service events and obtaining a high school diploma or G.E.D. Note that QTC does not require that all counted time in each phase be *drug-free*. Instead, the focus is on *sanction-less* time, meaning that if the court decides not to sanction a particular infraction, such as an early positive drug test, the participant will not lose time.

The Case Management and Treatment Model

TASC performs all QTC case management functions, including assessment, treatment matching, and ongoing monitoring. To promote inter-staff coordination, the QTC resource coordinator plays a pivotal role. Each morning, the resource coordinator meets with the TASC case managers to review the day's calendar and discuss problem cases. The resource coordinator then meets with the judge to review the calendar and make decisions on phase promotions and sanctions.

Concerning treatment referral practices, TASC utilizes a list of over forty community-based treatment programs spanning all modalities (residential, short-term rehabilitation, intensive outpatient, and outpatient). The initial treatment recommendation is made by the four TASC case managers assigned to QTC, their TASC supervisor, and the resource coordinator. In an interview with two of the case managers and the TASC citywide coordinator, they observed that QTC rarely uses the short-term rehabilitation modality. They further explained that in determining the most appropriate modality, they will look closely at the duration and frequency of drug use, primary drug of choice, living situation, family support, and criminal history. Also, among those assigned to outpatient, all must begin by attending five days per week, unless they are working or in school, in which case three days per week is possible. If in school, they must bring in their report card to demonstrate attendance.

Judicial Supervision

QTC requires a court appearance each week for approximately the first month of participation, followed by a gradual downgrading to an appearance every two weeks, every three weeks, and then monthly. Typically, by Phase Two, participants are on a monthly reporting schedule.

Besides daily morning meetings between the judge and resource coordinator, there is a full team meeting each Wednesday led by the project director and including the judge, judge's law clerk, resource coordinator, assigned A.D.A., two assigned defense attorneys, and the TASC case managers. The meeting focuses on a select number of problem cases as well as any outstanding programmatic issues. Three members of the research team attended one such meeting and

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a defendant is arrested for a B-felony Criminal Sale of a Controlled Substance in the Third Degree, the defendant would instead plead to a charge of a D-felony Criminal Sale of a Controlled Substance in the Fifth Degree.

formed the impression that it was an outstanding exemplar of how a team meeting should work. The project director introduced each case on the agenda and invited comments from all team members who knew about the case or had opinions. Following a highly democratic discussion in which most team members offered opinions and insights, and many responded to each other's suggestions, the team arrived at a consensus decision (e.g., concerning a possible treatment modality upgrade, other treatment needs, sanctions, or possible program failure). The judge, the Honorable Leslie Leach, played an influential role in moving the team toward a final decision, but did so only after a variety of views and exchanges had run their course.

QTC has a formal sanctions schedule, although QTC views this schedule as advisory only and frequently makes case-by-case decisions. In an interview, Judge Leach articulated assigning an essay as the least serious sanction. He noted that he sometimes requires an essay but without causing the defendant to lose accumulated program time as a result of its imposition. Among "A" level (least serious) sanctions, the judge views requiring a participant to sit in the jury box as somewhat more severe than an essay. From there, sanctions can escalate to community service ("B" level) or jail ("C" level). Judge Leach noted that different individuals respond better to different types of sanctions, so QTC will try to be sensitive to individual needs. The judge noted that if a participant who has relapsed is honest about a continuing use problem, QTC will often respond with a strictly clinical response before resorting to punitive sanctions, such as jail.

In our interview, the judge commented on the implications of having a young clientele at QTC. He observed that older people tend to have a clearer vision of how drugs have affected their lives, whereas younger participants need to be guided through the process and have it laid out for them exactly where they are headed if they do not change their lifestyle. The judge also noted that social support is a critical issue for young people; so he wants to talk to them about the attitudes of the people around them and encourage participants to stay away from others who are using drugs or engaged in criminal activity. Judge Leach will often seek to engage the whole family in the recovery effort, for instance by meeting with parents, receiving their input, and in turn communicating what their son or daughter needs to do in order to succeed.

In court, Judge Leach engages in a remarkably extensive interaction with each participant. The judge provides strong encouragement to participants who are doing well and often engages those with problems in a conversation about the nature of the problems and what types of changes are necessary. Judge Leach begins the development of his relationship with a participant at the moment of the plea (formalizing program entry). In court observation, both of the two pleas witnessed by the research team took over half an hour each and involved a detailed question-and-answer exchange on the nature of the criminal behavior that brought the participant to the drug court, the participant's understanding of what it would take to succeed in QTC, and the importance of honesty in all future interactions with the judge and the QTC staff. In the process evaluation, Porter (2000) found that a sample of 58 participants highly rated "direct interaction with the judge" (average utility rating of 4.5 on a 1-5 scale). From her own detailed court observations, Porter further observed, "When discussing the case, drug treatment, family concerns, housing or other personal matters, the judge is, by turn, authoritative, paternal, and cajoling. Observations, and staff and participant interviews, all concur that the current judge is particularly adept at engaging defendants while they are in the court (2000: 14-15)."

As in other drug courts, participants can fail either due to repeated noncompliance, a new arrest, or opting-out. In QTC, a new felony arrest will almost always lead to failure, unless the charges are later reduced to a misdemeanor. Other noncompliance will not generally lead to failure unless the participant has failed at least three treatment programs.

Research Design and Methodology

The research design and analysis implemented the general framework described in Chapter Eleven. This section discusses their specific application in the QTC evaluation.

Definition of the Comparison Group

The initial comparison group was drawn from all defendants arrested in Queens on a top charge of criminal sale or criminal possession in the third degree in the year prior to the opening of QTC in May 1998. These two charges accounted for 93% of the top charges among actual QTC participants. The remaining 7% of participants were arrested on other felony sale or possession charges. Consistent with the QTC paper eligibility criteria, the comparison group also excluded defendants with a prior felony conviction, a prior violent conviction, and for whom the instant case arrest did not result in a conviction. Comparison group defendants arrested for a felony but convicted of a misdemeanor were included, even though QTC drug court participants must plead guilty to a felony. (See discussion of this issue in Chapter Twelve.) The initial sample had 945 defendants.

Definition of the Participant Sample

The initial drug court participant sample included all 389 participants available for at least a two-year post-arrest recidivism analysis. Since recidivism data was available through June 2002, all participants in the sample had to have been arrested by June 2000.

Implementation of Propensity Score Matching

Statistical analyses proceeded as discussed in Chapter Eleven. The first step was to compare the initial samples on all available and relevant background characteristics. The purpose was to determine whether the drug court participant and comparison samples differed significantly in any important respects (on demographics, criminal history, etc.). The subsequent propensity score matching process would then seek to eliminate or at least reduce those differences prior to beginning the recidivism analysis. The samples were initially compared on the following variables: prior misdemeanor conviction (y/n), prior drug conviction (y/n), arrested on top charge of felony drug *sales* (not possession), sex, age, and race/ethnicity (divided into black, Hispanic, and other). Note that there was no need to compare on prior felony convictions, since in QTC all priors have to be misdemeanors.

Bivariate comparisons revealed that participants were significantly more likely to have a prior misdemeanor conviction, to be younger and to be a race other than black. Also, participants were more likely to be arrested on a drug *possession* than sale charge at the weaker .10 level. Since QTC tends to adapt services and programs to a younger population than other drug courts, the relatively younger age of its participants is expected. The other differences do not lend themselves to any apparent explanation; they may possibly serve as proxies for differences on various unmeasured socioeconomic or addiction severity-related factors.

All significant variables (including up to the .10 level) were then entered into a logistic regression model predicting the probability of drug court participation. Forty-nine participants were excluded from the original 389 at this point due to missing data for top arrest charge on the instant case. A total of 1,285 defendants were in the regression model, 340 participants and 945 comparison candidates. Table 14.1 gives the regression coefficients and significance levels.

Table 14.1. Logistic Regression Model Predicting QTC Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	1285
Participants	340
Comparison Group Candidates	945
Chi-square for model	24.282***
Logistic Regression Coefficients	
Prior drug conviction(s)	-.261
Arrested on felony sales top charge	-.159
Age	-.023**
Race/ethnicity[1]	
Black	-.558**
Hispanic	-.507*
Constant	.264

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether the defendant is a QTC participant or comparison group candidate. Variables included in the model were significant at the .10 level or better in separate bivariate comparisons (see Table 14.2).

[1] Race/ethnicity has a third, unlisted "other" category to which black and Hispanic participants are compared.

Propensity scores were obtained, and each participant was matched to the comparison candidate with the nearest, if not identical, score. Use of the "nearest neighbor" technique led only 6% of the final comparison sample to be matched to more than one participant. Hence for the most part, one-to-one matches predominated – that is, nearly all defendants from the final comparison group were matched to one and only one drug court participant. After completing the matching process, the 340 participants were matched to 312 comparison defendants.

Table 14.2 compares the participant and comparison samples both before and after implementation of the propensity score matching. The results show that the matching process greatly improved the comparability of the comparison group. The final samples did not have any significant differences, and only one difference (percentage black) appeared at the weaker .10 level.

Post-Program Methodology for QTC

As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the post-program analysis. First, it takes drug court graduates at least one year to complete the program and an additional year of post-program time before analysis can be performed. Second, QTC failures are usually sentenced to one year in jail (which in practice involves about eight months of jail time), and the post-program count cannot begin until their release. Hence they also may not, as of the analysis date, have achieved the requisite year of post-program time. Finally, a number of participants had not, as of the analysis date, reached final status (graduation or failure). Since final status is a crucial predictor of recidivism (with graduates less likely to recidivate), it is important to have an accurate ratio of

Table 14.2. Baseline Characteristics of Queens Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	(N = 389)	(N = 945)	(N = 340)	(N = 312)	
Prior misdemeanor conviction(s)	19%	25%*	19%	18%	-5%
Prior drug conviction(s)	13%	13%	13%	11%	-2%
Arrested on felony sales charge	71%	76%+	71%	75%	-1%
Male sex	82%	79%	81%	82%	-2%
Average age	27.3	29.4***	27.2	26.6	-1.5
Race/ethnicity					
Black	53%	59%*	54%	61%+	1%
Hispanic	31%	30%	30%	28%	1%
White / other	17%	11%**	16%	12%	2%

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: The final comparison sample is substantially smaller than the pre-matching sample due to the effect of the matching process in removing poor matches from the comparison group. The participant sample loses 49 cases due to missing data on one or more variables that needed to be included in the logistic regression equation predicting participation (see Table 14.1). In nearly all 49 of these cases, information was missing on the arrest charge variable.

graduates to failures available in the post-program participant sample. (See Chapter Nine and discussion in Chapter Eleven.)

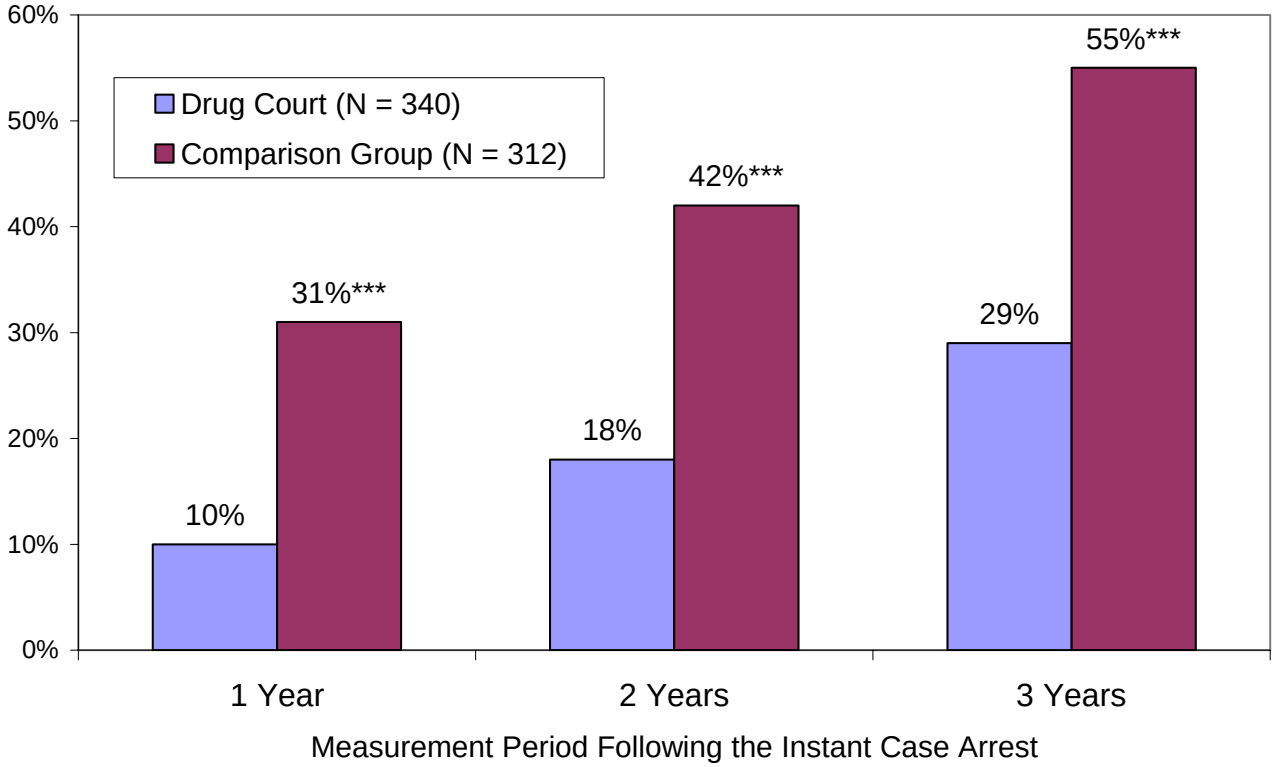
In order to investigate and correct for any biases, the final status of all program participants *in the impact sample* was determined as of November 3, 2002, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were utilized to *predict* whether they were more likely to graduate or fail. The prediction model was derived from the predictors of drug court failure analysis reported in Chapter Nine.[3] Significant predictors were entered into a new logistic regression model predicting graduation. This model only included cases from the participant sample for the impact analysis. Significant predictors included age, race/ethnicity, first treatment modality assignment, and whether the participant warranted within thirty days of drug court entry. The resulting equation was as follows:

LOGODDS(graduation) = (.025 * AGE) + (-.438 * RACE-BLACK) + (-.816 * RACE-HISPANIC) + (-.541 * FIRSTMODALITY-RESIDENTIAL) + (-1.211 * WARR30) + (1.211).

This equation was used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). The resulting probabilities were then used to estimate the final program status of participants who had not yet completed drug court as of the analysis date. Of 340 participants in the impact sample, only fourteen (4.1%) had not reached final status as of that time. Hence our estimation method was only necessary to impute graduation / failure status to 4.1% of all QTC participants included in the full impact sample. Of the fourteen cases requiring an estimate of final program status, three were missing on a warrant for more than one year and, as per conservative assumptions discussed in Chapter Eleven, were predicted

[3] Possible predictors were sex, age, race, primary drug of choice, prior treatment episode(s), first treatment modality in the drug court, prior conviction(s), current top arrest charge for a drug sales felony as opposed to possession, and whether the participant disappeared on a warrant within 30 days of drug court entry.

Figure 14.1. Impact of QTC on Recidivism within Three Years of Initial Arrest
(Percentage with a New Arrest Leading to a Conviction)



+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)
Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later. At 3 years, drug court participants were only available that entered by June 1999. Thus 3-year sample sizes decline to 156 for drug court and 143 for the comparison.

eventually to fail the drug court. Of the eleven remaining, if the predicted probability of graduation generated by the above equations exceeded 50%, the participant was predicted to be a graduate; if the probability was less than 50%, the participant was predicted to be a failure.

Using the predicted final outcomes produced with the above method and the *known* final status of 326 (95.9%) participants from the impact sample, a graduation rate was estimated at 71.2%. This graduation rate applied to the full participant sample (N = 340). However, only 201 participants were available for the one-year post-program analysis, 160 graduates and 41 failures. As these numbers make clear, the available sample includes a somewhat disproportionately high number of graduates and a somewhat disproportionately low number of failures. Accordingly, these graduates and failures were adjusted; the 201 graduates were weighted so as to contribute 71.2% towards all post-program recidivism outcomes for participants, and the 38 failures were weighted so as to contribute 28.8%. This process assured that average recidivism rates ascribed to all participants would not be biased based on whether more graduates or failures happened to

Table 14.3. Impact of QTC on *Post-Arrest Recidivism*

Recidivism Measure	Drug Court	Comparison Group
Recidivism within 3 Years Post-Arrest	(N = 156)	(N = 143)
Average days in-program for participants	544	n/a
Any new conviction	29%	55%***
Any felony conviction	12%	36%***
Any misdemeanor conviction	20%	27%
Any conviction for drug offense	19%	43%***
Average number of convictions	0.47	0.97***
Of those with at least 1 new conviction:	(N = 46)	(N = 78)
Days to first new arrest (led to conviction)	543	319***

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 1, 2 or 3 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time for a three-year post-arrest analysis.

have accumulated enough post-program time for inclusion in the one-year post-program recidivism analysis.[4]

Impact on Post-Arrest Recidivism

Bivariate Comparisons

As shown in Figure 14.1, QTC had a powerful impact on recidivism across all post-arrest measurement periods (up to three years, p < .001 for all comparisons). After one year, just 10% of drug court participants versus 31% of the comparison group had a new conviction; after two years, the difference was 18% versus 42%; and after three years, it was 29% versus 55%. Framed differently, after one year, the QTC recidivism rate was less than one-third as high as the comparison group's recidivism rate (10% / 31%). And by three years, which includes substantial *post-program* time for most participants, QTC still cut the recidivism rate nearly in half, reducing it by 47% from the initial comparison group level. These represent among the largest impacts in the drug court literature to date.

Table 14.3 compares the drug court and comparison group on additional recidivism measures. When examining the total *number* of recidivist convictions, the comparison group has more than twice as many as participants by the three-year mark. Also, of those with at least one reconviction in that time, drug court participants remained crime-free for significantly longer. Comparison recidivists averaged only 319 days from initial arrest to first re-arrest leading to a conviction, whereas recidivating participants averaged 543 days (p < .001). Thus QTC generated consistently dramatic positive impacts on the *probability*, *prevalence*, and *timing* of recidivism.

With respect to specific charges, QTC had its greatest impact on the most serious, felony level, type of re-offending. After three years, drug court participants were one-third as likely as the comparison group to have a new *felony* conviction (12% versus 36%). QTC also had a

[4] To proportion the 160 graduates and 41 failures according to the estimated graduation rate, all graduates received a weight of .89, and all failures received a weight of 1.44. As these numbers make clear, without implementation of a weighting methodology, graduates would have been greatly and improperly over-represented in post-program analyses, which would have created biased recidivism results.

Table 14.4. Types of Charges in Recidivism Cases:
Top Disposition Charge in the First New Arrest Leading to a Conviction within Three Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Three Years	46 (29% of sample)	78 (55% of sample)
Top Disposition Charge		
1. Drug Charges	***60%***	***71%***
Felony drug sales	*24%*	*35%*
Felony drug possession	*4%*	*8%*
Misdemeanor drug possession	*28%*	*27%*
Misdemeanor marijuana sales	*2%*	*1%*
Driving While Intoxicated	*2%*	*0%*
2. Property Charges	***17%***	***13%***
Robbery, burglary, or grand larceny	2%	8%
Petit larceny, theft, criminal possess. of stolen property, trespass, or criminal mischief	15%	5%$^{+}$
3. Other Violent Charges	***15%***	***9%***
Criminally negligent homicide	0%	1%
Sexual misconduct	4%	0%
Felony assault	0%	3%
Misdemeanor assault	9%	1%$^{+}$
Criminal possession of a weapon	2%	4%
4. Prostitution	***0%***	***5%****
5. Other (includes criminal facilitation, criminal solicitation, forgery, resisting arrest, witness tampering, bail jumping, endangerment, gambling, and riot)	***7%***	***3%***
Total	***100%***	***100%***

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

substantial impact on the probability of drug-related re-offending; after three years, 19% of drug court participants versus 43% of the comparison group had a drug-related reconviction. By comparison, QTC had a smaller, non-significant impact on misdemeanor re-offending.

The results in Table 14.4 reveal that of those who did recidivate within three years, there were few differences in the exact nature of the new charges. First reconvictions among participants were less likely than the comparison group to be drug-related (60% versus 71%, but not statistically significant) and more likely to involve low-level property charges, such as petit larceny, theft, criminal possession, or trespass offenses ($p < .10$). Also, participant recidivism was more likely to involve misdemeanor assault charges ($p < .10$).

Multivariate Comparisons

Since significant differences did not exist between the final samples on any observed characteristics (only black race at the weaker $p < .10$), the propensity score matching

Table 14.5. Multivariate Results Predicting the Impact of QTC on Recidivism within Two and Three Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions[1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	2 Years	3 Years	2 Years	3 Years
Total Sample Size	648	296	648	512
Drug Court	340	156	340	156
Comparison Group	308	140	308	140
	Odds Ratios:		*Regression Coefficients:*[3]	
Drug court participant	.304***	.341***	-.986***	-.634***
Prior misdemeanor conviction(s)	3.428***	2.784**	1.082***	1.080***
Arrested on felony sales top charge	1.000	1.318	.123	.399+
Male sex	1.422	1.029	-.744	-.871
Age	.949***	.933***	-.405***	-.430***
Race/ethnicity[4]				
Black	1.978*	1.740	.247	.397
Hispanic	2.526**	2.379+	.509*	.611*

+ p<.10 *p<.05 **p<.01 ***p<.001

[1] The dependent variable is whether there was at least one new arrest within the measurement period (2 or 3 years) that led to a conviction.

[2] The dependent variable is the total number of new arrests within the given measurement period (2 or 3 years) that led to a conviction. A poisson regression specification was rejected, since the variance was almost two times greater than the mean at 2 years and more than two times greater than the mean at 3 years.

[3] Numbers in parentheses represent the regression coefficient divided by the standard error.

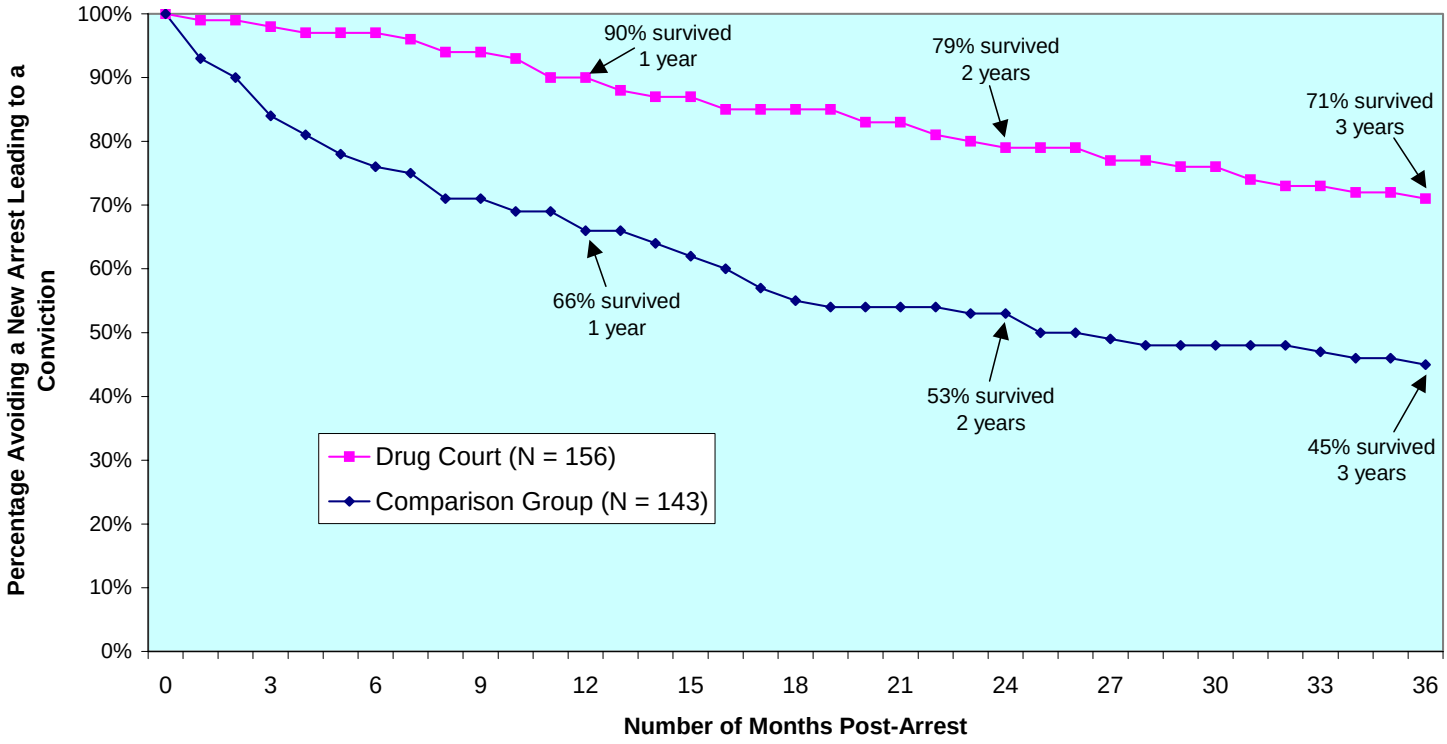
[4] Race/ethnicity has a third, unlisted "other" category to which black and Hispanic participants are compared.

methodology succeeded in making multivariate methods unnecessary to verify the existence of an independent drug court effect. Nonetheless, multivariate techniques can reveal the full range of factors in addition to participation status, which predict defendant recidivism. Accordingly, multivariate analyses measure both the probability of at least one reconviction (logistic regression) and the total number of reconvictions (negative binomial regression) at two and three years post-arrest. (See Table 14.5.)

All multivariate models confirm the strong impact of the drug court. Also, defendants with a prior conviction (always misdemeanor level in Queens) and younger defendants engaged in more recidivism according to all analyses. Despite the powerful impact of QTC in generating less recidivism, prior criminal behavior and age remained about as powerful predictors, highlighting the fundamental nexus between these factors and future criminality.

Finally, across all analyses, Hispanic defendants were more likely than others to recidivate ($p < .05$ in three of four multivariate models). The impact of black race was only a significant predictor of recidivism at two years and was not a significantly predictor of number of recidivism incidents at either time period. However, the direction of the coefficients in all analyses indicates that blacks were also somewhat more likely to recidivate. This means that those from the “other” race category, composed of Caucasians and Asians, were the least likely group to recidivate. The explanation of this impact of race is unclear and should be interpreted with caution. It may relate less to differential criminal behavior and more to the demographic

Figure 14.2. Survival Curve:
Survival of QTC Drug Court versus Comparison Group Defendants Up to Three Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .001 level (p = .0000 for Wilcoxon statistic).

composition of the high violence neighborhoods that tend to be targeted for police enforcement activity in New York City.

Survival Analysis

Figure 14.2 presents survival curves for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. The curves for the two groups immediately diverge, such that by the one-year mark, 90% of drug court participants but just 66% of the comparison group had survived (avoided re-arrest). Between one and three years, the percentages surviving continued to decline for both groups, but the *gap* remained approximately the same. These trajectories suggest a long-term impact of the drug court, likely to last well beyond the period measured.

Impact on Post-Program Recidivism

This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to ascertain more clearly

Table 14.6. In-Program Versus Post-Program Recidivism Among QTC Participants

Measurement Period	In-Program	Post-Program
Length of Measurement	Mean = 409 Days	One Year
Sample: Same Sample in Both Periods	N = 201	N = 201
No new conviction	88%	88%
Any new conviction	12%	12%
One (1)	9%	9%
Two (2)	2%	0%[1]
Three (3) or more	1%	2%
Average number of new convictions	0.15	0.16
New conviction rate (convictions/year)[1]	0.12	0.12

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)

Note: The new arrest must have occurred within the given measurement period (in-program or 1 year post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures, and on the estimated release date or on the disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted based on an estimated drug court sample graduation rate of 71.2% (see discussion in text). That is, graduates combined to contribute .712 of the drug court total results, and failures combined to contribute .288 of the total. To be included in the sample, a participant had to be available for a one-year post-program analysis.

[1] One defendant had two post-program convictions (0.4%).

whether the substantial positive impacts of QTC reported above in fact persist *after* the drug court mandate ends and participants are re-released into the community. As explained in Chapter Eleven, the post-program measurement period begins on the graduation date for drug court graduates, on the release date for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

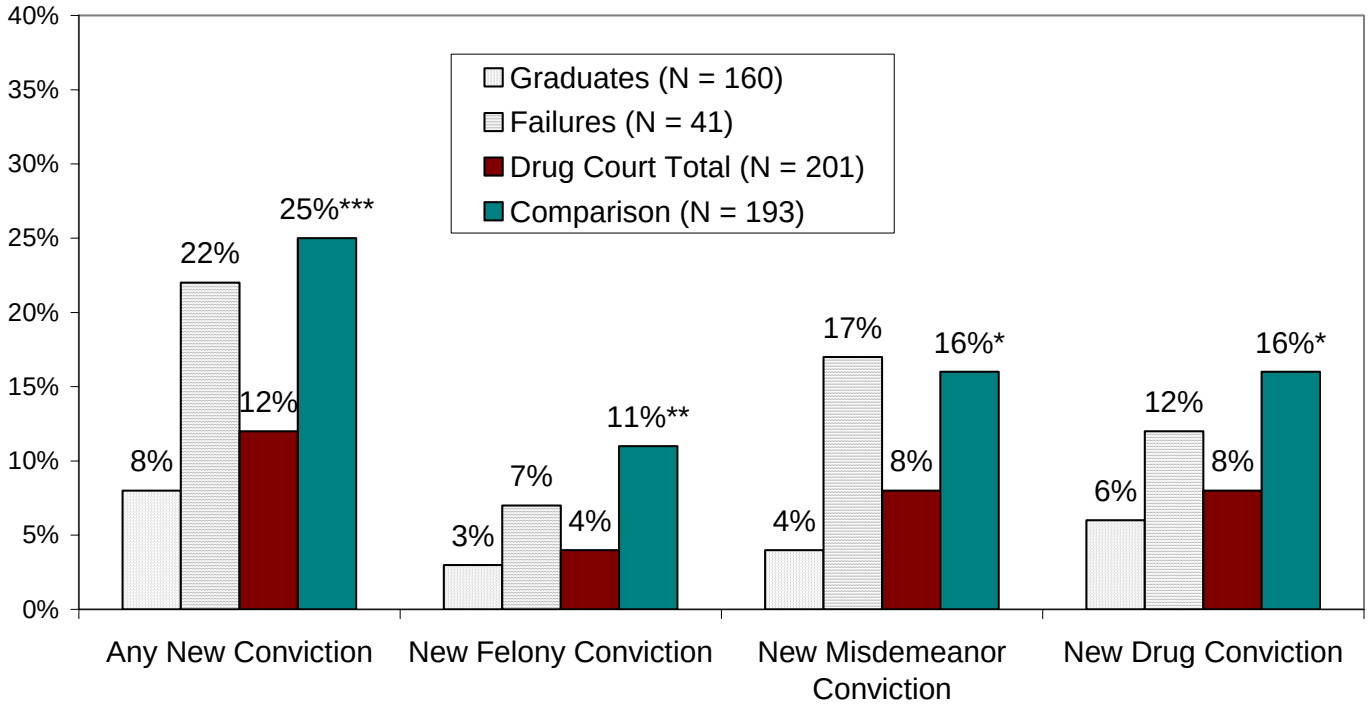
The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

In-Program Versus Post-Program Recidivism

The hypothesis driving this analysis was that the drug court would be particularly effective at reducing recidivism while participants are subject to the stringent judicial monitoring that accompanies in-program time; but this impact would diminish once participants were no longer under court supervision. Accordingly, we compared in-program and post-program recidivism for participants only, including all QTC participants available for the one-year post-program analysis.

Table 14.6 presents the findings. Contrary to expectations, the results of paired-sample t-tests revealed no difference in recidivism between in-program and post-program periods. Exactly 88% of participants were crime-free in both periods; and the average total reconvictions were nearly identical at 0.15 for in-program and 0.16 for post-program. These results disconfirmed the expectation that recidivism would increase once program participation ended.

Figure 14.3. Impact of QTC on One-Year *Post-Program* Recidivism
(Percentage with a New Arrest Leading to a Conviction)



+ p < .10 * p < .05 ** p < .01 *** p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)
Note: The new arrest must have occurred within one year post-program, although the new conviction may have occurred later. To compute the drug court total, graduates and failures are weighted as described in the text.

Impact of QTC on Post-Program Recidivism

Similar to the post-arrest results, when isolating the post-program period (see Figure 14.3), QTC again demonstrated a powerful impact on re-offending, with recidivism rates reduced by over 50% from the comparison group level (from 25% comparison to 12% participants). With respect to felony level re-offending in particular, 11% of the comparison group versus merely 4% of QTC participants had a new felony conviction. Finally, on both misdemeanor and drug-related re-offending, 8% of participants and 16% of the comparison group had a new conviction, indicating an exactly 50% reduction in these types of re-offending.

Among drug court participants, as expected, graduates were much less likely than failures to re-offend. One year after program completion, just 8% of graduates but 22% of failures had a new conviction. Graduates were also much less likely than failures to engage specifically in felony, misdemeanor, and drug-related re-offending. On the other hand, recidivism for drug court failures is either identical to or just slightly lower than for the comparison group. Thus the benefits of the drug court are primarily experienced among those who graduate. Since QTC has an exceptionally high estimated graduation rate of 71.2%, there is a net reduction in the probability of recidivism for most participants, while the remaining 28.8% are no worse off than the average comparison group member.

Table 14.7. Odds Ratios from the Logistic Regression Predicting a New Arrest Leading to a Conviction within One Year Following Program Completion

Post-Program Measurement Period	1 Year
Total Sample Size	392
Drug Court	201
Comparison Group	191
Chi-square for model	48.234***
Odds Ratios:	
Drug court participant	.393***
Prior misdemeanor conviction(s)	5.681***
Arrested on felony sales top charge	1.304
Male sex	1.042
Age	.924***
Race/ethnicity[1]	
Black	1.662
Hispanic	1.273

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether there was at least one new arrest within one year that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, the estimated release date from jail or prison for failures, and the estimated release date or disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted as described in the text.

[1] Race/ethnicity has a third, unlisted "other" category (Caucasian / Asian-American) to which black and Hispanic participants are compared.

As shown in Table 14.7, the strong impact of drug court participation was confirmed in a logistic regression analysis predicting whether a reconviction occurred at one year post-program ($p < .001$). In addition, these multivariate results revealed that defendants with a prior misdemeanor conviction and younger defendants were also significantly more likely to be reconvicted. These effects were generally consistent with the QTC post-arrest analyses.

Impact on Recidivism for Select Offender Subgroups

Results in the two previous sections indicate that, overall, QTC led to reduced recidivism, but these aggregate results do not address whether certain categories of defendants performed better than others relative to the comparison group. Table 14.8 examines drug court impacts for defendants in several distinct subgroups: those with and without prior misdemeanor convictions, older and younger defendants (divided at age 25), and male and female defendants.

From visually inspecting the percentage reductions in recidivism produced for each drug court participant subgroup relative to the equivalent comparison defendants, the drug court appears to have a relatively *greater* impact on participants *with* prior misdemeanor convictions and on older participants (26 years or older). The drug court produces a 66% recidivism reduction for participants with priors (versus a 35% reduction for those without priors); and

Table 14.8. Impact of Drug Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage
Sample Group	Drug Court	Comparison	Reduction in
Sample Size	156	143	Recidivism
1. Prior Misdemeanor History			
No prior misdemeanor conviction	31%	48%**	35%
Prior misdemeanor conviction(s)	25%	74%***	66%
2. Age			
Younger offenders (ages 16-25)	38%	61%**	38%
Older offenders (ages 26 and higher)	22%	47%***	53%
3. Sex			
Female	27%	48%$^{+}$	44%
Male	30%	55%***	45%

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: All percentages are simply the percentage of defendants in the given subgroup with at least one new arrest within the given measurement period that led to a conviction.

produces a 53% recidivism reduction for older participants (versus 38% for younger ones). As these findings make clear, the Queens drug court produces meaningful, significant impacts for all of its participants; but the magnitude becomes even relatively larger for some.

To confirm this result, two additional logistic regression analyses were conducted predicting recidivism at three years post-arrest (results not displayed). Both models included participant status, age, and prior misdemeanor conviction(s). These were the significant variables in the earlier model predicting three-year post-arrest recidivism reported in Table 14.5. The first model then added an interaction term designed to measure whether participants with priors performed particularly well relative to others (participation status*prior misdemeanor conviction). And the second model added a similar interaction term designed to measure whether older participants performed particularly well (participation status*age).

The results indicate that participants with priors do indeed perform especially well in the drug court; although the interaction effect for age was not significant. In other words, overall, drug court participants were less likely than comparison defendants to re-offend at three year post-arrest; and in addition, participants with one or more priors were *especially* less likely than their equivalent comparison defendants to re-offend. Interestingly, although this suggests that QTC is most effective with a population that *does* have a prior criminal record, QTC does not target such a population. Instead, QTC excludes participants with a prior felony conviction. Thus although QTC produces one of the largest recidivism impacts of any drug court nationwide that has been evaluated, the QTC impact could conceivably be greater if the program targeted more defendants with a prior criminal record. (The results reported here of course specifically address QTC effectiveness among defendants with a prior misdemeanor record, not among those with a prior felony record.)

Summary

The Queens Treatment Court generated a large 47% reduction in recidivism within three years of the initial arrest; and a similarly dramatic 52% reduction when isolating the one-year post-program period. These significant impacts are among the greatest detected in the drug court literature to date. Also, among those who did re-offend, QTC participants averaged significantly more crime-free time prior to their first recidivist arrest. Further analyses revealed that QTC has even larger impacts on the recidivism of participants with a prior criminal record (always at the misdemeanor level in QTC).

Chapter Fifteen

Impact Evaluation of the Suffolk County Drug Treatment Court

The Suffolk County Drug Treatment Court opened in September 1996 with federal implementation funding from the then Drug Courts Program Office. The Suffolk drug court accepts defendants facing a broad range of charges, including misdemeanants and felons, as well as defendants facing both drug and non-drug charges. The Suffolk drug court relies heavily on a case-by-case decision-making approach in determining sanctions, rewards, phase promotions, or other court responses to participant performance. For instance, the court does not have a formalized sanction schedule but takes individual defendant needs and backgrounds into consideration when sanctioning noncompliant behavior; the same infraction could lead to a number of responses depending on the participant's individual situation. In addition, although there are general graduation requirements and guidelines that largely mirror those in other drug courts, staff at the Suffolk drug court stressed that they consider graduation and failure decisions to be individualized; hence participants take widely varying amounts of time to complete the program.

The Suffolk impact evaluation utilized a pre-post design, comparing recidivism between drug court participants and defendants arrested on similar charges in the year before the drug court opened. The available sample enabled conducting a recidivism analysis for up to three years after the initial arrest and, separately, up to one year after exit from the criminal justice system.

After describing the Suffolk drug court, its policies, and the population served, a brief methodology section supplements the general methodology discussion in Chapter Eleven. Results of the post-arrest and post-program recidivism analyses follow. As in the previous chapters, this one concludes with a subgroup analysis, investigating whether certain categories of drug court participants (e.g., distinguished by sex, age, criminal history, or charge severity) performed particularly well relative to the comparison group.

The Suffolk County Drug Treatment Court Model

Screening and Eligibility

Defendants arrested on both misdemeanors and felonies are paper eligible for the drug court. The exception is defendants arrested for felony level drug *sale*, who are excluded. The court accepts defendants with a prior felony conviction, as well as defendants who use only marijuana and defendants who require methadone maintenance. Although Suffolk accepts defendants entering the court on a misdemeanor DUI/DWI if there are additional charges involved in the case, those defendants addicted to alcohol only are not eligible. Defendants arrested for the most severe A-1 and A-2 level drug felonies, as well as those with a history of criminal violence, are ineligible.

Although all drug cases in Suffolk County are currently routed to the drug court, during the court's inception, only *felony* drug cases were routinely screened for eligibility. In September 2001, the court began regularly hearing misdemeanor level drug cases as well. Since the current

analysis sample draws heavily from earlier cases, the proportion of felony cases in the sample may exceed the proportion of such cases in the drug court's present caseload.

Defendants enter the drug court in one of two possible manners. The first pertains to those who are arrested on a *drug* charge (felony or misdemeanor). They are sent to a special narcotics court part, where the drug court coordinator screens them for legal eligibility. The coordinator then makes an informal recommendation to the Assistant District Attorney regarding the defendant's eligibility. The A.D.A. then draws on the coordinator's recommendation and the A.D.A.'s own further legal screening to divide defendants into three categories: (1) those who are ineligible for the drug court, (2) those who may be *potential* drug court candidate, and (3) those who are drug court-eligible. They are further described below.

1. *Defendants who are clearly ineligible:* They advance through the narcotics part with normal criminal proceedings. By remaining in the narcotics part, they are heard by the same judge who presides in the drug court, but are seen on a separate calendar from the drug court calendar.

2. *Defendants determined by the A.D.A. and coordinator to be possible drug court cases:* They are arraigned as usual through the narcotics part while the A.D.A. and coordinator wait for a final eligibility decision. There are a number of reasons that a case could attain "wait and see" status: if there are multiple defendants on the same case, if the same defendant has other pending cases, or if the defendant shows no initial interest in the drug court. If the case is ultimately determined to be unsuitable for the drug court, it continues normally through the narcotics part. If, on the other hand, following arraignment it is determined that the case is legally eligible for the drug court, the defendant is assessed by staff from the Division of Community Mental Hygiene/Alcohol and Substance Abuse Services (DCMH/ASAS) of Suffolk County to determine whether there is a drug addiction. If a drug addiction is found, the defendant enters the drug court; if not, the case continues to be processed through the narcotics part.

3. *Defendants determined by the A.D.A. and coordinator to be drug court-eligible at the pre-arraignment assessment:* They contact an attorney (a Legal Aid attorney is appointed for those who cannot afford private counsel) and determine whether they wish to be processed through the drug court. Those who decide against drug court participation are arraigned as usual through the narcotics part, while those wishing to enter proceed to the DCMH/ASAS assessment and enter drug court if an addiction is found.

The second general type of process pertains to defendants who have been arrested on a *non-drug* charge. These defendants are also eligible for the drug court if it is believed that there is an underlying addiction problem. However, the process by which such cases enter the drug court is not as streamlined as for drug cases. The non-drug felony cases may enter the drug court either pre- or post-arraignment and may be referred to the drug court by a defense attorney, the A.D.A., the judge, or the defendants themselves. The drug court coordinator also reviews new non-drug felony arrests on a weekly basis. Based on the arrest charge, referrals, statements in the case file, and any additional resources available, the coordinator identifies possible drug court-eligible cases. Potential participants are screened pre-arraignment and, if they agree to enter, are

arraigned in the drug court. These defendants are then assessed and processed in the same manner as those arrested on drug charges.

Finally, there is no formal referral or screening process for defendants arrested on non-drug misdemeanors. Occasionally, such cases will attract the attention of a defense attorney, the A.D.A., or the judge and be referred to the drug court for post-arraignment screening and assessment. If the defendant is found eligible, they proceed in the same manner as a post-arraignment drug defendant.

On the day following arraignment, Division of Community Mental Hygiene/Alcohol and Substance Abuse Services (DCMH/ASAS) of Suffolk County staff typically assess eligible defendants wishing to enter the drug court. Potential participants are screened for addiction and treatment readiness. The assessment is based on the addiction severity index and other open-ended questions regarding drug use and treatment history. Although the drug court does not accept defendants addicted to alcohol only, the court does not distinguish between other chemical addictions. The court's policy is that any addiction to illegal drugs underlying criminal behavior should be treated, whether it is an addiction to heroin, crack, or marijuana. As of January 2003, only 38 potential participants (2% of all potential participants) had been found ineligible due to lacking a discernible addiction.[1] In addition to eliminating those would-be participants with no discernible addiction, DCMH/ASAS eliminates those defendants who are found to lack adequate motivation or treatment readiness, those with no interest in treatment, and those with severe medical or mental health barriers.

Those participants found eligible after clinical assessment are given the option to enter. Defendants who opt not to enter continue with normal criminal proceedings in the narcotics part. Those who are found eligible and who decide to enter the drug court plead guilty to the agreed upon charges and become a participant the day after the DCMH/ASAS assessment. Of all defendants screened as of January 2003, 45% became participants, 15% refused the program, and the remaining 39% were found ineligible for other reasons (e.g., no addiction, additional medical or mental health issues, or D.A. determination).[2] The percentage refusing treatment is higher in Suffolk than in the three New York City drug courts, creating a possible selection bias in the impact analysis, since the comparison group sample likely includes some defendants who would have refused treatment and not entered the drug court; as well as a small additional percentage that may have been ineligible due to severe mental health issues or lack of motivation.

Participation Requirements

The Suffolk County Treatment Court utilizes a post-plea model, with participants pleading guilty to an eligible charge prior to formalizing their participation status. Although court staff indicated that currently, participants generally plead to the arraignment charge, a progress report prepared by Stony Brook University indicated that in the court's early years, the charge was lowered somewhat as a result of the drug court agreement (Brisbane, Vidal, Marmo, and Cohen 2001). Upon entering, defendants agree to a predetermined jail or prison sentence to be imposed in the event of drug court failure. Most frequently, misdemeanants are given a six-month jail

[1] An additional 89 potential participants were found ineligible because they denied drug use.

[2] Due to rounding, the percentages presented do not equal 100%. These percentages are taken from *paper eligible* defendants only; participants who were instantly determined to be ineligible for the drug court due to the court's criteria for paper eligibility are not included in this count. That is, those defendants who were prior drug court participants, those arrested on violent charges and felony drug sales, and those arrested on misdemeanors during the court's early stages were not included in the total count of cases screened.

alternative, first-time felons are given a one-year jail alternative, and predicates are given a prison alternative of at least two years and possibly longer. Upon graduation, misdemeanor charges are dismissed or reduced to a violation, and felonies are reduced to a misdemeanor. The predetermined jail alternative is subject to change only in the event of a new arrest or warrant during participation, which may lead to a longer alternative.

All participation contracts dictate identical treatment mandates; defendants agree to at least twelve months of participation, with at least the last six months of that time spent clean of chemical substances. In addition to the clean and sober condition, participants are required to be engaged in some sort of constructive activity – whether it is employment, school, training, or volunteering – in order to graduate. Unlike the courts discussed in the preceding chapters, while there is a general schedule by which participants progress, it is not formalized into separate phases of treatment.

The Treatment and Case Management Model

Based on the DCMH/ASAS assessment, drug court participants are assigned to one of five bands of treatment (i.e., modalities). Although there are seven bands in total – ranging from the most restrictive residential assignment to the least restrictive once-a-week outpatient assignment – new participants are assigned to a treatment program with an attendance requirement of at least three days a week. The placement decision is based on a number of factors, including drug use and treatment history, availability of a drug- and alcohol-free home environment, employment status, and the existence of support networks. Participants are most often initially assigned to outpatient treatment; more restrictive treatment modalities are introduced later if the participant fails to follow the program or treatment requirements. This approach is consistent with nearly all of the eleven focal courts studied in this report. As participants succeed in meeting the goals and requirements of the program, the level of supervision may be diminished.

Suffolk utilizes more than fifty DCMH/ASAS-approved treatment facilities. While the majority are in Suffolk County, participants may also be referred to a number of residential treatment sites in upstate New York.

Probation officers assigned exclusively to work with the drug court perform case management for participants assigned to outpatient programs (the majority), while TASC, the same agency used by Queens for all of its case management, monitors participants assigned to inpatient. The probation case managers meet regularly with participants, track their progress, coordinate resources and services, screen for drug use by administering a urine screen at every meeting, visit participants' homes, and, with DCMH/ASAS, recommend changes to a participant's treatment modality when indicated. The probation officers do not perform a "therapeutic" role, which in their view enables greater directness with participants about what is expected of them. As long as participants are compliant with program requirements, the case managers encourage them; when participants fail to meet program expectations, the case managers take on a more disciplinary role. Since participants see their case managers more frequently than the judge, the judge generally delegates to the case managers treatment-related and monitoring decisions.

Judicial Supervision

Upon entering the drug court, participants will appear weekly before the drug court judge, the Honorable Salvatore Alamia. Participants will move to a less frequent appearance schedule on a case-by-case basis depending on progress in treatment, relapse incidents, and general progress.

Often, participants who are doing well are allowed to come to court and, upon testing negative for drug use, may leave without appearing before the judge. However, all participants usually go no more than two or three weeks without seeing the judge, and never will a participant go more than a month without a formal court appearance.

Although the judge entrusts many treatment-related and monitoring decisions to case managers, the entire team provides input regarding sanctions and rewards. Rewards for compliant participants include reduced court appearances and symbolic coins representing participants' progress. Common sanctions include increased court appearances, the use of long lectures to "bore" participants, and increased treatment levels. The judge is particularly likely to suggest a reassessment of the treatment level for participants who have been out on a lengthy warrant, tested positive for drugs numerous times, or who are generally not doing well in their current treatment situation. There is no standard sanction schedule. Instead, sanctions, like court appearances, are determined on a case-by-case basis, based on the participant's individual needs and background. The drug court coordinator explained that it is important that participants always know that there is the risk of jail time for noncompliant behavior. Occasionally, the judge will impose jail sanctions in order to get the attention of a participant. Judge Alamia explained the use of jail sanctions with an analogy from parenting. "Sometimes you need to send your daughter to her room," the judge reasoned. A brief stay in jail – usually no more than 4 to 5 days – not only serves as a reprimand for those who have learned how to manipulate the system but is sometimes the only way that the judge can exert control over the participant. Very rarely, the judge will impose electronic monitoring for participants who will not stay in compliance with drug court regulations.

In the courtroom, the judge's time is divided between district court and county court cases. As all Suffolk drug cases are processed in the same courtroom, only a portion of those appearing before the judge are drug court cases. These cases are identifiable by the fact that drug court participants are the only defendants who stand in a gold circle on the courtroom floor. During participant appearances, Judge Alamia engages the defendant in a conversation regarding their progress. Also, the case managers report to the judge during the court appearance, noting treatment accomplishments or problems. In addition, the results of the drug screening taken upon arrival to the courthouse are conveyed to the judge. The evening prior to one of the authors' visit to the court, the judge had attended a graduation ceremony at Phoenix House, one of the primary treatment facilities used by the drug court. In court on the day of the site visit, Judge Alamia commented on the previous evening's festivities to several participants who had been in attendance, thanking them for their role in planning the evening and for their accomplishments, which made such an event possible. The judge encouraged these participants to continue their progress.

As described in Chapter Two, the judge further engages participants by often requiring them to bring three questions to their next court visit. In an attempt to "stump the judge," participants are asked to prepare three questions about American or World History. Participants must be prepared to provide the correct answer to the question in the event that the judge was, indeed, stumped. A number of participants brought such questions to court on the day of the site visit; participants seemed particularly anxious to come up with a question to which the judge and the rest of the court staff did not know the correct response.

Participants can fail the Suffolk drug court due to persistent noncompliance, a new arrest, or by voluntarily opting-out. The decision to fail a participant is a team decision, often resulting from a case manager or the DCMH/ASAS counselor asserting that treatment is simply not

working out and there is nothing more to do other than to fail the participant. Participants who abscond on a warrant remain in open status until they return. Once they return, while they may not necessarily fail, they automatically receive a lengthened jail/prison alternative. Most often, this leads to the participant receiving the maximum alternative for the top charge faced. Likewise, a new arrest often prompts an increased jail/prison alternative. The Suffolk drug court coordinator stated the general rule of thumb is that the drug court staff should never be working harder than the participant; when staff exerts more effort than the participant, this signals the proper time for failure.

Research Design and Methodology

The research design and analysis implemented the general framework described in Chapter Eleven. This section discusses their application in the Suffolk evaluation.

Definition of the Comparison Sample

The initial comparison group was drawn from defendants arrested in Suffolk County in the year preceding the opening of the drug court in September 1996. The sample included the 676 defendants arrested that year on top charges of criminal possession of a controlled substance in the seventh degree (misdemeanor, 70% of the total comparison sample) or criminal possession of a controlled substance in the third degree (felony, 30% of the total comparison sample). The comparison group excluded defendants who would be disqualified from the drug court due to violent criminal histories (either felony or misdemeanor violence) or pending violent charges. In addition, the sample only included cases in which the arrest led to a conviction.

Definition of the Participant Sample

The drug court participant sample included 234 participants available for at least a two-year post-arrest recidivism analysis. Since recidivism data was available through June 2002, all participants had to have been arrested by June 30, 2000 (at least two years earlier).

In addition, the participant sample excluded 186 Suffolk drug court participants who were arrested by June 30, 2000 but on a *non-drug* charge. As discussed above, Suffolk accepts non-drug cases into the drug court, but the comparison sample included drug charges only. (This was because no particular non-drug charge was prevalent enough among participants to merit obtaining a full sample of cases arrested on that charge for the comparison group.) Also, as results in Chapter Nine demonstrate, participants arrested on a property charge – the major category of eligible non-drug charges – are significantly more likely than other types of drug court participants to recidivate in Suffolk during both post-intake and post-program periods. Since recidivism outcomes differ between participants arrested on drug and non-drug charges, and given that the comparison group was limited to drug charges only, it was deemed inappropriate to include non-drug cases in the participant sample. This means, however, that results can only be generalized to the impact of the Suffolk drug court on defendants initially arrested on drug-related charges.

Implementation of Propensity Score Matching

The first step was to compare the initial samples on all available and relevant background characteristics. The purpose of this comparison was to determine whether the drug court participant and comparison samples differed in any important respects (basic demographics,

Table 15.1. Logistic Regression Model Predicting Suffolk Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	902
Participants	232
Comparison Group Candidates	670
Chi-square for model	81.862***
Logistic Regression Coefficients	
Prior misdemeanor conviction(s)	-.151
Prior felony conviction(s)	-.234
Arrested on felony sales top charge	.797***
Male sex	-.730***
Age	-.008
Race/ethnicity[1]	
Black	-.887**
Caucasian	-.033
Constant	-.059

*+ p<.10 *p<.05 **p<.01 ***p<.001*

Note: The dependent variable is whether the defendant is a Suffolk participant or comparison group candidate. Variables included in the model were significant at the .10 level or better in separate bivariate comparisons (see Table 15.2).

[1] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

criminal history, etc.). The subsequent propensity score matching process would then seek to eliminate or at least reduce those differences prior to beginning any actual recidivism analyses.

The samples were initially compared on the following variables: prior misdemeanor conviction (y/n), prior felony conviction (y/n), arrested on felony (versus misdemeanor) drug charge, sex, age, and race/ethnicity (divided into black, Caucasian, and Hispanic/other). Bivariate comparisons revealed multiple significant differences:

- *Criminal history:* Participants were significantly less likely to have both a prior misdemeanor and a prior felony conviction;
- *Current charges:* Participants were significantly more likely to be arrested on a *felony* level drug charge; and
- *Demographics:* Participants were significantly less likely to be male, less likely to be black, and more likely to be Caucasian; and were, lastly, more likely to be Hispanic/other but at the .10 level.

All variables were then entered into a logistic regression model predicting the probability of drug court participation. Eight comparison candidates and two participants were excluded due to missing data on at least one of the independent variables. A total of 902 defendants were in the regression model, 232 participants and 670 comparison group candidates. Table 15.1 gives the regression coefficients and significance levels.

Propensity scores were obtained from the regression, and each participant was matched to the comparison defendant with the nearest, if not identical, score (see Chapter Eleven). The result of

Table 15.2. Baseline Characteristics of Suffolk Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	(N = 234)	(N = 670)	(N = 232)	(N = 169)	
Prior misdemeanor conviction(s)	46%	59%**	47%	54%*	-6%
Prior felony conviction(s)	21%	33%***	21%	24%	-10%
Arrested on felony drug charge	49%	30%***	49%	45%	-15%
Male sex	70%	83%***	70%	76%	-12%
Average age	29.46	30.59	29.46	29.31	-1.68
Race/ethnicity					
Black	30%	53%***	30%	35%	-24%
Caucasian	59%	40%***	59%	54%	-23%
Hispanic/Other	11%	7%+	11%	11%	-2%

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

Note: The final comparison sample is substantially smaller than the pre-matching sample due to the effect of the matching process in removing poor matches from the comparison group. The participant sample loses 80 cases due to missing data on one or more variables that needed to be included in the logistic regression equation predicting participation (see Table 15.1).

the matching process was that 232 participants were matched to 169 comparison defendants, with only 9% of the comparison defendants matched to multiple drug court participants. Hence one-to-one matches predominated.

Table 15.2 compares the participant and comparison samples before and after propensity score matching. Prior to the matching, the two samples were significantly different on nearly all measures. After matching, they varied significantly only in regard to one variable: the percentage of defendants with a prior misdemeanor conviction, with drug court participants somewhat less likely to have such an offense on their past record ($p < .05$); and the absolute magnitude of the difference in the percentage with a prior misdemeanor was reduced (see Table 15.2).

Post-Program Methodology for the Suffolk County Drug Treatment Court

As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the post-program analysis. First, it takes most drug court graduates longer than the mandated twelve months to successfully complete the program and an additional year of post-program time before the analysis can be performed. Second, drug court failures are usually sentenced to a minimum of six months of incarceration and often at least a year. Hence they also may not, as of the analysis date, have achieved the requisite year of post-program time. Finally, a number of participants had not, as of the analysis date, yet reached final graduation or failure status.

In order to investigate and correct for any biases resulting from an incorrect ratio of graduates-to-failures in the analysis sample, the final status of all program participants in the impact sample was determined as of November 3, 2002, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were utilized to *predict* whether they were more likely to graduate or fail. The prediction model was

derived from the predictors of drug court failure analysis reported in Chapter Nine.[3] Significant predictors were entered into a logistic regression model predicting graduation for *only those drug court participants included in the final impact sample*. Significant predictors included age, sex, prior convictions, and whether the participant warranted within thirty days of drug court entry. The resulting equation was:

LOGODDS(graduation) = (.022 * AGE) + (.878 * SEX) + (-.661 * PRIOR CONVICTION) + (-1.037 * PARTICIPANT WARRANTED WITHIN 30 DAYS) + (-.087)

This equation was used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). The resulting probabilities were then used to estimate the final program status of those participants who had not yet completed drug court as of the analysis date. Of 232 participants in the impact sample, only 3% (7 participants) had not yet reached final program status. Hence our estimation method was only necessary to impute graduation / failure status to seven drug court participants; status was factually known for all others.

Three of these seven indeterminate cases were on warrant status for more than a year. As per assumptions outlined in Chapter Eleven, these three cases were thus predicted to ultimately fail drug court. Of the remaining four open cases, all had a predicted probability of graduation over 50% as determined by the above equations. Thus, the four cases were predicted to graduate.

Using the predicted final outcomes produced with the above method and the known final status of 225 (97%) Suffolk participants, a graduation rate for Suffolk was estimated at 66.4%. This graduation rate applied to the full participant sample (N = 232). However, only 194 participants were available for the one-year post-program analysis. Of these 194 participants, the graduates needed to be weighted to contribute 66.4% toward the participant total and failures to contribute 33.6%. However, these weights are the same as the actual available proportions of graduates and failures in the post-program analysis sample: 128 (66.0%) graduates and 66 (34.0%) failures. These numbers in fact indicate virtually no difference between the estimated graduation rate and the percentage of graduates in fact available for post-program analysis. Therefore weighting was ultimately not necessary in the post-program analysis for Suffolk. The Suffolk drug court participants who were factually available for the post-program analysis – due to accumulating the requisite one-year of post-program time – comprised a representative sample; there was no need to make any statistical adjustments.

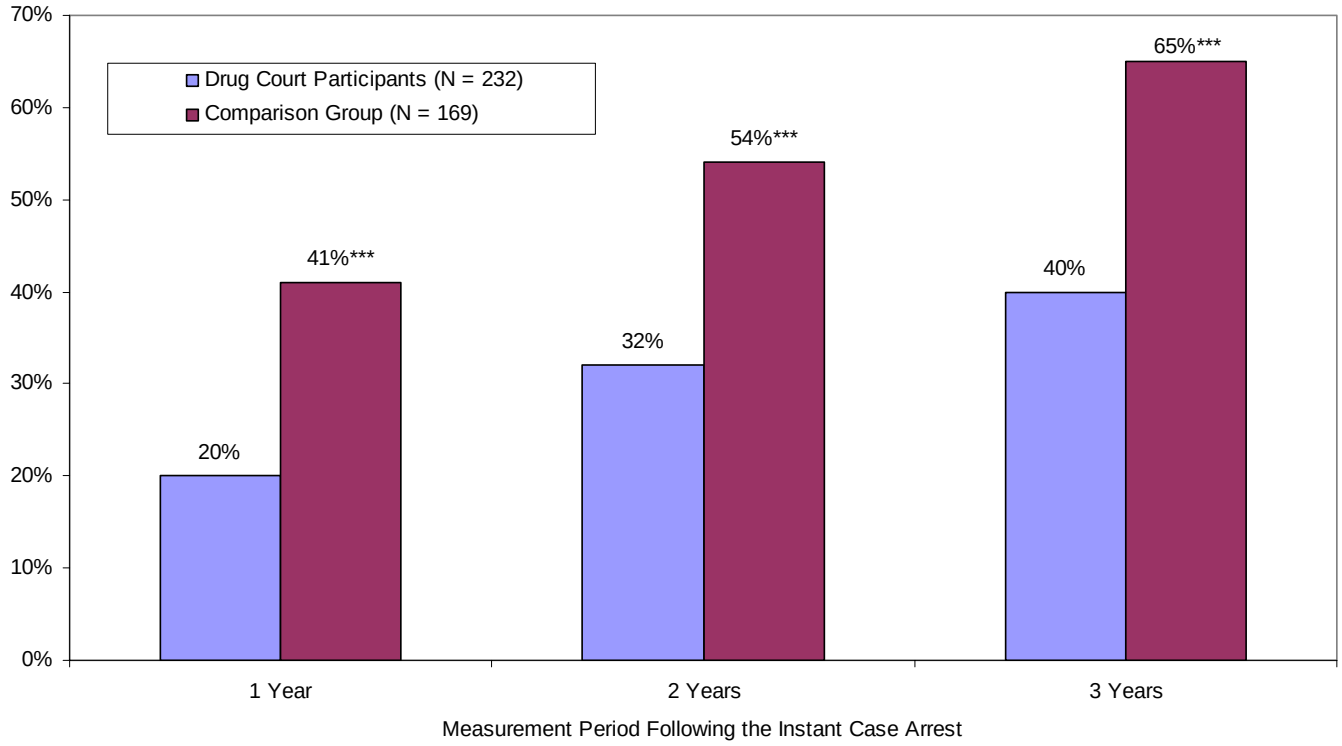
Impact on Post-Arrest Recidivism

Bivariate Comparisons

As shown in Figure 15.1, the Suffolk County Treatment Court generated a substantial reduction in recidivism across all post-arrest measurement periods (up to three years, $p < .001$ for all comparisons). After one year, 20% of drug court participants versus 41% of the comparison group had a new conviction; after two years, the difference was 32% versus 54%; and after three years it was 40% versus 65%. As these results demonstrate, the difference between the participant and comparison group recidivism rates grew after each additional year, reaching 25%

[3] Possible predictors were sex, age, race, primary drug of choice, prior treatment episode(s), first treatment modality in the drug court, prior conviction(s), current top arrest charge for felony drug, misdemeanor drug, or property crimes, and whether the participant disappeared on a warrant within 30 days of drug court entry.

Figure 15.1. Impact of Suffolk County Drug Treatment Court on Recidivism Within Three Years of Initial Arrest (Percentage with a New Arrest Leading to a Conviction)



*+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)*

Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later.

three years after the initial arrest. Framed differently, after three years, Suffolk's drug court reduced recidivism by 38% relative to the initial comparison group level.

Table 15.3 compares the drug court and comparison group on additional recidivism measures after three years post-arrest. Not only are comparison defendants more *likely* to recidivate, but they also have nearly twice as many *total* recidivist convictions after three years. Also, comparison defendants appeared to recidivate *more quickly* than drug court participants. Comparison recidivists averaged 329 days from initial arrest to first re-arrest leading to a conviction, whereas recidivating participants averaged 410 crime-free days ($p < .10$).

With respect to specific charges, the Suffolk drug court had its most dramatic impact on new drug-related offending, reducing the percentage with a drug-related conviction by almost half (18% versus 35%). The drug court also generated significant reductions in both felony and misdemeanor level recidivism (apart from whether or not the charges were drug-related). Tehse findings demonstrate that comparison defendants were more likely to recidivate on all types of charges. However, when isolating just those who did in fact recidivate from both samples, the distribution of new charges did not vary significantly (see Table 15.4). Although recidivating drug court participants were slightly more likely to be convicted of a drug charge (59% versus 51% of comparison group recidivist charges), this difference was not statistically significant.

Table 15.3. Impact of Suffolk County Drug Treatment Court on *Post-Arrest Recidivism*

Recidivism Measure	Drug Court	Comparison Group
Recidivism within 3 Years Post-Arrest	(N = 187)	(N = 144)
Average days in-program for participants	479	n/a
Any new conviction	40%	65%***
Any felony conviction	18%	28%*
Any misdemeanor conviction	33%	56%***
Any conviction for drug offense	18%	35%***
Average number of convictions	0.97	1.86***
Of those with at least 1 new conviction:	(N = 33)	(N = 93)
Days to first new arrest (led to conviction)	410	329+

+ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 1, 2 or 3 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time for a three-year post-arrest analysis.

Table 15.4. Types of Charges in Recidivism Cases: Top Disposition Charge in the First New Arrest Leading to a Conviction within Three Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Three Years	75 (40% of sample)	93 (65% of sample)
Top Disposition Charge		
1. Drug Charges	***59%***	***51%***
Felony drug sales	*9%*	*7%*
Felony drug possession	*3%*	*4%*
Misdemeanor drug possession	*36%*	*29%*
Vehicle/Traffic offense	*11%*	*11%*
2. Property Charges	***17%***	***16%***
Robbery, burglary, or grand larceny	*4%*	*3%*
Petit larceny, theft, criminal possess. of stolen property, trespass, or criminal mischief	*13%*	*13%*
3. Other Violent Charges	***4%***	***6%***
Assault or menacing	*3%*	*4%*
Criminal possession of a weapon	*1%*	*2%*
4. Loitering	***7%***	***8%***
5. Prostitution	***3%***	***3%***
6. Other (includes imitation of controlled substances, conspiracy, forgery, false personation, contraband, resisting arrest, perjury, criminal contempt, and endangerment of a child)	***11%***	***16%***
Total	***100%***	***100%***

+ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

Note: No significant differences were found between participants and comparison group cases.

Table 15.5. Multivariate Results Predicting the Impact of Suffolk County Drug Treatment Court on Recidivism within Two and Three Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions [1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	2 Years	3 Years	2 Years	3 Years
Total Sample Size	401	331	401	331
Drug Court	235	168	232	168
Comparison Group	166	163	166	163
	Odds Ratios:		*Regression Coefficients:*	
Drug court participant	.401***	.358***	-.616 ***	-.439**
Prior misdemeanor conviction(s)	2.908***	3.484***	.892***	.928***
Prior felony conviction(s)	1.305	1.715	-.087	-.148
Arrested on felony drug charge	.501**	.443**	-.469**	-.498**
Male sex	1.046	1.042	-.176	-.128
Age	.954**	.955**	-.007	.004
Race/ethnicity[3]				
Black	2.301*	2.190+	.697**	.620**
Caucasian	.851	.759	-.101	-.182

*+ p<.10 *p<.05 **p<.01 ***p<.001*

[1] The dependent variable is whether there was at least one new arrest within the measurement period (2 or 3 years) that led to a conviction.

[2] The dependent variable is the total number of new arrests within the given measurement period (2 or 3 years) that led to a conviction. A poisson regression specification was rejected, since the variance of the dependent variable was more than three times greater than the mean at both 2 years and 3 years.

[3] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

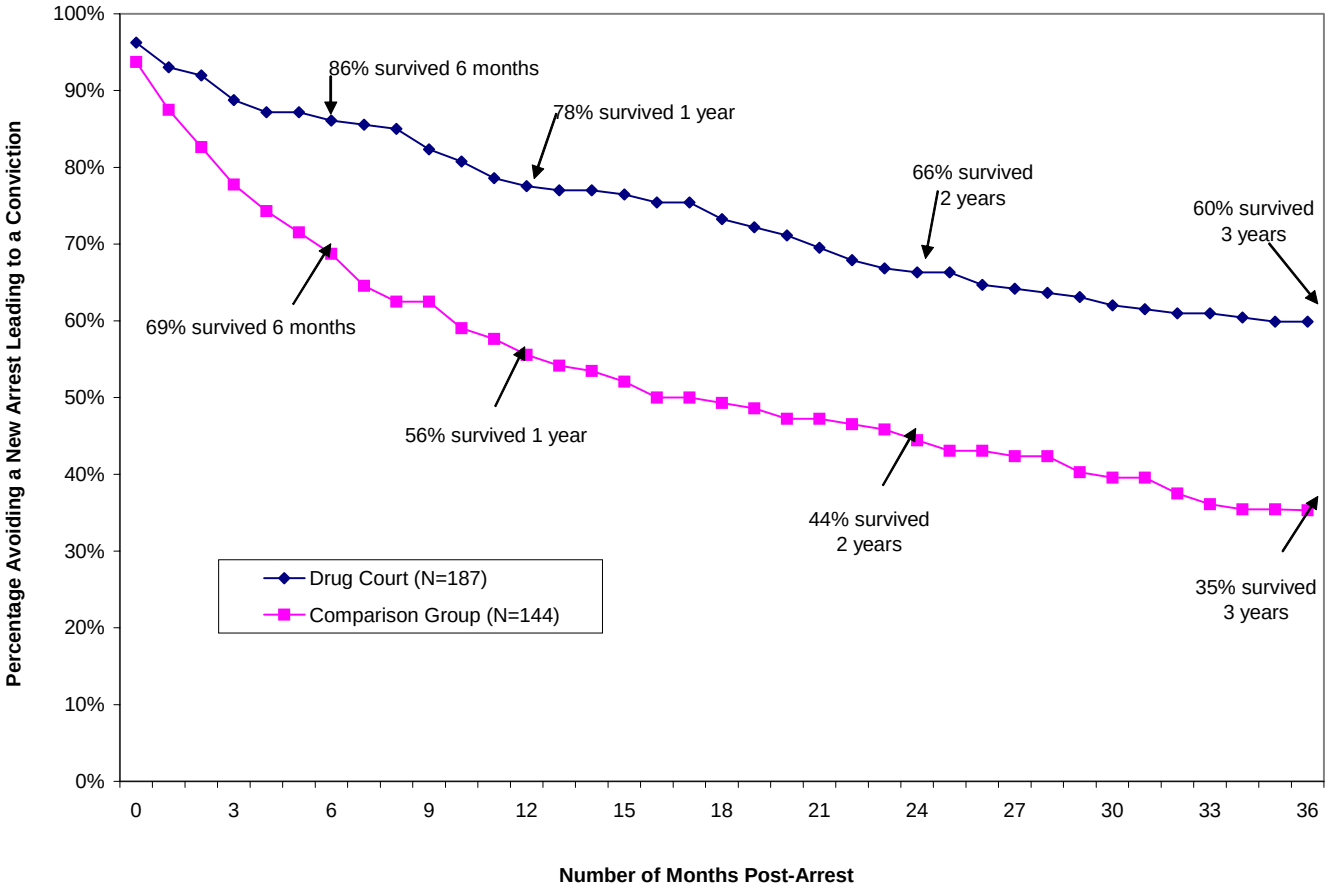
Multivariate Comparisons

Due to the propensity score matching technique described above, the only remaining significant difference between the final drug court and comparison samples was on prior misdemeanor conviction status. This makes multivariate analysis less important to ascertain the independent impact of the drug court than in studies with greater initial sample differences. However, besides verifying the drug court impact, multivariate analysis can illuminate other key predictors of recidivism among the drug court's target population. Accordingly, results in Table 15.5 indicate factors *beyond* drug court participation that continue to exert an independent impact on an individual's likelihood of recidivating. Analyses reported in Table 15.5 measure both the probability of at least one reconviction (logistic regression) and the total number of reconvictions (negative binomial regression) at two and three years post-arrest.

First, all multivariate models confirm the strong impact of the drug court in generating reduced recidivism. Second, several background characteristics predicted greater recidivism in most, if not all, models:

- Prior misdemeanor conviction(s) ($p < .001$ in all models);
- Current arrest charge for misdemeanor possession (as opposed to felony possession);
- Younger age, although age had weaker, non-significant effects in predicting the total *number* of reconvictions (in the negative binomial analyses); and
- Black race.

Figure 15.2. Survival Curve:
Survival of Suffolk Drug Court versus Comparison Group Defendants
Up to Three Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .001 level (p = .0000 for Wilcoxon statistic).

The relationship of younger age and prior criminal history with future offending is consistent with findings in the other impact courts and with the criminological literature more broadly. More notable is the particular connection between lower level crime – indicated by prior *misdemeanor* conviction(s) and current misdemeanor rather than felony level drug charges – with recidivism. (This finding was also obtained in the Brooklyn Treatment Court evaluation.) This pattern suggests that the population engaged in repeat, lower level street crime might be more troubled and intractable than offenders whose prior offense or offenses appear more severe from a criminal justice standpoint.

Also noteworthy is that black race predicted greater recidivism in all models presented in Table 15.5 (significance level varying by model). As discussed in Chapter Nine, the reasons for this impact of race are unclear; for a variety of reasons, the police may be particularly likely to target predominantly black neighborhoods for arrest. Targeting may not stem from race per se but from other characteristics that happen to apply to certain neighborhoods with a largely black

composition. For example, it is a common and understandable approach for the police to target high violence neighborhoods for additional enforcement activity (and this is indeed the practice within New York City), but this may also lead nonviolent (e.g., drug-related) criminal behavior to be pursued more aggressively in those neighborhoods.

Survival Analysis

Figure 15.2 presents survival curves for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. The curves for the two groups immediately diverge. The 2.5% difference between participants and the comparison group seen in the first month after initial arrest grew to a maximum 25% difference after just eighteen months. Between eighteen months and three years, there was some fluctuation, but the final three-year difference was also 25%, indicating that at no point did the curves converge again. These stable differences in the gap between the two groups after eighteen months suggest a probable long-term impact of the drug court lasting beyond the period measured.

Impact on Post-Program Recidivism

This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to ascertain more clearly whether drug court impacts persist *after* participants are re-released into the community. As explained in Chapter Eleven, the post-program measurement period begins on the graduation date for drug court graduates, on the release date for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

In-Program versus Post-Program Recidivism

As in the preceding evaluations, our expectation was that the drug court would be particularly effective at reducing recidivism while participants were subject to the stringent judicial monitoring that accompanies in-program time; but this impact would diminish once participants were no longer under court supervision. Accordingly, we compared in-program and post-program recidivism for participants only, including all participants available for the one-year post-program analysis.

Table 15.6 presents the findings. Contrary to expectations, the results of paired-sample t-tests indicated that there was not a significant difference between in-program and post-program recidivism. In fact, when controlling for time at risk of recidivism during both periods, participants averaged slightly *fewer* reconvictions per year in the post-program than in-program period (although this difference was not significant). Overall, the findings demonstrate that the impact of the Suffolk drug court remained relatively comparable both before and after program graduation or failure.

Table 15.6. In-Program Versus Post-Program Recidivism Among Suffolk Participants

Measurement Period	In-Program	Post-Program
Length of Measurement	Mean = 371 Days	One Year
Sample: Same Sample in Both Periods	N = 194	N = 194
No new conviction	79%	77%
Any new conviction	21%	23%
One (1)	13%	13%
Two (2)	5%	5%
Three (3) or more	4%	5%
Average number of new convictions	0.44	0.43
New conviction rate (convictions/year)[1]	0.56	0.43

[+] *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)*

Note: The new arrest must have occurred within the given measurement period (in-program or 1 year post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures. To be included in the sample, a participant had to be available for a one-year post-program analysis.

[1] One defendant had a new conviction rate of 338.60 due to early program failure. This participant was excluded from this analysis, leaving the total N at 193 for this statistic.

Impact of Suffolk County Drug Treatment Court on Post-Program Recidivism

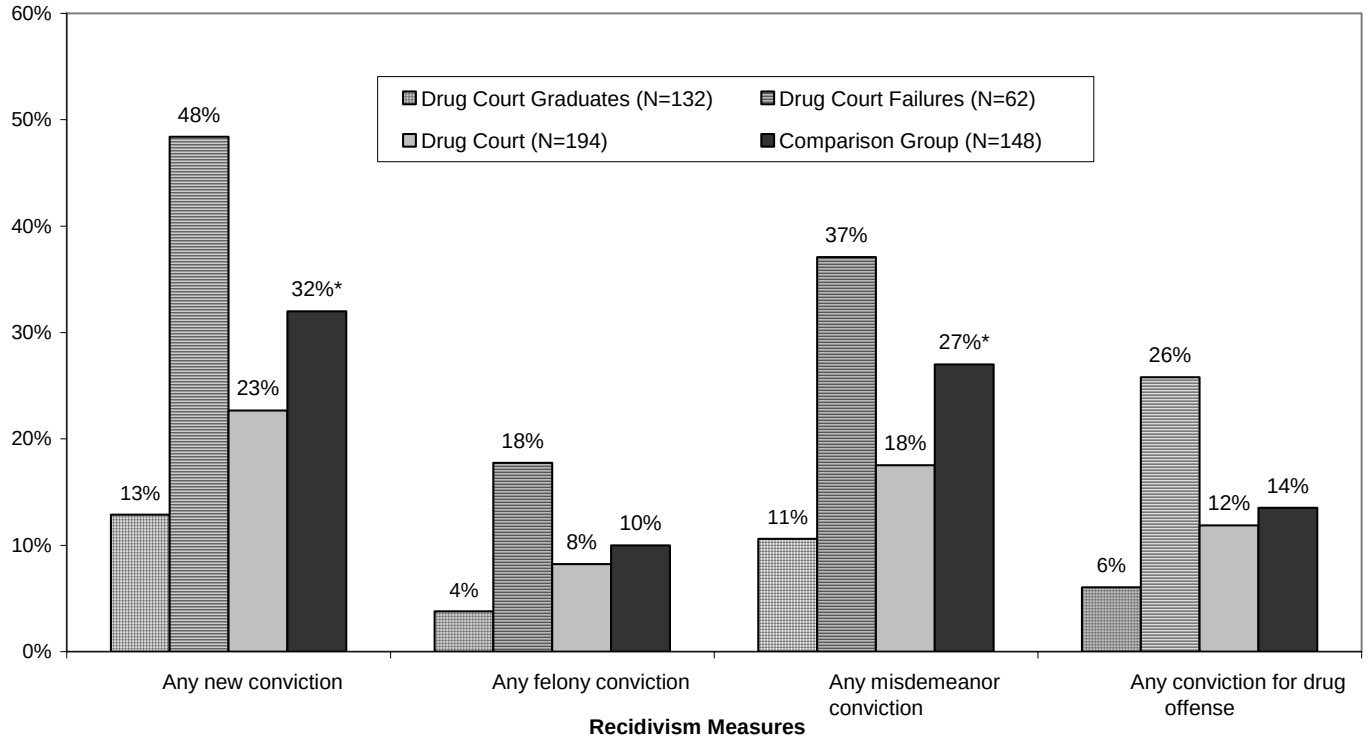
Figure 15.3 illustrates the impact of drug court participation relative to conventional prosecution one year after program completion. Participant results are further divided by final program status (graduate or failure). The results demonstrate that the drug court led to a significantly lower probability of reconviction. Whereas 32% of the comparison group recidivated within a year of exiting the criminal justice system, only 23% of participants recidivated in this period ($p < .05$). This represents a 28% reduction in recidivism relative to the comparison group level.

While drug court participants were less likely to recidivate when *all* new charges are considered, participants were not significantly less likely to be reconvicted of new felony or drug charges. Participants *were* less likely to be reconvicted of a misdemeanor ($p < .05$), the most frequently received charge level for new convictions in general. While 27% of the comparison group was reconvicted of a misdemeanor, only 18% of the participant sample had such a conviction.

Figure 15.3 also includes a breakdown of the participant group by final program status. Not surprisingly, drug court failures were substantially more likely than graduates to recidivate. Not only were failures more likely to be convicted of *any* new crime, they were at least three times more likely than graduates to be reconvicted on all three specific types of new crimes (felony, misdemeanor, and drug-related).

In addition to being more likely to recidivate than drug court graduates, drug court failures were also somewhat more likely to recidivate than comparison defendants. Thus the benefits of the drug court appear to be exclusively experienced by those who graduated from the program.

Figure 15.3. Impact of Suffolk County Drug Treatment Court on Recidivism within One Year of Drug Court Completion (or Release from Sentence)



*+ p < .10 * p < .05 ** p < .01 *** p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)*
Note: The new arrest must have occurred within one year, although the conviction may have occurred later. In the bar labels, "conviction" is shorthand for arrest leading to a conviction.

Contrary to the bivariate results, as shown in Table 15.7, the results of a logistic regression analysis predicting the probability of reconviction within one year post-program indicate that drug court participation was *not* a significant predictor (p = .106). The odds ratio in this analysis indicates odds of recidivism that are .651 times lower for participants as opposed to comparison defendants. An odds ratio of this magnitude might reach statistical significance with a larger sample size, since significance levels always stem in part from the size of one's analysis sample.

Consistent with the post-arrest analyses, defendants with a prior misdemeanor conviction, and those whose initial arrest charge was for a misdemeanor rather than a felony, were significantly more likely than others to recidivate. Also, Caucasians were less likely than those from other racial/ethnic groups to recidivate, although as discussed above, the exact reasons for this effect of race are unclear.

Impact on Recidivism for Select Offender Subgroups

Table 15.8 examines additional subgroups of defendants in order to determine whether certain categories of drug court participants performed better than others. The results show that the following defendant subgroups appeared to perform particularly well relative to similarly situated comparison defendants: participants with no prior convictions (misdemeanor or felony),

Table 15.7. Odds Ratios from the Logistic Regression Predicting a New Arrest Leading to a Conviction within One Year Following Program Completion

Post-Program Measurement Period	1 Year
Total Sample Size	342
Drug Court	194
Comparison Group	148
Chi-square for model	45.925***
Odds Ratios:	
Drug court participant	.651 [1]
Prior misdemeanor conviction(s)	2.400**
Prior felony conviction(s)	.926
Arrested on felony drug charge	.502*
Male sex	.745
Age	.994
Race/ethnicity[2]	
Black	1.369
Caucasian	.417*

*+ p<.10 *p<.05 **p<.01 ***p<.001*

Note: The dependent variable is whether there was at least one new arrest within 1 year that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, the estimated release date from jail or prison for failures, and the estimated release date or disposition date if there was no incarceration for the comparison group.

[1] Drug court participation nearly reaches the weaker .10 criteria, with a p-value of .106.

[2] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

participants arrested on misdemeanor (not felony) level drug charges, female participants, and non-black participants.

First, the drug court appears to have a stronger impact on those participants with no prior misdemeanor convictions. While the drug court generated a 39% decline in three-year post-arrest recidivism among defendants with no prior misdemeanor charges, the reduction in recidivism among those drug court participants *with* prior misdemeanors was only 8% as compared to equivalent comparison defendants.

Second, the drug court appears to have a much *weaker* impact upon defendants with a prior *felony* conviction as compared with defendants without a prior felony conviction. At three years post-arrest, the drug court generated 43% relative reduction in recidivism among those *without* a prior felony conviction. By contrast, among those *with* felony priors, the recidivism rate was actually two percentage points higher among drug court participants than comparison defendants (a non-significant difference).

Third, the results indicate disparate impacts for defendants facing misdemeanor versus felony drug charges, with the drug court showing greater success in serving misdemeanants. While the drug court generated a 30% recidivism reduction among misdemeanants (all arrested for

Table 15.8. Impact of Drug Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage
Sample Group	Drug Court	Comparison	Reduction in
Sample Size	187	144	Recidivism
1. Prior Misdemeanor History			
No prior misdemeanor conviction	26%	41%	39%
Prior misdemeanor conviction(s)	60%	65%	8%
2. Prior Felony History			
No prior felony conviction	32%	56%***	43%
Prior felony conviction(s)	69%	67%	-3%
3. Charge Type			
Misdemeanor Charge	46%	66%**	30%
Felony Charge	34%	39%	13%
4. Sex			
Female	41%	81%**	49%
Male	40%	57%**	30%
5. Race/Ethnicity			
Black	57%	62%	8%
Caucasian	30%	57%***	47%
Hispanic/Other	48%	86%+	44%

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: All percentages are simply the percentage of defendants in the given subgroup with at least one new arrest within the given measurement period that led to a conviction. Because no comparison defendants available for this analysis fall below 30 years of age, age is not included in the subgroup analysis.

misdemeanor drug possession), drug court participation only generated a 13% reduction among those entering on a drug felony (a non-significant impact).

Four, it appears that drug court has a greater impact on female than male defendants. The percentage reduction in recidivism was 49% for female participants versus 30% for males. Both of these impacts reached statistical significance ($p < .01$), indicating that while the impact among females is relatively greater in magnitude the drug court generated a net improvement over conventional prosecution for both sexes.

Finally, the drug court appeared to have a far *weaker* impact on black defendants than on Caucasian or Hispanic/other defendants. Although the drug court seems to have a substantial impact on recidivism among Caucasians (47% recidivism reduction) and Hispanic/other defendants (44% recidivism reduction), there is only an 8% recidivism reduction (non-significant) produced for black participants.

In order to confirm the results of these subgroup analyses, logistic regression analyses were used to predict the probability of recidivism at three years post-arrest. Those factors found to significantly predict the probability of three-year post-arrest recidivism above (see Table 15.5) were included. In addition, each of the five characteristics appearing to be disparately impacted by drug court participation was included in each of five respective regression equations, along

Table 15.9. Subgroup Analysis: Odds Ratios from the Logistic Regression Measuring Interaction Effects

	Odds Ratios from Logistic Regressions[1]				
Post-Arrest Measurement Period	3 Years				
Total Sample Size	331				
Drug Court	168				
Comparison Group	163				
	Odds Ratios:				
	Model 1: Prior Misd. Interaction	*Model 2: Prior Felony Interaction*	*Model 3: Felony Drg Chrg Interaction*	*Model 4: Male Sex Interaction*	*Model 5: Black Race Interaction*
Drug court participant	.361*	.294***	.234***	.374+	.446*
Prior misdemeanor conviction(s)	2.238+	3.443***	4.097***	4.139***	4.126***
Prior felony conviction(s)	1.657+	.958			
Arrested on felony drug charge	.532*	.446**	.278**	.446**	.531*
Male				1.116	0.672
Age	.958*	.955	.956**	.957**	.966*
Race/ethnicity[2]					
Black	0.833	2.162+	2.150+	2.196+	1.029
Caucasian	.486+	.738	0.694	0.736	
Interaction Effects					
Prior misdemeanor conviction*participant status	2.105				
Prior felony conviction*participant status		2.731			
Arrested on felony drug charge*participant status			2.274		
Male sex*participant status				0.954	
Black ethnicity*participant status					2.424+

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

[1] Only those relationships found to be significant in the three year post-arrest analysis (Table 15.5) are included.

[2] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared. However, in the fourth regression equation, race is coded as a dichotomous (black versus other) variable.

with an interaction term (participation status*the characteristic in question). In this way, it was possible to ascertain whether the results of the subgroup analysis were the result of the drug court's greater relative impact on the recidivism of certain subgroups or if this seeming impact is eliminated once other background characteristics are controlled. The results of the logistic regression analyses are presented in Table 15.9.

The sizeable odds ratios for the prior misdemeanor conviction interaction term, the prior felony conviction interaction term, and the felony level charge interaction term (2.105, 2.731, and 2.274, respectively) indicate that the drug court has a somewhat greater impact on defendants with no prior misdemeanor or felony convictions, as well as those charged with *misdemeanor* level offenses. Although the findings are not significant, the odds ratios are substantial enough to indicate that, given a larger sample size, significant differences for these subgroups may have been realized.

Race is recoded into a dichotomous (black versus other) variable in the analysis included to determine whether the drug court has a greater impact with non-black defendants once other factors are controlled. The results indicate that, indeed, the court has somewhat disparate impact on non-black defendants ($p < .10$). This suggests an alternative explanation for the higher

recidivism detected earlier among blacks than among those from other racial / ethnic groups (e.g., see Table 15.5 especially). It may not directly have to do with police or prosecutorial practices, or other race-based dynamics, but may reflect that the *drug court intervention* is for some reason somewhat more relatively effective in reducing the recidivism of its non-black participants. Caution continues to be advised in interpreting this finding, given our inability to control for many psychosocial characteristics, which may be simultaneously associated with defendant race and recidivism impacts.

Finally, the drug court was *not* found to have a disproportionate impact on female participants once other factors were controlled.

Summary

The Suffolk County Drug Treatment Court generated a significant reduction in recidivism up to three years after the initial arrest. Also, of those who did recidivate, drug court participants averaged more crime-free time before the first recidivist re-arrest occurred. Overall, the drug court produced a 38% recidivism reduction over the three-year post-arrest period; and generated a smaller 28% relative reduction over the one-year post-program period. Although significant in the simple bivariate comparisons, and still of a meaningful magnitude, in the multivariate analysis controlling for the background characteristics of participants and comparison defendants alike, the post-program reduction fell short of statistical significance.

Additionally, while the one-year post-program recidivism rate for graduates was only 12%, drug court failures were slightly *more* likely to recidivate than comparison defendants who never entered the drug court. This indicates that those participants who successfully graduate benefit far more than failures from their drug court experience.

The results further suggest that the following categories of participants perform particularly well in the Suffolk drug court: those with no prior misdemeanor convictions, those with no prior felony convictions, those facing misdemeanor-level drug charges, and non-black participants.

Chapter Sixteen

Impact Evaluation of the Syracuse Community Treatment Court

The Syracuse Community Treatment Court (SCTC) opened in December 1996 as a result of a grant from the then Drug Courts Program Office (DCPO) of the U.S. Department of Justice. The court enrolled its first participants one month later in January 1997. Accepting felons and misdemeanants, as well as drug possession, drug sales, and non-drug cases, SCTC has more inclusive acceptance policies than any of the four courts described in the preceding chapters.

The Syracuse impact evaluation utilized a pre-post design, comparing recidivism between drug court participants and defendants arrested on similar charges in the year before the drug court opened. The available sample enabled conducting a *post-arrest* analysis for up to three years after the initial arrest and a *post-program* analysis for up to one year after the exit date from the criminal justice system.

After describing the SCTC drug court, its policies, and the population served, a brief methodology section supplements the general methodology discussion in Chapter Eleven. Results of the post-arrest and post-program recidivism analyses follow. As in the other impact chapters, this one concludes with a subgroup analysis, investigating the specific impacts of the drug court on separate subgroups, such as those distinguished by sex, age, criminal history or arrest charge severity (felony versus misdemeanor).

The Syracuse Community Treatment Court Model

Screening and Eligibility

Prior to January 2001, no felony-level pleas were accepted in Syracuse. Because the early judges in this court were not county court judges, they could not accept pleas on felony-level cases. However, when the Honorable Jeffrey Merrill came to the bench in 2001, Syracuse began accepting felony cases and now takes cases with a broader range of arraignment charges than any of the four drug courts described in the preceding chapters. Not only are both felons and misdemeanor defendants paper eligible, but also, defendants charged with felony-level drug *sale*,[1] probation violators, and predicates (with a prior felony conviction) are eligible as well. In fact, the only addicted defendants *not* eligible in Syracuse are those defendants facing arraignment charges below a misdemeanor level, defendants facing A-1 or A-2 level felony charges, and defendants with a prior violent felony conviction or pending violent felony charges. These defendants are not paper eligible in any of the six impact drug courts.

After paper eligibility is established, defendants can still be found clinically ineligible for a number of reasons. Although SCTC accepts defendants addicted to marijuana only as well as those addicted to alcohol only, defendants with severe mental or physical health barriers, cases in which the criminal case against the defendant is extremely weak, defendants who would not face

[1] Although defendants arraigned on felony drug sale charges are officially eligible for SCTC, the A.D.A. is opposed to their participation in the drug court. Therefore, in practice, defendants facing felony drug sale charges are accepted into the court on a case-by-case basis.

jail time through normal court processing, and those defendants suspected of major drug trafficking are not eligible. In contrast, defendants who are determined to lack treatment readiness or adequate motivation are still eligible for treatment in this court.

Unlike the four drug courts examined in the preceding chapters, drug court participants in Syracuse may enter drug court either post-plea or pre-plea. Indeed, before January 2001, *all* cases entered pre-plea. The original SCTC judge, the Honorable Langston McKinney, was not a county court judge and, thus, could not accept pleas on felony cases. The subsequent judge, the Honorable Brian DeJoseph, who presided for only five months from August to December 2000, began requiring pleas as sanctions for noncompliant pre-plea cases. When the current judge, the Honorable Jeffrey Merrill, began presiding in January 2001, the court began to accept felony-level cases *regularly* as post-plea cases. Since Judge Merrill is also an acting county court judge, he can accept such pleas. Consequently, the current approach involves handling felony and probation violator cases post-plea and most misdemeanants pre-plea, with the caveats that pre-plea cases may be forced to take a plea if they are subsequently noncompliant with the court's requirements, and some misdemeanants may be required to enter a plea from the outset depending on the specifics of the case.

As defendants may enter the drug court in two manners, misdemeanor (usually pre-plea) or felony (post-plea), initial processing differs by charge category. There are also differences between drug and non-drug cases, thereby creating four total combinations (misdemeanor drug, misdemeanor non-drug, felony drug, and felony non-drug):

1. Processing of Drug Misdemeanors: Since Judge Merrill began presiding in January 2001, these cases are arraigned and adjourned to the drug offense calendar, which is held each Friday. All A-level misdemeanor drug charges are adjourned to the drug offense calendar following arraignment. After arraignment, the drug court coordinator reviews the case file for drug court eligibility based on current charges and criminal history. If the coordinator finds the defendant eligible based on this review, the defendant receives a brief drug screening to determine if there is an addiction. A court-employed case manager conducts this screen. The case manager then presents four pieces of information to the drug court judge: whether there is a discernible drug addiction, the results of the criminal history check, a recommendation for further evaluation, and a drug court referral. The judge makes the final decision on the defendant's eligibility based on the clinician's report and a one-on-one conversation with the defendant, during which the judge asks the defendant if he/she is interested in treatment. If the defendant does not want treatment, the defendant continues to appear before the drug court judge, but is not placed on the drug court calendar. If the defendant later has a change of mind, it is still possible to enter the drug court but only after entering a plea. If, on the other hand, the defendant indicates an interest in treatment from the outset, and the judge finds the defendant eligible, it is possible to become a participant without entering a plea.

2. Processing of Non-Drug Misdemeanors: Individual attorneys or judges may recommend non-drug misdemeanor cases for the drug court based on a belief that the defendant's behavior is the result of an underlying addiction problem. These cases are also referred to the drug offense calendar, where the drug court coordinator screens referred cases based on current charges and criminal history. Cases found to be eligible on these grounds are then processed in the same manner as the drug-related misdemeanors (drug screen, recommendation to the drug court judge, final eligibility decision, and then, if eligible, defendant's decision of whether to participate).

3. Processing of Drug Felonies: As of January 2001, defendants arrested on drug-related felony charges all enter the drug court post-plea. These cases are referred to the drug court by the A.D.A. or defense counsel in most cases. The drug court coordinator then screens the defendant to verify that the charges and criminal history make the defendant eligible. Once paper eligibility is determined, a mini assessment is conducted to determine drug dependence. If the defendant meets the drug court criteria, a plea is taken before the original judge and the case is then transferred to the drug court for participation. The judge makes a final determination of eligibility based on this assessment and a one-on-one conversation with the defendant. Those defendants deemed eligible who decide to enter the drug court must enter a guilty plea prior to entering. Since the law mandates that predicates go to prison upon conviction, defendants with a prior felony conviction may be allowed to withdraw their plea and plead to a misdemeanor charge, so the court has the option of mandating probation rather than prison upon graduation.

4. Processing of Non-Drug Felonies: Non-drug felony cases referred to the drug court are processed in the same manner as drug-related felony cases.

All defendants found legally and clinically eligible sign a contract to become an official participant. Although the contract does not require pre-plea defendants to plead to the charges facing them, the contract identifies the charges that will be dismissed or reduced upon graduation.

Pre-Treatment Activities: Prior to placement in a treatment facility, the potential drug court participant is engaged in a number of activities designed to keep the defendant occupied pending a community-based treatment placement. These pre-treatment activities last approximately one month and include an orientation with the drug court coordinator and may also involve one-hour sessions on topics such as Medicaid, drug testing, and treatment readiness. Defendants employed or in school are excused from such sessions. During this initial period, defendants are also administered a complete clinical assessment by case managers to determine the appropriate initial treatment modality. The case manager screen examines addiction severity, frequency and length of drug use, treatment history, and homelessness.

Participation Requirements

There is not an objective total amount of participation time required for graduation, but in practice, it takes most defendants at least one year to complete the program. While the court is structured less in terms of timeframes and more in terms of individual progress, the treatment process is divided into four phases. Phase One, orientation, begins with defendants' initial contact with the drug court and ends with the signing of the drug court contract. Phase Two, stabilization, includes the treatment component and lasts until the participant completes treatment, typically one to three months. Phase Three, decision-making, begins with aftercare and ends with an educational and vocational needs assessment. Phase Three generally lasts from two to four months. The final phase, community transition, requires educational and vocational training as well as support group attendance. Participants are normally given drug screens randomly twice a week[2] and must have twelve clean drug screens during the final phase of treatment before they are eligible for graduation. Once participants enter Phase Three, they are

[2] Participants in Phase Four call into a telephone recording daily; if their identification number is read on the recording, they must appear in court for a drug screening that day.

never demoted to Phase One or Two. If a participant relapses during this phase, an alternative treatment plan (e.g., short-term inpatient care) will be developed, but the defendant will remain in Phase Three. All participants must be involved in some "constructive" activity to qualify for graduation; this can include a variety of activities such as employment, education, or caring for one's children. Participants are also required to complete a community service project. Finally, participants taking methadone at the time of entering drug court are *not* required to detox fully in order to graduate. In general, for graduates, misdemeanor charges are dismissed, and felony charges may be either dismissed or reduced. Probation violators have their probation completed as a result of graduation, but the conviction for which they received probation remains on their record.

Pre-plea participants are told the consequences of graduation at the outset of participation upon signing the contract. However, the consequences of drug court failure are not yet negotiated. Upon failure, pre-plea participants go to trial (or to pre-trial motions and plea bargaining). On the other hand, post-plea participants are made aware of the consequences of both graduation and failure with respect to the case disposition. With respect to the *sentence* imposed in the event of failure, post-plea participants know they will receive *some* jail or prison time but do not know the amount. This differs from the four drug courts evaluated in the preceding chapters, for which *specific* jail or prison alternatives are set at the outset of participation. In terms of the actual practice in SCTC, the maximum time faced upon failure is one year for one misdemeanor or up to two years for consecutive misdemeanors. Non-predicate felons are typically sentenced to one to three years in prison. Finally, Judge Merrill uses sentencing guidelines coupled with the case particulars in sentencing predicates, but it is common for predicates to be given the maximum sentence. In general, court staff indicated that while the original drug court judge was likely to sentence drug court participants somewhat more favorably than non-participants to reward the attempt at drug court, Judge Merrill is more likely to make an example of drug court failures, sentencing them at least as harshly as non-participants.

The Case Management and Treatment Model

For participants in the impact evaluation sample, the Center for Community Alternatives (CCA) performed all case management. CCA also provided an employment specialist who met with participants at drug court intake and then became more heavily involved with them in Phases Three and Four, when most are working. In September 2001, CCA's contract with SCTC expired. The organization is no longer responsible for case management, screening, or assessment. Instead, SCTC now utilizes case managers who have been hired to work directly for the court. The judge heavily weighs the opinions of the case managers regarding the sincerity and commitment of participants when making ongoing treatment decisions.

Until successfully placed within a treatment facility, participants enter a daily, hour-long treatment group. Participants can be placed in a broad spectrum of treatment service agencies, from outpatient programs requiring five days of participation per week to long-term residential care. Those participants who have no history of drug treatment are initially assigned to outpatient care, unless other factors necessitate a residential placement (e.g., homelessness, chaos at home, or drug-infested neighborhood). Participants who have been in treatment previously may be assigned to any treatment modality, but long-term residential is frequently delegated to those who have repeatedly failed earlier treatment episodes. In addition to considering prior treatment episodes, the case manager considers the defendant's employment status in making a treatment

recommendation. Participants employed or in school are typically assigned to a less intensive outpatient program. Current charges or other criminal justice factors do not play a role in determining initial treatment modality.

In general, participants assigned to long-term residential wait between two and three weeks before they are placed. Those assigned to short-term inpatient facilities are generally placed more rapidly, typically within one week. Defendants who are in jail prior to receiving a treatment assignment remain there until a placement is secured. In order to be found eligible for the local 28-day rehab programs, the participant must be diagnosed as an alcoholic, which restricts the availability of this modality for some participants.

Judicial Supervision

The drug court meets two days per week, with two calendars each day. Just before the drug court session, there is a team meeting, where the judge, case managers, drug court coordinator, Legal Aid defense attorney, and representatives from treatment facilities convene to discuss upcoming cases. Private attorneys, the A.D.A., and probation officers do not attend this meeting. Reports from treatment providers and from recent drug screenings are available to the team at this time. These meetings provide an opportunity for team members to exchange ideas about reactions to participant behavior. The judge utilizes these discussions in addition to his own in-court interaction with participants to shape his responses to non-compliant behavior.

During the orientation phase of participation, participants appear in court weekly. After Phase One, court appearances are reduced or augmented depending upon participant behavior. During the final phase, defendants typically appear monthly.

Judicial supervision has undergone dramatic changes since the court's opening in 1996 due, primarily, to the different judicial styles of the three judges who have heard drug court cases during this six-year period. This raises an important research issue; while some of the policies described here only represent the court under the current judge, the Honorable Jeffrey Merrill, the participant data analyzed is primarily for defendants who participated under earlier drug court judges, especially the Honorable Langston McKinney, who presided from the opening of the court in 1996 through July 2000.

For instance, Judge Merrill relies more on jail sanctions, judicial intimidation, and making a pre-plea defendant plead guilty before continuing in the program, and less on low- and intermediate-level sanctions, than earlier SCTC judges. Judge Merrill also considers the reaction of defendants to their own relapses; defendants who admit to the relapse are generally given more minor sanctions, while those who deny the setback are given more severe sanctions. During the site visit, the judge revealed that he believes it is the role of the court to be firm and to instill fear in the participants. It is this strict stance that lead defendants to take treatment seriously, according to Judge Merrill. One staff member expressed similar sentiments, indicating that the original SCTC judge gave participants so many chances that they sometimes would not take his threats seriously (although others interviewed had a different perspective). Compliant behavior and program advancement is rewarded through applause in the courtroom and fast food gift certificates.

As in other drug courts, participants can fail due to persistent noncompliance, a new arrest, or by voluntarily opting-out. While the judge makes the final decision as to whether a defendant should fail the program, the entire team, including case managers, treatment providers, and the court coordinator, makes recommendations. Judge Merrill stressed the importance of looking at the entire picture before failing a participant. Involuntary failure can be the result of exhausting

all treatment options (i.e., defendants who have been placed in so many treatment facilities that there is nowhere left for them to be sent), multiple bench warrants, and/or a lack of motivation.

From the site visit, it was apparent that Judge Merrill assumes a strong leadership role in the courtroom. The judge takes a less nurturing approach than many other drug court judges in New York State, as indicated by his belief that it is the role of the court to be a resolute instiller of fear, rather than to provide "soft and mushy" nurturing. The judge indicated that there was some tension between himself and the former (CCA) case management team over jail sanctions, with the case managers feeling that Judge Merrill was too eager to send non-compliant participants to jail rather than using more intermediate-level sanctions. In part, such tensions may stem inevitably from the sharpness of the contrast between Judge Merrill and Judge McKinney, the first SCTC judge. Several CCA staff members focused on this contrast during the site visit. Versus Judge Merrill, Judge McKinney was depicted as extremely reluctant to fail participants, giving second and third chances, and utilizing many intermediate sanctions, rather than failing a non-compliant participant. Although Judge Merrill maintains a clear distinction between his personal and professional selves, on the day of the authors' visit, the judge celebrated his birthday, bringing enough cookies for both the court staff and participants appearing before him.

Research Design and Methodology

The research design and analysis implemented the general framework described in Chapter Eleven. This section discusses their specific application in the SCTC evaluation.

Definition of the Comparison Sample

The initial comparison group was drawn from defendants arrested in Syracuse City in the year preceding the opening of the drug court in December 1996. The sample included the 565 defendants arrested that year on top charges of criminal possession of a controlled substance in the seventh degree (misdemeanor, 46% of the total comparison sample) or criminal possession of a controlled substance in the third degree (felony, 54% of the total comparison sample). The comparison group excluded defendants who would be disqualified from the drug court due to a prior violent felony conviction or pending violent felony charges on another case. In addition, the sample only included cases in which the arrest led to a conviction.

Definition of the Participant Sample

The initial drug court participant sample included 315 participants available for at least a two-year post-arrest recidivism analysis. Since recidivism data was available through June 2002, all participants had to have been arrested by June 30, 2000 (at least two years earlier).

Note that the Syracuse participant sample included *both* participants arrested on drug and non-drug charges – even though the comparison group consisted only of defendants arrested on drug charges. This differs from the handling of the participant sample in Suffolk (see Chapter Fifteen). In Suffolk, the impact evaluation only included participants arrested on drug offenses. This was because Suffolk drug court participants arrested on property charges were found *more* likely than participants arrested on drug charges to recidivate – hence arrest charge represented a potentially biasing variable, necessitating the decision to match on arrest charge type and, hence, to omit non-drug charged defendants from both samples. On the other hand, in Syracuse, although defendants entering the drug court on property charges were *somewhat* more likely to recidivate at two years post-intake ($p < .10$), these findings did not reach statistical significance

and non-drug defendants were no more likely to recidivate in the post-program period. (See Chapter Nine for these results.) Therefore, in the case of Syracuse, it was decided that the possible bias created by matching drug court participants arrested on both drug and non-drug charges to a comparison group arrested only on drug charges was outweighed by the benefit of a larger sample size generated by including both drug and non-drug charges in the participant sample.[3]

Implementation of Propensity Score Matching

The first step was to compare the initial samples on all available and relevant background characteristics. The purpose of this comparison was to determine whether the samples differed significantly in any important respects (such as basic demographics or criminal history). The subsequent propensity score matching process would then seek to eliminate or at least reduce those differences prior to beginning any actual recidivism analyses.

The samples were initially compared on the following: prior misdemeanor conviction (y/n), prior felony conviction (y/n), arrested on felony (versus misdemeanor) drug charge, sex, age, and race/ethnicity (divided into black, Caucasian, and Hispanic/other). Bivariate comparisons revealed multiple significant differences:

- *Criminal history:* Participants were *less* likely to have a prior misdemeanor conviction; but the samples did not differ significantly in prior felony convictions;
- *Current charges:* Participants were more likely to be arrested on a *felony* level drug charge (versus a misdemeanor charge); and
- *Demographics:* Participants were older, more likely to be black, and less likely to be Caucasian.

All of these variables were then entered into a logistic regression model predicting the probability of drug court participation. One comparison group candidate was excluded due to missing data for the variable measuring defendant sex; the case was originally coded "both" and was thus eliminated, as no participant case matched this classification. Also, 18 participant cases were excluded due to missing data for at least one of the other independent variables. A total of 861 defendants were in the regression model, 297 participants and 564 comparison group candidates. Table 16.1 gives the regression coefficients and significance levels.

Propensity scores were obtained from the regression, and each participant was matched to the comparison defendant with the nearest, if not identical, score (see Chapter Eleven). The result of the matching process was that 297 participants were matched to 201 comparison defendants, with 29% of the comparison defendants matched to multiple drug court participants.

Table 16.2 compares the participant and comparison samples before and after propensity score matching. Prior to matching, the two samples were significantly different on all measures except prior felony convictions and Hispanic/Other ethnicity. After matching, they varied significantly only in regard to defendant race/ethnicity, with drug court participants less likely to be black ($p < .01$) and more likely to be Caucasian ($p < .05$).

[3] Preliminary analyses of the drug court participant sample minus the portion of that sample arrested on non-drug charges indicates that this was a fair assessment, as there was no discernible difference in the results, other than the loss of significance brought about by reduced sample size.

Table 16.1. Logistic Regression Model Predicting Syracuse Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	861
Participants	297
Comparison Group Candidates	564
Chi-square for model	76.848***
Logistic Regression Coefficients	
Prior misdemeanor conviction(s)	.110
Prior felony conviction(s)	.193
Arrested on felony top charge	-.440**
Male sex	-.648***
Age	.027**
Race/ethnicity[1]	
Black	-.430
Caucasian	.206
Constant	-.623

*+ p<.10 *p<.05 **p<.01 ***p<.001*

Note: The dependent variable is whether the defendant is a Syracuse participant or comparison group candidate. Variables included in the model were significant at the .10 level or better in separate bivariate comparisons (see Table 16.2).

[1] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

Post-Program Methodology for the Syracuse Community Treatment Court

As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the post-program analysis. First, it takes most drug court graduates over twelve months to successfully complete the program and an additional year of post-program time before the analysis can be performed. Second, SCTC failures are frequently sentenced to at least a year of incarceration. Even if their sentence is shorter, they may not, as of the analysis date, have achieved the requisite one-year of post-program time. Finally, a number of participants had not yet, as of the analysis date, reached final graduation or failure status. Since final status strongly predicts recidivism (with graduates far less likely to recidivate), it is important to have a factually representative ratio of graduates to failures available in the post-program participant sample. (See Chapter Nine and discussion in Chapter Eleven.)

In order to investigate and correct for any biases, the final status of all program participants in the impact sample was determined as of November 3, 2002, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were utilized to *predict* whether they were more likely to graduate or fail. The prediction model was derived from the predictors of drug court failure analysis reported in Chapter Nine.[4] Significant

[4] Possible predictors were sex, age, race/ethnicity, employment/school status at intake, high school graduation status, primary drug of choice, prior treatment episode(s), first treatment modality in the drug court, prior conviction(s), current top arrest charge for felony drug, misdemeanor drug, or property crimes, and whether the participant disappeared on a warrant within 30 days of drug court entry.

Table 16.2. Baseline Characteristics of Syracuse Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	(N = 315)	(N = 565)	(N = 297)	(N = 201)	
Prior misdemeanor conviction(s)	66%	55%**	65%	65%	-11%
Prior felony conviction(s)	27%	23%	28%	27%	-3%
Arrested on felony level drug charge	37%	54%***	37%	38%	-16%
Male sex	61%	79%***	62%	69%	-11%
Average age	31	27***	31	30	-3
Race/ethnicity					
Black	65%	79%***	65%	76%**	-3%
Caucasian	29%	15%***	28%	20%*	-6%
Hispanic/Other	7%	6%	7%	4%	2%

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

Note: The final comparison sample is substantially smaller than the pre-matching sample due to the effect of the matching process in removing poor matches from the comparison group. The participant sample loses 18 cases due to missing data on one or more variables that needed to be included in the logistic regression equation predicting participation (see Table 16.1).

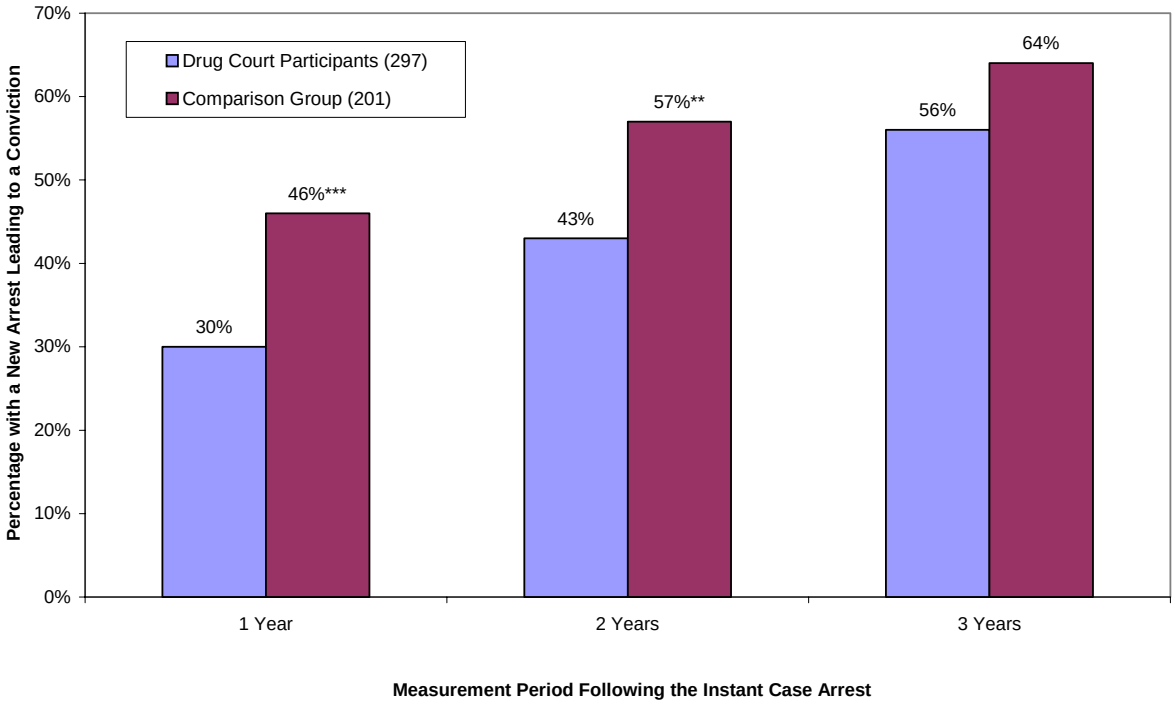
predictors were entered into a logistic regression model predicting graduation. Included predictors were age, charge type, and whether a participant warranted within thirty days of drug court entry. The resulting equation was:

LOGODDS(graduation) = (.037 * AGE) + (.339 * FELONY DRUG CHARGE) + (-.538 * MISDEMEANOR DRUG CHARGE) + (-.024 * PROPERTY CHARGE) + (-2.230 * PARTICIPANT WARRANTED WITHIN 30 DAYS) + (-1.173)

This equation was used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). The resulting probabilities were then used to estimate the final program status of those participants who had not yet completed drug court as of the analysis date. Of 297 participants, 6% (18 participants) had not yet reached final program status. Thus our estimation method was only necessary to impute graduation / failure outcomes to 6% of the total impact sample. Fifteen of the eighteen participants involved were on warrant status; and all but one of these fifteen had been out on warrant for more than a year. As per conservative assumptions outlined in Chapter Eleven, these eleven cases were thus predicted ultimately to fail drug court. Of the remaining four cases, two had a predicted probability of graduation of less than 50% and were predicted to be failures, and two had a predicted probability of more than 50% and were predicted to be graduates.

Using the predicted final outcomes produced with the above method and the known final status of 279 (94%) SCTC participants, a graduation rate for SCTC was estimated at 40%. This graduation rate applied to the full participant sample (N = 297). However, a somewhat lower number, 249 participants, were available for the one-year post-program analysis, 108 graduates and 141 failures. This available sample includes a somewhat disproportionately high number of graduates and a somewhat disproportionately low number of failures. Accordingly, these graduates and failures were adjusted; the 108 graduates were weighted so as to contribute 40% towards all post-program recidivism outcomes for participants, and the 141 failures were weighted so as to contribute 40%. This process assured that the average recidivism outcomes

Figure 16.1. Impact of Syracuse Treatment Court on Recidivism Within Three Years of Initial Arrest
(Percentage with a New Arrest Leading to a Conviction)



+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)
Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later. At 3 years, drug court participants were only available that entered in 1997. Thus, 3-year sample sizes decline to 208 for drug court and 151 for the comparison group.

ascribed to all participants combined would not be biased based on whether disproportionately more graduates or failures (in this instance graduates) happened to have accumulated enough post-program time for inclusion in the one-year post-program recidivism analysis.

Impact on Post-Arrest Recidivism

Bivariate Comparisons

Figure 16.1 illustrates that the SCTC had a significant impact on recidivism in the first two years following the initial arrest, but the effect attenuated somewhat in the third year. After one year, 30% of drug court participants versus 46% of the comparison group had a new conviction (16% difference). The disparity diminished somewhat after two years (57% versus 43%, 14% difference). And the difference of 64% versus 56% after three years (8% difference) did not reach statistical significance. As another way of understanding the magnitude of the drug court impact, after two years, SCTC reduced recidivism by 25% of the initial comparison group level, and after three years, SCTC achieved a 13% recidivism reduction (though the latter was not significant).

Table 16.3. Impact of Syracuse Treatment Court on *Post-Arrest Recidivism*

Recidivism Measure	Drug Court	Comparison Group
Recidivism within 3 Years Post-Arrest	(N = 208)	(N = 151)
Average days in-program for participants	571	n/a
Any new conviction	56%	64%
Any felony conviction	19%	24%
Any misdemeanor conviction	50%	54%
Any conviction for drug offense	14%	23%*
Average number of convictions	1.74	1.77
Of those with at least 1 new conviction:	(N =116)	(N = 97)
Days to first new arrest (led to conviction)	354	263*

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 1, 2 or 3 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time for a three-year post-arrest analysis.

Table 16.3 compares the drug court and comparison group on additional recidivism measures after three years post-arrest. The samples did not differ meaningfully in the total *number* of new convictions (1.74 versus 1.77). But of those with at least one new conviction, the drug court produced a longer crime-free period; the average number of days to first re-arrest leading to a conviction was 354 for participants versus 263 for the comparison group ($p < .05$). This means that despite the non-significant effects of SCTC on the *quantity* of re-offending after three years, the drug court did generate a notable *delay* in the onset of first recidivism.

With respect to specific charges, after three years, SCTC generated a significant reduction in the probability of re-offending on *drug* offenses specifically. However, when not isolating drug from non-drug offenses, there were not any significant differences in the probability of any new felony or misdemeanor conviction after three years.

The results in Table 16.4 reveal that of those who did recidivate, comparison defendants and participants did not significantly differ in terms of the specific *charges* involved. While drug court participants were less likely to be convicted on a drug charge and more likely to be re-convicted on a misdemeanor property charge, the first difference was not significant, and the second only at the .10 level. (The non-significance of these effects, however, may be due largely to the low sample size for the numbers of available participant and comparison recidivists.)

Multivariate Comparisons

Due to the propensity score matching technique described above, there were only two remaining differences between the drug court and comparison samples. First, they differed significantly on defendant race/ethnicity (see Table 16.2). Second, they differed on arrest charges, because the drug court participant sample, but not the comparison group, included non-drug charges. Accordingly, the multivariate analyses reported in Table 16.5 indicate the impact of drug court participation on recidivism after controlling for defendant background characteristics. In particular, the regression models all include interaction terms to test whether

Table 16.4. Types of Charges in Recidivism Cases: Top Disposition Charge in the First New Arrest Leading to a Conviction within Three Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Three Years	82 (56% of sample)	62 (64% of sample)
Top Disposition Charge		
1. Drug Charges	***10%***	***23%***
Felony drug sales	2%	6%
Felony drug possession	6%	13%
Traffic/vehicle offense	1%	3%
2. Property Charges	***67%***	***50%***
Robbery, burglary, or grand larceny	7%	6%
Petit larceny, theft, criminal possess. of stolen property, trespass, or criminal mischief	60%	44%+
3. Other Violent Charges	***13%***	***16%***
Manslaughter, murder, rape	2%	2%
Assault or menacing	10%	11%
Criminal possession of a weapon	1%	3%
4. Prostitution	***10%***	***11%***
Total	100%	100%

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*

property-offending and other types of non-drug offending participants were particularly likely to recidivate, as distinguished from participants arrested on drug charges. Inclusion of these interaction terms enabled controlling for any possible bias that might have been introduced by leaving property and other non-drug offenders in the participant sample, even though the comparison group excluded such offenders. Analyses reported in Table 16.5 measure both the probability of at least one reconviction (logistic regression) and total number of reconvictions (negative binomial regression) at two and three years post-arrest.

The results show that drug court participants had a lower probability of recidivism both two years and three years after the initial arrest, although only at the .10 level after three years. This differs somewhat from the bivariate analysis, which failed to show evidence of any impacts after three years. Also, when attempting to estimate a multivariate percentage difference between the participant and comparison group reconviction rates, the difference was 12% in the three-year logistic regression analysis, whereas it was only 8% in the bivariate comparison.[5] This suggests that without controlling for background sample differences, there may have been a slight bias towards reporting less favorable results for the drug court. However, the negative binomial regressions revealed that there was still *not* a notable difference in the total *number* of reconvictions between participants and the comparison group after either two or three years, even after controlling for charges and other relevant background characteristics.

[5] For estimating a multivariate percentage difference, we used the formula: (odds ratio / odds ratio + 1) / .5.

Table 16.5. Multivariate Results Predicting the Impact of Syracuse Treatment Court on Recidivism within Two and Three Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions[1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	2 Years	3 Years	2 Years	3 Years
Total Sample Size	498	359	498	359
Drug Court	297	208	297	208
Comparison Group	201	151	201	151
	Odds Ratios:		*Regression Coefficients:*	
Drug court participant	.567*	.622+	-.310	-.081
Prior misdemeanor conviction(s)	2.050**	2.323**	.467*	.568**
Prior felony conviction(s)	1.561+	1.932*	.263	.162
Top Arrest Charge[3]				
Misdemeanor Drug	1.391	.826	.383+	.204
Felony Drug	1.029	.645	.134	-.151
Property (participants only)	1.597	.955	.656*	.601*
Male sex	.892	.893	-.103	-.057
Age	.955***	.947***	-.020+	-.014
Race/ethnicity[4]				
Black	.843	.700	.233	.392
Caucasian	.586	.609	.173	.450

*+ p<.10 *p<.05 **p<.01 ***p<.001*

1 The dependent variable is whether there was at least one new arrest within the measurement period (2 or 3 years) that led to a conviction.

2 The dependent variable is the total number of new arrests within the given measurement period (2 or 3 years) that led to a conviction. A poisson regression specification was rejected, since the variance was more than three times greater than the mean at both 2 years and 3 years.

3 Top arrest charge has a fourth, unlisted "other" category to which the three included categories are compared.

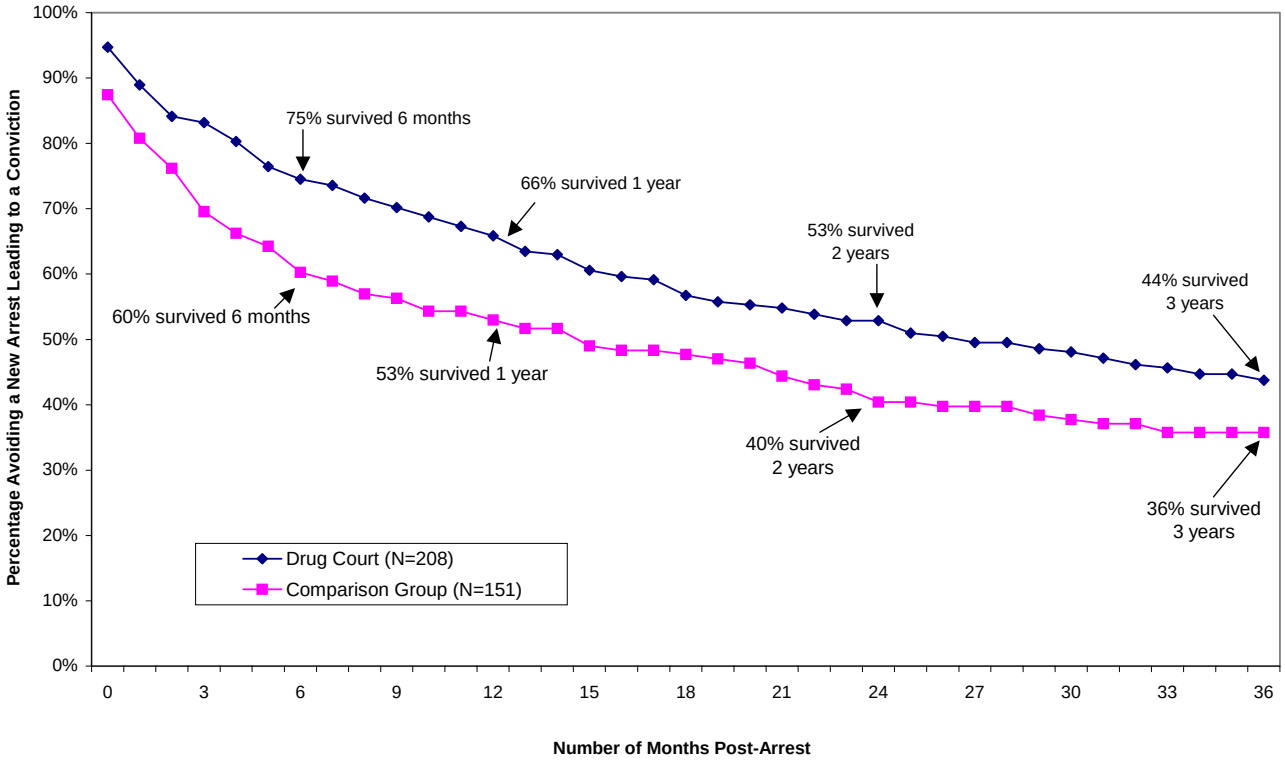
4 Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

Other Predictors of Recidivism: Several other factors predicted greater recidivism in most or all of the multivariate analyses:

- Prior conviction(s) (both felonies and misdemeanors);
- Participants arrested on non-drug charges; and
- Younger age, although age had weaker effects in the negative binomial analyses.

As in the other impact drug courts, prior criminal history and age were generally strong predictors of recidivism in most analyses. In addition, there appeared to be a small association of participating in drug court on a non-drug arrest charge with more recidivism. Participants arrested on a property charge were not significantly more likely to be reconvicted than others (see logistic regression results); but the directions and sizes of the odds ratios suggested a small effect. Also, participants arrested on property charges did have significantly more *total reconvictions* at both two and three years (see negative binomial results). These results make it important to have controlled for arrest charge in the multivariate analyses.

Figure 16.2. Survival Curve: Survival of Syracuse Drug Court versus Comparison Group Defendants Up to Three Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .01 level (p = .009 for Wilcoxon statistic).

Survival Analysis

Figure 16.2 presents survival curves for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. The curves for the two groups immediately diverged, such that just six months after the initial arrest, there was a 15% difference in the percentages surviving (avoiding re-arrest). Over the remaining two and a half years, the percentages surviving continued to decline for both groups, but the curves gradually converged. By the final three-year mark, the disparity had been cut in half, from 15% to 7%. Still, throughout the post-arrest trajectory, members of the comparison group recidivated at a faster rate than drug court participants.

Table 16.6. In-Program Versus Post-Program Recidivism Among Syracuse Participants

Measurement Period	In-Program	Post-Program
Length of Measurement	Mean = 397 Days	One Year
Sample: Same Sample in Both Periods	N = 249	N = 249
No new conviction	63%	72%*
Any new conviction	37%	28%**
One (1)	18%	14%
Two (2)	7%	9%
Three (3) or more	12%	5%**
Average number of new convictions	1.25	0.48*
New conviction rate (convictions/year)	0.80	0.48***

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)*

Note: The new arrest must have occurred within the given measurement period (in-program or 1 year post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures. Drug court graduates and failures were weighted based on an estimated drug court sample graduation rate of 60% (see discussion in text). That is, graduates combined to contribute .600 of the drug court total results, and failures combined to contribute .400 of the total. To be included in the sample, a participant had to be available for a one-year post-program analysis.

Impact on Post-Program Recidivism

This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to ascertain more clearly whether drug court impacts persist *after* the drug court mandate ends and participants are re-released into the community. As explained in Chapter Eleven, the post-program measurement period begins on the graduation date for drug court graduates, on the release date for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

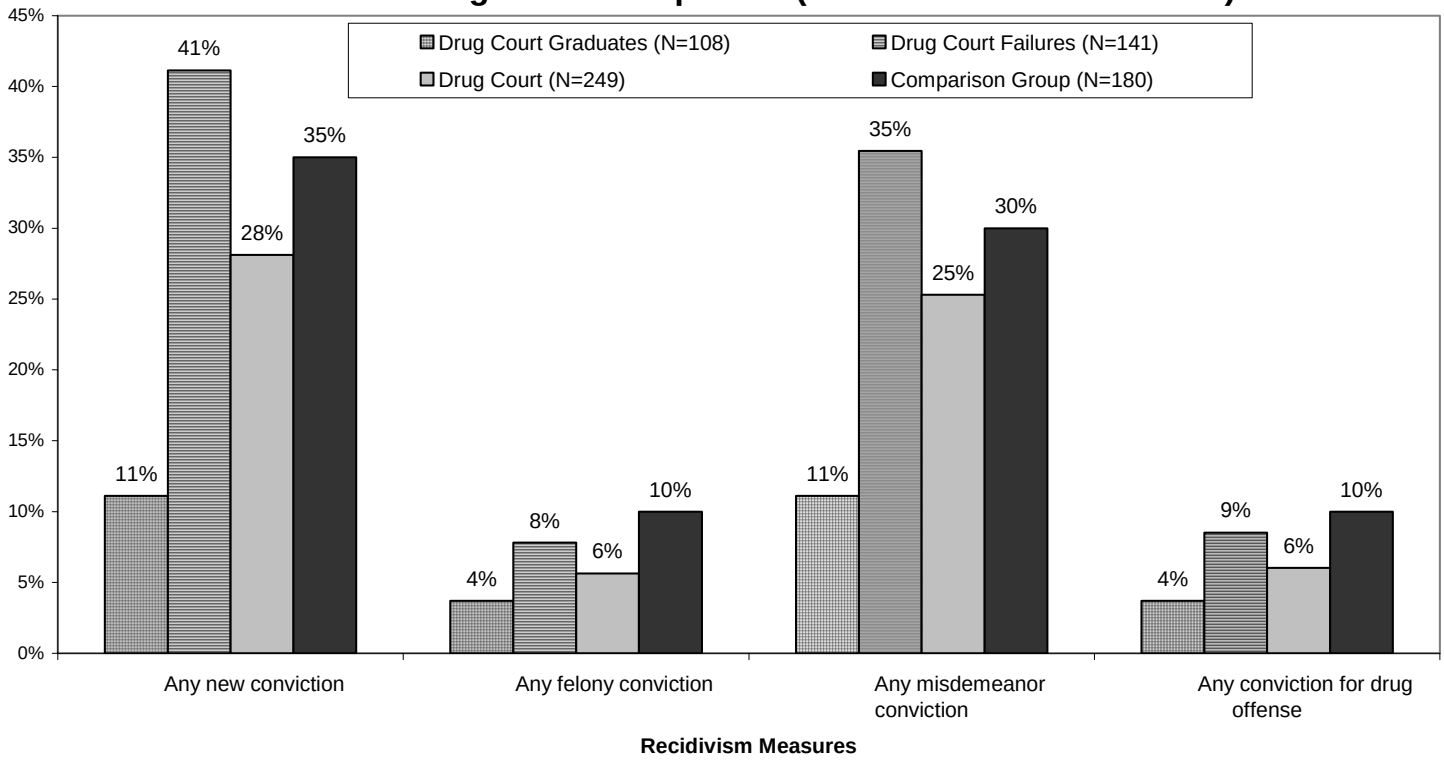
The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

In-Program versus Post-Program Recidivism

The results of the survival analysis just reported indicate that the impact of drug court subsides over time, with the *difference* between drug court and comparison group recidivism declining over the three-year post-arrest period examined. Part of the expected reason for this is that recidivism becomes more likely among participants after they leave the program, which in Syracuse typically happens after 1-1½ years. To test whether program completion is a significant marker, we compared in-program with post-program recidivism incidents among participants only. We included all participants available for the one-year post-program analysis.

Table 16.6 presents the results of paired-sample t-tests. Contrary to expectations, drug court participants were significantly more likely to remain crime-free one year *after* exiting the criminal justice system (72%) than during their in-program participation period (63%, $p < .01$). Similarly, drug court participants had significantly fewer total reconvictions ($p < .05$) at one-year

Figure 16.3. Impact of Syracuse Treatment Court on Recidivism within One Year of Drug Court Completion (or Release from Sentence)



+ p < .10 * p < .05 ** p < .01 *** p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)
Note: There were no significant differences between participants and the comparison group in this analysis.

post-program (0.48) than while in-program (1.25). We considered that this could be an artifact of the slightly greater length of time that participants spend in-program (average = 397 days) than the one-year of analyzed post-program time. Nonetheless, even when time at risk was controlled, participants had a lower *conviction rate* (new convictions per year at risk) at one year post-program (0.48) than while in-program (0.80, $p < .001$). Hence as in Bronx, Queens, and Suffolk, the Syracuse findings run counter to notion that recidivism rates should rise after judicial supervision ends. These results do not necessarily contradict those presented in the Syracuse survival analysis that there is some attenuation of the drug court impact over time – as suggested by the smaller gap between participant and comparison group recidivism rates between six months and three years post-arrest. However, these latest results do indicate that the *moment of leaving drug court supervision* does *not* constitute a critical marker, immediately after which participant recidivism rises. In explaining the earlier reported survival patterns – that *did* suggest a relative attenuation of the drug court impact over time – it is possible that persistence of comparison group recidivism simultaneously and perhaps to an even greater extent declines over time (e.g., due to aging out of crime).

Impact of SCTC on Post-Program Recidivism

Figure 16.3 illustrates the impact of drug court participation one year after program completion (or release from incarceration for failures and comparison defendants). Participant

Table 16.7. Odds Ratios from the Logistic Regression Predicting a New Arrest Leading to a Conviction within One Year Following Program Completion

Post-Program Measurement Period	1 Year
Total Sample Size	429
Drug Court	249
Comparison Group	180
Chi-square for model	22.897*
Odds Ratios:	
Drug court participant	0.681
Prior misdemeanor conviction(s)	1.295
Prior felony conviction(s)	1.374
Top conviction charge	
Misdemeanor Drug Charge	1.271
Felony Drug Charge	0.629
Property Charge	1.381
Male sex	0.689
Age	0.971*
Race/ethnicity[1]	
Black	3.026+
Caucasian	2.456

*+ p<.10 *p<.05 **p<.01 ***p<.001*

Note: The dependent variable is whether there was at least one new arrest within 1 year that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, the estimated release date from jail or prison for failures, and theestimated release date or disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted as described in the text.

[1] Race/ethnicity has a third, unlisted "other" category to which black and Caucasian participants are compared.

results are further divided by final program status (graduate or failure). The results show that the impact of drug court participation previously seen in the post-arrest analysis has diminished by the one-year post-program mark. Although fewer drug court participants than comparison defendants had been reconvicted after one year post-program (28% versus 35%), this difference was not significant. Likewise, drug court participants were not significantly less likely than comparison defendants to have been reconvicted of any of the sub-categories of new offenses presented in Figure 16.3 (felony, misdemeanor, or drug offenses); although for each types of offense, the raw percentages suggest a slight positive impact of the drug court.

In addition to the participant-comparison group percentages, Figure 16.3 also includes a breakdown of the participant group by final program status. Not surprisingly, drug court failures were substantially more likely than graduates to recidivate. Not only were failures more likely to be convicted of *any* new crime; they were more likely to be convicted of all three specific types of new crimes. Also, although recidivism for failures was similar to the comparison group on most measures – while graduate recidivism was much lower – failures showed slightly *higher* recidivism than the comparison group for any reconviction and for any misdemeanor

Table 16.8. Impact of Drug Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage
Sample Group	Drug Court	Comparison	Reduction in
Sample Size	208	151	Recidivism
1. Prior Misdemeanor History			
No prior misdemeanor conviction	48%	38%	-26%
Prior misdemeanor conviction(s)	60%	67%	10%
2. Prior Felony History			
No prior felony conviction	49%	62%+	21%
Prior felony conviction(s)	71%	63%	13%
3. Charge Type			
Drug Charges	52%	62%+	16%
Misdemeanor Drug Charge	54%	65%	17%
Felony Drug Charge	48%	58%	19%
Property Charge	62%	-	-
Other Charge	59%	-	-
4. Age			
Younger offenders (ages 16-25)	59%	72%	18%
Older offenders (ages 26 and higher)	54%	61%	10%
5. Sex			
Female	54%	71%+	24%
Male	57%	59%	3%
6. Race/Ethnicity			
Black	59%	61%	3%
Caucasian	47%	64%	27%
Hispanic/Other	64%	75%	15%

$^{+}$ *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*
Note: All percentages are simply the percentage of defendants in the given subgroup with at least one new arrest within the given measurement period that led to a conviction.

reconviction. That is, those defendants who never entered drug court fared as well or, on some measures, just slightly better on average than those who entered drug court but went on to fail the program.

Consistent with the findings in Figure 16.3, the results of a logistic regression predicting the probability of reconviction within one year post-program indicate that drug court participation did not have a statistically significant impact – although the direction of the coefficient again suggests a possible positive effect (see Table 16.7). Among other background characteristics, as in the post-arrest analyses, younger age predicted a higher probability of recidivism. No other characteristic was significant at the .05 level.

Impact on Recidivism for Select Offender Subgroups

The above analyses indicate that, while SCTC is effective in reducing early post-arrest recidivism, it is less influential in diminishing late post-arrest and post-program recidivism. This

section extends the analysis of program impacts by examining whether certain categories of participants perform especially well in the drug court.

The percentages in Table 16.8 indicate the level of drug court impact after three years post-arrest for the following subgroups: defendants with and without prior misdemeanor convictions, defendants with and without prior felony convictions, defendants facing misdemeanor and facing felony level charges on the instant case; older and younger defendants, males and females, and blacks and Caucasians. The results in the right column of the table indicate the relative reduction in recidivism produced by the drug court for each respective participant category.

The results indicate that there may be somewhat differential effects based on prior criminal history and sex. The drug court appears particularly effective with defendants *with* prior *misdemeanor* convictions, *without* prior *felony* convictions, and also for female defendants. For instance, at three years post-arrest, 71% of drug court participants with an earlier felony conviction had recidivated, while 63% of comparison defendants with a prior felony conviction had recidivated (8% difference, with participants somewhat *more* likely to have recidivated). The gap between participants and comparison defendants *without* prior felony convictions was larger (13%) and in the opposite direction (participants *less* likely to recidivate), with 49% of participants and 62% of comparison cases having a new conviction within two years of initial arrest ($p < .10$). While the results of the subgroup analysis indicate that 38% of comparison defendants with no prior misdemeanor convictions recidivated at three years post-arrest, 48% of drug court participants with no prior misdemeanors had recidivated in this time period. That is, there is no evidence that the drug court reduced recidivism at all among this group of defendants. However, 60% of drug court participants who had at least one previous misdemeanor conviction had recidivated at three years post-arrest, versus 67% of comparable comparison defendants. The drug court therefore appears to be somewhat more effective with defendants who have prior misdemeanor convictions. Female participants also appear to be somewhat disparately helped by drug court; the drug court produces a 24% recidivism reduction for female participants compared to only a 3% reduction for males (the latter non-significant). In addition to these findings, the impact of the drug court on black participants (3% relative reduction) appears notably smaller than the impact upon non-black participants.

Since the participant sample includes defendants entering on non-drug charges while the comparison sample does not, there is no way to compare the wide variety of charges faced by drug court participants to determine if there is a disparate impact on defendants facing non-drug charges. However, the results do *not* indicate that there is any differential impact of the drug court on participants facing felony versus misdemeanor drug charges; that is, participants perform about equally well who enter on drug felony and drug misdemeanor charges.

In order to confirm the key results of the subgroup analysis, logistic regression analyses including each of the subgroups upon which the drug court appeared to have a particularly strong impact were used to predict the probability of recidivism at three years post-arrest. Those factors found to significantly predict the probability of three-year post-arrest recidivism above (see Table 16.5) were included. In addition, the characteristics appearing to be disparately impacted by drug court participation – prior misdemeanor conviction(s), prior felony conviction(s), sex, and race – were included in regression equations along with an interaction term (participation status*the characteristic in question). In this way, it was possible to ascertain whether the results of the subgroup analysis were the result of the drug court's disparate impact on certain populations or if this impact is eliminated once other background characteristics are controlled. The results of the logistic regression analyses are presented in Table 16.9. The results indicate

Table 16.9. Subgroup Analysis: Odds Ratios from the Logistic Regression Measuring Interaction Effects

	Odds Ratios from Logistic Regressions			
Post-Arrest Measurement Period	3 Years			
Total Sample Size	359			
Drug Court	213			
Comparison Group	146			
	Odds Ratios:			
	Model 1: Prior Misd. Interaction	*Model 2: Prior Felony Interaction*	*Model 3: Male Sex Interaction*	*Model 4: Black Race Interaction*
Drug court participant	.976	.508*	.356*	.440+
Prior misdemeanor conviction(s)	3.408**	2.582**	2.746***	2.483**
Prior felony conviction(s)	1.862*	1.069	1.837*	1.857*
Age	.948***	.934***	.935***	.948***
Sex			.468+	
Interaction Effects				
Prior misdemeanor conviction*participant status	.577			
Prior felony conviction*participant status		2.499+		
Male sex*participant status			2.525+	
Black ethnicity*participant status				1.897

[+] *p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)*
[1] Only those relationships found to be significant in the three year post-arrest analysis (Table 16.5) are included.

that the drug court has somewhat of a disparate impact based on defendant sex, with female drug court participants gaining more from the drug court than males relative to comparable defendants who did not enter the drug court. Likewise, the drug court also has a somewhat disparate impact upon defendants with prior felony convictions when other factors are controlled. That is, those participants with no prior felony conviction gain more through their drug court participation than do participants without a prior felony conviction. Although it does not reach significance, the sizeable odds ratio for the black ethnicity interaction term indicates that the drug court has a somewhat greater impact on non-black defendants. Although this finding is not significant, the odds ratio is substantial enough (1.897) to indicate that, given a larger sample size, significant differences based on race may have been realized.

Summary

The results of the impact evaluation indicate that the Syracuse Community Treatment Court has a significant impact in reducing post-arrest recidivism at one and two years. The results also show evidence of a continued, small impact at three years ($p < .10$ in multivariate analysis). However, at the three-year mark, there was no difference in the total *number* of reconvictions. Of those with at least one reconviction, SCTC participants did average significantly more *crime-free time* before the first recidivist re-arrest occurred. Hence SCTC generated a significant delay in the onset of recidivism among those who re-offended. Finally, SCTC appeared to have a somewhat greater impact in suppressing future *drug-related* re-offending than other types.

The impact of SCTC on *post-program* recidivism did not reach statistical significance (although the raw percentages suggest a small impact). In separately considering drug court graduate and failure outcomes, graduates demonstrated much lower recidivism rates than the comparison group; but participants who ultimately failed drug court were *more* likely to recidivate than comparison defendants. Hence the relatively small positive net impact of the drug court stems primarily from benefits accrued by those who go on to graduate. In addition, the Syracuse drug court may be particularly effective in reducing the recidivism of female defendants and of defendants with no prior felony convictions.

Chapter Seventeen
Impact Evaluation of the Rochester Drug Treatment Court

The Rochester Drug Treatment Court (RDTC) began operations on January 30, 1995 as a two-year pilot program. In early 1995, there were less than fifty drug courts open throughout the country and none in New York State. As the state's first drug court, RDTC opened amidst a level of institutional skepticism not faced by later programs. Since state funding was limited, RDTC had to be inventive in both securing funding and developing operations. Courtroom personnel, including the assistant district attorney and public defender, were funded through existing resources. The Project Administrator was funded through a collection of private foundations, organizations, and individuals, including the Daisy Marquis Jones Foundation, the Wegman's Foundation, the Mary S. Mulligan Trust, the Fred and Floy Willmott Foundation, the B. Thomas Golisano Foundation, and the Monroe County Bar Association. To address difficulties inherent in having private funds donated to a court, the United Way Service Corporation acted as fiduciary agent.

By April 1996, six months before the end of the two-year pilot phase, the New York State Office of Court Administration assumed funding of the Project Administrator and institutionalized the RDTC as a permanent part of the court system. Since that time, the RDTC has served as a model for numerous drug courts that have opened throughout the state. The original judge, the Honorable John Schwartz, has been a particularly instrumental figure in guiding the development of drug courts throughout the upstate New York area. With the initial groundbreaking provided by the RDTC, three more drug courts opened during the first half of 1996 – those in Buffalo, Lackawanna, and Brooklyn.

There have been three judges at RDTC. Judge Schwartz was the original judge from the beginning of operations in 1995 through May 1997 and was in large part personally responsible for opening the RDTC. The Honorable Joseph D. Valentino succeeded Judge Schwartz and remained on the bench until January 2002. At that time, the Honorable Roy King took over. Although Judge King was on the RDTC bench during the authors' site visit, we were able to interview all three judges on their respective policies and styles.

More than any of the five other impact drug courts, RDTC faced serious barriers to opening and obtaining a steady flow of referrals. In response, the original judge, the Honorable Judge Schwartz, sought to make the program available to as many addicted defendants as possible. This led RDTC to define as "paper eligible" defendants arrested on both nonviolent misdemeanors and felonies and on drug and non-drug charges. In practice, RDTC participants have the most diverse instant case arrest charges of the six impact courts, and RDTC is the only program for which there was sufficient representation of certain *non-drug* charges to include them in the comparison group as well. RDTC has both pre- and post-plea program entry options, and requires twelve months clean and sober time to graduate.

The RDTC impact evaluation is most similar to Brooklyn's in that it involves a *contemporaneous* time period design. Both participants and comparison group defendants were arrested in 1996, 1997, and 1998. Sample assignment was based on the arraignment judge for the case. The Rochester City Court arraignment process involves a rotation of seven judges. Due to a lack of support for the drug court among all except two judges on the arraignment circuit in the

early years, the comparison group could be composed of defendants arrested between January 1996 and December 1998 on one of five drug court-eligible charges but not arraigned by one of the supportive judges.

Analyses compare recidivism up to four years after the initial arrest and up to two years after program completion. The Rochester and Brooklyn impact evaluations are the only ones to use four-year post-arrest and two-year post-program measurement periods. After describing the RDTC program, this chapter reviews aspects of the methodology that are specific to this evaluation. Results are then presented for all post-arrest and post-program analyses.

The Rochester Drug Treatment Court Model

Screening and Eligibility

Defendants are *paper eligible* if arrested on nonviolent charges that are not A-level felonies or drug sale felonies. Otherwise, all felony, misdemeanor, and violation arrests are paper eligible, including D.W.I., drug and non-drug charges. Predicates and probation violators are also eligible. This is the broadest range of charges allowed among the six impact drug courts. The original drug court judge, Judge Schwartz, did not want to rule out potential participants simply because of charge reasons, especially since case referrals were difficult to obtain in the early years of the program.

The remaining description of the screening process refers to the more recent period of our site visit, in which most of the initial challenges to obtaining referrals no longer applied. Within twenty-four hours of an arrest in Rochester, a defendant will be arraigned before a rotating judge in one of two court parts (one for felonies and probation violations and another for misdemeanors). At arraignment, the public defender (PD) or private attorney may bring up the drug court and make a request for the defendant to be considered for RDTC eligibility. An initial "referral" may also come from the arresting police officer or, since 2001, from a town/village court that transfers its drug cases to the Rochester City Court, which acts as a hub for 22 smaller town and village courts. Although it is preferred to receive a potential participant early in the process, referrals are also accepted post-arraignment. For instance, referrals may be accepted from any of the seven judges in the seven-part rotation, and the referring judge does not have to be presiding in an arraignment part.

After the initial referral, the assistant district attorney (A.D.A.) will review the case for paper eligibility. At this point, a defendant may be found ineligible because the charge is violent or an A-level felony, or involves a drug sale. Currently, the A.D.A. may also rule out a case because of elements of domestic violence, weapons, or driving while intoxicated, although the original A.D.A. in the earlier years of the program would allow these cases to go forward to the drug court.

If the A.D.A. can reach a plea agreement with the P.D.[1], a recommendation is given to the arraigning judge that the case be transferred to the RDTC. The judge must also agree to the transfer, but is likely to do so if the A.D.A. and P.D. are agreed. If the process runs as planned, a defendant will appear before the RDTC judge within two days of arraignment and three days of arrest.

[1] It is possible for a private attorney to recommend the drug court for his/her client, but most of the RDTC participants are represented by the Public Defender.

Between arraignment and the first drug court appearance, the defendant will have a mini-clinical screen administered by the treatment provider.[2] Also, defendants arrested on a felony will be required to observe one full day of RDTC and sign a contract before becoming a participant. After signing the contract, felons will undergo a full psychosocial assessment conducted by a treatment provider representative. Misdemeanor defendants also observe court but have a full psychosocial assessment completed before being asked to sign a contract and become a formal participant.

Participation Requirements

Participants may enter RDTC with and without a plea, similar to Syracuse. Most misdemeanor cases enter *pre-plea*. This means that they do not admit guilt before signing a contract and upon program failure the case must first be disposed with a conviction before sentence can be imposed. All felony cases entering since November 2000 have been required to plead guilty before entering drug court; probation violators also enter RDTC as post-plea cases. The arraigning judge decides whether or not a plea is required before transferring the case to the drug court. The arraigning judge also determines whether or not to set a predetermined jail alternative for the post-plea cases. The judge will honor an agreement reached between the A.D.A. and P.D.

Regardless of pre- or post-plea status, all participants have the same graduation requirements. They must complete one consecutive year of clean and sober time – although that year has recently been divided into set time requirements associated with each of four phases of drug court participation (see below). Each positive drug test resets the count back to zero for the entire required year. This accounts for why most graduates need closer to two years (21 months on average) to complete the program. In addition to the clean and sober time, graduates must complete their treatment program, receive a high school degree or GED, and be in college or working if they already have a high school degree. Exceptions might result if the participant is disabled or has a documented mental illness that stands as a barrier to education or employment.

Upon graduating, pre-plea cases, which are almost entirely arrested for misdemeanor level offenses, will generally receive an adjournment in contemplation of dismissal (usually involving a promise of dismissal in 6 or 12 months) or a conviction for disorderly conduct. Upon failure, the cases will first have pre-trial motions and then usually result in a plea bargain or trial. Originally, these cases would be transferred back to the arraigning judge, but the current judge, the Honorable Roy King, does not send these cases back and instead opts for the disposition process to occur in his courtroom. Judge King told the authors that he believes these lower-level misdemeanor cases took a risk in trying to succeed in drug court and should be rewarded for making the harder choice over a light sentence. That is why he does not want to send them back to a judge that does not know of the defendant's efforts in the drug court.

Post-plea cases are felonies, probation violators, and some of the more serious misdemeanor cases. Upon graduation, they receive a favorable disposition – for the felonies, usually a misdemeanor conviction. Failures will be sentenced to the incarceration alternative written into the participation contract.

[2] When the drug court originally opened, a treatment provider conducted both the mini-screen and the full psychosocial assessment. Since January 2002, the RDTC Coordinator has administered the screen.

The Case Management and Treatment Model

In the RDTC case management model, representatives from local treatment agencies serve as case managers. This model grew out of the original RDTC environment where the court did not receive institutional support or funding and was therefore forced to create an agreement with local treatment providers for free case management time. The case managers donated time to the court in exchange for preference in treatment placements. This arrangement is still maintained.

Each provider agency has designated days of the week when its case managers are on hand in the courtroom. On those days, new participants are assigned to one of the case managers present, and it is assumed that the first attempt at placement will be at that case manager's facility. If, after the mini-screen or full psychosocial assessment, it is determined that the participant would be better served in a different modality or program, the participant will be moved to the appropriate facility. The case managers have a monthly meeting with the RDTC coordinator where updates are given and participants can be switched between facilities if needed. When participants switch to a new program, they typically retain their case manager from the old program, thus providing for continuity in the case manager relationship.

In addition to performing assessments, the case manager is responsible for giving a progress report on each of their cases in court to the judge, making treatment and sanction recommendations, holding weekly phone calls with their clients, and meeting with clients in person whenever necessary or appropriate. The current judge considers case manager recommendations on both treatment and sanctioning decisions made at participant court appearances, but all sanctions are imposed at the judge's discretion.

The RDTC Coordinator serves as a liaison between the court and the treatment facilities and their case managers. The coordinator is also responsible for entering information into the Universal Treatment Application and for reporting problems between court staff and the treatment team to the judge. Since January 2002, the coordinator also administers the full psychosocial assessment between the first and second court appearances.

Most RDTC participants are assigned to an outpatient modality, although some are assigned to a 30-day short-term inpatient stay before switching to intensive outpatient services. Most enter either an intensive outpatient facility, where they attend anywhere from three to five days per week, or a regular outpatient facility, where they attend less than three days per week. A halfway house (residential living facility coupled with outpatient treatment) or OMH supportive living (inpatient) are also acceptable modalities.

Participants always had to complete twelve months of consecutive sobriety, but participants often take much longer than the required twelve months to reach graduation. Relatively recently RDTC added phases to break up in-program time. Phase One requires ninety days clean, with the focus on stabilization, entering treatment, and early recovery. Phase Two requires an additional ninety days of clean time and concentrates on staying clean, investing in the treatment program, and focusing on sober activities. Phase Three requires the last six months of consecutive sobriety, for a total of twelve months clean. At the end of Phase Three, the participant will have completed all treatment, educational, and employment requirements. At this stage, the participant is preparing to graduate and is starting to refocus attention from treatment to relapse prevention and vocational and/or education activities. Phase Three is when the participant begins to consider life after drug court. Phase Four primarily involves maintenance of sobriety. The participant has essentially completed all drug court requirements but is in limbo awaiting the next quarterly

graduation ceremony. Here the participant attends court only once per month for monitoring. The participant must also remain clean for the remaining two to three months before graduation.

Judicial Supervision

A central component of the judicial supervision policy concerns urinalysis testing. When RDTC first opened it could not afford to administer drug tests to each participant at every court appearance. Therefore, a system was designed where a not-so-random list of participants was asked to submit to a drug test each day in court. As described in Chapter Two, before testing, many of the chosen participants would be asked if they expected to test positive. If any admitted use, there would be a moderate sanction imposed, usually one week in the sanction chairs (similar to a jury box sanction). If a participant denied use, but then tested positive, a more severe response would result from the lying, usually a one-week jail sanction. Judge Valentino, the second judge at RDTC, said he sometimes even imposed a two-week jail sanction in response to lying about use. This "honesty" policy continues to this day in RDTC.

Other than the urinalysis sanction policy, forms of judicial interaction in the courtroom have changed based on the judge in charge. For instance, Judge Schwartz indicated that he would take a relatively casual approach, often interacting with participants seated in the jury chairs (e.g., due to a sanction) during the court session and typically getting off the bench at the end of a session to talk further to those in the jury chairs. He also would try to interact extensively during court appearances, giving substantial attention to each participant.

With respect to sanctions, at the low end of the spectrum, all three judges have required participants sit in jury chairs to observe court, to write letters about the importance of being on time, or to write other types of essays. Moderate or second sanctions have included a relapse panel (described in Chapter Two as a panel with recovered RDTC alumni), day reporting, or increased supervision. As with the other drug courts, the most serious sanctions are one or two weeks in jail.

At our site visit, Judge King, the current RDTC judge, expressed to the authors that he is trying to incorporate more positive reinforcement into the process. At the time RDTC was using applause in court and a gift package for the birth of a drug-free baby, but had not yet formulated additional rewards.

Similar to Syracuse, RDTC has seen broad changes in sanctioning and failure policies, due mostly to the different approaches of the three judges who have presided, as well as the political environment within which the court existed at the outset. Judge Schwartz, who opened the drug court, was hesitant to fail participants without giving them several opportunities to rebound and succeed. If a participant asked to leave the program to serve a jail or prison sentence, Judge Schwartz would send the participant to a jail sanction for a few days to give them a taste of incarceration. He would then ask the participant to reconsider their voluntary failure. By the time Judge Valentino took the helm, there was more acceptance for the program within the City Court environment, so he was able to be stricter with noncompliant participants (i.e., a failure rate perceived as high would no longer threaten the program). Judge Valentino told the authors during the site visit that he was likely to fail participants earlier than Judge Schwartz would have. Most recently, Judge King, too, is less willing to allow a participant to continue when there is a lack of effort or compliance. Judge King told the authors in our site visit that he describes his job as "schizoid judging" – you need to be a number of things to each participant at each appearance – sometimes it is necessary to be strict, and sometimes it is important to recognize the need for leniency.

Previous Evaluation Results

As required by a grant from the former Drug Courts Program Office, Rochester has had a process evaluation conducted (Cohen, Kibel, and Branch 2000). The evaluation had two major parts. The first discussed the RDTC achievement of various case management, alumni group implementation, and community reintegration goals. The second endeavored to measure the success of the drug court. The analysis looked at recidivism (defined as local rearrests) among all 385 graduates who entered the program since inception in 1995 through March 2000. Data was received as of approximately March 2000, and all local recidivism events for each graduate were examined. The study found that only 10.9% of graduates were rearrested in Rochester City during the period in question, which translated into a 4.4% annual rearrest rate (since many participants were at risk for longer than one year). The study also performed a subgroup analysis looking at rearrests during a six-month period for all drug court participants entering just in 1999. Of those participants, 43% of failures, 16% of open cases, and only 5.5% of graduates had been rearrested. A second subgroup analysis found that zero (0) of the 23 graduates who were active members of the alumni group had recidivated during the measurement period. Lastly, the evaluators received data on statewide rearrests (as opposed to Rochester City only). They found similar results to our own (below) – 21.7% of graduates that left the program before 2000 had been rearrested, and 11.3% had been re-convicted.

This earlier study provides a detailed process analysis of the RDTC program and of recidivism for RDTC program participants. The recidivism results confirm the finding reported above in Chapter Nine that graduation status is a critical predictor of recidivism, since graduates had much lower recidivism than failures. The results also suggest that ongoing and additional levels of program engagement – indicated by involvement with a drug court alumni group – *further* predict lower recidivism. The study, however, does not constitute an impact evaluation per se, since the research design lacks a specific comparison group composed of defendants not entering the drug court. In addition, most analyses provide data for graduates only, rather than all RDTC participants. In this sense, the following sections will provide the first impact analysis of the RDTC drug court in comparison with conventional prosecution.

Research Design and Methodology

This section describes specifics of the research design for the RDTC evaluation, while general research design components are as described earlier in Chapter Eleven. The RDTC evaluation is the only one to include both drug and non-drug cases in the comparison group, thus presenting unique opportunities for analysis as well as additional methodological issues not confronted in the other five impact evaluations.

Definition of the Comparison Sample

The initial comparison group sample was drawn from defendants arrested in 1996, 1997, and 1998 in Rochester City who were not arraigned in front of the first two drug court judges, the aforementioned Judges Schwartz and Valentino. In these early years, the other seven rotating arraignment judges systematically refused to refer cases to the drug court. This provides for a relatively strong quasi-experimental design, since we can use a contemporaneous comparison sample that matches the drug court's paper eligibility criteria but that did not receive the option to enter drug court due to the judge who presided at arraignment.

Another important component of the RDTC comparison sample is that it is the only one of the six in this report including defendants arrested on both drug and non-drug charges. The initial sample included 1,315 defendants arrested on one of five top charges:

- Criminal possession of a controlled substance in the third degree (felony, 13% of the total comparison sample);
- Criminal possession of a controlled substance in the seventh degree (misdemeanor, 20% of the total comparison sample);
- Prostitution (misdemeanor, 16% of the total comparison sample);
- Petit larceny (misdemeanor, 34% of total comparison sample); and
- Criminal mischief in the fourth degree (misdemeanor, 16% of the total comparison sample).

These five charges were selected for comparison group inclusion because they reflected the most common charges among participants. These charges applied to 44% of participants arrested in 1996-1998. The other 56% of participant arrest charges were spread across a wide variety of mostly misdemeanor, but sometimes felony, drug and non-drug charges, with no other specific charge accounting for a meaningful percentage by itself.

The comparison sample also excluded defendants who would be disqualified from the drug court due to violent criminal histories (either felony or misdemeanor violence) or pending violent charges. In addition, the sample only included cases in which the arrest led to a conviction.

Definition of the Participant Sample[3]

The initial participant sample consisted of all 719 participants entering the program in 1996, 1997, and 1998 with an appropriate charge. An appropriate charge was defined as: (1) one of the

[3] As a part of the conversion of data from the original Rochester Management Information System into the statewide Universal Treatment Application, there were a substantial number of cases (618) that were converted as participant status-unknown. In other words, it was unclear from the original data maintained by the court whether to count these cases as participants or ineligibles, and hence whether, if participants, they graduated or failed. The staff at RDTC spent numerous hours reviewing the paper files of these "closed-unknown" cases to determine participation / ineligible status, the participation/ineligible date, and the specific *reason* for the closed/ineligible status. Out of the 650 participants matched to comparison group defendants in this impact evaluation, 101 participants were part of the original closed-unknown group, but RDTC subsequently identified them as participants with an appropriate graduation or failure closed reason. The other original closed-unknown cases were not part of the participant impact sample either because Rochester subsequently identified them as "ineligible" or because their arrest fell outside (in most instances preceding) the 1996-1998 timeframe for the sample. Of these 101 original closed-unknown cases, 97 were ultimately coded as failures, 1 as a graduate, and 3 as participant-incompletes (2 died while participating in the drug court and 1 was transferred to another jurisdiction after first initiating drug court participation). In addition to these 101 cases, there was also a concern that perhaps more cases should be counted as participants, because they had spent considerable time with the drug court – i.e., considerable time elapsed between the drug court intake and exit dates – even if they were never technically a "participant." Specifically, there were an additional 33 cases that had at least 60 days in the drug court, or at least 60 days between intake date and transfer date out of the drug court. These cases might have been considered participants due to the amount of time receiving court monitoring and possibly case management and/or treatment services. However, we decided *not* to include these 33 cases in the participant sample, since RDTC had identified them as ultimately ineligible. Just to be confident of the ramifications of this decision, we ran the same post-arrest and post-program analyses including these 33 cases and found negligible differences in the results. We also ran the same post-arrest and post-program analyses including the 75 other cases arrested during the timeframe of the impact sample that were originally coded as closed-unknown cases and subsequently defined as ineligible; here too, inclusion of these additional cases generated negligible differences in the results. This generates confidence in the validity of our final participant sample.

five specific charges represented in the comparison group, (2) any additional non-marijuana drug felony possession charge, or (3) any additional prostitution-related charge. Participants entering on all other types of charges, mainly a miscellaneous assortment of other non-drug charges, were excluded, based on an empirical examination of the data. We examined whether drug court participants arrested on charges not represented in the comparison group tended to recidivate at higher or lower levels than those arrested on the five charges represented in the comparison group. We found, first, that participants arrested on drug charges were less likely to recidivate than those arrested on non-drug charges; and second, we found that among non-drug charges, some such charges were more strongly associated with recidivism than others. We concluded that it was appropriate to *limit* the participant sample to charges also existing in the comparison group, except for similar drug possession or prostitution charges, which could also be included. Doing this ensured that we could effectively match all participants to a comparison group defendant using charge as one of the key matching variables. But this decision also meant that 535 participants were removed from the participant sample and, consequently, that results could not be generalized to all non-drug charge categories.

Implementation of Propensity Score Matching

The first step was to compare the initial samples on all available and relevant background characteristics. The purpose of this comparison was to determine whether the initial drug court participant and comparison samples differed significantly in any important respects (basic demographics, criminal history, etc.). The subsequent propensity score matching process would then seek to eliminate or at least reduce those differences prior to beginning any actual recidivism analyses. The samples were initially compared on the following variables:

- *Criminal history:* prior misdemeanor conviction (y/n), prior felony conviction (y/n), prior drug conviction (y/n), and total time spent incarcerated prior to the instant case;
- *Current charges:* divided into five charge categories – felony possession, misdemeanor possession, prostitution, petit larceny, and criminal mischief;
- *Demographics:* sex, age, and race/ethnicity (divided into black and Caucasian/other); and
- *Year of arrest* (1996, 1997 or 1998).

Bivariate comparisons revealed significant differences on nearly every one of these variables. In other words, the initial set of comparison group candidates did not, in fact, provide a close match to actual drug court participants. Significant differences appeared on the following variables:

- *Criminal history:* Participants had a less serious prior criminal history (less likely to have a prior misdemeanor, felony (only at .10 level) or drug conviction);
- *Current charges*: Participants were more likely to be arrested on misdemeanor possession charges and less likely on felony possession, petit larceny or criminal mischief charges;
- *Demographics:* Participants were older, less likely to be male, and less likely to be black; and
- *Time of Arrest:* Participants were more likely to be arrested later (in 1998) than the comparison sample.

Table 17.1. Logistic Regression Model Predicting Rochester Participation

Variable	Coefficient
Summary Statistics	
Total sample included in the analysis	1940
Participants	650
Comparison Group Candidates	1290
Chi-square for model	254.908***
Logistic Regression Coefficients	
Prior misdemeanor conviction(s)	-.333**
Instant case arrest charge[1]	
Arrested on felony possession	.049
Arrested on misdemeanor possession	.818***
Arrested on petit larceny	-.005
Arrested on criminal mischief	-1.051***
Male sex	-.403**
Age	.022***
Black[2]	-.412***
Year of arrest	.558***
Constant	-1.447***

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether the defendant is a Rochester participant or comparison group candidate. All variables included in the model were significant at the .10 level or better in separate bivariate comparisons (see Table 17.2). The exception is that prior drug conviction(s) was significant in the bivariate comparison but was not included due to its strong inter-correlation (r = .271) with the prior misdemeanor conviction variable.

[1] Arrest charge has a fifth, unlisted category, criminal mischief, to which all others are compared.

[2] Race/ethnicity has a second, unlisted category, white/other, to which black participants are compared.

As in many of the other drug courts, it is not possible to provide conclusive explanations for why these differences arose. Many likely reflect differences in the degree to which certain demographic and criminal justice subgroups have a drug addiction. For example, older defendants and female defendants are generally more likely to be addicted to drugs; and indeed, defendants with those characteristics were more likely to be in the participant than the comparison sample. Other differences do not elicit an obvious explanation. For purposes of the evaluation, however, the source of these initial differences are not vital to pinpoint; what is most important is to take statistical measures to reduce or eliminate these differences, so that when recidivism analyses are conducted, the final drug court and comparison samples are indeed comparable to each other.

Accordingly, all significant variables from the bivariate comparisons were then entered into a logistic regression model predicting the probability of drug court participation. (Two of the three criminal history measures were excluded, however, due to their strong inter-correlations.) Sixty-nine participants and twenty-five comparison group candidates were excluded at this point due to missing data on one of the independent variables. A total of 1,940 defendants were in the

Table 17.2. Baseline Characteristics of Rochester Participant and Comparison Group Samples Before and After Propensity Score Matching

	Pre-Matching		Final Comparisons		Change in Drug Court/Comparison Sample Differences
	Drug Court	Comparison Candidates	Drug Court	Comparison Group	
Sample Size	(N = 719)	(N = 1315)	(N = 650)	(N = 420)	
Prior misdemeanor conviction(s)	57%	67%***	60%	65%	-5%
Prior felony conviction(s)	28%	32%+	30%	33%	-1%
Prior drug conviction(s)	17%	21%*	18%	23%+	1%
Average time incarcerated prior to instant case	219.2	220.8	237.0	204.2	34.4
Arrest charge					
Felony possession	10%	13%*	10%	11%	-2%
Misdemeanor possession	42%	20%***	41%	34%*	-15%
Prostitution	17%	16%	18%	18%	-1%
Petit larceny	26%	34%***	26%	31%	-3%
Criminal mischief	5%	16%***	5%	6%	-10%
Male sex	61%	69%***	61%	63%	-6%
Average age	33.2	31.7***	33.4	32.8	-0.9
Race/ethnicity					
Caucasian / other	48%	36%***	48%	43%	-7%
Black	52%	64%***	52%	57%	-7%
Year of arrest					
Year = 1996	25%	41%***	24%	28%+	-12%
Year = 1997	26%	30%***	27%	28%+	-3%
Year = 1998	49%	29%***	49%	44%+	-15%

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: The final comparison sample is substantially smaller than the pre-matching sample due to the effect of the matching process in removing poor matches from the comparison group. The participant sample loses 69 cases due to missing data on one or more variables that needed to be included in the logistic regression equation predicting participation; the comparison group loses 25 cases for the same reason (see Table 17.1).

regression model, 650 participants and 1,290 comparison group candidates. Table 17.1 gives the regression coefficients and significance levels.

Propensity scores were obtained, and each participant was matched to the comparison candidate with the nearest, if not identical, score (see Chapter Eleven). Strict use of the "nearest neighbor" matching technique led almost 31% of the final comparison sample to be matched to more than one participant. Also, a large number of the comparison candidates were eliminated after the matching process (68% of the original comparison sample was eliminated at this stage). These outcomes of the matching process signify that the initial set of comparison group *candidates*, despite their comparability in terms of formal paper eligibility criteria, did *not* comprise a good match to actual RDTC participants. By contrast, the *final* samples were able to greatly improve upon the quality of participant-to-comparison group matches.

Ultimately, 650 participants were matched to 420 comparison defendants. Table 17.2 illustrates the successful nature of the matching process in improving the comparability of the final samples. The table compares the samples on all background characteristics both before and after implementation of propensity score matching. While there were significant differences at the .001 level on nearly all variables before implementation of matching, afterwards, the final samples differed significantly ($p < .05$) only with respect to a single variable, with drug court participants more likely to have been arrested on a misdemeanor possession charge. Also, at the weaker .10 significance threshold, the final participant sample remained *less* likely than the

comparison group to have a prior drug conviction ($p < .10$), and *more* likely be arrested later (in 1998, $p < .10$).

Post-Program Methodology for the Rochester Drug Treatment Court

The approach is generally the same as for the other impact courts. As noted above, sample size is sufficient for both a one-year and two-year post-program recidivism analysis. As described in Chapter Eleven, a methodological challenge arises due to the fact that a portion of the participant sample is unavailable for the post-program analysis. First, since it usually takes almost two years to graduate (21 months on average) and an additional year, or two years, to complete the post-program measurement period, many graduates had not accumulated sufficient post-program time as of the analysis date. Second, because RDTC failures are incarcerated, and the post-program count cannot begin until their release, many failures had similarly not accumulated enough time. Finally, a small number of participants (less than 3%) had not, as of the analysis date, reached final graduation or failure status. Since various graduates and failures are unavailable for the post-program analysis, it is vital to know what proportions of participants in the impact sample in fact comprise graduates and failures and what proportions *should* comprise graduates and failures respectively, based on the program's estimated graduation rate. This is important, since graduation status is a powerful predictor of recidivism (as demonstrated for other drug courts in Chapter Nine); hence having an incorrect ratio of graduates and failures could therefore bias drug court participant impact results in one direction or the other.

In order to investigate and correct for any biases, the final status of all participants in the impact sample was determined as of March 2003, just prior to the analysis date. For participants who had neither graduated nor failed as of that date, background characteristics were utilized to *predict* whether they were more likely to graduate or to fail. The prediction model was derived from the analysis of predictors of drug court failure reported in Table 17.3. Independent variables for the analysis included demographic, drug use, and criminal history measures and were based on predictors in the Chapter Nine analysis for the five other impact drug courts. All significant predictors were then entered into a new logistic regression model predicting graduation. The resulting equation was as follows:

LOGODDS(graduation) = (.010 * AGE) + (-.541 * BLACK) + (.571 * DRUG CHARGE) + (-1.393 * WARR30) + (-1.403)

As this equation indicates, age, race, drug charge, and warranted within thirty days of drug court entry all significantly contributed to each participant's predicted probability of graduation. This equation could then be used to generate a predicted probability of graduation for each participant in the sample (see Chapter Eleven). The resulting probability could in turn be used to estimate the final program status of participants who had not yet completed drug court as of the analysis date. Of 650 total participants in the RDTC impact sample, only 15 (2.3%) had indeterminate status. This means that our estimation method was only necessary to impute graduation / failure status to fifteen total RDTC participants. Of these fifteen, three had been out on a warrant for over a year and were therefore presumed to be failures, as per a comparable assumption used in the other impact analyses. Of the remaining twelve participants, the predicted probability of graduation generated by the above equations was less than 50% for each, so they were all considered to be failures. Given that all twelve of these participants began their drug court participation at least four and a quarter years prior to the analysis date (by the end of 1998),

Table 17.3. Odds Ratios from the Logistic Regression Predicting Program Failure in Rochester

	ROCHESTER
N	**627**
Valid N	**341 (54%)**
Age	.969+
Male	1.174
Black	2.522**
Primary drug	
Cocaine	1.687
Marijuana	0.984
Any prior convictions	1.393
Drug possession charge (felony or misdemeanor)	.509**
Warranted within 30 days of program entry	3.519**
Nagelkerke R^2	0.16
Chi-Square	37.435***

+ p<.10 *p<.05 **p<.01 ***p<.001

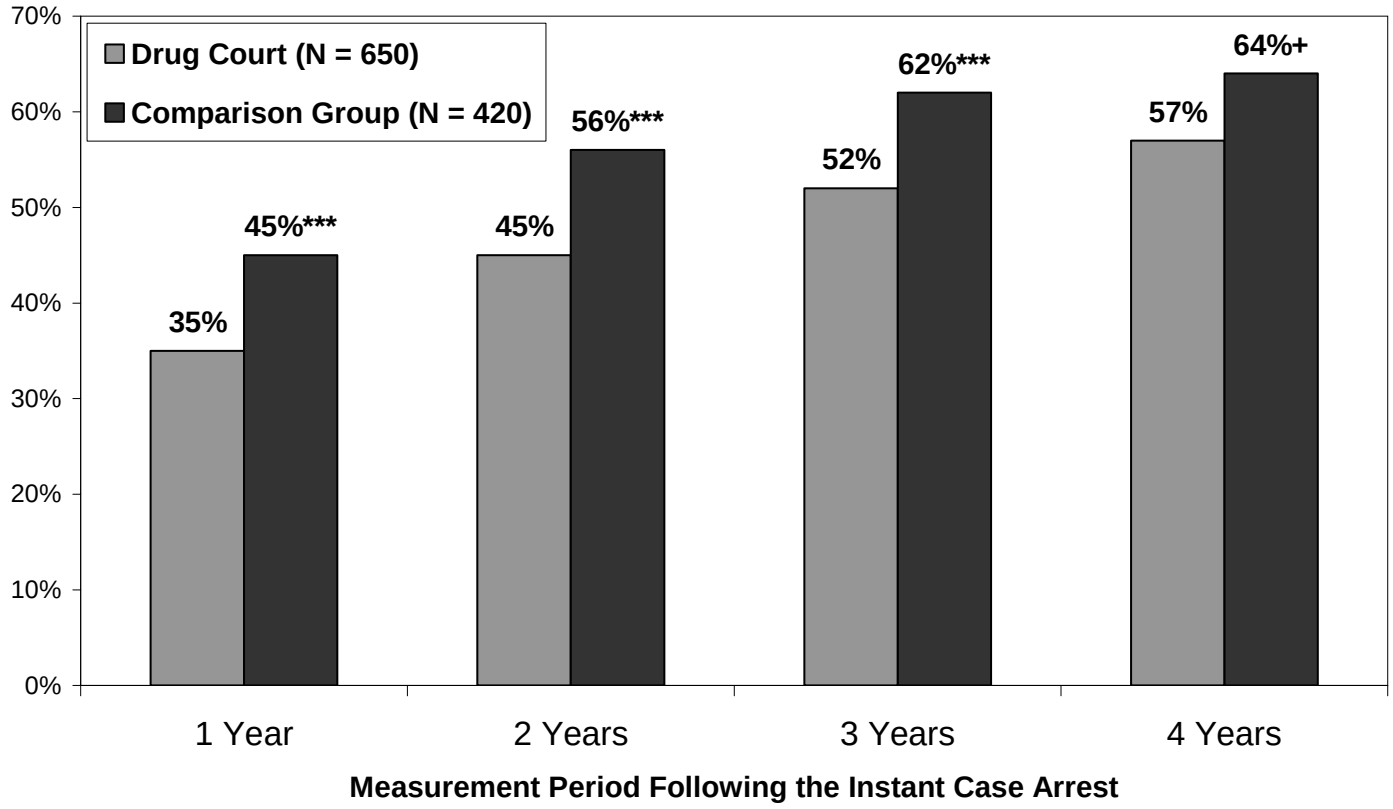
Note: Odds ratios greater than 1.000 indicate a positive relationship.

the imputing of a negative participation outcome seems, for that additional reason, to comprise a plausible conservative assumption.

Using the predicted final outcomes produced with the above method and the known final status of 635 (97.7%) participants from the impact sample, a graduation rate for RDTC was estimated at 23.4%. This graduation rate was based on the full participant sample (N = 650). Since only 552 participants (127 graduates and 425 failures) were available for the one-year post-program analysis; and only 455 participants (95 graduates and 360 failures) were available for the two-year post-program analysis, the available samples then had to be weighted in order to reproduce the proper 23.4% estimated graduation rate within the available samples. That is, graduates were weighted so as to contribute 23.4% towards participant outcomes for each recidivism analysis and failures were weighted so as to contribute 76.6%. By weighting participants in this manner, it could be assured that the average recidivism rates ascribed to all RDTC participants would not be biased based on whether or graduates or failures happened to have more often accumulated enough post-program time for inclusion in the analyses.[4]

[4] To review, for one-year post-program analyses, 127 graduates and 425 failures accumulated enough post-program time to be included. To proportion them according to the estimated graduate rate, all graduates received a weight of 1.0173913 and all failures received a weight of 0.9948051. For the two-year post-program analyses, 95 graduates and 360 failures accumulated enough post-program time to be included. Graduates were given a weight of 1.1196172 and failures given a weight of 0.9683944. Without this weighting, failures would have been slightly over-represented in our sample, which would have created biased recidivism results. On the other hand, the above weights used in the one-year analysis were substantively negligible, indicating that results would have been practical identical with or without the weighting methodology.

Figure 17.1 Impact of RDTC on Recidivism within Four Years of Initial Arrest
(Percentage with a New Arrest Leading to a Conviction)



*+ p < .10 * p < .05 ** p < .01 *** p < .001* (2-tailed t-test)
Note: The new arrest must have occurred within the given measurement period, although the conviction may have occurred later. At 4 years, drug court participants were only available who entered in 1996 and 1997. Thus 4-year sample sizes decline to 319 for drug court and 266 for comparison group.

Impact on Post-Arrest Recidivism

Bivariate Comparisons

As shown in Figure 17.1, RDTC generated a significant reduction in recidivism up to three years after the initial arrest; and there was still some evidence of a reduction after four years ($p < .10$). The absolute magnitude of the impact was almost identical through three years, but did appear to attenuate somewhat after the fourth. After one year, 35% of drug court participants versus 45% of the comparison group had a new conviction (10% difference); after two years, the difference was 45% versus 56% (11% difference); after three years, it was 53% versus 63% (10% difference); and after four years, it was 57% versus 64% (7% difference). As a different way of understanding the magnitude of the drug court impact, RDTC reduced recidivism by 16% of the initial comparison group level after three years and by 11% after four years. As with Brooklyn, future analyses covering longer measurement periods and larger participant samples could help to resolve whether the slight drop in the drug court impact at four years post-arrest is

Table 17.4. Impact of RDTC on *Post-Arrest* Recidivism

Recidivism Measure	Drug Court	Comparison Group
1. Recidivism within 3 Years Post-Arrest	(N = 650)	(N = 420)
Average days in-program for participants	518	n/a
Any new conviction	53%	63%***
Any felony conviction	14%	19%+
Any misdemeanor conviction	47%	56%**
Any conviction for drug offense	14%	17%
Average number of convictions	1.28	1.60**
Of those with at least 1 new conviction:	(N = 342)	(N = 263)
Days to first new arrest (led to conviction)	324	278*
2. Recidivism within 4 Years Post-Arrest	(N = 319)	(N = 266)
Average days in-program for participants	579	n/a
Any new conviction	57%	64%+
Any felony conviction	16%	22%+
Any misdemeanor conviction	53%	57%
Any conviction for drug offense	19%	21%
Average number of convictions	1.54	1.98*
Of those with at least 1 new conviction:	(N = 182)	(N = 171)
Days to first new arrest (led to conviction)	424	318**

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)
Note: An event counts as recidivism if it resulted in a conviction. Technically, the new arrest must have occurred within the given measurement period (e.g., 3 or 4 years), but the conviction may have occurred at a later time. Participant sample sizes vary, because some cases entered drug court too recently to have accumulated sufficient post-arrest time.

a meaningful finding or a statistical anomaly stemming from the smaller and earlier samples available for four-year analyses.

Table 17.4 presents results for additional recidivism measures after three and four years. The average total *number* of reconvictions was significantly *less* among drug court participants than the comparison group (1.54 versus 1.98 at four years post-arrest, $p < .05$). Furthermore, of those with at least one reconviction within four years, the drug court produced a longer crime-free period; the average number of days to first recidivist re-arrest was 424 for participants versus 318 for the comparison group ($p < .01$). This means that even though there was only a 7% difference in the *probability* of recidivism within four years, the drug court still produced a substantial *delay* in the onset of first recidivism among those who did re-offend.

With respect to specific recidivist charges, Table 17.5 compares the relative prevalence of various charges only among those with at least one reconviction within four years. Re-convictions for drug court participants were more likely to be for low-level property charges, such as petit larceny or theft ($p > .05$), whereas re-convictions for comparison defendants were more likely to be for more serious property charges, such as robbery, burglary, or grand larceny ($p< .05$). Overall, of those who did recidivate, there were not large differences in the charges.

Multivariate Comparisons

Although the propensity score matching process substantially reduced the baseline differences between the drug court and comparison samples, significant differences remained on three variables, prior drug conviction(s), misdemeanor drug possession versus any other arrest charge, and year of arrest (1996-1998). This made it important to verify whether RDTC leads to

Table 17.5. Types of Charges in Recidivism Cases:

Top Disposition Charge in the First New Arrest Leading to a Conviction within Four Years Following the Initial Arrest

Recidivism Measure	Drug Court	Comparison Group
Number of Defendants with New Arrest Leading to a Conviction within Four Years	171 (57% of sample)	182 (64% of sample)
Top Disposition Charge		
1. Drug Charges	***22%***	***28%***
Felony drug sales	*3%*	*5%*
Felony drug possession	*3%*	*4%*
Misdemeanor drug possession	*12%*	*13%*
Misdemeanor marijuana sales	*1%*	*1%*
Driving while intoxicated	*3%*	*5%*
2. Property Charges	***44%***	***35%***
Robbery, burglary, or grand larceny	2%	6%*
Petit larceny, theft, or criminal possession of stolen property	35%	25%*
Criminal trespass, criminal mischief, or criminal contempt	7%	4%
3. Other Violent Charges	***4%***	***6%***
Murder or manslaughter	0%	0%
Rape, sodomy, or sexual abuse	1%	1%
Felony assault	1%	0%
Misdemeanor assault	1%	4%+
Criminal possession of a weapon	1%	1%
4. Prostitution	***16%***	***18%***
5. Other (includes aggravated harassment, menacing, conspiracy, criminal facilitation fraud, criminal impersonation, burglar's tools, fraud, criminal impersonation, resisting arrest, loitering, endangerment, operating vehicle without a license, forgery, and others)	***14%***	***13%***
Total	***100%***	***100%***

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Table 17.6. Multivariate Results Predicting the Impact of RDTC on Recidivism within Three and Four Years Following the Initial Arrest

Type of Multivariate Analysis	Odds Ratios from Logistic Regressions[1]		Coefficients from Negative Binomial Regressions[2]	
Post-Arrest Measurement Period	3 Years	4 Years	3 Years	4 Years
Total Sample Size	1070	585	1070	585
Drug Court	650	319	650	319
Comparison Group	420	266	420	266
	Odds Ratios:		*Regression Coefficients:*	
Drug court participant	.710*	.882	-.906	-.102
Prior felony conviction(s)	1.770***	1.658*	.408***	.424**
Prior misdemeanor conviction(s)	2.260***	2.973***	.681***	.665***
Arrested on drug possession	.549***	.663*	-.483***	-.429***
Male sex	1.262	.993	.192*	.928
Age	.948***	.947***	-.511+	.124
Black[3]	.857	.945	-.995	-.924
Year of arrest	1.121	1.131	.179	.620

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: One case was removed from the negative binomial regression analysis because it was an outlier with more than fifteen rearrests.

[1] The dependent variable is whether there was at least one new arrest within measurement period (3 or 4 years) that led to a conviction.

[2] The dependent variable is the total number of new arrests within the given measurement period (3 or 4 years) that led to a conviction. A poisson regression specification was rejected, since the variance was almost three times greater than the mean at 3 years and more more than 3 times greater at 4 years.

[3] Race/ethnicity has a second, unlisted "white/other" category to which black participants are compared.

lower recidivism even after controlling for these variables. As in the preceding chapters, analyses reported in Table 17.6 measure the drug court impact on both the probability of at least one reconviction (logistic regression) and the total number of reconvictions (negative binomial regression) at three and four years post-arrest.

The results confirm that, after controlling for background characteristics, drug court participants had a lower probability of recidivism after three years, but the difference was *not* significant after four years. Similar to the bivariate results reported in Figure 17.1, the drug court impact appeared to attenuate slightly by the fourth year. Although the four-year logistic regression and both negative binomial regressions (for three and four years) yielded non-statistically significant results, the direction of the regression coefficients did consistently suggest a drug court impact leading to somewhat less recidivism.

Other Predictors of Recidivism: Several other factors predicted much greater recidivism in all multivariate analyses:

- Prior conviction(s) (both felonies and misdemeanors);
- Arrested on a non-drug charge (with all non-drug charges combined into one category and compared to any drug charge); and
- Younger age (although this effect weakens in the negative binomial analyses).

Of these, the single strongest predictor was prior misdemeanor conviction status; those with prior misdemeanors, as well as those with prior felonies, were not only significantly more likely to recidivate at both three and four years, but also recidivated more *often*. To illustrate the magnitude of the finding, after controlling for other variables, there was a 25% difference in the probability of a new conviction within four years for those with and without a prior misdemeanor conviction.[5] Interestingly, prior criminal behavior remained a more powerful predictor of future criminal behavior than drug court participation status.

Since Rochester is the only impact court where we have non-drug charges represented in the comparison group, it is the only court for which we can test hypotheses about the impact of entering drug court on drug versus non-drug charges. The interest in examining this issue will recur throughout this chapter. Being arrested on a drug possession charge (felony or misdemeanor) was a strong predictor of *lower* recidivism at both three and four years in all analyses. The non-drug charges, petit larceny, prostitution and criminal mischief, were combined into one charge category to isolate this dynamic. Importantly, this finding only signifies that drug defendants *in general* – both in and outside of the drug court – recidivate less often. The question of for whom the *drug court* makes the greatest relative difference, for drug or for non-drug defendants, is a different one that will be treated below.

Survival Analysis

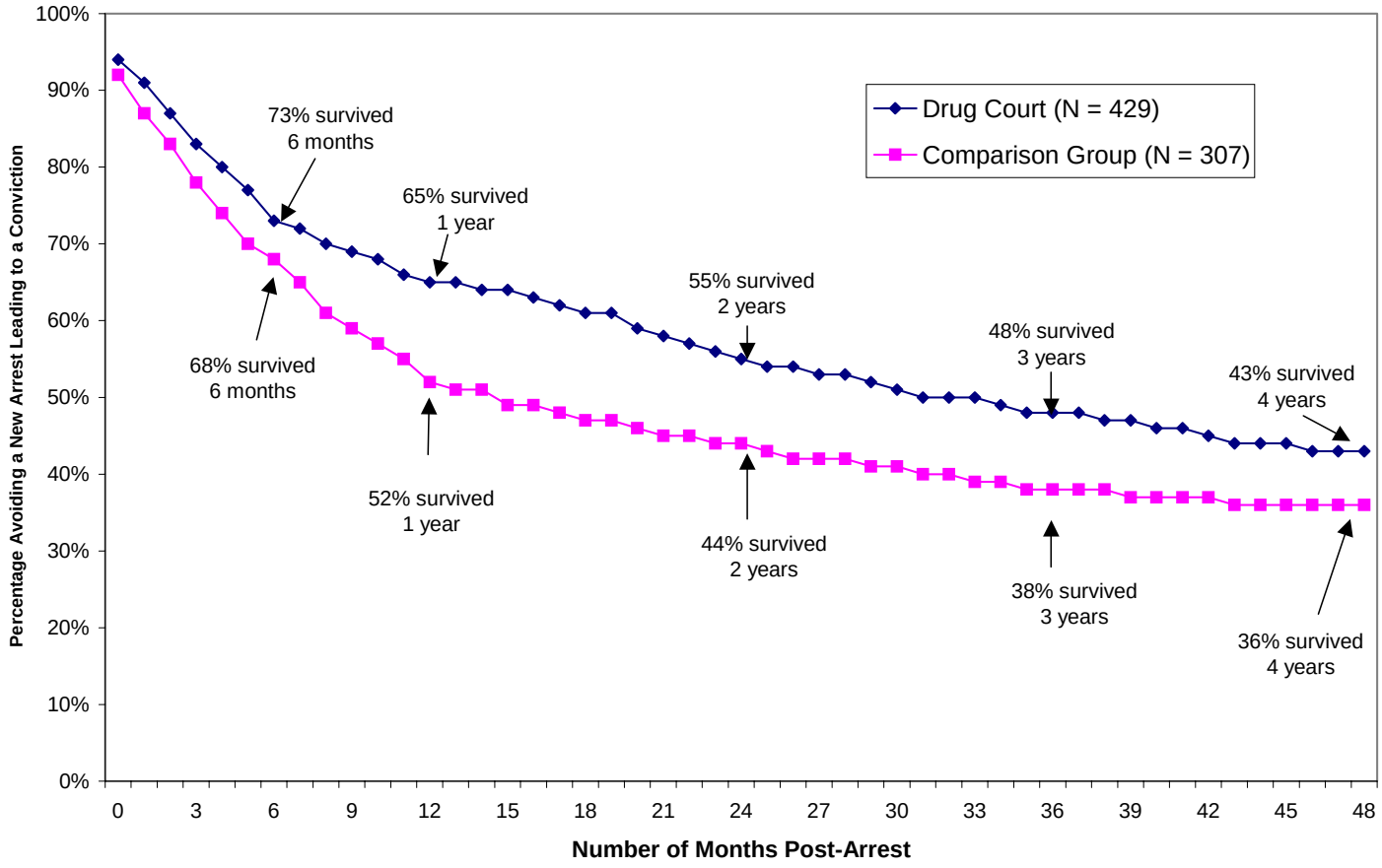
Figure 17.2 presents survival curves for drug court participants and the comparison group, displaying for each month after the initial arrest the cumulative percentage of defendants not yet re-arrested on a case leading to a conviction. The curves for the two groups remain close through about six months post-arrest, where 73% of drug court participants versus 68% of comparison defendants had survived without a re-arrest – only a 5% difference. From six months to two years, the percentages surviving continued to decline for both groups, but the comparison group percentage declined at a faster rate, such that by two years, the difference between the two groups had widened to 11% (55% of participants versus only 44% of comparison defendants surviving). Then from two through four years post-arrest, the curves came back together slightly. By four years, the difference had declined to 7% between the two groups. Since both curves began to level off by the fourth year – that is, few new defendants had their first re-arrest between the three and four-year marks – this suggests that despite the gradual convergence of the curves, a permanent difference would remain if the measurement period was further extended. Similar to Brooklyn's drug court, given the large number of participants entering RDTC many years ago, in the mid- to late-1990s, this program would be a good one to track over longer timeframes in future research.

Impact on Post-Program Recidivism

This section analyzes recidivism during the period after drug court participation ends. By isolating recidivism over a *post-program* period of time, it is possible to ascertain more clearly

[5] The 25% figure is based on transforming the odds ratio for prior misdemeanor conviction(s) into a percentage difference, according to the formula: (odds ratio / odds ratio + 1) / .5.

Figure 17.2. Survival Curve:
Survival of Rochester Drug Court versus Comparison Group Defendants Up to Four Years Following the Initial Arrest



Note: The survival experience of drug court and comparison group defendants is significantly different at the .001 level (p = .0000 for Wilcoxon statistic).

whether drug court impacts are apparent *after* the drug court mandate ends and participants are re-released into the community. As explained in Chapter Eleven, the post-program measurement period begins on the graduation date for drug court graduates, on the release date for failures, and on the release date for comparison defendants, or on the disposition date if the instant case sentence did not involve incarceration.

The first sub-section below differentiates in-program and post-program recidivism rates among drug court participants only. The second sub-section evaluates post-program recidivism by comparing participant outcomes to the comparison group.

Table 17.7. In-Program Versus Post-Program Recidivism Among RDTC Participants

Measurement Period	In-Program	Post-Program	Post-Program
Length of Measurement	Mean = 317 Days	One Year	Two Years
Sample: Same Sample in Both Periods	N = 455	N = 455	N = 455
No new conviction	65%	68%	57%**
Any new conviction	35%	32%	43%**
One (1)	23%	20%	22%
Two (2)	7%	7%	11%
Three (3) or more	5%	5%	10%
Average number of new convictions	0.56	0.54	0.88***
New conviction rate (convictions/year)[1]	1.08	0.54**	0.44***

[+] p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed paired samples t-test)

Note: The new arrest must have occurred within the given measurement period (in-progra years post-program), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures. Drug court graduates and failures were weighted based on an estimated drug court sample graduation rate of 23.4% (see discussion in text). That is, graduates combined to contribute .234 of the drug court total results, and failures combined to contribute .766 of the total. To be included in the sample, a participant had to be available for a two-year post-program analysis. Paired samples t-tests were not conducted for each specific number of new convictions (1, 2, or 3 or more).

[1] One outlier was deleted due to an in-program rate of 122, as compared to other participants, who were all below 15.

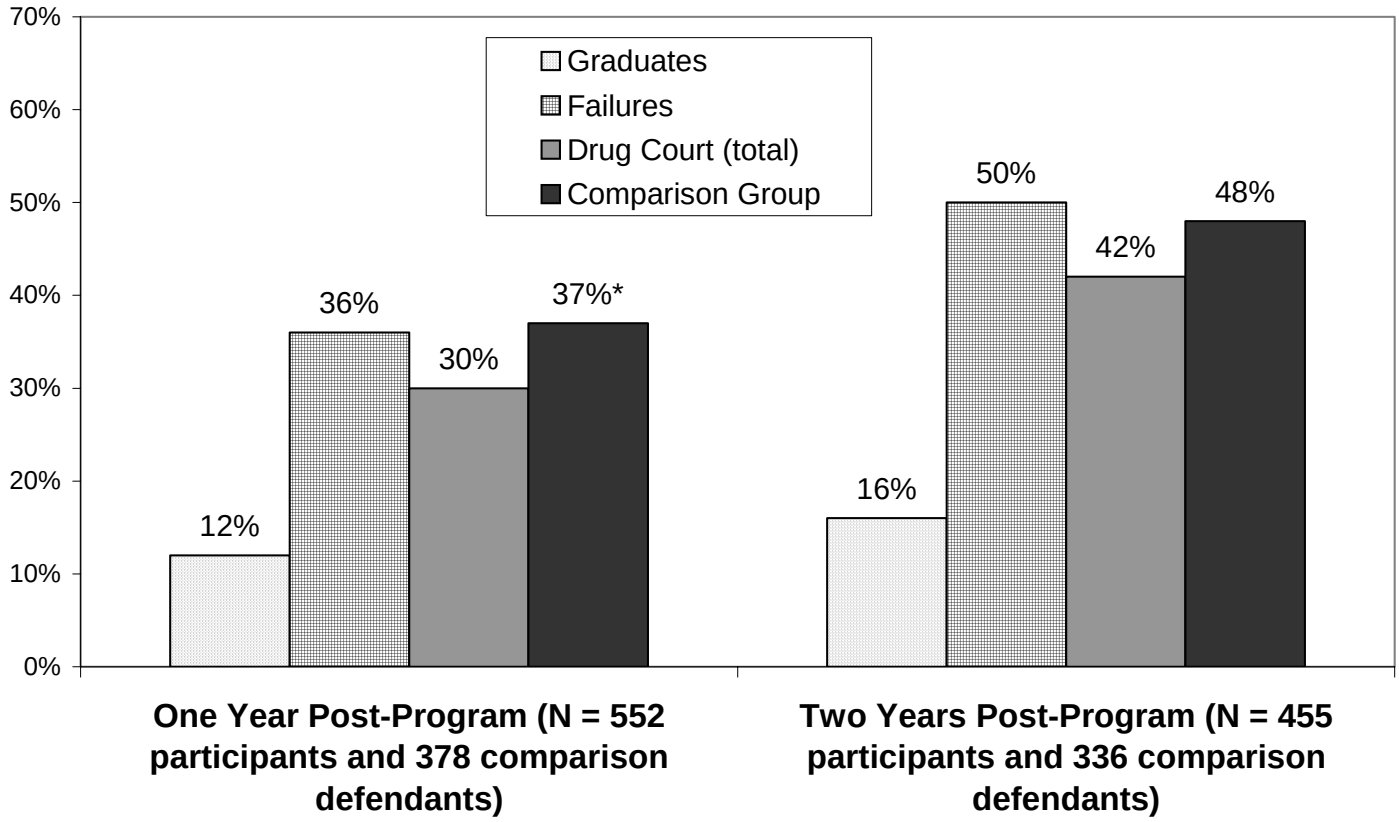
In-Program versus Post-Program Recidivism

It is hypothesized that the drug court impact will diminish once participants are no longer subject to the strict court monitoring that accompanies in-program time. To test this, in-program recidivism is compared with post-program recidivism for participants only. Participants available for the two-year post-program analysis are included.

On first glance, the results of paired-sample t-tests, displayed in Table 17.7, indicate that there is indeed a significant difference between in-program recidivism and post-program recidivism, consistent with the above hypothesis. Thirty-five percent of participants had a re-conviction while in RDTC, and that number significantly increased to 43% in the two-year post-program period ($p < .01$). In addition, the average *number* of reconvictions was significantly higher post-program ($p < .001$), although after adjusting for time at risk, the conviction *rate* became significantly higher in-program than post-program. When looking at the one-year post program numbers, only the conviction *rate* is significantly different from the in-program statistics – and it is different in the opposite direction from that expected.

In sum, participants are more likely to be convicted of a new crime after leaving the drug court, but when adjusting for time at risk – since participants averaged more time at risk of re-conviction during the post- than in-program period – the *rate* of reconviction was actually higher in-program. Accordingly, these results ultimately do *not* confirm our hypothesis that recidivism rates would rise once participants were no longer under the drug court's active supervision.

Figure 17.3. Impact of RDTC on *Post-Program* Recidivism
(Percentage with New Arrest Leading to a Conviction)



+ p < .10 * p < .05 p < .01 p < .001 (T-tests compare results between the drug court (total) and the comparison group and are 2-tailed.)
Note: N for graduates is 127 in the 1-year and 95 in the 2-year analysis; for failures, it is 425 and 360. Graduates and failures are weighted as described in the text.

Impact of the Rochester Drug Treatment Court on Post-Program Recidivism

Figure 17.3 illustrates the impact of drug court participation one and two years after program completion. The results demonstrate that drug court participants had a significantly lower probability of reconviction at one-year post-program (30% versus 37%). At two years, participants still had a lower probability of recidivism (42% compared to 48%), but the difference was no longer statistically significant, in part due to lower available sample size.

What is remarkable about these results is that even with a high program failure rate (76.6%), RDTC was still able to generate reductions in recidivism of similar apparent magnitudes after both one and two years post-program. To explain how RDTC achieved this impact, after both one and two years, note that program failures showed similar recidivism as the comparison group (36% of failures versus 37% of comparison defendants recidivated at one year; and 50% of

Table 17.8. Impact of RDTC on *Post-Program* Recidivism

Recidivism Measure	Drug Court	Comparison Group
1. Recidivism within 1 Year Post-Program	(N = 552)	(N = 378)
Any new conviction	30%	37%*
Any felony conviction	6%	6%
Any misdemeanor conviction	26%	34%**
Any conviction for drug offense	6%	8%
Average number of convictions	0.49	0.37**
Of those with at least 1 new conviction:	(N = 166)	(N = 139)
Days to first new arrest (led to conviction)	164	139*
2. Recidivism within 2 Years Post-Program	(N = 455)	(N = 336)
Any new conviction	42%	48%
Any felony conviction	10%	12%
Any misdemeanor conviction	36%	43%+
Any conviction for drug offense	10%	12%
Average number of convictions	0.86	1.04
Of those with at least 1 new conviction:	(N = 191)	(N = 160)
Days to first new arrest (led to conviction)	250	227

+ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

Note: The new arrest must have occurred within the given measurement period (1 or 2 years), but the conviction may have occurred at a later time. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures, and on the estimated release date or on the disposition date if there was no incarceration for the comparison group. Sample sizes vary between 1 and 2 years, because fewer defendants were available for the 2-year post-program analysis. Among drug court participants, graduates and failures were weighted based on an estimated drug court sample graduation rate of 23.4% (see discussion in text). That is, graduates combined to contribute .234 of the drug court total results, and failures combined to contribute .766 of the total.

Table 17.9. Odds Ratios from Logistic Regressions Predicting a New Arrest Leading to a Conviction within One and Two Years Following Program Completion

Post-Program Measurement Period	1 Year	2 Years
Total Sample Size	930	791
Drug Court	552	455
Comparison Group	378	336
Chi-square for model	71.947***	67.104***
Drug court participant	.759+	.850
Prior felony conviction(s)	2.060***	1.875***
Prior misdemeanor conviction(s)	1.476*	1.817***
Arrested on drug possession	.553***	.600***
Male sex	.815	.950
Age	.964***	.959***
Black[1]	.854	1.093
Year of arrest	1.184+	1.143

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: The dependent variable is whether there was at least one new arrest within the given measurement period (1 or 2 years) that subsequently led to a conviction. The post-program count begins on the graduation date for graduates, on the estimated release date from jail or prison for failures, and on the estimated release date or on the disposition date if there was no incarceration for the comparison group. Drug court graduates and failures were weighted as described in the text.

[1] Race/ethnicity has a second, unlisted "caucasian/other" category to which black participants are compared.

failures versus 48% of comparison defendants recidivated at two years); but graduates had impressively low recidivism rates (only 12% and 16% of graduates recidivated respectively at the one-year and two-year marks). Hence despite the relatively low proportion of graduates overall, each additional graduate led to a further net reduction in the overall participant average for recidivism, thus producing a net improvement versus the comparison group as well.

Table 17.8 (previous page) further shows that the drug court had an impact on reduced *misdemeanor* recidivism ($p < .01$ at one year but only $p < .10$ at two years); significant effects were not evident on either felony or drug-related re-offending. Also, unexpectedly, drug court participants averaged *more* total recidivism *events* than the comparison group at one year ($p < .01$). By two years, the number of recidivism events was *less* among participants (0.86 versus 1.04), although this difference was not statistically significant. Finally, of those with at least one new conviction, the average number of days to first re-arrest leading to a conviction was significantly longer for participants; that is, recidivating drug court participants remained crime-free for a longer period of time ($p < .05$ at one year).

As shown in Table 17.9 (previous page), the results of a logistic regression analysis predicting the probability of reconviction at one and two years post-program indicate that drug court participation was a weakly significant predictor at one year (only $p < .10$), but lost significance at two years (although the direction of the effect appeared the same). Interestingly, consistent with the post-arrest analyses, defendants from either the drug court or comparison group whose initial arrest was for drug possession were significantly less likely than those arrested on non-drug charges to be reconvicted at both one and two years post-program ($p < .001$). Also consistent, prior convictions (either misdemeanor or felony) and younger age significantly predicted post-program recidivism.

Impact on Recidivism for Select Offender Subgroups

Table 17.10 examines whether the drug court is particularly effective with certain types of defendants. The table compares the three-year post-arrest re-conviction rates for those with and without a prior felony conviction, those with and without a prior misdemeanor conviction, those initially arrested on various specific charges, those arrested on drug versus non-drug charges, younger versus older defendants, black versus other racial/ethnic defendants, and those arrested in 1996 versus those arrested in 1997-1998.[6]

Looking at the relative percentage reductions in recidivism produced by drug court participation (Table 17.10, rightmost column), there did not appear to be a disparate drug court impact for subgroups defined by their prior misdemeanor convictions, age, or race/ethnicity. There *did* appear to be a difference between subgroups defined by the other criteria. The drug court seemed particularly effective in *reducing* the recidivism of the following subgroups:

- Participants with no prior felony convictions;
- Participants arrested on drug as opposed to non-drug charges; and
- Participants arrested in 1996 as opposed to 1997 or 1998.

Of these three findings, there has been a particular recurring theme in this chapter that those originally arrested on *drug charges* are less likely to recidivate post-arrest and post-program,

[6] The reason for grouping 1997 and 1998 arrests together was purely for simplicity. The 1996 cases seemed to be most different than the other two years resulting in a logical dichotomous year of arrest variable.

Table 17.10. Impact of Rochester Drug Treatment Court Participation on Recidivism for Key Offender Subgroups

Recidivism Measurement Period	3 Years Post-Arrest		Percentage
Sample Group	Drug Court	Comparison	Reduction
Sample Size	650	420	in Recidivism
1. Prior Felony History			
No prior felony conviction	47%	59%***	20%
Prior felony conviction(s)	67%	70%	4%
2. Prior Misdemeanor History			
No prior misdemeanor conviction	42%	48%	13%
Prior misdemeanor conviction(s)	60%	70%**	14%
3. Charge			
Felony possession	45%	57%	21%
Misdemeanor possession	43%	59%**	27%
Prostitution	55%	61%	10%
Petit larceny	69%	70%	1%
Criminal mischief	54%	63%	14%
Drug charges	44%	58%***	24%
Non-drug charges	62%	66%	6%
4. Age			
Younger offenders (ages 16-25)	59%	67%	12%
Older offenders (ages 26 and higher)	51%	61%**	16%
5. Race/Ethnicity			
Black	52%	63%*	17%
Caucasian/other	53%	63%*	16%
6. Year of Arrest			
1996	44%	58%*	24%
1997-1998	56%	65%**	14%

$^{+}$ p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)

even after controlling for drug court participation and other personal characteristics. The results in Table 17.10 suggest that not only are drug defendants *generally* less likely to recidivate, but the specific impact of drug court participation is *relatively greater* among drug-charged defendants. Whereas the drug court generates a 24% reduction in the recidivism of those entering on drug charges, the drug court only generates a 6% reduction (non-significant) in the recidivism of those entering on non-drug charges (prostitution, petit larceny, or criminal mischief). One explanatory theory would be that the drug court is particularly effective with those arrested on drug charges, because drug use and addiction play a greater role in driving their criminal behavior. On the other hand, substance abuse treatment may *not* have as great an impact on defendants whose underlying criminal behavior does *not* expressly involve drugs but involves other activities, such as property crime or prostitution.

Table 17.11. Subgroup Analysis: Odds Ratios from the Logistic Regression Measuring Interaction Effects

	Odds Ratios from Logistic Regressions [1]		
Post-Arrest Measurement Period	3 Years		
Total Sample Size	1070		
Drug Court	650		
Comparison Group	420		
	Odds Ratios:		
Drug court participant	.641**	.816	.678
Prior felony conviction(s)	1.411	1.721***	1.731***
Prior misdemeanor conviction(s)	2.276***	2.271***	2.275***
Arrested on drug charge	.605***	.72	.602***
Age	.947***	.948***	.948***
Year of arrest = 1996[2]	1.410*	1.405*	1.366
Interaction Effects			
Prior felony conviction*participant status	1.401		
Arrested on drug charge*participant status		.747	
Arrested in 1996*participant status			1.061

[+] p < .10 * p < .05 ** p <.01 *** p < .001 (2-tailed t-test)
[1] Only those relationships found to be significant in the three year post-arrest analysis (Table 17.3) are included here.
[2] Year of arrest in 1996 is compared to a second, unlisted, category of 1997 and 1998 cases combined.

With this in mind, logistic regression analyses were performed to confirm whether the drug court had disparate effects for defendants in distinct subgroups, after controlling for other characteristics. The regression models all included variables found significant in the earlier analysis of factors predicting three-year post-arrest recidivism (see Table 17.6). Also, each regression model included variables for the three subgroup characteristics thought to generate a disparate drug court impact: prior felony conviction(s), arrested on a drug as opposed to a non-drug charge, and arrested in 1996 as opposed to 1997 and 1998. Finally, each of three models included an interaction term of participation status with one of the three key subgroup variables (participation status*the subgroup characteristic in question). Results are in Table 17.11.

None of the interaction terms had statistically significant effects, although the direction and magnitudes of the odds ratios suggest that the drug court may be somewhat more effective with participants (1) without a prior felony conviction and (2) initially arrested on a drug charge. On the other hand, the possible interaction with year of arrest entirely disappeared, indicating that RDTC was no more or less effective with its earlier or later entrants (odds ratio of only 1.061). Concerning the specific hypothesis that the drug court would be particularly effective with those arrested on drug as opposed to non-drug charges, this hypothesis was not *statistically* confirmed, but the odds ratio (.747) does suggest a small interaction effect along the predicted lines.

Summary

The Rochester Drug Treatment Court generated a significant reduction in recidivism through three years post-arrest. In addition, the results suggest a continuing impact at four years post-arrest and at one year post-program (p < .10). And the results also suggested a small impact at

two years post-program, but it was not statistically significant. Among recidivists, drug court participants averaged significantly more *crime-free time* prior to the first recidivism re-arrest. Hence the drug court generated a significant delay in the onset of recidivism. Finally, the drug court appeared to be somewhat more effective in serving those without a prior felony conviction and in serving those arrested on a drug as opposed to a non-drug charge; but these subgroup differences did not reach statistical significance.

Chapter Eighteen
Impact on Case Processing and Outcomes

In addition to the primary goals of reduced recidivism and drug use, drug courts seek to increase the efficiency of case processing. In fact, improved case processing comprised a central goal motivating the appearance of the first drug courts, including the Miami Drug Court in 1989 (see Cooper 2002). Faced with escalating numbers of drug cases and drug-related incarcerations, court systems throughout the country were under growing pressure to manage their cases more efficiently, reduce court backlogs, reduce jail and prison terms for drug offenders, and generate cost savings. Research reports on drug courts published through the mid-1990s placed a paramount emphasis on these objectives (McCoy 2003). By the mid-1990s, treatment and rehabilitation eventually supplanted these earlier objectives, leading evaluations to focus increasingly on recidivism as the primary barometer of program success (e.g., see this report, preceding chapters).

This chapter evaluates the same six impact courts with respect to case processing measures. As an alternative-to-incarceration, drug courts still aspire to reduce the average amount of time that defendants spend in jail or prison, making it relevant to evaluate whether this in fact occurs. Also, it remains integral to the model to identify participants early and to process their cases expediently – particularly between arrest and the time when participants formally agree to enter the drug court. Rapid case processing in this pre-participation period achieves both the court objective of efficient case processing and the treatment objective of responding to the "crisis moment" when a defendant first enters the criminal justice system and is most amenable to take advantage of the treatment-based alternative-to-incarceration opportunity.

Analyses in this chapter also bear on one of the primary criticisms often leveled against drug courts – that they mandate lengthy treatment stays to cases that would otherwise receive far less severe penalties from the criminal justice system (see Nolan 2001). The criticism encompasses two positions, the second of which will be directly tested here. The first is that the amount of treatment required is disproportionate to the amount of jail or prison time that would otherwise be imposed. This requires a subjective assessment that will not be attempted here, although it may certainly be informed by the data herein provided. The second position is that, because drug court failures often receive lengthy jail or prison sentences, when considering all participants taken together, they actually result, on average, in *more* severe criminal justice sanctions than conventional prosecution. This position *can* be directly tested by comparing sentencing outcomes on the initial arrest between drug court participants and similar defendants *not* entering drug court.[1]

[1] An additional factor in considering these issues is that apart from whatever happens on the instant arrest case, if drug courts succeed in reducing recidivism, they may achieve *long-term* reductions in the defendant's ultimate incarceration time and involvement in the criminal justice system (e.g., through probation as well). Part of the rationale for drug courts from the standpoint of the defendant's interests is just this hypothesized effect – that even if defendants do not face much legal exposure on the instant case, in the event of a conviction followed by recidivism, the legal exposure would become much greater (as with predicate felons), so it is preferable to intervene earlier in the cycle with a treatment-based response. This evaluation establishes that the six impact drug courts do indeed generate reduced recidivism. But this evaluation does not rigorously test long-term effects on total incarceration time. That would of course be a relevant topic for future research.

Analyses are divided into two areas: case processing and case outcomes. The first, *case processing*, compares drug court participants and comparison group defendants on the time from arrest to disposition of the initial case that led either to drug court participation or comparison group membership. The second analysis, *case outcomes*, looks at the final sentence imposed and total time sentenced to jail or prison on the instant case to determine whether drug courts reduced the occurrence of incarceration and reduced the net incarceration time.

Methodology

This chapter draws on the same participant and matched comparison group samples included in the preceding impact chapters. Drug court participants were only included if their drug court case had reached its final program outcome – graduation or failure – by June 30, 2002. As in the previous impact analyses, once a participant was determined ineligible for a given analysis (e.g., because of not yet reaching final case status), the matched comparison defendant was also excluded, unless that defendant was matched to a second, eligible drug court participant. As in the post-program analyses in the preceding chapters, drug court graduates and failures were weighted to replicate the estimated graduation and failure rates of each drug court. Weighting served to avoid over-representing either graduates or failures in the available sample.[2]

The case processing analysis examined time from initial arrest to disposition. For comparison defendants, this analysis was straightforward, consisting of the number of days from arrest to sentence date. For drug court participants, we considered two alternative ways of interpreting the drug court equivalent of *disposition date* and reported results for both.

1. We considered the number of days from arrest to formal entry into the drug court. For participants entering the drug court *post-plea*, encompassing all participants in Bronx, Brooklyn, Queens, and Suffolk, and some participants in Syracuse and Rochester, this involved measuring the time from arrest to guilty plea – since the guilty plea both formalizes drug court entry and signifies initial disposition of the criminal case. In contrast, participants entering the drug court *pre-plea* pose a special situation. For most such participants, plea or disposition does not occur until after program completion, so the case remains pending disposition throughout the drug court participation period.[3] Nonetheless, even for these cases, calculating the time from arrest to drug court entry – constituted here by the signing of a drug court contract – still indicates the drug court's efficiency in identifying and processing potential participants and thereby limiting the time spent bouncing around the court system in a mere *adjourned / case continued* status. Hence we ultimately rejected the pre-plea / post-plea distinction as relevant for how we interpreted this measure of case processing time.

2. We also considered the number of days from arrest to *final* criminal case disposition – drug court graduation or failure and consequent imposition of a sentence. While participants are enrolled in the drug court, they continue to use valuable resources through the supervision-intensive drug court program and, in particular, through repeat court appearances before the drug

[2] Weighting in this chapter was used in all courts except Queens and Syracuse, where available proportions of graduates and failures were nearly identical to those in the estimated graduation and failure rates.

[3] In some cases, noncompliant participants are required to enter a plea at some point during their drug court participation as a sanction for their noncompliant behavior. In such cases, the disposition would come prior to the completion of the program, but after some in-program time had passed.

court judge. Moreover, in the case of pre-plea cases, the court takes the added risk of incurring future case processing time for program failures that will not have pled guilty prior to failure. Hence this second part of the case processing analysis takes in-program participation time into account. In five of the drug courts, this second analysis includes time from initial arrest to program completion date. For pre-plea failures in Syracuse, this measure includes time from arrest to final disposition – which can occur later than the program failure date due to the need to return to dispositional issues. While we should ideally have treated pre-plea failures in Rochester in a similar manner, the adjudication type (pre- or post-plea) of Rochester participants could only be identified for 4% of its participants. This data availability issue (stemming from Rochester's recent conversion to the statewide management information system) necessitated that we treat all of Rochester's participants in the standard, post-plea manner. This second analysis may be of particular interest to court administrators, as the court incurs continued costs as long as defendants remain pending in the drug court. While normally processed defendants exit the criminal justice system at or shortly after reaching case disposition, drug court participants linger even after they enter a guilty plea.

The case outcomes analysis compares drug court participants and comparison defendants on the percentage of defendants receiving no incarceration (including those sentenced to probation only), the percentage receiving a jail or a prison sentence, and the length of prison sentences.[4]

Also, to test the critique that the lengthy sentences faced by drug court failures push the average incarceration time for drug court participants higher than if they had been processed in the conventional fashion, the average estimated sentence length – based on two-thirds of jail sentences and the minimum of any prison sentences – is compared. Finally, drug court failures are broken out separately and compared to comparison defendants to see if case outcomes for failures only are significantly harsher than if those defendants had not gone through drug court.

Two added caveats are necessary concerning data quality and interpretation. First, for *time served* sentences, we could not estimate the actual amount of jail time that was involved. Since time served sentences are more relatively common among comparison defendants than drug court participants – although even among comparison defendants they only exceed 10% of all sentences in the Bronx (17%) – our estimate of incarceration time may be slightly biased downwards for the comparison groups. Second, for drug court failures, it is likely that we did not successfully identify drug court sentencing outcomes in all cases. This mainly stems from instances when two or more cases become consolidated, and the longer sentence is listed only by one of the original cases; here we may not always have correctly identified the longest sentence, leading to under-estimates of sentences served by certain drug court failures. Also, it may have sometimes happened that due to inconsistencies in certain criminal justice data, we failed in our attempt to identify and match information on the same instant case from the drug court program and DCJS data sets. (This, again, only affects drug court failures, since we relied almost exclusively on drug court program data in generating information on the instant cases of graduates.) This second bias does not alter any findings but might instead serve to *understate* slightly the primary finding reported below with respect to drug court failures – that they average longer jail and prison sentences than comparison defendants.

[4] In instances when a defendant was originally sentenced to probation but was then subsequently re-sentenced to jail due to a violation of probation, the DCJS data we received is usually coded to provide the preferred *re-sentence* information. We understand from DCJS, however, that in a small percentage of such instances, we may have nonetheless only received initial sentence data instead.

Table 18.1. Case Processing

	Bronx		Brooklyn		Queens	
	Drug Court	Comparison[1]	Drug Court	Comparison[1]	Drug Court	Comparison[1]
N	314	372	728	474	311	288
Days from Arrest to Disposition/Begin Participation *(Mean)*	29***	179	17***	172	32***	154
Days from Arrest to End Participation *(Mean)*	519***		589***		490***	
Days from Arrest to Disposition/Begin Participation *(Median)*	10***	87	3***	95	18***	102
Days from Arrest to End Participation *(Median)*	530***		551***		474***	

	Suffolk		Syracuse		Rochester	
	Drug Court	Comparison[1]	Drug Court[2]	Comparison[1]	Drug Court	Comparison[1]
N	222	162	278	201	630	411
Days from Arrest to Disposition/Begin Participation *(Mean)*	74***	260	112***	193	74***	125
Days from Arrest to End Participation *(Mean)*	463***		544***		544***	
Days from Arrest to Disposition/Begin Participation *(Median)*	19***	202	70***	161	27***	76
Days from Arrest to End Participation *(Median)*	435***		499***		482***	

+ p<.10 *p<.05 **p<.01 ***p<.001 (2-tailed t-tests)

[1] Time from arrest to disposition (specifically the date of sentence) is the universal measure for comparison cases, as this represents the point at which comparison defendants exit case processing by the court system.

[2] For participants entering pre-plea, disposition does not occur until after program completion. Therefore, for pre-plea drug court failures in Syracuse, the second case processing measure includes time from initial arrest to final sentencing, which can occur later than the drug court failure date due to the need to resolve pending dispositional issues. In Rochester, because only 4% of all cases could be identified as either pre- or post-plea adjudication, all time is measured as in the other four drug courts (e.g., time from arrest to drug court failure for Rochester's failures). Defendants who entered the Syracuse drug court pre-plea and failed for which we were unable to locate an instant case match were excluded from this analysis.

Case Processing

As indicated in Table 18.1, drug court participants spent significantly less time on average from arrest to disposition / drug court entry in all six courts ($p < .001$). The average time spent from arrest to disposition was at least four months among comparison defendants in five of the six courts, reaching more than 8.5 months in Suffolk. In contrast, drug court participants in the three New York City programs pled guilty and entered the drug court in only one month or less on average. Even in Syracuse, where the entirety of Phase One (30 days) occurs *prior* to signing the drug court contract, and thus *prior* to disposition / program entry, drug court participants still averaged less time from arrest to disposition / entry than comparison defendants. While the time from arrest to program entry is longer in Syracuse than in the five other drug courts (more than 3.5 months), the time to entry remains significantly lower than that for the Syracuse comparison group. In sum, when not counting in-program participation time, drug courts consistently process their cases more rapidly than conventional case processing.

When counting in-program participation time, drug courts fare far worse. Not surprisingly, given that the drug court model calls for ongoing judicial supervision, drug court participants in all six courts spent significantly more time having their cases processed than comparison defendants when including in-program participation time in the calculation ($p < .001$). In all courts, participants averaged more than a year from initial arrest to program completion (or final

disposition date in the case of pre-plea failures in Syracuse); average time ranges from just over fifteen months in Suffolk to nearly twenty months in Brooklyn among drug court participants. Hence from a strict case processing standpoint, due to the time spent enrolled in the drug court program, drug court cases are technically *pending* for longer than cases handled through conventional case processing methods.

Case Outcomes

As indicated in Table 18.2 (bottom row), in three of the six courts (Brooklyn, Queens, and Syracuse), drug court participants (graduates and failures) averaged shorter incarceration sentences on the instant case than comparison defendants. In one court (Suffolk) the difference was only two days (non-significant). And in the final two courts (Bronx and Rochester), drug court participants actually averaged *more* time incarcerated than comparison defendants, although this difference was only statistically significant in the Bronx. While these results suggest that not all drug courts reduce incarceration sentences for their average participant, average time incarcerated represents only part of the case outcomes results. When examining the percentage of defendants receiving at least *some* jail or prison time, as opposed to none (Table 18.2, top section), drug court participants were significantly *less* likely to be sentenced to jail or prison than comparison defendants in four of the six courts (and same relationship, $p < .10$, in a fifth court). In explaining these findings, drug court graduates are not incarcerated, meaning that those who successfully complete their drug court mandate avoid jail or prison sentences altogether. When considered with the mean time incarcerated, these results imply that although fewer drug court participants receive incarceration, in two courts they may receive substantially longer incarceration time when they *are* sentenced to jail or prison. In fact, the results of the analysis in Bronx indicate that significantly more drug court participants than comparison defendants are given prison sentences of more than one year (on account of the standard 2-6 prison sentence imposed on drug court failures).

The middle column under each court in Table 18.2 compares *drug court failures* to the total group of comparison defendants. Drug court failures were significantly more likely than comparison defendants to have received at least some incarceration time as part of their sentence in five of six courts (except Syracuse). More importantly, failures had, on average, longer total incarceration sentences than comparison defendants in all courts except Syracuse. In order to assure that these findings were not the result of the background characteristics of drug court failures – for instance, more extensive criminal histories – additional multivariate analyses were conducted (results not included here). Variables included in the predictors of recidivism analyses in the preceding six chapters were included in an ordinary least squares regression predicting the natural log of the estimated incarceration time. The findings of this additional analysis support the findings of the bivariate analysis; in five of the six courts (except Syracuse), drug court failures were found to have significantly more time incarcerated than comparison defendants in multivariate analyses controlling for additional defendant characteristics. Also, in the regression analysis, the finding in Syracuse became non-significant in either direction, whereas it initially appeared from the bivariate results that Syracuse failures had significantly less time incarcerated. (Another change is that the non-significant finding for Brooklyn in the bivariate comparison became significant in the expected direction, with failures incarcerated longer, after controlling for other factors.) These findings confirm the hypothesis that there is a risk involved in entering

Table 18.2. Case Outcomes

	Bronx			Brooklyn			Queens		
	All Drug Court Participants	*Drug Court Failures Only*[4]	**Comparison Group**	**All Drug Court Participants**	*Drug Court Failures Only*[4]	**Comparison Group**	**All Drug Court Participants**	*Drug Court Failures Only*[4]	**Comparison Group**
N	314	*128 (41%)*	372	727	*344 (47%)*	474	311	*85 (27%)*	288
SENTENCE TYPE									
No Incarceration	**66%**	***11%******	**46%**	**55%*** **	***6%******	**24%**	**75%*** **	***6%******	**50%**
Probation Only	6%***	*7%***	24%	1%***	*1%***	9%	0%***	*1%***	15%
Dismissal, conditional discharge, or other sentence without incarceration	60%***	*5%***	22%	54%***	*4%***	15%	74%***	*5%***	35%
Incarceration[1]	**34%**	***89%******	**54%**	**45%*** **	***94%******	**76%**	**25%*** **	***94%******	**50%**
Time Served	0%***	*0%***	17%	0%***	*0% ***	4%	0%*	*0% *	2%
Jail (Maximum 1 year)[2]	6%***	*14%*	15%	34%***	*72%***	45%	17%***	*62%***	31%
Prison	28%+	*76%***	22%	11%***	*23%*	26%	9%**	*32%**	17%
Minimum term = 1 year	14%***	*12%***	52%	23%	*21%*	7%	77%	*77%*	76%
Minimum term > 1 year to ≤ 2 years	83%***	*83%***	43%	48%	*48%*	40%	19%	*19%*	18%
Minimum term > 2 Years	5%	*5%*	5%	30%	*31%*	29%	4%	*4%*	6%
Estimated Time Incarcerated (Mean Days)[3]	209**	*558****	142	145***	*304*	249	79**	*296****	129

	Suffolk			Syracuse			Rochester		
	All Drug Court Participants	*Drug Court Failures Only*[4]	**Comparison Group**	**All Drug Court Participants**	*Drug Court Failures Only*[4]	**Comparison Group**	**All Drug Court Participants**	*Drug Court Failures Only*[4]	**Comparison Group**
N	222	*70 (32%)*	162	278	*143 (51%)*	193	630	*443 (70%)*	411
SENTENCE TYPE									
No Incarceration	**78%*** **	***32%****	**45%**	**87%*** **	***74%***	**65%**	**47%+**	***23%******	**40%**
Probation Only	0%***	*2%****	20%	5%***	*10%**	18%	5%***	*6%***	26%
Dismissal, conditional discharge, or other sentence without incarceration	78%***	*31%*	25%	81%***	*63%+*	47%	42%***	*17%*	14%
Incarceration[1]	**22%*** **	***68%****	**55%**	**13%*** **	***26%***+	**35%**	**53%+**	***77%******	**60%**
Time Served	0%***	*1%**	9%	0%**	*0%**	6%	0%*	*0% *	1%
Jail (Maximum 1 year)[2]	20%***	*61%**	43%	13%+	*25%*	19%	52%+	*77%****	59%
Prison	2%	*6%*	2%	< 1%***	*1%****	9%	-	-	-
Minimum term = 1 year	25%	*25%*	25%	0%+	*0%*+	17%	-	-	-
Minimum term > 1 year to ≤ 2 years	75%	*75%*	50%	0%*	*0%**	28%	-	-	-
Minimum term > 2 Years	0%	*0%*	25%	0%**	*0%***	56%	-	-	-
Estimated Time Incarcerated (Mean Days)[3]	43	*135****	45	23***	*46***	123	62	*90**	45

+ p<.10 *p<.05 **p<.01 ***p<.001 (2-tailed t-tests)

Note: All significance tests represent differences from comparison cases.

[1] Jail and Prison sentences may not add up to the total receiving some incarceration, due to rounding.

[2] "Jail" includes defendants receiving a jail/probation split or a straight jail sentence.

[3] Incarceration estimates represent two-thirds of jail sentences or the minimum prison sentence, the most typical amounts of time served on sentences. Time served is not included in the time incarcerated estimate, as there is no reliable way to estimate how much incarceration time was in fact involved.

[4] In all courts, the number in parentheses represents the percentage of all drug court participants that are drug court failures. Participants with incomplete status are not included as failures in this analysis.

drug court, in that failing the program generally leads to a *less* favorable outcome than would have been received without the drug court.[1]

Summary

Overall, the results of the case processing analysis indicate that drug courts are successful in reducing the time defendants spend in flux between arrest and disposition. This increases efficiency serves the drug courts' goal of reaching defendants during the crisis moment when they may be more open to treatment or other lifestyle change options. However, the treatment process is often a long one. With common minimum requirements of at least twelve months in-program, drug courts "keep" cases for periods that are much longer than conventional case processing. The risk taken by courts on pre-plea cases is particularly high; after drug court processing and what may be lengthy treatment episodes, there is still the risk that defendants will fail and need additional processing before a final sentence is imposed. The tradeoff is, of course, that for those who do not fail, treatment will pay off in terms of reduced recidivism and substance abuse. Nonetheless, it bears acknowledgement that drug courts consume significant judicial resources in the course of the treatment participation process.

The results of the case outcomes analysis are somewhat mixed. In all six courts, fewer participants than comparison defendants were sentenced to jail or prison (significant in four courts, $p < .10$ in a fifth, and same direction of finding but non-significant in the sixth). Also, participants were significantly less likely to be sentenced to probation in all six courts. Finally, in three of the six courts, drug court participants (graduates and failures) averaged significantly less *time* on jail or prison sentences stemming from the initial case. Participants averaged no difference or more total time incarcerated in the other three courts. While drug court participants are less likely to be sentenced to jail or prison, the evidence does show that when they *are* sentenced to jail or prison, their sentences tend to be longer (in five of the six courts studied). The lower probability of *any* incarceration obviously stems from the substantial benefits accrued by drug court graduates, who avoid jail or prison. On the other hand, when drug court failures alone are compared to comparison defendants, it is clear that defendants who fail drug court are punished for their drug court failure with longer sentences than they would have received otherwise. This analysis not only reveals that drug court failures receive *longer* sentences, but relatively *more* drug court failures in five of six drug courts received a sentence involving jail or prison time than comparison defendants.

These findings again stress the importance of drug court *graduation* in achieving the desired impacts of drug courts. As in Chapter Nine, where drug court failure was found to be a universal predictor of recidivism, drug court failure is here associated with the very things that drug courts are intended to eliminate – increased and lengthier incarceration sentences. The net reductions in jail and prison sentences generated by many drug courts when considering both graduates and failures stem predominantly from the incarceration sentences avoided by those who successfully graduate. Further conclusions and discussion of the impact evaluation findings in all six courts follow in Chapter Nineteen.

[1] Note that incarceration sentences for drug court failures are imposed after an often-extended period of release into the community to participate in drug court, whereas incarceration sentences for the comparison group are imposed at the generally earlier time of final case disposition (see case processing analysis, second paragraph, above). For this reason, drug court failures may sometimes receive a longer sentence in response to additional re-arrests taking place during their often longer "at risk" period. This possibility, however, is unlikely to have a substantive impact, since in four of the six courts, the indicated longer sentences imposed on failures than comparison defendants are not marginal but quite considerable in magnitude (meaning a small error rate would not meaningfully alter the findings).

Chapter Nineteen
Summary of Impact Evaluation Findings

The preceding seven chapters presented detailed findings from the impact evaluations of six New York State drug courts. This chapter synthesizes the findings into core generalizations about the drug court impact on recidivism as well as impacts on criminal case processing and outcomes. The discussion is further divided into ten subsections:

- ✓ Impact of drug courts on post-arrest recidivism;
- ✓ Impact of drug courts on post-program recidivism;
- ✓ Changes in the drug court impact over time (does it attenuate over time?);
- ✓ New charges faced by recidivating defendants;
- ✓ Impact of drug court graduation on recidivism;
- ✓ Impact of other background defendant characteristics on recidivism;
- ✓ Relative impact on defendants arrested on drug versus non-drug charges;
- ✓ Relative impact on other specific defendant subgroups;
- ✓ Impact of drug courts on case processing; and
- ✓ Impact of drug courts on case outcomes.

Core findings are, firstly, that the six drug courts all generated a lower probability of reconviction at both two and three years post-arrest, with an average recidivism reduction of 28.5% at three years; and second, the six drug courts all generated a lower probability of reconviction at one year post-program, with an average reduction of 31.7%. Note that all recidivism findings refer to new arrests within the given timeframe (e.g. three years post-arrest) that subsequently led to a conviction.

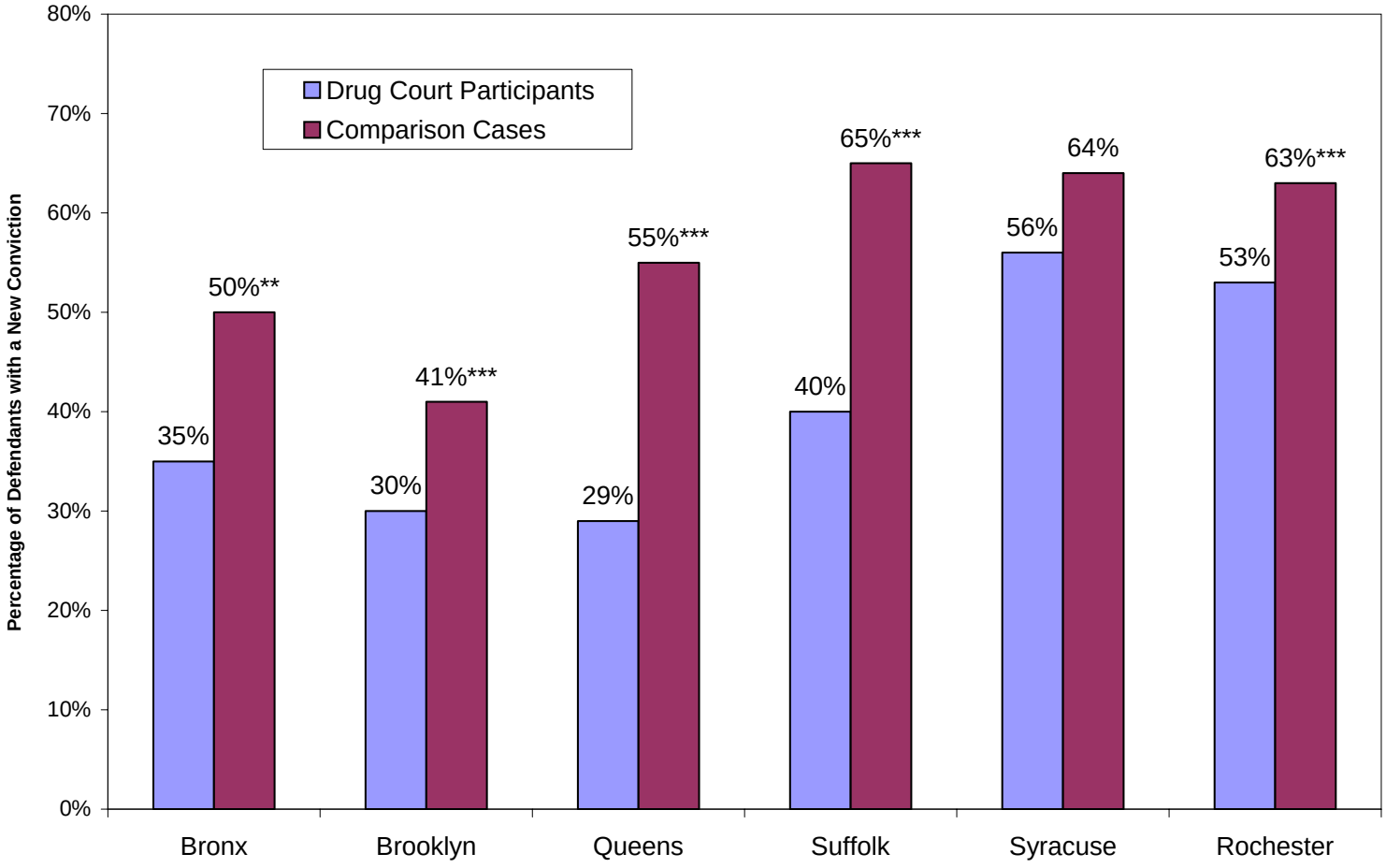
In each section below, key findings are bulleted and then explained in the ensuing text. A broader discussion of possible policy implications is reserved for this report's conclusion in Chapter Twenty.

Impact of Drug Courts on Recidivism

Impact on Post-Arrest Recidivism

- Drug court participants in all six courts were less likely than comparison defendants to recidivate up to three years post-arrest, with effects in all but one court reaching statistical significance;
- Drug court participants in five of the six courts had *fewer total* reconvictions at three years post-arrest, with effects in four courts reaching statistical significance;
- Drug court participants in both courts tested (Brooklyn and Rochester) were less likely than comparison defendants to recidivate within four years post-arrest, although this four-year effect was only significant in Brooklyn; and
- While the six drug courts all generated lower recidivism, the magnitude of their impact varied substantially.

Figure 19.1. Impact on Recidivism at Three Years Post-Arrest: Percentage with a New Arrest Leading to Conviction



+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)

As indicated by Figure 19.1, each of the six drug courts generated a reduction in post-arrest recidivism. Shortly after drug court participation began, at one and two years following the initial arrest, drug court participants in all six courts were significantly less likely to have at least one new conviction. However, these initial post-arrest periods involved some in-program time for all participants and *primarily* in-program time for many participants. After participation ends, drug court participants are no longer subject to the strict monitoring and behavioral requirements that typically accompanies in-program time. Therefore, it is important to understand whether drug courts have lasting effects over longer durations.

When extending the post-arrest measurement to three years in all six courts and to four years in Brooklyn and Rochester, drug court participation still led to lower recidivism, even after controlling for background differences between the final participant and comparison samples. In multivariate analyses, all drug court effects were significant (at least at $p < .05$), except in Syracuse (although still $p < .10$) and in the four-year Rochester analysis.

Further, drug courts in Brooklyn, Bronx, Queens, and Suffolk generated significantly *fewer total* new convictions after three years ($p < .05$). This same effect was apparent from the raw numbers in a fifth court, Rochester, but was not statistically significant; while an impact on the number of new convictions was not at all apparent in Syracuse.

Finally, although all six courts demonstrated positive results, the exact magnitude of impact varied. Whereas the Queens drug court generated an almost 50% reduction in the probability of recidivism at three years post-arrest (55% comparison to 29% drug court), the Syracuse drug court generated only a 13% reduction (64% to 56%, and only $p < .10$ in the multivariate analysis). The four other drug courts yielded percentage reductions spread out in magnitude in between those levels. Thus it is important to realize that drug courts do not automatically generate an effect of a certain size merely because they exist; research should therefore initiate new efforts to isolate what makes these innovations relatively more or less successful in different contexts, and with different participant populations.

Impact on Post-Program Recidivism

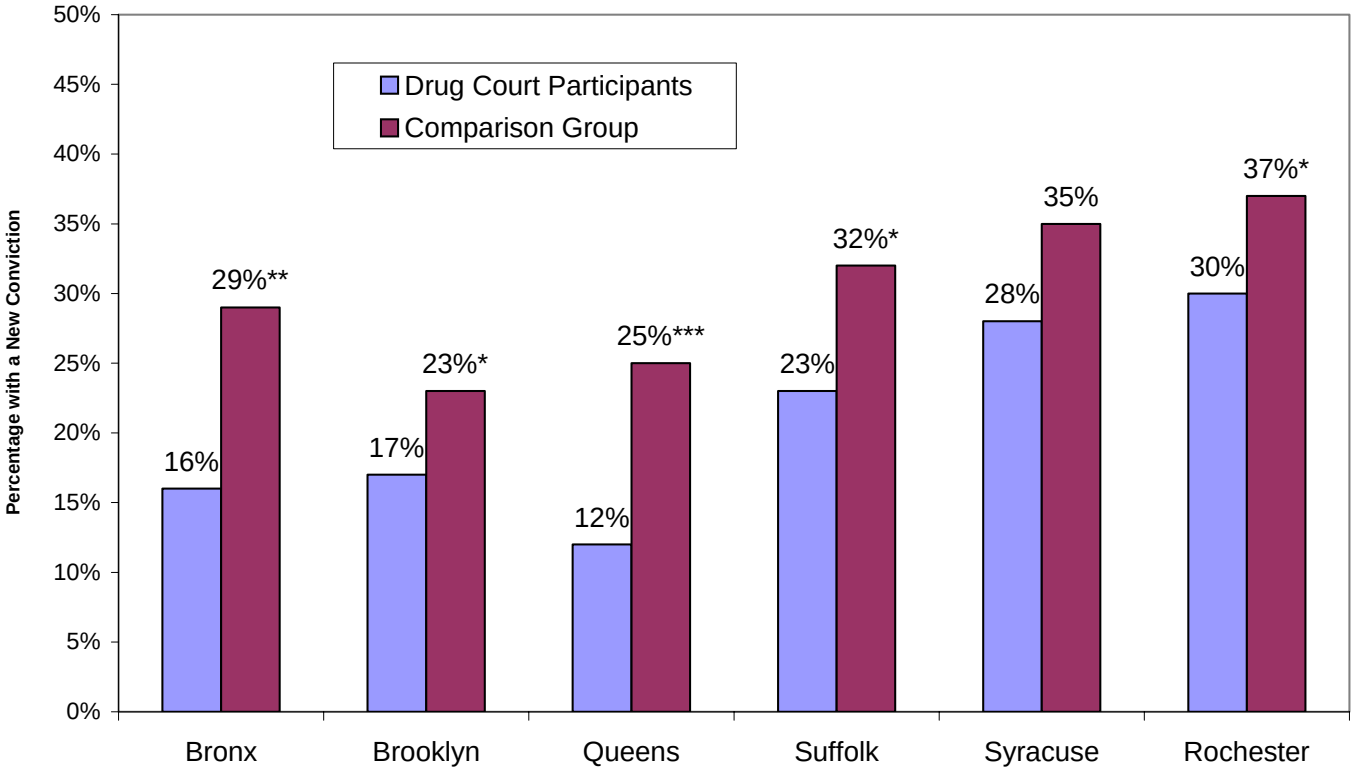
- All six drug courts continued to reduce recidivism at one year post-program, with effects in all but one court reaching statistical significance;
- As with the post-arrest results, the magnitude of the drug court impact varied; and
- In Brooklyn and Rochester, the only two courts tested, drug court participants were also less likely to recidivate at two years post-program, but these effects were relatively small and not statistically significant in either court.

Only three previous studies *isolated* recidivism during a *post-program* measurement period, making this part of the present study especially critical. Post-program analyses confirmed that drug court participation generates lower recidivism even after defendants complete the program. In all courts except Syracuse, participants were significantly less likely than comparison defendants to recidivate within one-year post-program (see Figure 19.2); and in Syracuse, the same effect was suggested but was not statistically significant. Queens demonstrated the largest impact, generating a more than 50% reduction in the probability of recidivism (25% to 12%). Percentage reductions in recidivism in Syracuse and Rochester were 20% and 19% respectively. And reductions in Bronx, Suffolk, and Brooklyn were spread out in between the Queens and Syracuse/Rochester levels.

In Brooklyn and Rochester, participants continued to show lower recidivism after two years post-program, but the magnitude of the effect attenuated slightly as compared with one-year post-program and was no longer significant. This raises the prospect that the drug court impact may attenuate over extended durations. However, since a two-year post-program analysis could only be conducted in two of the six courts, the results are insufficient to generalize. Future analyses might reveal whether the small drop-off in effect magnitude at four-years post-arrest and two-years post-program represents a trend, a leveling-off, or an anomaly related to the more limited sample sizes available for these longer measurement periods.

The question of whether the drug court impact may attenuate over time continues to be examined in the next section, with surprising conclusions. The results for all six courts below suggest that in general, there is *not* strong evidence that attenuation occurs over our time periods, but future research would greatly benefit from examining increasingly longer timeframes.

Figure 19.2 Impact on Recidivism at One Year Post-Program: Percentage with a New Arrest Leading to Conviction



+ p < .10 * p < .05 ** p < .01 *** p < .001 (2-tailed t-tests)

In-Program versus Post-Program Recidivism

- The attenuation of the drug court impact as more time passes and as defendants leave the program is neither as strong nor as universal as hypothesized.

For each drug court's participant sample only, we compared recidivism between in-program and post-program periods among participants eligible for a one-year post-program analysis. The hypothesis underlying this comparison was that the drug court would more effectively deter criminal behavior during the *in-program* period when participants are actively supervised by the court than during the post-program period when participants are released into the community and are free of all court reporting or treatment obligations. In other words, we assumed that the impact of the drug court would attenuate over time, as demonstrated by higher post- than in-program recidivism among participants. The findings did *not* strongly support this relationship. When time at risk was held constant (since the exact length of in-program time may differ from the post-program measurement period), the rate of new convictions per year was significantly *lower* during post-program than in-program periods in Bronx, Syracuse, and Rochester, while there was not a significant difference in the three remaining courts. Further, even without controlling for time at risk, Brooklyn and Rochester were the only drug courts where participants were significantly more likely to be reconvicted post-program than in-program. Indeed, survival

analyses of three of the courts (Brooklyn, Bronx, and Rochester) revealed a pattern where drug court and comparison group recidivism rates remained about the same over the first six to nine months post-arrest; and then diverged subsequently. From further inspecting the survival curves as an additional way to gain perspective on the attenuation hypothesis, it does appear that *relative to the comparison group*, the gap between participant and comparison group recidivism narrows in the latest post-arrest years in Syracuse, Brooklyn, and Rochester – but only markedly in Syracuse.

In sum, considering all ways of examining the possible attenuation of the drug court impact over time, the impact when comparing drug court participant to comparison group recidivism would appear to attenuate over time in Syracuse – but appears to attenuate only slightly to not at all across the five other sites. Possible explanations for these unexpected results include the idea that, following drug court, defendants are sober, perhaps with jobs and/or higher educational levels than when they first became drug court participants, leading to a decline in new criminal behavior. Alternatively, it could also be the case that criminal defendants often age out of crime over the life course; thus the general nature of criminality suggests that criminal behavior among participants and comparison defendants alike should subside after more time passes; this life course consideration suggests that recidivism reductions produced in the period immediately following the initial arrest occur during what is the most critical period when defendants are, in general, still most highly disposed toward criminal behavior.

New Recidivism Charges

- Overall, the new charges of recidivating drug court participants and comparison defendants appear to be quite similar; but
- Recidivating drug court participants were more likely to be re-convicted on a low-level property crime in four of six courts.

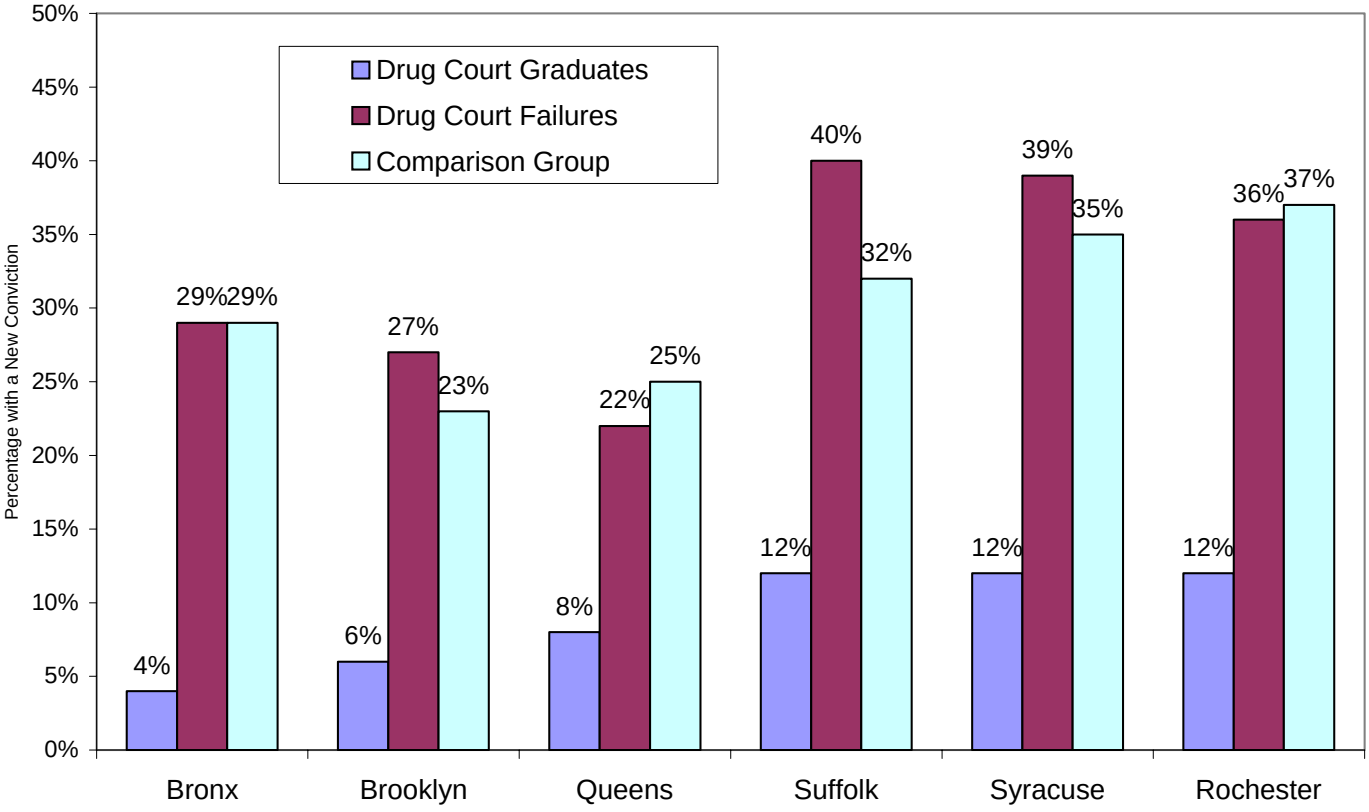
Among those defendants who *did* recidivate within three years post-arrest (four years in Brooklyn and Rochester), drug court participants appeared more likely than comparison defendants to recidivate on low-level property crimes (i.e., petit larceny, theft, criminal possession of stolen property, trespassing, criminal mischief) in four of the six courts (Brooklyn, Queens, Syracuse, Rochester). Otherwise, although a few significant court-specific findings emerged, there were no other patterns of note. Recidivating participants and comparison defendants were generally reconvicted on fairly comparable charges.

Impact of Drug Court Graduation on Recidivism

- While drug court graduates are far less likely than comparison defendants to recidivate, drug court failures are just as or more likely than comparison defendants to recidivate in four of the six courts.

Figure 19.3 presents the relationship between final drug court program status and post-program recidivism. Overall, as discussed above, drug court participants were generally less likely than comparison defendants to recidivate; but in four of six courts, drug court *failures* were either *as likely* or *more likely* than comparison defendants to recidivate. And in a fifth court (Rochester), while drug court failures were slightly less likely than comparison defendants to recidivate at one year post-program, they became more likely to recidivate by two years post-program. This indicates that it is the impact not only of the drug court but drug court *graduation*

Figure 19.3. Impact on Recidivism at One Year Post-Program: Outcomes by Final Program Status (Graduate, Failure, or Comparison Defendant): Percentage with a New Arrest Leading to Conviction



– successfully completing the full court mandate – that produces reductions in recidivism. Further confirming this finding, we found in Brooklyn that drug court failures attending more total days of treatment prior to failing received no added benefit from their higher treatment dosage – their recidivism rate did *not* significantly differ from failures receiving either no treatment at all prior to failure or receiving relatively less treatment (on a continuous scale).

These findings imply that graduating a significant proportion of participants is critical, since it is primarily the graduates who contribute to a drug court's net positive impact. Hence policies designed to achieve higher graduation rates can have value not only in producing more graduates but also in generating better long-term outcomes. Such policies could include targeting additional resources towards participant subgroups known to be at risk of program failure (see Chapter Nine), and giving "multiple chances" to those who relapse or exhibit other types of noncompliance early in their participation.

Other Risk Factors for Recidivism

- Defendants with prior misdemeanor convictions and of younger age were generally more likely to recidivate (among both participants and comparison defendants); and
- Defendants arrested on non-drug charges were more likely to recidivate than those arrested on drug charges in Suffolk, Syracuse, and Rochester, the three courts for which this relationship could be examined.

In addition to testing the impact of drug court participation upon recidivism, multivariate analyses indicate a number of additional characteristics associated with recidivism in both the post-arrest and post-program periods. This indicates that although drug court participation leads to less recidivism, participation cannot obliterate the mitigating relevance of other criminogenic factors that make future crime relatively more likely with or without the drug court intervention.

Defendants with prior misdemeanor convictions and younger defendants were substantially and consistently more likely to recidivate. Not only were defendants with prior misdemeanor convictions significantly more likely to recidivate in all six courts, but also, they were more likely to have *more total* post-arrest convictions. Based on staff interviews we speculate that a history of chronic, low-level offending signifies severe addiction-related, mental health, or other underlying problems. By relative contrast, prior criminal behavior at the felony level could more often signify current involvement in an illegal business operation – but less intractable personal disadvantages. And the lack of *any* prior criminal behavior signifies a lack of evidence for deep-seated criminality that might repeat in the future.

In addition to the impact of prior criminal offending, younger defendants (defined by a continuous measure of age) were significantly more likely to recidivate in all courts (significant at three years post-arrest in all six courts and at one year post-program in four). This reveals the classic relationship between age and crime, whereby criminal behavior peaks in late adolescence and gradually subsides thereafter, as more persons enter stable social relationships and seek to join the legal workforce (Laub et al.1998).

Relative Impact of Drug Court Participation on Defendants Arrested on Drug Versus Non-Drug Charges

- In Rochester – the only court for which this relationship could be examined –the drug court appeared somewhat more effective at reducing recidivism among defendants initially arrested on *drug* than *non-drug* charges.

Combining the results for Suffolk, Syracuse, and Rochester, there is some evidence that underlying *non-drug* crime is a greater overall criminal propensity, manifested in higher recidivism than among those engaged directly in drug-related crime. In Chapter Nine, the predictors of success analysis found that among drug court participants only, those arrested on property charges in Suffolk were particularly likely to recidivate both at two years post-intake and one year post-program. The same relationship appeared in Syracuse but was weaker and did not reach significance in the post-program analysis.[1]

In the impact evaluation chapters, only Rochester had a *comparison group*, in addition to a drug court participant sample, that included non-drug charges – petit larceny, criminal mischief, and prostitution. Analyses suggest that defendants facing drug charges performed better than

[1] Note that Rochester was *not* included in the earlier predictors of recidivism analysis in Chapter Nine, but a similar analysis was recreated in Chapter Seventeen.

those facing non-drug charges – relative to equivalently charged comparison defendants. Given the previous results concerning the generally lower recidivism of those facing drug charges (see last sub-section), this is an area to be explored with future research. The theory that allows non-drug charges into the drug court is that a substance abuse addiction can cause non-drug-related crime, but that all criminal behavior relates back to the addiction and by overcoming the addiction, one could prevent the crime. It is possible, however, that some participants in drug court have two legitimate problems – substance addiction and criminal proclivity stemming from other social or psychological origins. Therefore, while the drug court may reduce the addiction-related behavior, the criminal behavior may continue, to the extent that it is unrelated to the addiction. This competing theory is surely a narrow one that does not speak for all non-drug charge participants, but it might help explain the relative pattern that began to emerge in Rochester.

Relative Impact of the Drug Court on Other Defendant Subgroups

- Courts have varying levels of success with specific participant subgroups. These findings are undoubtedly the result of both court policies and the populations each court serves.

As indicated above, the drug court has a greater impact on those who graduate than fail; and in Rochester, the drug court appeared to have a somewhat greater impact on those arrested on drug charges. Additional analyses were conducted for each court to determine if certain other categories of defendants benefited more than others from their drug court participation. Such findings may have important policy implications. If, for instance, courts are more successful with particular groups, measures to attract more defendants with those group characteristics might be implemented. Alternatively, courts might want to explore new ways to be more effective with the groups with which they are currently less successful.

Not surprisingly, the findings of the additional subgroup analyses vary by court, with different courts seeming to be particularly effective with different categories of participants. However, trends of note include the finding that in Bronx, Brooklyn, and Queens, the drug court appears to have a somewhat greater impact on older than younger participants (although the effect was only significant in Bronx). In addition, in Suffolk, Syracuse, and Rochester, three of the four courts accepting participants with prior felony convictions, the drug court program appears to have a somewhat greater impact on participants with *no* prior felonies. There is also evidence in Suffolk and Syracuse that the drug court is more effective with non-blacks. While this finding is not statistically significant in either court, the sizeable odds ratios indicate that the finding may have reached significance, given a larger sample size. These results suggest an alternative explanation to the Chapter Nine finding that blacks fare worse in terms of recidivism in the two courts with substantial Caucasian populations examined in that chapter (Suffolk and Syracuse). Rather than reflecting police or prosecutorial practices or other race-based dynamics, the disparate recidivism based on race may reflect that the *drug court intervention* is for some reason somewhat more relatively effective in reducing the recidivism of its non-black participants. As there are a number of additional factors related to race that may not be accounted for, and due to the non-significant results here, additional research in this area would be useful in future projects.

Impact of Drug Courts on Case Processing

- Drug courts are successful in reducing case processing time from arrest to disposition / drug court entry; but
- Drug courts do not reduce case processing time when total time cases are *pending* is considered – including drug court participation time.

Drug court cases are initially processed significantly faster than comparison cases (in all six courts examined). Rapid disposition is seen as key both to efficient case processing and to the treatment goal of reaching out to defendants immediately at the crisis period following their arrest. While drug courts succeed in reducing the time from arrest to drug court entry / disposition, when time to final case outcome is considered – including in-program participation time – drug courts are less expeditious in processing cases. Due to their lengthy treatment period, during which judicial monitoring is ongoing, drug court participants spend significantly more total time pending in all six courts.

Impact of Drug Courts on Case Outcomes

- Drug court participants are significantly less likely than comparison defendants to be sentenced to jail or prison on the initial case; and
- Participants are sentenced to significantly less total incarceration time than comparison defendants in three of six courts; however,
- When drug court failures only are considered, they are more likely to be sentenced to jail or prison and are sentenced to more incarceration time (both findings reaching statistical significance in five of six courts).

Drug courts have been criticized by some for imposing more severe penalties (i.e., longer sentences) on defendants than would have been imposed under conventional case processing. The results of the case outcomes analysis indicate that this critique may apply to drug court failures, who were significantly more likely to receive jail or prison and received significantly longer incarceration sentences on average than comparison defendants in five of the six courts examined. However, when all drug court participants were included in the analysis (both failures and graduates), participants were *less* likely to receive jail or prison sentences in five courts, and they were sentenced to significantly less total incarceration time in three courts. This again draws attention to the vital role of drug court *graduation* in achieving the desired benefits of drug court.

Summary

In sum, the impact evaluation results are positive. All of the drug courts reduce recidivism over both post-arrest and post-program periods of time (with most but not all findings reaching statistical significance). Table 19.1 indicates two types of summary measures for each of the impact courts' three-year post-arrest and one-year post-program results. The first is the average simple difference between the drug court and comparison group reconviction rates; the second is the percentage reduction in the recidivism rate, relative to the initial comparison group level, produced by the drug court. For example, in the three-year post-arrest analysis for Queens, the participant reconviction rate is 29% and comparison group reconviction rate 55%; hence the

Table 19.1. Overall Effect Size of Drug Courts on Post-Arrest and Post-Program Recidivism

	3 Years Post-Arrest			1 Year Post-Program		
	Odds Ratio	Difference in Recidivism Rate (Effect Size)[1]	Percent Relative Reduction in Recidivism[2]	Odds Ratio	Difference in Recidivism Rate (Effect Size)[1]	Percent Relative Reduction in Recidivism[2]
Bronx	1.802**	15%	30%	2.212**	13%	45%
Brooklyn	1.563***	11%	27%	1.511*	6%	26%
Queens	2.933***	26%	47%	2.545***	13%	52%
Suffolk	2.793***	25%	38%	1.536 [3]	9%	28%
Syracuse	1.608+	8%	13%	1.468	7%	20%
Rochester	1.414*	10%	16%	1.314+	7%	19%
Mean	2.019	15.8%	28.5%	1.764	9.2%	31.7%
Median	1.705	13.0%	28.5%	1.524	8.0%	27.0%

+ p<.10 *p<.05 **p<.01 ***p<.001

Note: Mean and median figures accord equal value to each of the six drug courts, not to each participant. In other words, courts with more participants sampled are *not* weighted more highly.

[1] Effect size is taken from bivariate analyses. It represents the simple difference in the recidivism rate between the drug court and comparison sample. (E.g., effect size is 10% if the drug court recidivism rate is 40% and the comparison group recidivism rate is 50%.)

[2] Percent reduction in recidivism is taken from bivariate analyses. It represents the relative reduction in recidivism from the comparison group level. (E.g., percent reduction is 20% if the drug court recidivism rate is 40% and the comparison group recidivism rate is 50%.)

[3] Drug court participation nearly shows evidence of an effect at the .10 level, with a significance of .106 (and is significant at the .05 level in the simple bivariate comparisons, as displayed in Figure 18.2).

simple difference between these two numbers is 26%, while *relative reduction* that the drug court thus produces from the comparison group level is 47%.

Across the six impact drug courts, the results in Table 19.1 indicate an average relative reduction of 28.5% in three-year post-arrest recidivism and of 31.7% in one-year post-program recidivism. The results also indicate a simple difference in the recidivism rates (effect size) of 15.8% post-arrest and 9.2% post-program. These latter results are consistent with Wilson et al (2002), which found an average effect size of 14% in a review of 41 drug court evaluations. A caveat, though, is that nearly all of the studies reviewed by Wilson et al included short measurement periods of only one or two years after program entry – and virtually none include a post-program analysis. Hence this study is the first to demonstrate consistent and meaningful recidivism impacts across a large number of sites over relatively long-term measurement periods.

CONCLUSION

Chapter Twenty
Conclusions

The following chapter draws attention to several core lessons learned from the project, rather than repeating findings that have been presented and summarized in preceding chapters. The first set of conclusions (1-5) draws on findings from the first three parts of the report concerning all eleven focal courts, while the second set (6-12) draws on findings from the impact evaluation. The final observations (13 and 14) propose a few future directions for research and practice.

The Drug Court Participation Process

1. Drug court policies vary substantially; there is not a single model. The New York State drug courts examined in this study each have a distinct approach. Policies vary widely on:

- *Legal eligibility*: e.g., felony or misdemeanor charges; drug or non-drug charges; probation violation eligibility; and permissible prior criminal history;
- *Average level of addiction*: e.g., casual drug use, abuse, or substance dependence;
- *Plea status*: whether participants must plead guilty to a crime at the time of entry (pre-plea versus post-plea models);
- *Graduation requirements:* e.g., minimum time in drug court program, amount of drug-free and/or sanction-less time required, and employment or vocational requirements;
- *Sanctioning practices:* e.g., type and severity of sanctions commonly used; use of "graduated sanctions" or another approach in response to successive infractions;
- *Treatment and case management services:* e.g., number of available treatment providers; their modalities; their role in drug court operations; role of probation; and role of onsite case managers;
- *Supplemental services:* e.g., employment, vocational, educational, housing, medical, or mental health services; and
- *Other unique programs and policies* that individual drug courts have implemented (see Chapter Two, Innovative Programs).

Not only is there great diversity of drug court models, but there is also reason to believe that many different models are capable of producing positive impacts (see point #6 below). Given this, new drug court teams may be assisted in their planning not only from an introduction to the core components of the model (see NADCP 1997) but also from an introduction to some of the multiple programmatic options and adaptations from which each drug court must inevitably choose.

2. The drug court population faces severe and complicated problems. Drug court participants face challenges beyond addiction. They struggle with homelessness, unemployment, and low levels of educational achievement. Although socioeconomic status (SES) varied by court, nearly half of the participants across all eleven courts (and a much higher percentage in some of the courts) were neither employed nor in school at the time of drug court intake. Additionally, female participants faced consistently greater socioeconomic disadvantage than

males, as well as more severe drug use and treatment histories. These findings indicate that New York's drug courts are challenged not only to treat drug use and addiction but also to address multiple interrelated needs including low SES and social, family, and residential instability. Hence supplemental services in the areas of employment, education, vocational training, housing, or parenting may play a helpful role in ensuring the effectiveness of the drug court treatment intervention. Since females face particularly severe disadvantage, special services may be necessary for this particular population.

3. Immediacy is a critical factor increasing the likelihood of program success. Early engagement produces better outcomes. Across all five courts examined for this dynamic, drug court participants who avoided warranting within the first thirty days after formally beginning their participation were significantly more likely to graduate. Early warranting reflects the quality of early participant compliance (i.e., noncompliant participants are more likely to disappear early on a warrant) and the speed with which the drug court processes each case and finds a suitable treatment placement (i.e., participants who can commence treatment early due to rapid processing are less likely to warrant in the pre-placement period). Hence an important policy implication is that drug courts should seek to implement legal and clinical screening, assessment, and treatment-matching policies that can produce rapid turnaround time from intake to placement in a community-based treatment program.

4. Relapse and noncompliance are typical parts of the recovery process. Even among successful participants, relapses, warranting, and other program violations are common. Across eight courts examined, at least half of all graduates had at least one positive drug test during their participation (except Bronx, 45%); and many had several positives, usually in the earlier stages of participation. This highlights the importance of according "multiple chances" to those experiencing early problems. Combining this with point #3, the implication is that, again, the early stages of participation are critical; in response to early relapses or warrants, the most productive response may be targeting extra resources and assistance (e.g., more frequent monitoring, a treatment modality upgrade, or supplemental social or psychiatric services). Failing these participants would mean giving up on many whose early noncompliance may be masking their potential to improve over time.

5. Drug court graduation is a powerful predictor of reduced post-program recidivism. Graduates are universally less likely than both drug court failures and non-participants to recidivate in the post-program period. Hence drug courts able to graduate a large percentage of their participants tend to produce larger impacts. Indeed, of the six impact courts, Queens has the highest graduation rate and produces the largest recidivism reductions. On the other hand, contrary to past research with other treatment populations (not drug court specific), we found no benefit to spending more total *time* in treatment only to fail in the end. Among those who failed, more time enrolled in the drug court (measured in four courts) or more time specifically attending treatment (measured in one court) had no impact at all on post-program recidivism rates. *Translation:* graduation is the key to successful long-term outcomes; participants remaining active for more time but then ultimately failing out do *not* tend to accrue benefits from their drug court experience.

In general, New York State drug courts produce *higher* program retention and graduation rates than community-based treatment programs accepting both voluntary and court-mandated

participants. Eight of the eleven drug courts studied produced a one-year retention rate higher than 60% (the estimated national average for drug courts); and the same eight of eleven produced a three-year retention rate – and graduation rate – higher than 50%, again exceeding the national average for drug courts. Both the one-year and three-year retention rates substantially exceed the average performance of treatment programs outside the drug court setting.

Drug Court Impacts

6. Drug courts work: They reduce recidivism when compared with conventional prosecution. The six drug courts included in the impact evaluation represent a mix of geographic areas (large urban, suburban, and medium-sized city) and policies (e.g., with respect to eligibility, screening and assessment, graduation requirements, and supplemental services). Yet, all six reduce recidivism up to three years after the initial arrest and up to one year after program completion, and most impacts are statistically significant (see summary in Chapter Nineteen). Given the vast regional and policy variations represented by this study's six sites, the implication is that the basic drug court approach works with multiple populations and approaches – there is not a single way to implement an effective drug court. This study's results confirm those in most previous evaluations, although given the large number of sites, and universal use of strong quasi-experimental methods, this study arguably offers a new level of confidence in the positive nature of the drug court intervention. In short, this study supports further replication of drug courts.

7. Drug court impacts extend beyond the period of program participation. Along with two other studies (Goldkamp et al 2001; and Gottfredson et al. 2002), the three-year post-arrest measurement period (and four years in Brooklyn and Rochester) is the longest available in the literature to date. Furthermore, only three previous studies isolated drug court impacts over a specific *post-program* timeframe (Bavon 2001; Fielding et al. 2002; and Harrell et al.1998). Hence this study's most significant contribution may be in providing evidence, across six sites, that drug courts have positive *long-term* impacts lasting beyond the period of active judicial supervision.

We sought further to clarify the exact magnitude of the drug court impact over each of several distinct periods following the initial arrest. We expected that the drug court impact would be strongest immediately following the arrest – during the *in-program* period when judicial supervision is most intensive. We then expected that the magnitude of the impact would gradually attenuate after participants left the program. Instead, when controlling for the amount of time that participants were "at risk" of re-offending in both the in-program and post-program periods, we found that recidivism rates did *not* rise in the post-program period and instead *declined* in three of the six courts. In fact, in several of the drug courts, there is evidence that drug court participants are at greatest risk of recidivism in the first six to nine months of *in-program* participation (e.g., as they are becoming fully engaged in the recovery process); but that drug courts subsequently generate consistent and lasting recidivism reductions.

Further "survival analyses" comparing participant and comparison group recidivism outcomes respectively after each additional year of post-arrest time do detect evidence of attenuation of the drug court impact – relative to the comparison group – in one of the six courts (Syracuse); and smaller evidence in two others (Brooklyn and Rochester). But there was no evidence of attenuation at all in the three other courts (Bronx, Queens, and Suffolk). Therefore,

relative to expectations, the expected attenuation of the drug court impact was neither as strong nor as universal as predicted.

While it would be productive to track participant and comparison group recidivism over even longer timeframes in future analyses, this report's findings generally suggest that drug court impacts may be long lasting.

8. The exact magnitude of the drug court impact varies across different sites. Although recidivism rates were consistently lower in the drug court, the exact magnitude of this impact varies. For instance, one-year post-program recidivism reductions range from 19% to 52% across the six sites. Possible reasons for the variations include:

- Differences in the drug court *populations* served by the six impact courts – e.g., with some courts serving populations with more or less serious charges, criminal histories, addiction status, or other problems;
- Differences in drug court *policies and practices* – e.g., with some practices more effective than others; or
- Differences in available "personal capital," with some drug courts benefiting more from the extraordinary contributions of certain individuals (e.g., the drug court judge, or certain court or clinical staff).

In considering these issues, it may be useful to reflect on the results for Queens, which happens to be the most impressive of the six sites in terms of recidivism reductions. The Queens Treatment Court appears to benefit from all possible advantages. The drug court population is on average less addicted and less socioeconomically disadvantaged than most (see Chapter Three); the court (at the time of the evaluation) does not admit defendants arrested on non-drug charges, who do not tend to perform quite as well as others; the court's policies also involve a substantial legal incentive for graduating (case dismissal/avoiding first felony conviction) and for avoiding failure (one year in jail); and the court has a highly charismatic and effective judge and a strong team-based model. While various combinations of these advantages are shared by many of the other courts, Queens appears to possess all of them. Future research might seek to disentangle these hypothetical advantages to identify which participant characteristics or programmatic components truly make the greatest difference.

9. Drug courts appear to have a greater impact on those entering on drug rather than non-drug charges. Some findings (especially in the Rochester evaluation) suggest that drug courts may have a relatively greater impact on defendants arrested on drug charges. It may be that the drug court is most effective at reducing crime related to drug use and addiction but relatively less successful in reducing crime driven by other criminal impulses or motivations. For example, while many property offenders may simply be seeking to support an addiction, it is possible that *on average*, crimes committed by property offenders may be less likely to be driven by addiction as opposed to other criminal propensities. Since drug courts often struggle with how to define their target population, future research might assess results for drug versus non-drug offenders across additional sites. If this study's findings are confirmed, it could suggest any number of implications, including a more nuanced process of identifying appropriate non-drug offenders, further innovative practices to address other sources of criminal behavior, or other measures seeking to assist non-drug offenders in benefiting from the drug court experience.

10. Drug courts reach initial disposition more quickly than in conventional courts, but ultimately spend more total time with defendants. Drug courts reduce initial pre-plea case processing time. In the six courts examined, drug court participants reach disposition/drug court entry faster than comparison cases. However, when counting in-program drug court participation time toward the total amount of time that the criminal case was pending, drug courts take longer to reach *final* disposition than cases processed in the conventional fashion. This of course stems from the drug courts' rigorous one- to two-year duration. This finding highlights that drug courts do consume considerable up-front judicial resources in the form of lengthy periods in the drug court program and repeat court appearances (for monitoring). Cost savings should be anticipated more in a *long-term* calculus (due to reductions in recidivism and consequent long-term incarceration savings).

11. On the arrest that brought defendants to drug court, average sentence length is sometimes shorter than in conventional prosecution – and sometimes not. Whereas graduates are never sent to jail or prison, drug court *failures* receive longer incarceration sentences than comparison defendants in five of the six courts. These outcomes for failures account for why, when considering the net drug court impact (graduates and failures combined), results are mixed across courts. In three of six courts examined, all participants combined averaged significantly shorter jail or prison sentences stemming from the initial criminal case. However, in a fourth court, participants averaged significantly longer jail or prison sentences, and there were no differences in the other two courts. On the other hand, since the six drug courts all generate lower recidivism, all presumably generate *long-term* reductions in jail and prison sentences.

Future Directions

12. Statewide institutionalization efforts need to be sensitive to multiple alternative policy models. The eleven drug courts treated in this report demonstrate considerable diversity of populations and policies (see points 2 and 9 above). Further, this report produced evidence that drug courts with different policy models could all succeed (although the precise magnitude of outcomes did vary); for example, of the larger group of eleven drug courts, the three with the highest retention rates included a New York City court, a suburban court, and a semi-rural court, each with many policy differences. Accordingly, while statewide institutionalization efforts will presumably want to promote statewide accountability and training, as well as some uniformity of key policy principles, it appears sound to promote a measure of local innovation, diversity, and adaptation to the available community-based resources. Rigid formulaic requirements should be approached with extreme caution at statewide and federal levels.

At the same time, a question remains as to whether it is possible to identify certain "best practices" – areas where research and experience indicates that a uniform approach may be desirable. As others have lamented (e.g., Goldkamp et al. 2001; Gottfredson et al. 2003), we do not adequately understand *how* and *why* drug courts work, and which approaches are most cost-effective. In particular, we know from this study and others that drug court *graduation* is pivotal, but the relative importance of basic drug court components remains unclear: (1) substance abuse treatment, (2) other community-based services (e.g., employment, vocational training, or mental health), (3) case management, (4) court appearances and monitoring, (5) direct interaction with the drug court judge, (6) a collaborative, team approach to judicial decision-making, (7) rewards, and (8) sanctions. These questions will persist over years to come, making the identification and

dissemination of best practices, along with the simultaneous promotion of local innovation, one of the greatest challenges for state court administrators.

13. Broader problem-solving court approaches merit investigation. Not all of the drug courts examined in this report serve a severely addicted population. In fact, the Queens Treatment Court, which produced large recidivism reductions, works with a population whose primary drug is marijuana more than half the time and which would clearly not meet a substance-dependence clinical diagnosis in many cases. The fact that this drug court was nonetheless extremely successful suggests that *addiction* is not the only problem that can be ameliorated through a court-based treatment intervention. As noted above, drug court participants present a wide range of problems and disadvantages including, but not limited to, mental health disorders, socioeconomic disadvantage, residential instability, involvement with deviant peers, and family instability and disengagement. It may be that interventions not explicitly or primarily focused on drug use and addiction can also have positive impacts. Indeed, such is the rationale for the recent rise of other "problem-solving courts," such as mental health courts and parole reentry courts. This report considers the policies and impacts of the drug court model, but other problem-solving models await similar discovery and documentation.

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APPENDICES

Appendix A

New York State Unified Court System
Statewide Drug Court Research Project

DRUG COURT SURVEY

This survey concerns the major policies implemented in your drug court. Results will be of tremendous assistance to the statewide research team in understanding each court's policies and in interpreting data collected from the Statewide Treatment Application. In the future, we may ask to schedule a phone interview or site visit to learn more about your drug court's approach.

We deeply appreciate your effort in responding. If you have any questions, please do not hesitate to contact any of us: Robyn Cohen (212-428-2178), Dana Fox (212-373-1685), and Michael Rempel (212-373-1681).

If possible, we would appreciate it if you could complete the survey on your computer. Please add as many lines as you need to answer the questions. You may then e-mail the file to Robyn Cohen at rlcohen@courts.state.ny.us. If you write out your answers instead, please fax to Robyn at 212-428-2847. If you have attachments (e.g., policies and procedures manual, sanctions schedule, or process evaluation), please mail those separately to Robyn Cohen, New York State Unified Court System, 25 Beaver Street, 9th Floor, New York, N.Y. 10004.

Please return your completed survey by April 25, 2001.

BACKGROUND

Name of drug court:
Name of jurisdiction:
Date drug court opened:
Name and address of contact person:

Do you have a policies and procedures manual? If yes, could you please attach copy?

I. PARTICIPATION REQUIREMENTS

A) Arraignment Charges and Criminal History

1. *Eligible arraignment charges:*
   Please check all eligible arraignment charges.
   - Violation
   - DWI or DUI
   - Non-drug misdemeanor
   - Drug possession misdemeanor
   - Drug possession felony
   - Drug sales felony
   - Property-related
   - Other (please specify each type)

2. Are defendants ever eligible *strictly* as a result of a probation violation? If yes, can probation violators be eligible due to a *technical violation*, *new arrest*, or either one?

3. Are defendants eligible if they have one or more prior felony convictions?

4. Are defendants eligible if they have a history of criminal violence? If no, how does your court define a history of violence? (E.g., Does your court only exclude prior violent felony convictions, or does your court exclude select violent misdemeanor charges as well?)

5. Are there other eligibility limitations based on charge or criminal history (e.g., arraignment on an "A" felony)? Please list.

6. Does your drug court accept (or plan to accept) Town and Village cases?

B) Other Participation Requirements

1. Which of the following additional reasons might preclude formal drug court participation?
   - No discernible drug addiction
   - Defendant deemed to lack sufficient motivation or lack treatment readiness
   - Defendant deemed to lack sufficient community ties or other social assets
   - Defendant refuses to participate
   - D.A.'s discretion due to suspected major drug trafficking
   - D.A.'s discretion due to suspected high "flight risk" defendant
   - D.A.'s discretion due to weak criminal case (e.g., not jail-bound)
   - Medical or mental health reasons
   - Other (please specify each reason)

2. *Discernible addiction criteria:*

   a. Which of the following factors influence the determination of whether defendants have a discernible drug addiction?
      Drug test results
      Reported drug use history
      Reported drug treatment history
      Professional judgment of person conducting the assessment
      Contact with family member, friend, employer, or other acquaintance
      Other (please list).

   b. Are defendants who heavily use marijuana only eligible (or must they have an additional addiction to cocaine, heroin, methamphetamine, etc.)?

   c. Are defendants who heavily use alcohol only eligible (or must they have an additional addiction to cocaine, heroin, methamphetamine, etc.)?

C) Initiating Drug Court Participation

1. Is participation *pre-plea* or *post-plea*? If the answer differs for different participants, what affects whether a given participant begins pre- or post-plea?

2. If at least some participants enter *pre-plea*, do any of these participants ever plead guilty to an offense partway through treatment? If yes, why might this happen?

3. *Plea type* (answer *only if* participants enter post-plea):
   Please check all possible plea types.
      Violation
      Misdemeanor
      First felony
      Predicate felony (pleads to a felony and has one or more prior felony convictions)
      Other (please specify)

4. *Jail or prison alternative:*
   Is a *jail or prison alternative* established in advance of participation? (A jail or prison alternative is a sentence that will be imposed if a participant fails the drug court.)

   a. If yes, how long is the *most common* jail or prison alternative for each plea type used in your court (misdemeanor, first felony, predicate felony, etc.)?

   b. Are the jail or prison alternatives ever changed partway through participation? If yes, why might this happen?

   c. Do the jail or prison alternatives tend to *differ* from sentences that *would have been imposed* if the cases were prosecuted in the normal fashion? How do they differ?

5. *Program Mandate:*
   What is the minimum required time to graduation? If this minimum varies for different groups of participants, please give the minimum for each relevant group.

6. What marks the official start of drug court participation: pleading guilty to an eligible offense, signing a contract, or both?

7. Are some defendants treated on a trial basis *before* becoming formal participants?

   a. If yes, in what situations might this be done?

   b. If yes, for what reasons might defendants *not* become participants after the trial period, and what might you check as the reasons for non-participation in the *Treatment Application*?

8. Do you have a required orientation that all drug court participants must attend. If yes, please describe (e.g., what is covered, length of orientation, etc.).

II. TREATMENT POLICIES

1. Roughly how many treatment providers are used by your drug court?

2. Do you ever refer participants to detox at the outset of treatment? Why might you do this?

3. *Treatment modality:*
   Does your drug court ever refer participants to the following treatment modalities?
   Long-term residential (three months or longer)
   Short-term residential (up to three months)
   Intensive outpatient (all day / at least 5 days per week)
   Outpatient (½-day, evenings only, or only several days per week)

4. Does your drug court ever refer participants to a halfway house? If yes, what is the nature of the treatment received, and which modality do you check in the Treatment Application?

5. What criteria are used to determine a participant's *initial* modality? Please rank the following on a 1-3 scale (1 = not important at all, 2 = somewhat important, 3 = very important).
   Addiction severity
   Primary drug of choice
   Criminal justice factors (e.g., charge, criminal history)
   Residential stability / homeless status
   Employment or educational status
   Level of family / household support
   Staff professional judgment
   Contact with family member, friend, employer, or other acquaintance
   Other (please list)

6. Are participants sometimes switched from one modality to another during participation? If yes, which is the most typical switch (inpatient to outpatient or outpatient to inpatient)?

7. Please describe your court's methadone policies. For example, does methadone use restrict drug court eligibility in any way? And is methadone allowed during treatment?

8. Does your drug court provide *onsite* educational, vocational or employment programs or services? Please describe or send program description if one is already written?

9. Does your drug court ever refer participants to *offsite* educational, vocational, or employment programs? If yes, please indicate which type(s).

III. COURT SUPERVISION

A) Staff

1. How many dedicated staff are assigned to the following positions?
   - Drug court judge
   - Project director or coordinator
   - Clinical director
   - Assistant district attorney
   - Defense attorney

2. If you have a project director, coordinator, or clinical director, do the persons filling any of these roles have an M.S.W. or other clinical credentials?

B) Intensity of Supervision

1. For each of the three forms of court supervision listed just below, do you have a schedule of supervision levels? If yes, please describe or send a description if one is available.
   - Frequency of case manager or probation officer visits
   - Frequency of court appearances before the drug court judge
   - Frequency of drug tests

2. *Case manager visits* (answer if applicable):
   Which of the following occurs during a typical case manager or probation officer visit? Please feel free to add any description that you think would be helpful.
   - Reviewing program attendance and compliance information
   - Reviewing program requirements
   - Individual therapy / discussing clinical issues in detail
   - Discussing employment or vocational issues
   - Discussing physical or mental health issues
   - Discussing entitlements or other service needs
   - Other (please list)

C) Phases of Treatment

1. Is your program organized into *phases of treatment*? If yes, could you either send a written description or describe the requirements of each phase?

2. If your program does *not* uses phases, is there any plan to use them in the future?

3. Are participants ever *demoted* from a higher to a lower phase? If yes, why this might occur?

D) Infractions and Sanctions

1. *General policies:*
   Do you have a written schedule defining which sanctions accompany given infractions? If yes, can you send a copy?

   a. If yes, is the schedule always used, or does the judge sometimes exercise discretion?

   b. If you do *not* have a schedule, how are sanctions decided in each potential instance?

2. Below is a list of infractions. For each, will the Judge impose a sanction *all of the time (A), some of the time (S),* or *never (N)*? If the infraction triggers automatic program failure (F), please indicate this. Please do *not* consider verbal admonishment a sanction for this purpose.
   Positive drug test for marijuana
   Positive drug test for alcohol
   Positive drug test for other illegal drug (e.g., heroin, cocaine, methamphetamine, etc.)
   Failure to appear at scheduled drug test
   Tampering with drug test
   Rule-breaking at treatment program
   Unexcused absence at treatment program
   Several unexcused absence at treatment program since last court appearance
   Late arrival at case manager visit, drug test, or court appearance
   Absconding from program / voluntary return on warrant
   Absconding from program / involuntary return on warrant
   New violent arrest
   New drug arrest
   Other new nonviolent arrest

3. Does the judge *frequently (F), infrequently (I),* or *never (N)* use each of the following?
   Verbal admonishment
   Writing assignment (e.g., essay, journal entry, or letter)
   Jury box or remain in court
   Court supervision (e.g., increase in drug tests, or court appearances)
   Daily court appearance required
   Assignment to short-term detoxification program (e.g., 3-10 days)

Assignment to short-term (e.g. 30-day) inpatient rehabilitation program
Assignment to long-term inpatient program
Community service
Short jail sanction: 1-7 days
Mid-length jail sanction: 8-15 days
Long jail sanction: 15-30 days
Electronic monitoring
Zero tolerance (i.e., warning that next infraction triggers automatic sanction)
Other sanction (please specify sanction)

4. Is there a point at which participants face automatic failure after the next infraction or the next infraction of a certain type? If yes, please describe.

E) Achievements and Rewards

Below is a list of achievements. Which ones are *typically* recognized and/or rewarded?

30 days clean / no sanctions
90 days clean / no sanctions
Completed requirements of residential treatment program
Completed Phase One
Completed Phase Two
Birth of drug-free baby
Entered school or vocational program
Completed school or vocational program / obtained G.E.D.
Obtained employment
Other (please specify achievement)

F) Warrants

1. What events, if any, would lead the drug court judge to issue a warrant?

2. Are participants able to reenter the program after returning from a warrant?

3. Do you close a participant's case if a participant has been out on a warrant for a certain time (please indicate how long)? If yes, which closed reason(s) do you use from the *Treatment Application*? Also, if yes, could the case be reopened if the participant returns?

4. Do you have a special warrant squad or special officer(s) that works with the drug court to find participants who are out on a warrant?

5. Do participants automatically fail after a certain number of warrants? If yes, how many?

G) Decisions During Treatment

Please take a moment to describe which staff members are involved in making the kinds of decisions cited just above: phase promotion, sanctions, rewards, changes in supervision level, or whether to fail a participant for a particular infraction. If offsite treatment providers play a key role in making any of these decisions, please indicate this as well.

IV. PROGRAM COMPLETION

A) Graduation

1. What are your graduation requirements?

2. At the time of graduation, must participants have completed all requirements of their offsite treatment program, or is it only necessary to have completed the internal graduation requirements of the drug court?

3. After graduation, what happens to the pending criminal charges?

4. *In-program achievements:*
   Do you track any of the following, either during participation or as part of an exit interview?
   Obtained G.E.D.
   Began educational program
   Began vocational program
   Received employment
   Gave birth to drug-free baby

5. Once a participant is listed as a graduate in the *Treatment Application*, can that status ever change to failure (e.g., due to violating the conditions of a conditional discharge)? If yes, why might it change, and how would this be recorded in *the Treatment Application*?

B) Failure

1. Upon failure, are participants always given a *predetermined* sentence?

2. If sentence is *not* predetermined, please answer:

   a. Can participants argue the underlying case, potentially leading to a dismissal of the charges?

   b. What are the *most common* sentences that tend to be imposed? If there are different categories of participants that tend to receive different sentences, please indicate this.

C) Closed Reasons in the Treatment Application

Below is a list of several ineligible and closed reasons taken from the Universal Treatment Application. For each, do you ever use it? If yes, please briefly state why? (The list includes only a small selection of all ineligible and closed reasons.)

I - DA Determination
I – Other Reason
C - New DA Ineligible Arrest
C - Voluntary Failure
C - Transferred for Indictment
C - Transferred to Other Jurisdiction
C - Contract/Plea Vacated

D) Aftercare

For program graduates, do you provide any aftercare services or alumni programs? Or do participants ever return to do volunteer work at the drug court? Please describe.

E) Repeat Cases

After a participant definitively graduates or fails, if that participant subsequently returns to the drug court on an entirely new criminal case, can the participant be re-admitted? If yes, is data on the new case entered in the *Treatment Application* by the participant's old name or case id number, or is a new case initialized and assigned a new case id? (For data collection purposes, it is helpful to initialize a *new* case.)

V. IMPLEMENTATION ISSUES

1. Have there been major challenges or barriers to implementation that arose during either the planning phase or initial year of drug court operation? Please describe.

2. Does your jurisdiction have any other program(s) for criminal defendants with a drug addiction (e.g., DTAP, TASC, etc.)? If so, how do you divide cases between the drug court and these other programs?

VI. RESEARCH AND EVALUATION

Has a process evaluation been completed on your program? Have any other evaluations been conducted? If so, please attach a copy of any evaluation reports.

VII. RECOMMENDATIONS

Please list or describe any research questions that you would like to have answered by the statewide drug court research project. Also, to aid the interpretation of data, please feel free to describe any other policies that it would be helpful for the research team to know about.

Thank you so much for completing this survey!

Appendix B

New York State Unified Court System
Statewide Drug Court Research Project

DRUG COURT SURVEY UPDATE
JULY 29, 2002

This survey is meant to serve as an update of the more comprehensive survey your drug court completed a year ago in March 2001. Results will be of tremendous assistance to the statewide research team in understanding and further clarifying each court's policies and in interpreting data collected from the Statewide Treatment Application.

In addition to completing this survey, we also ask that you review your answers to the original survey of a year ago, and update or correct your answers, as necessary. We would like to have an accurate representation of your court's policies as of July 2002.

We deeply appreciate your effort in responding. If you have any questions, please do not hesitate to contact any of us: Robyn Cohen (212-428-2178), Dana Fox (212-373-1685), and Michael Rempel (212-373-1681).

If possible, we would appreciate it if you could complete the survey on your computer and return it electronically through email to Robyn Cohen at rlcohen@courts.state.ny.us. Please add as many lines as you need to answer the questions. If you write out your answers instead, please fax to Robyn at 212-428-2847. If you have attachments (e.g., policies and procedures manual, process or impact evaluations, drug court contract) that cannot be sent electronically, please mail those separately to Robyn Cohen, New York State Unified Court System, 25 Beaver Street, 9th Floor, New York, N.Y. 10004.

Please return your completed survey as soon as possible, but no later than August 21, 2002.

Name of drug court:
Name of jurisdiction:
Date drug court opened:
Name and address of contact person:

Has your policy and procedures manual been updated since January 1, 2001?
If yes, could you please attach a copy?

Has a process or impact evaluation been completed on your program since January 1, 2001?
If yes, could you please attach copies?

I. PARTICIPATION REQUIREMENTS

A) Criminal Charges

1.Would your drug court accept someone who had a felony *arrest*, but the *charge* was reduced to a misdemeanor at arraignment (before reaching the drug court)?

2.*Eligible arraignment charges:*

Please check all eligible arraignment charges.

- Violation
- DWI or DUI - Misdemeanor
- DWI or DUI - Felony
- Drug possession misdemeanor
- Drug possession felony
- Drug sales felony
- Non-drug misdemeanor
- Non-drug felony
- Other (please specify each type)

B) Initiating Drug Court Participation

1. Are potential participants required to sign a contract in order to begin participation? (If yes, please attach a copy of a contract.)

2. What are the various graduation promises for successful participants in your drug court (e.g., charges dismissed, charges reduced to a misdemeanor, etc)?

3. What are the various failure alternatives for unsuccessful participants in your drug court (e.g., jail unspecified length, jail alternative specified length, probation, etc.)?

4. Upon graduation, will participants always receive whatever promise was made in the contract or upon a plea?

   a. If no, what circumstances would change this promise (e.g., warrant or new arrest during participation, compliance with drug court rules)?

5. Upon failure, will participants always receive the jail alternative specified at the time of drug court entry?

   a. If no, what circumstances would change this alternative (e.g., warrant or new arrest during participation, mental illness, length of participation)?

II. TREATMENT POLICIES

1. What is the most frequent first treatment modality assignment?

2. When a participant is switched from outpatient to inpatient:

   a. What are the factors considered in making this decision?

   b. Who makes this decision (could be one person, could be a team)?

3. When a participant is switched from inpatient to outpatient:

   a. What are the factors considered in making this decision?

   b. Who makes this decision (could be one person, could be a team)?

III. COURT SUPERVISION

A) Staff

1. Is there a dedicated Assistant District Attorney? If yes, since when?

2. Is there a dedicated Defense Attorney? If yes, since when?

B) Compliance

1. Do you use jail sanctions?

   a. What is the most common length of a jail sanction?

   b. What is the longest jail sanction?

2. When a participant is out on warrant (check one):

   _____ the case *remains on the drug court calendar* and the person can return to the drug court at any time.

   _____ the case is *taken off the calendar* after ____ months and the closed reason of *C-warrant, not final* is assigned; the person can return to the drug court at any time.

   _____ the case is *taken off the calendar* after ____ months, is automatically a failure, and the closed reason of *C-warrant, final* is assigned; the person **cannot** return to the drug court.

IV. PROGRAM COMPLETION

Graduation Requirements (Please check all that apply):

_____ Minimum months required in drug court program = _____# months

_____ Maximum months allowed in drug court program = _____# months (if applicable)

_____ Minimum time sober & clean = _____# months

_____ Minimum time sanctionless = _____# months

_____ Pay fees – Please specify types and amounts of fees:

_____ Community Service = _____# events or _____# hours

_____ Employed or in school at graduation

_____ Employment training-related requirement

_____ High School degree or GED

_____ Complete requirements of treatment agency (in addition to drug court requirements)

_____ Graduation Application

_____ Exit Status Interview

_____ Aftercare plan (by case manager or treatment agency)

_____ Other (please specify):

Thank you so much from completing this survey!

Appendix C – Buffalo-Specific Methodology

The Buffalo City Treatment Court did not convert to the New York State Universal Treatment Application (UTA) until the middle of 2002, after our cut-off date of June 30, 2002 for including drug court participants in data analyses. The source of all Buffalo participant data, with the exception of recidivism information, was therefore from a data dump from the local MIS system that Buffalo used before the UTA was introduced. We received the data dump on May 8, 2002 in the form of three files:

- A lotus file with basic criminal justice status information only (not information concerning drug court participation) and with NYSID as the primary identifier (NYSID is a person-based identifier assigned to all criminal defendants statewide);
- A lotus file drawn from the same system as the first but with arrest date included and without NYSID; and
- An access database used to store the drug court participation information.

The two lotus-based court files were matched using the common identifier of docket number, resulting in 1,990 cases (i.e., 1,990 rows of data). This file was then matched with the DCJS criminal history and recidivism data so that we had all court and arrest information in one file.

Simultaneously, the three participation files from the access database were merged into one file using the common identifier of id. There were some key data fields that naturally converted into UTA categories:

- First contact = date case first opened with the drug court (from judge information table);
- Drugdate = date became a participant (from main table);
- Jrcd = date of graduation/failure; and
- Lcare = treatment modality (with modality categories a clear match to UTA categories, except that the lack of a distinction between intensive outpatient and outpatient in the Buffalo system meant that none were classified as an "intensive outpatient" modality).

At this point, we had a single data file with court information only (from Buffalo's lotus system and DCJS) and a second data file with drug court program and participation information only (from Buffalo's access database). These two files were then matched based on last and first names. Since the access files did not contain NYSID or docket number, this was the best method of matching cases. At this point, the decision was made to only select those cases for which we had court information – which meant that we eliminated 13 cases that were in the access (drug court participation) file, but not in the court file – since we would have little to work with if we were missing initial arrest and recidivism information. At this point there were 1,990 drug court cases.

The next crucial step was to determine a final program status for each "row" in our dataset. Per conversations with staff at the Buffalo drug court, the following method of determining final status was employed (the original Buffalo status categories are those in quotations):

- Open = "active," "detained," "NS400," and "will return";
- Graduated = "grad";
- Warranted = "WO";

- Failed = “sentenced” and “TRCJS”;
- Participant-incomplete = “death”; and
- Unsure of status = “dismissed.”

The dataset contained one record for each criminal case, meaning that the same defendant could have multiple records. After determining a final status for each “row” of data, information was aggregated into one row of information for each *person* by first and last name, privileging the more final outcome (graduate/failure as most privileged, then warranted, then open).

After all of the merging and aggregating, we ended up with 1,544 unique cases in our final dataset. Of these, 37 had missing program status information and were thus deleted, leaving 1,507 cases. Of these, 357 cases were listed as out on a warrant. We determined that this number had to be inaccurate, given that it would be over 150 more than the next highest total in the entire state and would be over 200 more than the Buffalo program lists as out on a warrant when they fill out quarterly drug court reports required by the Unified Court System. We therefore sought to correct the Buffalo status information by drawing on data originally located in Buffalo’s access database that held dispositions for each court appearance before the drug court judge. (We, in fact, obtained this data directly from the statewide UTA, but it had been converted over from Buffalo’s earlier system.) We coded the dates of any appearances where a warrant was ordered and of any immediately subsequent appearance signifying a return from the warrant. This enabled us to establish over precisely what periods of time each of Buffalo’s participants were in fact out on a warrant and when they returned from each warrant. Based on this court date information, we then determined which participants in fact had a warrant pending as of our analysis date (set to June 1, 2002 for this purpose), and which participants did not. We then corrected the program status variable accordingly.

At this point, after first checking against program status in converted UTA data (updated as of the more recent date of March 2003), we deleted 6 additional cases whose status we could not determine. They were listed as “dismissed” in Buffalo’s access database, and due to insufficient additional information, drug court participant status could not be determined.

Our final Buffalo dataset consisted of 1,501 program participants: 290 open, 389 graduated, 161 warranted, 653 failed, and 8 status-incomplete. This dataset was then used for all analyses involving the Buffalo data. Due to the number of different data sources that had to be integrated, it seems likely that there is a small error rate in these numbers, although our judgment is that the few errors that may exist are not systematic in nature and thus should have, at most, a minimal impact on any results reported.

Appendix Table D-1. Paper Eligibility
Criteria for Referral to the Drug Court for Screening

(Y = Eligible)

	NYC	District 9			District 3			District 4		
	Manh. Misd.	Yonkers	Mt. Vernon	Rock-land	Albany Region	Troy	Renn-sselaer	Fulton	Mont-gomery	Kings-bury
A) Arraignment Charges										
Drug sales felony[1, 2]	N	N	N	N	N	N	N	N	Y	Y
Drug possession felony[1]	N	N	Y	Y	N	Y	Y	Y	Y	N
Drug misdemeanor	Y	Y	Y	Y	Y	Y	N	Y	N	Y
DWI/DUI	N	N	N	N	Y	Y	Y	Y	Y	Y[4]
Non-drug/property felony	N	N	Y	Y	N	Y	Y	Y	Y	N
Non-drug/property misdemeanor	Y[3]	Y	Y	Y	Y	Y	N	Y	N	Y
Violation	N	N	N	Y	N	N	N	Y	N	N
B) Other Eligible Populations										
Prior felony conviction (Predicate)	N	N	Y	Y	Y	Y	Y	Y	N	N
Violator of probation	N	Y	Y	Y	Y	N	N	Y	Y	Y

	District 5	District 6		District 7	District 8			
	Oswego	Tomp-kins	Otsego	Canan-daigua	Batavia	Lock-port	Niagara Falls	James-town
A) Arraignment Charges								
Drug sales felony[1, 2]	Y	N	N	N	N	N	Y	N
Drug possession felony[1]	Y	Y	Y	N	Y	Y	Y	Y
Drug misdemeanor	Y	N	Y	Y	Y	Y	Y	Y
DWI/DUI	Y	Y[5]	Y	Y[4]	Y[4]	Y	Y	Y
Non-drug/property felony	Y	Y	Y	N	Y	Y	Y	Y
Non-drug/property misdemeanor	Y	N	Y	Y	Y	Y	Y	Y
Violation	N	N	Y	Y	N	N	N	N
B) Other Eligible Populations								
Prior felony conviction (Predicate)	Y	N	Y	Y	Y	Y	Y	Y
Violator of probation	Y	Y	Y	Y	N	Y	Y	Y

Data as of 4/01.

[1] None of these courts accept cases arraigned on A felony charges.

[2] Although some courts define as "paper eligible" cases arraigned on a drug sales felony, these cases are excluded if the A.D.A. suspects substantial drug trafficking.

[3] The only non-drug misdemeanor charge allowed at the Manhattan Misdemeanor Court is PL140.15, criminal trespass in the 2nd degree.

[4] Only misdemeanor DUI/DWI cases are eligible.

[5] Only felony DUI/DWI cases are eligible.

Appendix Table D-2. Drug Court Screening Policies
Clinical Reasons for Exclusion

(Y = Eligible)

	NYC	District 9			District 3			District 4		
	Manh. Misd.	Yonkers	Mt. Vernon	Rock-land	Albany Region	Troy	Renn-sselaer	Fulton	Mont-gomery	Kings-bury
Courts will allow potential participants with:										
Addiction to marijuana only	Y[1]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Addiction to alcohol only	Y[1]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Severe medical / mental health barriers	N	N	Y	Y	Y	N	N	N	N	Y
Lacks motivation / treatment readiness	N	N	N	Y	Y	N	N	N	N	Y
High methadone levels at intake	Y[2]	Y	Y	N/A	TBD	Y	Y	TBD	TBD	N/A

	District 5	District 6		District 7	District 8			
	Oswego	Tomp-kins	Otsego	Canan-daigua	Batavia	Lock-port	Niagara Falls	James-town
Courts will allow potential participants with:								
Addiction to marijuana only	Y	Y	Y	N	Y	Y	Y	Y
Addiction to alcohol only	Y	Y	Y	N	Y	Y	Y	Y
Severe medical / mental health barriers	Y	Y	N	Y	N	TBD	N	N
Lacks motivation / treatment readiness	Y	Y	N	N	N	Y	Y	Y
High methadone levels at intake	Y	CBC	CBC	Y	N	N	N	TBD

Data as of 4/01.

Note: "N/A" stands for answer not available; "TBD" stands for to-be-determined; "CBC" stands for case-by-case discretion.

[1] Only with acute risk of suicidality.

[2] Defendants on methadone at intake may only become participants if they agree to enter a methadone-to-abstinence program.

Appendix Table D-3. Factors Influencing The Determination of First Treatment Modality

Rating on a Scale of 1-3 (1 = Not Important at All; 2 = Somewhat Important; 3 = Very Important)

	NYC	District 9			District 3			District 4		
	Manh-Misd.	Yonkers	Mt. Vernon	Rockland	Albany Region	Troy	Renn-selaer	Fulton	Mont-gomery	Kings-bury
Addiction severity	1	3	3	3	3	3	3	3	3	3
Staff professional judgment	1	3	3	3	3	3	3	3	3	3
Residential stability / homeless status	1	3	3	2	3	3	3	2	2	2
Level of family / household support	1	3	3	2	2	2	2	2	2	1
Primary drug of choice	1	3	3	1	2	2	2	2	3	3
Criminal justice considerations	3	2	3	2	2	2	2	2	2	3
Feedback from community contact[1]	1	3	3	2	2	2	2	1	1	1
Employment or educational status	1	2	3	2	2	2	2	2	2	1

	District 5	District 6		District 7	District 8				AVG
	Oswego	Tompkins	Otsego	Canan-daigua	Batavia	Lockport	Niagara Falls	James-town	Value
Addiction severity	3	3	3	3	3	3	3	CBC	2.88
Staff professional judgment	3	3	3	3	3	3	3	CBC	2.88
Residential stability / homeless status	3	3	3	2	3	3	3	CBC	2.59
Level of family / household support	3	3	2	2	3	3	2	CBC	2.24
Primary drug of choice	2	2	2	3	3	2	2	CBC	2.24
Criminal justice considerations	2	2	3	2	3	1	2	CBC	2.24
Feedback from community contact[1]	2	3	2	3	3	2	2	CBC	2.06
Employment or educational status	2	2	3	2	3	1	2	CBC	2.00

Data as of 4/01.
Note: "CBC" stands for case-by-case discretion.

[1] A community contact can be a family member, friend, employer, or other acquaintance.

Appendix Table D-4. Participation and Program Completion

	NYC	District 9			District 3		
	Manhat. Misd.	Yonkers	Mt. Vernon	Rockland	Albany Regional	Troy	Renn-selaer
A) Adjudication							
Post-plea adjudication?	Y	Y	Y	Y	Y	Y	Y
Pre-plea adjudication?	N	N	N	N	N	N	N
If pre-plea, ever upgrade to post-plea?							
B) Graduation Requirements							
Minimum months required	2D / 30D / 90D[1]	12	12	12 / 18 [2]	12 [3]	6 [4]	None[4]
Some/all time sober & clean	None/Some/Some[1]	All	Some	Some	Some	None	None
Some/all time sanctionless	None	None	Some	Some	None	None	None
Employed/in school at graduation	N	Y	Y	Y	Y	N	N
Employment training	N	Y	Y	Y	N	N	N
HS degree / GED	N	Y	N	Y	N	N	N
Community Service	N	N	N	N	Y	N	N
Aftercare	N	N	Y	N	N	N	Y
Other							
C) Legal Consequences of Graduation							
Pending criminal charges	Violation & CD	Dismissed	Dismissed; Prob. Viol.: early release from 3-yr probation sentence	Misd: ACD Fel: A Misd. & 1-yr CD	1-yr CD	ACD	5 yr probation
D) Legal Consequences of Failure							
Predetermined jail alternative?	Y	Y	Y	N	N	Y	Y
If yes, how long is jail alternative?							
Violation							
Misdemeanor			A Misd: 1 yr. B Misd: 90 days				
First felony							
Predicate felony							
Can predetermined sentence change during participation?	Y	N	Y	N/A	N/A	Y	Y
If yes, why?	Judge can review upon failure		New arrest				

Appendix Table D-4.
Participation and Program Completion

	District 4			District 5	District 6	
	Fulton	**Mont-gomery**	**Kings-bury**	**Oswego**	**Tompkins**	**Otsego**
A) Adjudication						
Post-plea adjudication?	Y	Y	Y	Y	Y	Y
Pre-plea adjudication?	Y	N	N	N	N	N
If pre-plea, ever upgrade to post-plea?	**TBD**					
B) Graduation Requirements						
Minimum months required	12 / 36 [5]	9 [6]	12	12	12	12
Some/all time sober & clean	Some	Some	None	Some	All	All
Some/all time sanctionless	Some	None	None	None	None	None
Employed/in school at graduation	Y	Y	Y	Y	Y	Y
Employment training	N	Y	Y	N	N	Y
HS degree / GED	N	Y	Y	Y	N	Y
Community Service	N	Y	N	N	Y[7]	Y
Aftercare	Y	Y	Y	N	Y	Y
Other						
C) Legal Consequences of Graduation						
Pending criminal charges	Misd: 1-yr CD; Fel: 3-yr CD	Early termination of probation	CD	Misd: Plea vacated Fel: Misd convict with 3 yr prob.	Probation	Charges reduced; probation
C) Legal Consequences of Failure						
Predetermined jail alternative?	Y	Y	Y	Y	N	Y
If yes, how long is jail alternative?						
Violation						1 year
Misdemeanor			1 year	1 year		1-3 years
First felony				1-3 years		2-6 years
Predicate felony				3-9 years		case-by-case
Can predetermined sentence change during participation?	Y	N	N	N	N/A	N
If yes, why?						

Appendix Table D-4.
Participation and Program Completion

	District 7	District 8			
	Canan-daigua	Batavia	Lockport	Niagara Falls	James-town
A) Adjudication					
Post-plea adjudication?	Y	Y	Y	Y	Y
Pre-plea adjudication?	N	Y	Y	Y	Y
If pre-plea, ever upgrade to post-plea?		**TBD**	Y	Y	Y
B) Graduation Requirements					
Minimum months required	12	12	12	12	12
Some/all time sober & clean	Some	All	All	Some	All
Some/all time sanctionless	None	None	None	None	Some
Employed/in school at graduation	Y	Y	Y	Y	Y
Employment training	N	N	N	Y	N
HS degree / GED	N	Y	Y	Y	Y
Community Service	N	N	N	N	N
Aftercare	N	Y	Y	Y	N
Other	Y[8]				Y[9]
C) Legal Consequences of Graduation					
Pending criminal charges	CD	Charges reduced	No jail time	Favorable discharge w/ no jail	Charges reduced; ACD
C) Legal Consequences of Failure					
Predetermined jail alternative?	Y	Y	N	Y	Y
If yes, how long is jail alternative?		1 year		Maximum	
Violation	1 year			allowed by law	
Misdemeanor	1 year				
First felony					
Predicate felony					
Can predetermined sentence change during participation?	N	Y	N/A	N	N
If yes, why?		Shortened with good compliance			

Data as of 4/01.

[1] Tier 1 (TRP) cases must complete 2 half days of Treatment Intervention. Tier 2 requires that the client must complete 12 sessions of treatment over a 45-day period and the last urine test must be negative. Tier 3 requires that the client must complete 30 sessions over a 90-day period, and the last two urine tests must be negative.

[2] 12 months are required for misdemeanors; 18 months required for felonies.

[3] Maximum time allowed in the drug court program is 18 months.

[4] Maximum time allowed in the drug court program is 12 months.

[5] 12 months are required for misdemeanor cases; 36 months are required for felony cases.

[6] Maximum time allowed in the drug court program is 60 months.

[7] Restorative Justice Project is an individualized project that encourages each graduate to give back to their community through service work.

[8] A stable living situation is also required for graduation.

[9] Compliance with current family court orders is also required for graduation.

Appendix Table E-1. Post-Intake Recidivism Rates

	Brook-lyn	Bronx	Manhat-tan	Queens	Suffolk	Syra-cuse	Roch-ester	Buffalo	Tona-wanda	Lacka-wanna	Ithaca
1. Recidivism within 1 Year Post-Intake	*N=1621*	*N=570*	*N=166*	*N=551*	*N=520*	*N=485*	*N=2144*	*N=1092*	*N=150*	*N=137*	*N=166*
Any new conviction	18%	24%	18%	11%	18%	23%	30%	25%	15%	15%	17%
2. Recidivism within 2 Years Post-Intake	*N=1320*	*N=364*	*N=118*	*N=382*	*N=405*	*N=301*	*N=1721*	*N=804*	*N=102*	*N=96*	*N=115*
Any new conviction	24%	32%	29%	19%	34%	42%	42%	37%	23%	26%	26%
Any felony conviction	10%	14%	12%	9%	13%	13%	10%	8%	8%	4%	4%
Any misdemeanor conviction	16%	21%	18%	12%	27%	37%	37%	32%	16%	23%	23%
Any conviction for drug offense	16%	25%	19%	13%	12%	11%	10%	8%	1%	4%	5%
Any conviction for violent offense	1%	1%	2%	1%	1%	3%	2%	2%	1%	1%	-
Average number of convictions	0.39	0.52	0.36	0.25	0.71	1.03	0.85	0.67	0.29	0.38	0.39
Of those with at least 1 new conviction:	*N=316*	*N=115*	*N=34*	*N=71*	*N=137*	*N=126*	*N=719*	*N=299*	*N=23*	*N=25*	*N=30*
Average number of convictions	1.62	1.63	1.26	1.35	2.10	2.45	2.04	1.81	1.30	1.44	1.50
3. Recidivism within 3 Years Post-Intake	*N=1018*	*N=129*	*N=41*	*N=166*	*N=324*	*N=211*	*N=1294*	*N=525*	*N=56*	*N=50*	*N=70*
Any new conviction	30%	32%	44%	31%	42%	54%	49%	44%	29%	36%	27%
Any felony conviction	12%	16%	17%	14%	19%	19%	14%	11%	11%	6%	6%
Any misdemeanor conviction	21%	22%	32%	19%	35%	48%	44%	38%	23%	30%	23%
Any conviction for drug offense	21%	26%	32%	22%	18%	14%	13%	12%	-	4%	10%
Any conviction for violent offense	1%	1%	-	2%	3%	4%	2%	3%	2%	4%	2%
Average number of convictions	0.64	0.57	0.68	0.49	1.07	1.65	1.21	0.97	0.38	0.50	0.47
Of those with at least 1 new conviction:	*N=303*	*N=41*	*N=18*	*N=51*	*N=135*	*N=113*	*N=636*	*N=230*	*N=16*	*N=18*	*N=19*
Average number of convictions	1.26	1.46	1.00	1.00	1.69	2.18	1.78	1.59	0.94	1.33	1.00
4. Recidivism within 4 Years Post-Intake	*N=651*			*N=8*	*N=191*	*N=112*	*N=746*	*N=284*	*N=1*	*N=8*	*N=19*
Any new conviction	35%			50%	50%	57%	54%	46%	-	25%	32%
Any felony conviction	15%			25%	26%	21%	16%	13%	-	-	11%
Any misdemeanor conviction	25%			25%	42%	51%	49%	41%	-	25%	21%
Any conviction for drug offense	25%			38%	21%	15%	16%	12%	-	13%	16%
Any conviction for violent offense	2%			13%	3%	6%	3%	2%	-	-	-
Average number of convictions	0.81			0.63	1.25	1.91	1.52	1.06	0.00	0.63	0.63
Of those with at least 1 new conviction:	*N=228*			*N=4*	*N=95*	*N=64*	*N=405*	*N=132*	*N=2*	*N=2*	*N=6*
Average number of convictions	0.96			0.75	1.26	1.94	1.56	1.39	2.50	2.50	1.00

Note: Shaded cells indicate no cases available for analysis.

Appendix Table E-2. Post-Program Recidivism Rates

	Brooklyn		Bronx		Manhattan		Queens		Suffolk	
	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures
1. Recidivism within 6 Months Post-Program	*N=590*	*N=445*	*N=144*	*N=68*	*N=57*	*N=31*	*N=262*	*N=78*	*N=257*	*N=147*
Any new conviction	3%	20%	4%	16%	7%	19%	3%	13%	9%	25%
Any felony conviction	1%	4%	2%	4%	4%	6%	1%	3%	4%	5%
Any misdemeanor conviction	2%	17%	3%	13%	4%	13%	2%	12%	6%	22%
Any conviction for drug offense	2%	13%	4%	12%	5%	10%	2%	9%	5%	10%
Any conviction for violent offense	-	-	-	-	-	-	-	-	-	1%
Average number of convictions	0.04	0.29	0.06	0.31	0.09	0.19	0.03	0.19	0.11	0.39
Of those with at least 1 new conviction:	*N=19*	*N=90*	*N=6*	*N=11*	*N=4*	*N=6*	*N=8*	*N=10*	*N=22*	*N=37*
Average number of convictions	1.26	1.46	1.33	1.91	1.25	1.00	1.13	1.50	1.32	1.57
2. Recidivism within 12 Months Post-Program	*N=480*	*N=377*	*N=95*	*N=46*	*N=32*	*N=25*	*N=190*	*N=53*	*N=229*	*N=132*
Any new conviction	8%	29%	4%	26%	13%	20%	7%	19%	17%	39%
Any felony conviction	2%	6%	2%	9%	6%	8%	3%	8%	6%	13%
Any misdemeanor conviction	6%	25%	2%	22%	6%	12%	5%	13%	13%	32%
Any conviction for drug offense	5%	20%	4%	20%	6%	20%	5%	11%	8%	19%
Any conviction for violent offense	-	1%	-	-	-	-	-	-	-	2%
Average number of convictions	0.12	0.58	0.06	0.67	0.16	0.36	0.09	0.26	0.25	0.87
Of those with at least 1 new conviction:	*N=36*	*N=111*	*N=4*	*N=12*	*N=4*	*N=5*	*N=14*	*N=10*	*N=38*	*N=52*
Average number of convictions	1.56	1.97	1.50	2.58	1.25	1.80	1.21	1.40	1.50	2.21
3. Recidivism within 18 Months Post-Program	*N=367*	*N=305*	*N=49*	*N=25*	*N=19*	*N=18*	*N=117*	*N=27*	*N=205*	*N=116*
Any new conviction	11%	38%	4%	36%	26%	22%	10%	26%	21%	47%
Any felony conviction	4%	8%	-	16%	11%	11%	6%	11%	10%	16%
Any misdemeanor conviction	8%	32%	4%	32%	16%	11%	5%	15%	17%	40%
Any conviction for drug offense	7%	27%	4%	28%	16%	17%	8%	22%	10%	22%
Any conviction for violent offense	1%	1%	-	-	-	6%	-	-	1%	3%
Average number of convictions	0.21	0.90	0.06	1.24	0.32	0.33	0.11	0.52	0.41	1.18
Of those with at least 1 new conviction:	*N=41*	*N=115*	*N=2*	*N=9*	*N=5*	*N=4*	*N=12*	*N=7*	*N=44*	*N=55*
Average number of convictions	1.85	2.39	1.50	3.44	1.20	1.50	1.08	2.00	1.93	2.49
4. Recidivism within 24 Months Post-Program	*N=293*	*N=237*	*N=21*	*N=16*	*N=4*	*N=6*	*N=51*	*N=8*	*N=158*	*N=96*
Any new conviction	12%	44%	5%	31%	-	17%	8%	38%	24%	56%
Any felony conviction	3%	11%	-	19%	-	17%	6%	13%	13%	21%
Any misdemeanor conviction	10%	36%	5%	25%	-	-	2%	25%	18%	47%
Any conviction for drug offense	7%	33%	5%	25%	-	-	8%	25%	10%	27%
Any conviction for violent offense	1%	1%	-	-	-	17%	-	-	1%	3%
Average number of convictions	0.22	1.25	0.05	1.31	0.00	0.17	0.12	0.50	0.46	1.49
Of those with at least 1 new conviction:	*N=34*	*N=105*	*N=1*	*N=5*	*N=0*	*N=1*	*N=4*	*N=3*	*N=38*	*N=54*
Average number of convictions	1.91	2.82	1.00	4.20	-	1.00	1.50	1.33	1.89	2.65

Appendix E-2. *Continued*

	Syracuse		Rochester		Buffalo		Tonawanda		Lackawanna		Ithaca	
	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures	Grad-uates	Failures	Grad-uates[1]	Failures
1. Recidivism within 6 Months Post-Program	*N=150*	*N=201*	*N=431*	*N=1361*	*N=250*	*N=274*	*N=102*	*N=16*	*N=49*	*N=45*	*N=61*	*N=59*
Any new conviction	7%	19%	4%	14%	5%	18%	4%	13%	2%	22%	7%	15%
Any felony conviction	1%	2%	1%	4%	1%	3%	2%	13%	-	4%	-	3%
Any misdemeanor conviction	5%	17%	4%	11%	4%	16%	2%	6%	2%	18%	7%	12%
Any conviction for drug offense	1%	2%	-	3%	2%	3%	1%	-	-	2%	2%	2%
Any conviction for violent offense	-	1%	-	1%	-	1%	4%	6%		2%	-	2%
Average number of convictions	0.08	0.27	0.05	0.21	0.06	0.24	0.04	0.19	0.02	0.22	0.08	0.19
Of those with at least 1 new conviction:	*N=10*	*N=39*	*N=19*	*N=197*	*N=12*	*N=48*	*N=4*	*N=2*	*N=1*	*N=10*	*N=4*	*N=9*
Average number of convictions	1.20	1.41	1.05	1.45	1.17	1.40	1.00	1.50	1.00	1.00	1.25	1.22
2. Recidivism within 12 Months Post-Program	*N=118*	*N=163*	*N=349*	*N=1170*	*N=230*	*N=233*	*N=90*	*N=13*	*N=44*	*N=39*	*N=38*	*N=47*
Any new conviction	14%	39%	9%	25%	8%	33%	6%	8%	5%	31%	11%	23%
Any felony conviction	3%	7%	2%	6%	2%	6%	3%	8%	-	10%	3%	6%
Any misdemeanor conviction	14%	34%	8%	20%	7%	30%	2%	-	5%	23%	8%	19%
Any conviction for drug offense	3%	9%	1%	6%	3%	5%	1%	-	2%	-	3%	2%
Any conviction for violent offense	1%	2%	0%	1%	1%	2%	-	-	-	3%	-	2%
Average number of convictions	0.25	0.66	0.11	0.41	0.11	0.53	0.07	0.08	0.07	0.38	0.13	0.40
Of those with at least 1 new conviction:	*N=16*	*N=63*	*N=33*	*N=289*	*N=19*	*N=77*	*N=5*	*N=1*	*N=2*	*N=12*	*N=4*	*N=11*
Average number of convictions	1.81	1.70	1.12	1.66	1.32	1.60	1.20	1.00	1.50	1.25	1.25	1.73
3. Recidivism within 18 Months Post-Program	*N=93*	*N=131*	*N=312*	*N=1015*	*N=196*	*N=203*	*N=54*	*N=10*	*N=32*	*N=33*	*N=29*	*N=30*
Any new conviction	18%	51%	13%	31%	13%	41%	11%	20%	9%	36%	14%	23%
Any felony conviction	6%	10%	3%	9%	4%	9%	6%	10%	3%	9%	3%	3%
Any misdemeanor conviction	16%	45%	11%	26%	10%	36%	6%	10%	6%	33%	10%	23%
Any conviction for drug offense	4%	13%	1%	8%	5%	8%	2%	-	6%	-	3%	3%
Any conviction for violent offense	2%	3%	-	1%	1%	2%	-	-	3%	3%	-	-
Average number of convictions	0.33	1.08	0.18	0.59	0.18	0.74	0.13	0.20	0.09	0.55	0.14	0.40
Of those with at least 1 new conviction:	*N=17*	*N=67*	*N=40*	*N=315*	*N=26*	*N=84*	*N=6*	*N=2*	*N=3*	*N=12*	*N=4*	*N=7*
Average number of convictions	1.82	2.10	1.43	1.89	1.38	1.80	1.17	1.00	1.00	1.50	1.00	1.71
4. Recidivism within 24 Months Post-Program	*N=66*	*N=109*	*N=281*	*N=846*	*N=163*	*N=179*	*N=35*	*N=8*	*N=20*	*N=26*	*N=11*	*N=23*
Any new conviction	23%	54%	14%	34%	17%	46%	14%	50%	20%	46%	27%	17%
Any felony conviction	9%	16%	3%	11%	4%	12%	9%	25%	5%	12%	9%	4%
Any misdemeanor conviction	21%	49%	12%	28%	13%	41%	6%	25%	15%	42%	18%	17%
Any conviction for drug offense	6%	17%	2%	10%	6%	11%	-	-	10%	-	-	4%
Any conviction for violent offense	3%	4%	-	1%	1%	3%	-	-	5%	4%	-	-
Average number of convictions	0.45	1.37	0.22	0.72	0.26	1.01	0.17	0.50	0.20	0.73	0.27	0.48
Of those with at least 1 new conviction:	*N=16*	*N=59*	*N=40*	*N=291*	*N=27*	*N=83*	*N=5*	*N=4*	*N=4*	*N=12*	*N=3*	*N=4*
Average number of convictions	1.88	2.53	1.55	2.09	1.59	2.18	1.20	1.00	1.00	1.58	1.00	2.75

[1] Unlike in other courts, participants of the Ithaca program listed as incomplete due to a transfer to another jurisdiction are grouped with graduates, since Ithaca staff explained that a request for transfer is typically approved when there is positive progress occuring within the Ithaca program.

Appendix F – Two-Year Post-Intake Drug and Felony Recidivism

The post-intake analysis in Chapter Nine is explored with a greater degree of specification here. These analyses look specifically at post-intake drug recidivism and felony recidivism.

Table F-1. Two-Year Post-Intake Drug Recidivism

Drug Court	Recidivated (Drug Charge)	No New Drug Convictions	Total
Brooklyn	208 (16%)	1097 (84%)	1305
Bronx	91 (25%)	273 (75%)	364
Queens	49 (13%)	333 (87%)	382
Suffolk	50 (12%)	356 (88%)	406
Syracuse	32 (11%)	269 (89%)	301
Total	430	2328	2758

Table F-2. Two-Year Post-Intake Felony Recidivism

Drug Court	Recidivated (Felony Charge)	No New Felony Convictions	Total
Brooklyn	126 (10%)	1179 (90%)	1305
Bronx	50 (14%)	314 (86%)	364
Queens	33 (9%)	349 (91%)	382
Suffolk	53 (13%)	353 (87%)	406
Syracuse	38 (13%)	263 (87%)	301
Total	300	2458	2758

The points of divergence between the analysis in Chapter Nine and the results of additional logistic regression analyses are noted here.

The results of the drug recidivism analysis and the general recidivism analysis are largely similar. However, by limiting the dependent variable to only those who were reconvicted on drug offenses (0 = no new drug convictions, 1 = reconvicted on a drug charge), the significance of several variables changes. Changes of note include:

- The significance of race changes. In Queens, Hispanic/Latino participants are no longer significantly more likely to recidivate. While Caucasians in Suffolk are not less likely to be convicted of a new drug charge, blacks in Suffolk are more likely to recidivate on a drug charge. In Syracuse, there is no longer a significant relationship between any racial/ethnic group and recidivism.

- In Brooklyn, a high school degree or equivalency is a significant predictor of drug recidivism. Surprisingly, it is those with a high school education who are more likely to be convicted of a new drug offense.
- Although primary drug of choice is no longer significant in Syracuse, the direction of the relationship between recidivism and primary drug changes. Crack users are slightly less likely to recidivate on a drug charge, while cocaine users are slightly more likely than users of other types of drugs to recidivate.
- In Syracuse, those who entered drug court on a drug charge are significantly more likely to recidivate on a drug charge. This represents a change in direction from the earlier analysis.
- Treatment mandate is not a significant predictor of reconviction for a drug charge.

As with the drug conviction analysis, the analysis using new felony convictions as the dependent variable (0 = no new felony convictions, 1 = reconvicted on a felony charge) generates similar results to those found in the earlier analysis of all recidivism incidents. Notable differences include:

- In Brooklyn, males are significantly more likely than females to be convicted of a new felony.
- Heroin use does not have a significant impact on felony recidivism in the Bronx.
- Prior convictions are only a significant predictor of felony recidivism in Suffolk. In the remaining four courts, there is no significant relationship between prior convictions and felony recidivism.
- In Syracuse, those participants who entered the drug court on a felony charge are significantly more likely to recidivate on a new felony charge.
- In Brooklyn, while treatment mandate is still a significant predictor of recidivism, the relationship between treatment mandate and felony recidivism runs in the opposite direction of that between all recidivism incidents and treatment mandate. That is, those with a higher treatment mandate are more likely to be reconvicted on a new felony charge. This echoes the findings in Suffolk, where those participants who face more than a one-year jail alternative upon their failure are more likely to recidivate on a new felony charge.

Appendix G – Changes in Drug Court Policies

Program evaluation is necessarily retrospective. In order to appropriately express the participant data in the correct context, we have attempted to present the drug court policies that were in effect when those participants included in data analyses were involved in the drug court, as opposed to the most current policies. This Appendix is not exhaustive but highlights select policy changes that are in place at the time of publication (September 2003).

Bronx

- Defendants arrested on first-felony *non-drug* charges become paper eligible – June 2002.

Brooklyn

- Drug court eligibility expands to include all five arrest zones in Brooklyn – September 2000.
- Defendants under the age of 19 are no longer considered paper eligible unless specifically requested by the defense attorney or the defendant – September 2000.

Manhattan

- Office of Special Narcotics change their plea bargain policy for drug court – six months of intensive supervised probation plus five years probation or drug court; additionally, if the defendant tests positive for any type of drug violation, either at the time of the plea or at any time during the six months of intensive supervised probation, they have the option to go to drug court or prison – December 2001.

Queens

- Defendants arrested on first-felony *non-drug* charges become paper eligible – 2002.

Suffolk

- All defendants arrested on *misdemeanor* drug charges are routed to the narcotics/drug court part *after* arraignment in the same part as the *felony* drug cases – September 2001.

Syracuse

- Begins a drug offense calendar for misdemeanor narcotic arraignments; cases not referred to drug court remain with the drug court judge but on a separate calendar – January 2001.
- Case managers are employed by the drug court; Center for Community Alternatives (CCA) case managers are no longer used – September 2001.

Rochester

- Felony participants must give a guilty plea before entering drug court – November 2000.
- The drug court Coordinator conducts the mini-screen instead of the treatment providers – January 2002.
- All participants entering the drug court must sign a contract – 2002.

Buffalo

- Felony arrests are formally considered eligible for drug court – January 2002.

LIST OF TABLES AND FIGURES