

EVALUATION OF DENVER'S REORGANIZED DRUG COURT

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OMNI INSTITUTE

Evaluation of the first year of Denver’s Reorganized Drug Court

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EXECUTIVE SUMMARY

OMNI Institute was contracted to evaluate the process and potential success of Denver's reorganized drug court. The evaluation of Denver's drug court was a collaborative effort and involved input and efforts from individuals across multiple offices. The evaluation encompassed a wide range of activities including evaluation design, review and audit of data sources and elements, and implementation. Significant effort was dedicated to developing a foundation and infrastructure for ongoing evaluation of Denver's drug court.

The full report provides additional detail on the re-organization and re-establishment of Denver's drug court in 2007, describes eligibility criteria for drug court, and outlines some key differences between the reorganized and former drug courts regarding court processes and case supervision.

Six research questions were identified by the Drug Court Evaluation Steering Committee:

1. *How many individuals and cases were processed through Denver's reorganized drug court compared to Denver's former drug court?*
2. *What is the background of individuals in Denver's reorganized drug court compared to Denver's former drug court?*
3. *How are defendants processed through Denver's reorganized drug court compared to Denver's former drug court?*
4. *How successful is Denver's reorganized drug court compared to Denver's former drug court?*
5. *What offender characteristics predict successful completion of drug court?*
6. *Does Denver's reorganized drug court reduce jail days?*

METHODS

Addressing the Drug Court Evaluation Steering Committee's research questions required merging and analyzing data from multiple sources. To enable comparisons of Denver's reorganized drug court to the former drug court, cases filed in the first year of Denver's reorganized drug court were compared to one year of cases filed under Denver's unfunded former drug court. Primary data sources were Denver's District Court and County Court databases. Additional data were obtained from Denver County Jail, Denver County Probation, and case filings from SCAO. Further description of these data sources is provided in the full report.

Sample

To conduct appropriate comparisons between the reorganized and former drug courts, samples were extracted based on case filing dates, to ensure that all cases included in the reorganized drug court sample reflected those processed under the new guidelines. The 2007/08 drug court sample was defined as all drug court cases filed in the City and County of Denver in the one-year time period between March 9, 2007 and March 9, 2008. The 2005/06 former drug court sample was correspondingly defined as all drug court cases filed between March 9, 2005 and March 9, 2006.

Limitations

Missing and unmatchable data were significant challenges, and limited the generalizability of findings. The most central issue was the limited information from the 2007/08 sample at the time of analysis, since so many cases remained active.

RESULTS

Research Question 1: How many individuals and cases were processed through Denver's reorganized drug court compared to Denver's former drug court?

From March 2007 to March 2008, **747 individuals representing 766 cases participated in Denver's reorganized drug court, compared to 1,141 individuals with 1,186 cases processed by the former drug court** between March 2005 and March 2006. Close to half of all 2007/08 drug related cases (49.3%) post-sentence were involved in drug court compared to 56.4% in 2005/06. Because there were more overall filings in 2005/06, there were also more drug related filings and drug court participants in 2005/06 than 2007/08.

The full report provides a detailed account and graphic to display the numbers of cases and individuals at each level of court processing including classification as a drug case, drug court or non-drug court probation or other sentence, and probation supervision by the county or district (for 2007/08). Many of these determinations required comprehensive review of multiple data fields.

Research Question 2: What is the background of individuals in Denver's reorganized drug court compared to Denver's former drug court?

Understanding the background of individuals in drug court is important for documenting the needs of the population processed through Denver's drug court, and identifying potential changes in the drug court population that may have followed drug court reorganization. **With the exception of race/ethnicity, there were few differences in demographics and background of reorganized versus former drug court participants. In both samples, the majority of drug court participants were male, under 35 years of age, with a history of frequent unemployment and low motivation to seek treatment for substance abuse.**

Demographics

- About 3 out of 4 (73%) participants in both drug court samples were male.
- The average age of drug court participants in both samples was 32-33 years of age; over half of participants were under 35 years of age at the time of their arrest.
- The race/ethnicity of drug court participants in the 2005/06 former drug court sample was somewhat evenly split across White (37.6%), Black (28.9%), and Hispanic (31.5%). Reorganized (2007/08) drug court participants were more heavily White (51.8%) and less Hispanic (20.5%). For both drug court samples, the percentages of Asian and American Indian participants were very low.

Background

- Over half of individuals in both drug court samples were unemployed at intake; and over half had a history of frequent unemployment
- On average, more than 1 in 5 drug court participants in both samples were classified as needing a mental health evaluation.
- Results from the Adult Substance Use Survey (ASUS) administered at intake indicated low motivation to seek treatment, with over half of participants in both drug court samples scoring in the bottom quartile of the motivation scale. This finding suggests that most individuals may not have sought help or treatment for their substance abuse problems if not for the intervention of drug court.

Research Question 3: How are defendants processed through Denver's reorganized drug court compared to Denver's former drug court?

Key changes were made to how defendants are processed in the reorganized drug court, with the goal of improving efficiency. **Results indicate reorganized drug court to have achieved substantial and meaningful improvements in processing efficiencies. The average times between critical decision points were statistically significantly decreased for drug court participants in 2007/08 compared to 2005/06.**

Arrest to Sentencing

Time from arrest to sentencing for non-bonded drug court participants decreased from 83 days (approximately 12 weeks) in 2005/06 to 14 days (2 weeks) in 2007/08. For bonded drug court participants, whose processing time is lengthened, average days from arrest to sentencing decreased from 173.5 days (approximately 25 weeks) in 2005/06 to 63.1 days (approximately 9 weeks) in 2007/08. These differences were both highly statistically significant ($p < .001$).

Sentencing to Treatment

In absence of available data on substance use treatment dates, average time from sentencing to first 'face to face' with one's probation officer (PO) was examined as a proxy for time to treatment since treatment referrals are made by probation officers. Research indicates substance use treatment outcomes to be improved when treatment can be obtained more quickly. Average time from sentencing to first 'face to face' with one's PO decreased significantly from 63.5 days (approximately 9 weeks) in 2005/06 to 18.4 days (approximately 2 ½ weeks) in 2007/08 ($p < .001$).

Research Question 4: How successful is Denver's reorganized drug court compared to Denver's former drug court?

In addition to goals of increasing efficiency, the reorganized drug court strived to improve outcomes for drug court participants, including graduation rates, recidivism, and reductions in risk for criminal behavior and need for treatment. **Because a large percentage of 2007/08 drug court participants remain active and have not yet completed the program, the 'success' of reorganized drug court cannot yet be fully assessed.** Graduation rates and reductions in risk are reported for 2005/06 and for the small number of individuals in the 2007/08 sample who had completed the program. Recidivism analyses, which require a majority of the sample to have completed the program and have been discharged for a certain period of time, are only reported for the 2005/06 former drug court sample.

Graduation

The number and percentage of graduates is greater thus far for the former drug court sample, with a 43.2% graduation rate, versus only 38.8% for reorganized drug court. However, because individuals in the 2005/06 group have had much more time to complete drug court, valid comparisons of graduation rates cannot yet be made.

Reduction in risk

Drug court graduates from both years showed significantly greater improvement than non-graduates on a number of dimensions of the Level of Supervision Inventory (LSI). The LSI is administered at intake and later time points and is used to assess the offender's risk of criminal behavior and need for treatment.

Recidivism

For the 2005/06 sample, the recidivism rate for graduates (6.6%) was significantly lower than the rate for non-graduates (12.4%; $p < .001$). Valid recidivism rates cannot yet be calculated for the 2007/08 sample.

Research Question 5: What offender characteristics predict successful completion of drug court?

Understanding the characteristics that may predict successful program completion can support programs in tailoring or modifying services or refining the target population. **Predictors of graduation did not differ across drug court samples. Graduates in both samples were more likely to be female, White, employed, and have lower scores at intake on measures of criminal risk and AOD use.**

- **Gender** -- Females were significantly more likely to graduate than males ($p < .001$). The graduation rate was 50.0% for females versus 44.0% for males.
- **Race** - White males were significantly more likely to graduate than Non-White males ($p < .001$); females were equally likely to graduate regardless of race/ethnicity. The race difference in graduation rates for men, however, was no longer significant for the 2007/08 sample once baseline levels of criminal risk were taken into account.
- **Employment** – those who reported being unemployed at intake were significantly *less* likely to graduate than those who were employed ($p < .001$). The graduation rate among those who were unemployed was 40.2%, compared to 45.7% for those who were employed.
- **Criminal risk** - the graduation rate was 54.0% for participants who scored in the lowest quartile of criminal risk and 44.1% for those who scored in the highest quartile of risk. Those at lowest risk were significantly more likely to graduate than those at highest risk ($p < .01$).
- **AOD Use** - Those with lower AOD use were significantly more likely to graduate than those with higher scores ($p < .001$).

Research Question 6: Does Denver's reorganized drug court reduce jail days?

Denver's reorganized drug court implemented changes to better support, streamline, and expedite filing processes. These modifications were presumed not only to increase efficiency and improve treatment outcomes for drug court participants, but to lead to cost savings by reducing jail days.

Preliminary results indicate that average jail days for drug court participants were significantly lower for 2007/08 compared to 2005/06. Changes to processing procedures for all drug cases are believed to have contributed to this reduction.

Specifically, the average number of jail days for non-bonded offenders who participated in drug court was significantly lower in 2007/08 ($M=17.3$ days) than 2005/06 ($M=51.2$ days), resulting in a mean difference of 33.9 days ($p < .001$). For drug court participants who posted bond, average number of jail days from arrest to sentencing for 2007/08 was 6.4 days, compared to 32.8 days for 2005/06, a mean difference of 26.4 days ($p < .001$).

Researchers then used the jail days calculations to calculate potential cost savings. Calculating the cost savings from reduced jail days depends on the current capacity of the jail. Key informant data collected for this evaluation provided the context regarding these costs. Specifically, it was reported that the Denver County Jail contains 1,634 jail beds. The average cost to house one inmate in one of these beds is \$55.52 per day. However, the jail frequently accommodates more than 1,634 inmates and in cases of overcapacity, the cost to house each additional person is \$12.90 per day (\$2.10 for meals, \$9.90 for the average medical care, and \$1.00 miscellaneous). Thus, potential cost savings calculations need to take into account current capacity levels. The marginal cost estimate may need to be used when the jail is over capacity, and the total cost estimate used when the jail is below capacity. In addition, cost estimates are different for offenders who posted bond compared to those who did not bond out because the average reduction in the number of jail days differed between these groups.

Using these figures, **the estimated cost savings of reorganized drug court relative to the former drug court was \$437.31 per non-bonded offender and \$340.56 per bonded offender when the jail is running over capacity; and \$1,882.13 per non-bonded offender, and \$1,465.73 per bonded offender when the jail is running at capacity.**

Average jail days and subsequent projected costs should continue to be monitored and recalculated as more 2007/08 participants graduate and more data become available.

KEY FINDINGS AND RECOMMENDATIONS

The evaluation was conducted to examine the efficiency and effectiveness of Denver's reorganized drug court. The Drug Court Steering Committee's research questions focused primarily on comparisons of the reorganized drug court to the former unfunded drug court operating between 2002 and 2007. In order to obtain and review data and systems relevant to the evaluation, OMNI worked directly with multiple stakeholders, including agency representatives responsible for contributing to the drug court process, information systems management representatives, and the Drug Court Coordinator. Substantial resources and time were dedicated toward acquisition, review, cleaning, and interpretation of available data. These efforts were necessary to enable the current evaluation, and have allowed for development of an infrastructure that will facilitate future monitoring and evaluation efforts.

Key Findings

Evaluation findings indicated that (a) offenders who entered drug court with a lower risk profile were significantly more likely to graduate than higher-risk offenders (as indicated by intake scores on the LSI); and (b) graduates of drug court showed significantly better outcomes than non-graduates, in terms of reduced criminal risk and lower rate of recidivism (the latter of which could only be assessed for the 2005/06 sample). This information may be used to identify need for programmatic and process modifications to better promote success for those at greater risk of failing the program. **Targeting higher-risk individuals for program success would presumably have a greater impact on recidivism (and its associated costs) compared to lower-risk individuals, who are less likely to recidivate.**

As emphasized throughout the report, more time must elapse before firm conclusions can be drawn about the effectiveness and outcomes of reorganized drug court, particularly those indices requiring a longer time-horizon, such as recidivism rates. However, the differences observed between the drug court samples in time lengths between critical decision points and corresponding reductions in jail days/beds were highly statistically significant, and demonstrate meaningful changes in the processing of cases under the reorganized drug court. Multiple initiatives or modifications to court procedures at a broader level may have combined to allow for greater efficiencies and cost savings to be realized for drug court cases as well as other cases.

Issues and Recommendations

Recommendations are offered to enhance future evaluation efforts and increase capacity to address key research questions such as the impacts of reorganized drug court on recidivism rates and cost savings. **Efforts to standardize data definitions and data collection and entry procedures, as well as consideration of select data field additions to the district and county data systems**

(Eclipse and Themis, respectively) could substantially increase the capacity and efficiency of future evaluation efforts. It is recognized that modifications must be designed to minimize disruptions to case management.

The following recommendations are described in greater detail in the full report:

- Improve tracking and documentation of probation outcomes
- Reduce data inconsistencies through automated validation checks
- Decrease missing assessment data by standardizing administration
- Obtain more information on treatment and related outcomes
- Determine the release date of drug offenders
- Enable identification of linked cases
- Enhance Denver County Court's database (Themis)

Conclusion

In sum, the efforts undertaken by all stakeholders to develop the infrastructure and collaborations necessary to evaluate Denver's reorganized drug court provide the beginnings of a strong foundation for future assessments. The most notable finding was the dramatic decreases observed in processing times for reorganized drug court compared to the former drug court. Allowing for more time to elapse to assess 2007/08 drug court outcomes, combined with undertaking systematic efforts to improve data collection and quality, would further strengthen the capacity of future evaluation efforts to examine and document the processes and impact of Denver's reorganized drug court.

Background

Description of Denver's Drug Court

In 1994, Denver implemented one of the first drug courts in the nation. After changes in funding, the court was scaled down in 2002 but remained operational as a drug court. In 2006, Denver Mayor John Hickenlooper established the Crime Prevention and Control Commission (CPCC) to develop recommendations to promote crime prevention, reduce recidivism, and slow the growth of Denver's incarcerated population through diversionary programs and alternatives to sentencing. The Commission was formed in response to a recommendation of the Justice Center subcommittee on alternatives to sentencing and approved by City Council. In 2007, efforts by the CPCC served to reorganize and re-establish Denver's drug court. The reorganized drug court acts as both a District and County Court, serving offenders charged with felony-level drug crimes and with a demonstrated substance abuse problem. Offenders in drug court may plead to either felony or misdemeanor drug crimes.

Defendants accepted into the drug court are referred by the District Attorney's Drug Unit (DA's Drug Unit). The DA's Drug Unit reviews and files all felony-level drug charges that occur in Denver. According to a narrative description of Denver's reorganized drug court provided by CPCC staff, persons *excluded* as determined by the DA's Drug Unit have the following characteristics:

- Persons currently charged with possession, sale, dispensing or possession with intent to sell, or manufacturing of a controlled substance in cases involving twenty-five grams or more of a controlled substance.
- Persons currently charged, or eligible to be charged, with any offense pursuant to §18-18-407, the special offender provisions of the Uniform Controlled Substances Act.
- Persons previously convicted of acts instrumental in causing serious bodily injury or death.
- Persons previously convicted of any felony offense involving the use, possession, or threatened use of a deadly weapon.
- Persons previously convicted of any criminal offense for which the underlying factual basis involved a sex-related criminal offense.
- Persons whose criminal history, correctional performance, or treatment diagnosis indicate a history of violent behavior or unsuitability for drug court.
- Persons who reside outside the Denver metropolitan area.
- Persons with no demonstrated substance abuse problems.
- Persons currently on parole.

Documentation provided by the CPCC staff and correspondence from the executive director of the CPCC describe the goals of Denver's drug court as follows:

- 1) Prevent further criminal activity by addressing addiction issues;
- 2) Decrease recidivism in drug court offenders;
- 3) Provide drug court offenders with the tools to become productive members of society;
and
- 4) Better manage and expedite drug cases in the justice system.

There are several key differences between the reorganized drug court established in 2007 and the previous drug court operating between 2002 and March 2007. Some critical differences reflect changes that were made to better support, streamline, and expedite filing processes. For example:

- The District Attorney files eligible drug court cases directly into the reorganized drug court whereas, previously, eligibility was reviewed later in the process.
- Eligible drug court offenders who agree to plea terms of the District Attorney have their 2nd advisement, arraignment, disposition, and sentencing in one hearing whereas, previously, these would have required several court appearances in both County and District Court.
- Under the reorganized drug court, participants who plead to a misdemeanor are supervised by Denver County Court Probation. Previously, all drug court defendants were supervised by the District's Denver Adult Probation Department.
- The reorganized drug court created a drug court coordinator position to organize and manage its efforts.
- Additional funding was applied to add staff in the District Attorney's Office, Denver County Court Probation, Denver County Court, and Denver Public Defender's Office to support implementation of the reorganized model.

Background to the Evaluation

To assess drug court goals, CPCC contracted with OMNI Institute (OMNI) to evaluate the processes, outcomes, and cost savings of the reorganized model. OMNI staff was directly responsible for collaborating with multiple stakeholders, including agency representatives responsible for contributing to the drug court process, information systems management representatives, as well as the Drug Court Coordinator, to ensure that evaluation needs were addressed. The evaluation not only required interagency collaboration but also significant effort to collect, centralize, and clean required data. In this area, OMNI worked with court staff to obtain

and document the variables and datasets thereby creating a data infrastructure that will support future monitoring efforts.

A Drug Court Evaluation Steering Committee, comprised of the Denver County Court Probation, the Court Bench, the District Attorney's Office, the Public Defender's Office, and the Drug Court Coordinator, met regularly to discuss challenges and next steps for the drug court evaluation. The primary research questions developed by the committee and OMNI included:

1. *How many individuals and cases were processed through Denver's reorganized drug court compared to Denver's former drug court?*
2. *What is the background of individuals in Denver's reorganized drug court compared to Denver's former drug court?*
3. *How are defendants processed through Denver's reorganized drug court compared to Denver's former drug court?*
4. *How successful is Denver's reorganized drug court compared to Denver's former drug court?*
5. *What offender characteristics predict successful completion of drug court?*
6. *Does Denver's reorganized drug court reduce jail days?*

In 2007, significant efforts were made related to the outlining and implementation of the evaluation plan. OMNI research staff was involved in a variety of activities in support of plan development including:

- Definition and prioritization of primary research questions across multiple stakeholders
- Identification of data sources to answer defined research questions
- Review of potential data sources
- Specification and monitoring of data requests based on identified research questions
- Negotiation of data requests and data access
- Translation of codes and database-specific terminology used by data systems
- Identification and negotiation of data support within the Probation Division of Denver County Court.

Methods

The evaluation utilized multiple data sources and methodologies to enable development of a comprehensive picture of the drug court process, and address the selected research questions. The data sources utilized are described in further detail below. Data collection and analysis efforts included qualitative methods such as key informant interviews and document reviews, and a variety of quantitative statistical methods applied to both primary and secondary data.

Research questions focused on comparisons between participants of the 2005/06 former drug court and those participating in the 2007/08 reorganized drug court. Comparisons of graduates and non-graduates within and across these drug courts were also conducted.

It should be stated at the outset that samples from these two different time periods of drug court operation systematically differed in a number of ways which allows only preliminary interpretation of reported findings. Moreover, the smaller number of graduates in the 2007/08 sample, particularly those reaching a six month post-completion date, makes it difficult to conduct robust comparisons between the two samples. While the report provides encouraging results that point to some positive trends, analyses should be replicated over a longer time-horizon to better test and verify the reported findings.

Sample

To conduct appropriate comparisons between former and reorganized drug court, samples were extracted based on case filing dates. The 2007/08 reorganized drug court was implemented in March 2007. The 2007/08 drug court sample was defined as all drug court cases filed in the City and County of Denver in the one-year time period between March 9, 2007 and March 9, 2008. The 2005/06 former drug court sample was correspondingly defined as all drug court cases filed between March 9, 2005 and March 9, 2006. Case filing dates, rather than numbers presently served, were used to identify the samples so that we could be assured that all cases included in the reorganized drug court sample reflected those processed under the new guidelines of the reorganized drug court. For example, if all cases *active* between March 2007 and March 2008 were included, the sample would include cases that were processed at least partly under the old drug court procedures.

Thus, these samples are not intended to be used to document the total numbers processed by drug court and the total amount of work accomplished by the drug court, but are intended to yield data that can *accurately represent* those that experienced the revised versus former drug court procedures in terms of their background, their processing times, and their outcomes. This was critical in ensuring we could appropriately address the research questions specified by the Drug Court Evaluation Steering Committee.

Between March 9, 2007 and March 9, 2008 747 individuals representing 766 cases were sentenced to Denver's reorganized drug court, compared to 1,141 individuals representing 1,186 cases for the 2005/06 sample (March 9, 2005 to March 9, 2006). It should be noted that some cases filed in 2007 and 2008 had not yet been sentenced at the time the data were pulled; therefore, the reported numbers processed for the 2007/08 time period may have changed since the writing of this report. Moreover, although Denver's reorganized drug court has accepted cases filed prior to March 2007, these cases were not included to maintain the comparability of the 1-year timeframes in both samples. The process of identifying the 2005/06 and 2007/08 drug court participants from the

larger pool of *all* cases processed by the City and County of Denver during these timeframes is outlined in greater detail in Research Question 1 (p. 23).

Data Sources

Secondary Sources

Drug Court administrators currently enter and maintain data across several information systems, requiring multiple and complex data collection protocols for the drug court program evaluation. Each of these is briefly described below:

- **State Court Administrator’s Office (SCAO): Integrated Colorado On-Line Network (ICON)/Eclipse Database**

The information system used by the State Judicial Branch covers all of the state’s District Courts (general jurisdiction courts) and all of the County Courts (limited jurisdiction courts), with the exception of the Denver County Court. ICON is the only statewide case management system in the country that fully integrates trial court case processing, court of appeals case processing, drug court management, financial processing, probation case processing, attorney registration, and alternative dispute resolution processing, as well as other functions. Eclipse is a statewide interactive interface accessed by Denver District Court Magistrates, the Denver Public Defender’s Office, the Denver District Attorney’s Office and Denver District Probation. The systems use two identification numbers: the Denver Police Department (DPD) number assigned to individual offenders by the Denver Police Department and the State ID (SID) assigned by the Colorado Bureau of Investigations. Data were provided by the division of Judicial Business Integrated with Technology Services (JBITS) and the division of Probation Services. Furthermore, staff at the Division of Probation Services served a critical role as liaison to researchers regarding these data and user practices.

- **Denver County: Manage All Cases (MAC)/Themis Database**

MAC/ Themis is the case management system used by the Denver County Court. This data system manages information relating to all of Denver County Court’s operations from court actions to probation supervision activities. Recently, MAC was enhanced and renamed Themis. Although MAC/ Themis interfaces with Eclipse, users cannot openly access and edit data from either system. Select court information is shared via this integration, however.

- **Denver County Jail: Daily Bookings and Releases**

Information related to individuals booked into and subsequently released from Denver County Jail was also obtained. These data included the number of days held by arrest, which was cross-referenced to Eclipse using the booking and arrest numbers. This information was used to answer questions relating to jail days.

- **State Court Administrator's Office (SCAO), Division of Probation Services: Case Filings**

Probation Services provided data related to all filings in Colorado since 2005 to support the evaluation of recidivism. Using the SID, sentence date, and calculated discharge date, researchers were able to determine how many graduates and non-graduates had reoffended since completing their probation sentence. More information on calculating reoffenses is described later in this report in Research Question 4 (p. 46).

Additional Data Collection through Probation

OMNI researchers also worked with Denver District and County probation officers to collect additional data not available through the above data sources.

- **Denver County Probation Case Reports**

Because MAC/Themis did not have a means to store assessment data gathered on drug court participants for cases supervised by County probation, OMNI research staff worked directly with county probation officers to manually gather completed Level of Supervision Inventory (LSI) and Adult Substance Use Survey (ASUS) assessments and enter the data into spreadsheets for later merging and analysis.

- **Supplemental Data Collection and Online Database by District and County Probation Officers**

The Drug Court Evaluation Steering Committee identified several research questions that could not be answered using the data sources described above, and that required additional information be gathered relating to substance use, income, employment/benefits, and access to treatment. OMNI developed a data collection tool that is intended to be administered twice (at intake and discharge) by probation officers to every drug court client with a case filed after March 2007 and sentenced to probation. OMNI staff also developed an online database to support probation officers' entry and management of these data. Available data from Eclipse on cases filed after March 2007 were pre-entered into the OMNI system. Insufficient data were entered into the database for inclusion in this report, however.

Variables Used in the Evaluation

Information provided to researchers on all criminal cases filed during the March 2005-2006 and March 2007-2008 periods is described in the tables below. It should be noted that both Eclipse and MAC/ Themis include fields called ‘open text fields’ that contain non-standardized narrative information regarding cases. Currently, the ability to export and therefore share information contained in open text fields is not available. Moreover, analyzing data contained in open text fields is not feasible for an evaluation of this size. The variables listed in the tables below represent only those closed fields deemed relevant to the evaluation.

Evaluation Variables in Eclipse

Eclipse	Description
Criminal Case Demographics	Demographics of person connected to each case
Assessed and Balance Due	Information related to defendant court fees and fines
Attorney Representation	Attorneys involved in district cases
Bond Information	Information related to bond set, posting, and status
Plea, Finding, Sentence	Information on the plea status, findings, and sentence information for all counts.
Court Events	Scheduled and Court Events
Assessments	Select data from the Level of Supervision Inventory (LSI) and Adult Substance Use Survey (ASUS)
Probation Master	Probation Status information such as the current supervision level and termination status of each case.
Probation Events	A record of probation actions and status codes related to court functions. In addition, some court codes appear in these data to support probation officer case management.
Probation Officer Assigned	Probation officer assigned to the case
Probation Narrative Events	A record of probation actions related to contact with the defendant.

Evaluation Variables in MAC/ Themis

MAC/Themis	Description
Criminal Case Demographics	Demographics of person connected to each case
Violations	Description of violations for each offense
Bond Information	Information related to bond set, posting, and status
Sentence	Sentence information for all counts
Court Actions	Scheduled and Court Events
Probation Information	Status information for each probation case (e.g., active, inactive)
Probation Actions	A record of probation actions with the court and with the defendant.

Evaluation Activities

Collection, analysis, and reporting of data required extensive, ongoing efforts to develop a research design and data collection tools, coordinate data sharing, acquire knowledge and understanding of complex district and county data sources, and develop protocols around data audit and review.

Efforts included:

- **Key informant interviews with staff from the:**
 - Denver Police Department
 - Denver District Court
 - Denver District Court Adult Probation Department, Drug Court Unit (District Probation)
 - Denver Public Defender's Office
 - Denver Drug Court Judges and Magistrates
 - District Probation Mental Health Unit
 - Denver County Court Probation (County Probation)
 - Denver County Court
 - Denver District Court Clerks
 - Denver County Court Clerks Office
 - Crime Prevention and Control Commission
 - Denver County Jail (Sheriff's Office)
 - Colorado Department of Corrections
 - Denver District Attorney Drug Court Unit.

- **Ongoing communication and coordination efforts, including:**
 - Organization of data access request meetings
 - Attendance at select treatment provider meetings
 - Facilitation of select Drug Court Evaluation Steering Committee meetings
 - Interviews with users and managers of JMS, Eclipse, MAC, and JustWareⁱ
 - Communications with Denver County database management information staff
 - Collaboration with designated SCAO staff regarding data discrepancies
 - Communications with context experts to address questions and anomalies surfaced by data audits and analysis
 - Development of relationships with JBITS and Probation Services.

ⁱ JustWare was a new database for the Denver District Attorney's Office. After reviewing the data managed by JustWare, the Drug Court Evaluation Steering Committee decided to exclude this system as a data source. Specifically, the review indicated that much of the data captured in JustWare relevant to the evaluation would be duplicated in Eclipse. Further, many users were still being trained on how to use and enter data into the system.

- **Development of data collection instruments and systems, and related trainings and tools, including:**
 - Internal repository of booking and release data to enable linkage of Eclipse data to jail days
 - An intake and discharge questionnaire to capture additional outcomes outlined by the Drug Court Evaluation Steering Committee
 - Development of a web-based supplemental database, collection tool, protocol, and accompanying manual to obtain supplemental data. Work in this area included: pre-population of the supplement database with Eclipse data received from the District Court; training of probation officers on use of the data collection tool and database; and provision of data audits and ongoing technical support of probation officers.

- **Ongoing data coordination, review, and audit efforts, including:**
 - Development of a comprehensive matrix outlining the variables, data sources, and fields available to answer research questions
 - Development of an internal repository for managing and merging district and county data
 - Development of an internal repository for daily booking and release data for Denver County Jail
 - Review of booking and release data
 - Development of data auditing procedures for all data sources
 - Acquisition of definitions for codes used by Eclipse
 - Auditing of data from all sources
 - Provision of evaluation progress reports to the Drug Court Evaluation Steering Committee.

Data and Analytic Limitations

It is important to outline key limitations regarding the data, data sources and systems, as these affect the ability to address the selected research questions, facilitate interpretation of findings, and inform recommendations for future drug court process and outcome evaluation efforts. Limitations encountered in retrieval and analysis of drug court-related data fell into three broad categories, which are discussed below: data quality and reliability issues; missing data; and design and analysis considerations.

Data Quality and Reliability Issues

Data quality and reliability issues arise when data are collected and available, but are subject to error and inconsistency. Low quality and/or reliability of data can occur for a number of reasons, including false reporting, data entry errors, non-standardized data fields, and inconsistent definitions and uses of codes. These issues affect the ability to accurately describe individuals and processes, and to link information on individuals across data sources and over time.

Examples of issues related to drug court data quality and/or reliability include the following:

- Offenders reporting different or false personal information. This leads to variations in names, dates of birth, and subsequent assignment of inaccurate SIDs (i.e., ‘fake’ SIDs), which undermines ability to track individuals over time and across data sources.
- Protocols for determining race/ethnicity of offenders are not sufficient to ensure reliable demographic information. People with multiple cases are often found to be classified as different races/ethnicities across their case filings.
- Open text fields (i.e., fields that allow for the user to manually enter whatever they want) are useful for case management and appropriate when information cannot be standardized. However, these data are very labor intensive to aggregate and analyze. In addition, open fields are problematic because they allow for data entry errors or inconsistencies. Finally, when these fields are relied on to store information that should be captured in standard coding (e.g., termination status), the likelihood of misclassifying individuals or cases is increased.
- Theoretical uses of codes differ from practical/actual uses of codes. For example, while codes exist in the MAC/Themis database for identifying drug court participants, as well as their status, such codes were rarely found to be attached to individuals known to be enrolled in drug court via other data fields.

Missing Data

Missing data pertains to data that are not available because: (a) they are not collected or documented, (b) they have been collected but are not available or linkable to individuals, or (c) they are supposed to be collected, but are not available because protocols or resources are insufficient to ensure regular collection and entry of the data.

The primary issue regarding missing data in the drug court evaluation regards the timeframe for gathering and analyzing data for the 2007/08 reorganized drug court sample. Data for a substantial number of 2007/08 drug court participants have not yet been collected due to the large number of active cases that remain in process. That is, some important information regarding drug court participants is not gathered until participants complete the program. While this issue does not affect the ability to answer research questions that address baseline characteristics of the samples, it has a substantial impact on analyses that address outcomes and other end point inquiries, including calculations of graduation rates, retention, recidivism, reduction in risk, and arrest to discharge processing times.

Another critical issue regarding missing data occurs when data exist but cannot be used in analyses because they are not linkable to individuals. For example, data may not be linkable to particular individuals due to missing or false SIDs or multiple ML numbers.

Such issues are further complicated when analyses must be conducted on multiple units of analysis (e.g., the case level and the individual level). For example, Eclipse tracks mainly by case level and uses an identifier unique to the system (ML Number) to identify individuals. For every new case, a clerk must add a new individual or locate the repeat offender in the database. Because there are multiple system users, some may mistakenly create duplicate accounts (i.e., add a new individual when the offender already exists in the database). Significant efforts are made to avoid creating duplicates and to resolve duplicate accounts. However, duplicates continue to be a challenge. Having multiple codes to identify one person further complicates data in which individuals are already presumed to have multiple cases. Because some research questions require analysis at the case level, whereas other questions entail individual-level analysis, it is critical to have a reliable means to link individuals to cases. For this study, additional data and support from SCAO Probation Services was required to support accurate linking of case numbers and ML numbers. Despite efforts, some data remained classified as missing, because multiple ML numbers for one person prohibited accurate linking of data tables.

Finally, a further challenge that contributed to missing data was the fact that some data sources may not have included sufficient longitudinal data for evaluation purposes. The collection of data from the Level of Supervision Inventory (LSI) and Adult Substance Use Survey (ASUS) (described later in this report), for example, previously did not require follow-up assessment once risk levels were reduced. While data collection was sufficient from a treatment standpoint, this precluded the development of a dataset that included follow-up LSI and ASUS data on offenders who had been classified as low risk. From an evaluation standpoint, both baseline and follow-up data are essential to collect on all participants so that accurate conclusions can be drawn about program impacts over time.

Design and Analysis Considerations

The evaluation of the Denver Drug Court could not employ a randomized experimental design (a design which randomly assigns individuals to treatment and control groups), nor could it systematically vary the types of services or processes experienced by individuals. Thus, the evaluation can only describe processes and outcomes for individuals in the sample, and cannot decisively conclude that outcomes are the results of drug court practices. In addition, the evaluation design does not allow for a determination of what specific components of the drug court model may be more strongly associated with observed outcomes. That is, there are multiple ingredients of a drug court (community-based treatment, legal coercion, sanctions and incentives, increased court/judicial monitoring, and drug court team approaches), and a modest evaluation effort cannot test which of these elements are most strongly responsible for outcomes.

It is also important to note the challenges that surface when merging data across different data sources. As outlined earlier in this report, the evaluation relied on aggregating data across several

systems in order to answer critical research questions. Every additional data system brought critical information but also added challenges as researchers were required to resolve issues of missing identifiers, differences in classification of key variables (e.g., the categories for race may differ across systems), system-specific data quality issues, and differences in data entry practices.

Another consideration pertains to having sufficient context to understand and accurately quantify the many complexities of individual cases and case processing within drug court, especially when the drug court model is refined over time. The following are examples of this issue:

- In a new special court, procedures are dynamic and change due to perceived need to improve procedures or to accommodate turn-over in staff. While the core elements of drug court implementation do not change, related practices that are modified over time may impact the results of research questions. For example, at one point, practices related to issuing a warrant for a missed court review had changed from issuing a warrant the same day an offender missed a court review to waiting until the following Friday. This change was implemented after the drug court team identified that a high number of failures to appear (FTA) to court review were resolved by the end of the week. While this change was intended to support court processing, it made the reporting of the number of offenders who FTA problematic, as the definition of FTA changed. Thus, the results of such analyses could not be used to draw conclusions about potentially different outcomes for individuals with an FTA versus those without an FTA.
- Open text fields in Eclipse are used by court staff and others to provide important narrative and explanations about case processing and outcomes. Because open text data were not available to OMNI (and would be very difficult to analyze, even if available), the evaluation cannot fully account for the dynamic, case-by-case nature of drug court processing.

Finally, it is important to recognize the challenges of analyzing data that are managed and organized within systems not specifically designed for evaluation purposes. Data systems, data codes, and protocols that may be well-designed for management and documentation of individual cases can be exceedingly difficult to collate and analyze for evaluation purposes. Research and evaluation require data that can be pulled, coded, and analyzed comprehensively and systematically in order to facilitate group-level descriptions and comparisons. OMNI worked closely and continuously with various system administrators to identify strategies that would enable appropriate data downloads and minimize misclassification of data and misinterpretations of results.

Results

Evaluation findings are organized by research question. Where relevant, additional information on data limitations, critical computation steps, and background to Denver's Drug Court practices and procedures are also described as topics are introduced. Some of the findings reported build on information presented in earlier sections of the report.

Research Question 1: How many individuals and cases were processed through Denver's reorganized drug court compared to Denver's former drug court?

The processing of criminal cases varies due to the discretion of the district attorney, judges, and defendant and is influenced by the offense, criminal history of the offender, and justice procedures designed to ensure the protection of a defendant's constitutional rights. Some processes are unique to Denver and, specifically, to drug court cases. To better understand evaluation results, it is important to consider the status of criminal cases at the time information was shared with the researchers. That is, data used in the evaluation reflect only the status of a given case at the time that datasets were provided to OMNI; cases that were open at the time the data were provided will have subsequently been updated by the court.

OMNI researchers received information on 6,033 criminal filings in 2005/06 and 5,149 in 2007/08. Unique cases were identified through use of the case number; determination of unique individuals was achieved through use of the state identification number (SID). The SID is linked to an individual's fingerprints as a result of Colorado's integrated systems. When a state identification number is not available, Eclipse automatically generates a fake SID. This field cannot be edited by probation officers. For analytic purposes, cases with fake SIDs were treated as unique individuals.

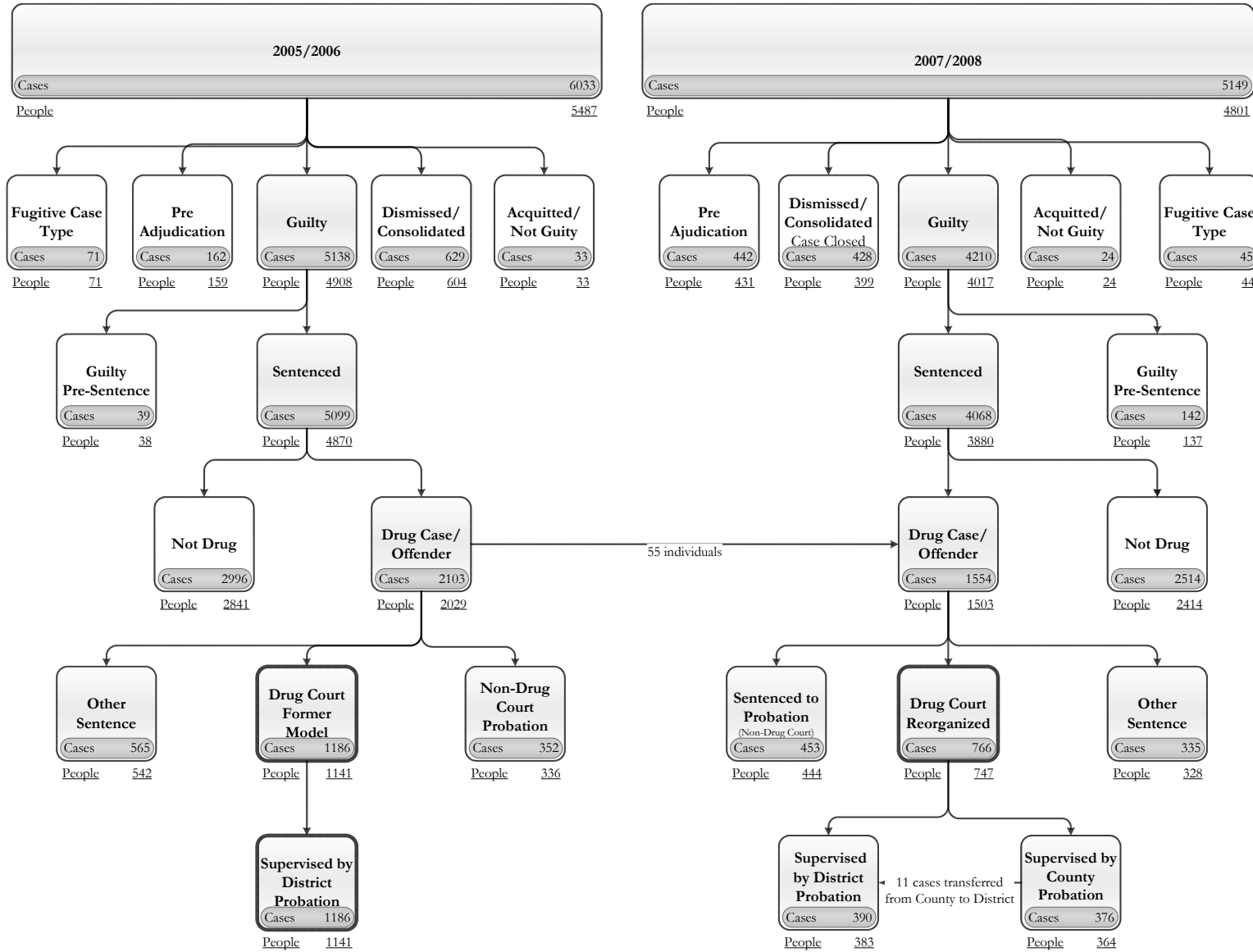
- In 2005/06, 524 cases (8.7% of all filed criminal cases) had a fake SID. Therefore, the unduplicated count of persons may overestimate the number of unique individuals by as much as 8.7%.
- In 2007/08, 622 cases (12.1% of all filed criminal cases) had a fake SID. Therefore, the unduplicated count of persons may over estimate the number of unique individuals by as much as 12.1%.

Figure 1 below illustrates the number, and process for determining this number, of all drug court cases processed through the court system for the 2005/06 and 2007/08 time periods. The number of cases, at each stage of court processing, is highlighted in gray followed by the number of individuals associated with these cases. Classification of cases is provided from the case filing stage through probation assignments for drug court.

When reviewing this graphic it is important to note the following:

- The total number of cases reported at each level equals the number of reported cases from the connected box at the previous level. However, individuals may have more than one case and may be duplicated across classifications.
- Cases are only counted once; only the most severe charge is classified.
- Some drug court cases in 2005/06 were still ongoing when the drug court was reorganized in 2007/08. These cases were classified as 2005/06 cases since they were processed for a longer period of time under the former model.
- A relatively small number of individuals (55) had drug related cases filed in both 2005/06 and 2007/08. These individuals are duplicated across years.
- Eclipse and MAC/Themis datasets were used to determine 2005/06 and 2007/08 samples.

Figure 1: Number of cases and individuals from filing through referral to drug court



Case Classification and Counts

The following summary provides definitions for the various case classifications reflected in Figure 1.

Criminal Filings/Level One summarizes the total number of criminal cases filed and total number of individuals involved in these cases in 2005/06 (March 2005-March 2006) and in 2007/08 (March 2007-March 2008).

Findings and Fugitives/Level Two reflects the next step of case processing and describes the cases excluded at this level from the samples used by the evaluation. Cases were classified by court finding with one exception - cases with the case type value “Fugitive from Justice.” These cases were excluded from the sample, given that jurisdiction fell outside of Denver. With regard to other case classifications, please note that because each case may have multiple charges and counts only the most severe finding was counted. For example, for one case an individual may have some charges dismissed, and be found guilty on other charges. In this instance, the case would be classified as guilty, since the guilty finding leads to processing of the case at later stages. “Guilty” classifications include individuals with deferred sentences.

Sentencing/Level Three classifies cases at the sentencing stage. At the time data were pulled for this evaluation, some cases with a guilty finding had not yet received sentence terms. These cases were labeled as “guilty pre- sentence” and excluded from the samples.

Drug Related/Level Four classifies post-sentence cases as drug cases versus non-drug related cases. Those cases classified as drug cases met one or more of the following criteria:

- Case sentenced based on an offense denoted in Article 18 of Colorado statute, the Uniform Controlled Substances Act of 1992
- Case in which the offender was charged with paying the Drug Offender Surcharge
- Case in which the individual participated in the former or reorganized Drug Court
- Case assigned a drug case type – however, note that district reports of drug case filings use only the case type when counting case filings per fiscal year, whereas the evaluation defined a drug case based on the implementation period of the reorganized Drug Court.

Drug Court/Level Five reports the number of drug cases that were (a) processed through Denver’s Drug Court, (b) sentenced to a type of probation supervision but not enrolled in drug court, or (c) not sentenced to any type of probation supervision. Please note that cases often have more than one sentence location and many sentences are modified based on the individual’s compliance. For the evaluation, cases were classified according to the most severe sentence location of the case’s original sentence. The category of “other” includes cases for which the most severe original sentence was incarceration, fines, and community service.

The following example helps illustrate the classification of cases processed at this stage: An individual may be initially sentenced to pay several fines and charges, provide community service hours, and be supervised by probation. If non-compliant to the terms of probation, the offender may then be re-sentenced to serve a term in the Department of Corrections. Because this level describes the most severe sentence of the original sentence, the classification for this example would be non-drug court probation.

For the purposes of the evaluation, those cases classified as “other sentence” were excluded from the samples used for the analysis. The analytic samples included only those cases that resulted in either drug court participation or non-drug court probation. In 2007, a code (DCIN; drug court entry) was introduced to identify drug court participants. For the analysis, all cases sentenced prior to the introduction of this code and sentenced to probation were defined as drug court if a court appearance was held in courtroom 20, the courtroom in which all drug court cases received a hearing. The final samples used by the evaluation included 19.7% (1,186) of all criminal filings in 2005/06 and 14.9% (766) of all criminal filings in 2007/08.

Probation Supervision Location/Level Six provides counts of the cases and individuals receiving probation services through either the District Court or the County Court. Because 2007/08 drug court cases that plead to a misdemeanor were supervised by Denver County Probation, the sixth level breaks down the drug court cases by supervision department.

Research Question 2: What is the background of individuals in Denver’s reorganized drug court compared to Denver’s former drug court?

Demographic and other available background data on drug court offenders help provide an understanding of the population processed through Denver’s Drug Court, as well as any potential differences between the populations served by the drug court before and after its reorganization. Below, demographics of age, gender, and race/ethnicity of former and reorganized drug court participants are presented. Background information regarding employment, criminal background, and substance use, obtained via the Level of Supervision Inventory (LSI) and Adult Substance Use Survey (ASUS), is then presented. Specifically, data from the LSI were used to calculate and report on criminal background, criminal risk level and employment history, whereas data from the ASUS were used to calculate substance use history upon entering drug court, and extent of life disruptions due to substance use.

It was hoped that additional demographics and background information, such as marital status, education, income, housing status, drug of choice, and substance use treatment history could be gathered and reported via the supplemental database developed for this evaluation. Unfortunately, insufficient information was entered into the database for drug court participants in the 2007/08 sample.

Age at Arrest

Age at arrest for current probation term was calculated using dates of birth (DOBs) and arrest dates. A small number (27) of participants who had multiple cases associated with an arrest date had different dates of birth recorded across case filings. These discrepancies appeared to be data entry errors, since differences were typically small; in these cases, the initial recorded DOB was used for analysis. Ages could not be calculated for individuals for whom one or both of these data points were missing. As can be seen below in Table 2a, age at arrest ranged widely across both samples, with an average age of 32.4 years in the former drug court and 33.1 years of age for the reorganized drug court sample. Over half of all drug court participants, before and after its reorganization, were under the age of 35 at time of arrest for the current probation term (see Table 2b).

Table 2a: Age Descriptives of Drug Court Participants

Age Calculations	2005/06 Drug Court Sample n= 1,141	2007/08 Drug Court Sample		
		District n=383	County n=364	Combined n= 747
Mean Age	32.4 years	33.6	32.7	33.1
Standard Deviation	10.7 years	10.5	10.6	10.6
Minimum	18.0 years	18.1	18.0	18.0
Maximum	70.7 years	62.7	63.6	63.6
<i>Number of individuals with missing data</i>	4	2	3	5

Table 2b: Age Ranges of Drug Court Participants

Age Ranges	2005/06 Drug Court Sample n= 1,141	2007/08 Drug Court Sample		
		District n=383	County n=364	Combined n= 747
18-25 years of age	32.3%	25.9%	29.9%	27.9%
26-35 years	29.3%	31.0%	31.9%	31.4%
36-45 years	25.5%	25.1%	20.9%	23.0%
45-55 years	10.3%	15.9%	15.7%	15.8%
55+ years	2.6%	2.1%	1.6%	1.9%
<i>Number of individuals with missing data</i>	4	2	3	5

Gender

For both the 2005/06 and 2007/08 drug court samples, almost 3 out of 4 (73%) participants were male. See Table 2c below.

Table 2c: Gender of Drug Court Participants

Gender	2005/06 Drug Court Sample n= 1,141	2007/08 Drug Court Sample		
		District n=383	County n=364	Combined n= 747
Male	73.2%	71.1%	74.9%	73.0%
Female	26.8%	28.9%	24.8%	26.9%
<i>Number of individuals with missing data</i>	0	0	11	11

Race/Ethnicity

Race/ethnicity information is initially reported by the arresting officer and can be revised by the probation officer for those individuals sentenced to a probation term. Race/ethnicity is recorded in Eclipse as follows: A (Asian), B (Black), H (Hispanic), I (American Indian), W (White), and O (Other). Users are asked to select only one of these categories. This practice reflects pre-2000 U.S. Census categories. Beginning in 2000, the U.S. Census began to categorize ethnicity (Hispanic or Non-Hispanic) separately from race (Asian, Black, White, etc.). This is due to the fact that Hispanics are represented across different racial groups. Since Eclipse requires users to choose between Hispanic and racial categories, its coding system likely undercounts the number of Hispanic individuals.

In calculating race/ethnicity percentages of drug court samples, some inconsistencies were encountered for a small number of individuals. These individuals had multiple cases across which race/ethnicity information was discrepant. For example, an individual might be classified as Hispanic in one case filing and White in another (this was the most common type of discrepancy). For these individuals, as well as additional people for whom no race/ethnicity information was available, race/ethnicity was treated as “missing.”

The race/ethnicity breakdown within and across drug court samples is displayed in Table 2d below. Whereas the race/ethnicity of drug court participants in 2005/06 was somewhat evenly split across White (37.6%), Black (28.9%), and Hispanic (31.5%), participation in the reorganized (2007/08) drug court was more heavily White (51.8%) and less Hispanic (20.5%) . For both drug court samples, the percentages of Asian and American Indian participants were very low.

Table 2d: Race/Ethnicity of Drug Court Participants

Race/Ethnicity	2005/06 Drug Court Sample n=1,141	2007/08 Drug Court Sample		
		District n=383	County n=364	Combined n=747
White	37.6%	53.2%	50.4%	51.8%
Black	28.9%	28.4%	22.6%	25.5%
Hispanic	31.5%	15.8%	25.3%	20.5%
Asian	.4%	.3%	1.1%	.7%
American Indian	.6%	1.3%	.3%	.8%
Other	--	--	--	--
<i>Number of individuals with missing data</i>	10	4	1	5

Criminal History

Previous research has found that drug court offenders typically enter drug court with an average of 5.4 previous offenses and 3.8 prior charges.ⁱⁱ Significant efforts to standardize assessment of such risk factors have been in place for a number of years. In 1991, House Bill 1173 was passed requiring standard assessments and treatment processes within the Colorado criminal justice system.ⁱⁱⁱ Across Colorado, offenders' treatment needs are assessed using the Level of Supervision Inventory (LSI) and the Adult Substance Use Survey (ASUS). The LSI measures an offender's risk of criminal behavior and need for treatment while the ASUS measures the nature and scope of an individual's problems associated with substance use and factors that may influence treatment outcomes such as motivation to change one's behaviors.

Criminal History Indicators from the Level of Supervision Inventory (LSI)

Composed of 54 items, a total risk score is computed by the Level of Supervision Inventory (LSI) using measures that have been demonstrated to predict criminal behavior. Subsections include items related to the offender's criminal risk across the following domains: criminal history, education/employment, financial status, family and marital status, accommodations or housing status, leisure/recreation, companions or social networks, alcohol/drug problems, emotional/personal status, and attitudes toward crime and authority.

ⁱⁱ Belenko, S. (1999). *Research on Drug Courts: A Critical Review 2001 Update*. Retrieved December 01, 2008, from National Drug Court Institute: <http://www.npcresearch.com/Files/RDC.pdf>

ⁱⁱⁱ Source: O'Keefe, M.L., Klebe, K., & Hromas, S. (1998). *Validation of the Level of Supervision Inventory (LSI) for Community Based Offenders in Colorado: Phase II*. Colorado Department of Corrections: Colorado Springs, CO.

The LSI is administered by a probation officer if a pre-sentence investigation report is requested to guide sentence terms or after a defendant is sentenced to probation, and is always administered prior to referral to treatment. Additional assessments are administered based on the individual's case and needs. For example, individuals may complete additional assessments related to mental health needs in order to guide appropriate treatment placement. Historically, probation officers administered the LSI during the intake process and, subsequently, at six-month intervals until the total score reached zero or one. In 2007, probation officers were asked to administer the LSI when an offender terminated probation, even if the total score had reached zero or one. This was intended to enable the evaluation to collect longitudinal data on all individuals sentenced to probation.

For this section, we examined the criminal history of drug offenders using specific items from and the overall subscore of criminal history from offenders' intake LSI (further description and results of analysis on all subscores of the LSI are provided in the section addressing Research Question 4). Data included in the analysis reflect only those LSI scores gathered for cases filed in the 2005/06 or 2007/08 drug courts. Analyses excluded the LSI scores associated with previous probation sentences by selecting the first LSI administered after the case was filed. If an individual had multiple cases in one year, the first case filing date was selected.

Individuals missing valid baseline LSI assessment scores were excluded from the analysis. This represented a significant proportion of drug court participants. Overall, nearly 30% (558 drug court participants) could not be included in the analyses. This reflected 355 (31.1%) excluded participants from the 2005/06 drug court sample and 217 (29.0%) excluded participants from the 2007/08 drug court sample. Due to the large amount of missing data, results should be regarded as preliminary and may not be generalizable to the drug court populations in 2005/06 and 2007/08 as a whole.

As shown in Table 2e below, many criminal history indicators at intake did not differ appreciably across former and reorganized drug court samples. The 2005/06 sample of drug court participants had double the rate of prior convictions (14.5%) compared to the 2007/08 sample (6.6%). However, it is possible that missing data are not distributed randomly for one or both samples. For example, individuals in the 2007/08 sample with a criminal history may have been more likely to have missing assessment data. If this were the case, the apparent difference across samples in rate of prior convictions would be overestimated. Without having more information as to the possible causes of missing assessment data, it is strongly recommended that these results not be generalized to the larger population of drug court participants.

Table 2e: Criminal History Indicators of Drug Court Participants

<i>Drug Court</i> LSI Criminal History item scores at intake	2005/06	2007/08		
	Drug Court Sample n=1,141	District n=383	County n=364	Combined n=747
q4. % of sample with at least one prior conviction	14.5%	7.7%	5.0%	6.6%
q5. % arrested before age 16	25%	25%	18%	22%
q6. % ever incarcerated upon conviction	40%	48%	29%	40%
q7. % with escape history – institution	4%	12%	1%	8%
q8. Avg number of incidents of institutional misconduct	.03	.09	.01	.06
q9. % charge laid or probation/parole suspended	37%	39%	15%	29%
q10. % with a record of assault/violence	44%	26%	27%	26%
Average LSI Criminal Subtotal	3.33	3.41	2.44	3.02
<i>Number of individuals with missing data</i>	355	63	154	217

Employment History

Employment history was also defined using items from the Level of Supervision Inventory (LSI). Table 2f below displays percentages of drug court cases in both sample years representing individuals who were currently unemployed, frequently unemployed, and never employed for a full year, as well as the percentage that had ever been fired. Preliminary data indicate that drug court participants in 2007/08 were less likely than their 2005/06 counterparts to report being currently (53% vs. 63%) or frequently (45% vs. 58%) unemployed. Yet, participants in the 2007/08 reorganized drug court sample were also more likely to report having been unemployed for a full year (35% vs. 30%) and having ever been fired (45% vs. 37%).

Table 2f: Employment Status of Drug Court Participants

Drug Court LSI Employment item scores at intake	2005/06 Drug Court Sample n=1,141	2007/08 Drug Court Sample		
		District n=383	County n=364	Combined n=747
q11. % Currently unemployed	63%	55%	51%	53%
q12. % Frequently unemployed	58%	49%	38%	45%
q13. % Never employed for a full year	30%	40%	27%	35%
q14. % Ever fired	37%	53%	32%	45%
<i>Number of individuals with missing data</i>	355	63	154	217

Substance Use Background

Adult Substance Use Survey (ASUS)

The Adult Substance Use Survey (ASUS) is a screening and assessment tool used to determine the presence and extent of an alcohol or other drug (AOD) problem, including life disruptions due to use, and readiness to seek treatment. This assessment facilitates identification of treatment needs for offenders. Based on responses to ASUS items, individuals can be classified into quartiles for each subscore – low, low-medium, high-medium, or high. Individuals’ baseline ASUS subscale scores are presented below in Table 2g to provide a picture of offenders entering drug court in 2005/06 and 2007/08. The data are broken down by graduation status in order to identify potential differences between those who graduate and those who fail to graduate from drug court. To ease interpretation, the quartiles are collapsed into two categories: low (low and low-medium), and high (high and high-medium). Following the table, description of and results for each subscore are discussed.

As noted in other analytic summaries in this section, data for these analyses were missing for a significant proportion of participants in the 2007/08 drug court sample. Specifically, data were available for only 41% of the 2005/06 sample, and only 38% of the 2007/08 sample. This suggests results should be viewed with caution. It is possible that those for whom data were available are not representative of the larger populations processed through drug court. It is unclear whether these missing data were due to not all individuals being assessed at intake or due to data quality issues leading to inability to match assessment data to individuals in the sample. Specifically, most of the data for this evaluation were matched using the case number. However, assessments were matched

using the ML number. Thus, inability to identify assessment data for some individuals may have resulted either because data for these individuals truly did not exist in the datafile or because the data were in the file but could not be identified as belonging to the individual, due to multiple or mismatching ML numbers.

Table 2g: ASUS Subscale Scores at Intake by Graduation Status

<i>Subscale Scores</i>	2005/06 Drug Court Sample n=1,032		2007/08 Drug Court Sample n=245	
	Graduate n=446	Non-Grad n=586	Graduate n=95	Non-Grad n=150
<i>Number of individuals with missing data</i>	<i>242</i>	<i>365</i>	<i>56</i>	<i>95</i>
Involvement Scale				
Low	59.5%	57.3%	61.4%	51.7%
High	40.5%	42.7%	38.6%	48.3%
Disruption Scale				
Low	64.7%	60.0%	67.4%	56.6%
High	35.3%	40.0%	32.6%	43.4%
Antisocial Scale				
Low	77.7%	57.8%	70.2%	66.1%
High	22.3%	42.2%	29.8%	33.9%
Mood Scale				
Low	51.1%	44.6%	55.3%	51.6%
High	48.9%	55.4%	44.7%	48.4%
Defensive Scale				
Low	42.7%	53.8%	40.5%	42.0%
High	57.3%	46.2%	59.5%	58.0%
Motivation Scale				
Low	82.8%	82.8%	85.1%	78.7%
High	17.2%	17.2%	14.9%	21.3%
Global Score				
Low	59.8%	50.6%	59.5%	48.4%
High	40.2%	49.4%	40.5%	51.6%

Involvement Scale

The Involvement Scale measures lifetime involvement with various classifications of drugs, such that higher involvement scores represent experience with greater numbers of drugs. It is important to note that those with a strong dependence on a single substance (e.g., alcohol) may still score low on this domain. As can be seen in Table 2g above, over a third (38.6%) of 2007/08 drug court graduates, and almost half (48.3%) of 2007/08 non-graduates had high (i.e., high or high-medium) involvement scores at intake, verifying that a large portion of drug court participants enter the program with a history of using multiple substances. The higher percentage of high involvement scorers in the non-graduate group for 2007/08 suggests that those with more extensive involvement in drugs may encounter greater challenges to program compliance and completion. Among drug court graduates, high involvement was evidenced by 40.5% of 2005/06 graduates which is similar to that found for 2007/08 graduates (38.6%).

Disruption Scale

The Disruption Scale assesses extent of negative symptoms and consequences associated with one's substance use (beyond current legal problems associated with drug use), and is most informative when examined in conjunction with involvement scale scores. High scores indicate that the individual's life has been negatively affected by their alcohol and drug use. These individuals may have lost control over their behavior, have physical and emotional health issues, and have problems at home, work, or school as a result of their alcohol and drug use^{iv}. A third (32.6%) of 2007/08 drug court graduates and 43.4% of 2007/08 non-graduates measured high on disruption at intake, similar to the pattern observed for 2005/06 drug court participants (graduates, 35.3%; non-graduates, 40.0%). These results underscore the extent of substance use issues among the drug court population, and again suggest that those with more severe AOD abuse symptoms may require additional measures or resources to graduate from drug court.

Antisocial Scale

The Antisocial Scale measures attitudes and behaviors that are indicative of a disregard for the rights of others and an inability or unwillingness to conform to norms of society. The scale includes both static items (i.e., questions about one's history that won't change over time) and dynamic items (i.e., questions that solicit responses that may change over time). For the 2007/08 sample, roughly a third of both graduates (29.8%) and non-graduates (33.9%) measured high on this scale. Interestingly, there was a much greater disparity among 2005/06 participants than 2007/08

^{iv} Wanberg, K. (2006) *User's Guide: Adult Substance Use Survey-Revised*. Center for Addictions Research and Evaluation.

participants as a function of graduation status, with only 22.3% of 2005/06 graduates measuring high on the Antisocial scale, compared to 42.2% of 2005/06 non-graduates.

Mood Scale

The Mood scale measures potential emotional ‘disruptions,’ with high scores indicating that the individual is experiencing periods of depression, worry, anxiety, as well as other negative emotional states. High scores also suggest that the individual has trouble managing his or her emotions and behavioral responses^v. While the scale and the larger instrument are helpful in identifying the need for further mental health evaluation, the ASUS is not designed to comprehensively screen for mental health issues and no single instrument should be used in isolation to diagnose mental health problems. High scores only indicate that further assessment is needed to determine the mental health needs and functioning of the offender.

As can be seen in Table 2g above, sizable proportions of drug court graduates and non-graduates in both years evidenced high mood scores, providing some indication of mental health needs in this population. For the 2007/08 sample, about 45% of graduates and 48% of non-graduates scored in the upper two quartiles on the mood scale.

Authors also suggest reviewing the raw scores for this subscale to assess need for further mental health assessment^{iv}. Table 2h below displays the percentages of drug court participants who were classified as in need of mental health evaluation. As shown, on average, a 1 in 5 drug court participants was classified as needing a mental health evaluation, with a smaller subset of these individuals identified to have a strong need for such evaluation. Although it appears that there was a stronger need for mental health evaluation among 2007/08 graduates than non-graduates, a reversal of the trend is seen in the 2005/06 sample. Given the extent of incomplete data for 2007/08 drug court participants, no conclusions can be drawn at this time.

^v Wanberg, K. (2006) *User's Guide: Adult Substance Use Survey-Revised*. Center for Addictions Research and Evaluation.

Table 2h: Mental Health Evaluation Needs by Graduation Status

	2005/06 Drug Court Sample n=1,032		2007/08 Drug Court Sample n=245	
	Graduate n=446	Non-Grad n=586	Graduate n=95	Non-Grad n=150
Need for Mental Health Evaluation ^{vi}	20.6%	26.7%	28.2%	20.0%
Strong Need for Mental Health Evaluation ^{vii}	11.8%	13.1%	17.9%	12.7%
<i>Number of individuals with missing data</i>	242	365	56	95

Defensive Scale

The Defensive scale indicates the extent to which the individual is ‘able to divulge personal and sensitive information’ on the ASUS. That is, calculations of this score allow one to determine whether the individual may be defensive and unwilling to admit to problems. As can be seen in Table 2g above, the percentages of drug court participants in both years who measured high on Defensiveness were substantial. Over half of both graduates and non-graduates in the 2007/08 sample scored high on Defensiveness. This suggests that ASUS scores may be underrated and that substance abuse related issues may be more extensive within these populations than is indicated by the data.

Motivation Scale

The Motivation scale assesses motivation and willingness to seek help for AOD problems and to stop using substances. Thus, scores on this measure are an important indicator of drug court participants’ readiness to change and seek treatment. The results show very high percentages of drug court participants have low motivation at intake, regardless of sample year or eventual graduation status. For all comparison groups, over half were in the lowest quartile of motivation scores, indicating that – without the opportunity of the Drug Court – most individuals may not have otherwise sought help or treatment for their substance use.

^{vi} Mood raw score 9-13

^{vii} Mood raw score over 13

Global Score

The Global score is calculated based on the sum of the Involvement, Disruption, Mood, and Antisocial scales in order to provide a measurement of overall functioning of the individual relative to substance use, problems directly related to substance use, emotional well being, and social support systems. Higher scores indicate problems in overall functioning in these areas. Drug court graduates appear to have lower global scores than non-graduates suggesting that fewer graduates had significant problems impacting their daily lives than non-graduates when they entered the program.

Treatment Level at Intake

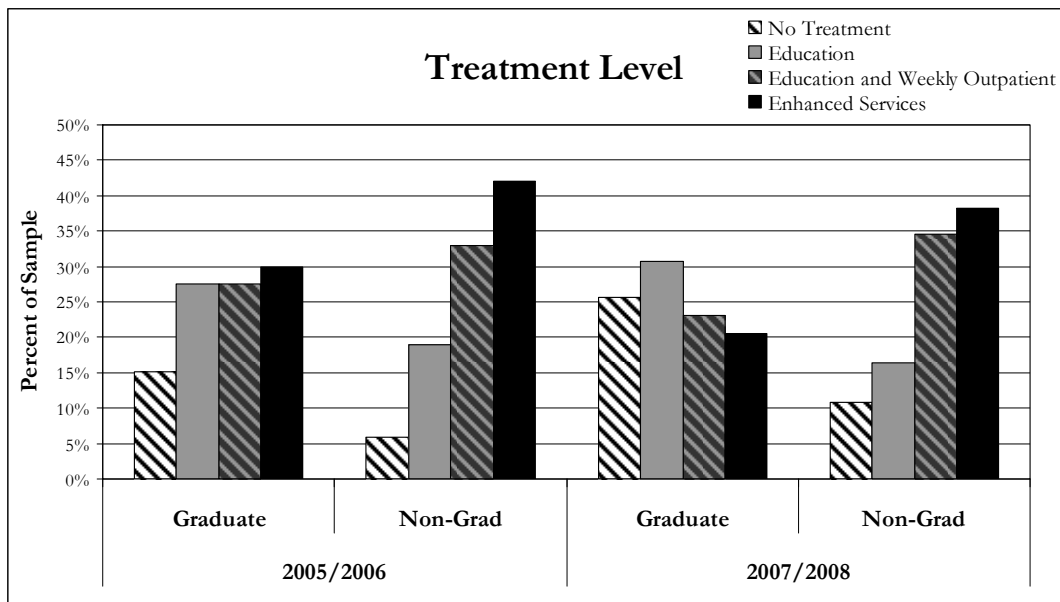
Suggested treatment level is calculated by combining the total risk score from the LSI with the involvement and disruption scales from the ASUS. Treatment levels are: no treatment, education, education and weekly outpatient, or enhanced services. The results reflect suggested, and not necessarily actual, treatment levels. That is, probation officers have the discretion to place offenders sentenced to probation at a different treatment level than suggested by this tool, and such instances are not considered in these analyses. However, key informant data indicated that most probation officers agree with and follow the recommended treatment levels.

As seen in Table 2j and Figure 2 below, preliminary data suggest that non-graduates have higher treatment needs than graduates. Individuals with greater treatment needs may need additional support to successfully complete drug court.

Table 2j: Treatment Levels by Graduation Status

Recommended Treatment Level	2005/06 Drug Court Sample n=1,032		2007/08 Drug Court Sample n=245	
	Graduate n=446	Non-Grad n=586	Graduate n=446	Non-Grad n=586
	No Treatment ^{viii}	15.2%	5.9%	25.6%
Education ^{ix}	27.5%	19.0%	30.8%	16.4%
Education and Weekly Outpatient ^x	27.5%	33.0%	23.1%	34.5%
Enhanced Services ^{xi}	29.9%	42.1%	20.5%	38.2%
<i>Number of individuals with missing data</i>	<i>242</i>	<i>365</i>	<i>56</i>	<i>95</i>

Figure 2: Treatment Levels by Graduation Status



^{viii} 0-1 risk score calculated based on LSI and Involvement and Disruption scales from the ASUS

^{ix} 2-3 risk score calculated based on LSI and Involvement and Disruption scales from the ASUS

^x 4-5 risk score calculated based on LSI and Involvement and Disruption scales from the ASUS

^{xi} 6-9 risk score calculated based on LSI and Involvement and Disruption scales from the ASUS

Research Question 3: How are defendants processed through Denver's reorganized drug court compared to Denver's former drug court?

As noted in the Background section, key changes were made to how defendants are processed in the reorganized drug court, with the goal of improving efficiency. Increasing the speed and efficiency of processes not only is presumed to improve outcomes for drug court participants (e.g., by decreasing time between arrest and 'intervention') but should also lead to cost savings (e.g., by reducing jail days for individuals in Denver County Jail waiting to be sentenced).

In the 2007/08 reorganized drug court, cases were directly filed into drug court whereas in 2005/06, all cases remained in Denver County Court for the 2nd advisement and preliminary hearing before being bound over to district court. Presently, individuals eligible for drug court appear immediately in the drug court courtroom for their 2nd advisement. If the defendant agrees to the terms of the plea, the arraignment and sentencing procedures are completed on the same day as the 2nd advisement thereby bypassing the County Court.

Time Lengths of Court Processes

A key area of inquiry in the evaluation of the reorganized drug court was whether lengths of time between critical decision points could be shortened as a result of the revised procedures.

It is important to bear in mind that the results reported below for 2007/08 must be considered preliminary, due to insufficient time elapsed to examine outcomes for the majority of 2007/08 drug court participants.

Time from Arrest to Sentencing

It was hypothesized that the time between arrest and sentencing would be reduced for reorganized versus former drug court participants. The number of days from arrest to sentencing is a critical index in assessing whether the reorganized drug court can reduce costs and improve outcomes. Calculations of time from arrest to sentencing were conducted using arrest and sentencing dates. Seven records were deleted due to bad data. Six cases were missing the arrest dates and therefore could not be included in the analysis.

The time period between arrest and sentencing is longer for individuals who post bond because they must return to county court for a bond return review. Because posting bond adds time to the process, analyses were conducted separately by bond status. Those in the 'posted bond' category included only individuals who were both offered bond (through personal recognizance, cash/credit, or surety) and posted it. Roughly 50% of individuals in both years posted bond.

Time between arrest and sentencing was significantly reduced for 2007/08 compared to 2005/06 ($p < .001$). For drug court cases that did not post bond, average time from arrest to sentencing was 14 days for the 2007/08 sample, and 83 days for the 2005/06 sample. An independent t -test showed this difference of 69 days to be statistically significant at $p < .001$. For drug court cases that posted bond, the 2007/08 sample had an average of 63.1 days from arrest to sentencing, compared to 173.5 days for the 2005/06 sample. This difference of 110.4 days was also statistically significant ($p < .001$). When all drug court cases regardless of bond status are compared, similar results emerge, with a mean difference between 2005/06 and 2007/08 of 103 days, $p < .001$.

Table 3a: Time from Arrest to Sentencing for non-bonded Drug Court Cases

<i>Did not post Bond</i> Days from Arrest to Sentencing	2005/06 Drug Court Sample N=443	2007/08 Drug Court Sample N=374
Mean	83.0	14.0
Standard Deviation	68.8	25.3
Minimum	21	3
Maximum	533	301
<i>Number of cases with missing data</i>	1	1

Table 3b: Time from Arrest to Sentencing for bonded Drug Court Cases

<i>Posted Bond</i> Days from Arrest to Sentencing	2005/06 Drug Court Sample N=726	2007/08 Drug Court Sample N=391
Mean	173.5	63.1
Standard Deviation	123.1	54.5
Minimum	27.0	5
Maximum	1042.0	400
<i>Number of cases with missing data</i>	3	1

Time from Sentencing to First Probation Face-to-Face

In addition to potential for cost savings, some elements of expedited processing have important implications for outcomes of drug court participants. For example, research indicates that the sooner participants can receive treatment, the better their treatment outcomes. In absence of available data on substance use treatment dates, dates of participants' first 'face-to-face' with their probation officers (POs) were used as a proxy, since treatment referrals are made by probation officers. It is recognized that for some individuals, a significant amount of time may pass between one's first face-to-face with a PO and the actual onset of treatment. However, given treatment

cannot occur without a PO’s referral and given lack of access to more precise data, it was decided that relative differences between drug court samples in time from sentencing to treatment could still be assessed using this measure.

Analyses of time from sentencing to first face-to-face with one’s PO were conducted by person, not case. For district cases, face-to-face contact was defined as the first date for which District POs entered a face-to-face contact record. For county cases, face-to-face contact was defined as the first date for which County POs entered ‘appeared walk-in,’ ‘appeared appointment,’ or ‘appeared with terms.’ The results must be interpreted with caution due to missing data. About 1 out of 10 (10.5%) individuals in the 2005/06 sample had no face-to-face data and almost 2 out of 10 (18.5%) 2007/08 individuals were missing these data.

As can be seen in Table 3c below, mean days from sentencing to first PO face-to-face was substantially lower in 2007/08 (18.4 days) versus 2005/06 (63.5 days), and this mean difference of 45.1 days was statistically significant ($p < .001$). Given the wide range of days across participants, it may be instructive to also examine the medians for the two groups.

Table 3c: Time from Sentencing to First Face-to-Face with Probation Officer

Days from Sentencing to PO Face-to-Face	2005/06 Drug Court Sample N=1,141	2007/08 Drug Court Sample N=747
Mean	63.5	18.4
Standard Deviation	106.2	47.0
Median	25	3
Mode	20	1
Minimum	1	0
Maximum	922	416
<i>Number of individuals with missing data^{xiii}</i>	120	138

Because a goal had been developed to decrease time between sentencing to first contact with PO to 5 days, percentages of drug court participants with specific timeframes between sentencing and first PO contact, including 5 or fewer days, are presented below in Table 3d. A stark difference can be seen in percentages of participants who were seen in 5 or fewer days in the 2007/08 sample (59.6%) versus 2005/06 (7.9%).

^{xiii} Three cases were deleted because sentence date appeared to be a data entry error. The remaining missing cases had no face-to-face record.

Table 3d: Time Ranges for Sentencing to First Face-to-Face with Probation Officer

Days from Sentencing to PO Face-to-Face	2005/06 Drug Court Sample N=1,141	2007/08 Drug Court Sample N=747
5 or fewer days	7.9%	59.6%
6-10	9.6%	11.6%
11-30	40.8%	15.6%
31-60	16.5%	4.9%
61-100	9.0%	3.5%
101 +	16.3%	4.6%
<i>Number of individuals with missing data^{xiii}</i>	120	138

Time from Arrest to Discharge for Drug Court Graduates

Calculations of time from arrest to discharge would typically be conducted to examine how long individuals took to finish the drug court program. Unlike incarceration, completion of drug court is based more on an individual’s performance than on the passage of time. Sentences to the Department of Corrections are completed when an offender spends a specified amount of time incarcerated, whereas probation sentences are defined somewhat differently. For probation sentences, offenders are sentenced to a period of time under the supervision of a probation officer, during which they must complete certain requirements such as substance abuse treatment. Failure to complete requirements and comply with one’s probation officer can result in probation being extended or revoked. Moreover, non-compliant offenders may be subsequently sentenced to a term of incarceration. Because completion of probation is determined by an offender’s compliance to probation requirements, individuals sentenced to the same term in probation may spend different amounts of time in the drug court program.

Calculating program length for drug court programs can provide some indicator of program efficiency, although these indices should be viewed in tandem with measures of success and effectiveness such as graduation and recidivism rates. Understanding program length also helps decision makers understand what resources are needed to achieve a given outcome. Unfortunately, at the time of analysis, most individuals (64.6% of cases) in the 2007/08 reorganized drug court sample were still active. For this reason, researchers could not compute valid program lengths for the 2007/08 sample. Information for the 2005/06 former drug court graduates only is presented below.

^{xiii} Three cases were deleted because sentence date appeared to be a data entry error. The remaining missing cases had no face-to-face record.

Table 3e describes the average time between arrest and discharge (end of formal probation) in 2005/06 for individuals who posted bond and did not post bond. Results indicate that offenders take an average of two years to complete drug court requirements. Calculations for drug court cases were complex, due to specific definitions of program completion and discharge. For graduates, discharge date was calculated by cross referencing the date that a graduation termination code was entered into probation events with the graduation ceremony date. If the probation officer entered a graduation code in a month in which no ceremony was held, the ceremony date of the previous month was used.

Table 3e: Time from Arrest to Discharge for 2005/06 Drug Court Graduates by Bond Status

Months from Arrest to Discharge	<i>Did not post Bond</i> 2005/06 Graduates n=137	<i>Posted Bond</i> 2005/06 Graduates n=309
Mean	24.3	27.0
Standard Deviation	7.2	7.1
Minimum	3.4	9.0
Maximum	43.9	45.7
<i>Number of individuals with missing data</i>	1	5

Research Question 4: How successful is Denver's Reorganized Drug Court compared to Denver's former drug court?

In addition to goals of increasing efficiency, the reorganized drug court strived to improve outcomes for drug court participants, indices of which include graduation rate, recidivism, and reductions in risk for criminal behavior and need for treatment, as measured by the LSI. Because a large percentage of 2007/08 drug court participants were active and had not yet completed the program at the time of analysis, we can only assess 'success' for the small number of individuals who have completed the program, and – in the case of recidivism analyses – have also been discharged for a sufficient period of time. Thus, the results for the 2007/08 sample reported in this section can only be regarded as preliminary and should not be generalized to the larger 2007/8 drug court population

Drug Court Graduation Rates

Multiple data fields in Eclipse and MAC/Themis that described probation events, court events, and sentencing were used to calculate graduation rates for drug court participants. The status of probation (e.g., probation graduate, probation revoked, deported) is recorded by probation officers using specialized termination codes that are intended to be used only once when probation is closed. Case outcomes can also be derived from other data fields including sentence data. Sentence data may indicate a successful deferred judgment has been dismissed or probation has been revoked and the individual has been sentenced to a term of incarceration. There is also a field in Eclipse that automatically generates a case status based on data recorded by probation officers. Relying upon multiple data fields to infer case status was challenging, as these data were often contradictory or incomplete making classification of cases difficult. Such anomalies resulted from factors such as data entry errors, unstandardized use of some codes or fields, and reliance upon static interpretations of dynamic data. Staff at Probation Services and Denver County Court supported researchers in clarifying the outcomes of cases for which there appeared to be discrepant information.

Briefly, outcomes of probation were defined accordingly:

- **Graduates**^{xiv} – Individuals who comply with the treatment plan and complete court supervision are eligible for drug court graduation. Upon graduation, participants are no longer expected to attend court reviews, meet with their probation officer, or provide random drug screens. There are a few exceptions: judges and magistrates have the discretion to require graduates to continue supervision by a probation officer. In these cases, graduates no longer must attend court reviews but must comply with supervision requirements of their assigned probation officers. In Eclipse, individuals who had a graduation code and were not re-sentenced to a term of incarceration at the Department of Corrections or Community Corrections^{xv} were classified as graduates. Graduate classifications were also assigned if court findings data indicated a successful dismissed case due to a deferred judgment.^{xvi} In MAC/Themis graduation codes in court actions^{xvii} and probation actions fields are used to indicate graduate status, as confirmed by Denver County staff.
- **Neutral** – Individuals who did not complete drug court for a reason other than non-compliance such as being deported were classified as neutral. Such individuals would not have been re-sentenced to the Department of Corrections or Community Corrections. These cases are excluded from the calculation of graduation rates.^{xviii}
- **Failure** – Individuals who had cases that were sent to drug court but were later revoked were classified as drug court failures. A drug court failure is the result of serious non-compliance to court requirements such as failing to appear to court, one's probation officer, or treatment provider, or reoffending. Drug court failures had probation records that

^{xiv} It is important to note that a case is not completely closed after an individual has graduated. The graduation ceremony marks the beginning of unsupervised probation. At the end of each graduate's unsupervised probationary period, the District Attorney's Office conducts a criminal history check for that individual. Graduates are officially terminated successfully if no new cases have been filed between graduation and the end of the unsupervised probationary period. This excludes minor traffic violations but includes offenses related to driving under the influence of drugs or alcohol. Graduates who received a deferred judgment and who do not recidivate within the time period between graduation and the end of their unsupervised probationary period are also considered successful terminations and their deferred judgments are dismissed. If an individual does re-offend while on unsupervised probation, a revocation may be filed and the offender may be revoked. Offenders who are revoked face the same potential penalties as when they first pleaded guilty. Revocation sentences may include jail time or a sentence to the Department of Corrections.

^{xv} In Eclipse, additional sentence data indicate if a sentence has been revoked, modified, waived, or vacated. Only cases that were originally sentenced to probation were included in the analysis of outcomes. Any cases that were originally sentenced to probation and later re-sentenced to the Department of Corrections or Community Corrections were assumed to be failures. All sentence modifications and updates were taken into account during analysis. Sentence status codes (active or voided) as well as sentence dates were used in analyses.

^{xvi} Codes included TERM, DUNS, and DCGO.

^{xvii} Individuals were classified as graduates when both the action status codes and the description codes in MAC were DGDRAG or the code TERCO appeared in the probation action data.

^{xviii} Codes include CLSD, DETH, DCOT, DLTD, and DEPO in Eclipse and DECES in MAC.

indicated drug court failure or terminated non-compliant, or had been sentenced to the Department of Corrections or Community Corrections.^{xix}

- **Active** – Individuals who did not have data indicating completion (graduation, failure, or neutral) and for whom activity on their case had occurred in the last six months were classified as active. Activity on a case could include an updated or modified sentence, contact with a probation officer, or court review. Active cases did not have sentence data indicating a revocation of probation or a new incarceration sentence. Active cases with a code of warrant “WARR” or revocation pending were classified as active (i.e., cases with outstanding warrants were not coded as failures until probation officers entered codes indicating the case was closed or revocation had taken place).

Table 4a below displays the probation outcomes for all drug court cases, including “courtesy” cases which were excluded from outcome analyses.^{xx} Courtesy cases are cases assigned to Denver Probation (County or District) when an offender with an active probation case has been moved to Denver from another judicial district. Typically, the case is transferred to the district in which the offender lives.

Inconsistent information across or within data fields (for example, a graduation code in probation events as well as a probation revocation code; or a graduation code in probation events and a revocation with an active Department of Corrections term) in the sentence data required researchers to sometimes review individual cases and attempt to resolve the discrepancies. Individuals who were transferred from county to district were not included in analyses; they are considered active cases given they are still receiving drug court services. Outcomes for these individuals should be examined after more time has elapsed, however, as results may help inform placement changes. Individuals who had both a drug court case and a non-drug court case ($n=13$) were still included in the analyses. Twenty-three individuals were duplicated across years, and are included in both 2005/06 and 2007/08 graduation rates.

Table 4a below displays the graduation rate and number of individuals with each graduation outcome for the 2005/06 and 2007/08 drug court samples. Although there is a greater number and percentage of graduates in the 2005/06 sample, individuals in that cohort have had significantly more time to complete drug court. This is an important limitation to note because it impacts the graduation rate (percent of graduates based on the total number of completed cases).

^{xix} Codes included ABSC, AWO, CCOM, DCFL, CVCL, RNOF, and RNOM, RTEC in Eclipse and REVO and TERNCO in MAC.

^{xx} Courtesy cases were identified in the Probation Events table of Eclipse using the following codes: CASN and CCUR.

Researchers received final data regarding the outcome of cases and termination information for all cases in November 2008. Cases filed as late as March 8, 2008 are included in the 2007/08 cohort. More time is needed to graduate from drug court than to fail and 8 months is not enough time for many individuals to complete drug court requirements. To provide context, if 2005/06 drug court participants had been reviewed within the same limited timeframe, data at that time would have indicated graduation for only 34 of the 446 individuals from the 2005/06 sample who eventually graduated. Therefore, the true graduation rate of 2007/08 compared to 2005/06 is currently unknown.

Table 4a: Probation Outcomes for Drug Court Participants

Outcome of Probation	2005/06 Drug Court Sample N=1,141	2007/08 Drug Court Sample		
		District n=383 ^{xxi}	County n=364 ^{xxii}	Combined N=747
Graduation Rate	43.2%	32.3%	62.3%	38.8%
Discharged^{xxiii}				
Number of Graduates	446	62	33	95
Number of Non-Graduates	586	130	20	150
Not Discharged^{xxiv}				
Number of Neutral Exits	54	15	2	17
Number of Active	53	171 ^{xxv}	300	471
Number Excluded	2	5	9	14

^{xxi} Because 11 cases transferred from County to District, the total sample is 11 more than 372.

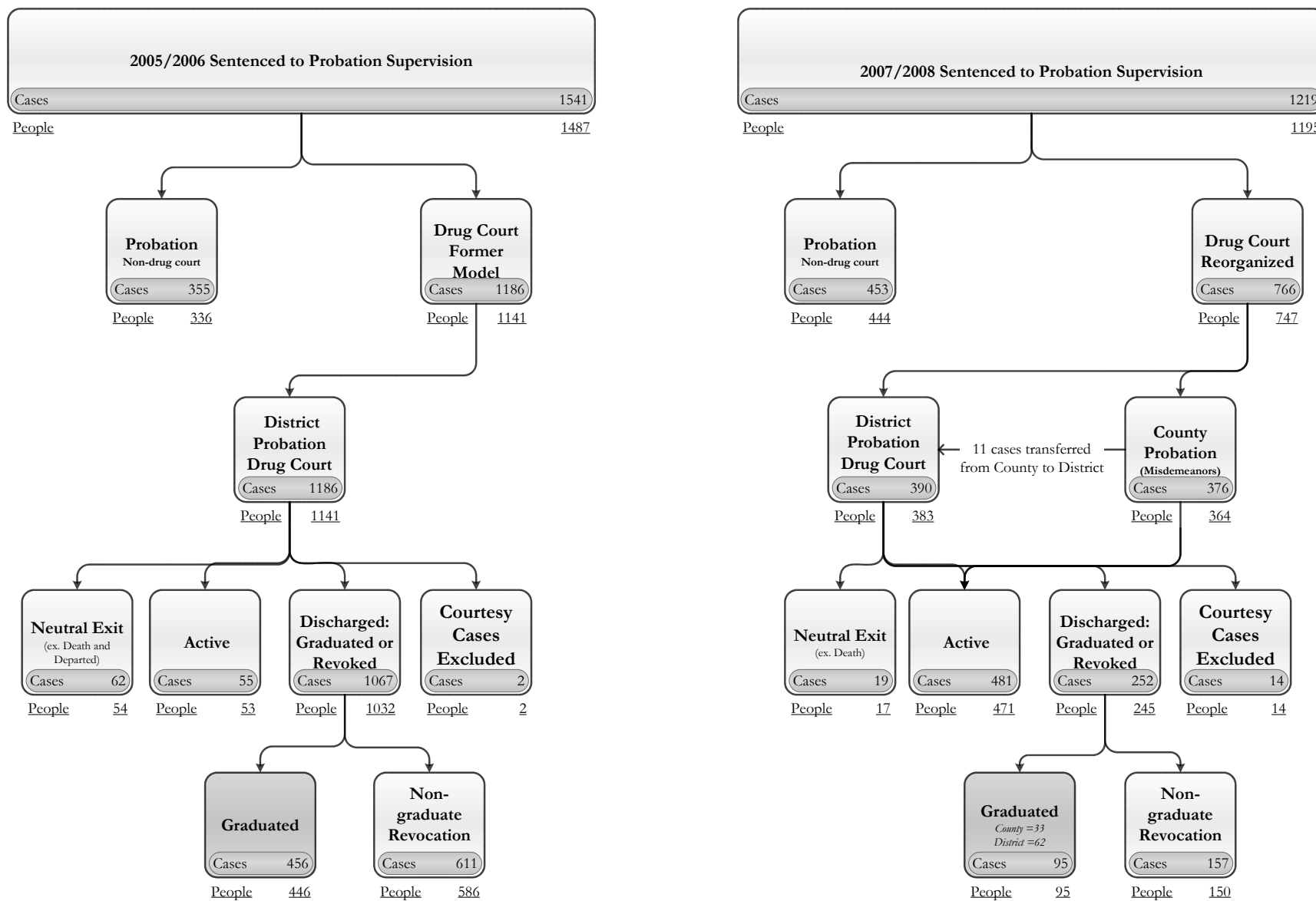
^{xxii} Because 11 cases transferred from County to District, the total sample is 11 less than 375.

^{xxiii} In this report the term “discharged” is used to indicate the completion of formal supervised probation in drug court. Clients are discharged as either graduates or non-graduates from formal probation.

^{xxiv} Clients who are not discharged from drug court are individuals who have not completed treatment because they are still active in the drug court program or because their cases were closed for other reasons such as death or deportation. A third category of individuals represent cases that were excluded from analysis because their cases were filed in other counties and only supervised by Denver District or County Probation as a courtesy.

^{xxv} This includes 11 cases that transferred from Denver County Probation to Denver District Probation.

Figure 2: Number of cases and individuals from referral to probation to discharge



Recidivism

Recidivism was assessed based on new case filings for drug court participants in the 2005/06 and 2007/08 samples who had been discharged for at least 6 months as of December 2008 (when the case filing data were pulled and analyzed).^{xxvi} The date of discharge for graduates was defined as the date of their graduation ceremony. For non-graduates, discharge date was calculated based on their estimated sentence completion dates.^{xxvii}

Almost two-thirds (62.7%; 715) of the 1,141 individuals assigned to drug court in 2005/06 were discharged at least six months prior to the time of this report, whereas only 3.5% (26) of the 747 individuals assigned in 2007/08 met this criterion. Thus, findings of the 2007/08 sample should *not* be generalized to the larger 2007/08 drug court population. Indeed, given the literature on time to recidivate, it is recommended that estimates of recidivism for the reorganized 2007/08 drug court not be calculated until a large majority has been discharged for at least 1 year.

To determine recidivism among the remaining 900 individuals, data on all case filings since May 2005 (the earliest discharge date for 2005/06 drug court participants) were obtained and restructured to create single records, based on the unique state identifier (SID) for each individual that included information on all their case filings to date. These individual records were then matched to discharge information again using the SID.^{xxviii} Only cases filed after individuals' discharges were counted toward recidivism estimates.

Recidivism Rates for 2005/06 Drug Court Participants

As can be seen in Table 4b below, the recidivism rate for 2005/06 drug court graduates (6.6%) was lower than that of their non-graduating cohorts (12.4%). A chi-square analysis indicated the difference in these rates to be statistically significant [$\chi^2(1) = 7.05; p < .001$].

^{xxvi} Given the limitations of the timeframe for assessing 2007/08 drug court, we also derived a sample based on those who had been discharged for 3 months or more to determine whether a larger sample size would yield more information. Although the *n* for the 2007/08 drug court was appreciably larger for this timeframe (*n*=84), the numbers of individuals in both samples who had recidivated remained largely the same (2005/6 = 69; 2007/8 = 2). This finding is consistent with literature indicating most recidivism occurs after 1 year.

^{xxvii} The estimated date that non-graduates complete their sentence is based on the sentence location (Jail, Department of Corrections, Community Corrections, and credit for time served), sentence amount, and the good time formula. Credit amounts were totaled and subtracted from the sentence amount. A good time credit was applied to the new total to compute an estimated sentence length. Using the sentence date and estimated sentence length, a discharge date was calculated for non-graduates.

^{xxviii} A small percentage (1.2%; 13 individuals) of drug court participants had fake SIDS and could not be matched to case filings. Given the unreliability and non-uniqueness of other personal identifiers, such as name and date of birth, matches for these individuals were not attempted using other information.

Table 4b: Recidivism Rates for 2005/06 Drug Court Participants by Graduation Status

Recidivism at <i>6 months</i>	2005/06 Drug Court Sample N=715 ^{xxix}	
	Grads n=377	Non-grads n=338
All reoffenses (excludes traffic)	6.6% (25)	12.4% (42)
Reoffense types		
Felony	6.4% (24)	11.5% (39)
Misdemeanor	0% (0)	.9% (3)
DUI	.2% (1)	0% (0)
Drug	3.7% (14)	4.4% (15)
Crime against Property	.8% (3)	3.0% (10)
Crime against Person	1.1% (4)	2.0% (7)
Other	.8% (3)	3.0% (10)
Days until first reoffense ^{xxx}	Mean = 228 (SD = 124) Median = 222	Mean = 206 (SD = 163) Median = 148

Types of reoffenses

To further understand the types of reoffenses committed by drug court participants, Table 4b above also displays the number and percentage of reoffenses for the 2005/06 sample classified as a felony, misdemeanor, or DUI; and the numbers considered a property crime or a crime against a person. Determinations of classification were based directly on codes from the case filing data. Property and person crimes were defined based on Colorado statutes. The following offenses were coded as property crimes: Arson, Burglary, Criminal Mischief, Theft, Tampering, and Trespass. Crimes against persons included: Incest, Assault, Child Abuse, Homicide, Kidnapping, Menacing, Sex Offenses, Vehicular Assault, Vehicular Homicide, and Robbery.

Note that the table displays the percentages based on the entire sample, to allow for understanding of overall reoffense rates among 2005/06 drug court participants. To determine rates of certain types of reoffenses among *recidivating* 2005/06 graduates and non-graduates only, one must calculate

^{xxix} 17 individuals in the 2005/06 sample had multiple case filings between discharge and December 2008; for these individuals, the first case filing is used.

^{xxx} Calculated based on number of days between discharge date and filing date for first reoffense.

percentages based only on the numbers who have reoffended. For example, 24 out of 25 (96.0%) 2005/06 graduates who recidivated committed felonies, compared to 39 out of 42 (92.9%) non-graduate recidivators. Just over half (56%; 14 out of 25) of the reoffenses among 2005/06 recidivating graduates were drug-related crimes compared to 35.7% (15 out of 42) of the reoffenses committed by 2005/06 non-graduate recidivators.

Thus, although 2005/06 graduates were significantly less likely to recidivate than their non-graduate counterparts, drug-related reoffenses were more common among those that did recidivate.

Reductions in Risk of Criminal Behavior

As described earlier in the report, the LSI measures risk of criminal offending and clinical needs based on the following domains: criminal history, education/employment, financial status, family and marital status, accommodations or housing environment, leisure/recreation, companions or social networks, alcohol/drug problems, emotional/personal status, and attitudes toward crime and authority. Further description of these domains or subscores is provided below.

Probation officers are trained to administer the LSI every six months until the total risk score reaches 1 or zero (indicating minimal risk of future criminal behavior). To support evaluation efforts, in 2007 probation officers in drug court were asked to re-administer the LSI when offenders completed drug court (either through graduation or revocation), regardless of their most recent score, in order to evaluate changes to risk dimensions over time.

The first LSI assessment conducted after a case was filed was used as the intake assessment and the most recent LSI was used as the discharge assessment. Analyses were only run on inactive individuals who had finished probation through graduation or revocation/failure. Those missing a valid intake and/or discharge assessment could not be included in the analyses.

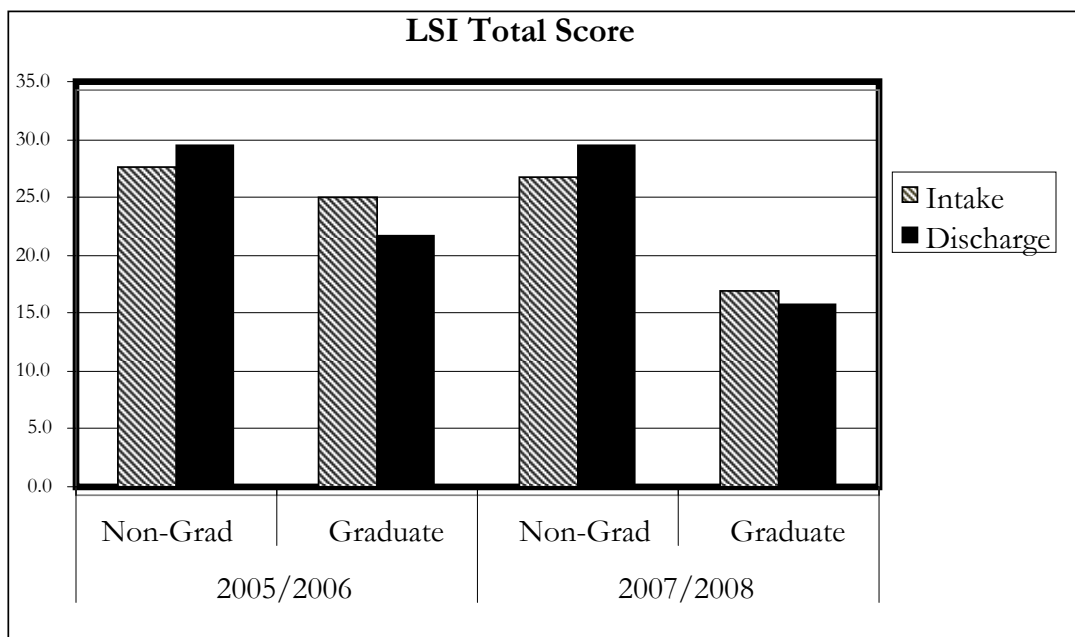
LSI assessment data were matched to drug court participants using the case number and ML number. LSI total score and section subtotals were computed for assessments at both intake and discharge,^{vii} and changes in these scores were analyzed to evaluate reduction over time in criminal risk and need for treatment. The intake and discharge LSI scores are presented in the tables below. The statistical significance of changes in these scores is displayed in the right-most columns of the tables, where ‘n.s.’ indicates the change was not significant and statistically significant changes are represented by *p* values indicating degree of significance. Specifically, the statistical significance values in the individual tables for each drug court sample indicate whether amount of change in scores (Intake – Discharge) was significantly different for graduates versus non-graduates (i.e., did one group change or improve more than the other?).

Change in LSI scores from intake to discharge: Graduates versus non-graduates for 2005/006 and 2007/8 drug courts

When analyses were conducted comparing graduates to non-graduates in each drug court sample, significant differences in LSI change scores were observed. See the graph below. In both 2005/06 and 2007/08 samples, graduates showed significantly better outcomes than non-graduates for the LSI total score from intake to discharge.

It should be noted that graduates' intake LSI scores were significantly lower than non-graduates' scores for both 2005/06 and 2007/08 samples (see Figure 4a below). This suggests that baseline LSI scores may be an important trend to monitor over time. Additional analyses in Research Question 5 address whether LSI scores predict likelihood of program success, and the implications for such findings.

Figure 4a: LSI Total Scores at Intake and Discharge by Graduation Status



Tables 4c and 4d below display mean LSI scale scores and the standard deviations (as indicated by 'M' and 'SD') at intake and discharge for all sections as well as the total score for 2005/06 and 2007/08 drug court samples, respectively. LSI scale scores are reported as the average percent score. That is, the scores represent average percentage of risk factors that participants possessed on each dimension or subscale. For example, the mean score of 28.6% on the criminal history scale at intake for 2005/06 graduates indicates the group as a whole to have scored positive on an average of 28.6% of the risk factors assessed by the criminal history scale. It is important to note that many

indicators or risk factors measured by these subscales regard historical events, such as past criminal records, that cannot be changed or ‘improved’ whereas other indices such as one’s attitudes toward crime are dynamic and can move in either a negative and positive direction. Thus, when examining the shifts in scores from intake to discharge, it is important to consider that for some subscales, stability or only modest increases in risk could be viewed positively. More detailed description of each subscale is provided following the tables.

As can be seen in Table 4c below, for the 2005/06 sample, graduates evidenced better trends than non-graduates across the board, with graduates showing significantly greater reduction or significantly less increase (as indicated by the *p* values in the right-most column) than non-graduates on all subscores of the LSI. Further explanation of how to interpret each subscore is provided below.

Table 4c: LSI Scores at Intake and Discharge for 2005/06 Drug Court Participants

LSI Scores	2005/06 Drug Court Sample <i>Graduates</i> N = 390				2005/06 Drug Court Sample <i>Non-graduates</i> N = 511				Significance Test Alpha Level
	Intake		Discharge		Intake		Discharge		
	M	SD	M	SD	M	SD	M	SD	
Criminal Subtotal	28.6%	22.9%	30.5%	22.7%	36.4%	23.6%	41.1%	22.9%	p < .05
Education/ Employment Subtotal	53.5%	23.8%	45.3%	24.2%	58.9%	22.8%	59.2%	22.0%	p < .001
Emotional Subtotal	17.8%	23.6%	19.1%	25.2%	17.2%	20.7%	22.5%	24.2%	p < .01
Attitude Subtotal	48.2%	32.5%	32.5%	31.8%	59.1%	30.6%	67.1%	33.1%	p < .001
Financial Subtotal	60.6%	29.9%	55.4%	31.1%	59.3%	25.4%	63.3%	28.1%	p < .001
Family Subtotal	53.8%	33.8%	48.9%	33.8%	59.0%	31.9%	62.4%	29.5%	p < .001
Accommodations Subtotal	44.5%	31.9%	36.3%	29.3%	54.7%	30.8%	55.6%	31.5%	p < .001
Leisure Subtotal	81.8%	32.5%	67.5%	35.4%	92.7%	20.6%	90.7%	22.6%	p < .001
Companions Subtotal	51.1%	26.3%	43.7%	24.9%	53.9%	25.8%	60.9%	22.7%	p < .001
Alcohol Subtotal	55.8%	21.9%	46.7%	21.7%	55.0%	21.9%	59.2%	19.7%	p < .001
LSI Total Score	23.7%	8.0%	20.9%	7.7%	28.2%	7.0%	29.8%	(7.0%)	p < .001

For the 2007/08 sample, significant differences in LSI change scores between graduates and non-graduates were only observed for the Emotional, Family, and Alcohol subsection scores, as well as the LSI Total score (see Table 4d below). In understanding the relatively more modest results for the 2007/08 sample, it is critical to note the average elapsed time between intake and discharge assessments for both drug court samples. Because limited time has passed since cases were filed for the 2007/08 cohort, any graduates included in these analyses would represent individuals who completed graduation requirements quickly. As a result, a shorter time period between intake and follow-up assessments compared to 2005/06 would be expected. Analyses confirmed this, finding that assessments for the 2005/06 sample were substantially farther apart (460 days) than assessments for the 2007/08 sample (173 days). Thus, scores across the two sample years are not directly comparable.

Further analyses indicated that degree of improvement in LSI scores (from intake to discharge) is significantly correlated with the number of days between assessments, such that greater positive change is observed the longer the amount of time elapsed. It is therefore likely that results for the 2007/08 revised drug court will appear more positive once sufficient time has elapsed to obtain a more representative sample that includes cases with greater numbers of days between intake and discharge assessments.

Table 4d: LSI Scores at Intake and Discharge for 2007/08 Drug Court Participants

LSI Scale Scores	2007/08 Drug Court Sample <i>Graduates</i> N = 125				2007/08 Drug Court Sample <i>Non-graduates</i> N = 168				Significance Test Alpha Level
	Intake		Discharge		Intake		Discharge		
	M	SD	M	SD	M	SD	M	SD	
Criminal Subtotal	20.5%	20.6%	20.7%	20.8%	42.4%	21.8%	44.7%	21.5%	p < .05
Education/ Employment Subtotal	35.8%	24.6%	31.8	22.0%	62.3%	26.3%	64.2%	26.3%	n.s.
Emotional Subtotal	15.5%	17.2%	15.2%	18.8%	24.4%	27.6%	29.8%	29.1%	p < .03
Attitude Subtotal	27.7%	29.1%	21.6%	28.3%	61.8%	39.6%	65.6%	38.2%	n.s.
Financial Subtotal	43.1%	27.2%	44.0%	31.2%	64.4%	27.4%	73.3%	27.4%	n.s.
Family Subtotal	41.4%	35.2%	36.6%	32.2%	52.2%	33.2%	58.3%	27.2%	p < .03
Accommodations Subtotal	26.1%	27.5%	25.2%	27.5%	54.1%	35.1%	55.6%	35.6%	n.s.
Leisure Subtotal	59.5%	38.0%	57.8%	41.7%	90.0%	27.4%	87.8%	28.5%	n.s.
Companions Subtotal	31.4%	24.3%	30.3%	22.2%	51.1%	27.2%	56.4%	26.4%	n.s.
Alcohol Subtotal	38.6%	20.9%	37.1%	21.3%	53.1%	21.8%	56.9%	21.1%	p = .05
LSI Total Score	17.1%	8.64%	15.9%	7.3%	28.2%	9.0%	29.9%	8.3%	p < .01

LSI Scale Descriptions

Criminal Scale

The ten-item Criminal scale consists primarily of items that are static risk factors (i.e., indicators that cannot be changed such as whether an adult offender was ever arrested before the age of 16). A few items on this scale represent indicators that can shift over time, but only in a negative direction, such as whether the adult offender has a record of violent crime. Risk factors measured by this scale reflect worsening involvement in the criminal justice system. Thus, criminal scale scores can only

remain stable or worsen over time. Indeed, the average percent of risk factors for the Criminal scale increased from intake to discharge for both samples, although the extent of shift was significantly less for graduates than non-graduates across both drug court samples.

Education/Employment Scale

The Education/Employment scale is comprised of ten static and dynamic risk factors regarding the offender's education and employment history. Limited education and unstable employment history increase an offender's risk for future offending. Offenders who enter probation unemployed or with less than a 12th grade education can improve (i.e., decrease) their education/ employment risk score from intake to discharge.

Emotional/Personal Scale

The Emotional/Personal scale consists of five items based on past and current mental health treatment needs. This scale can improve from intake to discharge if individuals in need of mental health treatment have access to these resources and make progress in their treatment plan.

Attitude/ Orientation Scale

Comprised of four dynamic factors, the Attitude/Orientation scale score can be improved from intake to discharge if an offender changes his or her attitudes toward criminal activity. Individuals who enter drug court with favorable attitudes toward crime and leave with unfavorable attitudes will show a reduction in percentage risk on this scale.

Financial Scale

The Financial scale consists of two dynamic factors related to an offender's current financial situation. Because poverty is a risk factor for criminal behavior, improving one's financial situation can greatly reduce a person's risk score from intake to discharge.

Family/ Marital Scale

Comprised of four dynamic risk factors, the Family/Marital scale measures the individual's satisfaction with their spouse or partner. Offenders who are dissatisfied with their marital relationships and are married to someone with a criminal history have higher risk scores on this measure.

Accommodations Scale

Three dynamic factors make up the Accommodations scale, which regards an offender's current living situation. Scores on this scale would improve (i.e., decrease) from intake to discharge if a person was transient and living in a high crime area at intake, and subsequently obtained safer and more stable living accommodations.

Leisure/ Recreation Scale

The Leisure/ Recreation scale is comprised of two dynamic items based on the offender's use of personal leisure time. For example, increased time spent engaging in healthy and prosocial activities would lead to a reduced risk score on this dimension.

Companions Scale

The Companions scale is comprised of five dynamic risk factors based on the individual's social networks. For example, having a supportive social network free of companions with a criminal record would correspond to a low percentage score on this scale.

Alcohol/ Drug Problems Scale

The Alcohol/Drug Problems scale is comprised of nine dynamic and static factors based on an offender's past and current alcohol and drug problems. Past problems with alcohol or drug increase one's score on this scale and cannot be changed. However, other items in this scale that assess current issues can shift in a positive direction, thereby reducing a person's overall score on this measure over time.

Research Question 5: What offender characteristics predict successful completion of drug court?

Understanding the characteristics that may predict successful program completion can support programs in tailoring or modifying services or refining the target population. Logistic regression analyses were conducted to identify factors that predicted success in the drug court program. Logistic regression attempts to predict membership in different groups based on a combination of several variables. Specifically, we examined whether demographic variables (e.g., age, gender, race/ethnicity) and background variables (e.g., risk of criminal behavior and need for treatment, AOD involvement, employment) independently predicted success in the program for both drug court samples. It should be noted that conducting these analyses required data from participants on all factors measured. Thus, rates of missing data are high for these analyses, and results should be viewed with caution. Nonetheless, factors found to be associated with success were replicated across both 2005/06 and 2007/08 drug court samples. These characteristics are detailed below.

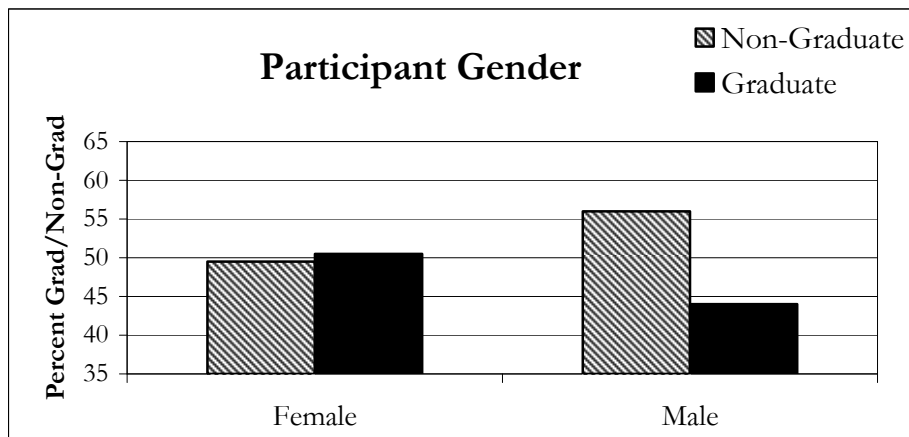
Demographics that Predict Graduation Status

Age, gender, and race/ethnicity were examined as potential predictors of graduation. Age of arrest was not found to be associated with likelihood of graduation. Gender did predict graduation, as females were significantly more likely to graduate than males ($p < .001$). As seen in the table and graph below, the graduation rate was 50.0% for females versus 44.0% for males.

Table 5a: Gender by Graduation Status

<i>Drug Court, 2005/6 and 2007/8 combined</i> Outcomes by Gender	Non-Grad n = 736	Graduate n = 541
Females	49.5%	50.0%
Males	56.0%	44.0%
<i>Number of individuals with missing data</i>	290	213

Figure 5a: Gender by Graduation Status



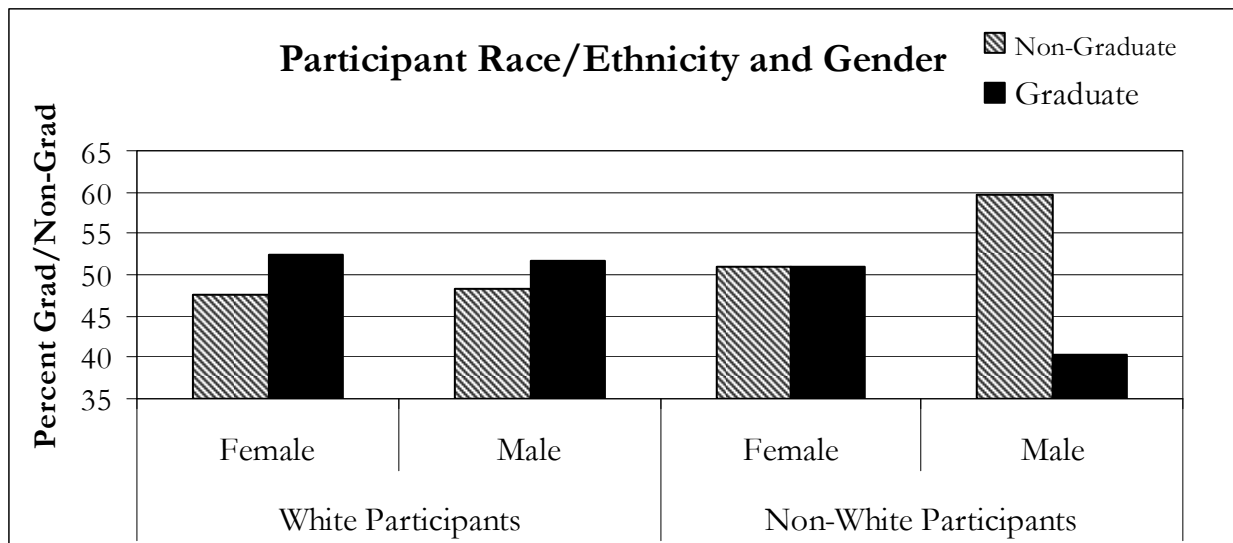
Race/ethnicity predicted outcomes as well. The graduation rate was 52.0% among White participants and 45.7% among Non-White participants, and White participants were significantly more likely to graduate than Non-White participants ($p < .001$). However, as shown in the graphic below, this race/ethnicity difference was only evident for male participants. White males were significantly more likely to graduate than Non-White males ($p < .001$); while females were equally likely to graduate regardless of race/ethnicity.

Importantly, however, additional analysis showed this race/ethnicity difference to no longer be significant in the 2007/08 sample once LSI risk scores were taken into account. That is, non-White participants had higher intake LSI scores than White participants, and once this difference was accounted for in the 2007/08 sample, there no longer remained a significant relationship between race/ethnicity and likelihood of graduating. In other words, in the 2007/08 sample, non-white participants' lower graduation rates were explained by their higher LSI scores, whereas this was not the case for the 2005/06 sample for which race/ethnicity remained related to graduation likelihood even after taking LSI scores into account.

Table 5b: Gender and Race/Ethnicity by Graduation Status

Drug Court, 2005/06 and 2007/08 combined Outcomes by Race/Ethnicity and Gender		Non-Grad n = 736	Graduate n = 541
White Participants	Female	47.7%	52.3%
	Male	48.3%	51.7%
Non-White Participants	Female	51.0%	51.0%
	Male	59.6%	40.4%
<i>Number of individuals with missing data</i>		<i>290</i>	<i>213</i>

Figure 5b: Gender and Race/Ethnicity by Graduation Status



Employment Status as a Predictor of Graduation Status

Employment status, as indicated by items from the LSI, strongly predicted graduation outcome. Specifically, participants who reported being unemployed at baseline were more likely to fail to graduate than those who were employed and this difference was statistically significant ($p < .001$). The graduation rate among those who were unemployed was 40.2%, compared to 45.7% for those who were employed.

Table 5c: Employment Status by Graduation Status

<i>Drug Court, 2005/6 and 2007/8 combined</i>	Non-Grad n = 446	Graduate n = 328
Employment Status		
Unemployed at Baseline	59.8%	40.2%
Employed at Baseline	54.3%	45.7%
<i>Number of individuals with missing data</i>	290	213

Figure 5c: Employment Status by Graduation Status



Housing Environment as a Predictor of Graduation Status

The LSI includes three items regarding the offender's current housing environment or accommodations that are known to predict criminal activity, which are used to create the Accommodations scale. This scale does not capture whether the offender is in need of housing services but rather is a checklist of whether the offender appears to be transient and currently living in a high crime area. Higher scores indicate greater risk. The LSI Accommodations subtotal predicted graduation outcome, as odds of graduation increased significantly for each 10% decrease in accommodation score ($p < .001$). In other words, failure rates were significantly higher among those with higher accommodation risk scores.

Risk of Reoffending as a Predictor of Graduation Status

As described previously in the report, criminal history was defined using the criminal history dimension subtotal on the LSI and need for treatment was defined using a combined score based on the Level of Supervision Inventory (LSI) total score and the Involvement and Disruption domains from the ASUS.

The LSI total score is computed based on the sum of all domain scores. Raw total scores are converted to ranges that correspond to low, low-medium, high-medium, and high risk. A high LSI total score indicates the offender is at high risk of future criminal offending while a low score indicates lower risk of reoffending.

Based on the available assessment data, participants with lower baseline LSI total scores were much more likely to graduate. The mean LSI total score for graduates was 22.6, versus 27.9 for non-graduates. As shown in the table and graph below, the graduation rate was 54.0% for participants who scored in the lowest quartile of risk for the LSI and 44.1% for those who scored in the highest quartile of risk. Those at lowest risk were more likely to graduate than those at highest risk, a difference that was statistically significant ($p < .01$).

Table 5d: Criminal Risk Levels by Graduation Status

<i>Drug Court, 2005/6 and 2007/8 combined</i>	Non-Grad n = 197	Graduate n = 189
Highest Risk (top quartile of LSI Total)	55.9%	44.1%
Lowest Risk (bottom quartile of LSI Total)	46.0%	54.0%

Criminal History as a Predictor of Graduation Status

Of the LSI subscores, criminal history subtotal was the strongest predictor of graduation, as rate of graduation increased significantly with each 10% decrease in the criminal history subtotal ($p < .001$). In other words, higher levels of criminal history were associated with a greater likelihood of failure from drug court.

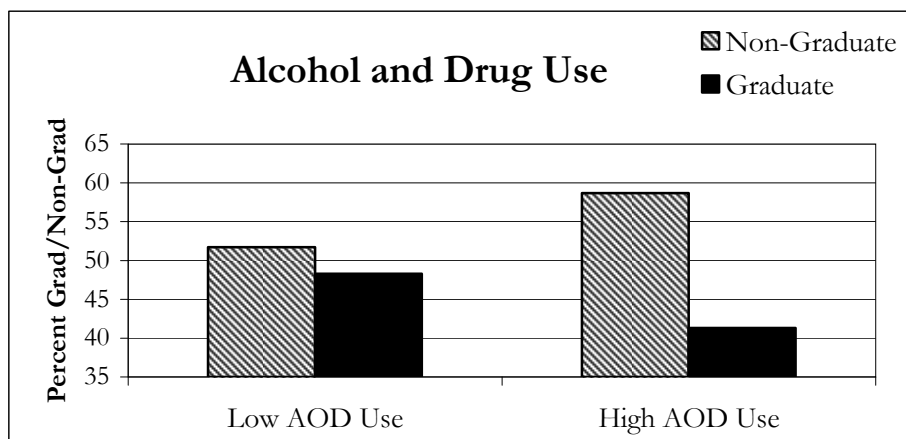
Substance Use History as a Predictor of Graduation Status

Level of involvement with alcohol and drugs was measured by the Adult Substance Use Survey (ASUS), as detailed in prior sections of the report, and was found to predict program outcomes. Specifically, the graduation rate among individuals assigned an ASUS global score of “low” at intake was 48.3%, compared to 41.3% for those who were assigned a score of “high” at intake (see Table 5e and Figure 5d below). Those with low ASUS scores were more likely to graduate than those with high scores, and this difference was statistically significant ($p < .001$).

Table 5e: AOD Use by Graduation Status

<i>Drug Court, 2005/6 and 2007/8 combined Lower/Upper Quartiles</i>	Non-Grad n = 111	Graduate n = 86
Low AOD Use	51.7%	48.3%
High AOD Use	58.7%	41.3%

Figure 5d: AOD Use by Graduation Status



Research Question 6: Does Denver's reorganized drug court reduce jail days?

Given the wide variety of programs intended to reduce crime and the limited resources to fund these programs, information on what works and what is cost effective is important to decision makers. In order to quantify the potential costs and local savings prior to implementing the reorganized drug court, Denver policy makers reviewed financial data and potential savings estimates. To support decision making and planning, the City of Denver Budget and Management Office (BMO) developed a detailed report outlining the cost and potential savings of a successful drug court in Denver. Several scenarios were proposed based on different assumptions regarding case processing and outcomes. Both tangible effects, which can be directly measured in relation to court activities, and intangible effects, which are less directly tied to court activities, were proposed.

The BMO report outlined several changes to case processing that would theoretically contribute to reductions in processing times and, by extension, reduce the number of jail days (also quantified as jail beds) between arrest and sentencing.

Specifically, the new procedures were expected to:

- Reduce time between a drug court defendant's arrest and sentencing, reducing needed jail beds for defendants who did not bond out.
- Reduce time between a drug court defendant's arrest and bond, reducing jail days for defendants who bond out.
- Reduce case load in Denver County Court for all felonies, allowing for expedited case processing between arrest and sentencing and reducing jail days for all felonies.
- Increase consistency of sentencing terms and judicial decisions by having defendants report to the same judge for court appearances.
- Reduce the need for jail beds by 64 beds per day, thereby reducing need for Sheriff staffing by one post.

It was also hypothesized that improved outcomes in the areas of recidivism and overcrowding in Denver County Jail would lead to additional cost savings. To date, insufficient data have been collected to calculate savings relating to recidivism. For similar reasons, analyses also could not be conducted to determine whether increased treatment time and supervision led to savings as a result of improved treatment outcomes. Although analyses were attempted on the number of court reviews and contacts with probation officers, anomalies in the data prohibited researchers from reporting these numbers with confidence. Over 100 drug court participants did not have any data indicating face-to-face contacts with their probation officer in 2007. Thus, further investigation is needed regarding such data before using them to attribute cost savings. Researchers were, however,

able to compute average pre-sentence jail days for the 2005/06 and 2007/08 drug court samples. These calculations are presented below.

Given the short duration of the drug court's implementation and the small number of graduates, it is difficult to compute figures with certainty. Therefore, results presented in this section must be considered preliminary and should be monitored over a longer period of time to better assess the stability and accuracy of findings.

Calculating Jail Days

As described earlier in the report, preliminary results indicate that many of the assumptions relative to faster case processing that guided the cost savings plan for Denver Drug Court were achieved in the first implementation year. These reductions were assumed to reduce the number of days that drug court participants spent in jail. To further investigate cost savings, jail days were analyzed using Denver County Jail's daily release and booking data.

The number of days from arrest to sentencing, and the total number of jail days between the arrest and sentence dates, were calculated for all drug court offenders with available data. These calculations required merging of data from Eclipse and MAC/Themis with the daily release and booking data from Denver County Jail via matching of arrest and booking numbers. For individuals with multiple cases, the earlier case (based on case filing date) was used. Using the Denver Police Department (DPD) number, the number of days held was aggregated for jail days occurring between the arrest date and the sentence date. For drug court graduates, additional analyses of the *total* number of days in jail were also conducted. Missing data were the result of missing arrest numbers, arrest dates, and/or DPD numbers. Because data for all three fields were required to successfully merge information and compute jail days for each individual, researchers were unable to calculate jail days for offenders who were missing data for any of these three fields. As with the results reported in Research Question 3, jail day calculations were conducted separately for non-bonded versus bonded drug court participants, given the different processes involved.

Jail Days from Arrest to Sentencing

Drug Court Offenders who do not post bond

BMO reported that new drug court procedures would reduce the time between arrest and sentencing for drug court offenders who do not bond out and therefore reduce the number of jail days. Preliminary analyses support the hypothesis that new procedures expedite case processing. As described earlier in this report, there was a significant difference of arrest to sentencing times for 2007/08 (M=14.0 days) versus 2005/06 (M=83.0 days) non-bonded offenders with a mean difference of 69 days.

When specifically calculating the number of *jail days* between arrest and sentencing, a similar finding emerges. The average number of jail days for non-bonded offenders who participated in drug court in 2007/08 ($M = 17.3$ days) was significantly less than the average number of jail days for non-bonded drug court offenders in 2005/06 ($M = 51.2$ days), a mean difference of 33.9 days, $p < .001$. See Table 6a below for more information.

Table 6a: Jail Days from Arrest to Sentencing for non-Bonded Drug Court Participants

<i>Did not post Bond</i> Jail Days from Arrest to Sentencing	2005/06 Drug Court Sample n=443	2007/08 Drug Court Sample n=374
Mean	51.2	17.3
Std. Deviation	46.8	25.0
Minimum	1	0
Maximum	247	181
<i>Number of individuals with missing data</i>	42	44

Drug Court Offenders who do post bond

Changes to procedures that would reduce the time from arrest to bond were also outlined as a potential area of cost savings for drug court offenders who bond out. Analysis of the average time between arrest and posting bond revealed significantly shorter average durations in 2007/08 ($M=13.8$ days) versus 2005/06 ($M=36.8$ days) for drug court defendants ($p < .001$). Analyses were then conducted to determine whether a similar pattern would be found for the number of *jail days* between arrest and sentencing (see Table 6b below). Results indicate that average number of jail days from arrest to sentencing was significantly lower in 2007/08 ($M=6.4$ days) than 2005/06 ($M=32.8$ days), with a mean difference of 26.4 days, $p < .001$.

Table 6b: Jail Days from Arrest to Sentencing for Bonded Drug Court Participants

Posted Bond Jail Days from Arrest to Sentencing	2005/06 Drug Court Sample N=726	2007/08 Drug Court Sample N=391
Mean	32.8	6.4
Std. Deviation	43.6	17.5
Minimum	1	0
Maximum	272	212
<i>Number of individuals with missing data</i>	28	38

In summary, the average number of days held in jail for individuals with cases filed in 2007/08 was significantly less than the average number of jail days for individuals whose cases were filed in 2005/06 ($p < .001$) for both individuals who posted bond and individuals who did not. Table 6c displays the mean reduction in jail days between 2005/06 and 2007/08, separated out by bond status. These calculated average reductions were used to estimate the cost savings described below.

Table 6c: Reductions in Jail Days from Arrest to Sentencing

Bonding Status	N in 2007	Mean reduction in jail days Between 2005/06 and 2007/08
<i>Did Not Post Bond</i>	374	33.9
<i>Posted Bond</i>	391	26.4

Estimated Cost Savings

According to key informant data, there are 1,634 jail beds in Denver County jail. The average *total* cost to house one inmate in one of these beds is \$55.52 per day. However, the jail frequently accommodates more than 1,634 inmates. To house each additional person, the average *nominal* cost is \$12.90 per day (\$2.10 for meals, \$9.90 for the average medical care, and \$1.00 miscellaneous).

Using these figures, the estimated cost savings of reorganized drug court relative to the former drug court was \$437.31 per non-bonded offender and \$340.56 per bonded offender when the jail is running over capacity and \$1,882.13 per non-bonded offender and \$1,465.73 for bonded offender when the jail is running at capacity.

Table 6d below provides an estimated average cost savings for offenders, broken out by bond status, based on the mean difference in jail days between 2005/06 and 2007/08 drug court samples.

Table 6d: Average savings per drug court offender based on bond status

<i>Jail Status</i>	<i>Jail Cost</i>	Did Not Post Bond	Posted Bond
Jail is at or below capacity	Estimated total cost per inmate is \$55.52	\$1,882.13	\$1,465.73
Jail is <i>over</i> capacity	Marginal cost per additional inmate is \$12.90	\$437.31	\$340.56

Jail Days from Arrest to Discharge

Number of jail days from arrest to discharge was also analyzed to evaluate a hypothesis that a reduction in jail days prior to sentencing may lead to an increase in jail days post sentencing through jail sanctions. It was recognized that longer periods of time between arrest and sentencing provided drug offenders an involuntary period of detoxification which could ease transition into substance use treatment and drug court requirements. The new reduced period between arrest and sentencing does not allow for this jail enforced detoxification. Therefore, it is possible that additional jail days may be imposed during the course of drug court participation as a result of non-compliance.

Analyses of total jail days (from arrest to discharge) for individuals who completed drug court in 2007/08 ($M=51.8$ days) and 2005/06 ($M=103.0$ days) indicated that mean jail days continued to be significantly different for all groups compared. This was true for both non-graduates in 2007/08 ($M=78.2$ days) compared to 2005/06 ($M=147.3$ days), and for graduates in 2007/08 ($M=9.78$ days), compared to 2005/06 ($M=44.6$ days), $p < .001$. It is important to note that sentencing practices can influence the total number of jail days for non-graduates. More time is needed for individuals in the 2007/08 cohort to graduate to fully compare average jail days across the 2005/06 and 2007/08 drug court samples.

Key Findings and Recommendations

Overview

This evaluation was conducted to examine the efficiency and effectiveness of Denver's reorganized drug court. The Drug Court Steering Committee's research questions focused primarily on comparisons of the reorganized drug court to the former unfunded drug court operating between 2002 and 2007. The evaluation was designed to ensure accurate description of cases processed solely under the additional funding and revised procedures of reorganized drug court, and comparisons of such to the designated 'control group,' i.e., cases processed primarily under the guidelines and procedures of the former drug court operating between 2002 and 2007.

As detailed in the Methods section of the report, the samples were defined and pulled based on case filing dates, with the reorganized drug court sample defined as all drug court cases filed between March 2007 and March 2008, and the former drug court sample defined as all drug court cases filed between March 2005 and March 2006. This strategy, in contrast to more common approaches (e.g., pulling all terminated cases at a given point in time), required more extensive and complex data procedures, but ensures that the findings accurately reflect cases processed under the reorganized drug court. In particular, this approach allowed for accurate calculations of processing efficiencies under the new guidelines and corresponding cost savings realized by reduction of jail days.

In order to obtain and review data and systems relevant to the evaluation, OMNI worked directly with multiple stakeholders, including agency representatives responsible for contributing to the drug court process, information systems management representatives, and the Drug Court Coordinator. Substantial resources and time were dedicated toward acquisition, review, cleaning, and interpretation of available data. These efforts were necessary to enable the current evaluation, and have allowed for development of an infrastructure that will facilitate future monitoring and evaluation efforts.

Key Findings

Key findings from data analyzed across the six research questions include differences in background and outcomes of graduates versus non-graduates of both former and reorganized drug courts, and the efficiency of the reorganized drug court processes and corresponding implications for cost savings.

Background and Outcomes of Drug Court Graduates versus non-Graduates

Select analyses were conducted to examine background and outcomes of drug court participants (in both the former and reorganized drug court samples) as a function of graduation status (see Research Questions 2 and 4). A subsequent set of related analyses examined factors that statistically predicted higher likelihood of graduation (see Research Question 5). Taken together, the findings indicated that (a) offenders who entered drug court with a lower risk profile (as indicated by intake scores on the LSI) were significantly more likely to graduate than higher-risk offenders; and (b) graduates of drug court showed significantly better outcomes than non-graduates, in terms of reduced criminal risk and a lower rate of recidivism (the latter of which could only be assessed for the 2005/06 sample).

It is perhaps not surprising that relatively lower-risk individuals are more likely to successfully complete drug court. Understanding predictors of program completion can sometimes be used to better tailor services to those most likely to succeed, thereby increasing a program's overall success rate. In this context, however, data predicting graduation (or failure) from drug court might also be used to identify the need for programmatic modifications to better promote success for those at greater risk of failing the program. Higher-risk individuals, as defined using the LSI, are in greater need of substance use treatment and interventions such as drug court, and are more likely to recidivate. Thus, targeting higher-risk individuals for program success would presumably have a greater impact on recidivism (and its associated costs) compared to lower-risk individuals who are less likely to recidivate. Achieving significant reductions in recidivism requires programs that successfully reach and treat those who – in the absence of intervention – are most likely to end up back in the criminal justice system. Future evaluation efforts should more closely examine graduation and other program outcomes among higher-risk individuals and seek to quantify program-level impacts on recidivism relative to the graduation rates of its higher risk participants.

Efficiencies and Potential Cost Savings of Reorganized Drug Court

As emphasized throughout the report, more time must elapse before firm conclusions can be drawn about the effectiveness and outcomes of reorganized drug court, particularly those indices requiring a longer time-horizon, such as recidivism rates. However, with the exception of overall program length (i.e., time from arrest to discharge), the evaluation was able to assess timeframes and efficiencies of drug court processes. Results of analyses on lengths of time between critical decision points (e.g., arrest and sentencing; see Research Question 3) indicate that Denver's reorganized drug court has achieved substantial improvements in processing efficiencies. Denver's reorganized drug court implemented changes to better support, streamline, and expedite filing processes. These modifications were presumed not only to increase efficiency and improve treatment outcomes for

drug court participants, but to lead to cost savings by reducing jail days. Indeed, preliminary results reported in Research Question 6 showed that average jail days for drug court participants were significantly lower in 2007/08 compared to 2005/06.

Changes to processing procedures for all drug cases are believed to have contributed to these reductions. Multiple initiatives and modifications to court procedures at a broader level may have combined to allow for greater efficiencies and cost savings to be realized for drug court cases as well as other drug related cases. Nonetheless, the differences observed between the drug court samples in time lengths between critical decision points and corresponding reductions in jail days/beds were highly statistically significant, and demonstrate meaningful changes over time in the processing of drug court cases.

Although the former drug court evidenced much less efficiency in case processing, analyses of outcomes for the 2005/06 drug court sample indicate the former drug court to have had significant positive impacts on its graduates. Outcomes from the reorganized drug court sample should continue to be monitored as more individuals graduate and more end-point data become available, to verify whether the reorganized drug court shows similar or greater levels of effectiveness, while demonstrating significantly improved efficiencies (and corresponding cost savings).

Issues and Recommendations

Recommendations are offered below to enhance future evaluation efforts and increase capacity to address key research questions such as the impacts of reorganized drug court on recidivism rates and cost savings. These recommendations regard specific, technical adjustments or additions to data systems, and to data collection and coding procedures. These changes will require significant and sustained efforts, but allow for future evaluation efforts to yield more information while utilizing less time and resources.

Limited Time Frame for Assessing Reorganized Drug Court Outcomes

A key limitation of this evaluation was the timeframe for assessing outcomes and impact of the reorganized drug court. Whereas time was not a limiting factor in assessing court processes and background of drug court participants, measuring the net impacts of drug court in terms of graduation rates, recidivism rates, and reductions in criminal risk requires a longer time-horizon. Analyses of the outcomes for the 2005/06 sample of former drug court participants reported here will provide useful context for assessing the relative success of reorganized drug court, most importantly when sufficient time has elapsed to formally calculate recidivism rates for the 2007/08 sample (which should ideally be conducted only when the majority of the 2007/08 sample of individuals has been discharged from drug court for at least one year).

Data Quality, Completeness, and Interpretation Issues

While a tremendous amount of progress was achieved toward identifying means of measuring processes and outcomes across multiple, diverse data systems and agencies, the output from such analysis and reporting is constrained by the quality and quantity of data available. OMNI and the State Court Administrator's Office (SCAO), with assistance from the Denver County Probation Office and other entities, put forth significant time and efforts toward acquisition and interpretation of the raw data needed to enable analysis and reporting. Such efforts were necessary due to the nature of the data systems and variables, which required researchers to link information across multiple data fields in order to infer status and outcomes for drug court participants. This already complex process was further complicated when information in data fields was missing or did not provide consistent indicators of a case's status or outcome. Because of this, a number of analyses were planned and/or conducted but could not be included in this report due to poor data quality.

Some inconsistencies found in the data are presumed to stem primarily from a lack of standardization in coding and data entry practices, while other inconsistencies may be the result of data entry practices designed to support case management but not evaluation. Data entry practices and fields designed to support management of individual court cases and offenders may allow a database user to monitor the history and status of an individual case, but typically are not designed to allow data to be aggregated in a way to assess the overall progress and status of a group of cases.

Thus, concentrated efforts to standardize data definitions and data collection and entry procedures, as well as consideration of select data field additions to the district and county data systems (Eclipse and MAC/Themis, respectively) could substantially improve the capacity and efficiency of future evaluation efforts. It is recognized that modifications must be designed to minimize disruptions to case management.

Improve tracking and documentation of probation outcomes

For the current evaluation effort, researchers had to link several pieces of court information and manually resolve inconsistencies to determine the outcome of probation cases. This process required research staff to look at court data on a case-by-case basis to determine offenders' outcomes. The status of some cases remained unknown following case-by-case examination, and required the assistance of SCAO staff to review narrative text attached to each case. Narrative text is not only time consuming to review but also requires individuals unfamiliar with the case to interpret the text for purposes of determining case outcome. It is therefore recommended that mechanisms be developed for tracking the final outcome of probation supervision (i.e., graduate,

failure, or neutral discharge).^{xxxii} Improving ability to reliably document probation outcomes would streamline evaluation efforts, thereby reducing time and costs needed to calculate results.

Reduce data inconsistencies through automated validation checks

Development of data validation checks built into Eclipse and MAC/Themis would enhance the consistency and quality of drug court data. An example of a data validation check is an error message that appears when an officer enters a termination code that contradicts other information related to the case. These types of automated notifications facilitate improvements in data quality and accuracy by forcing immediate resolution of inconsistent data points.

Moreover, Denver may benefit from addition of a single field that classifies the outcome of each probation episode and that could be edited by probation officers. If such information were attached to a case number, data validation efforts would prohibit officers from entering an outcome that contradicts information in linked cases. If the field was attached to an individual level identifier, such as the District ML number or SID, efforts should ensure that the outcome of each probation episode is archived and does not contradict other court data. For example, if the same person returns to probation five years later, information on the outcome of the new probation episode should not overwrite information on the previous episode.

Decrease missing assessment data by standardizing administration

Missing data - especially when it is more likely to be missing or unmatchable for certain individuals (i.e., not missing at random) - undermine ability to generalize findings to the population as a whole. This issue most severely affected analyses of assessment data (i.e., the LSI and ASUS) which were important for two key reasons: understanding the needs of participants entering the program, and

^{xxxii} There are some mechanisms in place that track the current status of probation but were insufficient indicators of progress success. Currently, in Denver District Court (through Eclipse), probation outcomes are monitored through “termination” codes entered by the probation officer. These codes are intended to classify and describe closed cases. Frequently, researchers found that termination codes were missing or contradicted other court information making the true outcome of the case unknown. An example of contradictory data is a case that is defined as a graduate that also has an active sentence in Department of Corrections. Eclipse also has an automatically generated field to reflect the current status of probation. However, this field reflects the status of the offender’s current probation case; in many instances, this current status does not reflect the true outcome of probation supervision. For example, when offenders graduate but remain on probation supervision their probation case status is “active.” In Denver County court, similar challenges surfaced. Although Denver County court and probation enter termination codes such as “Terminated Compliant” or “Terminated Non-Compliant,” similar inconsistencies emerged and required a case-by-case review.

measuring the success of the program in reducing criminal risk of participants, via reduced substance use problems and improvements in other areas of life functioning.

Efforts to standardize administrations of the LSI and ASUS when an offender enters and exits probation, as well as the identifiers associated with these assessments (ML number and SID), would improve the utility of this instrument for evaluation purposes. Improvements in data completeness are especially critical given that answering fundamental research questions about drug court require multiple data points to enable calculations. For example, if 10% of the sample were missing data for variable A, another 15% for variable B, and a final 10% for variable C, analyses involving all three variables would yield a 35% missing data rate.

Obtain more information on treatment and related outcomes

Provision of data on treatment services and related outcomes of drug court participants would also strengthen future evaluations of Denver's drug court by allowing for more precise testing of the relationship between treatment and substance use. Currently, the Eclipse database allows for documentation of treatment level, and progress markers such as treatment attendance at in-system treatment providers. Out-of-system providers must submit treatment information to probation officers on paper. These treatment updates are then added to narrative text fields which are not accessible to evaluators nor can they be readily analyzed. Because reduction in substance use by offenders is critical to the success of drug court, the quality, appropriateness and effectiveness of treatment programs should be monitored. Moreover, because long-term outcomes (e.g., recidivism) are substantially improved when treatment and related services are continued in the community following release, future evaluation efforts should monitor graduates and non-graduates over time to measure access to after-care and its impact on recidivism.

Database Limitations for Evaluation Purposes

Denver possesses extensive information on court cases and the individuals supervised by probation officers. However much of this information is not in a form that can be easily combined and analyzed by evaluators. During the course of this evaluation, researchers identified three critical enhancements to the District and County data systems that would simplify and reduce the cost of evaluation efforts.

Determine the release date of drug offenders

Eclipse captures the event date when the court decides an offender is eligible for graduation and holds a ceremony. Drug court offenders who are revoked from probation are re-sentenced to varying sentence terms. Therefore, the release date of an offender may range from 90 days to two

years after the date of revocation. In order to determine which individuals should be included in recidivism analyses, evaluators must determine when the offender was released from supervision or incarceration. Without an accurate release date, samples of offenders used to calculate recidivism rates may include individuals for whom insufficient time has elapsed since their release.

Enable identification of linked cases

Court information is currently linked through the case number and individuals are linked through the SID. While determining the total numbers of individuals and cases processed in one year is straightforward, it can be difficult to determine when multiple cases are linked and should therefore be combined when analyzing the data. It can also be difficult to document if an offender completed their case and then quickly reoffended. That is, it is important to distinguish whether reoffenses occurred when an individual's case was still open (thereby decreasing the court's retention rate) versus after the individual completed the program (thereby increasing the court's recidivism rate).

Enhance Denver County Court's database (Themis)

To simplify merging of Denver District and Denver County data, additional fields should be added to Denver County Court's database, Themis. Specifically, Themis does not have designated fields to store the LSI, ASUS, supervision level, or program outcome information of individuals. The data validation efforts recommended earlier in this section would also facilitate analysis of Denver County probation data.

Conclusion

In sum, the efforts undertaken by all stakeholders to develop the infrastructure and collaborations necessary to evaluate Denver's reorganized drug court provide the beginnings of a strong foundation for future assessments. The most notable finding was the dramatic decreases observed in processing times for reorganized drug court compared to the former drug court. Allowing for more time to elapse to assess 2007/08 drug court outcomes, combined with undertaking systematic efforts to improve data collection and quality, would further strengthen the capacity of future evaluation efforts to examine and document the processes and impacts of Denver's reorganized drug court.