

Prince George's County Circuit Court Adult Drug Court *Outcome and Cost Evaluation*



Submitted to:

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October 2008



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Submitted By

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October 2008



Informing policy, improving programs

ACKNOWLEDGEMENTS

This report was made possible through the good work, cooperation and support of many people and organizations. NPC Research would like to offer our deepest appreciation to:

- Frank Broccolina, State of Maryland Court Administrator
- Gray Barton, Executive Director, and Jennifer Moore, Deputy Director, Maryland Office of Problem-Solving Courts
- Hon. Jamey H. Hueston, Chair of the Judicial Conference Committee on Problem-Solving Courts
- Hon. Kathleen G. Cox, Chair of the Drug Court Oversight Committee
- Stephanie D'Amato, Prince George's County Circuit Court Adult Drug Court Coordinator
- Robert Gibson, Director, Planning and Statistics; Tom Stough, Chief of Statistics; Neil Schaffer Mafis Replacement Supervisor and Ravi Bhayankar, DP Program Manager, Department of Public Safety and Correctional Services
- Denise Thomas, Records Administrator, and Staff, Prince George's County Detention Center
- Chad Basham, Database Administrator, and Bill Rusinko, Research Director, Maryland Alcohol and Drug Abuse Administration
- Finally, we would like to thank the staff members at NPC Research for their quality work on this study: Callie Lambarth, Bret Fuller, Jeremiah Raining Bird, Theresa Allen, Rich Mackin, and Judy Weller. Thanks to Charley Korn for his administrative support. In addition, we would like to thank our colleagues at Beacon Associates: Charlotte Pena, Brittanie Thom, Dan Layman-Kennedy, and Rebecca Wilson.

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EXECUTIVE SUMMARY

Background

Drug courts are designed to guide offenders identified as drug-addicted into treatment that will reduce drug dependence and improve the quality of life for them and their families. Benefits to society often take the form of reductions in crime committed by drug court participants, resulting in reduced costs to taxpayers and increased public safety.

In the typical drug court program, participants are closely supervised by a judge who is supported by a team of state and local agency representatives who operate outside of their traditional roles. The team typically includes a drug court coordinator, addiction treatment providers, prosecuting attorneys, defense attorneys, law enforcement officers, and parole and probation officers who work together to provide needed services to drug court participants. Prosecuting attorneys and defense attorneys hold their usual adversarial positions in abeyance to support the treatment and supervision needs of program participants. Drug court programs can be viewed as blending resources, expertise, and interests of a variety of jurisdictions and agencies.

NPC Research, under contract with the Maryland Judiciary, Administrative Office of the Courts, conducted a cost and outcome study of the Prince George's County Circuit Court Adult Drug Court (PGCADC) program. The report includes the cost of the program and the outcomes of participants as compared to a sample of similar individuals who received traditional court processing.

There are three key policy questions that are of interest to program practitioners, researchers and policymakers that this evaluation was designed to answer.

1. Do drug treatment court programs reduce recidivism?
2. Do drug treatment court programs reduce substance abuse?
3. Do drug treatment court programs produce cost savings?

Research Design and Methods

Information was acquired for this evaluation from several sources, including administrative databases, agency budgets, and other financial documents. Data were also gathered from PGCADC and other agency files and databases.

NPC Research identified a sample of participants who entered PGCADC between August 2002 and August 2005. A comparison group was identified from individuals who were arrested on a drug court-eligible charge during the study period. These individuals did not attend drug court and instead received traditional court processing. Both the participant and comparison groups were examined through existing administrative databases for a period up to 36 months from the date of drug court entry (or equivalent for the comparison group). The two groups were matched on age, sex, race, marital status, education, prior drug use history, criminal history (including arrests and drug arrests for the 2 years prior to the study period), and drug of choice. The methods used to gather this information from each source are described in detail in the main report.

Results

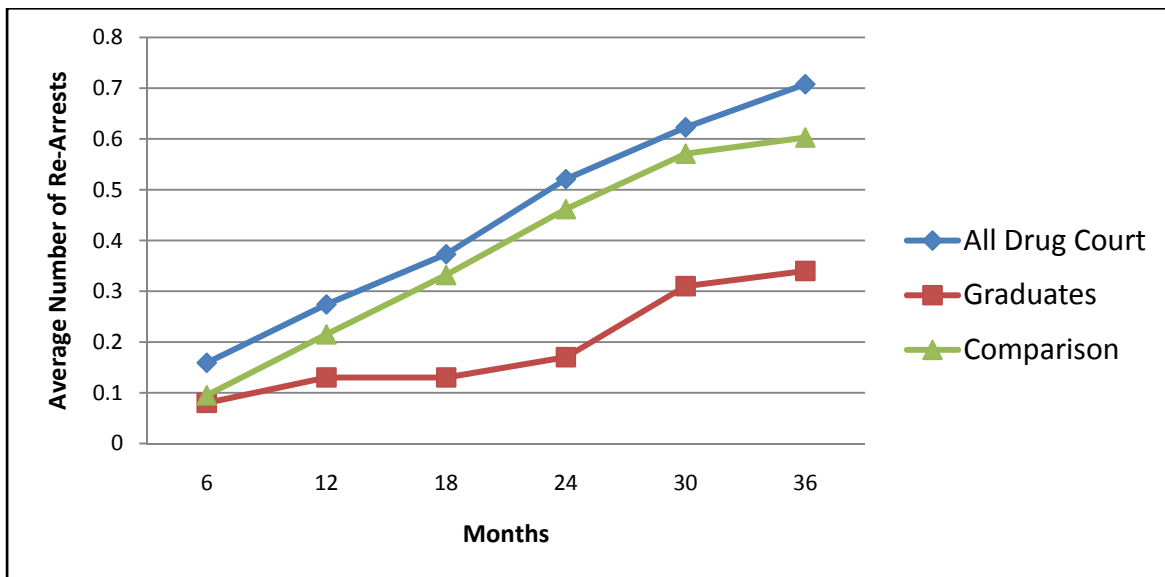
In order to best highlight the results of this evaluation, the three key policy questions listed above have been applied to PGCADC.

1. Did the Prince George's County Circuit Court Adult Drug Court reduce recidivism?

Yes and No. Successful PGCADC program participants (i.e., program graduates) were significantly less likely to be re-arrested than offenders who were eligible for the program but did not participate; however, when both program graduates and those participants who do not graduate are included, drug court participants were significantly more likely to be re-arrested than the comparison group. Although they had more arrests, participants in the PGCADC program had less serious charges than the comparison group members.

Figure A¹ shows the average number of re-arrests for 36² months after entering the drug court program for PGCADC graduates, all PGCADC participants, and the comparison group.

Figure A. Average Number of Cumulative Re-Arrests for All Drug Court, Graduates, and the Comparison Group Over 36 Months



The researchers found that, among members of the study and comparison groups for whom 24 months of data were available, 13% of program graduates and 30% of all drug court participants were re-arrested as compared to 30% of comparison group members who were re-arrested. For members of the two samples with 36 months of complete data, the researchers found that 19% of program graduates and 35% of all drug court participants were re-arrested as compared to 34% of comparison group members. These findings suggest that, for program graduates, involvement in the drug court program is associated with fewer future re-arrests.

In addition, PGCADC participants (graduates and non-graduates) experienced what appear to be less serious crimes than the comparison group members at follow-up. They had fewer subsequent Circuit Court cases (though more District Court cases), fewer days on probation, and fewer jail and prison days than individuals in the comparison group. Therefore, while their recidivism rate

¹ This figure (along with associated discussion of the results) also appears in the body of the report as Figure 2.

² Data for 36 months are presented when available. Data for 24 months following drug court entry (or the equivalent for comparison group members) are available for all participants.

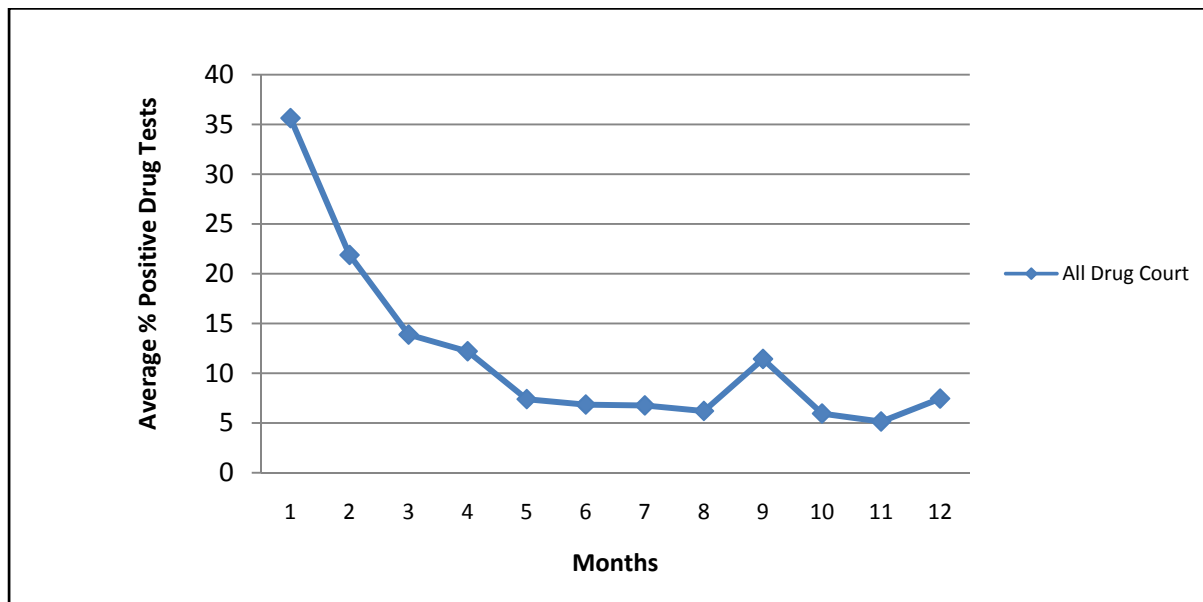
was higher, they still cost the state and local criminal justice systems less than the comparison group.

2. Did the Prince George’s County Circuit Court Adult Drug Court reduce participant drug use?

It is unclear. PGCADC participants consistently showed less drug use following entrance into the drug court program. However, this finding may be a product of early program practice wherein drug testing was not conducted randomly, making it possible for participants to determine when to use and still produce clean UAs. As a result, the apparent reduction in positive tests could be an artifact of participants learning the system. In addition, the drug court group had a greater number of drug-related arrests during the follow-up period than the comparison group, which might indicate that the drug court group had not actually reduced its substance use as much as the UA results illustrate.

Figure B³ represents the average number of positive drug tests by month, during program participation, for drug court participants. The participant group includes graduates and those who were discharged from the program. As illustrated, the percentage of positive drug tests per person for drug court participants declined through program involvement, indicating that involvement in drug court is associated with a reduction in substance use.

Figure B. Percent of Positive Drug Tests Over 12 Months for PGCADC Participants



3. Are there cost savings (avoided costs) that can be attributed to the PGCADC program?

Yes. Recidivism-related costs associated with individuals who participated in the program were less than those of a similar group of offenders who experienced traditional court processing. Over a 3-year period, the PGCADC recidivism-related costs were \$13,517 per participant compared to \$24,883 per member of the comparison group—a **cost savings of \$11,366 per**

³ This figure (along with associated discussion of the results) also appears in the body of the report as Figure 3.

PGCADC participant. If this savings is multiplied by the 248 offenders who have participated in PGCADC since it began operation, the **total cost savings** is **\$2,818,768**.

Summary of Recommendations

This outcome-cost study found that PGCADC is responsible for cost savings associated with recidivism. These financial benefits could be even greater if the program addresses several areas identified in the process study conducted in 2007:

- Consider a shift in the program model to a focus on therapeutic responses rather than sanctions
 - Reduce use of jail as a sanction; use it only when other sanctions have not been effective.
 - Respond to positive UAs with increased treatment and other services rather than with sanctions.
 - Consider consulting with other drug court programs that have successfully implemented a therapeutic model.
 - Consider training staff on strength-based approaches to assessment and service delivery.
- Continue the positive work that has begun on ensuring consistent, thorough assessment, and use of this information to develop comprehensive service plans that are individualized to participant needs.
 - In particular, work to increase service intensity for participants with extensive drug use and criminal histories.
- Continue to work on increasing and improving coordination and communication between treatment providers and the court.
- Look at community-based options to meet the need for residential treatment, rather than jail-based treatment.
- Work to make the drug testing procedures random (or more frequent), and observed.

BACKGROUND

The Drug Court Model

In the last 19 years, one of the most dramatic developments in the movement to reduce substance abuse among the United States criminal justice population has been the spread of drug courts across the country. The first drug court was implemented in Florida in 1989. As of December 2007, there were at least 2,147 drug courts, with drug courts operating or planned in all 50 states (including Native American Tribal Courts), the Circuit of Columbia, Northern Mariana Islands, Puerto Rico, and Guam (Huddleston, Marlowe, & Casebolt, 2008).

Drug courts are designed to guide offenders identified as drug-addicted into treatment that will reduce drug dependence and improve the quality of life for them and their families. Benefits to society often take the form of reductions in crime committed by drug court participants, resulting in reduced costs to taxpayers and increased public safety.

In the typical drug court program, participants are closely supervised by a judge who is supported by a team of state and local agency representatives who operate outside of their traditional roles. The team typically includes a drug court coordinator, addiction treatment providers, prosecuting attorneys, defense attorneys, law enforcement officers, and parole and probation officers who work together to provide needed services to drug court participants. Prosecuting attorneys and defense attorneys hold their usual adversarial positions in abeyance to support the treatment and supervision needs of program participants. Drug court programs can be viewed as blending resources, expertise, and interests of a variety of state and local jurisdictions and agencies.

Drug courts have been shown to be effective in reducing recidivism (GAO, 2005) and in reducing taxpayer costs due to positive outcomes for drug court participants (Carey & Finigan, 2004; Carey, Finigan, Waller, Lucas, & Crumpton, 2005). Some drug courts have even been shown to cost less to operate than processing offenders through traditional “business-as-usual” court processes (Carey & Finigan, 2004; Crumpton, Brekhus, Weller, & Finigan, 2004; Carey, Finigan, et al., 2005).

In 2001, NPC Research, under contract with the Administrative Office of the Courts of the State of Maryland, began cost studies of adult and juvenile drug courts across the state. The results presented in this report include the costs associated with Prince George’s County Circuit Court Adult Drug Court program, and the outcomes of participants as compared to a sample of similar individuals who received traditional court processing.

Process Description: Prince George’s County Circuit Court Adult Drug Court

PRINCE GEORGE’S COUNTY

Prince George’s County is located in the mid-section of Maryland and borders Washington, DC. Of predominantly African American counties in the United States, it is the wealthiest (Prince George’s County, MD, 2008) and its population numbers just over 840,000 (U. S. Census Bureau, 2006). The county struggles with the highest crime rate in Maryland, and the third highest violent crime rate in the state, exceeded only by Wicomico County and Baltimore City (Maryland Uniform Crime Reporting data, 2006). This is purportedly fueled by the gentrification of Washington DC, displacing low-income residents into outlying counties (e.g., Chappell, 2006;

Clines, 2001). In 2002, 9% of all adult arrests in Prince George's County were drug-related. That number rose to 15% in 2005.

BACKGROUND AND TEAM

Prince George's County Circuit Court Adult Drug Court (PGCADC) began operation in August 2002. Team members include a Judge, Drug Court Coordinator, Assistant State's Attorney, Assistant Public Defender, case managers (Prince George's County Health Department), treatment providers (private agencies contracted for services through the Prince George's County Health Department, Division of Addictions and Mental Health), and community supervision (Circuit Court) representatives. The main goals of the PGCADC program include reducing recidivism and drug use, engaging participants in productive activities, and helping them to become self-supporting. In order to meet these goals, the program has divided participants between six Prince George's County Health Department case managers. The program's capacity is 150 and case managers are expected to have a maximum caseload of 25 participants each. Drug court hearings are held weekly with a staff meeting held 1 hour prior to court. The purpose of these meetings is to discuss participant status and whether sanctions are warranted.

ELIGIBILITY & DRUG COURT ENTRY

Participants in the PGCADC program must be diagnosed with a substance abuse disorder, but not have alcohol abuse as the primary disorder. Program guidelines indicate that the target population is non-violent offenders (participants are not supposed to have any prior weapons charges or a history of violence). However, data from this study indicates that approximately one third of participants during the study period (2002-2005) had drug distribution and/or violent offenses. Most drug court participants have previous criminal justice system involvement and all have felony charges.⁴ Courts often plan for a certain population but then find another population needs services. It is common for programs to make adjustments over time in their target population. It may be useful for this program to assess whether they are serving their intended population and the group of offenders that could most benefit from the program, and make any revisions that are necessary to program documents to reflect this adjustment.

An individual's defense counsel decides whether his/her client should be referred to drug court. If the client is eligible for standard probation and the defense counsel believes drug court is too difficult or restrictive, s/he will not make the referral. Information from the process study indicated that some defense attorneys view the program as punitive and consequently do not always recommend it to prospective participants. Once a referral is made, a referral form is sent to the coordinator for review and on to the State's Attorney's Office (SAO) in order to determine legal eligibility. Next, the case manager completes an orientation and drug screening assessment (the Addiction Severity Index) with the prospective participant. The prospective participant then goes to court for sentencing, during which s/he pleads guilty, and all information that has been collected regarding his/her eligibility for drug court is presented to the Judge. If the Judge decides that drug court is appropriate, the offender is sentenced to participate in the program. Following acceptance into the program, the treatment provider assigned by the drug court coordinator conducts a more in-depth substance abuse assessment.

⁴ Circuit Court generally handles felony cases, while District Court handles misdemeanors.

DRUG COURT PROGRAM PHASES

The PGCADC program has four phases which can be completed by participants in a period as short as 1 year. In each phase, participants are required to meet with their case managers. The number of meetings is determined on an individual basis by the case manager.

Phase Requirements

Phase 1 lasts a minimum of 30 days from the date the individual is sentenced to participate in the program. Participants must have at least eight consecutive negative urine tests in order to advance to Phase 2. They are required to participate in outpatient treatment for up to 8 hours weekly. They must also complete a journal assignment entitled “Responsible Thinking.” Finally, they must attend regular court hearings and, depending on the assessment made by case managers and the participant’s assigned treatment provider, may be required to attend self-help meetings.

Phase 2 lasts a minimum of 60 days. Program participants must maintain clean drug screens during this time. In this phase, participants participate in outpatient treatment twice weekly or more, depending on the treatment provider’s assessment. They must also complete a journal assignment entitled “Change Plan.” In addition, participants are required to attend court hearings (frequency is individualized and determined by the program team) and self-help meetings as determined by the case manager.

Phase 3 lasts at least 90 days and participants must remain clean for the duration. They participate in outpatient treatment as determined by the treatment provider. They are required to be employed or in a job training program. This phase requires that they complete a journal assignment entitled, “Managing My Life.” Participants are required to attend self-help meetings as determined by the case manager and drug court hearings as directed by the drug court team.

Phase 4 lasts a minimum of 6 months and participants must be clean for 6 months in order to graduate. They must also maintain employment for at least 3 months, be employed at the time of graduation, and complete journal assignments entitled, “Personal Growth” and “Relapse Prevention.” Participants must continue to attend self-help meetings as determined by their case managers and drug court hearings as directed by the drug court team.

If a participant’s drug screen is dirty at any point in Phases 2 through 4, s/he must restart her/his clean day count for that phase.

Along with meeting all phase requirements, PGCADC participants are required by the program team to obtain their GED if applicable, and maintain a stable housing and living situation, based on the judgment of the program team that the living environment supports the participant’s sobriety (e.g., a permanent, safe, drug-free home).

INCENTIVES AND SANCTIONS

PGCADC participants are rewarded for meeting program requirements, such as attending treatment meetings as scheduled, being tested for drug use as scheduled and testing negative, attending meetings with case managers, being compliant with community supervision, and attending court appearances.

Positive feedback is offered to participants from the Judge during drug court hearings on a consistent basis. In addition to praise from the Judge, each participant receives a certificate as he/she completes each phase. The certificate is presented in a drug court session. Participants are also given a trophy upon graduation from the program.

Sanctions are given to drug court participants for non-compliant program performance. Non-compliant behaviors include positive drug tests, missed treatment sessions, missed appointments with case managers, disrespectful behavior toward treatment providers and agency representatives involved with the program, new crimes/arrests, or expressions of negative attitude regarding the program.

Sanctions may include verbal reprimand, writing assignments, community service, jail time, home electronic monitoring, and increased attendance at court hearings or case management sessions.

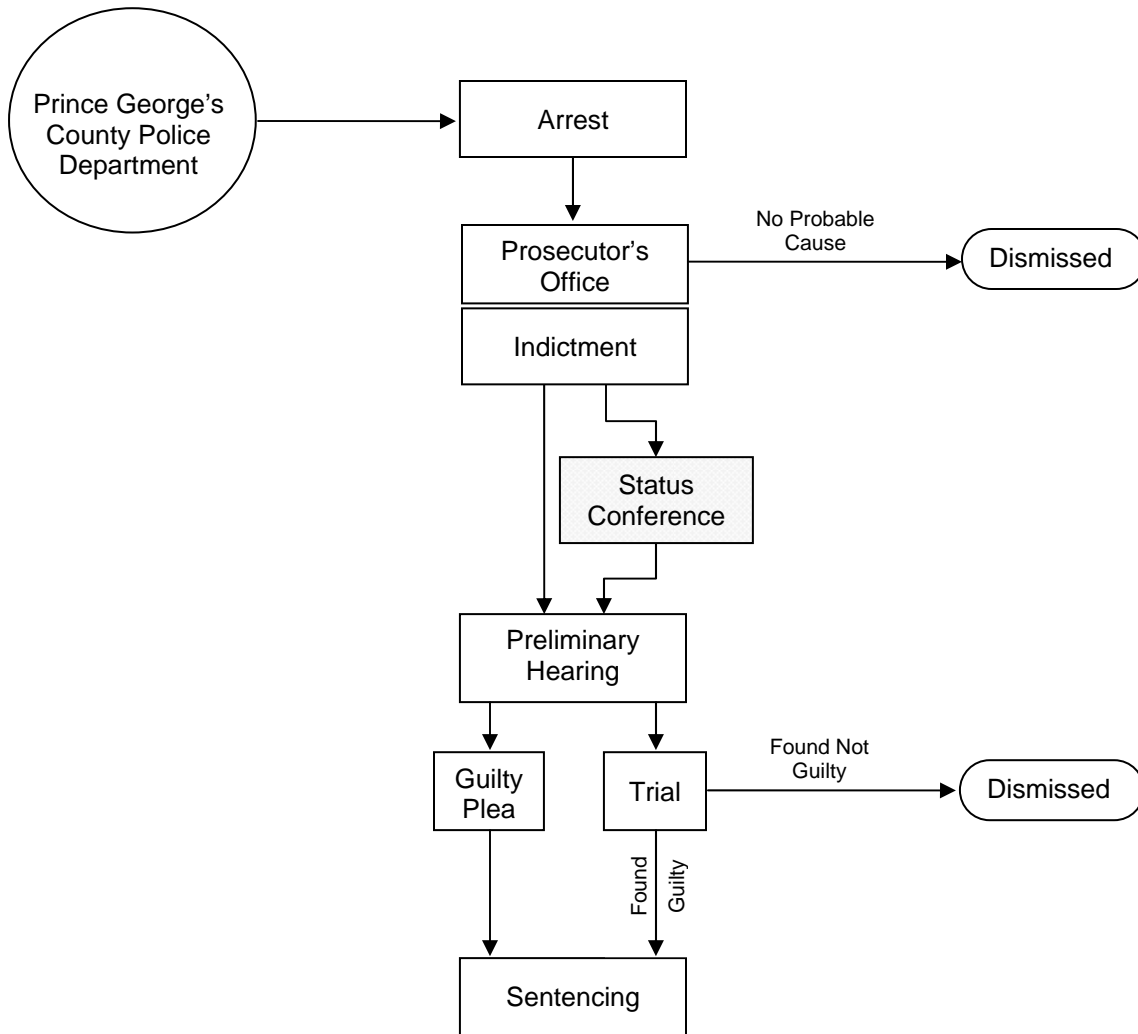
GRADUATION AND UNSUCCESSFUL COMPLETIONS

In order to graduate from drug court, participants complete a graduation questionnaire with the assistance of their case managers. They must also be interviewed by the drug court team. Prospective graduates are required to schedule this interview at least 30 days prior to graduation. Non-compliance with program requirements is the most common reason for participants to be unsuccessful in drug court. Participants can also be discharged for new charges that involve violence or a lack of program progress. If a participant is unsuccessful in the program, the Judge will “reconsider” the sentence, and may impose an alternative sentence such as jail time or probation (in accordance with State sentencing guidelines).

Traditional Court Processing

In contrast to the preceding description of PGCADC, Figure 1 illustrates the process for individuals who follow “business-as-usual” or traditional court processing. Those who do not accept entry into the drug court program are placed on a “trial track.” If the State’s Attorney determines that there is adequate evidence to bring a case against a suspected offender to trial, an indictment is filed and a preliminary hearing date is set. At the preliminary hearing, a trial date may be set or the defendant may plead out. Sometimes a status conference is held prior to the case being set to go to trial. During the status conference, among other issues, prosecutors, defense counsel and judges discuss case details, the amount of time it will take to try the case, and how many witnesses will be called. During this meeting, the trial date will be set. Usually, the trial takes place within 3 months of arrest. Depending on the charge, suspected offenders may be sentenced to jail time or probation. In terms of treatment opportunities for this group, the Prince George’s County Correctional Center has a treatment program that is available to serve offenders during their incarceration and can continue after release.

Figure 1. Flowchart for Prince George's County Circuit Court



METHODOLOGY

NPC Research begins a program evaluation by gaining an understanding of the community context of the program. This assessment includes the organizational structure of the drug court itself and organization of the agencies that interact through drug court, and the organization of the jurisdictions that support these agencies. For the Prince George's County Circuit Court Adult Drug Court (PGCADC), this information was collected through a process evaluation that included site visits, phone calls and interviews with individuals employed by the agencies involved, and documents acquired from the agencies. The process evaluation was completed in June 2007 (NPC Research, 2007b). Using the 10 Key Components of Drug Courts as an analytic framework, the process description was designed to help the evaluation team gain a thorough understanding of how PGCADC functions internally and within the broader systems of treatment and criminal justice. This information was integral to NPC's ability to interpret the outcome and cost results for the drug court program.

Outcome/Impact Evaluation Methodology

RESEARCH STRATEGY

NPC Research identified a sample of participants who entered the PGCADC between August 2002 and August 2005. This time frame allowed for at least 24 months of recidivism data following program entry for all program participants (100%, $n = 151$) and up to 36 months for 79% ($n = 120$). Of this group, 135 (89%) had completed the program at the time of the study (72 or 53% with 24 months post program entry and 29 or 22% with 36 months post program entry).

A comparison group was identified from a list of individuals on probation who had been arrested on drug court-eligible charges and met eligibility requirements for the program in Prince George's County, including residency in Prince George's County. These individuals did not attend the drug court program and instead received traditional court processing. No information was available to indicate whether these individuals had ever been offered drug court as an option.

The comparison group was matched to the drug court group on age, sex, race, drug of choice, an indication of drug abuse history from the probation staff, and criminal history—including number of **total prior** arrests and number of prior **drug** arrests for 24 months prior to the study period. The study period for all groups was a period of 24 months from the date of drug court entry (or, in the case of the comparison group, an equivalent date calculated to be comparable to the drug court participant entry date based on their court case filing date). Those individuals with available data were examined for 36 months. The evaluation team utilized existing administrative data sources on criminal activity and treatment utilization, described below, to determine whether there was a difference in re-arrests, substance use, and other outcomes of interest between the drug court and comparison group, and within the drug court group.

OUTCOME STUDY QUESTIONS

The outcome evaluation was designed to address the following study questions:

1. Does participation in drug court reduce the number of re-arrests for those individuals compared to traditional court processing?
2. Does participation in drug court reduce substance abuse?
3. How successful is the program in bringing program participants to completion and graduation within the expected time frame?
4. What participant characteristics predict successful outcomes (program completion, decreased recidivism)?
5. What combination and types of services predict successful outcomes (program completion, decreased recidivism)?

DATA COLLECTION AND SOURCES

Administrative Data

The majority of the data necessary for the outcome evaluation were gathered from the administrative databases described below and in Table 1. NPC staff members have experience extracting data from these databases and have adapted procedures developed in previous projects for data collection, management, and analysis. Once all data were gathered on the study participants, the data were compiled, cleaned, and moved into SPSS 15.0 for statistical analysis. The analyses used to answer specific questions are provided with the results described below. These quantitative data supported analyses to answer the study questions. Data were collected from the following sources:

Prince George's County Drug Court Participant Files

The PGCADC program data were collected from participant charts kept by the drug court coordinator. These data included information on demographics and program services including individual, group, and intensive outpatient treatment sessions, and residential treatment. The data were also used to help identify an appropriate comparison group (matched on the demographics of the drug court group), determine program costs, and analyze predictors of drug court program success.

The University of Maryland's Automated Tracking System (HATS)

PGCADC program data are also available in the Institute for Governmental Service and Research (IGSR), University of Maryland-College Park's automated tracking system called "HATS." NPC Research staff collected client drug testing information from this source. PGCADC is in the process of adopting IGSR's SMART system to record this information, as well as information collected from the participant files. These data were used to analyze substance use following entrance into the drug court program.

Maryland Department of Public Safety and Correctional Services (DPSCS)

The Maryland Department of Public Safety and Correctional Services (DPSCS) uses a management information system that tracks involvement with DPSCS's Division of Parole and Probation (DPP) and Division of Corrections (DOC). The DPSCS stores Maryland criminal justice information in the OBSCIS I & II, including arrest, charge, and time spent on parole and probation.

These data were used for determining differences in supervision and incarceration experiences between the study and comparison groups and the state and local public cost consequences of these differences.

Prince George's County Correctional Center

Jail data for the drug court participants and comparison group were gathered from the Prince George's County Correctional Center, Prince George's County Department of Corrections. Data collected included jail start and end dates prior to participation in drug court (or the equivalent for the comparison group), during involvement in drug court (or equivalent for the comparison group), and following exit from the program. These jail data provided information to determine differences in and cost consequences of the local incarceration experience of study and comparison groups.

Maryland Judiciary Case Search

Data on the number of drug court sessions attended for the drug court group, and data on subsequent Circuit and District Court cases for drug court participant and the comparison samples were collected from the Maryland Judiciary Case Search (see Web address in Table 1). This database provides public access to Maryland's Judiciary case records. Subsequent Circuit Court and District Court case data are used to determine differences in and cost consequences of the study and comparison groups' court session experience.

Table 1. PGCADC Evaluation Data Sources

Database	Source	Example of Variables
PGCADC	Prince George's County Drug Court Staff	For drug court participants only: Demographics, time spent in drug court, discharge status, treatment attendance
HATS	Prince George's County Drug Court	Drug tests
OBSCIS I & II	Maryland Department of Public Safety and Correctional Services (DPSCS)	Time spent on parole, probation; number of arrests; time spent in prison
Prince George's County Correctional Center	Prince George's County Correctional Services, Population Management	Time spent in jail
Maryland Judiciary Case Search	http://casesearch.courts.state.md.us	Subsequent Circuit and District Court cases; number of drug court sessions

SAMPLE SELECTION

As described above, it was necessary to select a cohort of individuals who had participated in drug court for the “program” or “study” group and a cohort of similar individuals who had not participated in PGCADC for the comparison group.

The Drug Court Participant Group

A sample was chosen from PGCADC participants who entered the program between August 2002 and August 2005. This range was chosen because it allowed for the availability of at least 24 months of outcome data for all participants and up to 36 months for most participants. The longest follow-up time possible was used, while retaining a sample size with adequate statistical power, to determine if participation in drug court has a long-term impact on participants.

The Comparison Group

A comparison cohort is composed of offenders who are similar to those individuals who have participated in drug court (e.g., similar demographics and criminal history), but have not participated in the drug court program.

Drug court eligibility in PGCADC is determined according to drug court-eligible charges and history of involvement with the criminal justice system (see summary on drug court eligibility on p. 6 of this report or in the full process evaluation report [NPC Research, 2007b]).

The comparison group for this study was selected by procuring a list of all individuals arrested in Prince George's County during the study time period who had a drug court-eligible arrest. These individuals were then matched to the drug court group based on age, sex, race, education level, marital status, employment status, prior arrest history (including arrests and drug arrests for the 24 months prior to the study period), whether or not there was a previous indication of a drug problem, and drug of choice.

The matching process and results are presented in the outcome results section of this report.

Cost Evaluation Methodology

COST EVALUATION DESIGN

Transaction and Institutional Cost Analysis

The cost approach utilized by NPC Research is called Transactional and Institutional Cost Analysis (TICA). The TICA approach views an individual's interaction with publicly-funded agencies as a set of *transactions* in which the individual utilizes resources contributed from multiple agencies. Transactions are those points within a system where resources are consumed and/or change hands. In the case of drug courts, when a drug court participant appears in court or has a drug test, resources such as judge time, defense attorney time, court facilities, and urine cups are used. Court appearances and drug tests are program transactions, while subsequent jail and probation days are outcome transactions. The TICA approach recognizes that these transactions take place within multiple organizations and institutions that work together. These organizations and institutions contribute to the cost of each transaction that occurs for program participants. TICA works well for conducting costs assessment in an environment such as drug court because it takes into account the complex interactions among multiple taxpayer-funded organizations.

Cost to the Taxpayer

In order to maximize the study's benefit to policymakers, a "cost-to-taxpayer" approach was used for this evaluation. This focus helps define which cost data should be collected (costs and avoided costs involving public funds) and which cost data should be omitted from the analyses (e.g., costs to the individual participating in the program).

The core of the cost-to-taxpayer approach in calculating benefits (avoided costs) for drug court specifically is the fact that untreated substance abuse will cost various tax-dollar funded systems costs that could be avoided or diminished if substance abuse were treated. In this approach, any cost that is the result of untreated substance abuse and that directly impacts a citizen (through tax-related expenditures) is used in calculating the benefits of substance abuse treatment.

Opportunity Resources

Finally, NPC's cost approach looks at publicly-funded costs as "opportunity resources." The concept of opportunity *cost* from the economic literature suggests that system resources are available to be used in other contexts if they are not spent on a particular transaction. The term opportunity *resource* describes these resources that are now available for different use. For example, if substance abuse treatment reduces the number of times that a client is subsequently incarcerated, the local sheriff may see no change in his or her budget, but an opportunity resource will be available in the form of a jail bed that can now be filled by another person, who, perhaps, possesses a more serious criminal justice record than does the individual who has received treatment and successfully avoided subsequent incarceration.

COST EVALUATION METHODS

The cost evaluation involves calculating the costs of the drug court program and the costs of outcomes after the date of program entry for the drug court group and a comparable date for the comparison group. In order to determine if there are any benefits (or avoided costs) due to drug court program participation, it is necessary to determine what the participants' outcome costs would have been had they not participated in drug court. One of the best ways to do this is to compare the costs of outcomes for drug court participants to the outcome costs for similar individuals arrested on the same charges who did not participate in drug court. The costs to the Prince George's County criminal justice system (cost-to-taxpayer) incurred by participants in drug court were compared with the costs incurred by those in Prince George's County who were eligible for but did not enter drug court.

TICA Methodology

The TICA methodology is based upon six distinct steps. Table 2 lists each of these steps and the tasks involved.

Table 2. The Six Steps of TICA

	Description	Tasks
Step 1:	Determine flow/process (i.e., how program participants move through the system)	Site visits/direct observations of program practice Interviews with key informants (agency and program staff) using a drug court typology and cost guide (See guide on www.npcresearch.com)
Step 2:	Identify the transactions that occur within this flow (i.e., where clients interact with the system)	Analysis of process information gained in Step 1
Step 3:	Identify the agencies involved in each transaction (e.g., court, treatment, police)	Analysis of process information gained in Step 1 Direct observation of program transactions
Step 4:	Determine the resources used by each agency for each transaction (e.g., amount of judge time per transaction, amount of attorney time per transaction, number of transactions)	Interviews with key program informants using program typology and cost guide Direct observation of program transactions Administrative data collection of number of transactions (e.g., number of court appearances, number of treatment sessions, number of drug tests)
Step 5:	Determine the cost of the resources used by each agency for each transaction	Interviews with budget and finance officers Document review of agency budgets and other financial paperwork
Step 6:	Calculate cost results (e.g., cost per transaction, total cost of the program per participant)	Indirect support and overhead costs (as a percentage of direct costs) are added to the direct costs of each transaction to determine the cost per transaction The transaction cost is multiplied by the average number of transactions to determine the total average cost per transaction type These total average costs per transaction type are added to determine the program and outcome costs. (These calculations are described in more detail below)

Step 1 was performed during site visits, through analysis of PGCADC documents, and through in-person and phone interviews with key stakeholders. Steps 2 and 3 were performed through observation during site visits and by analyzing the information gathered in Step 1. Step 4 was performed through extensive interviewing of key stakeholders, through direct observation during site visits, and by collecting administrative data from the agencies involved in drug court. Step 5 was performed through interviews with drug court and non-drug court staff and with agency finance officers, as well as analysis of budgets found online or provided by agencies. Step 6 involved calculating the cost of each transaction and multiplying this cost by the number of transactions. All the transactional costs for each individual participant were added to determine the overall cost per drug court participant/comparison group individual. This total was generally reported as an average cost per individual for the drug court program, and outcome/impact costs

due to re-arrests, jail time, and other recidivism costs. In addition, due to the nature of the TICA approach, it was also possible to calculate the cost for drug court processing for each agency as well as outcome costs per agency.

The costs to the criminal justice system outside of the drug court program costs consist of those due to new arrests, subsequent court cases, probation, prison, and jail time served. Program costs include all program transactions including drug court sessions, case management, drug tests, jail time while in the program, and drug treatment.

OUTCOME EVALUATION RESULTS

The results presented in this report are represented as comparisons of the outcome experiences of the program/study group and that of the comparison group and the resultant cost consequences of these differences. Outcomes include future substance use and state and local criminal justice system recidivism.

Participant and Comparison Group Matching

Efforts were made to match the groups based on demographic and criminal history characteristics. The groups were compared on age, sex, race, education level, marital status, employment status, prior arrest history (including arrests and drug arrests for the 24 months prior to the study period), whether or not there was a previous indication of a drug problem (based on probation officer report), and drug of choice. Independent sample t-tests and chi-square tests indicated that there were no significant differences between groups. There were 151 individuals in the participant sample and 189 comparison group members.

In some of the tables and figures that follow, the results for drug court participants who graduated are presented separately to compare to program participants as a whole (they are included in this group as well) and the comparison group. While the graduates provide important information about the outcomes of individuals who received the full intended dosage of the drug court program; they should not be directly compared to the comparison group, because results of this study indicated that they had significantly less drug use and criminal involvement prior to the study period than comparison group members.

Table 3 describes the overall participant and comparison group demographics and criminal history.

Table 3. PGCADC Participant and Comparison Group Characteristics

	Drug Court n = 151	Comparison n = 189
Gender	(n = 151) 88% Male 12% Female	(n = 189) 90% Male 10% Female
Race	(n = 151) 96% Black	(n = 189) 93% Black
Average age at drug court entry	(n = 151) 32 range 18-53	(n = 189) 30 range 18-61
Average number of arrests for 24 months prior to drug court entry (does not include the arrest associated with the drug court [or the equivalent] case)	(n = 151) 0.72 60% with 0 prior arrests 23% with 1 prior arrest 17% with > 1 prior arrest	(n = 189) 0.69 58% with 0 prior arrests 23% with 1 prior arrest 19% with > 1 prior arrest
Average number of <u>drug-related</u> arrests for 24 months prior to drug court entry	(n = 151) 0.41 69% with 0 prior arrests 24% with 1 prior arrest 8% with > 1 prior arrest	(n = 189) 0.46 67% with 0 prior arrests 23% with 1 prior arrest 11% with > 1 prior arrest
Prior drug problem (per probation staff report)	(n = 151) 50%	(n = 189) 59%
Drug of choice	(n = 148) 26% Alcohol 40% Marijuana 34% Other Drugs	(n = 90) 26% Alcohol 42% Marijuana 32% Other Drugs
Marital status	(n = 150) 91% Single	(n = 167) 89% Single
Employment status at drug court entry	(n = 107) 51% Unemployed	(n = 140) 47% Unemployed
At least 12 years of education	(n = 136) 60%	(n = 138) 63%

Note: t-tests and chi-square test showed no significant difference between the two groups on these variables ($p > .05$).

The following results are presented in the order of the research questions discussed earlier. The results describe the recidivism experienced by the drug court participants and the comparison group in terms of average number of re-arrests as well as percentage of group members who had a new arrest, the drug use over time for drug court participants measured by drug test results and drug-related re-arrests, the success of the PGCADC in bringing participants to program completion within the intended length of time, and participant characteristics and program services that predict successful outcomes.

Recidivism

Research Question #1: *Does participation in drug court reduce the number of re-arrests for those individuals compared to traditional court processing?*

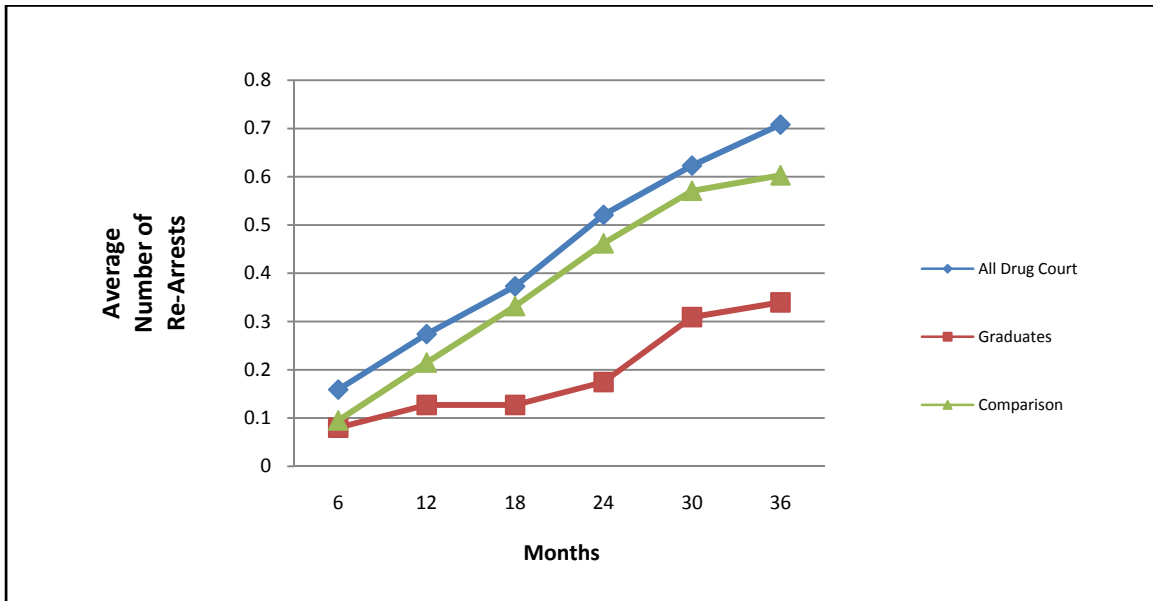
Figure 2 represents the average number of re-arrests for 36 months following entrance into the drug court program for PGCADC graduates, all PGCADC participants, and the comparison group. Drug court participants, as a whole, were re-arrested at a significantly higher rate than were comparison group participants. This result occurred for each time point except 6 months following drug court entry. However, data on court cases following entrance into drug court suggest that drug court participants were being arrested for less serious crimes than were the comparison group. That is, the drug court group had more District Court cases as a result of their re-arrests while the comparison group had more Circuit Court cases. It is also possible that the number of re-arrests for drug court participants is partially a by-product of the greater degree of supervision (i.e., closer surveillance) resulting from involvement in the drug court program.⁵

Of participants for whom 24 months of complete data are available, 13% of graduates, 30% of all drug court participants and 30% of comparison group members were re-arrested. For those individuals with 36 months of complete data, 19% of the graduates, 35% of all drug court participants, and 34% of comparison group members were re-arrested following entrance into the drug court program.

Drug court graduates were re-arrested approximately half as often as the comparison group during the 24 months and 36 months following drug court entry. For PGCADC graduates, involvement in the drug court program is associated with fewer future re-arrests. PGCADC participants as a whole, however, experienced significantly more re-arrests in the follow-up period.

⁵ For a more detailed description of the types of cases each group was involved in, see the cost section of this report.

Figure 2. Average Number of Cumulative Re-Arrests for All Drug Court Participants, Graduates, and the Comparison Group Over 36 Months



The arrest experience of the groups were coded according to whether the associated charges were drug-related (e.g., possession), property-related (e.g., larceny), or person-related (e.g., assault).⁶ Table 4 presents the results of this analysis.

In the 36 months following drug court entry, the drug court group had significantly more arrests with drug-related charges and person-related charges than the comparison group at each time point⁷. The drug court group had significantly more arrests with property-related charges than the comparison group at the 24-month time point, but not at the 12- or 36-month time points.

⁶ When an individual received more than one charge per arrest, a single arrest could be coded as both a person and drug crime. Therefore, the numbers in Table 4 do not reflect the total number of arrests in Figure 2.

⁷ This analysis includes controls for demographic characteristics of participants and arrests 2 years prior to the study period.

Table 4. Average Number of New Arrests by Charge Classification Over 24 Months per Program and Comparison Group Member

	Drug Court Graduates	All Drug Court Participants	Comparison Group*
<i>Drug-Related Charges</i>			
Average number of arrests in the 12 months post drug court entry or equivalent	.06	.15	.11
Average number of arrests in the 24 months post drug court entry or equivalent	.08	.28	.25
Average number of arrests in the 36 months post drug court entry or equivalent	.17	.40	.36
<i>Property-Related Charges</i>			
Average number of arrests in the 12 months post drug court entry or equivalent	.02	.07	.05
Average number of arrests in the 24 months post drug court entry or equivalent	.05	.12	.12
Average number of arrests in the 36 months post drug court entry or equivalent	.11	.18	.18
<i>Person-Related Charges</i>			
Average number of arrests in the 12 months post drug court entry or equivalent	.06	.10	.07
Average number of arrests in the 24 months post drug court entry or equivalent	.10	.15	.13
Average number of arrests in the 36 months post drug court entry or equivalent	.15	.21	.14

* Bold indicates that the comparison group had significantly fewer re-arrests than did the drug court group.

Despite a higher number of arrests for program participants, because these new arrests were less serious (indicated by hearing in District Court, rather than Circuit Court), they are associated with less probation and jail/prison time (see details in the cost results later in this report).

Substance Use

Research Question #2: *Does participation in drug court reduce levels of substance use?*

Drug testing information for PGCADC was gathered from the HATS database. These individual electronic files contain results of all drug tests performed while participants were active in the drug court program. This information offers the opportunity to determine whether participation in drug court is associated with reduction in levels of substance abuse for drug court participants.

Use of this database also makes it possible to determine if substance use patterns for drug court participants shift during program involvement.

Figure 3 depicts the average percent of positive urinalysis (UA) tests per program participant over the 12-month period after drug court entry. Percentages were calculated for each 1-month period from program entry date for all drug court participants. If the proportion of positive UA tests over time out of the total number of tests given declines, this is an indicator of a reduced level of substance abuse. All drug court participants who entered the program during the study period were included in this analysis. As indicated in Figure 3, the average percentage of positive drug tests for drug court participants declined through program involvement. This chart indicates that involvement in the drug court program is associated with reductions in substance use for participants while they remain in the program, regardless of whether they later graduate. As indicated earlier, however, it is important to note that findings from the process evaluation of this drug court indicated that the drug testing during this time of the program was not random. As a result, it is possible that the indicated decrease in positive UAs was at least in part a product of participants discovering how to get around the testing schedule. Figure 4 indicates substantially fewer positive UAs for graduates than for non-graduates, lending support to an assertion that individuals who were more successful in the program (they had to complete other requirements to graduate in addition to remaining drug free) experienced a decrease in their substance use.

Figure 3. Percent of Positive Tests per PGCADC Program Participant Over 12 Months

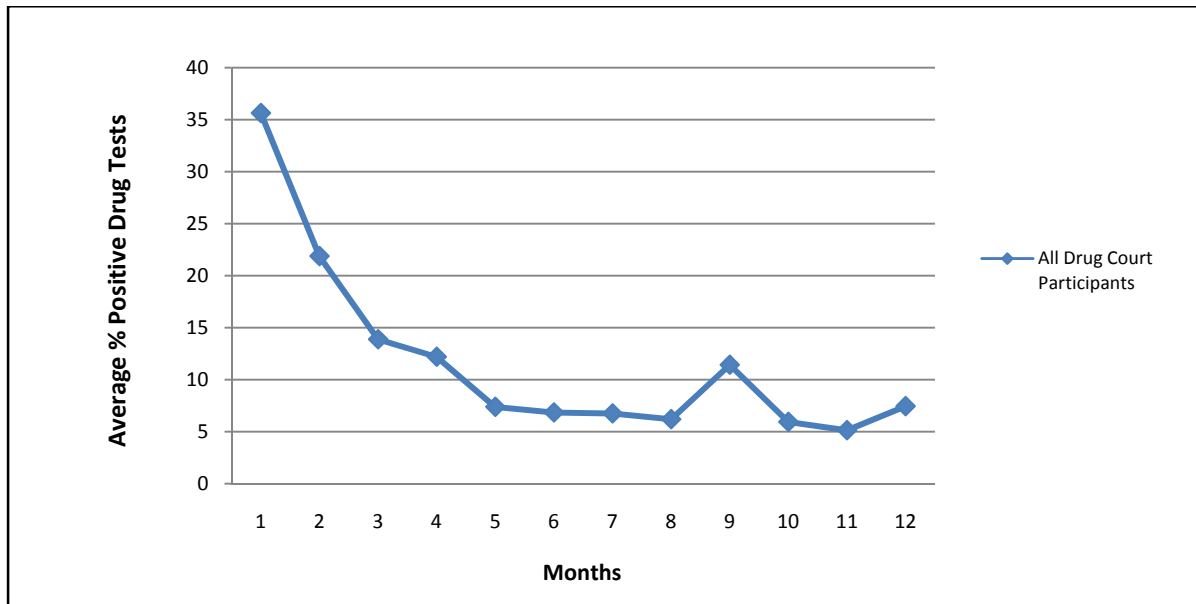
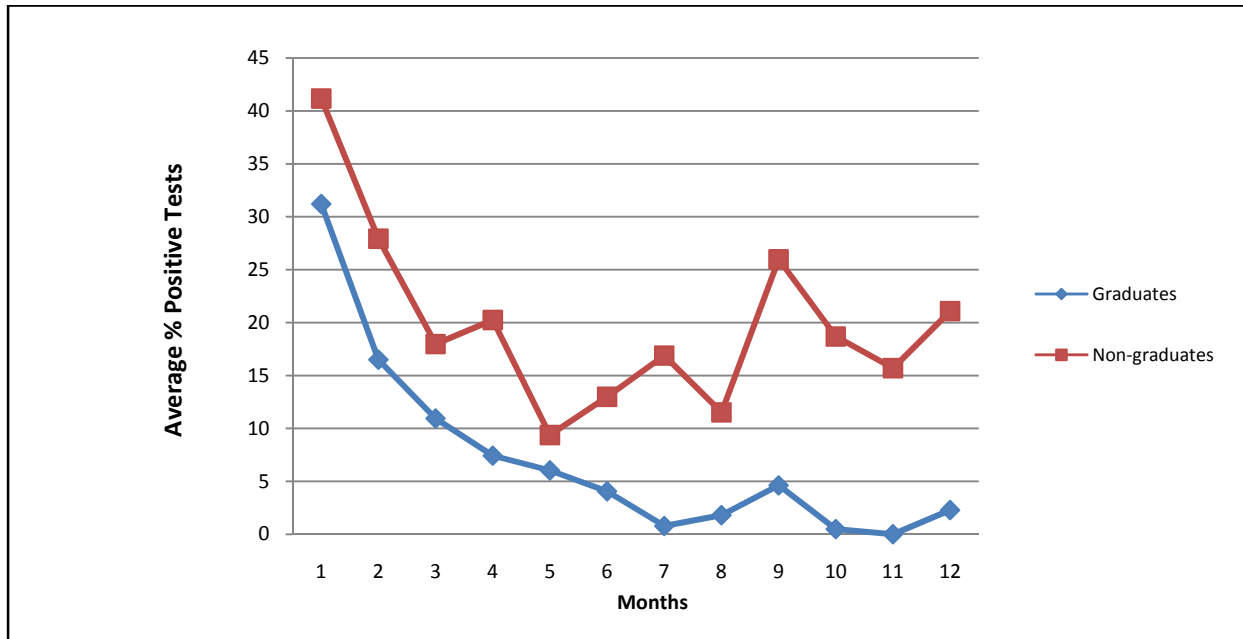


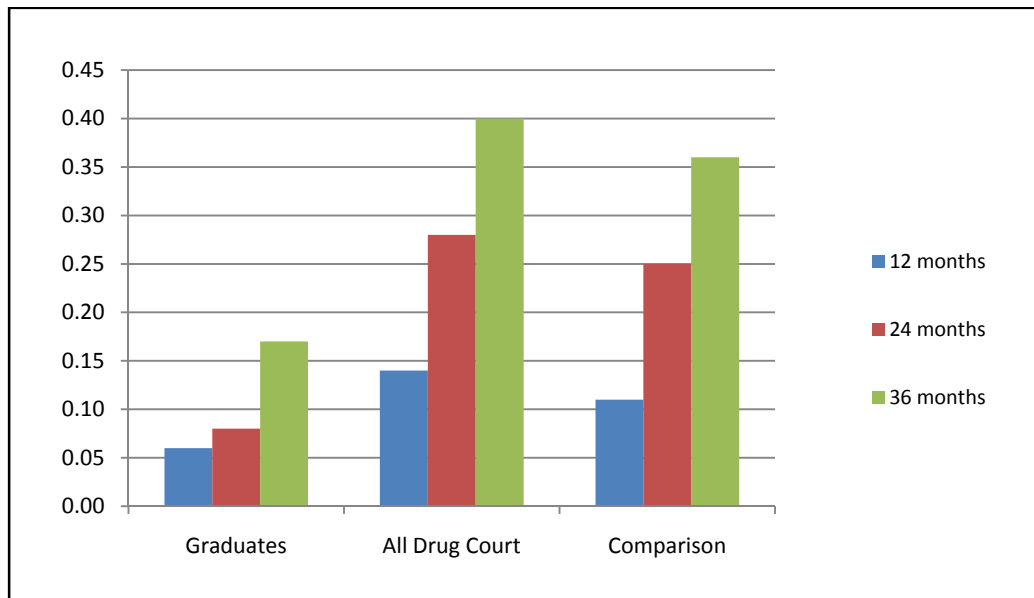
Figure 4 represents the average percentage of positive urinalysis tests per program participant by graduation status. It shows that graduates and non-graduates experienced reduced substance use, though the graduates had a more consistent pattern. The fluctuation in later months is likely caused by the small number of participants in the analysis.

Figure 4. Percentage of Positive Tests per Graduate and Non-graduate PGCADC Participant Over 12 Months



Whether PGCADC participation is associated with reducing substance use can also be measured by analyzing the number of re-arrests for drug-related crimes. The 12-, 24-, and 32-month averages for the PGCADC graduates, all PGCADC participants, and the comparison group are represented in Figure 5. This graph is cumulative (that is, the number at the 36-month time point includes the arrests that occurred during the first and second years as well as the third). As previously noted, drug court participants were re-arrested significantly more times for drug-related crimes than the comparison group at each time point. Figure 5 graphically demonstrates that, as a group, drug court participants are involved in drug-related activities at a higher rate than the comparison group.

Figure 5. Average Number of Drug-Related Re-Arrests at 12, 24, and 36 Months



Program Completion

Research Question #3: *How successful is the program in bringing program participants to completion and graduation within the expected time frame?*

Whether a drug court program is bringing its participants to completion in the intended time frame is measured by program graduation (completion), and by the amount of time participants spend in the program. The program *graduation rate* is the percentage of participants who graduated from the program out of a cohort of participants who have all left the program by either graduating or being otherwise discharged from the program. During the study period nearly half (47%) of program participants completed the PGCADC program successfully. This graduation rate is slightly lower than average compared to other programs using the drug court model in the U.S. (approximately 50% on average; Cooper, 2000).

To measure whether program participants complete PGCADC in the intended time frame, the average amount of time in the program was calculated for participants who had started the PGCADC program between August 2002 and August 2005 and have been discharged from the program. PGCADC is intended to take a minimum of 12 months from entry to graduation. The average length of participation in PGCADC was 532 days or about 17 ½ months (n = 135). Graduates spent an average of 597 days in the program or just over 19 ½ months and ranged from 147 to 1,274 days in the program. Participants who were unsuccessfully discharged spent on average 474 days in the program or just over 15 ½ months (ranging from 6 to 1,475 days in the program). These results indicate that PGCADC is retaining participants in the program for greater than its stated minimum duration. This finding may be related to program practice regarding sanctions for producing positive drug tests. For example, when a participant has a positive drug test s/he is required to restart her/his current phase in the drug court program.

Predictors of Program Success & Recidivism

Research Question #4: *What participant characteristics predict program success and recidivism?*

PGCADC graduates and non-graduates were compared on the basis of demographic characteristics, age at first substance use, and drug of choice to determine whether any significant patterns predicting program graduation or recidivism could be found. The following analyses include participants who entered the program from August 2002 through August 2005. Of the 151 persons who entered the program during that time period, 72 were discharged from the program prior to graduation and 63 had graduated. The remaining participants remain active in the program. Only those individuals who have completed the program are included in this analysis. Significant results are discussed below.

Program Success

In order to best determine which demographic characteristics are related to successful drug court completion, a logistic regression was conducted including the following predictors: sex, race (white/non-white), age at drug court entry, age at first substance use, marital status, and whether the individual had a known history of drug abuse (n = 127 for this analysis).

The characteristic found to be most significantly related to program success was whether or not the participant had a known history of drug use. In other words, individuals who had not been identified as having a substance use problem by the Division of Parole and Probation prior to program entry were more likely to successfully complete the program. No demographic characteristics were significantly associated with completion, suggesting that the program is serving diverse populations equally.

Program participant personal characteristics and arrest history were also examined in relation to program completion status using another statistical model. The multivariate model was significant (Wilks Lambda = .783; F = 4.09; p < .00), as were several individual results represented in Table 5. The right-hand column of the table displays whether the analysis showed statistically significant differences between those who graduated and those who did not. This column displays “yes” for significant results (p < .05), “trend” for p values between p > .05 and p < .10, and “no” for those p values above .10.

Table 5. Characteristics of Graduated Compared to Unsuccessfully Discharged Participants of the PGCADC

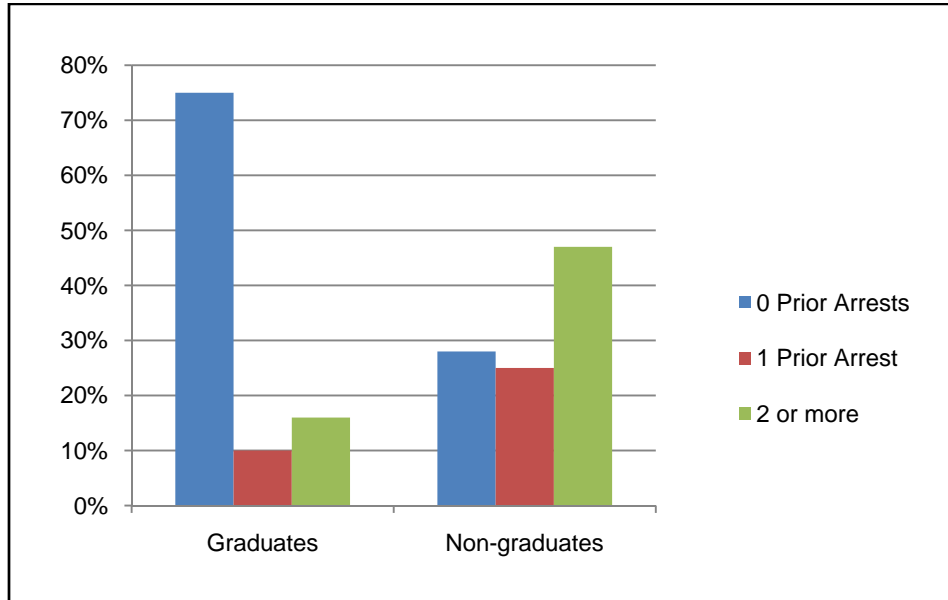
	Graduates n = 59	Non-graduates n = 68	
Variable	Average	Average	Significant?*
Males	86%	88%	No
Age at drug court entry	31	32	No
Age at first substance use	17	16	No
White	3%	3%	No
Single	86%	91%	No
Indication of drug problem	36%	69%	Yes
Average arrests 24 months prior to drug court entry	.37	1.07	Yes
Average drug arrests 24 months prior to drug court entry	.29	.54	Trend

*Yes = ($p < .05$); No = ($p > .10$); Trend = ($p > .05$ and $< .10$)

Consistent with the previous analysis, Table 5 illustrates that individuals were more likely to graduate if they had fewer prior arrests and were not identified by DPP as having drug problems prior to entrance into drug court. In addition, drug of choice was found not to be significantly associated with whether participants graduated or not.

A notable difference between individuals who graduated from PGCADC and those who did not was their arrest history prior to drug court entry. Those participants who were found to be most likely to be discharged from the program had significantly greater numbers of prior arrests. Figure 6 demonstrates the differences in arrest history for drug court participants based on their exit status.

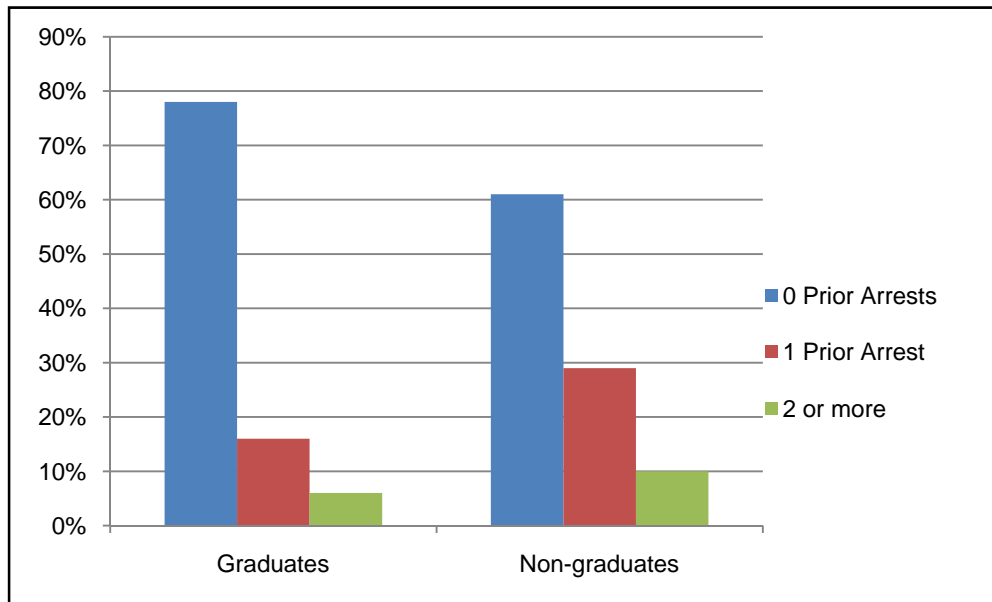
Figure 6. Arrest History of Drug Court Participants 24 Months Prior to Program Entry Based on Exit Status



Graduates were found to be much more likely to have zero prior arrests than were those who were discharged from PGCADC. Seventy-five percent of graduates had zero prior arrests as compared to 28% of non-graduates who had zero priors.

Drug-related arrests prior to drug court were also correlated with exit status from the program. Figure 7 is a graphic representation of drug arrests for program participants the 24 months prior to drug court entry.

Figure 7. Drug-related Arrest History of Drug Court Participants 24 Months Prior to Program Entry Based on Exit Status



Note: Seventy-eight percent of PGCADC graduates and 61% of non-graduates had zero prior drug-related arrests.

Recidivism

Program participant characteristics and arrest history were also examined in relation to arrests up to 24 months following drug court entry. The multivariate model was significant (Wilks Lambda = .80; $F = 3.608$; $p < .00$); detailed results of its application are presented in Table 6. Participant characteristics significantly associated with future arrests were arrest history 24 months prior to drug court entry and whether there was a known history of substance use. Gender also appears to be a trend related to re-arrest; women were less likely to be re-arrested after entering into drug court. This finding is of interest in that drug court staff reported during the process evaluation that men were performing better than women. The current analysis does not support this perception. Overall, of those participants included in this analysis, 29% of drug court participants had a re-arrest within 24 months following drug court entry. Drug of choice was found not to be significantly associated with whether participants re-offended.

Table 6. Demographic and Court-Related Variables That Predict Recidivism

Variable	Drug court participants were more likely to be re-arrested if they...	n = 127 Significant?*
Gender	Were male	Trend
Age at drug court entry		No
Age at first substance use		No
Race		No
Marital Status		No
Indication of a drug problem	Had a known history of substance use	Yes
Days of Program Involvement		No
Average number of arrests 24 months prior to drug court entry	Had more arrests prior to drug court entry	Yes
Average drug arrests 24 months prior to drug court entry		No

*Yes = ($p < .05$); No = ($p > .10$); Trend = ($p > .05$ and $< .10$)

Few significant differences in demographic characteristics were found to predict program success or recidivism for drug court participants. Again, the most substantial indicator of future arrest was whether or not program participants had histories of arrests prior to program entry. This finding indicates that the PGCADC program is equally successful (i.e., no differences in recidivism) for participants of different ages, races, or marital status. However, this analysis also reveals that the program may be seen as having difficulty in meeting the needs of individuals with more severe criminal histories.

Program Services as Predictors of Successful Outcomes

Research Question #5: *What combination and types of services predict successful outcomes, including program completion and decreased recidivism?*

The types of services provided to PGCADC program participants are tailored to their specific needs. To best determine which program elements are related to successful drug court completion, a logistic regression with the following predictors was used to determine the odds of successful program completion based on the following program operating characteristics: length of participant stay in drug court, number of individual treatment sessions attended by participants, number of group treatment sessions attended by participants, number of participant days in residential treatment, and percent of positive UA tests for each participant.⁸

The resultant findings from this analysis demonstrate that some program characteristics are significantly related to whether or not participants successfully complete the PGCADC program. Program participants who attended more individual and group sessions were more likely to graduate from PGCADC. In other words, when participants are actively engaged in the drug court program as indicated by treatment participation, they are more likely to complete PGCADC successfully.

An analysis of these variables was also conducted using a multivariate model to present differences in averages between program graduates and non-graduates. Table 7 represents a summary of the results of this analysis (Wilks Lambda = .81; F = 3.416; p < .00).

Table 7. Characteristics of Participation in Program Elements That Lead to Successful PGCADC Completion

	Graduates n = 52	Non-graduates n = 56	
Variable	Average	Average	Significant?*
Days of program involvement	607	519	No
Number of individual sessions attended	15	9	Yes
Number of group sessions attended	52	29	Yes
Number of Intensive Outpatient Days	30	14	No
Number of Residential Treatment Days	24	28	No
Drug court sessions attended	26	25	No

*Yes = (p < .05); No = (p > .05)

The results of this analysis indicate that attending more individual and group sessions is associated with successful completion of the program. The results displayed in Table 7 demonstrate that treatment patterns differ between participants who were successful in the program and those who were not. On average, graduates had more individual and group treatment sessions, than non-

⁸ This analysis and the following analysis controlled for sex, race (white/non-white), age at drug court entry, age at first substance use, whether the individual had a known history of a drug problem, prior arrests, and prior drug arrests.

graduates. The number of drug court sessions attended on average did not differ significantly between the groups.

Outcome Results Summary

PGCADC participants had higher numbers of subsequent arrests than members of the comparison group, but they were for less serious crimes. Program participants experienced reductions in positive UA tests over time, but committed more subsequent drug-related crimes than did the comparison group. Prior arrest history and substance use history were found to be significant predictors of which individuals would be successful in the program and beyond. Program participants with more extensive criminality and substance abuse were less successful than others. The program characteristic that most notably differentiated graduates from non-graduates was the amount of treatment; graduates participated in significantly more individual and group sessions than non-graduates.

COST EVALUATION RESULTS

As described in the methodology section, the Transaction and Institutional Cost Analysis (TICA) approach was used to calculate the costs of each of the transactions that occurred while participants were engaged in the program. Transactions are those points within a system where resources are consumed and/or change hands. In drug courts when a participant appears in court or has a drug test, resources such as judge time, defense attorney time, court facilities, and urine testing cups are used. Program transactions for which costs were calculated in this analysis included drug court appearances, case management, drug treatment (individual, group, opioid maintenance therapy⁹, intensive outpatient, residential, and detoxification), jail time while in the program (used as a sanction), and drug tests. Only costs to the taxpayer were calculated in this study. All cost results represented in this report are based on fiscal year 2007 dollars. Other possible costs or cost savings related to the program that are not considered in this study include the number of drug-free babies born, health care expenses, and drug court participants legally employed and paying taxes. In addition, the cost results that follow do not take into account other less tangible outcomes for participants, such as improved relationships with their families and increased feelings of self-worth.

Drug Court Transactions

A drug court session is one of the most staff and resource intensive program transactions (based on cost studies completed by NPC Research, e.g., Mackin, Carey, Finigan, et al., 2008; Crumpton, Brekhus, Weller, & Finigan, 2004; and Carey, Finigan, Waller, et al., 2005). In Prince George's County, these sessions include representatives from the Circuit Court (Judge, Drug Court Coordinator, Community Supervision Manager, Court Reporter, Paralegal, Court Clerk, and Bailiff), the State's Attorney's Office, the Public Defender, Health Department (Case Management Supervisor and 6 Case Managers), and Sheriff's Department (contracted court security). The cost of a *drug court appearance* (the time during a session when a single participant is interacting with the Judge) is calculated based on the average amount of court time (in minutes) the case of each participant is reviewed by the Judge during the court session. This cost incorporates the direct costs of each drug court team member present during sessions, the time team members spent preparing for or contributing to the session, the agency support costs, and the overhead costs of the jurisdiction in which the agency is associated. In PGCADC, the average cost for a single drug court appearance is **\$297.50** per participant.

The cost of *case management* is based on the amount of staff time dedicated to case management activities during a regular work week translated into a total cost for case management per participant per day.¹⁰ The primary agency involved in case management for drug court in Prince George's County is the Prince George's County Health Department, but the County Economic Development Corporation also provides a case manager that assists participants with finding jobs. The per day cost of case management is **\$15.10** per participant.

⁹ Opioid maintenance therapy is not part of the drug court program but is listed in the data provided by the Department of Health and Mental Hygiene as a service received by the individuals in the study (either drug court or comparison group) at some time during the study time period.

¹⁰ Case management can include home visits, meeting with participants, evaluations, phone calls, paperwork, answering questions, consulting with therapists, documentation, file maintenance, residential referrals, and providing resources and referrals for educational and employment opportunities.

Treatment sessions for PGCADC are provided by multiple treatment agencies under contract with the Prince George's County Health Department, including Gaudenzia, Renaissance, Cheverly Health Center, Reality, Comprehensive Treatment Services, Children and Parents Program (CAP), Men's Intensive Outpatient Program, the Prince George's County Health Department itself, and numerous inpatient treatment providers. Treatment services provided included outpatient group and individual sessions, opioid maintenance therapy, intensive outpatient, residential, and detoxification. Since this cost analysis is focused on public funds, the cost of treatment services is only the amount paid for by public funds. On average, **Group treatment** is **\$40.00** per person per session and **individual treatment** is **\$90.00** per session, across treatment providers. Costs include all salary, support, and overhead costs associated with the session. Costs for other types of treatment services were calculated using the 2006 Medicaid Substance Abuse Treatment Services Fee-for-Service Rates for the Maryland Substance Abuse Improvement Initiative because these were the reimbursement rates received by the providers for these services. These reimbursement rates were as follows: **opioid maintenance therapy (OMT)**-\$81.63 per day, **intensive outpatient**-\$57.26 per day, **low-intensity residential**-\$50.52 per day, **medium-intensity residential**-\$118.23 per day, **intensive residential**-\$158.65 per day, and **detoxification**-\$221.96 per day. Participants pay a co-payment fee for treatment services once per week, based on a sliding scale (usually \$5 to \$10, regardless of the number of services used). Participant co-payment amounts were not factored in to the treatment transaction costs in this study. Any payments made will reduce the actual cost to taxpayers for treatment, but likely do not impact the overall results of this study.

Urinalysis (UA) drug tests are contracted and paid for by the Prince George's County Health Department and performed by Butler House (a local testing facility), treatment providers, and, on occasion, program case managers. The average cost of a UA drug test is **\$10.00**, which covers the full cost of materials, salary, support, and overhead associated with the test. Drug court participants do not pay for testing.

Identification of **Jail days while in the program** per program participant, as well as information used to calculate the cost per day of jail incarceration, were provided by the Prince George's County Sheriff's Department. Jail bed days at the Prince George's County Correctional Center were found to be **\$97.31** per person, which includes all staff time, booking costs, food, medical, and support/overhead costs. Jail days included in the program costs are those days that occurred while the individual was a drug court participant.¹¹

Adult probation services in Prince George's County are provided by the Maryland Division of Parole and Probation, a unit of the Department of Public Safety and Correctional Services, at a cost of **\$3.50** per day for case supervision. Drug court participants in Prince George's County are released from probation while they are on drug court case management, so probation costs were not included in this analysis of program costs.

¹¹ Any jail stays longer than 60 days that occurred while the participant was in the program were not included in program costs as the drug court has a maximum sanction of 60 days. Jail stays longer than 60 days were considered stays due to new charges and were included in outcome/recidivism costs.

Drug Court Program Costs

Table 8 presents the average number of PGCADC transactions (drug court appearances, treatment sessions, etc.) per drug court participant and per drug court graduate. It also includes the total cost for each type of transaction (number of transactions times the cost per transaction). The sum of these transactions is the total per participant cost of the program. The table includes the average for drug court graduates ($n = 63$) and for all drug court participants ($n = 151$) regardless of completion status. It is important to include participants who were discharged as well as those who graduated, as all participants use program resources, whether they graduate or not.

Table 8 also demonstrates the per participant cost to the taxpayer for PGCADC. Taken together, case management and drug treatment account for almost 60% of program costs. The cost of case management (\$8,911) is the most expensive transaction for the program, followed closely by drug treatment and then drug court appearances. Intensive case management and supervision of participants is one of the essential elements of drug courts (Huddleston, Marlowe, & Casebolt, 2008), so it is not unusual that case management should be an expensive transaction. It should be noted that case management costs were calculated based on the number of days in the program. Since PGCADC participants can be in residential treatment for up to 6 months and still be in the program, these stays may result in a number of days in the program when case management may not be occurring, resulting in an artificially higher cost of case management. In PGCADC, the average number of days in residential treatment was less than 25, which does not appreciably increase the case management costs. The ratio of participants to case managers is lower in the PGCADC than it is in other drug courts NPC has evaluated, which also increases the costs of case management.¹²

Drug treatment is an essential element of drug court (Huddleston, Marlowe, & Casebolt, 2008). It is possible that the cost of treatment at the PGCADC may be in part due to the frequent use of sanctions that require a participant to start over at the beginning of a phase as well as sanctions that call for the increase in frequency of treatment sessions. However, longer time in drug treatment is often associated with better outcomes (e.g., Carey, Finigan, & Pukstas, 2008; Hubbard, Gail Craddock, & Anderson, 2003). It should also be noted that the average number of transactions for certain drug treatment modalities is somewhat misleading. For instance, only one person had opioid maintenance therapy days, three people had low-intensity residential days, three people had medium-intensity residential days, and five people had detoxification days. Although a substantial majority of program participants did not receive these forms of treatment, a substantial expense has accrued to the program, resulting in a higher cost per participant. If these four little-used treatment modalities are removed from the analysis, the average treatment cost per participant is \$606 less per participant, and \$1,154 less per drug court graduate.

¹² For resources on the issues related to caseload sizes and models, please see Burrell (2006) and Monchick, Scheyett, & Pfeifer (2006).

Table 8. Average Program Costs per Participant¹³

Transaction	Transaction unit cost	Average number of transactions for DC graduates (n = 63)	Avg. cost per DC graduate (n = 63)	Average number of transactions for all DC participants (n = 151)	Avg. cost per DC participant (n = 151)
Drug Court Appearances	\$297.50	25.81	\$7,678	27.12	\$8,068
Case Management	\$15.10	596.92 Days ¹⁴	\$9,013	590.14 Days	\$8,911
Group Treatment Sessions	\$40.00	50.61	\$2,024	44.04	\$1,762
Individual Treatment Sessions	\$90.00	14.30	\$1,287	12.00	\$1,080
Opioid Maintenance Therapy Days	\$81.63	9.11	\$744	3.96	\$323
Intensive Out-patient Days	\$57.26	29.82	\$1,707	19.59	\$1,122
Low-Intensity Residential Days	\$50.52	0.00	\$0	1.50	\$76
Medium-Intensity Residential Days	\$118.23	3.16	\$374	1.41	\$167
Intensive Residential Days	\$158.65	20.65	\$3,276	24.18	\$3,836
Detoxification Days	\$221.96	0.16	\$36	0.18	\$40
UA Drug Tests	\$10.00	99.10	\$991	91.26	\$913
Jail Days	\$97.31	10.22	\$995	27.57	\$2,683
Total Drug Court			\$28,125		\$28,981

¹³ Average costs per participant have been rounded to the nearest whole dollar amount.

¹⁴ Case management is calculated per day in PGCADC, so the average number of transactions is the average number of days spent in the drug court program.

The cost of drug court appearances is impacted by the number of team members who support drug court sessions; that is, the greater the number of paid staff attending a drug court session, the greater the investment cost. The pattern of human resource commitments from PGCADC agencies may increase session costs, but may offer the program benefits of more timely decision-making and communication among agencies, which can lead to smoother operations. A study performed in 18 courts in 4 states and 1 territory found that greater agency involvement in drug court programs was related to higher graduation rates and lower outcome costs for drug court participants (Carey, Finigan, & Pukstas, 2008).

Jail days are a substantial PGCADC program cost, with an average of almost 28 days of local incarceration among graduates and non-graduates.¹⁵

Program Costs per Agency

Prince George’s County and Maryland State policy leaders and administrators may find it useful to examine programs costs by agency. Table 9 provides per participant costs by agency for PGCADC.

Table 9. Average Program Cost per Participant by Agency¹⁶

Agency	Average cost per PGCADC graduate (n = 63)	Average cost per PGCADC participant (n = 151)
Circuit Court	\$3,676	\$3,817
State’s Attorney’s Office	\$1,463	\$1,537
Public Defender	\$828	\$870
Health Department (including contracted treatment and UAs)	\$20,722	\$19,625
County Correctional Center	\$1,157	\$2,854
County Economic Development Corporation	\$281	\$277
Total¹⁷	\$28,127	\$28,980

Because the Prince George’s County Health Department provides the contracted treatment and drug testing, along with 89% of the case management for PGCADC participants, it reasonably follows that it also has the largest proportion of the total program cost (68%).

The extent of human resources provided by the Circuit Court results in costs that represent the second largest share (13%) of program costs. As a result of jail days used as a sanction by PGCADC, the cost of resources provided by the Prince George’s County Correctional Center represent 10% of total program costs.

¹⁵ This average only includes jail incarceration while PGCADC participants are still active in the program. As the jail data did not allow for the identification of the case for which the jail stay was associated. Since longer periods of incarceration are generally due to new charges, only stays of 60 days or less were included.

¹⁶ Average agency costs per participant have been rounded to the nearest whole dollar amount.

¹⁷ Totals in this row may not match the totals in the costs by transaction table due to rounding.

Program Costs per Jurisdiction

Prince George's County and Maryland State policy leaders and administrators may find it useful to examine programs costs by jurisdiction (state or local/county). Table 10 provides per participant costs for PGCADC by local and state jurisdictions. All jurisdiction costs were apportioned by analysis of agency budgets.

Table 10. Average Program Cost per Participant by Jurisdiction¹⁸

Agency	Average local/county cost per PGCADC participant (n = 151)	Average state cost per PGCADC participant (n = 151)
Circuit Court	\$3,817	\$0
State's Attorney's Office	\$1,439	\$98 ¹⁹
Public Defender	\$0	\$870
Health Department (including contracted treatment and UAs)	\$7,399	\$12,226 ²⁰
County Correctional Center	\$2,854	\$0
County Economic Development Corporation	\$277	\$0
Total	\$15,786	\$13,194

The outcome costs presented in the next section demonstrate how positive outcomes for PGCADC participants can represent positive financial benefits as products of the agency investments in the drug court program and produce cost benefits (savings) to the state and local criminal justice systems and taxpayers as compared to traditional court processing of offenders. For the sake of performing an equivalent comparison between the two groups, the outcome costs presented in this report include costs associated with the drug court participants and comparison group members from the time of drug court entry (or the equivalent date in the comparison group) using the same data sources for both groups.

Outcome Costs

This section describes and compares the cost outcomes experienced by drug court and comparison group participants as a result offender participation in drug court as compared to judicial processing. Program-related costs that were described in the previous section are not included in the calculations of outcome costs. The outcome transactions examined include re-arrests, subsequent court cases, probation, jail time, and prison time. Outcome costs were calculated for 3 years **from the time of program entry** for both groups (the mean number of days between drug

¹⁸ Average jurisdiction costs per participant have been rounded to the nearest whole dollar amount.

¹⁹ The MD Victims of Crime Assistance Program is actually funded through the Federal Victims of Crime Act funds from the US Department of Justice.

²⁰ The MD Women, Infants, and Children Program and the Ryan White Title I/II Program are federally funded programs administered by the State of Maryland.

court arrest and drug court entry for the drug court sample was added to the filing dates for comparison group members so that an equivalent “program entry” date could be calculated for the comparison group). For each outcome transaction, the same data sources were used for both groups to allow for a valid outcome cost comparison. Lower costs for PGCADC participants compared to offenders who did not participate in drug court (comparison group members) indicate that the program may be interpreted as providing a return on state and local investments in PGCADC.

The outcome costs discussed below were calculated using information gathered from the Prince George’s County 2006 operating budget, Prince George’s County Circuit Court and District Court, Prince George’s County Office of the Sheriff, Prince George’s County State’s Attorney’s Office, Prince George’s County Office of the Maryland Public Defender, Prince George’s County Health Department, Prince George’s County Police Department, Maryland Department of Public Safety and Correctional Services, Division of Parole and Probation, and 2006 Medicaid Substance Abuse Treatment Services Fee-for-Service Rates for the Maryland Substance Abuse Improvement Initiative.

The methods of calculation were carefully considered to ensure that all direct costs, support costs, and overhead costs were included as specified in the TICA methodology followed by NPC. It should be noted that because this methodology accounts for all jurisdictional and agency institutional commitments involved in the support of agency operations, the costs that appear in NPC’s analysis may not correspond with agency operating budgets. This primarily results from the typical situation wherein transactions include costs associated with resource commitments from multiple agencies. The resource commitments may take the form of fractions of human and other resources that are not explicated in source agency budget documents.

Outcome Transactions

The following is a description of the transactions included in the outcome cost analysis. Some of these transactions were described in the earlier discussion of drug court program costs.

Key PGCADC stakeholders interviewed reported that the Prince George’s County Police Department is the primary law enforcement agency in the county. As such, arrests conducted by Prince George’s County Police Department were used as the cost model for this analysis. The cost model was constructed from information provided by multiple representatives of the Prince George’s County Police Department. Through the application of this information it was determined that the cost of a single arrest is **\$254.41**.

To construct the cost model for *subsequent court cases*, the budgets of the Prince George’s County Circuit Court and District Court, the Prince George’s County State’s Attorney’s Office and the Prince George’s County Office of the Maryland Public Defender were analyzed. Caseload data from the Maryland Judiciary 2003-2004, 2004-2005, and 2005-2006 Statistical Reports were also used in determining the cost of a court case. The cost of an average *Circuit Court case* was found to be **\$1,017.58** and the cost of an average *District Court case* was found to be **\$448.46**. These costs take into account a broad range of cases, from dismissal through trials.

The cost per day was calculated based on information from the Prince George’s County Office of the Sheriff. Jail bed days at the County Correctional Center are **\$97.31** per person, which includes all staff time, booking costs, food, medical, and support/overhead costs.

Prison facilities in Maryland are operated by the Maryland Department of Public Safety and Correctional Services, Division of Corrections (DOC). To represent the daily cost of prison time

served by members of the drug court and comparison groups, information in the Department's 2006 annual report, including budget, facilities, and average daily population data were analyzed. The resulting prison cost per day (an average of all facilities operated by DOC) is **\$85.13**.

Adult probation services in Prince George's County are provided by the Maryland Division of Parole and Probation, a unit of the Department of Public Safety and Correctional Services, at a cost of **\$3.50** per day for case supervision. The reader should note that drug court participants are not on probation unless they receive a new charge that is adjudicated outside of, or after, drug court participation.

Outcomes and Outcome Cost Consequences

Table 11 represents criminal justice system outcome experiences of drug court graduates, the drug court group (graduates and non-graduates), and the comparison group over a period of 3 years. The program graduates are presented in a separate column (as well as being included with all drug court participants) for the interest of the reader.

Table 11. Average Number of Outcome Transactions per Drug Court and Comparison Group Member (Including Drug Court Graduates)

Transaction	Drug Court Graduates (n = 63)	All Drug Court Participants (n = 151)	Comparison Group (n = 189)
Arrests	0.34	0.71	0.60
Circuit Court Cases	0.31	0.44	0.47
District Court Cases	0.63	1.05	0.84
Jail Days	16.67	69.27	129.80
Prison Days	0.00	49.47	95.00
Probation Days	152.85	418.35	901.76

PGCADC participants show smaller numbers across every transaction except for arrests and District Court cases. PGCADC participants had fewer Circuit Court cases, fewer days on probation, and fewer jail and prison days than individuals in the comparison group.

Even though drug court participants were arrested more often than the comparison group, it can be inferred that the drug court participant arrests were for less serious offenses than the comparison group's arrests as the drug court participants had fewer Circuit Court cases, but more District Court cases. Two factors support assessment of this difference—the number of jail days and prison days due to those arrests. Drug court participants had about half of the number of jail days (about 61 fewer days on average) and about half of the number of prison days (about 45 fewer days on average) than comparison group members had. It is possible that drug court participants were arrested more often and for less serious charges because they are typically more closely monitored than other offenders.

From these results an interpretation can be reasonably asserted that participation in PGCADC is associated with positive effects in program participant outcomes in comparison to similar offend-

ers who did not participate in the program. In particular, graduates of the PGCADC exhibited notably more successful outcomes than other drug court participants and the comparison group.

Table 12 represents the cost consequences associated with criminal justice system outcomes for the drug court group, drug court graduates, and comparison group.

Table 12. Criminal Justice System Outcome Costs per Drug Court and Comparison Group Member (including Drug Court Graduates)

Transaction	Drug Court Graduates (n = 63)	All Drug Court Participants (n = 151)	Comparison Group (n = 189)
Arrests	\$87	\$181	\$153
Circuit Court Cases	\$315	\$448	\$478
District Court Cases	\$283	\$471	\$377
Jail Days	\$1,622	\$6,741	\$12,631
Prison Days	\$0	\$4,212	\$8,088
Probation Days	\$535	\$1,464	\$3,156
Total	\$2,842	\$13,517	\$24,883

Table 12 reveals that the experience of the drug court group, when compared to the experience of the comparison group, can be seen as resulting in cost savings throughout most of the criminal justice system. Drug court participants cost less for every transaction except for arrests and District Court cases.

The total criminal justice system cost savings per participant after 3 years is **\$11,366** per drug court participant, regardless of whether or not he/she graduates. When the **\$11,366** saved per drug court participant is multiplied by the 248 participants who have entered the drug court since its inception, **\$2,818,768** in total savings after 3 years is realized. If savings continue for each participant at the same rate, after 10 years the savings for these 248 participants will total over **\$9 million** (\$9,395,893).

This pattern of cost savings can be expected continue to grow with the number of participants that enter each year. If the PGCADC program continues to serve a cohort of 100 new participants annually, this savings of \$11,366 per participant over 3 years (or an average of \$3,789 per year) results in a savings of **\$378,900** per cohort year, which can then continue to be multiplied by the number of years the program remains in operation. This potential impact is illustrated in Figure 8.

Outcome Costs by Agency

Of particular interest to state and local policymakers and managers are the financial impacts on the agencies that support the operation of the drug court program. Table 13 represents these financial impacts for agencies of Prince George’s County and the State of Maryland. It should be noted that for some local agencies, the State and County share cost responsibility.

Table 13. Criminal Justice System Outcomes Costs by Agency per Drug Court and Comparison Group Member

Jurisdiction / Agency	Drug Court Graduates (n = 63)	All Drug Court Participants (n = 151)	Comparison Group (n = 189)
Circuit Court	\$106	\$150	\$160
District Court	\$28	\$46	\$37
State's Attorney's Office	\$113	\$165	\$167
Public Defender	\$352	\$558	\$490
Prince George's County Police Department ²¹	\$87	\$181	\$153
County Correctional Center	\$1,622	\$6,741	\$12,631
Maryland Dept. of Public Safety and Correctional Services	\$0	\$4,212	\$8,088
Division of Parole and Probation	\$535	\$1,464	\$3,156
Total²²	\$2,843	\$13,517	\$24,882

As can be seen in Table 13, it can be argued that cost savings are realized as the result of the PGCADC for five of the eight agencies impacted by the program. The District Court, the Public Defender, and the Prince George's County Police Department do not experience a cost savings. In terms of their comparative recidivist experiences, drug court participants (including graduates and non-graduates) are shown to cost **\$11,366** or **54%** less per participant than members of this study's comparison group.

Outcome savings associated with drug court participants accrued for some agencies and not for others. Two agencies involved in the post-adjudication experience of offenders realize the greatest financial benefit—the Maryland Department of Public Safety and Correctional Services and the Prince George's County Office of the Sheriff. While these agencies may not see a change in their overall budgets due to less recidivism from drug court participation, opportunity resources will be available for these agencies to focus on other offenders—perhaps offenders who have more serious criminal justice records than those of PGCADC participants.

Due to low rates of recidivism, drug court graduates experience the outcome costs that are lower than all drug court participants and the comparison group. PGCADC graduates show a savings, compared to drug offenders who did not participate in drug court, of \$22,041 after 3 years.

Note that these cost savings are those that have accrued in just the 3 years since program entry. Many of these savings are due to positive outcomes while the participant is still in the program.

²¹ The cost of an arrest conducted by the Prince George's County Police Department is used as the model for all law enforcement agencies in the county.

²² Totals in this row may not match the totals in the outcome costs by transaction table due to rounding.

Therefore, it is reasonable to assess that savings to the state and local criminal justice systems are generated from the time of participant entry into the program.

Outcome Costs by Jurisdiction

Of particular interest to state and local policymakers and managers are the financial impacts on the jurisdictions that support the operation of the drug court program. Table 14 represents these financial impacts for Prince George’s County and the State of Maryland.

Table 14. Criminal Justice System Outcomes Costs by Jurisdiction per Drug Court and Comparison Group Member

Jurisdiction/Agency	Average local/county cost per Drug Court Participant (n = 151)	Average state cost per Drug Court participant (n = 151)	Average local/county cost per Comparison Group Member (n = 189)	Average state cost per Comparison Group Member (n = 189)
Circuit Court	\$150	\$0	\$160	\$0
District Court	\$0	\$46	\$0	\$37
State’s Attorney’s Office	\$154	\$11	\$156	\$11
Public Defender	\$0	\$558	\$0	\$490
Prince George’s County Police Department ²³	\$181	\$0	\$153	\$0
County Correctional Center	\$6,741	\$0	\$12,631	\$0
Maryland Dept. of Public Safety and Correctional Services	\$0	\$4,212	\$0	\$8,088
Division of Parole and Probation	\$0	\$1,464	\$0	\$3,156
Total²⁴	\$7,226	\$6,291	\$13,100	\$11,782

It was not possible to calculate cost outcomes beyond 3 years for this study. Looking at a longer follow-up period would result in a sample size that would be too small to interpret. As described above, if drug court participants continue to have positive outcomes in subsequent years,²⁵ then cost savings can be expected to continue to accrue over time, effectively repaying the program investment costs and providing further savings in opportunity resources to public agencies.

²³ The cost of an arrest conducted by the Prince George’s County Police Department is used as the model for all law enforcement agencies in the county.

²⁴ Totals in this row may not match the totals in the outcome costs by transaction table due to rounding.

²⁵ Other drug court studies, e.g., Carey, Finigan, et al., 2005; Finigan et al., 2007, have demonstrated long-term positive outcomes.

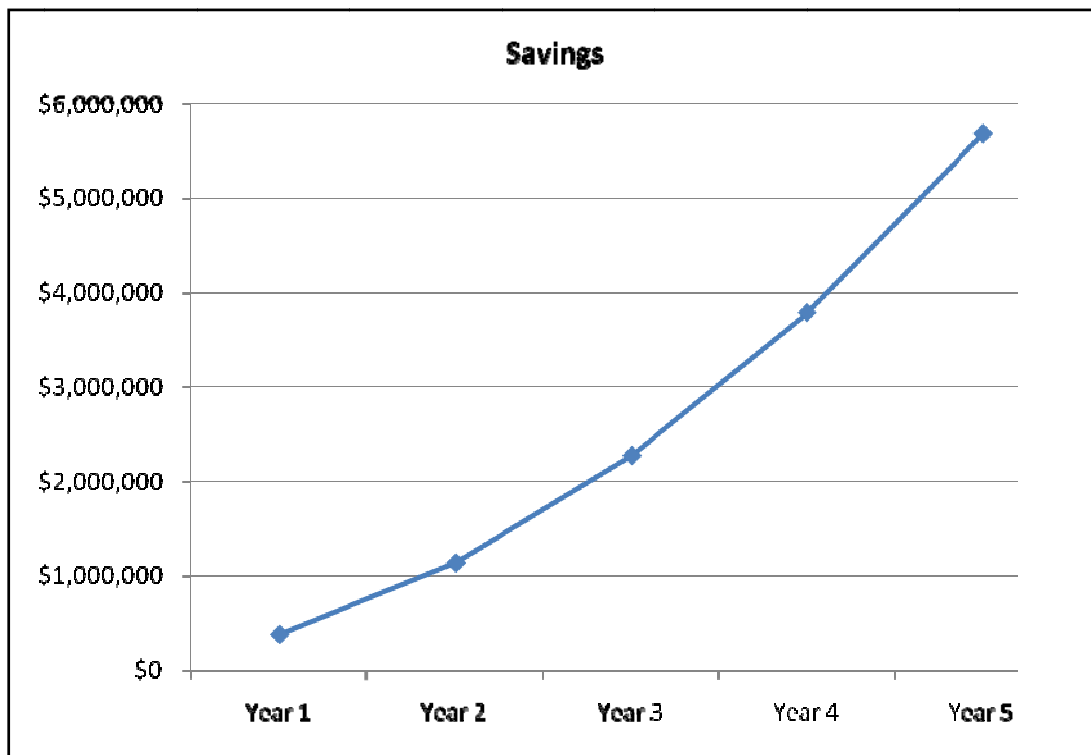
Cost Results Summary and Conclusions

Costs tracked in this study were those of state and locally funded public services. The average cost for the PGCADC program was **\$28,981** per participant.

The outcome cost comparison indicates that participation in the drug court offers positive financial benefits to Prince George’s County and Maryland taxpayers. This benefit is due to reductions in subsequent incarceration and probation experiences among PGCADC participants. Over a 3-year period, recidivism-related costs associated with PGCADC participants were **\$13,517 per participant** as compared to **\$24,883** per comparison group offender—a difference per participant of **\$11,366**. When this per participant savings is multiplied by the 248 offenders who have participated in PGCADC program since it began operation, the cost savings for outcomes over a 3-year period from program entry is **\$2,818,768**.

It can be argued that savings resulting from PGCADC operation will also continue to grow with the number of participants that enter each year. If PGCADC program continues to serve a cohort of **100** new participants annually,²⁶ this savings of \$11,366 per participant over 3 years (or an average of \$3,789 per year) results in an annual savings of **\$378,900** per cohort.

Figure 8. Criminal Justice Cost Savings (one new Drug Court cohort per year)



²⁶ Program staff indicated that because program participation had grown since this study time period, this estimate of new participants is reasonable.

As PGCADC continues operation, the savings generated by program participants due to decreased substance use and decreased criminal activity can be expected to continue to accrue, effectively more than repaying state and local public investments in the program. At the current rate of savings and current program costs, participants repay the program investment (drug court program costs) within 8 years. Potential improvements in participant outcomes could increase savings in future years and repay the program's investments even sooner.

Overall, these findings indicate that PGCADC is both beneficial to drug court participants and cost-beneficial to Maryland taxpayers.

SUMMARY AND CONCLUSIONS

Prince George's County Circuit Court Adult Drug Court (PGCADC) was established in August 2002, to serve felony offenders with drug-related related charges. The goals of PGCADC program include reducing recidivism and drug use, engaging participants in productive activities, and helping them to become self-supporting.

The outcome and cost-benefit analyses included in the current report were based on the experience of a cohort of PGCADC participants who entered the program between August 2002 and August 2005, and a matched comparison group of similar offenders who were eligible for the program but did not participate. The outcome results over 24 months from program entry indicated that 13% of the graduates and 30% of the entire drug court participant sample were re-arrested following entrance into the drug court program, while 30% of the comparison group were re-arrested in the 24-month period. PGCADC participants were arrested for significantly more drug-related, property, and person-related crimes in the follow-up period. However, program participants were more likely to be involved in District Court cases while the comparison group individuals were more likely to be involved in Circuit Court cases. District Court cases are indicative of less serious crimes. It is possible that the drug court participants were more closely monitored due to their involvement in the program and therefore were caught in illegal behaviors more often than the comparison group. However, PGCADC participation was found to be cost-beneficial to the state and local criminal justice system.

PGCADC can be viewed as successful in reducing substance use among its participants while they are involved in the program. The average percentage of positive drug tests declined over the first 12-month period of drug court involvement (the period for which adequate data were available). This finding was consistent for program graduates and non-graduates. An inference can be drawn that, because the program did not have a fully random drug testing procedure during the study period, drug test results should be interpreted with caution. Drug court participants were more likely than those in the comparison group to be arrested for drug-related crimes during the follow-up period.

In addition to reduced substance use, drug court participants experienced other positive outcomes, including fewer Circuit Court cases, probation days, and jail days. These outcomes resulted in lower costs to the criminal justice system than those for similar offenders who did not experience PGCADC. Over a 3-year period, the recidivism-related costs of PGCADC participants were **\$13,517 per participant** compared to **\$24,883** per offender who did not participate in drug court, resulting in a difference per participant of **\$11,366**. When this per participant savings is multiplied by the 248 offenders who have participated in PGCADC since it began operation, the total current program cost savings (for outcomes over a 3-year period from program entry) is close to **\$2.2 million**.

The average cost for the PGCADC program was found to be **\$28,981** per participant. At the current rate of savings associated with lower recidivism costs and current program costs, state and local investments in the program are effectively repaid within 8 years. Potential improvements in participant outcomes could increase savings in future years and repay the program's investments even sooner.

Recommendations

The results of this study indicate that PGCADC participants, the criminal justice system, and the community benefit from this program in various ways. However, there are some areas in which the program could make adjustments that might further improve outcomes. Some of these areas were identified during a process evaluation of this program that was completed in June 2007.

PROGRAM MODEL

There are indications from the PGCADC process evaluation that this program deploys a more punitive approach than other drug court programs. Indicators of this assessment include a program position that positive UAs are infractions rather than therapeutic tools; team members reporting to researchers that the program is overly restrictive; and frequent use of jail as a sanction. It may be some participants are not engaging in the program or able to sustain their participation because they need additional support in their recovery and have other unmet needs.

Receipt by program staff of training on strength-based approaches to service delivery and mentoring from more therapeutically-focused staff from other drug court programs could help change the focus of this program. Reductions in use of jail could result in substantial cost savings for the program.

As of the date of this report the PGCADC team is engaged in discussions about changing the program model to represent a more therapeutic focus. The team should consider shifting its view of positive drug tests as a treatment issue rather than as a reason for sanctions. For example, if positive drug tests prompted increased services and treatment intervention rather than sanctions, the program staff would send participants the message that they care and are supportive; while communicating that the expectation is for participants to become and remain clean and sober.

The program has implemented an orientation process so that participants understand the expectations of PGCADC and how to avoid sanctions. This program adjustment will likely improve participant compliance, particularly if it is coupled with regular reminders.

ASSESSMENT, TREATMENT, AND CASE MANAGEMENT

At the time of this study period, the program had a decentralized assessment and treatment structure. Drug court participants received a brief assessment with a case manager and then received a full assessment at one of six treatment providers, which were often selected based on their geographic location relative to the participant's residence. The program has since changed to a model wherein case managers conduct a full, consistent assessment prior to drug court entry. The assessment indicates the needs of the participant, which can then be used to match her/him to the most appropriate provider, which is then weighed with the geographic consideration. According to the Center for Substance Abuse Treatment (2008), consistent, high quality, comprehensive assessment is a best practice in providing high quality substance abuse treatment services, particularly to identify co-occurring disorders and participants with extensive criminal or substance abuse histories, and significant risk factors. The assessment information should be used to create individualized service plans.

In the drug court research literature, programs that had a single provider, or a central intake model, had greater cost savings (reduced outcome costs) [Carey, Finigan, & Pukstas, 2008]. Benefits of fewer providers or a central intake process include consistent assessment, clear and frequent communication between treatment providers and the court, and simplified or centralized responsibility for ensuring that the level of treatment is well matched to the participants' needs.

PGCADC representatives report that the six service providers are currently coordinated through the County Health Department. There are future plans to reduce the number of treatment providers. Work has also begun to improve the relationship between the program and the treatment providers. The program has focused on increasing communication between providers and the program/court. These improvements include requesting updates on participants when the drug court staff members need information about participant progress for court reviews.

One area the program may consider involves the need for additional treatment resources in the community. It was reported by PGCADC representatives that participants often go to jail for 30 to 60 days to receive treatment services. Because of the high cost of the jail setting, developing additional community-based or residential treatment slots may be a more efficient use of resources.

PGCADC participants who were unsuccessful in the program were those with more extensive drug use or criminal histories. The program's implementation of a more comprehensive and consistent assessment process should help identify these individuals sooner and help staff members focus on creating packages of intensive or specialized services to address their many risks and needs. If the program can become successful with these participants, such as helping them avoid jail and increasing opportunities for diversion and community supervision, the program could increase the savings it is currently generating. Recent connections that have been developed by the program to provide vocational support to participants are an example of service enhancements that will benefit participants and help them to be more successful in realizing their lifestyle changes.

DRUG TESTING

Drug testing for this program is not completely random, nor observed. GPCADC team members have been working on this issue and recognize the limitations of its drug testing policy and procedures. The results of the PGCADC process evaluation indicated that consistent expectations among program participants regarding drug testing serves as an incentive for them not to use. The program is looking at various potential drug testing solutions, including adding another day of required drug testing during the week, getting staff designated at Butler House to conduct drug tests only for drug court participants, and/or having testing conducted at the program where they can ensure the tests are observed.

PROGRAM COSTS

PGCADC has several elements that contribute notably to its program costs. It maintains a low participant to case manager ratio, uses six well-compensated case managers that attend every drug court session, requires participants to start over at the beginning of a phase as a sanction, and uses a "1-week jail suspended sentence" sanction. While some of these elements (such as low case management caseloads) may contribute to the program's positive outcomes, high cost sanctions may not be as beneficial.

PGCADC leadership may find it useful to look at the program's use of jail time as a sanction, especially the "1 week jail suspended sentence" sanction, which can result in a participant going to jail for 7 days instead of 1. While jail days are a common sanction in drug courts and research has demonstrated that some use of jail can be an effective deterrent (Carey, Pukstas, Waller, Mackin, & Finigan, 2008), the use of a high number of days may not be the most effective sanction and also greatly increases costs (Carey, Waller, & Marchand, 2006). One reason it may be less effective to use extended jail time as a sanction is due to the difficulties it presents partici-

pants who are attempting to re-establish work and family relationships. Although short-term jail can be an effective message to participants of the results of inappropriate behavior, the costs of long-term jail may not be worth the benefits.

Despite the investment costs, the operation of PGCADC results in positive cost consequences in the state and local criminal justice systems. The program has made notable changes since the study period, and it is likely those changes will be reflected in more positive outcomes and positive cost effects in the future. As the existence of the program continues, the savings generated by drug court participants due to decreased substance use and decreased criminal activity can be expected to continue to accumulate, effectively repaying state and local public investments in PGCADC. These benefits could be even greater if the program implements the suggested changes.

Taken together, these findings indicate that PGCADC is both beneficial to drug court participants and beneficial to Maryland and Prince George's County taxpayers.

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