

# Howard County District Court DUI Court Program Outcome and Cost Evaluation



*Submitted to:*

**Gray Barton**

Executive Director  
Office of Problem-Solving Courts  
2011-D Commerce Park Drive  
Annapolis, MD 21401

*Submitted by:*

**NPC Research**  
Portland, Oregon

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4380 SW Macadam Ave., Suite 530  
Portland, OR 97239  
(503) 243-2436  
[www.npcresearch.com](http://www.npcresearch.com)



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*Submitted by*

NPC Research

*Research Team*

Juliette R. Mackin, Ph.D., Principal Investigator

Lisa M. Lucas, B.A., & Callie H. Lambarth, M.S.W., Outcome Study Coordinators

Mark S. Waller, B.A., & Theresa Herrera Allen, Ph.D., Cost Analysts

Shannon M. Carey, Ph.D., & Michael W. Finigan, Ph.D.,  
Consultants on Drug Court Research

For questions about this report or project, please contact Juliette Mackin at  
(503) 243-2436 x 114 or [mackin@npcresearch.com](mailto:mackin@npcresearch.com).

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*Informing policy, improving programs*



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## EXECUTIVE SUMMARY

### What Are DUI Courts?<sup>1</sup>

A DUI Court is an accountability court dedicated to changing the behavior of the hardcore offenders<sup>2</sup> arrested for Driving Under the Influence of Intoxicants. The goal of DUI Court is to protect public safety by using the highly successful Drug Court model that uses intensive supervision and long-term treatment to address the root cause of impaired driving: alcohol and other substance abuse. These court programs offer post-conviction intervention that involves coordination of multiple agencies and professional practitioners applying a variety of areas of expertise, intensive case management and supervision, and frequent judicial reviews. In the typical DUI court program, participants are closely supervised by a judge who is supported by a team of agency representatives that operate outside of their traditional, sometimes adversarial roles. Benefits to society take the form of reductions in DUIs and other crime committed by program participants, resulting in reduced costs to taxpayers and increased public safety. As of December 2008, there were 382 Hybrid DUI/Drug Courts in operation. (A Hybrid DUI/Drug Court is one that started out as a Drug Court that now also takes DUI Offenders) In addition, there were another 144 designated DUI Courts bringing the total number of specialized courts dealing with hardcore impaired drivers to 526.

### How Was This Study Conducted?

NPC Research, under contract with the Administrative Office of the Courts of the State of Maryland, conducted an outcome and cost study of the Howard County DUI Court program. This program is a combined drug court and DUI court program, but this report will focus only on the participants who are served by the DUI court side of the program. Another report covers the drug court participant outcomes and associated costs.

### Howard County DUI Court Program Description

Howard County DUI Court (HCDC) was formed in 2005, as an expansion to the Howard County Drug Treatment Court. The program has a capacity of 25 participants at a time and since inception has served 81 participants (as of 12/2/09).

The DUI Court has four phases that can be completed by participants in a period as short as 10 months (on average, participants remain in the program 15 months, with graduates having an average length of stay of 15.5 months and non-graduates staying an average of 12.5 months).

Throughout the program, participants attend DUI Court sessions evaluating their progress, meetings with a case manager, and counseling sessions with a treatment provider. The program requires that the individuals submit to drug testing, including breathalyzer and urinalysis tests.



<sup>1</sup> Information about DUI courts accessed online at <http://www.dwicourts.org/learn/about-dwi-courts/what-dwi-court>.

<sup>2</sup> Hardcore DUI offenders are defined as individuals who drive with a blood alcohol content (BAC) of 0.15 percent or greater, **or** who are arrested for or convicted of driving while intoxicated after a prior driving while impaired (DUI) conviction.

Some participants also wear SCRAM bracelets that monitor alcohol use.<sup>3</sup> The DUI Court uses incentives and sanctions to encourage positive behaviors.

The DUI Court has a graduation rate of 84%.

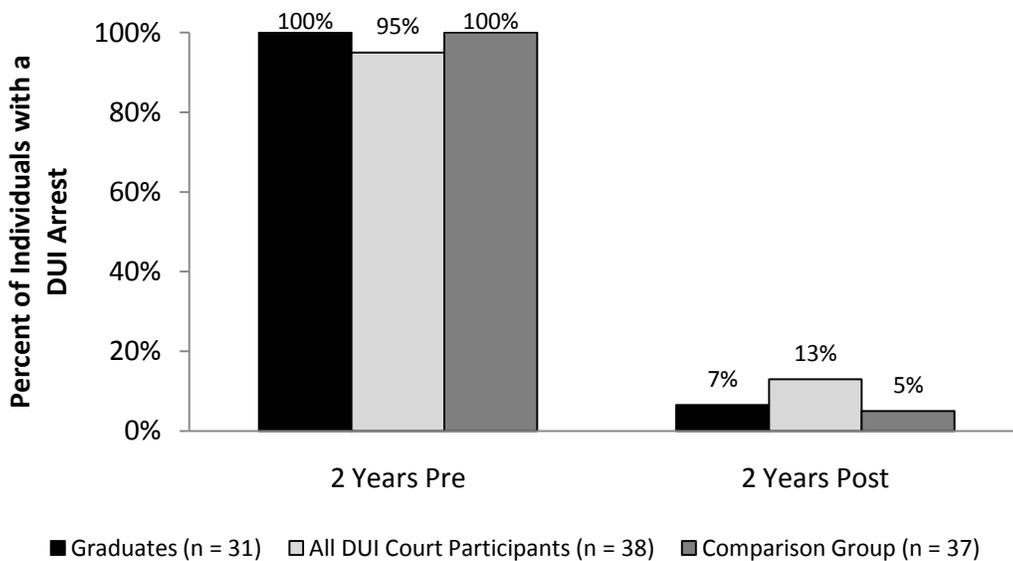
Three key policy questions of interest to program practitioners, researchers, and policymakers about DUI courts were addressed in this study.

### 1. Does the DUI Court Reduce Subsequent DUI Charges Among Program Participants?

**YES and NO: DUI Court participants showed significant reductions in DUI charges following entrance into the program.** However, the comparison group also displayed a reduction from pre to post, so it is not clear that this reduction is due to program participation. The DUI Court participants had comparable reductions in new DUI charges to other similar individuals with other court intervention.

The re-arrest rate for DUI charges decreased from 95% at pre-DUI Court participation to 13% post-DUI Court admission. This difference is statistically significant.

**Figure A. DUI Arrest Rates 2 Years Before & 2 Years After Program Entry**



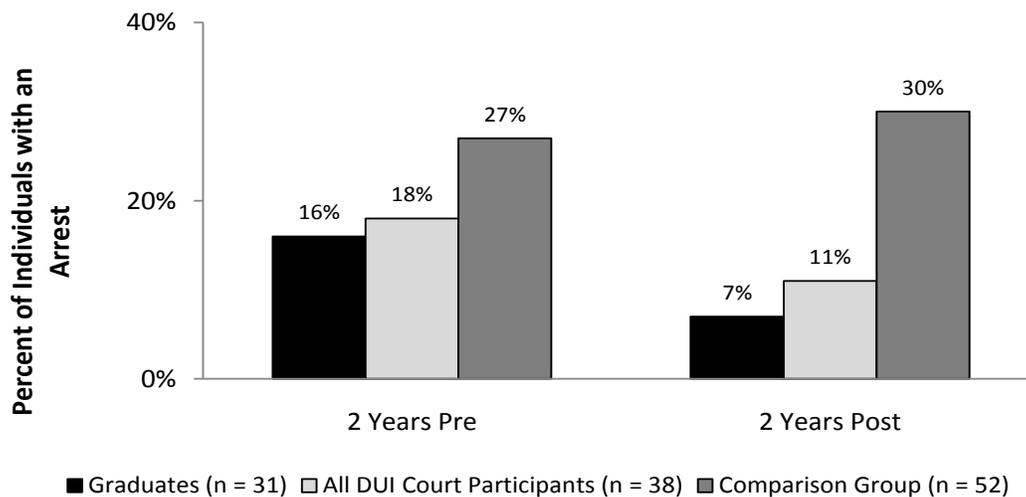
<sup>3</sup> SCRAM: Secure Continuous Remote Alcohol Monitoring is a bracelet worn by participants that monitors alcohol content in skin perspiration. It is a 24/7 monitoring program that is electronically linked to a computer database that records and alerts staff if alcohol is indicated or if the participant is attempting to tamper with the bracelet. SCRAM can also monitor the location of the participant.

## 2. Does the DUI Court Reduce Recidivism in the Criminal Justice System Overall?

**YES and NO:** There is a pattern of lower arrest rates and lower numbers of arrests for program participants compared to the comparison group over time.

While the pattern is promising, the difference in criminal arrest rate for the DUI Court group from the 2 years before program entry to the 2 years after program entry was not significant. However, comparison group individuals were arrested significantly more often than the DUI Court group at the 24 months post program entry (or equivalent) and the difference was not significant during the period before program entry (or equivalent).

**Figure B. Criminal Arrest Rates 2 Years Before & 2 Years After Program Entry**



## 3. Does the DUI Court Result in Savings of Taxpayer Dollars?

**YES:** Outcome costs for DUI Court participants showed substantial savings, when factored against the comparison group.

Overall, the DUI Court results in significant cost savings and a return on taxpayer investment in the program. The program investment costs are \$7,076 per DUI Court participant. When program costs are divided by the average number of days in the program, the cost per day per participant for the DUI Court program is \$15.67, which is significantly lower than the per day cost of both jail (\$117.53) and prison (\$85.15).

The cost due to recidivism over 24 months from program entry was \$4,056 per DUI Court participant compared to \$5,438 per comparison individual, resulting in a savings of \$1,382 per participant (regardless of whether they graduate). The vast majority of the cost in outcomes for DUI Court participants over the 24 months from DUI Court entry was due to time in jail (\$3,848), mostly for participants who were unsuccessful in completing the program. In sum, there is a clear benefit to the taxpayer in terms of criminal justice related costs in choosing the DUI Court process over traditional court processing.

## Recommendations for Program Improvement

The Howard County DUI Court program demonstrates promise in reducing negative behaviors, in particular, criminality. The small number of individuals who had 24 months of time after program entry may have limited this study's ability to find significant differences in some of the recidivism analyses; however, the patterns look promising and future studies may be able to demonstrate additional positive recidivism outcomes.

There are several areas that the program could focus on that have the potential to benefit participants and improve outcomes.

1. Continue to use SMART and advocate for the development of that system to facilitate the availability of summary reports so that the program can have access to and use its data for program monitoring and planning.
2. Continue working closely with participants who are struggling in the program to ascertain any additional support or treatment services that they could benefit from.
3. Continue to ensure that participants who are fitted with SCRAM alcohol monitoring bracelets use them for at least 90 days (as recommended by SCRAM personnel). Program data for the time period in this study indicated that many DUI Court participants who were fitted with SCRAM alcohol monitoring bracelets used them for less than 3 months, with about one third on for over 3 months, though the numbers in this study are small. However, the program may have already increased this usage with more recent participants. Discuss the program's use of SCRAM and the benefits of keeping participants on for longer periods of time (to prevent potential relapse) when participants are struggling with their sobriety, to maximize the impact of this monitoring system.

## INTRODUCTION AND BACKGROUND

### The DUI Court Model

In the last 20 years, one of the most dramatic developments in the movement to reduce substance abuse among the criminal justice population in the United States has been the spread of drug courts across the country. This model has been demonstrated to be so successful at reducing criminality (GAO, 2005), and in reducing taxpayer costs due to positive outcomes for drug court participants (Carey & Finigan, 2004; Carey, Finigan, Waller, Lucas, & Crumpton, 2005), it has been expanded to address specialized populations and issues, such as individuals arrested for Driving Under the Influence (DUI).

A DUI Court is an accountability court dedicated to changing the behavior of the hardcore offenders<sup>4</sup> arrested for Driving Under the Influence of Intoxicants. The goal of DUI Court is to protect public safety by using the highly successful Drug Court model that uses intensive supervision and long-term treatment to address the root cause of impaired driving: alcohol and other substance abuse. These court programs offer post-conviction intervention that involves coordination of multiple agencies and professional practitioners applying a variety of areas of expertise, intensive case management and supervision, and frequent judicial reviews. In the typical DUI court program, participants are closely supervised by a judge who is supported by a team of agency representatives that 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.

Benefits to society take the form of reductions in DUIs and other crime committed by program participants, resulting in reduced costs to taxpayers and increased public safety. As of December 2008, there were 382 Hybrid DUI/Drug Courts in operation. (A Hybrid DUI/Drug Court is one that started out as a Drug Court that now also takes DUI Offenders) In addition, there were another 144 designated DUI Courts bringing the total number of specialized courts dealing with hardcore impaired drivers to 526.

In 2001, NPC Research, under contract with the Administrative Office of the Courts of the State of Maryland, began cost studies of adult, juvenile and family drug courts across the state. The results presented in this report include the costs associated with the Howard County District Court DUI Court program and the outcomes of participants as compared to a sample of similar individuals who received traditional court processing. This program is a combined drug treatment court and DUI court program, but this report will focus only on the participants who are served by the DUI court side of the program. Another report will cover the drug treatment court participant outcomes and associated costs.

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<sup>4</sup> Hardcore DUI offenders are defined as individuals who drive with a blood alcohol content (BAC) of 0.15 percent or greater, or who are arrested for or convicted of driving while intoxicated after a prior driving while impaired (DUI) conviction.

## **Process Description: Howard County District Court, DUI Court Program**

### **HOWARD COUNTY, MARYLAND**

Howard County is considered to be part of the Baltimore, Maryland-Washington, D.C. metropolitan area. According to the 2008 U.S. Census Bureau estimate,<sup>5</sup> it had a population of 274,995, with 75% over the age of 18. Howard County's racial/ethnic composition in 2008 was estimated at 68% White, 17% Black or African American, 12% Asian, less than 1% American Indian and Alaska Native, and less than 1% Native Hawaiian and other Pacific Islander. Those individuals of Hispanic or Latino origin (of any race) comprised 5% of the County's population. The Census found that the 2007 median household income in the county was \$100,744, with 4.5% of families living below federal poverty level.

The Howard County Drug/DUI Court (HCDC) is located in Ellicott City, the county seat, which had an estimated population of 56,397 in 2000.<sup>6</sup>

### **BACKGROUND AND TEAM**

The HCDC consists of two components—the drug court and the DUI court, though this report focuses on the DUI court side of the program. The DUI court was designed to serve 25 participants at a time. The DUI court program began serving participants in January 2005. As of December 2009, 81 participants have been served since inception. Team members include the Judge, Drug Court Coordinator, DUI Case Manager (DUI Court staff), Assistant State's Attorney, and Assistant Public Defender. Law enforcement agencies, including Parole and Probation, are not represented on the DUI Court Team.

The HCDC team makes all policy decisions.

### **ELIGIBILITY AND DUI COURT ENTRY**

Eligibility is determined by the court after consideration of a number of factors, including—but not limited to—the eligibility criteria listed below, the seriousness and circumstances of the pending case, the individual's prior record, amenability to treatment, and public safety. An eligibility hearing takes place, at which the state and the defendant present any information or arguments regarding eligibility for the DUI court program. Eligibility is initially determined by the State's Attorney's Office and ultimately by the DUI court judge.

Eligibility requirements, DUI court program:

1. 18 years of age or older
2. Howard County resident (an exception may be made if the defendant agrees to and is available to undergo treatment and supervision in Howard County)
3. No pending sentencing, warrants, or detainers
4. Not currently on parole
5. Not currently on probation unless sentencing judge agrees to participation

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<sup>5</sup> <http://quickfacts.census.gov/qfd/states/24/2467675.html>

<sup>6</sup> <http://censtats.census.gov/data/md/1602426000.pdf>

6. Only charges pending in Howard County are eligible for inclusion in plea negotiations, unless parties involved in cases from other jurisdictions agree
7. The defendant has not previously been convicted of any crime of violence, abduction, child abuse, rape or sexual offense, kidnapping, robbery, robbery with a deadly weapon, carjacking, use of a weapon in commission of a felony or crime of violence, arson, or attempts at any of the above offenses. An exception may be made if the offense occurred more than 10 years earlier.
8. Charged with a DUI/DWI and has at least one prior conviction.

The HCDC began as a pre-sentence program, but has been a post-plea, post conviction program since February 2007.

When individuals are arrested, the SAO receives the police reports, and the Assistant State's Attorney working with the DUI court looks for cases that would be appropriate for the HCDC program. Referrals may also be made by the court/Judge, defendants, defense attorneys, and the Health Department. Referrals are forwarded to the HCDC Coordinator, who refers the case to the SAO for eligibility screening. The ASA conducts a background check, including information about time(s) on probation, if any. If an individual is determined to be eligible, the program is explained to the potential participant by the defense attorney or the HCDC Coordinator. If an individual wishes to participate in the program, he/she receives a packet of information and agreements to complete (e.g., release of information form, policy manual), and is notified of the date and time to attend first DUI court session, at which time the plea is entered. Prior to entry of the guilty plea, the participant is referred to the Howard County Health Department for a bio/psycho/social evaluation and development of a treatment plan. The Health Department (or private provider) conducts a drug and alcohol assessment using the Addiction Severity Index and determines the level of care through use of the American Society of Addiction Medicine-Placement Criteria 2. Persons with co-occurring substance abuse and mental health issues may be accepted into the program, if the assessment determines they are able to benefit from treatment and control their behavior. The Court makes the final decision regarding entry after consideration of the recommendations of the State's Attorney's Office and the Defendant or his/her counsel.

#### **DUI COURT PROGRAM PHASES AND REQUIREMENTS**

The HCDC program has four phases, lasting a minimum of 11 to 12 months. (On average, participants remain in the program 15 months.) During Phase I, DUI court participants receive drug tests every Monday, plus randomly (depending on phase requirements), and sometimes on the day of DUI court. At the time of each drug/alcohol test, a breathalyzer test is also used to test for alcohol use. SCRAM bracelets may also be used to monitor alcohol use continuously (24/7). Participants are also expected to develop and begin a treatment plan with the provider, attend court sessions every 2 weeks, and have regular contact with the case manager. During Phase II, they have scheduled UAs once per week and random UAs at least once per week (or as directed), attend court sessions 1 to 2 times per month, and continue with the treatment plan and with regular contact with the case manager. For Phase III, UAs are on a random basis (or as directed), participants attend court monthly, complete their treatment goals and treatment plan, and meet with the case manager every 3 weeks. Phase IV participants have UAs on a random basis (or as directed), attend court every 6 weeks, comply with court aftercare, and have contact with the case manager every 4 to 6 weeks.

**INCENTIVES AND SANCTIONS**

Participants in the HCDC program receive rewards (applause and a gift certificate) when they move to a new phase of the program. A participant who is clean and sober for 6 months receives a certificate and a \$10 gift certificate to Giant Food Store, Payless Shoes, Target, Wal-Mart, or McDonald's.

Participants are sanctioned if they do not comply with DUI court requirements. The range of sanctions differs depending on the behavior. Sanctions for general violations, i.e., missing counseling sessions, missing appointments with the case manager, or testing positive for drugs or alcohol; or failure to pay restitution include warnings, community service, and jail time (which escalates for each offense). Appearing in court under the influence may result in being taken into custody, being sent to jail or detoxification, receiving a relapse evaluation/intervention, or an adjustment in treatment plan. Absconding could result in jail time, being returned to an earlier phase, or being terminated from the program. An individual may also be terminated from the program for having a new arrest or conviction. A full hearing is held before the judge before a person can be terminated.

**GRADUATION AND UNSUCCESSFUL COMPLETIONS**

In order to graduate from the DUI court program, participants must complete all program requirements. Participants who are not meeting program requirements and/or those who reoffend or violate conditions of probation several times may be removed from the program. The graduation rate (the number of participants who completed the program successfully divided by the number of participants who exited the program) is 84%.

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# OUTCOME/IMPACT EVALUATION

## Outcome Evaluation Methods

### RESEARCH STRATEGY

The primary criminal justice system outcome of interest to DUI court programs is DUI recidivism of participants after beginning, or completing, the programs. These programs also work to reduce and prevent other criminal offending. Arrests for DUI charges are separated out in each analysis to demonstrate the impact of the program on its intended goal of reducing the impact of DUI related cases on criminal justice resources. Criminal re-arrests are defined in this study as any new criminal arrest after program entry; this study does not include non-criminal events, such as traffic citations.

This study examines outcomes over a 2-year period for Howard County DUI Court program participants and a matched comparison group. This program is a combined drug court and DUI court program, but this report will focus only on the participants who are served by the DUI court side of the program. Another report covers the drug court participant outcomes and associated costs.

NPC Research staff identified a sample of DUI Court participants who entered the program between September 2004 and August 2008. This time frame included all DUI Court participants since the program's inception and allowed for the availability of at least 6 months of recidivism data post-program entry for all sample participants. Although it is generally advisable to leave out participants in the first 6 months to a year of program implementation (due to typical program adjustments when starting out) that was not feasible for this study due to the small number of participants.

Many of the outcome results present data for different groups of individuals who had 6, 12, 18 and 24 months of available follow-up time, with the 6-month group being the largest and the 24-month group being the smallest. The shorter follow-up period has the advantage of larger numbers but the disadvantage of representing time that most individuals were still in the program and with little time to demonstrate program impact. The longer follow-up periods allow for more time to see program impact but the group sizes become too small in some cases to be able to measure significant differences between the program and comparison groups. The cost study section of this report uses the 24-month follow-up period to balance the need for a large enough group but also enough time to measure program impacts.

Graduation rates were calculated for the DUI Court by dividing the number of participants who graduated by the total number who exited the program during the study time period. The graduation rate does not include active participants.

Differences in demographics and criminal history between DUI Court graduates and non-graduates were examined to determine if there were indications that specific groups would need additional attention from the program to increase successful outcomes.

## OUTCOME/IMPACT STUDY QUESTIONS

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

1. Does the DUI Court reduce subsequent DUI charges?
2. Does the DUI Court program reduce recidivism in the criminal justice system overall?
3. To what extent are participants successful in completing the DUI Court program?
4. What participant and program characteristics predict successful outcomes (i.e., program completion, decreased recidivism)?

## DATA COLLECTION AND SOURCES

NPC staff members adapted procedures developed in previous drug court evaluation projects for data collection, management, and analysis of these data. The data collected included days spent in prison and local jail, criminal justice histories in the form of arrest records, local court case information, substance abuse treatment services and program data from multiple sources.<sup>7</sup> Once data were obtained for the participant and comparison groups, the data were compiled, cleaned and moved into SPSS 15.0 for statistical analysis. The evaluation team employed univariate and multivariate statistical analyses using SPSS, which is described in more detail in the data analysis section. The majority of the data necessary for the outcome evaluation were gathered from the administrative databases described below and in presented in Table 1.

### *Howard County DUI Court*

Data were provided by the DUI Court office that included names, demographic information, program acceptance status, time spent in the program, and discharge status for participants only.

### *Maryland Department of Public Safety & Correctional Services*

The Maryland Department of Public Safety & Correctional Services (DPSCS) provided data for DUI Court program participants and the comparison group individuals from their management information system that stores Maryland adult criminal justice information in the OBSCIS I & II and Criminal Justice Information System (CJIS) systems, including arrest information, charges, prison and local jail stays and probation and parole episode information through July 2009.

### *Maryland Judicial Information System (JIS)*

The Maryland Administrative Office of the Courts provided data from their JIS system on court cases heard in Howard County for DUI Court participants and the comparison group. Traffic data were also provided from January 2002 through September 2009.

### *Substance Abuse Management Information System (SAMIS)*

Substance abuse treatment data for the DUI Court participants were obtained from administrative records at the Maryland Alcohol and Drug Abuse Administration (ADAA). These records included dates of treatment episodes, level of care for services provided (e.g., individual counseling session, intensive outpatient session, detoxification) and drug testing conducted by treatment facilities.

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<sup>7</sup>All data were gathered for this study with appropriate Institutional Review Board approval, including HIPAA waivers. Memoranda of Understanding (MOUs) with individual data sources were also obtained as needed.

*Statewide Maryland Automated Record Tracking (SMART) operated by the University of Maryland, Institute for Governmental Services and Research*

Data were extracted from SMART, a client tracking system for state agencies and private treatment providers, for DUI Court participants. These data include the results of urinalysis tests, dates of court hearings, and contacts with probation officers for individuals in the program from May 2009 (when the program began using this data system) to August 2009.

**Table 1. Data Sources**

<b>Database</b>	<b>Source</b>	<b>Example of Variables</b>
Program Coordinator's List of Participants	Program Coordinator	Acceptance status, time spent in DUI Court, discharge status.
Offender Based State Correctional Information System (OBSCIS II) [electronic data]	Maryland Department of Public Safety & Correctional Services (DPSCS)	Demographics, prison data.
Criminal Justice Information System (CJIS) [electronic data]	Maryland Department of Public Safety & Correctional Services (DPSCS)	Adult arrest history, arrest charges.
Judicial Information Systems (JIS) [electronic data]	Maryland Judiciary, on behalf of the State court systems (including the Motor Vehicle Administration and DPSCS)	District Court case management (e.g., case dates); traffic data.
Maryland Judiciary Case Search (online electronic data)	Maryland Judiciary	DUI Court hearing information.
Substance Abuse Management Information System (SAMIS)	Maryland Department of Health and Mental Hygiene (DHMH); Alcohol and Drug Abuse Administration (ADAA)	Number of treatment episodes; time spent in treatment; level of care; drug of choice.

## **SAMPLE SELECTION**

### ***DUI Court Participant Group***

This study examines outcomes over a 2-year period for program participants and a matched comparison group. All DUI Court participants who entered the program from September 2004 to August 2008 were selected for this study (5 individuals did not have enough follow-up time and were excluded from the study). DUI Court participant information was obtained from a list kept by the Program Coordinator. The number of DUI Court participants in this study's cohort is presented in Table 2 by the year of their admission.

**Table 2. Howard DUI Study Participants by Year of Court Admissions**

Year	Admissions
2004	3
2005	8
2006	17
2007	19
2008	19
<b>Total</b>	<b>66</b>

### *Comparison Group*

A comparison group was created for this study based on the eligibility criteria used by the program to select its participants. Potential participants must be adult residents of Howard County at the time of their violation, charged with a DUI/DWI, and have at least one prior DUI conviction and have had no history of violent offenses. These criteria were used for selecting a comparison group in consultation with the program coordinator and state’s attorney’s office representative in accordance with the written program eligibility criteria.

Possible comparison individuals were identified from a list of people on probation in Howard County through the District Court for a DUI charge, who had a history of DUI charges in the statewide traffic data and who also had a DUI Court-eligible criminal history in the statewide arrest records. The DUI Court program participants and comparison group individuals were matched on age, gender, race/ethnicity, indication of an alcohol or drug issue by their probation officer and if they had a statewide criminal history on record. Any differences in the data used for matching between the DUI Court participants and comparison group individuals were controlled for in the subsequent outcome analyses. The final sample included 66 DUI Court participants and 55 comparison individuals.

### **LIMITATIONS**

Findings from this study should be interpreted with caution due to the following limitations:

**Differences between the comparison group and DUI Court group:** The individuals in the study sample were not randomly assigned to DUI Court and comparison groups due to the desire of the program to serve all eligible participants who opted to participate and the interest in having a larger group of individuals served to measure recidivism. Attempts made to create a comparison group sample from the data provided by the Department of Public Safety and the Administrative Office of the Courts proved somewhat challenging as DUI charges were not apparent in the criminal histories data and motor vehicle records were not available. Additionally, traffic data provided information from 2002-present for Howard County only, allowed for matching of DUI cases between the two groups locally, for that amount of time only, rather than statewide lifetime counts of prior DUI charges. Criminal history data were available for more members of the comparison group than the DUI Court group, which may have introduced some bias.

**Unavailable data:** As mentioned above, DUI charges did not consistently appear in the statewide criminal histories data, motor vehicle records were unavailable and many of the study participants did not have a statewide criminal history record, perhaps due to having fewer local offenses. Data on treatment services also appeared to be missing from state records. Finally, data

from the Administrative Office of the Courts on traffic offenses were only provided as far back as 2002.

**Short follow-up time period:** Because of the small sample sizes, it was necessary to include all DUI Court participants through September 2008, which resulted in a follow-up time period for some DUI Court participants of only 6 months (due to lead time needed to access some data). Many DUI Court study participants were still receiving program services at the time of the study. In addition, 6 months is a relatively brief period of time to observe outcomes of interest.

**Start-up participants were included in the participant sample:** DUI Court participants who received services during the implementation of the program were included to increase sample sizes. Typically, participants in court programs during the first 6 to 12 months post program start-up are excluded in order to avoid introducing biases based on implementation factors, including lower fidelity to the intended program model, lack of staff experience with the program, and staff turnover.

A future study of the potential impacts of the Howard County District Court DUI Court program is suggested, given the limitations of the current study. An increased follow-up time period, larger sample sizes that would increase statistical power and allow participants who were in the program during the first year of the program to be omitted, as well as obtaining data that were more complete would provide additional information about the impact of this program.

## DATA ANALYSES

Once the comparison group was selected and all data were gathered on all study participants, the data were compiled, cleaned, and imported into SPSS 15.0 for statistical analysis. The analyses used to answer specific questions were:

1. Does the DUI Court reduce subsequent DUI charges?

Univariate analysis of variance was performed to compare the mean number of re-arrests for DUI charges for the DUI Court participant and comparison groups. The means comparing the DUI Court and comparison groups were adjusted for any differences between the groups on gender, age at eligible arrest, race/ethnicity, number of prior arrests, type of prior arrests present, type of eligible arrests present, and time at risk to re-offend. Time at risk was calculated by summing the total amount of days the individual was incarcerated during each follow-up period and then subtracted that number from the total possible time during the follow-up period, resulting in the total amount of time in each follow-up period that the individual was potentially in the community to re-offend.

The non-adjusted means for graduates within each group are included for reference but should not be compared directly with the comparison group as the comparison group includes an unknown number of individuals who, had they participated in the DUI Court, may have been discharged from the program and are therefore not equivalent to DUI Court graduates.

Crosstabs were run to examine differences in recidivism rates, i.e., the percentage of individuals re-arrested, between DUI Court participant and comparison groups. Chi-square analyses were used to identify any significant differences in re-arrest rates between DUI Court and comparison groups.

2. Does the DUI Court program reduce recidivism in the criminal justice system overall?

Univariate analysis of variance was performed to compare the mean number of re-arrests for DUI Court and comparison groups. The means comparing the DUI Court and comparison groups were adjusted for any differences between the groups on gender, age at eligible arrest, race/ethnicity, number of prior arrests, type of prior arrests present, type of eligible arrests present, and time at risk to re-offend. Time at risk was calculated by summing the total amount of days the individual was incarcerated during each follow-up period and then subtracted that number from the total possible time during the follow-up period, resulting in the total amount of time in each follow-up period that the individual was potentially in the community to re-offend.

The non-adjusted means for graduates within each group are included for reference but should not be compared directly with the comparison group as the comparison group includes an unknown number of individuals who, had they participated in the DUI Court program, may have been discharged from the program and are therefore not equivalent to drug court graduates.

Crosstabs were run to examine differences in recidivism rates, i.e., the percentage of individuals re-arrested, between DUI Court and comparison groups. Chi-square analyses were used to identify any significant differences in re-arrest rates between DUI Court and comparison groups.

3. To what extent are participants successful in completing the DUI Court program and within the intended time period?

To measure the programs' level of success at graduating participants, graduation rates and average lengths of stay were calculated. Graduation rates were calculated by dividing the number of participants who were no longer active in the DUI Court program by the number of graduates, i.e., participants who completed the program successfully, of those individuals who had enough program time to have a completion status. Average length of stay was calculated as the mean number of days between the program start date and program end date for each participant, to determine if, on average, participants graduated within the intended time period.

4. What participant and program characteristics predict successful outcomes, i.e., program completion and decreased recidivism?

Graduates and non-graduates from the DUI Court were compared on demographic characteristics and number of arrests during the 2 years prior to program entry to determine whether any characteristics predicted program graduation or recidivism. In order to best determine which demographic characteristics were related to graduation, Chi-square and independent samples t-tests were performed to identify which factors were significantly associated with program success.

Participant characteristics were also examined in relation to subsequent re-arrests following program entry. Chi-square and independent samples t-test were performed to identify which factors were significantly associated with recidivism. Logistic regression was also used, including all variables of interest in the model, to determine which characteristics were significantly related to being re-arrested, above and beyond other characteristics.

Ultimately, the DUI Court and comparison groups were examined through data provided by DPSCS for a period up to 2 years from the date of DUI Court program entry or equivalent. The evaluation team utilized the arrest history data to determine whether there was a difference in re-arrests, placements, and other outcomes of interest between the DUI Court and comparison groups.

All individuals who were studied for the outcomes report had at least 6 months of follow-up time, which included 66 DUI Court participants (39 graduates, 7 non-graduates, and 20 active participants) and 55 comparison group individuals.

## Outcome Evaluation Results

Table 3 provides demographic information for the DUI Court and comparison groups. Independent samples t-tests and chi-square analyses showed no significant differences between the DUI Court and comparison groups on the characteristics listed in this table.

**Table 3. DUI Court and Comparison Group Characteristics**

	All DUI Court Participants N = 66	Comparison Group N = 55
Gender		
Male	77%	80%
Female	23%	20%
Ethnicity		
Caucasian	71%	76%
Non-Caucasian <sup>8</sup>	29%	24%
Mean age at eligible arrest date	37 years	34 years
Median	37 years	34 years
Range	(range 20 – 68)	(range 19 – 53)
Average number of DUI charges in the 2 years prior to program entry or equivalent <sup>9</sup>	1.29 (range 0 – 3)	1.31 (range 1 – 3)
Average number of DUI charges from 2002-September 2009 (prior to program entry or equivalent)	1.56 (range 0 – 4)	1.44 (range 1 – 3)
Type of prior arrest charges in the 2 years prior to the program start date or equivalent		
Drug-related	13%	18%
Property-related	6%	9%
Person-related	2%	0%
‘Other’	6%	15%
Average number of arrests in the 2 years prior to program entry or equivalent	.26 (range 0 – 3)	.38 (range 1 – 3)
Average number of total arrests prior to program entry or equivalent	1.30 (range 0 – 14)	1.61 (range 0 – 9)

<sup>8</sup> Non-Caucasian DUI Court participants were 53% African American, 26% Hispanic, 11% Asian and 11% “other” and the comparison group non-Caucasian individuals include 77% African American, 8% Asian and 15% “other” participants.

<sup>9</sup> Eligibility criteria for the program include prior arrests for DUI charges, therefore all participants and comparison group individuals have at least one prior DUI arrest.

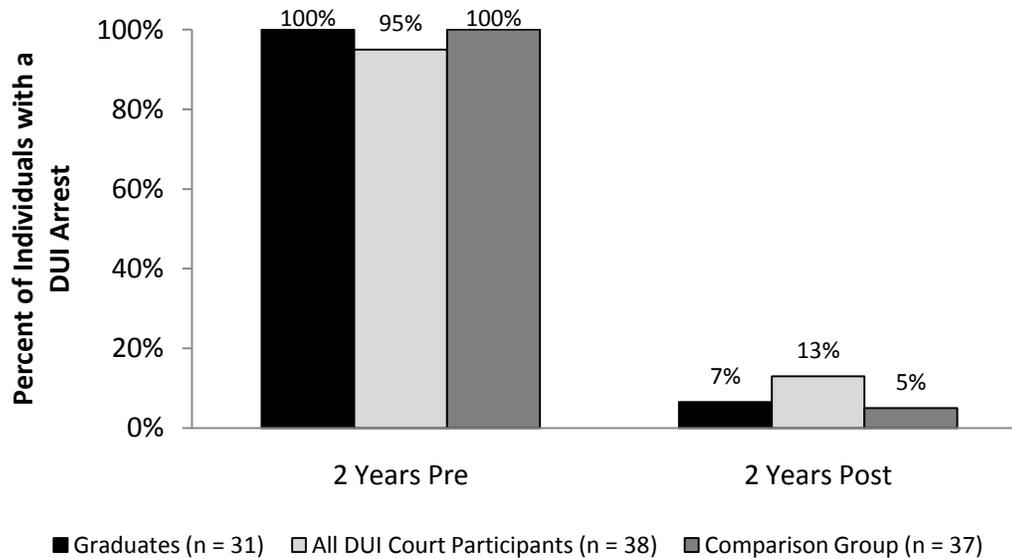
**POLICY QUESTION #1: DOES PARTICIPATION IN THE DUI COURT REDUCE SUBSEQUENT DUI CHARGES?**

**YES and NO: DUI Court participants showed significant reductions in DUI charges following entrance into the program.** However, the comparison group also displayed a reduction from pre to post, so it is not clear that this reduction is due to program participation. The DUI Court participants had comparable reductions in new DUI charges to other similar individuals with other court intervention.

Figure 1 shows the DUI arrest rates, the percentage of individuals re-arrested for DUI charges, using a 24-month pre-post comparison. The pre time period includes the 2 years prior to program start or equivalent, which is compared to the post time period which begins at program start date or equivalent.

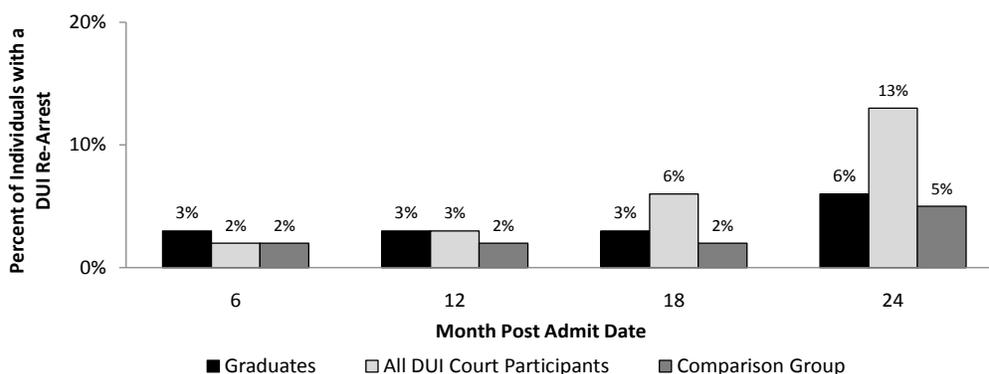
Although almost all DUI Court participants and graduates were arrested for DUI charges in Howard County during the 2 years prior to program admission, only 13% of program participants and 7% of graduates had been rearrested for DUI charges in the 2 years after entering the DUI Court program. Five percent of the comparison group had been rearrested for a DUI charge. The DUI re-arrest rates for the DUI Court participants and comparison group during the post entry period are statistically equivalent. The DUI re-arrest rate for the graduates was also statistically equivalent to the rate for the non-graduates.

**Figure 1. DUI Arrest Rates 2 Years Before & 2 Years After Program Entry**



As shown in Figure 2, the DUI Court group and the graduates were re-arrested for DUI charges in the 2 years post program start date at the same rates as the comparison group (these numbers are statistically equivalent) across various follow-up time periods (from 6 to 24 months). The graduates were rearrested for DUI charges less often than the non-graduates at the level of a trend at the 18-month time period only.

**Figure 2. Re-Arrest Rates for DUI Charges Over Time by Group<sup>10</sup>**



### *Number of DUI Re-Arrests*

An analysis of the *number* of arrests for DUI charges per person shows a similar pattern as the rates in Figures 1 and 2.

The mean number of total DUI re-arrests is compared through a 24-month pre-post comparison as shown in Figure 3. The pre time period includes the 2 years leading up program start or equivalent, which is compared to the post time period which begins at DUI Court start date or equivalent.

The DUI Court participants were re-arrested for significantly fewer DUI charges in the 24 months after program entry than in the 24 months before program entry. The comparison group was also re-arrested for DUI charges significantly less often in the post period than in the pre-period. DUI Court participants and the comparison group have statistically equivalent number of re-arrests. Graduates had significantly fewer DUI arrests prior to program entry than the non-graduates. The graduates also had significantly fewer post program start date DUI arrests than pre while the non-graduates did not have significantly fewer DUI arrests when comparing pre to post start date; however, it is possible that the lack of significant is due to the small sample sizes at the 24-month follow-up period.

<sup>10</sup> Sample sizes: Graduates with 6 months n = 39, 12 months n = 39, 18 months n = 39, and 24 months n = 32; All DUI Court participants with 6 months n = 66, 12 months n = 63, 18 months n = 49, and 24 months n = 40; Comparison group with 6 months n = 55, 12 months n = 54, 18 months n = 50, and 24 months n = 39.

**Figure 3. Number of DUI Arrests<sup>11</sup> 2 Years Before & 2 Years After Program Entry**

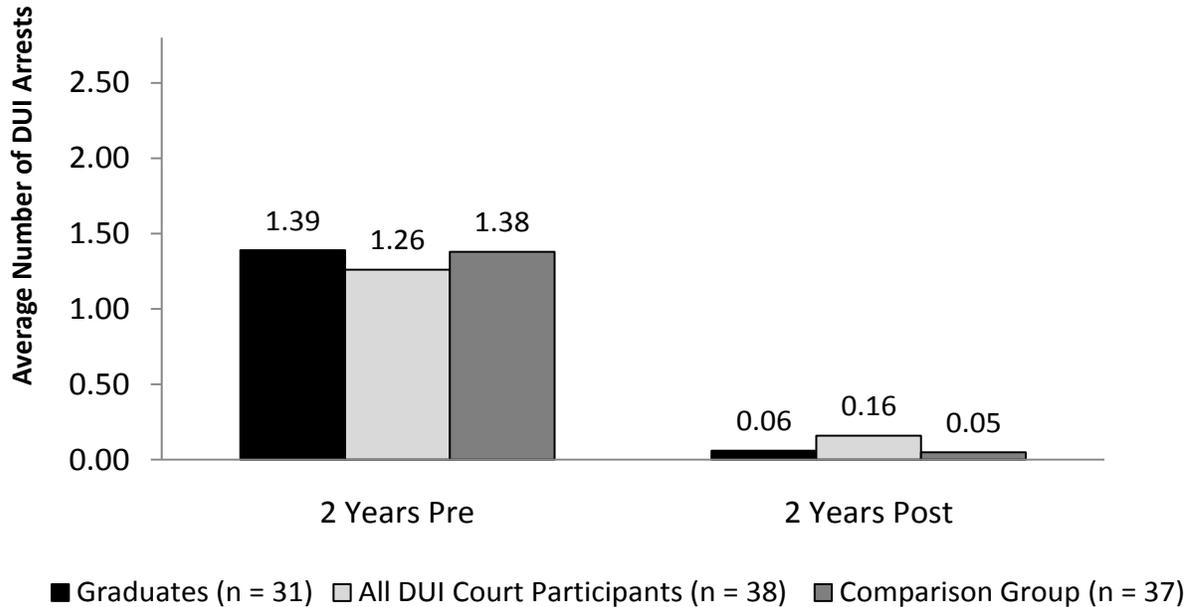
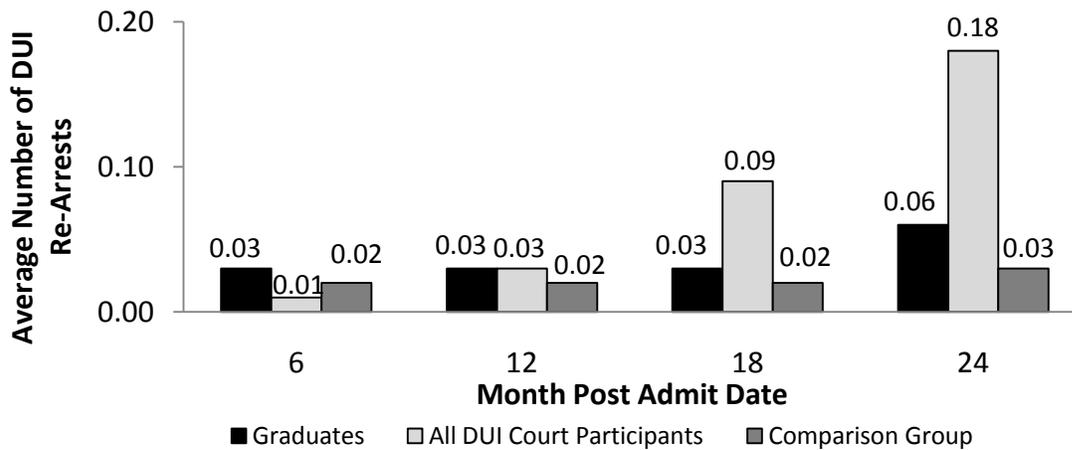


Figure 4 shows the average number of DUI re-arrests over time for the three groups.<sup>12</sup> The DUI Court participants were re-arrested for DUI charges more often than comparison group individuals at the 24-month time point at the level of a trend when the analysis controls for time at risk of offending (that is, the amount of time a person was NOT in jail or prison, and therefore was in the community). In other words, DUI Court participants has as few new DUI charges as the comparison group, except that they were in jail or prison for part of this follow-up time, which meant they were not able to commit new DUIs. When taking the time in the community into account, DUI Court participants had more DUI charges after program entry than the comparison group. However, it is important to note that the re-arrest rates and numbers for DUI charges are very small for both groups.

<sup>11</sup> The average number of DUI re-arrests presented in this figure was not adjusted for any differences between groups as the comparison being made in this analysis is between the same groups before and after program participation. Therefore these means are actual, unadjusted means.

<sup>12</sup> The mean number of re-arrests was adjusted to control for differences between DUI Court and comparison groups on gender, race/ethnicity, age at eligible arrest, prior arrest history, and total time at risk for re-offending. These results differ somewhat from the mean number of re-arrests reported in the cost section of this report, which are adjusted for differences between groups on demographic characteristics and prior arrest history but not for time at risk because the cost calculations include time incarcerated.

Figure 4. Cumulative Number of Re-Arrests for DUI Charges Over Time<sup>13</sup>

**POLICY QUESTION #2: DOES PARTICIPATION IN THE DUI COURT PROGRAM REDUCE OFFENDING IN THE CRIMINAL JUSTICE SYSTEM OVERALL (NOT INCLUDING DUI CHARGES)?**

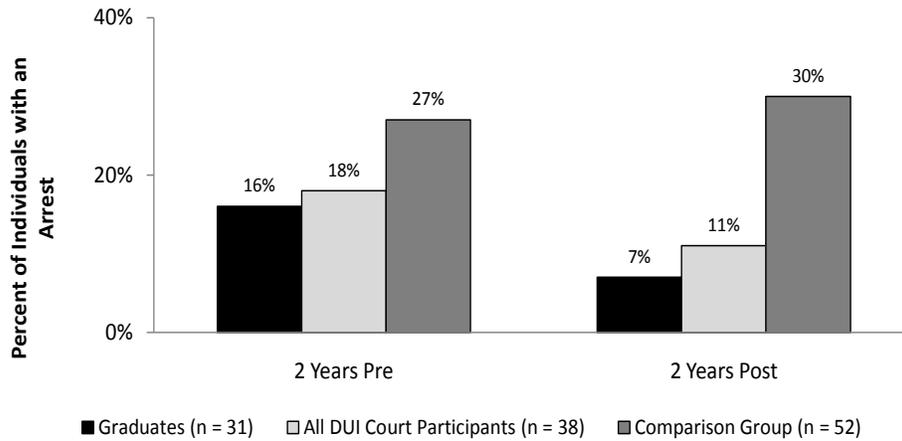
**YES and NO: There is a pattern of lower arrest rates and lower numbers of arrests for program participants compared to the comparison group over time.**

*Criminal Justice Arrest Rate*

Figure 5 shows offense rates, the percentage of individuals arrested in the criminal justice system overall, using a 24-month pre-post comparison. The pre time period includes the 2 years prior to program start or equivalent, which is compared to the 2 year post time period which begins at program start date or equivalent. While the pattern is promising, the difference in arrest rate for the DUI Court group from the 2 years before program entry to the 2 years after program entry was not significant. However, comparison group individuals were arrested significantly more often than the DUI Court group at the 24 months post program entry or equivalent, and the difference between the DUI Court and comparison groups was not significantly different prior to program entry or equivalent.

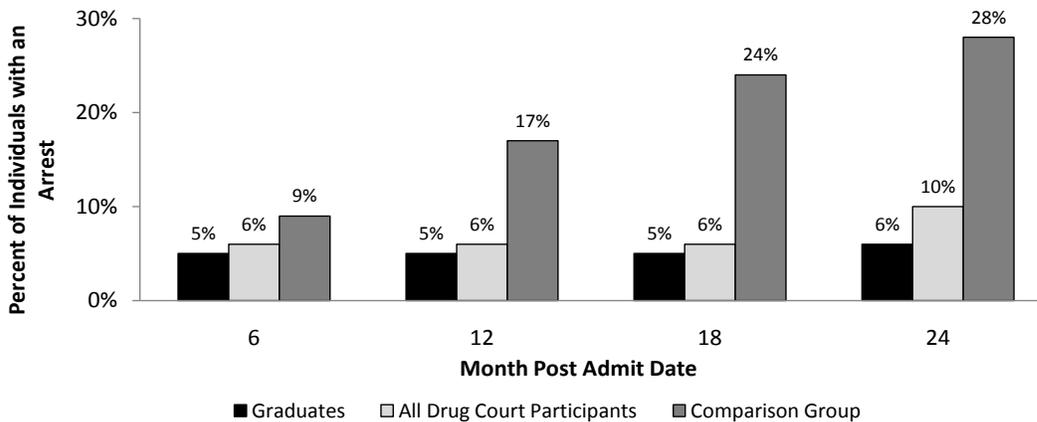
<sup>13</sup> Sample sizes: Graduates with 6 months n = 39, 12 months n = 39, 18 months n = 39, and 24 months n = 32; All DUI Court participants with 6 months n = 66, 12 months n = 63, 18 months n = 49, and 24 months n = 40; Comparison group with 6 months n = 55, 12 months n = 54, 18 months n = 50, and 24 months n = 39.

**Figure 4. Criminal Arrest Rates 2 Years Before & 2 Years After Program Entry**



As shown in Figure 5, the arrest rate for DUI Court participants is lower than the comparison group at 18 and 24 months after program entry (and at 12 months at the level of a trend). The DUI Court participants had significantly lower re-arrest rates in the criminal justice system overall.

**Figure 5. Criminal Arrest Rate Over Time by Group<sup>14</sup>**



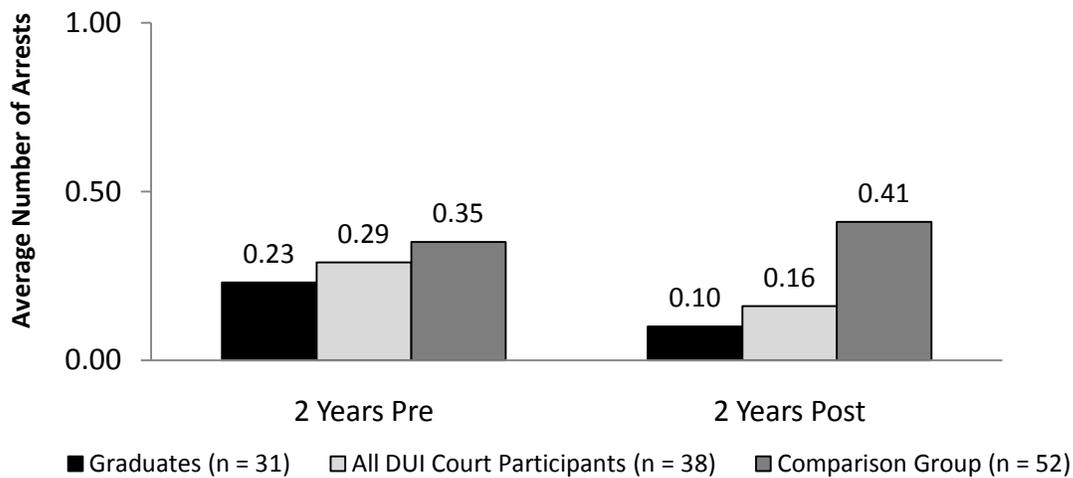
<sup>14</sup> Sample sizes: Graduates with 6 months n = 39, 12 months n = 39, 18 months n = 39, and 24 months n = 32; All ADC participants with 6 months n = 66, 12 months n = 63, 18 months n = 49, and 24 months n = 40; Comparison group with 6 months n = 55, 12 months n = 54, 18 months n = 50, and 24 months n = 39.

### *Number of Criminal Arrests*

An analysis of the *number* of arrests per person shows a similar pattern as the arrest rate in Figures 4 and 5.

The mean number of total criminal arrests is compared through a 24-month pre-post comparison as shown in Figure 6. The pre time period includes the 2 years leading up program start or equivalent, which is compared to the post time period which begins at DUI Court start date or equivalent. The DUI Court participants had significantly fewer arrests than the comparison group in the post start date time period at the level of a trend. Neither the DUI Court group nor the comparison group had significant reductions in the number of arrests from pre to post, though the total numbers for both groups are very small.

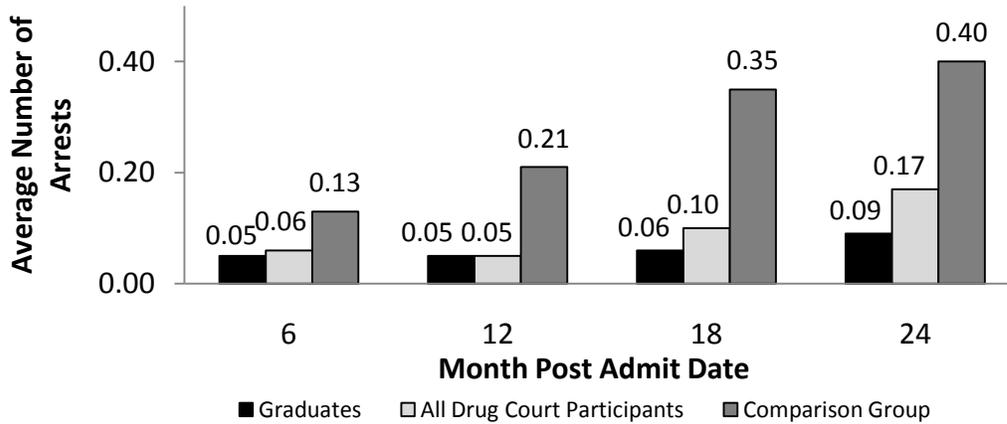
**Figure 6. Number of Arrests<sup>15</sup> 2 Years Before & 2 Years After Program Entry**



<sup>15</sup> The average number of arrests presented in this figure was not adjusted for any differences between groups as the comparison being made in this analysis is between the same groups before and after program participation.

Figure 7 shows the average number of criminal arrests over time for DUI Court graduates, all DUI Court participants and the comparison group. DUI Court participants showed a significantly lower number of arrests after 12 and 18 months when controlling for time at risk.<sup>16</sup>

**Figure 7. Cumulative Number of Arrests Over Time<sup>17</sup>**



*Arrests by Charge Type*

To present a more descriptive picture of the criminality of the groups, arrests were coded as drug-related (e.g., possession), property-related (e.g., larceny), or person-related (e.g., assault).<sup>18</sup> Table 4 presents the results of this analysis.

In the 2 years post drug court entry, DUI Court participants with 2 years of follow-up appeared to have fewer arrests than the comparison group of each arrest type, although due to the small numbers of DUI Court participants, these differences were not significant.

<sup>16</sup> The mean number of arrests was adjusted to control for differences between DUI Court and comparison groups on gender, race/ethnicity, age at eligible arrest, prior arrest history, and total time at risk for re-offending. These results differ somewhat from the mean number of arrests reported in the cost section of this report, which are adjusted for differences between groups on demographic characteristics and prior arrest history but not for time at risk because the cost calculations include time incarcerated.

<sup>17</sup> Sample sizes: Graduates with 6 months n = 39, 12 months n = 39, 18 months n = 39, and 24 months n = 32; All DUI Court participants with 6 months n = 66, 12 months n = 63, 18 months n = 49, and 24 months n = 40; Comparison group with 6 months n = 55, 12 months n = 54, 18 months n = 50, and 24 months n = 39.

<sup>18</sup> 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 totals in Table 4 do not reflect the average total arrests reported elsewhere.

**Table 4. Average Number of Cumulative Arrests by Charge Type at 24 Months by Group**

	DUI Court Graduates N = 32	All DUI Court Participants N = 38	Comparison Group N = 39	Significantly Different? ( $p < .05$ )
Average number of <b>drug</b> arrests in the 24 months post DUI court entry or equivalent	0	.05	.09	No
Average number of <b>property</b> arrests in the 24 months post DUI court entry or equivalent	.06	.12	.26	No
Average number of <b>person</b> arrests in the 24 months post DUI court entry or equivalent	.06	.05	.20	No

**POLICY QUESTION #3: DO PARTICIPANTS OF THE DUI COURT PROGRAM COMPLETE THE PROGRAM SUCCESSFULLY?**

**YES: Most (84%) DUI Court participants are successful in completing the program.**

During the study period, the overall graduation rate for the DUI Court was 84%, while the national average graduation rate for adult drug court programs is around 50% (Belenko, 2001).

The average time for graduates to complete the program was 15.5 months. Non-graduates spent an average of 12.5 months in the program (giving the program an overall length of stay of about 15 months). Table 5 illustrates the DUI program's graduation rate by year of admission and overall through 2007 (participants who entered the program in 2008 or 2009 are not included because not all individuals in those cohorts may have had enough follow-up time to have completed the program).

**Table 5. DUI Court Graduation Rate by Year of Admission**

<b>Admission Year</b>	<b>Number Graduated (N = 38)</b>	<b>Number Discharged (N = 7)</b>	<b>Graduation Rate</b>
2004	2	1	67%
2005	7	1	88%
2006	14	2	88%
2007	15	3	83%
<b>Total</b>	<b>38</b>	<b>7</b>	<b>84%</b>

\* Note: most of the individuals entering the program in 2008 were still in service at the time the data for this study were collected, so there are not enough individuals to calculate an accurate graduation rate for this year.

**POLICY QUESTION #4: WHAT PREDICTS PARTICIPANT SUCCESS?**

*Which characteristics of DUI Court participants are associated with positive program outcomes, e.g., graduation and reduced arrest rates?*

*Graduation*

NPC examined the characteristics of DUI Court participants who successfully completed the program (graduates) and those who were “terminated” or left the program for non-compliance before completing (non-graduates) (please see Table 6). Differences between these two groups can illustrate the characteristics of the participants who are likely to have success in the DUI Court program and the characteristics of the participants who may need additional or specialized services to succeed.

**Table 6. Characteristics of DUI Court Graduates and Non-Graduates**

	DUI Court Graduates N = 39	DUI Court Non- Graduates N = 7	Significantly Different? <sup>19</sup> ( $p < .05$ )
Gender			
Female	21%	43%	No
Race/Ethnicity			
Non-Caucasian <sup>20</sup>	36%	0%	<b>Trend</b>
Mean age in years, at eligible arrest date	39	38	No
Mean length of stay in DUI Court in days	465	380	No
Mean number of days at risk during the program	460	336	No
Mean number of days incarcerated (jail and/or prison) during the program	4	47	No

Table 6 indicates that the one characteristic that differentiated graduates from non-graduates was race/ethnicity which was different at the trend level. Non-graduates were more likely to be Caucasian than graduates. When DUI Court participant characteristics were examined together in relation to graduation status in a logistic regression model, race/ethnicity was a significant predictor of graduation above and beyond other characteristics: graduates were more likely to be non-white. In addition, as noted in an earlier discussion of re-arrest rates, graduates had significantly fewer DUI charges in the 2 years prior to program entry than the non-graduates. It is important to note that because the group of non-graduates is so small, some of the other characteristics in Table 6 that might be important in differentiating these groups may not show up as significantly different because of a lack of statistical power. Once these groups are larger, additional patterns may be confirmed as relevant.

Program staff are encouraged to talk to the participants who are having trouble in the program to learn what the barriers are in complying with program requirements and determine whether there is further assistance (e.g., transportation, learning to keep a calendar or schedule) that would make it possible for these participants to be successful in meeting program expectations.

#### *DUIs and Other Criminal Arrests*

Participant characteristics and DUI arrest history were also examined in relation to whether or not participants were re-arrested for a new DUI charge in the 2 years following DUI Court entry. These analyses include DUI Court participants who had 24 months of follow-up time post DUI Court entry. The results are shown in Table 7.

<sup>19</sup> Yes indicates  $p < .05$ , No indicates  $p > .10$ , Trend indicates  $p > .05$  and  $p < .10$ .

<sup>20</sup> Non-Caucasian graduates are 62% African American, 31% Hispanic and 7% Asian. All non-graduates are Caucasian.

**Table 7. Demographic and Criminal Justice History-Related Variables That Predict Subsequent DUI Charges at 24 Months**

	Participants who were re-arrested for a DUI charge were more likely to be:	Significant Predictor of Subsequent DUI Charges at 24 Months? <sup>21</sup> ( $p < .05$ )
Gender		No
Race/Ethnicity		No
Mean age at eligible arrest date	younger	<b>Trend</b>
Mean length of stay in DUI Court program		No
Time at risk		No
Program status at exit		No
Average number of DUI arrests prior to program entry or equivalent (2002-September 2009)		No
Average number of DUI arrests in the 2 years prior to program entry or equivalent		No
Total number of lifetime prior criminal arrests		No
Total number of criminal arrests in 2 years prior to DUI Court start date or equivalent		No
Total number of criminal arrests with drug charges in 2 years pre DUI Court start		No
Total number of criminal arrests with property charges in 2 years pre DUI Court start		No
Total number of criminal arrests with person charges in 2 years pre DUI Court start	People with fewer person-related charges in their prior arrest history	<b>Trend</b>
Total number of criminal arrests with other charges in 2 years pre DUI Court start		No

Table 7 illustrates that two variables are associated with subsequent DUI charges, younger participants and those without prior person charges in their criminal history. When all of the factors in Table 7 were entered into a logistic regression model, and each variable was controlled for, **time at risk** was significantly associated with a subsequent DUI charge in the 24 months post DUI Court entry at the level of a trend, with those who have less time at risk (that is, more time in jail or prison) being more likely to have a subsequent DUI charge.

<sup>21</sup> Yes indicates  $p < .05$ , No indicates  $p > .10$ , Trend indicates  $p > .05$  and  $p < .10$ .

Participant characteristics and criminal arrest history were also examined in relation to whether or not participants were re-arrested in the criminal justice system **overall** in the 2 years following DUI Court entry. These analyses include DUI Court participants who had 24 months of follow-up time post DUI Court entry (or equivalent). The results are shown in Table 8.

**Table 8. Demographic and Criminal Justice History-Related Variables That Predict Recidivism in the Overall Criminal Justice System at 24 Months**

	Participants who were re-arrested were more likely to be:	Significant Predictor of Recidivism at 24 Months? <sup>22</sup> ( $p < .05$ )
Gender		No
Ethnicity		No
Mean age at eligible arrest date	younger	<b>Yes</b>
Mean length of stay in DUI Court program		No
Time at risk		No
Program status at exit		No
Average number of DUI arrests prior to program entry or equivalent (2002-September 2009)		No
Average number of DUI arrests in the 2 years prior to program entry or equivalent		No
Total number of lifetime prior criminal arrests		No
Total number of criminal arrests in 2 years prior to DUI Court start date or equivalent		No
Total number of criminal arrests with drug charges in 2 years pre DUI Court start		No
Total number of criminal arrests with property charges in 2 years pre DUI Court start		No
Total number of criminal arrests with person charges in 2 years pre DUI Court start		No
Total number of criminal arrests with other charges in 2 years pre DUI Court start		No

Table 8 shows that the one variable significantly associated with criminal re-offending is age. Younger participants were more likely to have a new criminal arrest than older participants. However, when all of these factors were entered into a logistic regression model, and each va-

<sup>22</sup> Yes indicates  $p < .05$ , No indicates  $p > .10$ , Trend indicates  $p > .05$  and  $p < .10$ .

riable was controlled for, no factors were significantly associated with recidivism in the 24 months post DUI Court entry.

### **OUTCOME SUMMARY**

Overall, outcomes for DUI Court participants are positive. After participation in the program, regardless of whether they graduate, DUI Court participants were re-arrested on criminal charges less often and with fewer numbers of new arrests than the comparison group of similar individuals who did not participate in the program. The arrest rates and numbers of DUI charges in particular decreased significantly from the 2 years before program entry to the 2 years after; however, this decrease was seen in the comparison group as well, so cannot be attributed to the program.

The graduation rate for this program is very high at 84%, indicating that the DUI Court program is helping most participants successfully complete program requirements. Probably due to the small numbers of non-graduates, few characteristics differentiate DUI Court graduates from non-graduates; however, graduates were more likely to be non-Caucasian and have fewer pre-program DUI arrests. DUI Court participants who re-offended with a DUI charge were younger and less likely to have an arrest for a person crime in the 2 years prior to the program participation. DUI Court participants who re-offended with ANY criminal charge were also younger, though this relationship disappeared when other variables were controlled for.

In sum, the results of this study indicate that the DUI Court program is successful in reducing participant recidivism and protecting public safety.

## COST EVALUATION

The Howard County DUI Court cost evaluation<sup>23</sup> was designed to address the following study questions:

1. How much does the DUI Court program cost?
2. What is the 24-month cost impact on the criminal justice system of sending offenders through DUI Court or traditional court processing?

### Cost Evaluation Methodology

#### COST EVALUATION DESIGN

##### *Transactional and Institutional Cost Analysis*

The cost approach utilized by NPC 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 by multiple agencies and jurisdictions. Transactions are those points within a system where resources are consumed and/or change hands. In the case of drug treatment and DUI courts, when a participant appears in court, resources such as judge time, state's attorney time, defense attorney time, and court facilities are used. When a program participant has a drug test, urine cups are used. Court appearances and drug tests are transactions. In addition, the TICA approach recognizes that these transactions take place within multiple organizations and institutions that work together to create the program of interest. These organizations and institutions contribute to the cost of each transaction that occurs for program participants. TICA is an intuitively appropriate approach to conducting cost assessment in an environment such as a DUI court, which involves 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 DUI court specifically is the fact that untreated substance abuse will cost various tax-dollar funded systems public funds that could be avoided or diminished if substance abuse were treated. In this approach, costs that result from untreated substance abuse are used in calculating the benefits of substance abuse treatment.

##### *Opportunity Resources*

NPC's cost approach looks at publicly funded costs as "opportunity resources." The concept of *opportunity cost* from economics relates to the cost of doing an activity instead of doing something else. The term *opportunity resource* as it is applied in TICA describes resources that are now available for a given use because they have not been consumed for an alternative activity. For example, if substance abuse treatment reduces the number of times that a client is subsequently in-

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<sup>23</sup> This program is a combined drug court and DUI court program, but this report will focus only on the participants who are served by the DUI court side of the program. Another report covers the drug court participant outcomes and associated costs.

carcerated, the local Sheriff may see no change in his or her budget, but an opportunity resource will be available to the Sheriff in the form of a jail bed that can now be filled by another person.

## **COST EVALUATION METHODS**

The current cost evaluation builds on the outcome evaluation performed by NPC on the Howard County DUI Court. The costs to the criminal justice system (cost-to-taxpayer) in Howard County incurred by participants in DUI Court are compared with the costs incurred by those who were similar to but did not enter DUI Court. In addition, the specific program costs are calculated separately in order to determine the per agency costs of the Howard County DUI Court program.

### *TICA Methodology*

The TICA methodology as it has been applied in the analysis of the Howard County DUI Court is based upon six distinct steps. Table 9 lists each of these steps and the tasks involved.

Steps 1 through 3 were performed through analysis of court and DUI Court documents, including review of this program's process evaluation report and through interviews with key stakeholders. Step 4 was performed in the outcome evaluation. Step 5 was performed through interviews with DUI Court and non-DUI Court staff and with agency finance officers. 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 are added to determine the overall cost per individual. This information was generally reported as an average cost per individual. In addition, the TICA approach has made it possible to calculate the cost for DUI Court processing for each agency.

This evaluation utilized a previously-conducted process evaluation and interviews with program staff to identify the specific program transactions to include in this study. Cost data were collected through interviews with DUI Court staff and jurisdiction and agency contacts with knowledge of jurisdiction and agency budgets and other financial documents, as well as from budgets either found online or provided by jurisdiction and agency staff.

The costs to the criminal justice system outside of the DUI Court program costs consist of those due to new criminal arrests, court cases, probation time, jail time, and prison time. Program costs include DUI Court sessions, case management, group and individual treatment sessions, residential and inpatient detoxification treatment, alcohol monitoring, drug tests, transitional housing, and jail sanctions.

**Table 9. The Six Steps of TICA**

	<b>Description</b>	<b>Tasks</b>
<b>Step 1:</b>	Determine flow/process (i.e., how clients move through the system)	<ul style="list-style-type: none"> <li>• Site visit</li> <li>• Interviews with key stakeholders (agency and program staff)</li> </ul>
<b>Step 2:</b>	Identify the transactions that occur within this flow (i.e., where clients interact with the system)	<ul style="list-style-type: none"> <li>• Analysis of process information gained in Step 1</li> </ul>
<b>Step 3:</b>	Identify the agencies involved in each transaction (e.g., court, treatment, police)	<ul style="list-style-type: none"> <li>• Analysis of process information gained in Step 1</li> </ul>
<b>Step 4:</b>	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)	<ul style="list-style-type: none"> <li>• Interviews with program key informants using cost guide.</li> <li>• Administrative data collection of number of transactions (e.g., number of court appearances, number of treatment sessions, number of drug tests).</li> </ul>
<b>Step 5:</b>	Determine the cost of the resources used by each agency for each transaction	<ul style="list-style-type: none"> <li>• Interviews with budget and finance officers</li> <li>• Document review of agency budgets and other financial paperwork</li> </ul>
<b>Step 6:</b>	Calculate cost results (e.g., cost per transaction, total cost of the program per participant)	<ul style="list-style-type: none"> <li>• 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</li> <li>• The transaction cost is multiplied by the average number of transactions for program participants to determine the total average cost per transaction type</li> <li>• These total average costs per transaction type are added to determine the program and outcome costs.</li> </ul>

### Cost Evaluation Results

Individual DUI courts are intensive interventions that involve coordination of multiple agencies and professional practitioners applying a variety of areas of expertise, intensive case management and supervision, and frequent judicial reviews. DUI courts are typically made possible through the application and coordination of resources drawn from multiple agencies located in more than one jurisdictional organization. Although the amount of staff time and other resources (buildings, materials and supplies and operating equipment) made available by a number of public organizations represents substantial public costs, research in DUI courts demonstrates that due to decreased future system impacts (less frequent re-offending, for example), this investment frequently results in substantial future savings. In addition, DUI courts can provide cost-effective intensive treatment and supervision in a community-based setting rather than relying on next

steps in the continuum of services such as detention or residential placements. This report tests whether this pattern holds for the Howard County DUI Court program.

As described in the section above, the Transactional 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. Program transactions calculated in this analysis include DUI Court sessions, case management, group and individual treatment sessions, residential and inpatient detoxification treatment, alcohol monitoring, drug tests, transitional housing, and jail sanctions. The costs for this study were calculated to include taxpayer costs only. All cost results provided in this report are based on fiscal year 2009 dollars.

## COST EVALUATION QUESTION #1: PROGRAM COSTS

### *How much does the DUI Court program cost?*

#### *Program Transactions*

A DUI Court session, for the majority of DUI courts, is one of the most staff and resource intensive program transactions. In the Howard County DUI Court, these sessions include representatives from:

- Howard County District Court (Judge, Court Clerk, Bailiff, DUI Case Manager, and DUI Court Coordinator);
- Howard County State's Attorney's Office (Assistant State's Attorney);
- Maryland Office of the Public Defender (Assistant Public Defender).

The cost of a *DUI Court Appearance* (the time during a session when a single program participant interacts with the judge) is calculated based on the average amount of court time (in minutes) each participant interacts with the judge during the DUI Court session. This includes the direct costs of each DUI team member present, the time team members spend preparing for the session, the agency support costs, and jurisdictional overhead costs. The average cost for a single DUI Court appearance is **\$215.59** per participant.

*Case Management* is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day.<sup>24</sup> The main agency involved in case management for the Howard County DUI Court program is the District Court. The daily cost of case management in this program is **\$1.08** per participant.

The majority of *DUI Treatment Sessions* are provided by the Howard County Health Department (HCHD) Substance Abuse Services, a county treatment agency that offers regular and intensive outpatient group and individual treatment sessions for program participants. Multiple private treatment providers conduct approximately 35% of the group and individual treatment services to program participants. The HCHD receives a grant from the Alcohol & Drug Abuse Administration (ADAA) to help pay for program participant treatment. Individual treatment per participant is **\$155.00** per session. Group treatment is **\$50.00** per participant per session. These rates were provided to NPC by a representative of the HCHD.

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<sup>24</sup> Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

**Drug Tests** are performed by Howard County Health Department and multiple treatment providers. The HCHD covers the cost of urinalysis (UA) testing done at HCHD, and participants pay for UA testing done at the treatment providers. The cost per UA test at HCHD is **\$17.25** and the cost per breathalyzer test is **\$0.22**. The HCHD also utilizes SCRAM alcohol monitoring at a rate of **\$5.30 per day**. Drug testing costs were obtained from the DUI Court Coordinator.

**Residential Care, Detoxification and Halfway House** services are provided by multiple agencies. Inpatient detoxification and residential care are provided by Tuerk House, Walden Sierra, Hope House and Shoemaker Center. All agencies are contracted with the HCHD at an average rate of **\$139.48** per day. Halfway House services are provided by Howard House at a cost of **\$10.71** per day. All rates were provided to NPC by a representative of the HCHD.

**Jail Sanction Days** are provided by the Howard County Department of Corrections at the Howard County Detention Center. The cost of **\$117.53** per day was obtained using information found in the Department of Corrections 2009 Budget.

#### **Program Costs**

Table 10 provides the unit cost per transaction, the average number of DUI Court transactions per participant, and the average cost per participant for each type of transaction. The average cost per participant is the product of the unit cost multiplied by the average number of program transactions per participant. The sum of these transactions is the total per participant cost of the program. The table includes the average for DUI Court graduates (n = 39) and for all DUI Court participants (n = 66), 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 10. Average DUI Court Program Costs per Participant**

<b>Transaction</b>	<b>Transaction Unit Cost</b>	<b>Average Number of Transactions per DUI Court Graduate</b>	<b>Average Cost per DUI Court Graduate N = 39</b>	<b>Average Number of Transactions per DUI Court Participant</b>	<b>Average Cost per DUI Court Participant N = 66</b>
DUI Court Appearances	\$215.59	19.51	\$4,206	18.29	\$3,943
Case Management	\$1.08	464.56 Days <sup>25</sup>	\$502	451.67 Days	\$488
Individual Treatment Sessions	\$155.00	5.59	\$866	5.80	\$899
Group Treatment Sessions	\$50.00	5.92	\$296	7.56	\$378
Residential & De-toxification Days	\$139.48	1.41	\$197	3.30	\$460
Halfway House Days	\$10.71	0.00	\$0	1.88	\$20
UA Drug Tests	\$17.25	32.33	\$558	41.24	\$711
Breathalyzer Tests	\$0.22	42.59	\$9	41.76	\$9
SCRAM Days	\$5.30	9.05	\$48	16.27	\$86
Jail Sanction Days	\$117.53	0.36	\$42	0.70	\$82
<b>Total DUI</b>			<b>\$6,724</b>		<b>\$7,076</b>

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

On average, the total cost per participant in DUI Court is **\$7,076**. Note that the most expensive area of cost for the program is DUI Court appearances (\$3,943). This result is commensurate with the DUI Court model, which emphasizes frequent judicial interaction. The next highest cost is for drug and alcohol treatment (\$1,737), followed by drug and alcohol monitoring (\$806).

#### *Program Costs per Agency*

Another useful way to examine program costs is to break them down by agency. Table 11 shows the DUI Court program cost per participant by agency.

<sup>25</sup> The average cost per participant for case management is calculated based on the average number of days participants spent in the DUI Court program.

**Table 11. Average DUI Court Cost per Participant by Agency**

<b>Agency</b>	<b>Average Cost per DUI Court Graduate N = 39</b>	<b>Average Cost per DUI Court Participant N = 66</b>
Howard County District Court	\$3,741	\$3,524
Howard County State's Attorney's Office	\$539	\$505
Howard County Health Department	\$1,974	\$2,564
Howard County Department of Corrections	\$42	\$82
Maryland Office of the Public Defender	\$428	\$402
<b>Total<sup>26</sup></b>	<b>\$6,724</b>	<b>\$7,077</b>

Because the Howard County District Court provides case management to DUI Court participants and its employees attend DUI Court sessions, the District Court shoulders 50% of the total DUI Court program costs. Due to its support of drug and alcohol treatment, drug and alcohol testing, and transitional housing, the HCHD incurs the next largest expense for the DUI Court (\$2,564). The other agencies involved in the DUI Court program (State's Attorney, Office of the Public Defender, and County Department of Corrections) incur their costs primarily through staff attendance at Howard County DUI Court sessions and providing jail sanctions.

#### *Local Versus State Costs for the DUI Court Program*

State policy leaders and administrators may find it useful to examine programs costs by jurisdiction (state or local/county). The local or Howard County portion is 45% of total program costs per participant, or \$3,151. The State of Maryland portion of total program costs is 55% or \$3,926 per participant, mainly due to the District Court employees' involvement in DUI Court sessions and case management.

#### **COST EVALUATION QUESTION #2: OUTCOME/RECIDIVISM COSTS**

##### ***What is the 24-month cost impact on the criminal justice system of sending offenders through DUI Court or traditional court processing?***

As described in the cost methodology section of this report, the Transactional and Institutional Cost Analysis (TICA) approach was used to calculate the costs of each of the criminal justice system outcome transactions that occurred for DUI Court and comparison group participants. Transactions are those points within a system where resources are consumed and/or change hands. Outcome transactions for which costs were calculated in this analysis included subsequent arrests, subsequent court cases, probation time, jail time, and prison time. Only costs to the taxpayer were calculated in this study. All cost results represented in this report are based on fiscal year 2009 dollars or updated to fiscal year 2009 dollars using the Consumer Price Index.

<sup>26</sup> Totals in this row may not match the totals in the outcome costs by transaction table due to rounding.

### *Outcome Cost Data*

The outcome statistics reflect data through April 2009. There were 79 individuals who had at least 24 months of available outcome data (40 DUI Court participants and 39 comparison group members). This follow-up period was selected to allow a large enough group of both DUI Court and comparison individuals to be representative of the program, as well as to allow more robust cost numbers through use of as long a follow-up period as possible (with as many individuals as possible having at least some time during the follow-up period that represented time after program involvement). All DUI Court participants in the cohorts included in these analyses had exited the program (graduated or were unsuccessful at completing the program).

Outcome costs were calculated for 24 months after DUI Court program entry (or an approximate start date for comparison group members). The outcome costs discussed below do not represent the entire cost to the criminal justice system. Rather, the outcome costs include the transactions for which NPC's research team was able to obtain outcome data and cost information. However, we believe that the costs represented capture the majority of system costs. Outcome costs were calculated using information from the Howard County District Court, the Howard County Circuit Court, the Howard County State's Attorney's Office, the Maryland Office of Public Defender, the Maryland Department of Public Safety & Correctional Services, the Howard County Department of Corrections, the Maryland Division of Parole and Probation, the Maryland State Police, the Howard County Sheriff's Office, and the Howard County Police Department.

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, since NPC accounts for all jurisdictional and agency institutional commitments involved in the support of agency operations, the costs that appear in NPC's analysis typically will not correspond with agency operating budgets.

### *Outcome Transactions*

**Arrests** for Howard County are conducted by multiple law enforcement agencies. An average of the Maryland State Police, Howard County Sheriff's Office and Howard County Police Department was used for this outcome cost analysis, using information provided by each agency. The average cost of a single arrest conducted by these agencies is **\$244.39**.

**Court Cases** include all court cases, including those cases that are reviewed and rejected by the Howard County State's Attorney's Office, as well as those cases that result in arraignment and are adjudicated. Court case costs are shared among the Howard County District Court, the Howard County Circuit Court, the Howard County State's Attorney's Office, and the Maryland Office of the Public Defender. The average cost of a Circuit Court case is **\$5,216.83**. The average cost of a District Court case is **\$2,231.66**.

**Probation Days** are provided by the Maryland Division of Parole and Probation. A representative of the Division provided NPC with the average cost of supervision, which was given as **\$4.09** per person per day.

**Jail Days** are provided by the Howard County Department of Corrections at the Howard County Detention Center. The cost of **\$117.53** per day was obtained using information found in the Department of Corrections 2009 Budget.

**Prison Days** are provided by the Maryland Department of Public Safety & Correctional Services. The cost of a prison day is **\$85.15**, which was given to NPC by a representative of the Department.

*Outcomes and Outcome Cost Consequences*

Table 12 presents the average number of criminal justice system outcome events (e.g., the average number of subsequent arrests, the average number of probation days, etc.) incurred per participant for Howard County DUI Court graduates, all participants (both graduates and non-graduates combined), and the comparison group for 24 months after entry date (or equivalent date).

**Table 12. Average Number of Outcome Transactions per Person Over 24 Months**

<b>Transaction</b>	<b>DUI Court Graduates N = 32</b>	<b>All DUI Court Participants N = 40</b>	<b>DUI Court Comparison Group N = 39</b>
Arrests	0.09	0.16	0.37
Circuit Court Cases	0.00	0.00	0.08
District Court Cases	0.00	0.00	0.52
Probation Days	0.00	29.52	145.52
Jail Days	3.55	32.74	13.89
Prison Days	0.00	0.56	18.13

As can be seen in this table, DUI Court participants have fewer re-arrests, Circuit Court cases, District Court cases, probation days, and prison days than members of the comparison group. Jail days are the only transaction for which DUI Court participants show a higher rate than the comparison group. It is likely that the higher average number of outcome jail days for DUI Court participants are due to participants who did not graduate from the program and received longer jail sentences than offenders who never participated in the DUI Court (however, this does not imply that the DUI Court is harsher on unsuccessful DUI Court participants than offenders who never participated in the DUI Court, as the comparison group members had more probation days and more prison days than DUI Court participants).

Graduates of the DUI Court show smaller numbers than all DUI Court participants and comparison group members across every transaction, with no court cases, no probation days, and no prison days. From these results an interpretation can be reasonably asserted that participation in DUI Court is associated with less severe and less frequent criminal activity.

*Outcome Cost Results*

Table 13 demonstrates the costs associated with the outcomes described above for all DUI Court participants, DUI Court graduates, and the comparison sample.

**Table 13. Criminal Justice System Outcome Costs per Person Over 24 Months**

Transaction	Transaction Unit Cost	DUI Court Graduates N = 32	All DUI Court Participants N = 40	DUI Court Comparison Group N = 39
Arrests	\$244.39	\$22	\$39	\$90
Circuit Court Cases	\$5,216.83	\$0	\$0	\$417
District Court Cases	\$2,231.66	\$0	\$0	\$1,160
Probation Days	\$4.09	\$0	\$121	\$595
Jail Days	\$117.53	\$417	\$3,848	\$1,632
Prison Days	\$85.15	\$0	\$48	\$1,544
<b>Total</b>		<b>\$439</b>	<b>\$4,056</b>	<b>\$5,438</b>

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

Table 13 reveals that DUI Court participants cost less for every transaction except jail days, due to less severe criminal justice involvement. The cost for jail is by far the most expensive transaction for DUI Court participants.

The total average cost savings after 24 months is **\$1,382** per DUI Court participant, regardless of whether or not the participant graduates. If the DUI Court program continues in its current capacity of serving a cohort of 20 participants annually, this savings of \$691 per participant per year (\$1,382 divided by 2) results in a yearly savings of **\$13,820** per cohort year, which can then continue to be multiplied by the number of years the program remains in operation and by the number of cohorts over time. This savings continues to grow for participants every year after program entry. If savings continue at the same rate, after 10 years the savings *per cohort* will total **\$138,200**.

Another interesting point of analysis involves the graduates. When this group is considered from an epidemiological perspective, graduates have received the designed “dosage” and term of treatment for the therapeutic intervention under consideration. From this perspective the difference in average total cost between this group and the comparison group of \$4,999 after 24 months is an immediate return on the therapeutic investment in the graduate group. However, it is important to remember that the graduates are not directly comparable to the comparison group as they are the most successful participants.

#### *Outcome Costs by Agency*

In this study, NPC was able to identify the criminal justice outcome costs on an agency-by-agency basis. In Table 14 outcome costs are presented by agency.

**Table 14. Criminal Justice System Outcome Costs by Agency per Person Over 24 Months**

<b>Jurisdiction/Agency</b>	<b>DUI Court Graduates N = 32</b>	<b>All DUI Court Participants N = 40</b>	<b>DUI Court Comparison Group N = 39</b>	<b>Difference (Benefit)</b>
Howard County Circuit Court	\$0	\$0	\$92	\$92
Howard County District Court	\$0	\$0	\$303	\$303
Howard County State's Attorney's Office	\$0	\$0	\$889	\$889
Howard County Department of Corrections	\$417	\$3,848	\$1,632	-\$2,216
Law Enforcement <sup>27</sup>	\$22	\$39	\$90	\$51
Maryland Department of Public Safety and Correctional Services	\$0	\$48	\$1,544	\$1,496
Maryland Office of the Public Defender	\$0	\$0	\$293	\$293
Maryland Division of Parole and Probation	\$0	\$121	\$595	\$474
<b>Total<sup>28</sup></b>	<b>\$439</b>	<b>\$4,056</b>	<b>\$5,438</b>	<b>\$1,382</b>

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

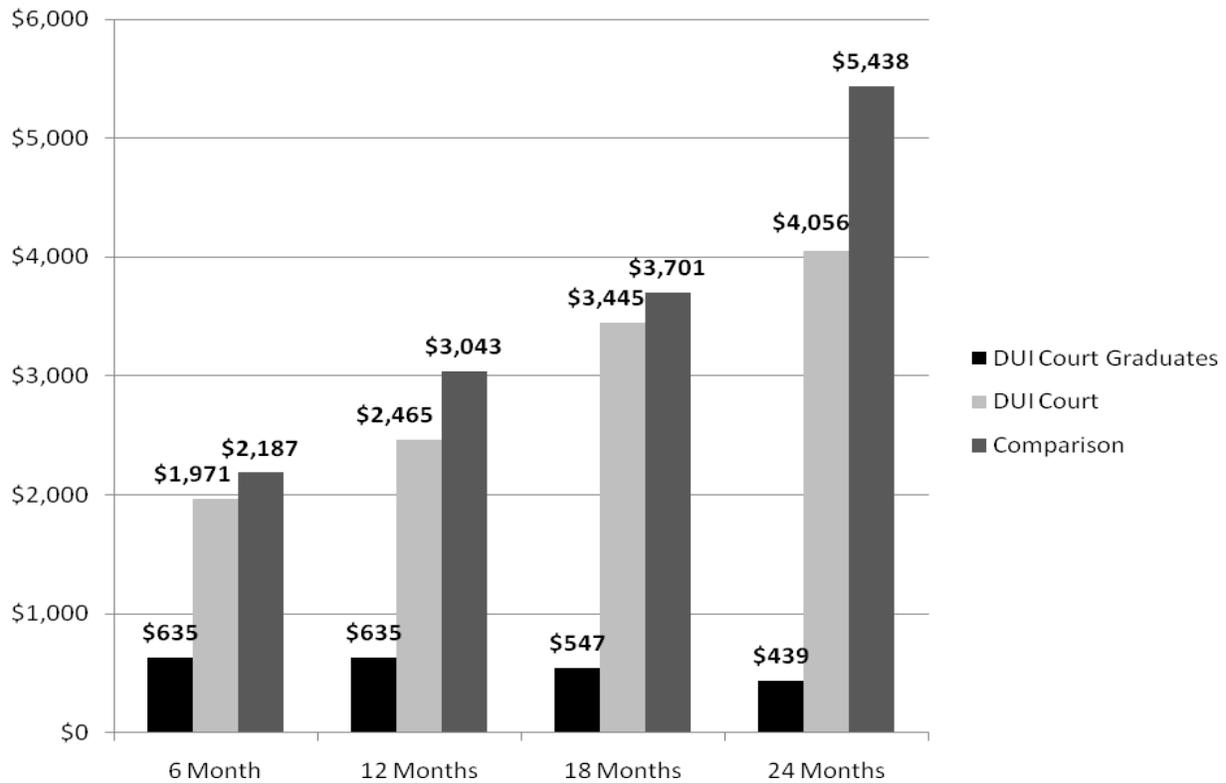
Greater outcome savings associated with DUI Court participants accrue to some agencies than others. The Circuit Court, District Court, State's Attorney, Law Enforcement, Department of Public Safety & Correctional Services, Public Defender, and Division of Parole and Probation all show cost savings, but the County Department of Corrections does not (due to more jail days for DUI Court participants than for comparison group individuals). The largest savings accrues to the Department of Public Safety & Correctional Services, due to the decreased prison time for DUI Court participants.

In terms of their comparative recidivist experiences, DUI Court participants are shown to cost \$1,382 (or 25%) less per participant than members of this study's comparison group. Due to low rates of recidivism, DUI Court graduates show outcome costs of only \$439 (\$3,617 less than all DUI Court participants and \$4,999 less than the comparison group) after 24 months.

Figure 8 displays a graph of the cumulative outcome costs over the 24 months post-DUI Court entry (or equivalent). Note that these results by 6-month periods are not the same participants over time, but represent those different cohorts of participants who had at least 6, 12, 18, and 24 months of follow-up time, respectively.

<sup>27</sup> Law Enforcement included the Maryland State Police, the Howard County Sheriff's Office, and the Howard County Police Department.

<sup>28</sup> Totals in this row may not match the totals in the outcome costs by transaction table due to rounding.

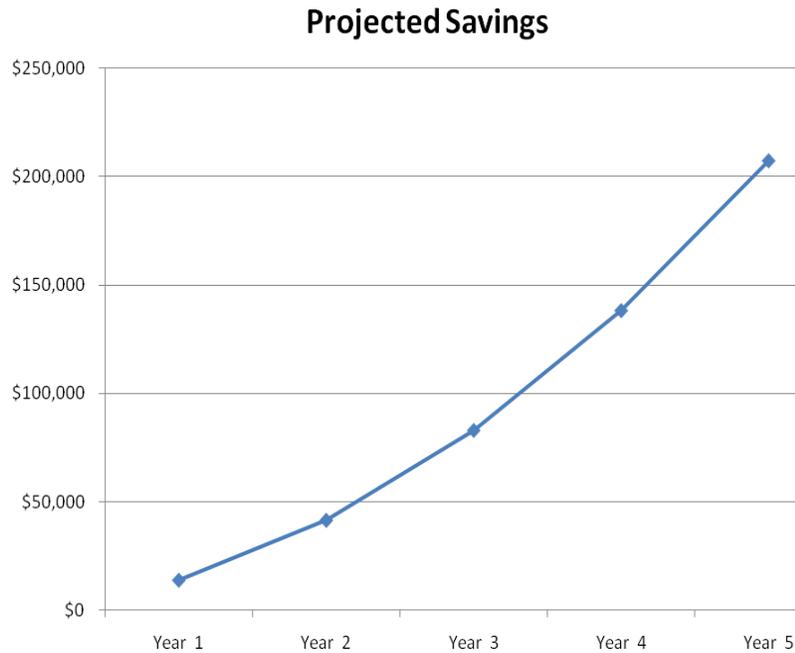
**Figure 8. Criminal Justice Recidivism Cost Consequences per Person Over 24 Months**


The cost savings illustrated in Figure 8 are those that have accrued in just the 24 months since DUI Court entry. Many of these savings are due to positive outcomes while the participant is still in the program. Therefore, it is reasonable to state that savings to the state and local criminal justice systems are generated from the time of participant entry into DUI Court.

If DUI Court participants continue to have positive outcomes in subsequent years (as has been shown in drug courts, e.g., Carey et al., 2005; Finigan, Carey, & Cox, 2007) then these cost savings can be expected to continue to accrue over time, repaying the program investment costs and providing further savings in opportunity resources to public agencies.

This savings will also continue to grow with the number of participants that enter each year. If the DUI Court program continues to admit a cohort of **20** participants annually, the savings of \$1,382 per participant over 24 months results in an annual savings of **\$13,820** per year, which can then be multiplied by the number of years the program remains in operation and for additional new participant cohorts per year. This accumulation of savings is demonstrated in Figure 9. After 5 years, the accumulated savings come to **\$207,300**.

**Figure 9. Projected DUI Court Criminal Justice Cost Savings Over 5 Years**



As the existence of the program continues, the savings generated by DUI Court participants due to decreased criminal activity can be expected to continue to accrue, repaying investment in the program and beyond. Taken together, these findings indicate that the DUI Court is both beneficial to DUI Court participants and beneficial to Maryland taxpayers.

**COST SUMMARY**

Overall, the DUI Court results in significant cost savings and a return on taxpayer investment in the program. The program investment costs are \$7,076 per DUI Court participant. When program costs are divided by the average number of days in the program, the cost per day per participant for the DUI Court program is \$15.67, which is significantly lower than the per day cost of both jail (\$117.53) and prison (\$85.15).

The cost due to recidivism over 24 months from program entry was \$4,056 per DUI Court participant compared to \$5,438 per comparison individual, resulting in a savings of \$1,382 per participant (regardless of whether they graduate). The vast majority of the cost in outcomes for DUI Court participants over the 24 months from DUI Court entry was due to time in jail (\$3,848), mostly for participants who were unsuccessful in completing the program. In sum, there is a clear benefit to the taxpayer in terms of criminal justice related costs in choosing the DUI Court process over traditional court processing.



## DISCUSSION AND SUMMARY OF FINDINGS

The Howard County DUI Court program demonstrates promise in reducing criminality for program participants. The small number of individuals who had 24 months of time after program entry may have limited this study's ability to find significant differences in some of the recidivism analyses and also made it difficult to retain an equivalent comparison group across all follow-up time points; however, future studies may be able to demonstrate additional positive recidivism outcomes. The trends in re-arrest rates and average numbers of new arrests look promising for the drug court program participants.

After participation in the program, regardless of whether they graduate, DUI Court participants were re-arrested on criminal charges less often and with fewer numbers of new arrests than the comparison group of similar individuals who did not participate in the program. The arrest rates and numbers of DUI charges in particular decreased significantly from the 2 years before program entry to the 2 years after; however, this decrease was seen in the comparison group as well, so cannot be attributed solely to the program.

The graduation rate for this program is very high at 84%, indicating that the DUI Court program is helping most participants successfully complete program requirements. Probably due to the small numbers of non-graduates, few characteristics differentiate DUI Court graduates from non-graduates; however, graduates were more likely to be non-Caucasian and have fewer pre-program DUI arrests. DUI Court participants who re-offended with a DUI charge were younger and less likely to have an arrest for a person crime in the 2 years prior to the program participation. DUI Court participants who re-offended with ANY criminal charge were also younger, though this relationship disappeared when other variables were controlled for.

The results of this study indicate that the DUI Court program is successful in reducing participant recidivism and protecting public safety. As a result, the DUI Court provides notable cost savings and a return on taxpayer investment in the program.

Recidivism costs over 24 months from program entry resulted in a savings of \$1,382 per participant (regardless of whether they graduate). Savings were substantially higher per person for DUI Court graduates, at nearly \$5,000 per graduate. The vast majority of the cost in outcomes for DUI Court participants over the 24 months from DUI Court entry was due to time in jail, mostly for participants who were unsuccessful in completing the program. Unsuccessful participants accrue more days in jail (and thus create a greater outcome jail cost) than offenders served through traditional court processing. It is possible that these individuals are not receiving the intensity of supervision or treatment that they need to be successful. The team may want to look at the assessment process and ensure that high quality, comprehensive assessment is occurring and that the results of those assessments are being used to make treatment planning decisions. In addition, the team may want to assess the Court's sentencing process for unsuccessful participants to ensure that these individuals are not being treated more harshly due to their inability to complete the program.

As highlighted in the parallel report for the Howard County Drug Treatment Court participants, adding law enforcement and probation to the team could potentially make greater connections with participants in the community (such as during home visits) for increased monitoring and information gathering, improve communication and coordination between agencies regarding program participants, and facilitate supervision and case management.

The program should continue to enter current and future participant information into the SMART system to ensure that information is available for program and evaluation use in the future. The program may want to advocate for the development of the SMART system to facilitate the availability of summary reports so that the program can have access to and use its data for program monitoring and planning.

Program data indicated that many DUI Court participants from this study period who were fitted with SCRAM alcohol monitoring bracelets used them for less than 3 months, with about one third on for over 3 months. SCRAM personnel suggest a minimum of 3 months usage for initial DUI Court participation and longer when needed or for individuals with less structured supervision and services. The program has indicated that currently participants are on SCRAM for a minimum of 90 days. Discuss the program's use of SCRAM and the benefits of keeping participants on for longer periods of time (as needed to prevent potential relapse), to maximize the impact of this monitoring system.

This program is benefitting participants and has the potential to have an even greater impact on DUI offending in Howard County as it continues serving clients in the future.

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## REFERENCES

- Belenko, S. (2001). *Research on Drug Courts: A Critical Review, 2001 Update*. New York: National Center on Addiction and Substance Abuse.
- Carey, S. M., & Finigan, M. W. (2004). A detailed cost analysis in a mature drug court setting: Cost-benefit evaluation of the Multnomah County Drug Court. *Journal of Contemporary Criminal Justice, 20*(3), 292-338.
- Carey, S. M., Finigan, M. W., Waller, M. S., Lucas, L. M., & Crumpton, D. (2005). *California drug courts: A methodology for determining costs and avoided costs, Phase II: Testing the methodology, final report*. Submitted to the California Administrative Office of the Courts, November 2004. Submitted to the USDOJ Bureau of Justice Assistance in May 2005.
- Finigan, M. W., Carey, S. M., & Cox, A. (2007). The Impact of Mature Drug Court Over 10 Years of Operation: Recidivism and Costs.” Submitted to the U.S. Department of Justice, National Institute of Justice.  
[http://www.npcresearch.com/Files/10yr\\_STOP\\_Court\\_Analysis\\_Final\\_Report.pdf](http://www.npcresearch.com/Files/10yr_STOP_Court_Analysis_Final_Report.pdf)
- Government Accountability Office (2005). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes*. Retrieved October 2006, from <http://www.gao.gov/new.items/d05219.pdf>, February 2005 Report.
- National Association for Drug Court Professionals, 2009, DUI Court information. On-line at: <http://www.dwicourts.org/learn/about-dwi-courts/what-dwi-court>. Retrieved December 2009.