STATEWIDE EVALUATION OF COLORADO'S PROBLEM SOLVING COURTS

This research was funded by the State Court Administrator's Office of the Colorado Judicial Department.
NPC Research: Informing Policy, Improving Programs to Enhance Lives. www.npcresearch.com.
For questions about this evaluation, contact Shannon Carey at carey@npcresearch.com

TABLE OF CONTENTS

COLORADO PROBLEM SOLVING COURTS STATEWIDE RESULTS

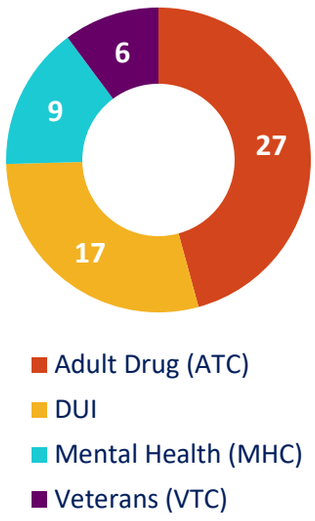
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Evaluation Background

The State of Colorado has more than 70 problem solving courts (PSCs), some dating back to 1994. These programs, also known as "treatment courts," serve individuals charged with crimes related to substance use or mental illness. PSCs provide integrated substance use treatment, behavioral health services, and intensive judicial supervision as an alternative to incarceration. The goals of treatment courts are to reduce recidivism, increase public safety, and improve the qualify of life for participants and their families.

In June 2016, Colorado's Judicial Department State Court Administrator's Office (SCAO) contracted with NPC Research to perform a statewide evaluation of all its adult PSCs, with the exception of family treatment courts. This evaluation includes participants entering traditional adult treatment courts (ATC), DUI courts, (DUI) mental health courts (MHC), and veterans treatment courts (VTC) **between 2009 and 2015**. The evaluation explores several aspects of PSCs, including a statewide assessment of treatment court practices (completed in November 2018) as well as an outcome study and cost analysis. This report presents the findings of the statewide outcome and cost study.

Figure 1: Number of CO Problem Solving Courts included in Evaluation by Court Type

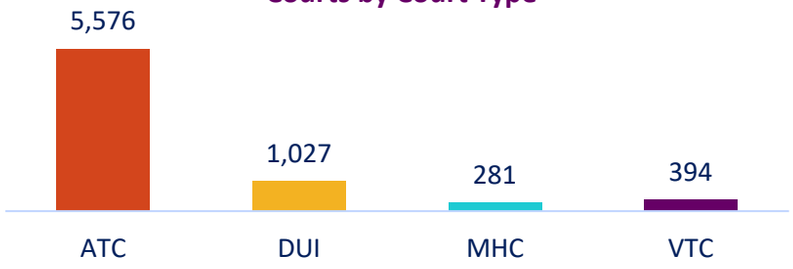


Colorado Problem Solving Courts Overview

Since 2007, the State of Colorado has utilized a shared database across all PSCs (PSC3D) that houses information on over 8,000 participants who have enrolled in one of its PSCs. Additionally, the Judicial Department tracks PSC participants in its trial court case management system (ICON/Eclipse). Information from these databases were analyzed to describe characteristics of PSC participants and explore factors related to successful completion of PSC.

This evaluation includes **59 problem solving courts** (family and juvenile treatment courts excluded), that were active during the study sample timeframe (2009-2015) across four treatment court types: adult drug treatment courts (ATC, *n*=27), DUI courts (DUI, *n*=17), mental health courts (MHC, *n*=9), and veteran treatment courts (VTC, *n*=6) (see Figure 1). Between January 2009 and June 2015 a total of **7,278 individuals** participated in one of the 59 courts that are the focus of this evaluation. As illustrated in Figure 2, traditional adult drug treatment courts make up about half of all PSCs, but account for more than 75% of participants. In addition, about half of all ATC participants were from Denver ATC. Denver ATC participants were significantly different from those in most other jurisdictions in terms of their demographics and criminal behavior. Because of its disproportionate size and unique participant population, **Denver ATC results are presented separately throughout this report and Denver site specific results are provided in the appendix**.

Figure 2: Number of Participants in CO Problem Solving Courts by Court Type



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Focus on high-risk high-need participants or create separate tracks for different risk and need levels

KEY FINDING: Although 88% of courts serve a mixed caseload of low and high-risk participants, only 13% of courts have separate tracks for different risk and need levels.

The traditional drug treatment court model is designed to serve individuals who are high risk (likely to be re-arrested) and high need (have a moderate to severe substance use disorder). Individuals at high risk with high needs require more intensive interventions. This includes supervision (e.g. court appearances), treatment (e.g. substance use treatment), prosocial habilitation (e.g. criminal thinking intervention), and adaptive habilitation (e.g. housing, GED programs). The National Association of Drug Court Professional's (NADCP) Best Practice Standard I on target population states that treatment courts should serve high risk high need individuals or have separate tracks for participants at difference risk and need levels.

In November 2018, 52 of Colorado's PSCs responded to an online assessment of their PSC practices and a little over half (54%) reported serving exclusively high risk, high need individuals. However, a review of participant risk levels as measured by the Level of Service Inventory (LSI) in the administrative data showed that some PSCs that reported serving only high risk high need individuals **actually included participants who did not score as high risk**. Administrative data showed that only 7 courts or 12% of courts serve exclusively high risk participants and no courts served only low risk participants. Overall, 88% of all PSCs served a mixed caseload of low and high risk individuals between 2009 and 2015.

Figure 3: Percent of Courts that Reported Serving Only High Risk, High Need Individuals

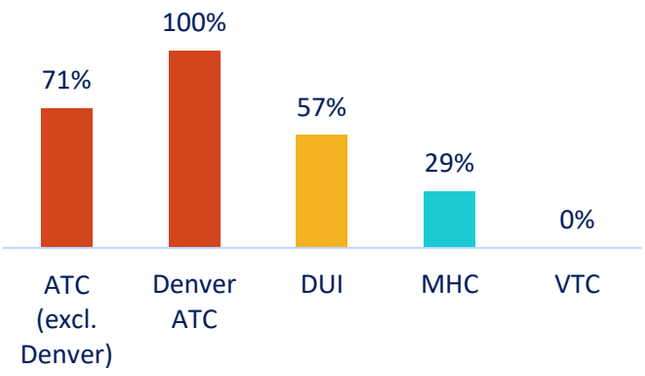
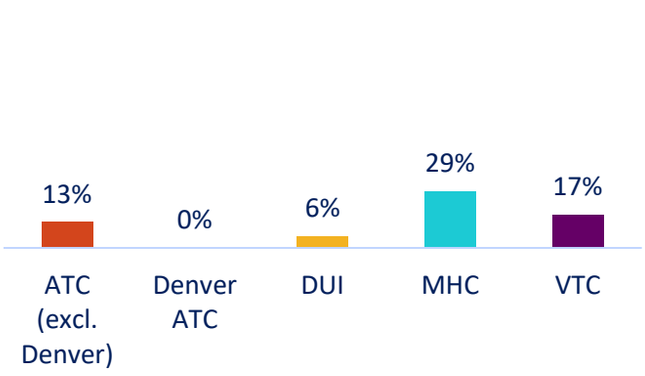


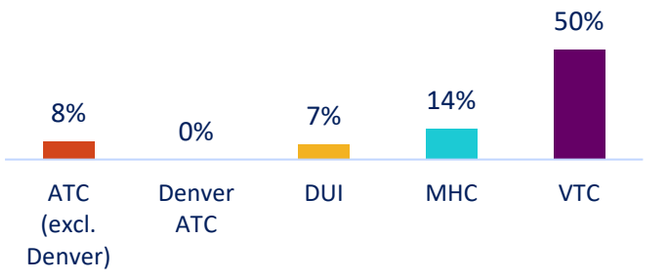
Figure 4: Percent of Courts that Actually Serve Only High Risk Individuals (based on LSI)



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Overall, administrative data showed that **88% of all courts serve a mixed caseload** of both low and high risk individuals. Out of all courts responding to the survey, **only seven (13%) reported having separate tracks to serve participants at different risk and need levels,** most of which were VTC's. Less than 10% of ATC and DUI courts reported separate tracks. Notably, only one ATC reported having separate tracks for risk and need.

Figure 5: Percent of Courts with Tracks for Multiple Risk/Need Levels



Sixty-one percent of all participants were assessed as moderate to high risk, although this varied by court type. Just 28% of VTC participants were assessed as moderate to high risk, compared to 86% of MHC participants (note that 38% of participants were missing risk scores). (For more information about participant risk levels over time, see section Trends Over Time of this report.)

One of the strongest predictors of risk is criminal history. The figures below demonstrate that, based on the number of arrests in the two years prior to PSC entry, DUI participants (and to some extent VTC participants) tend to be lower risk, while ATC and MHC participants tend to be higher risk. The average number of arrests in the two years prior to entering a PSC was 2.3 for all participants, ranging from 1.6 in DUI courts to 2.5 in ATCs outside of Denver. As demonstrated in comparing Figures 6 and 7, average number of prior arrests correlate with the percentage of the population scoring as moderate to high risk on the LSI.

Figure 6: Percent of Participants Assessed as Moderate to High Risk on LSI

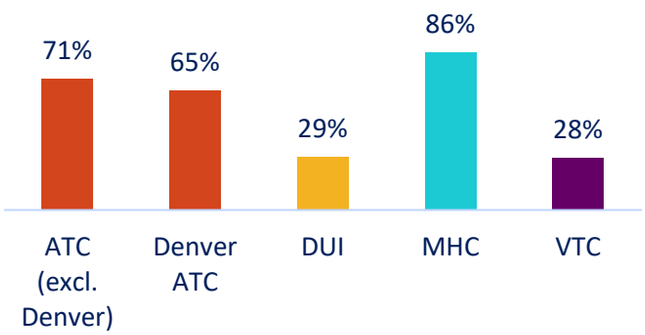
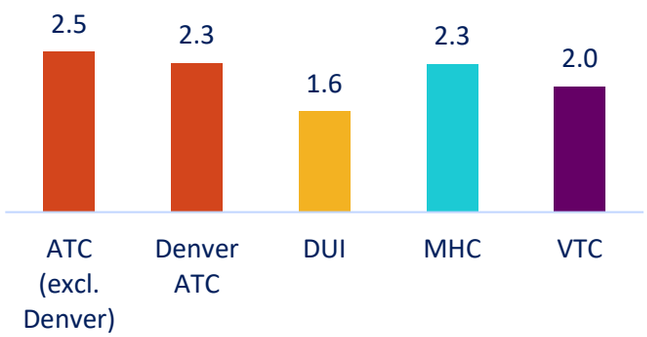


Figure 7: Average Number of Arrests 2 Years Prior to Entry



Recommendations: Serving Different Risk and Need Levels

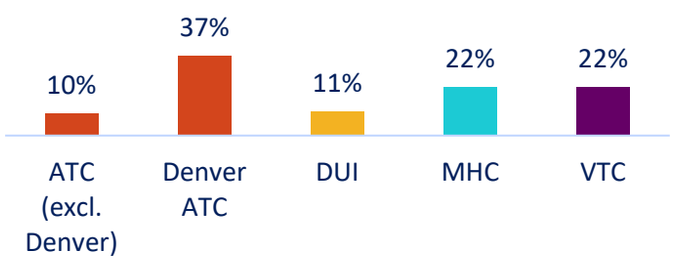
The majority of problem solving courts in Colorado are serving a mixed population of participants at different risk and need levels. This may be impacting the courts' success levels if the services provided are not matched to individual participant risks and needs. Research has demonstrated that providing more services than needed for low risk individuals and providing less services than needed for high risk individuals results in worse outcomes. In addition, individuals at different risk and need levels vary in their ability to accomplish program requirements and therefore court responses to participant behavior should be individualized. Colorado should invest in training for full teams on the definitions of risk and need, the importance of risk and need assessment tools, how to use the information from risk and need assessments to build case plans, and how to use information on risk and need to determine appropriate responses to participant behavior.

Key Recommendation: Review referral and admission processes to ensure equitable access for all eligible individuals

KEY FINDING: Analyses showed that People of Color account for 36% of all drug-related arrests while just 21% of Colorado's PSC participant population.

Across all courts, one out of five (21%) of participants were people of color (non-White). DUI courts had the smallest proportion of participants of color (11%) while Denver ATC had the largest (more than one third of participants were people of color). A comparison of PSC participant demographics to statewide law enforcement data (2015) showed that a larger proportion of people of color are arrested than are admitted into PSC. People of color (non-White) account for 38% of all arrests and summons and 36% of drug-related arrests and summons (23% Hispanic, 12% Black, and 2% other races).

Figure 8: Participants of Color by Court Type

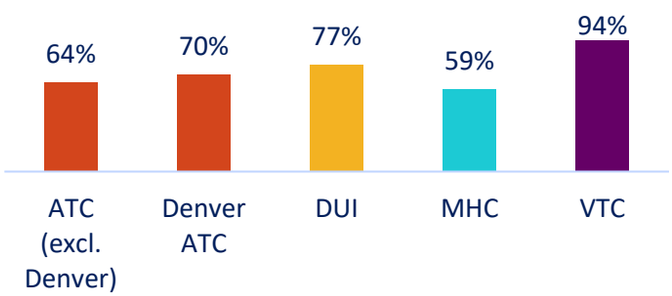


1 out of 5 PSC Participants Were People of Color

2 out of 5 in the Arrestee Population Were People of Color

In terms of gender, about two thirds (69%) of all PSC participants were male, although this varied substantially by court type. In VTC, almost all participants were male (94%), while closer to half of MHC participants were female (41%). Law enforcement data also showed that a slightly larger proportion of women are admitted into PSC compared to the proportion arrested. In 2015, women accounted for 26% of all drug-related arrests and summons.

Figure 9: Male Participants by Court Type



2 out of 3 Participants Were Men

Recommendations: Equitable Access

People of color may be underrepresented in Colorado's problem solving courts. As described in NADCP's Standard II, Colorado would benefit from a regular review of problem solving court eligibility criteria, entry process and services to ensure that the PSCs are following appropriate processes for equity and inclusion.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Perform full risk, clinical need and responsivity assessments with all PSC participants

KEY FINDING: Participant demographics and other characteristics varied by court type and within court type.

While all court types had some notable differences in participant characteristics, including a wide range of risk and need levels served, the DUI court population stands out from other PSC populations. Specifically, DUI court participants are *more likely* to be older, White, married males who are employed, college educated, do not use illicit drugs and score as low risk on traditional risk assessments. The average participant age across all court types was 34 years, but DUI court participants tended to be at least 6 years older than participants from all other court types. Most DUI participants had a high school diploma and almost half (48%) of DUI participants had at least some college, compared to less than one-third (32%) of ATC participants. DUI participants were more likely to be employed at entry (71%), whereas 38% of ATC (excluding Denver) participants and less than one-quarter (23%) of Denver ATC participants were employed at entry.*

Figure 10: Average Participant Age in Years by Court Type

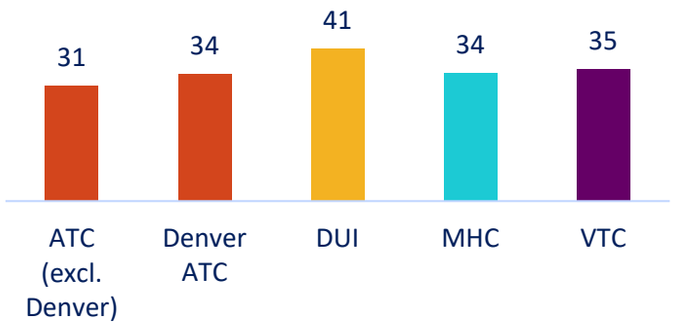


Figure 11: Participants with High School Diploma/GED

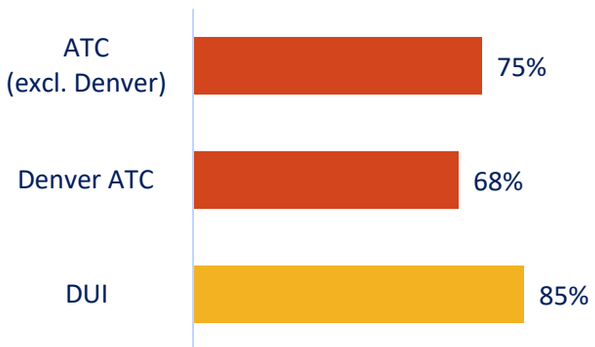
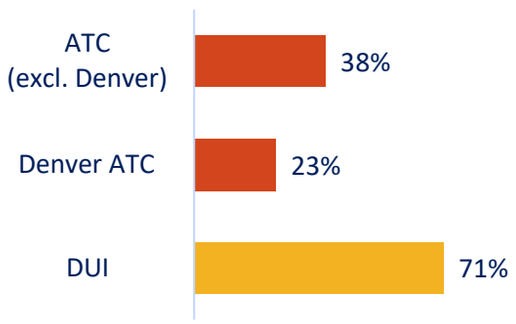


Figure 12: Participants Employed at Program Entry

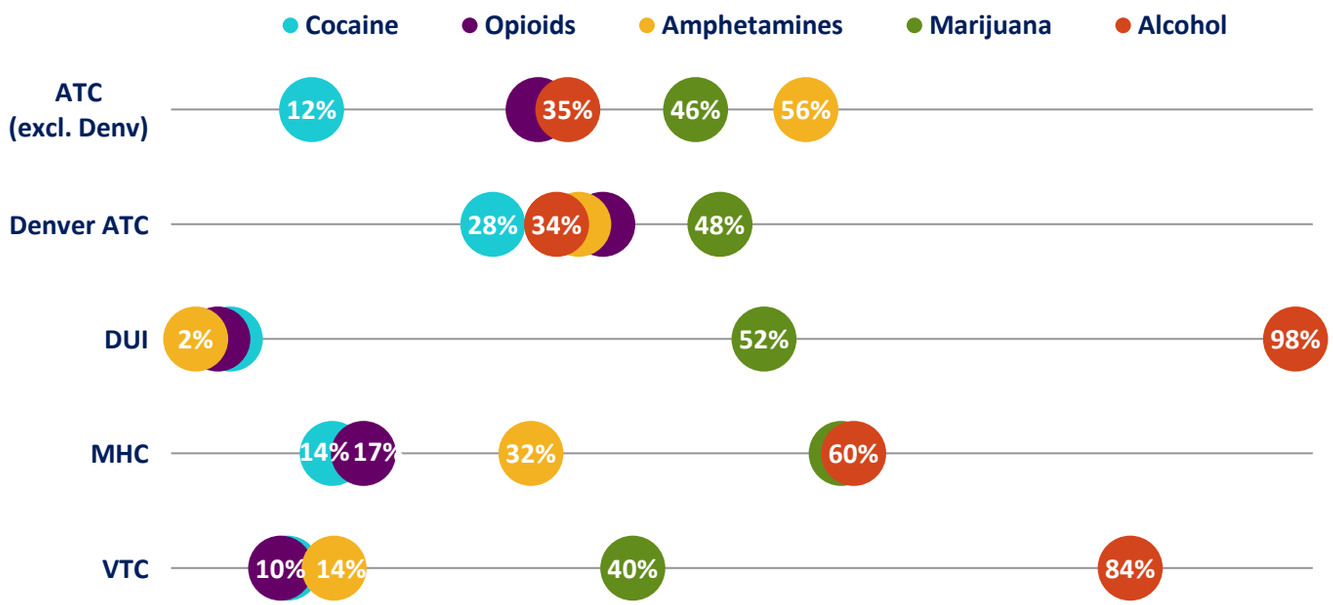


*Education and employment status at entry were not available for MHC and VTC participants and were missing for one-third of ATC and DUI Courts.

Starting in 2012, PSC programs began tracking substances used by participants at program entry (although **one quarter (28%) of all participants were missing information on substances used**).

Across all PCSs, about half of all participants reported **alcohol** and **marijuana** use, one third used **amphetamines** (e.g., methamphetamine), one quarter use **opioids** (e.g., heroin), and one sixth reported using **cocaine** (participants could select more than one substance type). Like other participant characteristics, substance use differed by court type. ATC participants (excluding Denver) were more likely to use amphetamines while all other court types reported alcohol as the most widely used substance (60% to 98%). The most frequently used substance in Denver ATC was marijuana (48%), followed by opioids, amphetamines, and alcohol (about one-third each). About 60% of MHC participants used alcohol and marijuana, and one third also used amphetamines. DUI and VTC courts were similar in that the vast majority (over 80%) reported using alcohol, followed next by marijuana. However, DUI court participants differ from all other court types in that the majority of participants use only drugs that are legal in Colorado (alcohol and marijuana), while a very small percentage (5% or fewer) also use illicit drugs.

Figure 13: Percent of Participants Using Each Substance by Court Type



Recommendations: Assessment Tools

Participant characteristics varied by court type as well as within court type. All court types served a mixed population of individuals at different risk and need levels, education and employment levels, family statuses, genders, races and substances used. All participants should be assessed to determine their specific criminogenic, clinical and responsivity needs. Assessment results should be provided to the PSC team to determine individual case plans, matching services to needs, as well as to determine appropriate responses to participant behavior based on individual differences.

A list of validated and standardized risk and need assessment tools can be found in NADCP's Adult Drug Court Best Practice Standards (2013). Clinical needs assessments should follow ASAM criteria which include specific responsivity assessments that address participant ability to engage in services such as cognitive and physical health issues. Participants with diagnosed substance use disorders should be evaluated to determine whether they are appropriate for medication assisted treatment (MAT).

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

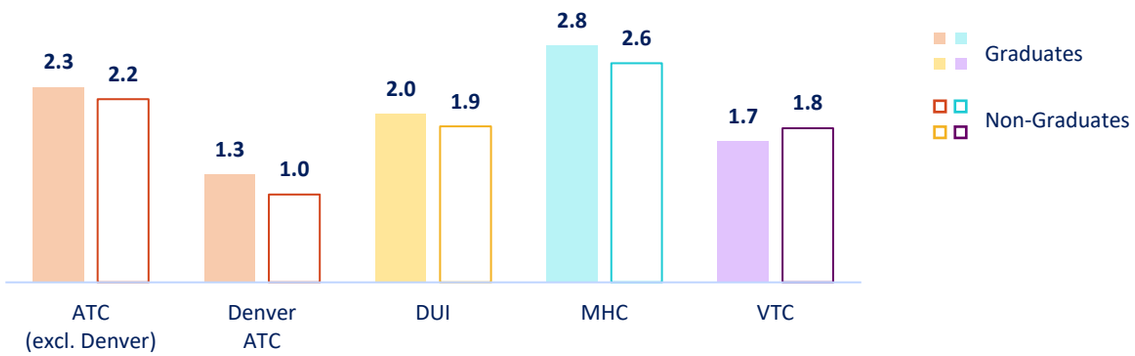
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Accomplishment: Colorado's Problem Solving Courts are following best practices in frequency of court hearings and program length.

KEY FINDING: Most PSCs are meeting the best practice of attending two court hearings per month in the first phase.

Best practices research indicates participants should attend at least two status review hearings per month during their first phase. On average, participants in most of Colorado's PSCs attended about 2 hearings per month (for both graduates and non-graduates) during the first 3 months while in program, although Denver ATC participants attended an average of 1 hearing per month. **One fifth (20%) of all participants were missing information on status review hearings (see Figure 14).**

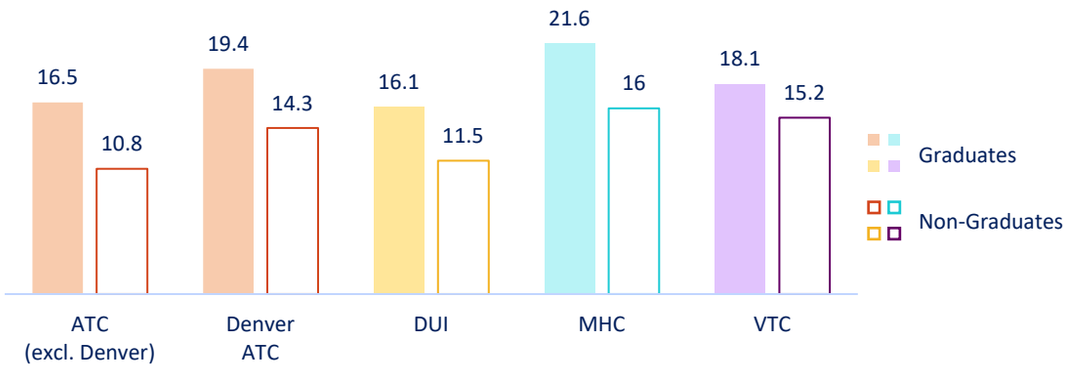
Figure 14: Average Status Review Hearings Attended Per Month During First 3 Months



KEY FINDING: Most PSCs are meeting the best practice of requiring a minimum of 12 months participation to complete the program.

Most of Colorado's PSCs adhere to research-based best practices by requiring at least 12 months to complete the program, however, minimum required program length across PSCs ranged from 6 to 24 months. Across all court types, graduates averaged 17 months to complete all requirements. DUI participants had the swiftest time to completion, averaging 16 months in program, whereas MHC participants spent the longest time in program at nearly 22 months (see Figure 15).

Figure 15: Average Number of Months in PSC



Recommendations: Program Capacity

Research in best practices has demonstrated that court hearings at least twice per week are related to positive outcomes, while court hearings an average of once per month or less are related to more negative results. Most of Colorado's PSCs are following best practices in frequency of court hearings. In those cases where the PSC is not meeting this best practice, it is common for large treatment courts to start decreasing the frequency of court hearings due to the lack of capacity of the team to spend the time needed in court to see participants more frequently. Unfortunately, this decrease in frequency also leads to poorer outcomes. It is highly recommended that all PSCs work on increasing the capacity of their programs to ensure court hearings at least twice per week in the first phase, or decrease participant numbers and focus on participants who would most benefit from the structure of the program (e.g., high risk, high need participants), so that those individuals may benefit from a full dose of the program.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

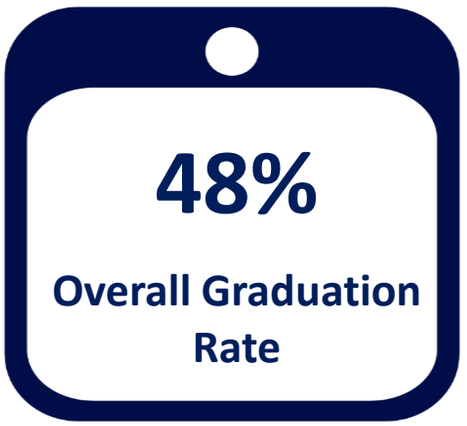
Key Recommendation: Focus on developing individualized case plans to increase participant success rates

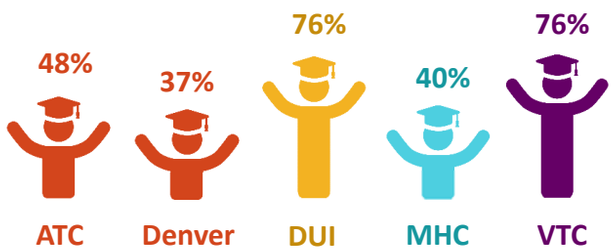
KEY FINDING: The average Colorado PSC graduation rate was 10% lower than the national average of 59%.

To graduate from problem solving court programs, participants must comply with all PSC court-ordered requirements, which usually include participating in substance use and behavioral health treatment, attending case management and supervision appointments, engaging in community service, maintaining a period of sobriety, engaging in recovery oriented activities, and obtaining employment or enrolling in school.

Graduation rates varied across court types. Across all courts with at least 20 discharged participants, graduation rates ranged from 22% to 91%. The average **graduation rate for the ATCs in this study was 48%** while the national average for adult drug treatment courts is 59%, indicating that Colorado's programs are below the national average. However, the average graduation rate for **Colorado's DUI court of 76%** is right in line with the national average of 75% (calculated by NPC Research based on national data, 2020).

Participants assessed as low risk and with fewer prior arrests had the highest graduation rates. ATC and MHC programs tended to have more high risk participants and corresponding lower graduation rates - less than half graduated, with Denver ATC at the low end with about one-third of participants graduating. In contrast, DUI and VTC programs had much higher graduation rates with three-quarters of participants graduating. The higher graduation rates in DUI and VTC programs is similar to rates seen in these types of programs nationally. Typically, DUI and VTC participants tend to be lower risk, indicating that they have fewer criminogenic needs and tend to be more functional, which indicates they have the ability to complete treatment court requirements with less difficulty.



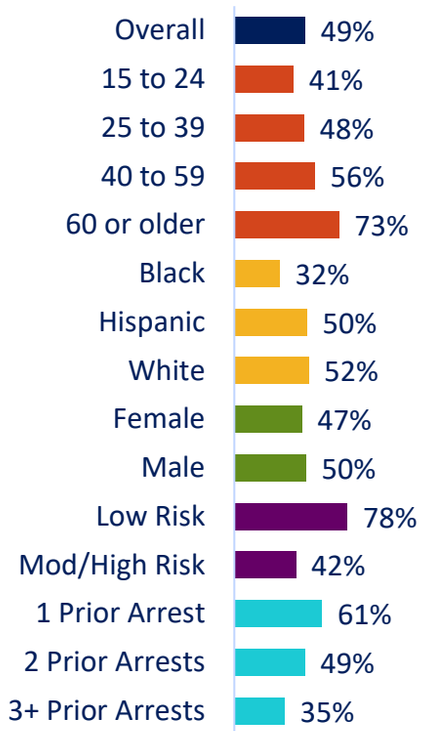


Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Participants who were high risk and Black have lower graduation rates.

Graduates and non-graduates of treatment courts were analyzed for differences in participant characteristics. The factors most strongly related to graduation status were **risk level,** number of **prior arrests** and **race**. Participants assessed as low to low-moderate risk were more likely to graduate (78% of low risk participants graduated, compared to 42% of those assessed as moderate to high risk). Participants with 1 or 2 arrests in the two years prior to entry (another indicator of risk) were more likely to graduate than those with 3+ arrests. Additionally, participants who were Hispanic and White were more likely to graduate than participants who were Black. Finally, participants over the age of 40 at program entry had higher graduation rates than younger participants.

Figure 16: Graduation Rate by Participant Characteristics – All Court Types



Recommendations: Statewide Graduation Rates

Participants who are lower risk (which includes a less extensive criminal history) tend to have fewer risk factors (criminogenic needs) and therefore typically already have the tools they need to complete court requirements. In contrast, those who are higher risk have multiple criminogenic needs and require more intensive interventions. The lower graduation rates for ATCs and MHCs, court types that typically have a higher proportion of high risk participants with extensive service needs, coupled with the graduation rates that vary based on participant characteristics points to the need for individualized case planning based on detailed assessment results. Individualized case plans that match participants to services based on their individual needs increase the probability that a participant will successfully complete the program. In particular, case plans that integrate treatment, supervision and other treatment court requirements into a single plan with individualized attainable goals for each participant, and that take into account each participants individual responsivity factors (such as individual cognitive abilities, medical health, housing and family situations) support the ability of each participant to accomplish program requirements. It is recommended that Colorado PSCs receive training in risk and need assessments and individualized integrated case planning and work toward implementing program protocols that incorporate individualized case planning for their participants.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Colorado Problem Solving Courts Outcome Evaluation

An outcome evaluation assesses the relationship between participation in problem solving court (PSC) and rearrests or other associated outcomes, such as reincarceration, compared to standard court processing. The following analyses included **7,278 PSC participants** who entered one of Colorado's **59 problem solving courts between January 2009 and June 2015** and 6,603 comparison group members. Statewide and local administrative criminal history data were obtained for this study, including court filings, incarceration, supervision, and treatment data. For ATC and DUI court participants, a comparison group was selected from individuals with a court case filing that were eligible to enter a PSC, but who received standard court processing for their charge(s). Comparison group members were matched based on demographics (age, race, gender), prior criminal history, index or instant offense type, prior substance use disorder treatment, and jurisdiction. Due to a lack of available information about mental health disorders and military status in the public record, there were no equitable comparison groups available for MHC and VTC participants. More details about data sources and the comparison groups are presented in later sections of this report and in Appendix C.

Criminal History

The table below describes the criminal history (from court filings) of Colorado's PSC participants by court type (Denver ATC is separated from all ATCs due to its size). The number and types of crimes for which participants were arrested in the two years prior to program entry varied by court type. For purposes of this report, "arrest" refers to an offense ultimately resulting in a new case filing (regardless of case disposition); each arrest may have more than one charge associated with the event. Most participants were arrested at least twice in the two years prior to program entry, however DUI courts had slightly lower numbers. ATC and DUI participants usually had at least one drug or DUI-related offense, whereas MHC and VTC participants were more likely to have a person offense (e.g., assault) in their recent history. With the exception of DUI participants, most participants were arrested for approximately one felony offense.

Table 1: Criminal History of PSC Participants

	Adult ATC (excl. Denver)	Denver ATC	DUI	MHC	VTC
Number of Participants	3,049	2,527	1,027	281	394
Prior Arrests (2 years before program entry)					
Average (*SD*)	2.5 (1.9)	2.3 (1.8)	1.6 (1.0)	2.3 (1.9)	2.0 (1.6)
Median	2.0	2.0	1.0	2.0	1.0
Range	0 to 17	0 to 16	0 to 9	0 to 11	0 to 11
Prior Arrests by Charge Type[a]					
Arrests with a **person** charge	0.5	0.1	0.2	1.0	0.9
Arrests with a **property** charge	0.9	0.5	0.1	0.9	0.5
Arrests with a **drug** charge	0.8	1.2	0.0	0.2	0.2
Arrests with a **DUI** charge	0.2	0.1	1.1	0.1	0.4
Arrests with **other** charge	1.0	0.8	0.7	0.9	0.7
Prior Arrests by Charge Class[a]					
Arrests with a **misdemeanor** charge	1.9	2.0	1.5	1.8	1.7
Arrests wit a **felony** charge	1.4	1.3	0.1	1.1	0.9

Note. Unless otherwise noted, sample sizes in subsequent pages reflect the number of individuals listed in this table. The comparison group was matched on a 1:1 basis, therefore the sample size for each respective comparison group is equal to the size of the PSC group. [a]Average number of arrests 2 years prior to program entry. Arrest types are not mutually exclusive, as each arrest can have more than one charge type.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Review NADCP's Best Practice Standards to ensure fidelity to the treatment court model

KEY FINDING: Participating in an adult Drug or DUI problem solving court does not reduce the number of new arrests in the 3 years following program entry. Graduates of PSC were rearrested less often than non-graduates and had similar recidivism rates as those that did not participate in PSC.

PSC participants and comparison group members were followed for a period of 3 years after entering treatment court (or equivalent for comparison group). The percent of individuals arrested for a new offense varied by court type (Figure 17). In ATCs, more than half of all participants were rearrested in the three years following program entry. DUI participants had the lowest recidivism rate at 29%. A significantly larger proportion of ATC and DUI participants were rearrested, relative to their matched comparison groups. The recidivism rate for MHC and VTC participants was 52% and 44%, respectively. Notably, graduates of PSCs had similar recidivism rates as the comparison group (not depicted). At three years post-entry, the recidivism rate for ATC (excluding Denver) graduates was 39%, compared to 42% in the comparison group, and for DUI graduates the rate was 23% versus 23% in the comparison group.

As shown in Figure 18, the average number of rearrests at 3 years post entry was about 1 new arrest (except for DUI participants, who averaged less than 1 rearrest). Notably, Denver ATC participants exhibited a 70% increase in the number of rearrests, relative to the comparison group. Although not directly comparable, MHC and VTC participants had a similar number of average rearrests as the ATC comparison group.

Figure 17: Percent Rearrested 3 Years Post Entry

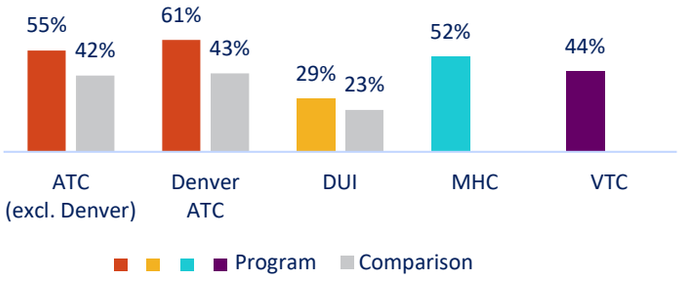
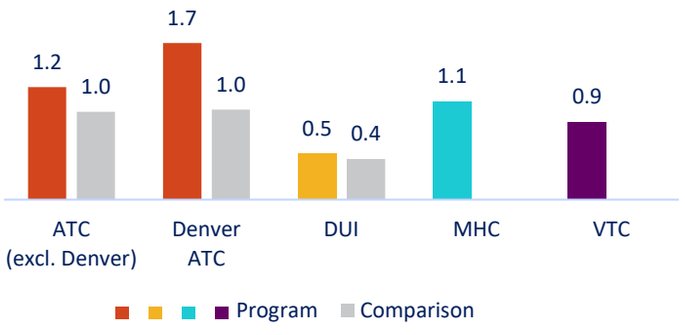


Figure 18: Average Number of Rearrests 3 Years Post Entry



It is likely that one of the reasons for the larger number of rearrests for PSC participants is due to a "surveillance effect" where individuals who are under more intense scrutiny and more intense supervision requirements are more likely to get caught engaging in non-compliant behavior. This is discussed in more detail later in this document.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Ensure PSC participants receive equitable sentences

KEY FINDING: PSC participants are under supervision two to three times as long as non-participants.

It is important to note that PSC participants and their respective comparison groups did not experience the same level of supervision during the observation period. A common phenomenon associated with treatment courts is the *surveillance effect*. With increased surveillance of one group (such as PSC participants), an observed increase in the number of violations or offenses does not necessarily indicate this group is engaging in more criminal behavior than the comparison, but may indicate the supervision officers are better able to detect noncompliant behavior. Further, due to PSC requirements being more intensive than traditional probation, there are more potential non-compliant behaviors to engage in. As illustrated in the graphs below (Figures 19 and 20), PSC participants were usually under supervision for two to three times longer than comparison group members.[1] The chart below represents time spent participating in treatment court, as well as time under supervision post-exit.

Figure 19: Average Number of Days on Probation 3 Years Post Entry

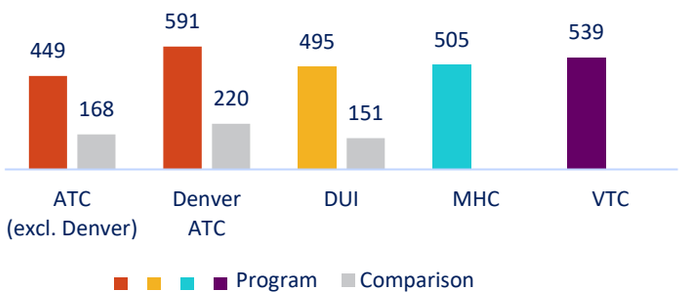
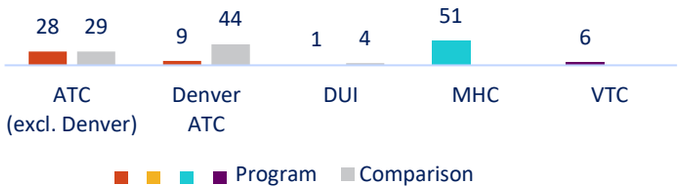


Figure 20: Average Number of Days on Parole 3 Years Post Entry



KEY FINDING: PSC participants spent similar amounts of time incarcerated as non-participants.

Researchers also examined whether there were any differences in reincarceration for PSC participants and the comparison groups post PSC entry. Information from every county jail was not available, so estimates were created using data from Denver, Fremont, Jefferson, Larimer, and Otero counties. (Note that any days incarcerated as a result of PSC program sanctions were removed from these analyses.) Time incarcerated varied by court type, but on average, PSC participants spent anywhere from one week to about 4 months incarcerated in the 3 years following program. With the exception of Denver ATC, most PSC participants spent a similar amount of time incarcerated as comparison group members (on average, the Denver ATC comparison group was incarcerated two months longer than PSC participants, see Appendix C for more info).

DUI and VTC participants spent very little time incarcerated (about two weeks or less over a 3 year period), and importantly, DUI recidivism rates for PSC participants were roughly equivalent to the comparison group. This indicates that DUI courts are at least as effective as the traditional court system in responding to DUI offenders, while using fewer resources. This is explored further in the cost analysis section of this report.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Recommendations: Statewide Recidivism

Overall, Colorado PSC participants have higher recidivism than comparison group members who experience traditional court processing and probation. Evidence from the data showed that PSC participants spent more time on probation, had more intensive requirements, and higher expectations for PSC activities than those on standard probation. This provides some indication that the higher recidivism numbers may be due to a *surveillance effect* if the surveillance results in observing participants engaging in new crimes that result in an arrest. There appears to be a standard, or expectation, across most PSCs in Colorado that participation in the PSC results in an extensive probation sentence. Colorado may want to look into whether PSC participants are receiving a more punitive or extensive sentences if they choose to enter a PSC.

Although the recidivism rate varied by court type, as expected based on the relationship between risk levels and recidivism, across all PSCs one of the factors most strongly related to recidivism was PSC completion status. PSC graduates were more likely to be lower risk and were less likely to be rearrested for a new offense in the three years following program entry than terminated participants. Those with 2 or more prior arrests and younger participants (both of which are indicators of higher risk) were less likely to graduate and more likely to be rearrested.

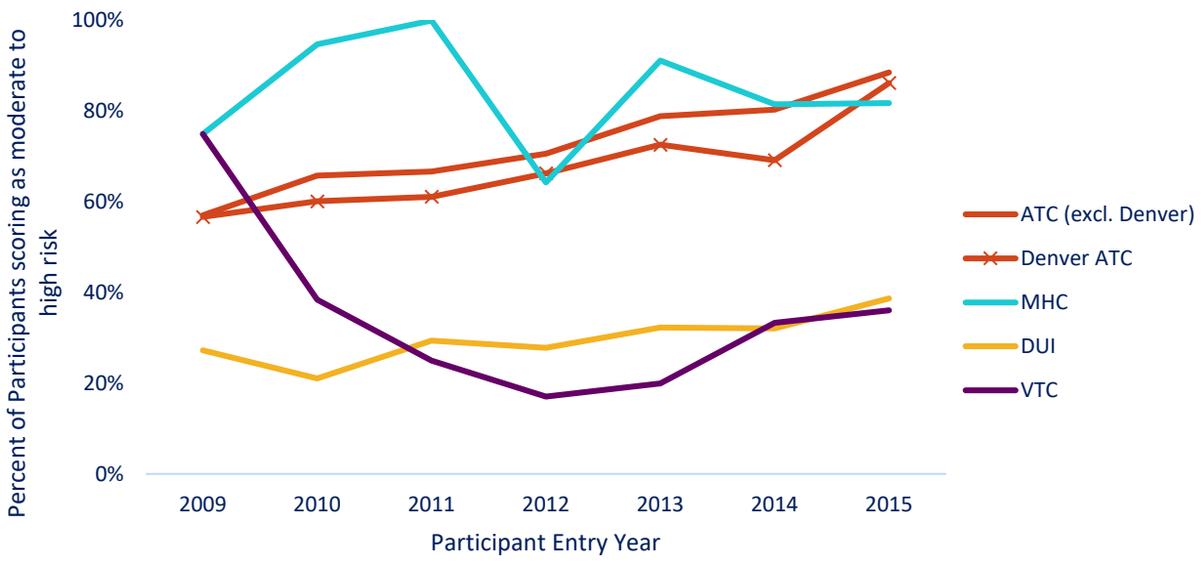
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Colorado's Problem Solving Courts should focus on risk-need-responsivity to increase graduation rates and decrease recidivism.

KEY FINDING: Over time, Colorado's ATCs have increased the proportion of higher risk participants. As risk levels increase, graduation rates decrease and recidivism rises.

Figure 21 provides the percent of participants who score as moderate to high risk in each PSC type according to entry year. This figure shows that adult drug treatment courts (ATC) and DUI courts show a steady trend of increasing the number of higher risk participants over time. ATCs increase from a little over 50% moderate to high risk participants in 2009 to over 80% in 2015. Similarly, DUI courts had roughly 20% higher risk participants in 2009-2010 and by 2015 had nearly doubled that amount. If the ATCs and DUI courts have not adjusted their services to address the increasing criminogenic needs of their participants, this may have been a contributing factor to the less positive outcomes for both types of PSCs. In contrast, MHCs and VTC participant risk levels have varied over time. MHCs ranged from a low of 60% moderate to high risk participants to nearly 100% at various time points, while VTCs began with nearly 80% moderate to high risk and dipped down below 20% then up to around 30% by 2015. These varying numbers may be a function of the small caseload from year to year in those programs.

Figure 21: Change in PSC Participants Risk Level over Time



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: In all PSC's, as risk scores increase, graduation rates decrease and recidivism increases.

Figures 22 through 26 demonstrate the clear correlation between risk level, graduation rates, and recidivism for Colorado's PSCs. As risk levels increase, graduation rates decrease and recidivism rates increase, regardless of the PSC type.

Figure 22: ATC Graduation Rates, Recidivism Rates, and Percent of Moderate to High Risk Participants

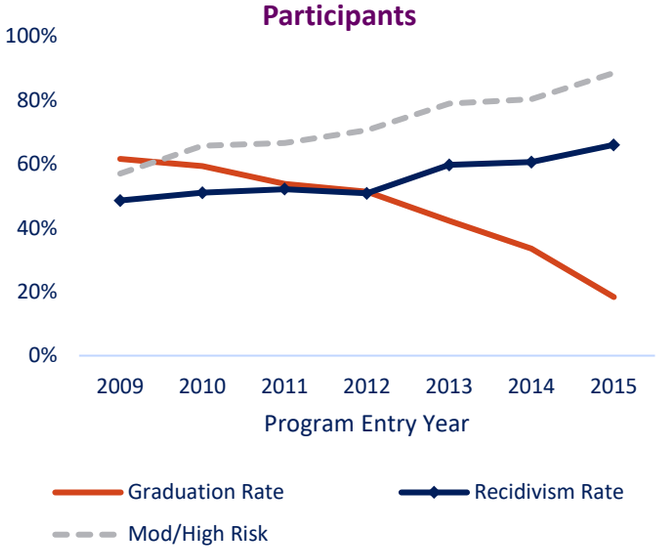


Figure 23: Denver ATC Graduation Rates, Recidivism Rates, and Percent of Moderate to High Risk Participants

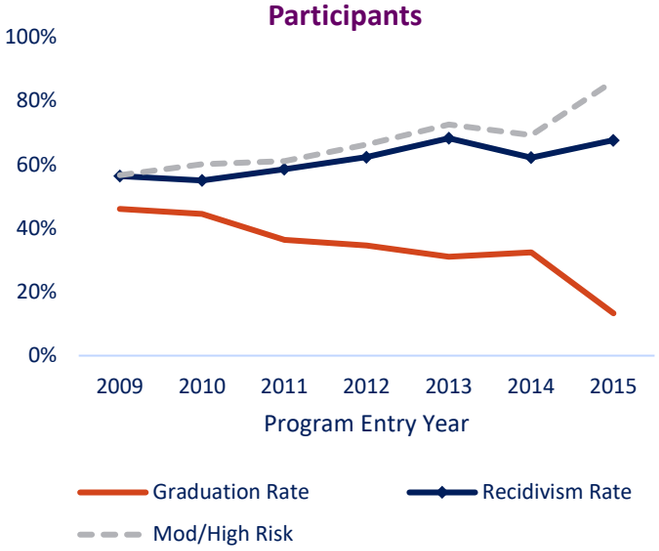
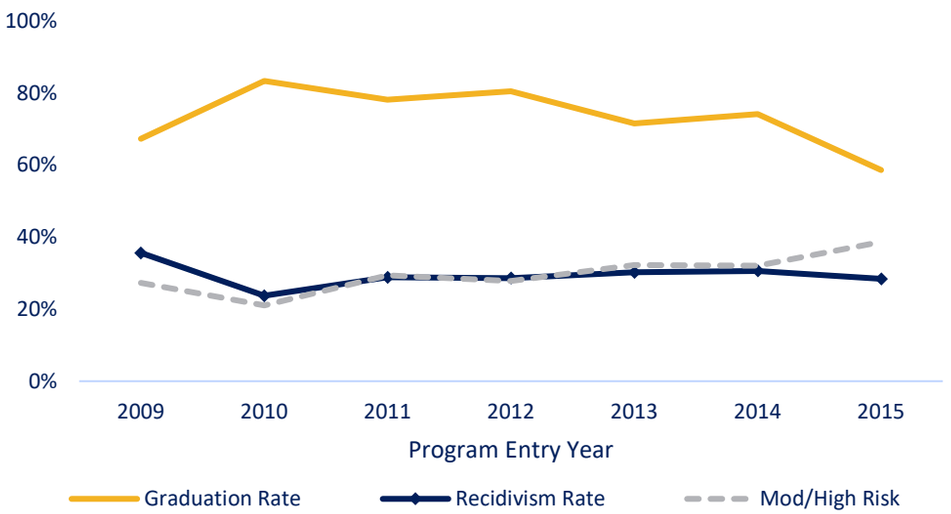


Figure 24: DUI Graduation Rates, Recidivism Rates, and Percent of Moderate to High Risk Participants



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Figure 25: MHC Graduation Rates, Recidivism Rates, and Percent of Moderate to High Risk Participants

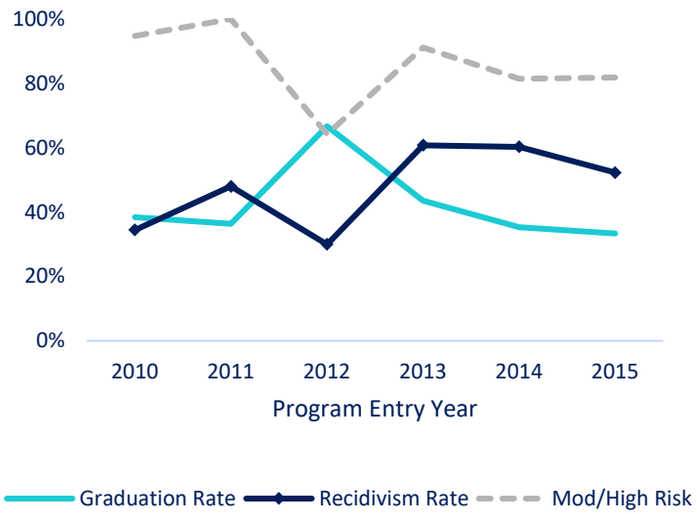
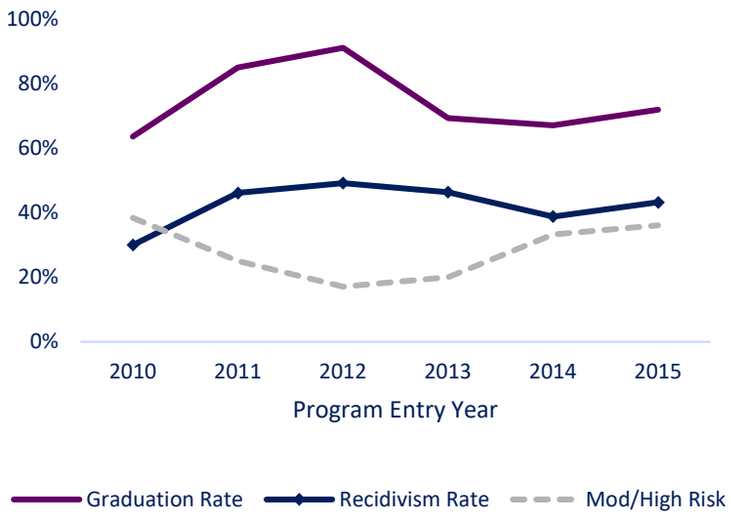


Figure 26: VTC Graduation Rates, Recidivism Rates, and Percent of Moderate to High Risk Participants



Recommendations: Trends Over Time

As risk levels increase, graduation rates decrease and recidivism rates increase, and as risk levels decrease, graduation rates increase and recidivism decreases, regardless of the type of PSC. These findings demonstrate the importance of implementing appropriate risk need responsivity in Colorado's PSCs with increased focus on responsivity factors to help participants engage in program activities and requirements. In addition, implementing tracks according to risk and need levels, and creating individualized case plans based on risk and need assessment results will help "flatten the curve" for higher risk participants, increasing PSC success rates with higher risk participants.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Overview: Colorado PSC Cost Evaluation

NPC conducted cost analyses of four ATCs and one DUI court in Colorado to assess the cost of the programs, and the extent to which program costs are offset by any cost-savings related to participant outcomes.

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

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

NPC based cost analyses on a cohort of adults who participated in each program and a matched comparison group of individuals who were eligible for the programs at the time of arrest, but who did not attend. These individuals were tracked through administrative data for 3 years post program entry (and a similar time period for the comparison group). This study compares recidivism costs for the two groups over 3 years, as well as the costs by agency.

NPC researchers collected cost data for transactions experienced by program participants and the comparison group members and separated them into **program costs** (costs related to participation in the program) and **outcome costs** (costs for criminal justice related events that occurred outside of the program or after program entry). Program costs were assessed in the 5 focus sites, where detailed administrative data on program activities as well as detailed cost information could be gathered. Costs for outcome transactions (e.g., rearrests, time on probation, new court cases) used data from both statewide and local datasets. All costs are only for the 5 focus sites.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Average cost of a PSC program came to $14,193 per participant

The program costs were those associated with activities performed with participants within the program. The program-related "transactions" included in this cost analysis were court sessions (including pre-court staffing meetings and any time spent preparing for the court session), case management, drug treatment, drug tests, jail sanctions, and program fees.

The following two pages display the average cost of each program transaction per participant across the 5 sites, as well as the total cost of the program per participant. Costs are presented as an average per PSC participant, and per PSC graduate (to demonstrate the cost for those who participate in all services through program completion). **For detailed information on the cost analysis methodology and how costs were obtained, as well as site specific costs, please see Appendix D.**

KEY FINDING: The majority of program costs are attributable to court sessions and treatment.

Table 2 displays the average unit cost per program related event (or "transaction") across the 5 study sites. Unit costs are the costs per event, such as the cost for a single court session or the cost for a single day of case management. Unit costs are multiplied by the number events (such as the total number of court sessions that a participant attends during the course of the program) to calculate the total cost per transaction. Table 2 provides the average cost per transaction per PSC participant across the 5 focus sites. The cost per PSC graduate is also provided. PSC graduates are a distinct group as they experience the full services provided by the program. The PSC participant column includes both graduates and non-graduates combined. It is important to include non-graduates in this analysis as all participants use program resources, whether they graduate or not.

Table 2. Average Program Costs per PSC Participant by Transaction

Transaction	Average Unit Cost	Average Cost per PSC Graduate	Average Cost per PSC Participant
Court Sessions	$207	$7,572	$5,832
Case Management Days	$6	$2,957	$2,392
Treatment	N/A	$4,678	$4,445
UA Drug Tests	$11	$1,170	$870
Jail Sanctions	$103	$380	$714
Program Fees	($60)	($60)	($60)
Total		**$16,697**	**$14,193**

The bulk of PSC program costs can be attributed to court sessions and treatment, with case management also a significant cost. The range of transaction costs across the 5 study sites varies widely for court sessions (from $1,617 up to $13,799), while the cost of treatment is in a much more narrow band ($3,030 to $6,035). Unit costs also varied widely including the cost per day of case management ($3 to $15) as well as the cost per drug test ($7 to $15) and the cost per jail sanction day ($58 to $186). Only one study site had program fees, which are subtracted from the total program cost. The average costs per PSC graduate are higher than the average cost per PSC participant for every transaction except for jail sanctions. When the average costs of the transactions are summed the result is a total PSC program cost per participant of $14,193. The average cost per PSC graduate is $16,697.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: The district court and treatment agencies provide the most resources to the PSC program.

Table 3 displays the average cost per PSC participant and the average cost per PSC graduate by agency instead of by transaction. The table also includes the range of costs that accrue to each agency across the 5 study sites (for all PSC participants only).

Table 3. Average Program Costs per PSC Participant by Agency

Agency	Average Cost per PSC Participant	Cost Range per PSC Participant	Average Cost per PSC Graduate
District Court (including Probation)	$6,233	$2,680 - $12,645	$8,064
District Attorney's Office	$428	$165 - $1,355	$487
Public Defender's Office	$511	$445 - $992	$659
Sheriff's Office	$891	$412 - $1,357	$639
Treatment Agencies	$5,657	$4,657 - $7,422	$6,296
Law Enforcement	$271	$329 - $1,026	$355
Alternative Sentencing	$203	$0 - $1,014	$197
Total	**$14,193**	**$9,333 - $23,193**	**$16,697**

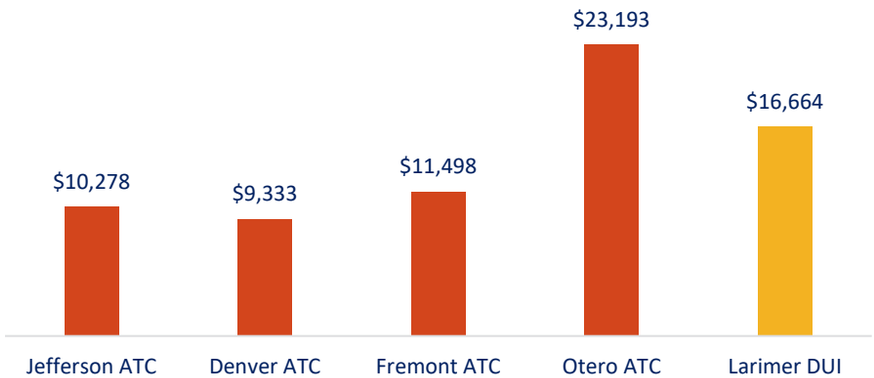
The District Court (which includes Probation) and treatment agencies bear the vast majority of PSC program costs. The range of costs that accrue to each agency varies from $2,680 to $12,645 for the 5 District Courts in this study, but again, the costs accruing to treatment agencies are in a much narrower band across the 5 study sites. Costs accruing to every other agency also show significant variance, but at much lower overall total costs than the total costs that accrue to the District Court and treatment agencies. Because they typically spend a longer period of time in the program than all PSC participants, there are higher costs for PSC graduates that accrue to every agency except the Sheriff's Office (due to fewer jail sanction days for PSC graduates) and Alternative Sentencing (note that only one site included Alternative Sentencing on the PSC team).

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Total Program Cost per PSC Participant varies widely across programs.

The total program cost per PSC participant varies widely by site from just over $9,000 to over $23,000. This variation can be attributable to large number of factors from the cost of drug tests to the participation of more or fewer team members, to differing team member salaries. An examination of these figures also allows a comparison of the agencies who support the treatment court in each site. For example, although Fremont has no attorneys participating on the team, the overall cost of the Fremont ATC is not lower than some of the other PSCs due to more time spent in court per participant and due to more intense treatment services. Otero has substantially higher costs than the four other treatment courts due to a significantly higher cost per court session. Otero has more team members than the other PSCs, and while the number of participants is relatively small, substantial time is spent with each participant during court sessions.

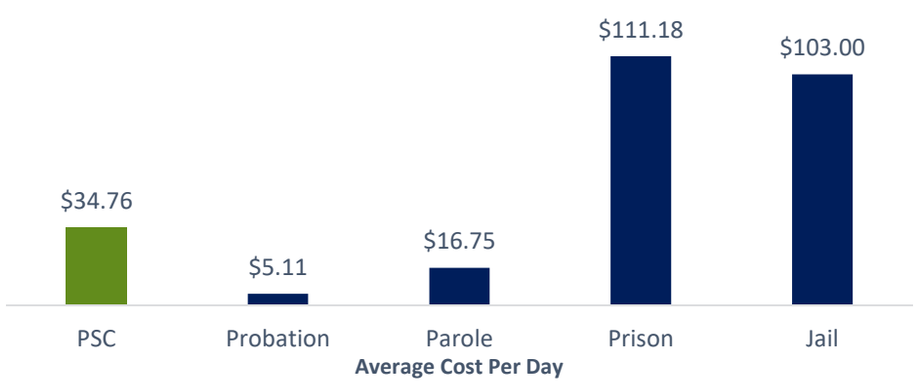
Figure 27: Average Program Costs per PSC Participant by Site



KEY FINDING: PSC cost per day is less than three times less than the cost per day of incarceration.

The average cost per day was calculated per PSC participant across the 5 study sites. For comparison, the cost per day of other common sentences that occur for individuals with the same charges is provided, including the cost per day in Colorado for probation, parole, and prison, as well as the average cost per day of jail across the 5 study sites. The average cost per day for problem solving court participation is higher than the cost per day of probation and parole, though not substantially. In contrast, the cost per day of prison and jail is three times the cost of problem solving court.

Figure 28: Average Costs Per Day of Problem Solving Court Versus Business-As-Usual Alternatives



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Total cost of recidivism for PSC participants is less by $1,999 than the cost for matched comparison individuals

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include rearrests, district court cases, days incarcerated (jail and prison), and time on probation and parole.

KEY FINDING: Prison costs for PSC participants are over $3,000 less than the cost for comparison individuals.

Table 4 shows the unit cost for the outcome transactions as well as the average cost per outcome transaction per individual for all PSC participants (regardless of graduation status), PSC graduates, and the comparison group over 3 years. These costs are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups).

Table 4. Average Outcome Costs per Person over 3 Years from PSC Program Entry

Recidivism Related Events	Average Unit Cost	Average Outcome Cost (per person)		
		PSC Graduates	PSC Participants	Comparison Group
Rearrests	$162	$95	$205	$163
Court Cases	$1,566	$927	$2,014	$1,821
Probation Days	$5	$1,330	$1,369	$896
Parole Days	$17	$6	$310	$593
Jail Days	$103	$1,267	$5,802	$4,857
Prison Days	$112	$93	$4,371	$7,740
Total		**$3,718**	**$14,071**	**$16,070**

Table 4 displays the costs associated with outcomes that occurred in the 3 years after program entry for PSC graduates, all PSC participants (graduates and non-graduates combined) and the comparison group across the 5 study sites with the final total providing the average costs for all events from program entry to 3 years after program entry. The final total for all PSC participants subtracted from the total for the comparison group shows the difference in the outcome costs between all PSC participants and the comparison group is $1,999 per participant, indicating that PSC participants cost less than the comparison group. This difference demonstrates a benefit, or savings, related to PSC participation, due entirely to fewer days incarcerated for PSC participants. Graduates of the 5 PSC programs show "savings" compared to the comparison group (a savings of $12,352); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of a mixed population of individuals who would have graduated and those who would have terminated prior to graduation.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: The Department of Corrections gains the "savings" related to PSC participation.

The outcome costs were also examined by agency to determine the relative benefit to each agency involved in the criminal justice outcomes measured in this study. The resources related to the transactions shown in the previous table are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the District Court, District Attorney's Office, and Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table 5 provides the average cost for each agency for all PSC participants, PSC graduates, and the comparison group per person across the 5 study sites.

Table 5. Average Outcome Costs per Person over 3 Years from PSC Program Entry

Agency	Average Outcome Costs per PSC Graduate	Average Outcome Costs per PSC Participant	Average Outcome Costs per Comparison Person	Difference in Cost (Savings)
District Court	$278	$634	$607	($27)
District Attorney's Office	$341	$704	$613	($91)
Public Defender's Office	$308	$676	$601	($75)
Probation	$1,330	$1,369	$896	($473)
Law Enforcement	$95	$205	$163	($42)
Sheriff's Office	$1,267	$5,802	$4,857	($945)
Department of Corrections	$99	$4,681	$8,333	$3,652
Total	**$3,718**	**$14,071**	**$16,070**	**$1,999**

Total recidivism related outcome costs ranged across sites from $4,197 to $20,368 per individual for PSC participants and from $7,260 to $27,087 for the comparison group. The bulk of PSC participant outcome costs accrue to the Sheriff's Office and then the Department of Corrections, while for the comparison group the bulk of outcome costs accrue to the Department of Corrections and then the Sheriff's Office. For PSC graduates, Probation is the agency that accrues the highest outcome cost, followed by the Sheriff's Office. No agency appears to benefit from savings associated with PSC participation with the exception of the Department of Corrections, which sees a large savings due to PSC participants spending less time incarcerated.

KEY FINDING: Time between arrest to PSC entry leads to additional costs to the system of $2,886 per participant.

Another best practice related to more positive participant outcomes is the time between the original qualifying arrest or event to the time of program entry. The best practice is for participant to enter within 50 days of that event. An examination of the data for each of the focus sites showed that on average, the time from arrest to entry was 168 days (ranging from 97 to 338 days), well over the best practice time period. That time period affords participants the opportunity to engage in additional criminal activity and use criminal justice resources (such as new arrests and jail time) while not engaging in the benefits of treatment court services. Costs due to new arrests and jail days at these focus sites during that arrest to entry time came to an average of $2,886.60 per participant (ranging from $664 to $7,613 across the five sites). More detailed information on cost from arrest to entry for each focus site can be found in Appendix D (the cost appendix).

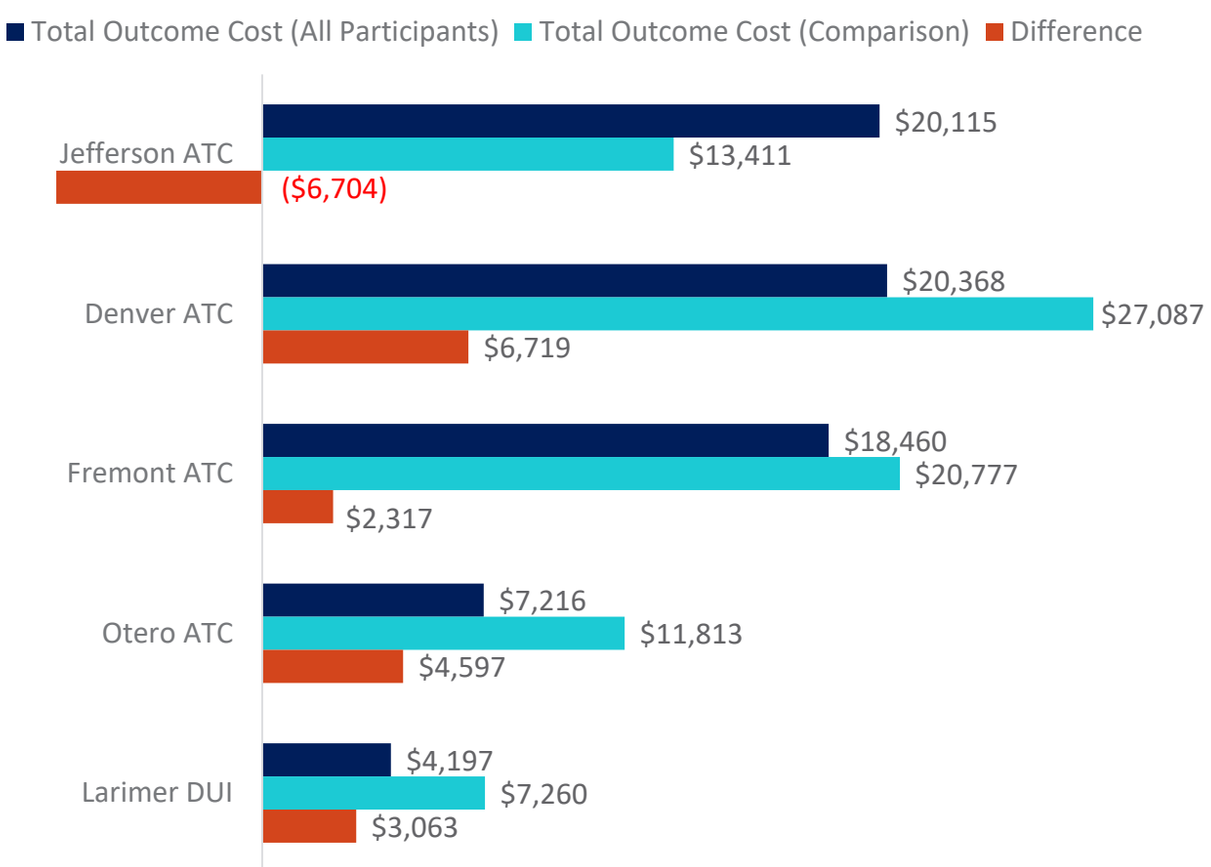
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Recidivism related cost impacts vary across individual problem solving courts

KEY FINDING: Four of the five focus sites experienced "savings" related to PSC participation.

Figure 29 illustrates the average outcome cost per person over 3 years per PSC participants (the dark blue bars) and comparison group members (the turquoise bars) at each of the five study sites. The difference between the outcome costs for participants and the comparison group (the total savings or loss per person) is illustrated with the red bars. Despite the statewide recidivism findings of more rearrests for for the ATCs and DUI court participants on average across the state, four of the five focus sites demonstrate a cost savings related to participants outcomes, almost entirely due to less use of prison resources (fewer days in prison) for PSC participants. In addition, participants at two of the five focus sites (Otero ATC and Larimer DUI Court) both showed slightly reduced recidivism compared to their comparison group. This small decrease in rearrests at these two sites resulted in a much larger reduction in the use of other criminal justice system resources, including less court resources, and substantially less incarceration costs.

Figure 29: Average Outcome Costs per Person over 3 Years from PSC Program Entry



Recommendations: Cost Evaluation

The average cost per participant of the Colorado PSCs that were included in the cost evaluation was $14,193. However, costs varied widely by site according a large number of varying cost factors including team composition, team member salaries, time spent in staffing and court, the cost of supplies like drug tests and the number of days participants spent in jail as a sanction. Colorado's PSC programs may benefit from re-implementing regular peer reviews where team members from one PSC can share tips about where to find less expensive supplies (e.g., lower-priced drug tests) and program efficiencies as well as support each other in implementing research based best practices.

Recidivism related outcome costs also varied by PSC site and the results showed that, even when PSCs do not decrease recidivism, they may still experience cost-offsets (or savings) due to less use of expensive resources such as prison time. (Please see detailed results for each site in Appendix D). Although four of the five focus sites demonstrated cost savings in recidivism related outcomes, these savings over the three year outcome period were not large enough to result in a return on program investment. However, as Colorado PSCs increase their implementation of best practices, particularly the use of risk and clinical need assessments to develop individualized case plans that match participants with the most appropriate services, participant success rates should increase and recidivism should decrease, resulting in additional cost savings.

Costs related to time between arrest and entry into PSCs came to an average of $2,880 per participant. Colorado's PSCs should look into options for decreasing the time between arrest and PSC entry. Although much of the time that process is not under the control of the PSC, good partnerships with the agencies involved in the identification and referral process of potential participants can help expedite the process within each of those agencies, decreasing the days between arrest and entry a little bit at a time.

ADULT TREATMENT COURTS

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Develop separate tracks for participants and different risk and need level and engage in regular training on effective responses to participant behavior

KEY FINDING: The ATC graduation rate is lower than the national average of 59%.

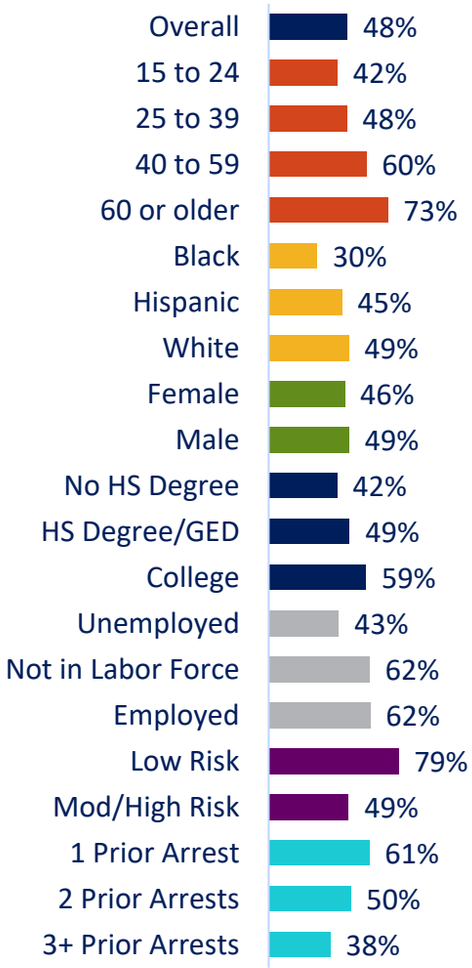
The following results are for all ATCs (except Denver).* There were 26 adult treatment courts included in this analysis, with a total of 2,596 participants. The average graduation rate for ATC participants was 48%, which is lower than the national average (59%) for adult drug treatment courts.

KEY FINDING: Lower risk participants were more likely to graduate from the program than moderate to high risk participants.

An exploration of graduates and non-graduates showed several characteristics related to the likelihood of graduating. Figure ATC-1 shows graduation rates by participant characteristic. Participants who were **older, White**, had at least **some college**, and were **employed** at entry, had higher graduation rates. In addition, those who assessed as **low risk** at entry (about 30% of ATC participants) had higher graduation rates.

Graduates of the program also tended to have fewer prior arrests (an indication of lower risk level) in the two years before program entry (2.1 vs. 2.8 for non-grads). Controlling for all other factors, participants assessed as **lower risk** were more likely to graduate. Sixty-seven percent of participants who were assessed as low to moderate risk graduated, compared to 35% of participants who were assessed as moderate-high to high risk.

Figure ATC-1: ATC (excl. Denver) Graduation Rate by Characteristic



67%
Of Low to Moderate Risk Participants Graduated

VS.

35%
Of Moderate-High to High Risk Participants Graduated

* As noted earlier in this report, the Denver ATC is large, serving approximately half of all CO ATC participants. Furthermore, the graduation rates and demographic characteristics of participants are different from those of most other ATCs.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Colorado's ATCs meet best practices for frequency of court hearing and drug tests.

We compared differences in program activities for graduates and non-graduates. Both graduates and non-graduates attended an average of 2 status review (court) hearings per month during the first 3 months of the program--consistent with best practice research. Figure ATC-2 shows the average number of court hearings attended throughout program participation for graduates and non-graduates. Further, best practices research indicates participants should be tested for the presence of drugs at least twice per week (or about 8 times per month) throughout their participation in treatment court. Graduates were tested about 8 times per month and non-graduates were tested about 7 times per month (Figure ATC-3). In addition, research in best practices in treatment courts, as well as in substance use disorders in general, indicates that at least 90 days consecutive sobriety is related to a higher likelihood of long-term recovery, as well as substantially lower criminal justice recidivism. For Colorado's ATCs, the median length of time from the last positive drug screen to participant graduation was 113 days, well over the 90 day best practice.

Graduates missed drug tests or tested positive for the presence of drugs in about 22% of all tests administered during the first 3 months, whereas non-graduates missed or tested positive for 55% of all tests. Given the relatively low graduation rate overall plus the high percentage of missed and positive screens, this may indicate a need for ATCs to focus on participant engagement and in appropriate treatment levels and modality.

Figure ATC-2: Average Number of Court Hearings Per Month

Best Practices: at least 2 per month in first phase

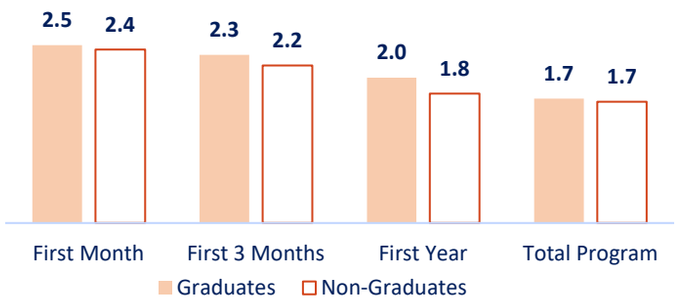
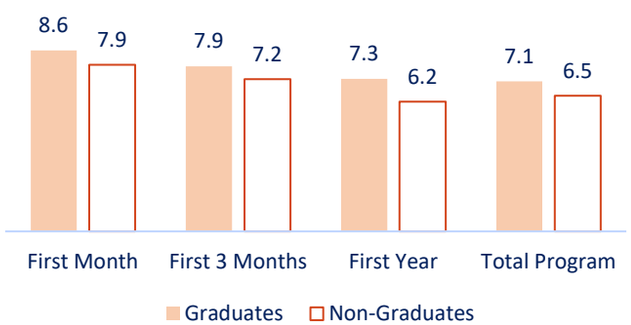


Figure ATC-3: Average Number of Drug Tests Per Month

Best Practices: 8 per month

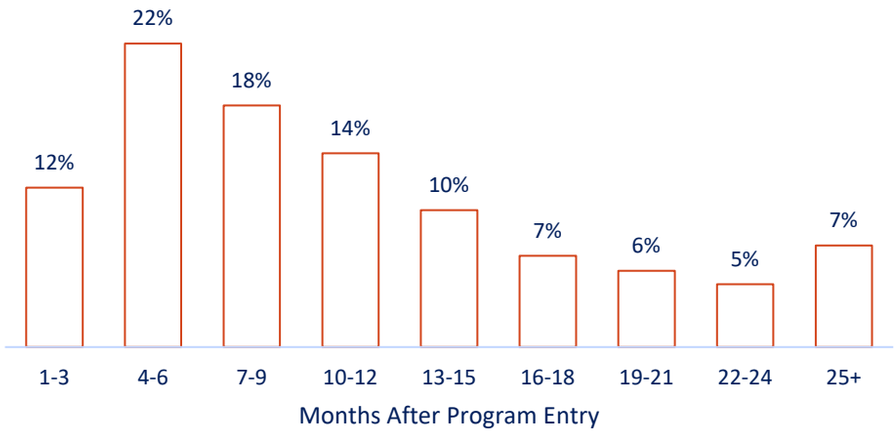


Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: One-third of non-graduates were terminated from the ATC within the first 6 months of program participation, primarily in the second quarter.

An examination of when the most participants were terminated from the ATC programs reveals that termination happens most frequently in the second quarter of program (Figure ATC-4). The ATCs may want to examine their expectations of high risk high need participants to ensure that those expectations are realistic for individuals with high criminogenic and clinical needs and that participants have been given the tools necessary to meet those expectations at that point in the program.

Figure ATC-4: Percent of Participants Terminated by Months in Program



Recommendations: ATC Graduation Rates

Analyses revealed that participants with **lower rates of positive drug screens** and those assessed as **lower risk** were more likely to graduate. This indicates that, similar the recommendations for PSCs overall, CO ATCs would benefit from individualized case planning with a focus on services appropriate to those with intensive criminogenic needs, as well as education and guided practice in effective team responses to behavior based on individual participant characteristics and context, much of which can be gathered from participant assessment results.

Given that ATCs accepted participants at multiple risk levels (30% of participants assessed as low risk on the LSI) and that no ATCs reported having multiple tracks for participants at different risk and need levels, Colorado ATCs should consider focusing on developing tracks in their programs to address participant individualized risks and needs. Incorporating appropriate risk need responsivity (RNR), and including ASAM clinical criteria that addresses participant basic human needs and individual abilities, would help Colorado's ATCs to increase participant success rates.

In addition, an examination of CO ATC graduation rates and best practices showed that ATCs that had an advisory committee that included community members had substantially better graduation rates than those that did not. Outreach to members of the community can also be particularly helpful as a sustainability strategy.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

ATC Recidivism Analysis

The following analyses included **3,049 adult treatment court participants** who entered one of **26 ATC programs** (excluding Denver ATC) between 2009 and 2015 (regardless of completion status) and 3,049 comparison group members. The comparison group was selected from individuals with case filings that would have otherwise made them eligible to enter ATC, but who received traditional court processing for their offense(s). The comparison group was matched to ATC participants based on gender, race, age, criminal history, and arresting jurisdiction (no statistically significant differences).

About two out of three ATC participants were male, nine out of 10 were White, and the average age at program entry was 41 years. In the two years prior to program entry (or equivalent for the comparison group), ATC participants had an average of 2.5 arrests (median = two arrests). In both groups, prior arrests usually included at least one drug offense and one felony. The two groups were not matched on risk due to lack of available risk information for the comparison group. The table to the right shows the demographics and average number of prior arrests for both groups.

Table ATC-1: Demographics and Criminal History of ATC Participants and Comparison Group

	ATC	Comparison
N	3,049	3,049
Age	31 years	31 years
Male	64%	66%
Female	36%	34%
Black	4%	4%
Hispanic	5%	5%
White	90%	89%
Other Race	2%	2%
2 Year Prior Arrests (Any)	2.5	2.4
2 Year Prior Drug Arrests	0.9	0.9
2 Year Prior Felony Arrests	1.4	1.4

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Colorado's ATCs should review whether time on probation is leading to increased charges due to surveillance effects

KEY FINDING: participating in ATC does not reduce the number of new arrests in the 3 years following program entry, although there is variation across programs.

Analyses were conducted to determine if ATC participants were rearrested (had new case filings) at different rates than individuals who experienced the traditional court process, controlling for gender, age, race/ethnicity, criminal history, and the year participants entered the program. At three years post program entry, 55% of all ATC participants were rearrested for at least one offense, compared to 42% of the comparison group (a 31% increase in recidivism). The average number of rearrests at 3 years post program entry was 1.2 for the program group and 1.0 for the comparison (a 32% increase in the number of rearrests, holding all other factors constant). Figure ATC-5 shows the percent of graduates, all ATC participants (including actives), and the comparison group rearrested for any offense. Graduates (*n*=1,249, the light peach bar) are included for descriptive purposes only and should not be compared directly to the comparison group, as there is not a similar completion status for comparison group members.

Figure ATC-5: Percent Rearrested for Any Offense over 3 Years

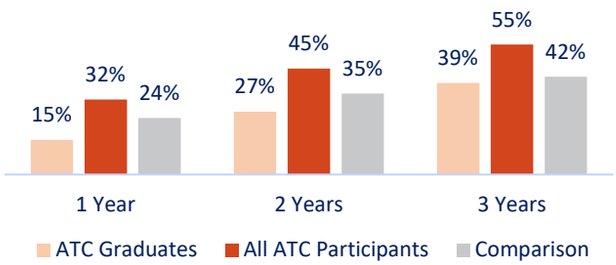
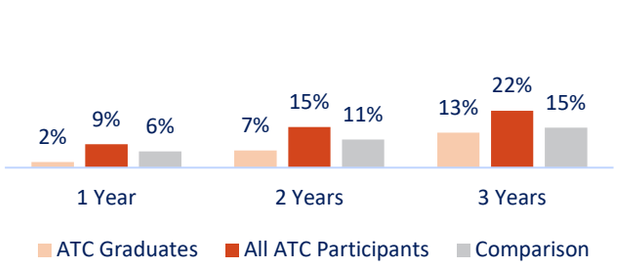


Figure ATC-6: Percent Rearrested for a Drug Offense over 3 Years



In addition to all rearrests, a key measure for treatment courts is new arrests associated with drug charges, as this is an indication of continued substance use. At 3 years post program entry, 22% of all ATC participants were rearrested for a new drug offense, compared to 15% of the comparison group.

KEY FINDING: Fewer ATC graduates were rearrested than non-graduates.

Participant characteristics and criminal history were analyzed to determine what, if any, factors were related to being rearrested. Results revealed that the top factor related to ATC participant recidivism was completion status. Forty-three percent of graduates and active participants were rearrested in the 3 years following program entry, compared to 71% of terminated participants.

43%

Of Graduates and Active ATC Participants Were Rearrested

VS.

71%

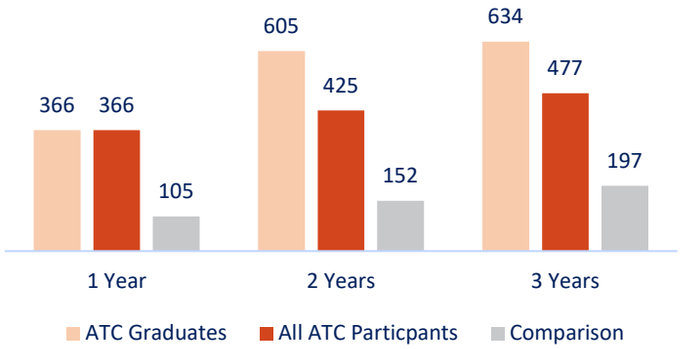
Of Terminated ATC Participants Were Rearrested

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: ATC participants were under supervision twice as long as non-participants, but had similar days incarcerated.

The average number of days under supervision were compared for the ATC participants and the comparison group. Local probation and parole supervision were combined to create a composite number, although very few individuals were under parole supervision (averaging fewer than 30 days per person over 3 years). This time includes days on probation while participating in ATC, plus any time accrued after exit. Regardless of completion status, ATC participants spent twice as long on probation as the comparison group, averaging an additional 9 months at 3 years post entry.

Figure ATC-7: Average Number of Days Under Supervision Over 3 Years



The average number of days incarcerated were compared for ATC participants and comparison group members to determine if there were any differences in the opportunity to be rearrested (as well as cost findings, discussed later). The total number of days incarcerated (jail and prison) was similar for both groups. ATC participants spent an average of 131 days incarcerated in the 3 years following program entry, compared to 115 days for the comparison group. It appears as if ATC participants and comparison group members had roughly equivalent opportunity (time in the community) to be rearrested.

Recommendations: ATC Recidivism

Overall, participation in Colorado ATCs is not related to lower recidivism. However, ATC participants spend substantially more time on probation and are under heightened scrutiny as well as having additional requirements while in the ATC program, increasing the ways it is possible to be non-compliant and the likelihood that the non-compliance as well as any criminal activities will be observed. In an assessment of PSC practices, about half of the ATCs reported that they are not following the best practice to retain participants (rather than terminating them) when they receive a new drug arrest. A new drug arrest is generally a symptom of participant continued use, which is expected behavior for someone who has a substance use disorder and is best responded to with treatment adjustments and increased recovery support and monitoring, rather than removal from the program.

The recidivism results showed that graduates were less likely to be rearrested than non-graduates, and earlier analyses of graduation rates demonstrated that graduates were more likely to be low risk. These recidivism findings are further evidence that the ATC's should focus on performing risk and need assessments and using the results to develop case plans that match services to participant criminogenic and clinical need.

DUI COURTS

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Use risk assessments validated for the DUI population in addition to traditional risk assessments and match services to assessed need

KEY FINDING: The DUI Court graduation rate of 76% is in line with the national average of 75%.

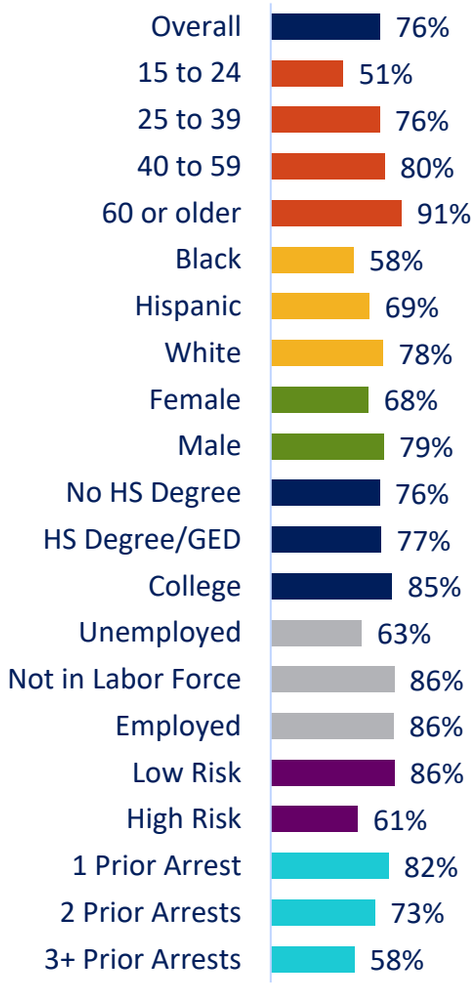
There were 17 DUI courts included in this evaluation, with a total of 867 participants. The average graduation rate for all DUI participants was 76%, which almost exactly matches the national average for DUI courts of 75%. Researchers examined characteristics and program services for any differences among graduates and non-graduates.

KEY FINDING: White participants and those who are Lower risk and have fewer priors were more likely to graduate from the program.

Participants who were **older**, **White**, **male**, or assessed as **low risk** at entry tended to have higher graduation rates. Graduates of the program also tended to have fewer arrests in the two years prior to program entry (1.4 vs. 2.0 for non-grads). This indicates that CO's DUI courts would benefit from a focus on culturally appropriate services as well as interventions appropriate to those with intensive criminogenic needs.

In contrast to other types of PSCs, over two-thirds (71%) of DUI Court participants score as low risk on the LSI, which helps explain the higher graduation rates. However, the LSI assessment does not assess risk specifically for a new DUI offense, therefore, many of those who score as low risk on the LSI may be high risk for a repeat DUI. This means that, in addition to assessing for traditional risk to reoffend, the DUI Courts should ensure they are using the appropriate tool (such as the ASUDS) to assess specifically for risk for a new DUI offense so that participants that are at risk for getting in the car and driving while under the influence are identified and appropriately monitored while the intensive services needed for those with high criminogenic needs can be provided only to the 29% of participants who are moderate to high risk for other types of criminal recidivism.

Figure DUI-1: DUI Graduation Rate by Characteristic



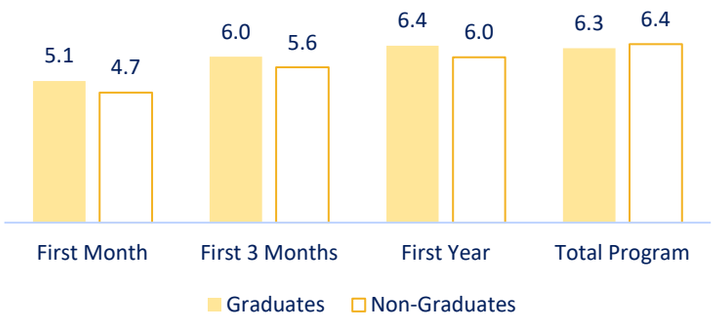
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: DUI Courts are performing substance use testing less than twice per week.

Best practices research indicates participants should be tested for the presence of drugs at least twice per week (or about 8 times per month) throughout their participation in treatment court. Both graduates and non-graduates of CO's DUI courts were tested about 6 times per month, which is slightly below the best practice. Graduates tested positive for the presence of drugs for about 17% of all tests administered during the first 3 months, whereas non-graduates tested positive for 42% of all tests. The large percentage of positive tests, particularly for non-graduates may indicate the presence of severe substance use disorders. DUI courts should ensure that participants are assessed for and provided with medication assisted treatment (MAT) as appropriate.

Figure DUI-2: Average Number of Drug Tests Per Month

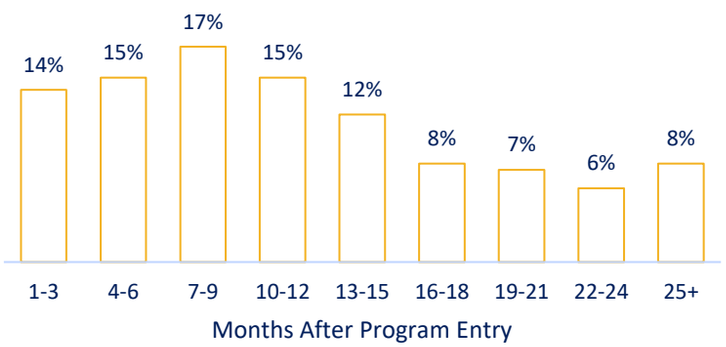
Best Practices: 8 per month



KEY FINDING: 30% of non-graduates are terminated from the DUI Court program in the first 6 months of participation.

An examination of when the most participants were terminated from the DUI Court programs reveals that termination happens fairly consistently across time points, with a slight uptick in the third quarter of the first year. The DUI Courts may want to examine their expectations of high risk, high need participants to ensure that their expectations are realistic for individuals with high criminogenic and clinical needs, and that participants have been given the tools necessary to meet those expectations at that point in the program.

Figure DUI-3: Percent of Participants Terminated by Months in Program



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: DUI Court participants that attended court hearings more frequently were more likely to graduate.

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of DUI court. The biggest factor related to successful completion of DUI court was hearing attendance during the first 3 months. Eighty-two percent of participants attending 5 or more hearings graduated, compared to 57% of those attending fewer than 5 hearings.

82%
Of Participants Attending 5 or More Hearings in First 3 Months Graduated

VS.

57%
Of Participants Attending 4 or Fewer Hearings in First 3 Months Graduated

Recommendations: DUI Court Graduation Rates

Overall, Colorado's DUI courts are following best practices in terms of frequency of court hearings, and the length of time participants are sober before graduation. Graduation rates are similar to the average for DUI courts nationally.

Analyses of the characteristics of graduates compared to non graduates showed that participants who scored at high risk on the LSI and participants of color were less likely to graduate. The DUI courts would benefit from using assessment results to develop individualized case plans, as well as training in culturally appropriate services, to ensure that interventions are adjusted to meet the needs of participants from different backgrounds and at different risk and need levels, as well as being high risk for a repeat DUI.

Further, an analyses of practices in Colorado's DUI courts in relation to DUI court graduation rate showed that DUI courts that followed best practices in drug testing had higher graduation rates, specifically DUI courts that performed witness specimen collection, had staff trained in appropriate collection protocols, and required participants to have 90+ days sober before graduation had substantially better graduation rates than DUI courts that did not follow these procedures.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

DUI Recidivism Analysis

The following analyses included **1,027 DUI court participants** who entered one of **17 DUI courts between 2009 and 2015** (regardless of completion status) and 1,027 comparison group members. The comparison group was selected from individuals with DUI case filings that would have otherwise made them eligible to enter DUI court, but received traditional court processing for their offense(s). The comparison group was matched to DUI participants using Propensity Score Matching and controlled for gender, race/ethnicity, age, prior criminal history, and arresting jurisdiction. There were no statistically significant differences in criminal history between the two groups.

About three out of four DUI participants were male, nine out of 10 were White, and the average age at program entry was 41 years. In the two years prior to program entry (or equivalent for the comparison group), DUI participants had an average of 1.6 arrests (median = one arrest). In both groups, prior arrests usually included at least one DUI offense and very few felonies. The two groups were not matched on risk due to lack of available risk information on the comparison group. The table to the right shows the demographics and average number of prior arrests for both groups.

Table DUI-1: Demographics and Criminal History of DUI Court Participants and Comparison Group

	DUI Court	Comparison
Number of Individuals	1,027	1,027
Age	41 years	40 years
Male	77%	78%
Female	23%	22%
Black	2%	2%
Hispanic	6%	5%
White	89%	90%
Other Race	3%	3%
2 Year Prior Arrests (Any)	1.6	1.5
2 Year Prior DUI Arrests	1.1	1.1
2 Year Prior Felony Arrests	0.1	0.2

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: DUI offenders can be handled in the community in a DUI court, without using jail resources and with no additional public safety risk

KEY FINDING: The recidivism rate for DUI participants was similar to the comparison group.

Analyses were conducted to determine if DUI participants were rearrested at a different rate compared to business-as-usual court participants, controlling for gender, age, race/ethnicity, criminal history, and the year participants entered the program. At three years post program entry, 29% of all DUI court participants were rearrested for at least one offense, compared to 23% of the comparison group. On average, DUI participants had a similar number of rearrests at 1- and 2-years post entry, and slightly more rearrests than the comparison group by year 3. The average number of rearrests at 3 years post program entry was 0.5 for the program group and 0.4 for the comparison (an 18% increase in the number of rearrests, holding all other factors constant). Figure DUI-4 shows the percent of graduates, all DUI court participants (including those who are active), and the comparison group rearrested for any offense, over a three-year period following program entry. Graduates (*n*=661, light-yellow bar) are included for descriptive purposes only and should not be compared directly to the comparison group, as there is not a similar completion status for these individuals.

Figure DUI-4: Percent Rearrested for Any Offense over 3 Years

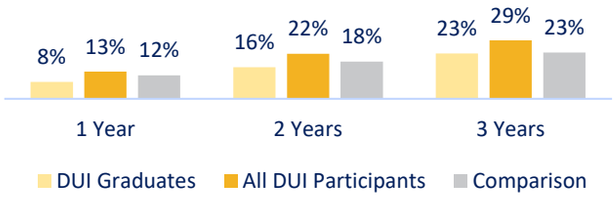
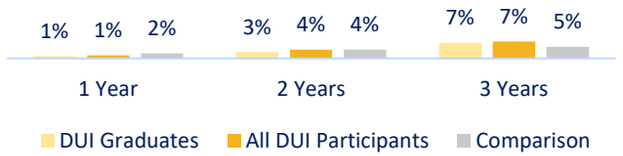


Figure DUI-5: Percent Rearrested for a DUI Offense over 3 Years



In addition to all rearrests, a key measure for DUI courts is new arrests associated with DUI charges, as this is an indication of continued substance use. Overall, very few individuals in both the program and comparison groups were rearrested for another DUI offense. At 3 years post program entry, 7% of all DUI participants were rearrested for a new DUI, compared to 5% of the comparison group (Figure DUI-5).

KEY FINDING: Fewer DUI Court graduates were rearrested than terminated participants.

The average recidivism rate for all DUI court participants was 29% at three years post entry. Participant characteristics and criminal history were analyzed to determine what, if any, factors were related to being rearrested. Analyses revealed that the top factor related to participant recidivism was completion status. Twenty-four percent of graduates and active participants were rearrested in the 3 years following program entry, compared to 50% of terminated participants.

24%
Of Graduates and Active DUI Court Participants Were Rearrested

VS.

50%
Of Terminated DUI Court Participants Were Rearrested

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: DUI Court participants were under supervision 3 times as long as non-participants.

The average number of days on supervision were compared for the DUI court and comparison groups (Figure DUI-6). Local probation and parole supervision were combined to create a composite number, although very few individuals were under parole supervision. This time includes time on probation while participating in DUI court, plus any time accrued after exit. Regardless of completion status, DUI participants spent three times as long on probation as the comparison group, averaging about one additional year on supervision, and graduates were under supervision more than 3.5 times as long as the comparison group at 3 years post entry.

Figure DUI-6: Average Number of Days Under Supervision Over 3 Years

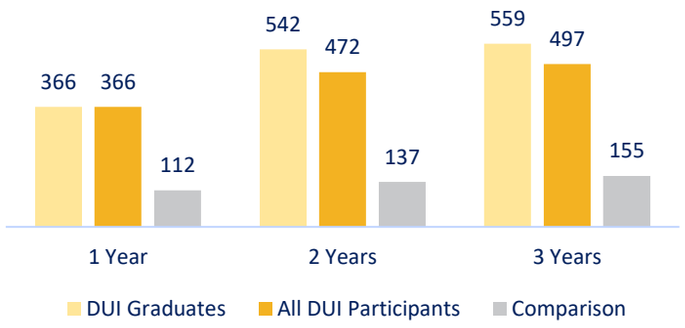
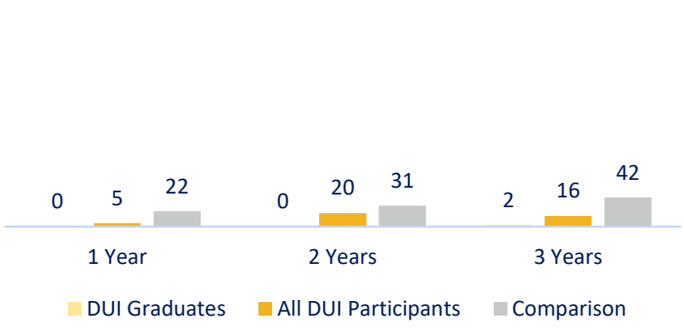


Figure DUI-7: Average Number of Days Incarcerated Over 3 Years



KEY FINDING: DUI Court participants spent fewer days incarcerated.

The average number of days incarcerated were compared for DUI participants and comparison group members to determine if there were any differences in the opportunity to be rearrested (as well as cost findings, discussed later). Jail data from every jurisdiction in this study was not available, so averages from Larimer County DUI Court were used as estimates. DUI court participants spent an average of 16 days incarcerated (jail and prison combined; DUI Court jail sanctions were removed) in the 3 years following program entry, compared to 42 days for the comparison group (Figure DUI-7).

Recommendations: DUI Court Recidivism

Overall, Colorado's DUI court participants are rearrested at similar rates as non-DUI court participants. However, like other Colorado PSCs, DUI court participants spend substantially more time on probation and are under heightened scrutiny as well as having additional requirements while in the DUI court program, increasing the ways it is possible to be non-compliant and the likelihood that the non-compliance will be observed. Colorado's DUI courts should determine whether PSC participants are receiving more punitive probation sentences. Conversely, DUI court participants spent less time in jail.

The difference in rearrests for DUI participants versus the comparison group was very small (0.1 rearrests), and DUI court participants spend less time in incarcerated. This suggests that DUI offenders can be handled in the community in a DUI court, without using jail resources, with no additional public safety risk for Colorado's roads.

However, the recidivism results showed that graduates were less likely to be rearrested than non-graduates, and earlier analyses of DUI court graduation rates demonstrated that graduates were more likely to be low risk. These recidivism findings are further evidence that the DUI courts should focus on performing risk and need assessments and matching services to participant assessed need. This is likely to result in the higher risk participants graduating, and a decrease in recidivism.

MENTAL HEALTH TREATMENT COURTS

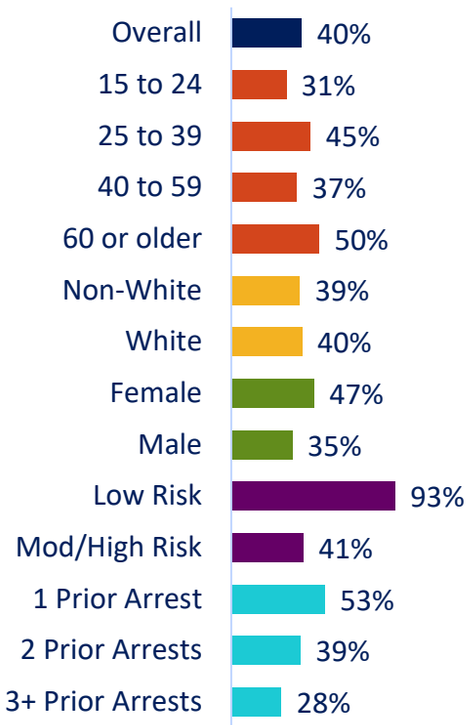
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Colorado's Mental Health Courts should increase service capacity and program requirements to match services to assessed risk and need

KEY FINDING: The Mental Health Court graduation rate is lower than the national average of 59% for adult treatment courts.

There were 9 mental health courts (MHC) included in this evaluation, with a total of 165 participants. The average graduation rate for mental health court participants was 40%, which is lower than the national average for adult drug treatment courts overall of 59%. Participant characteristics and program activities were examined for any differences among graduates and non-graduates. igure MHC-1 shows the graduation rate by participant characteristic. Participants who were assessed as **low risk** at entry had the highest graduation rates. Graduates of the program also tended to have fewer arrests in the two years prior to program entry (1.9 vs. 2.5 for non-grads).

Figure MHC-1: MHC Graduation Rate by Characteristic



KEY FINDING: A high percentage of MHC participants scored as moderate to high risk.

Compared to ATCs, where about 70% of participants scored as moderate to high risk and DUI courts where just 30% of participants score as moderate to high risk, 85% of MHC participants scored as moderate to high risk on the LSI, which helps explain the lower graduation rates. This means that MHCs must plan to provide intensive services for the high criminogenic needs of most of their participants and must focus special attention on responses to participant behavior that reward engagement.

KEY FINDING: Lower risk participants and those with fewer priors were more likely to graduate from the program.

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of the MHC program. The factor most strongly related to successful completion was risk level. Ninety-three percent of participants assessed as low to moderate risk graduated, compared to 41% of those assessed as moderate-high to high risk.

93%
Of Low to Moderate Risk Participants Graduated

VS.

41%
Of Moderate-High to High Risk Participants Graduated

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

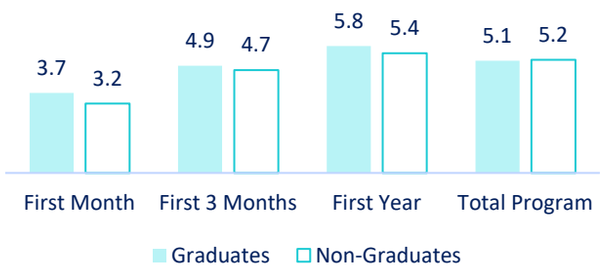
KEY FINDING: Mental Health Courts are testing participants for the presence of substances about half as often as indicated by best practice and are not holding participants to recommended sober time before graduation.

Best practices research indicates participants should be tested for the presence of drugs at least twice per week (or about 8 times per month) throughout their participation in treatment court. Both graduates and non-graduates were tested about 5 times per month, which is less often than the best practice. Although mental health courts may include participants who do not use illicit substances, many participants will have co-occurring disorders and it is beneficial to perform drug testing to ensure the court responds swiftly to address use. Graduates tested positive for the presence of drugs for about 30% of all tests administered, whereas non-graduates tested positive for 49% of all tests (indicating that substance use is indeed happening at similar rates for these participants as those in other PSC types).

In addition, research indicates that at least 90 days consecutive sobriety is related to a higher likelihood of long-term recovery, as well as substantially lower criminal justice recidivism. For Colorado's MHCs, the median length of time from the last positive drug screen to participant graduation was 78 days, below the 90 day best practice.

Figure MHC-2: Average Number of Drug Tests Per Month

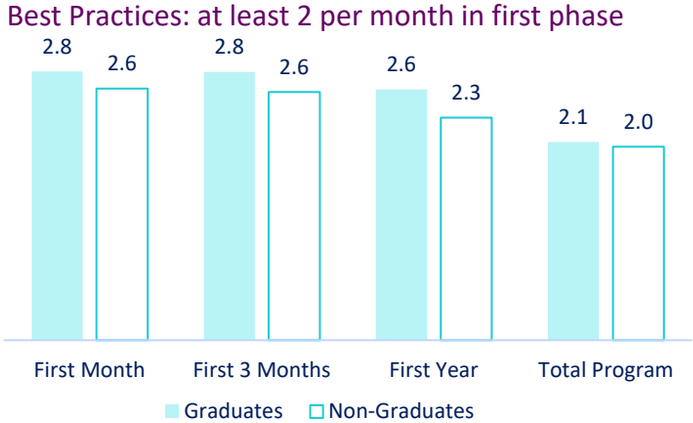
Best Practices: 8 per month



KEY FINDING: Colorado's MHCs are meeting the best practice of holding two court hearings per month during the first phase of the program.

Figure MHC-3: Average Number of Court Hearings Per Month

Best Practices: at least 2 per month in first phase

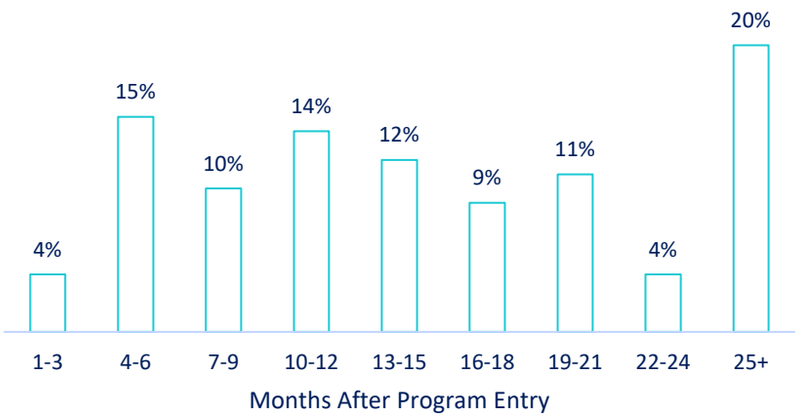


In terms of program activities, both graduates and non-graduates attended an average of 3 status review hearings per month during the first 3 months of the program. Colorado mental health courts are meeting the best practice of having participants attend court hearings at least once every two weeks during the first phase of the program. Figure MHC-3 shows the average number of court hearings attended throughout program participation for graduates and non-graduates.

KEY FINDING: Non-graduates are exiting the program fairly consistently across different time points in the program.

An examination of when the most participants were terminated from the MHC programs reveals that there is a small uptick in terminations in the second quarter of the first year. The MHCs may want to examine their expectations for their participants, particularly those at the highest risk levels to ensure that their expectations are realistic for individuals with high criminogenic and clinical needs, and that participants have been given the tools necessary to meet those expectations at that point in the program. It is likely that MHCs should be expecting much slower progress, and will need to adjust case plans with simpler goals that are achievable for their participants at the beginning of the program.

Figure MHC-4: Percent of Participants Terminated by Months in Program



Recommendations: MHC Graduation Rates

Overall, Colorado's MHCs are following best practices in terms of frequency of court hearings, although drug testing practices and policies for sober time are not currently meeting best practices.

Analyses of the characteristics of graduates compared to non graduates show that higher risk participants are substantially less likely to successfully complete the program. This indicates that MHCs would benefit from individualized case plans that adjust expectations for participants with very high criminogenic and clinical needs. The high percentage of positive drug tests indicates that mental health court participants are struggling with co-occurring substance use and best practices related to drug testing still apply and should be followed.

In addition, an analysis of Colorado MHC practices related to graduation rates revealed that Colorado MHCs that had a MOU signed by team members with a description of roles and how information should be shared had higher graduation rates than MHCs that did not have a MOU. A clear understanding of roles and communication between team members is key to a well functioning program.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Mental Health Court Recidivism Analysis

The following analyses included **281 mental health court participants** who entered one **of 9 MHC programs between 2009 and 2015** (regardless of completion status). Information about mental health disorders was not available in the public record, therefore identifying an equivalent comparison group was not feasible at the time of this study. MHC participants had similar criminal histories as the ATC comparison group, so those results are presented side-by-side for descriptive purposes only; however, the proportion of ATC comparison group members with mental health disorders is unknown.

Just over half of MHC participants were male, three out of four were White, and the average age at program entry was 34. In the two years prior to program entry, MHC participants had an average of 2.3 arrests (median = 2 arrests). Unlike their ATC and DUI court counterparts, MHC participant prior arrests usually included at least one felony offense and very few drug or DUI-related charges. The table below shows the demographics and average number of prior arrests for MHC participants.

Table MHC-1: Demographics and Criminal History of MHC Participants and ATC Comparison Group

	MHC	ATC Comparison Group
Number of Individuals	281	3,049
Age	34 years	31 years
Male	59%	66%
Female	41%	34%
Black	13%	4%
Hispanic	5%	5%
White	78%	89%
Other Race	4%	2%
2 Year Prior Arrests (Any)	2.3	2.4
2 Year Prior Drug Arrests	0.3	0.9
2 Year Prior Felony Arrests	1.1	1.4

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Mental Health Courts should review whether MHC participants are receiving more punitive sentences, especially prison sentences and should work to increase graduation rates

KEY FINDING: The number of arrests decreased in the two years after starting MHC, compared to the two years prior. However, the MHC recidivism rate mirrors the ATC recidivism rate, which is higher than the ATC comparison.

Analyses were conducted to determine if participation in MHCs impacted subsequent recidivism. New arrests were counted in a two-year follow-up period after entering treatment court and were compared to the number of arrests two years prior to entering treatment court. At two years post program entry, the average number of rearrests for all MHC participants was 0.7 arrests. This represents a marked decrease, as the average number of arrests two years prior to entry was 2.3. Figure MHC-5 shows the average number of arrests two years before and two years after entering MHC for both graduates and all MHC participants (including actives). Overall, analyses showed a reduction in rearrests from two years prior to two year after program entry.

Figure MHC-6 shows the percent of MHC graduates, all MHC participants, and the ATC comparison group that were rearrested for any offense in the three years following program entry. About half of all MHC participants and more than one-third of MHC graduates were rearrested for at least one offense at three years post entry. For context, the average 3-year recidivism rate for ATC participants and the ATC comparison group was 55% and 42%, respectively.

Figure MHC-5: Average Number of Rearrests for Any Offense Before and After Program Entry

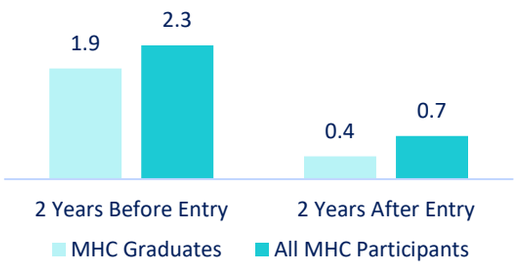
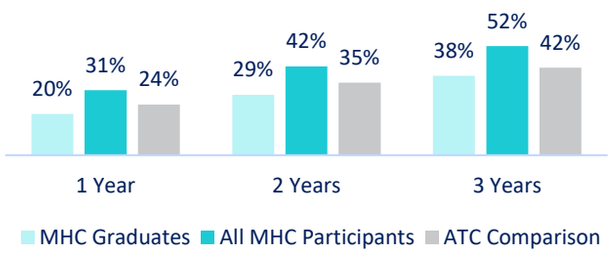


Figure MHC-6: Percent Rearrested for Any Offense Over 3 Years



KEY FINDING: A smaller proportion of MHC participants with 2 or fewer prior arrests were rearrested compared to those with 3 or more prior arrests.

Participant characteristics and criminal history were analyzed to determine what, if any, factors were related to being rearrested. Analyses revealed that the top factor related to participant recidivism was number of prior arrests (leading to a court filing) in the two years prior to entry. Forty-four percent of participants with 2 or fewer arrests were rearrested in the 3 years following program entry, compared to 66% of participants with 3 or more arrests.

44%

Of MHC Participants with 2 or Fewer Prior Arrests Were Rearrested

vs.

66%

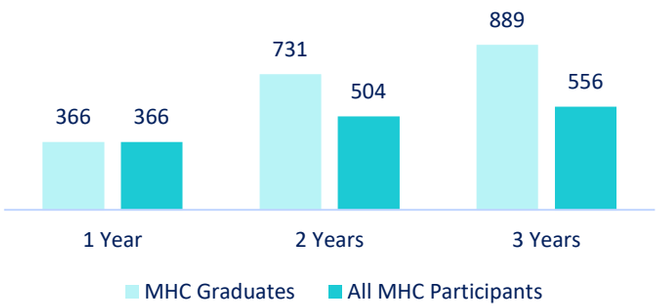
Of MHC Participants with 3 or More Prior Arrests Were Rearrested

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: MHC participants were on probation for similar lengths of time as ATC participants, which is substantially longer than the ATC comparison group.

The average number of days under supervision were calculated for MHC participants (Figure MHC-7). Local probation and parole supervision were combined to create a composite number, although most time was spent on probation. This time includes time on probation while participating in MHC court, plus any time accrued after exit. As can be seen in the figure to the right, similar to the findings in ATC and DUI courts, MHC graduates spent more than 2 years, and all MHC participants spent about 1.5 years under supervision in the three years following MHC entry.

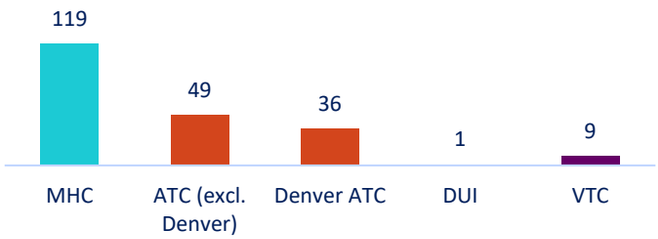
Figure MHC-7: Average Number of Days Under Supervision Over 3 Years



KEY FINDING: MHC participants were incarcerated in prison more than two times as long as other PSC participants.

The average number of days incarcerated was calculated for MHC participants (Figure MHC-8). Jail data for MHC participants was not available, so only days incarcerated in prison are represented. On average, MHC participants (mostly non-graduates) spent 119 days incarcerated in prison over a three-year period after entering treatment court, which is more than two times longer than the other court types. The relatively large amount of prison time indicates the possibility of more punitive sentences for those with mental health disorders, which is likely to exacerbate their mental health issues.

Figure MHC-8: Average Number of Days PSC Participants Were Incarcerated in Prison 3 Years Post Entry



Recommendations: MHC Recidivism

Overall, those who participate in Colorado's Mental Health courts showed a decrease in recidivism in the two years after program entry compared to the two year prior. However, rearrest rates were similar to other CO adult PSCs, which resulted in more rearrests than the comparison group. Similar to all other Colorado PSCs, MHC participants spend substantial amount of time on probation and are under heightened scrutiny. MHC participants also spend a relatively large amount of time in prison, especially those who were terminated from the program. This may indicate punitive sentences for MHC participants who do not succeed in the program, and with the low graduation rate described earlier in this report (40%), there may be a potential lack of understanding of appropriate treatment for those with mental health disorders.

In addition, recidivism results showed that graduates were less likely to be rearrested than non-graduates, and earlier analyses of MHC graduation rates demonstrated that graduates were more likely to be low risk. These recidivism findings are further evidence that the MHCs should focus on performing risk and need assessments and matching services to participant assessed need. This is likely to result in the higher risk participants graduating, and a decrease in recidivism.

VETERANS TREATMENT COURT

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Colorado's Veteran Treatment Courts should focus on maintaining fidelity to treatment court best practices

KEY FINDING: The Veteran Treatment Court graduation rate is higher than the national average of 59% for Adult Treatment Courts and similar to the graduation rate for DUI Courts.

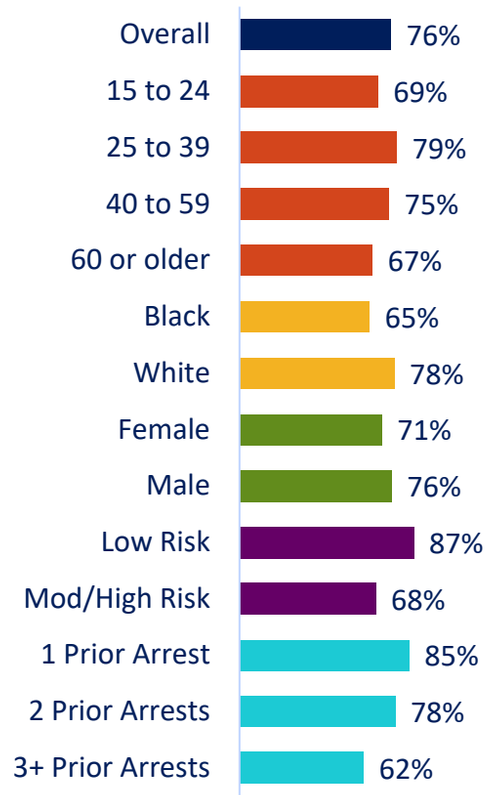
There were 6 veteran treatment courts (VTC) included in this evaluation, with a total of 255 participants. The average graduation rate for VTC participants was 76%, which is higher than the national average for adult drug treatment courts of 59% and matches the national graduation rate of 75% for DUI courts. There are currently not enough studies of VTCs to produce a national average. However, statistics from those VTCs who have been studied show that VTCs typically have graduation rates that are more similar to the high rates of DUI courts. Also similar to DUI courts, VTCs tend to have more participants who are lower risk, which generally correlates with higher graduation rates.

KEY FINDING: Lower risk participants were more likely to graduate from VTC.

Participant characteristics and program activities were examined for any differences among graduates and non-graduates. Figure VTC-1 shows the graduation rate by participant characteristic. Similar to all other CO PSCs, participants who were assessed as **low risk** (72% of VTC participant's) at entry had the highest graduation rates. Graduates of the program also tended to have fewer arrests in the two years prior to program entry (1.7 vs. 2.2 for non-grads), another indication of risk. The average time from arrest to program entry was about 3 months shorter for graduates (199 days vs. 288 days for non-grads).

Controlling for all other factors, risk level was the largest predictor of successful program completion. Ninety-five percent of participants assessed as low risk graduated, compared to 67% of those assessed as low-moderate to high.

Figure VTC-1: VTC Graduation Rate by Characteristic



95%
Of Low Risk Participants Graduated

vs.

67%
Of Low-Moderate to High Risk Participants Graduated

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

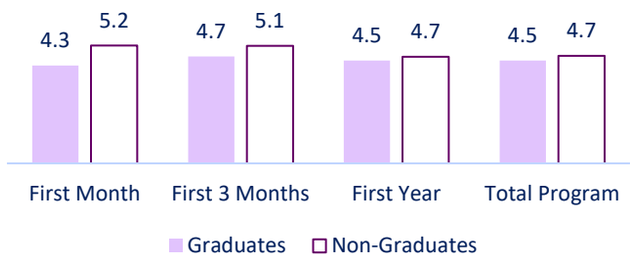
KEY FINDING: Veteran Treatment Courts are not meeting best practices for drug testing frequency or length of time sober before graduation.

Best practices research indicates participants should be tested for the presence of drugs at least twice per week (or about 8 times per month) throughout their participation in treatment court. Both graduates and non-graduates were tested about 5 times per month, which is below best practice.

In addition, research indicates that at least 90 days consecutive sobriety is related to a higher likelihood of long-term recovery, as well as substantially lower criminal justice recidivism. For Colorado's VTCs, the median length of time from the last positive drug screen to participant graduation was 60 days, below the 90 day best practice.

Figure VTC-2: Average Number of Drug Tests Per Month

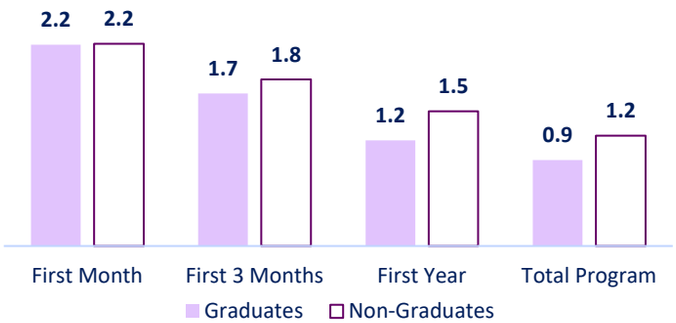
Best Practices: 8 per month



KEY FINDING: Colorado's VTCs are meeting the best practice of holding two court hearings per month during the first phase of the program but the frequency decreases in the last 6 months.

Figure VTC-3: Average Number of Court Hearings Per Month

Best Practices: at least 2 per month in first phase



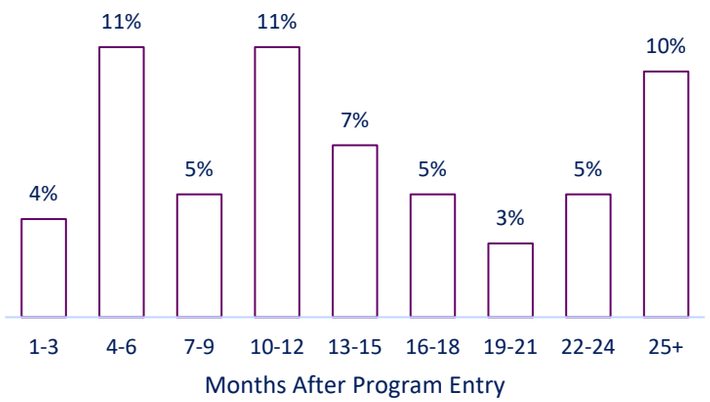
In terms of program activities, both graduates and non-graduates attended an average of 2 status review hearings per month during the first 3 months of the program. However, it appears that the frequency decreases substantially after the first three months so that the average over the first 12 month period in the program is closer to once per month. The VTCs may want to ensure that the frequency of court sessions is maintained over a longer period as participant begin to address trauma issues that may emerge as they engage in treatment over time.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Non-graduates tend to exit the program most frequently during the second and fourth quarter of the first year.

An examination of when the most participants were terminated from the VTC programs reveals that termination happens fairly consistently across time points, with upticks in the second and fourth quarters of the first year. The VTCs may want to examine their requirements during those time periods in the program to ensure that their expectations are realistic for the individuals with high criminogenic and clinical needs in their programs, and that they are not responding punitively to behavior that may be expected at those stages. In particular, as the veterans become more comfortable and trusting of the team, issues with trauma may arise, leading to inappropriate behaviors that should be addressed with adjustments in treatment and trauma services.

Figure VTC-4: Percent of Participants Terminated by Months in Program



Recommendations: VTC Graduation Rates

Overall, Colorado's VTCs may benefit from adhering more consistently to research based best practices for treatment courts. Although the graduation rate is quite high (76%), 72% of participants are low risk, and the vast majority of graduates assessed as low risk, which generally indicates individuals who are already more likely to succeed. The majority of higher risk VTC participants are not graduating which indicates a need for the more intensive services that are a part of the traditional drug court model for those participants.

Compared to ATCs, where about 70% of participants scored as moderate to high risk, just 28% of VTC participants scored as moderate to high risk on the LSI. This means that VTCs in particular should organize their programs with multiple tracks, and indeed 50% of VTCs do report having separate tracks for different risk and need levels. The remaining 3 courts should work to ensure that they are not requiring intensive services for participants who do not need them and then focus the majority of their services on those smaller number of participants who have high criminogenic and clinical needs. Those VTCs who do not have tracks should plan to implement them, or if they have small participant populations that preclude the development of tracks, should ensure they have individualized case plans and program expectations that match the specific needs of each participant.

In addition, an analysis of Colorado's VTC practices related to graduation rates revealed that Colorado VTCs that included law enforcement on the team and attending court sessions had higher graduation rates than VTCs without law enforcement on the team. Further, VTCs that had a MOU signed by team members with a description of roles and how information should be shared had higher graduation rates than VTCs that did not have a MOU. A clear understanding of roles and communication between team members is key to a well functioning program. Finally, VTCs that had an advisory committee that included community members had substantially better graduation rates than those that did not. Outreach to members of the community can be particularly helpful in generating community support and ensuring sustainability

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Veterans Treatment Courts Recidivism

The following analyses included 394 veterans treatment court participants who entered one of 6 VTC programs between 2009 and 2015 (regardless of completion status). Information about military status was not available in the public record, therefore identifying an equivalent comparison group was not feasible at the time. Most of VTC participants were male, three out of four were White, and the average age at program entry was 35 years. In the two years prior to program entry, VTC participants had an average of 2.0 arrests (median = two arrests). Unlike their ATC and DUI court counterparts, but similar to MHC participants, VTC participant prior arrests usually included one felony offense and sometimes included a drug or DUI-related charges. The table below shows the demographics and average number of prior arrests for VTC participants.

Table VTC-1: Demographics and Criminal History of VTC Participants and ATC Comparison Group

	VTC	ATC Comparison Group
Number of Individuals	394	3,049
Age	35 years	31 years
Male	94%	66%
Female	6%	34%
Black	17%	4%
Hispanic	4%	5%
White	78%	89%
Other Race	2%	2%
2 Year Prior Arrests (Any)	2.0	2.4
2 Year Prior Drug Arrests	0.6	0.9
2 Year Prior Felony Arrests	0.9	1.4

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Veteran Treatment Courts should should review whether VTC participants are receiving more punitive sentences and should implement multiple tracks based on risk and need

KEY FINDING: The number of arrests decreased in the two years after starting VTC, compared to the two years prior. However, the VTC recidivism rate mirrors the ATC participant recidivism rate, which is higher than the comparison group.

Analyses were conducted to determine if participation in VTCs impacted subsequent recidivism. New arrests were counted in a two year follow-up period after entering the VTC and were compared to the number of arrests two years prior to entering the VTC. At two years post program entry, the average number of rearrests for VTC participants was 0.7 arrests compared to 2.0 arrests in the two years prior (Figure VTC-5). This represents a marked decrease in arrests. Overall, analyses showed a reduction in rearrests from two years prior to two year after program entry.

Figure VTC-6 shows the percent of VTC graduates, all VTC participants, and the ATC comparison group that were rearrested for any offense in the three years following program entry. Forty-four percent of all VTC participants and one-third of VTC graduates were rearrested for at least one offense at three years post entry. For context, the average 3-year recidivism rate for ATC participants and the ATC comparison group was 55% and 42%, respectively.

Figure VTC-5: Average Number of Rearrests for Any Offense Before and After Program Entry

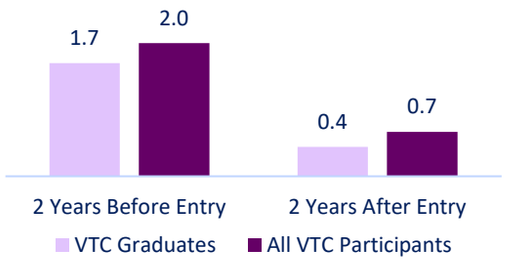
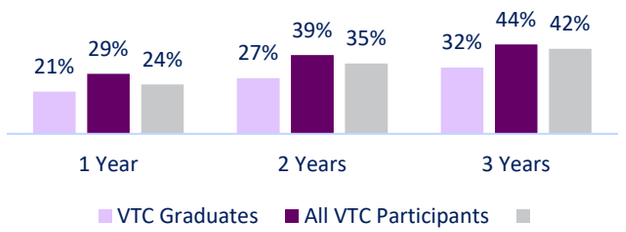


Figure VTC-6: Percent Rearrested for Any Offense Over 3 Years



KEY FINDING: A smaller proportion of VTC participants with 3 or fewer prior arrests were rearrested compared to those with 4 or more prior arrests.

Participant characteristics and criminal history were analyzed to determine what, if any, factors were related to being rearrested. Analyses of all VTC participants revealed 38% percent of participants who had three or fewer arrests in the two priors prior to program entry were rearrested, compared to 79% of participants with more than 3 arrests.[20]

38%
Of VTC Participants with 3 or Fewer Prior Arrests Were Rearrested

vs.

79%
Of VTC Participants with 4 or More Prior Arrests Were Rearrested

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: VTC participants spent similar lengths of time on probation as other Colorado PSCs, which is substantially more time than the ATC and DUI court comparison groups.

The average number of days under supervision were calculated for VTC participants (Figure VTC-7). Local probation and parole supervision were combined to create a composite number, although very few participants were under parole supervision. This includes time on probation while participating in VTC court, plus any time accrued after exit. As can be seen in Figure VTC-8, VTC participants spent about 1.5 years under supervision (VTC graduates about 22 months) in the three years following VTC entry, similar to participants in all other PSC types.

Figure VTC-7: Average Number of Days Under Supervision Over 3 Years

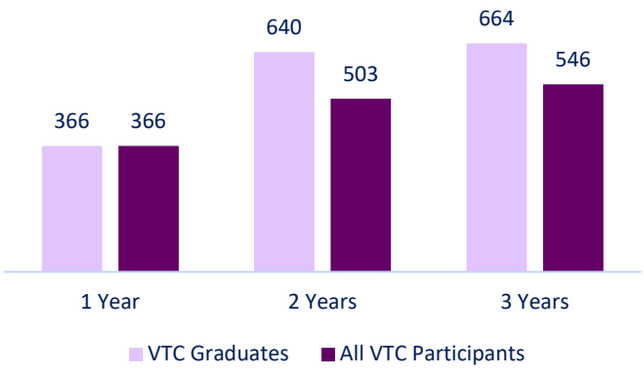
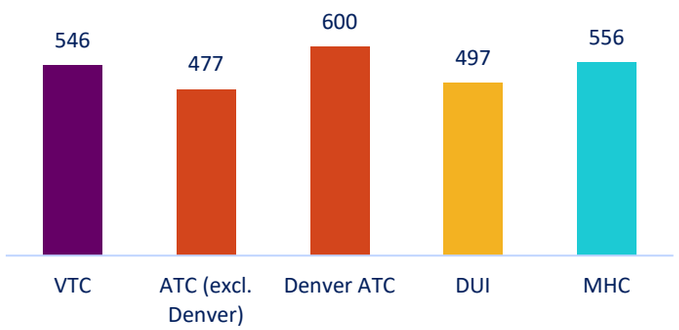


Figure VTC-8: Average Number of Days Under Supervision 3 Years Post Entry



Recommendations: VTC Recidivism

Overall, those who participate in the Colorado's VTCs showed a decrease in recidivism in the two years after program entry compared to the two years prior. However, rearrest rates were similar to other CO adult PSCs, which resulted in more rearrests than the comparison group. Similar to all other Colorado PSCs, VTC participants spend a substantial amount of time on probation and are under heightened scrutiny.

In addition, recidivism results showed that graduates were less likely to be rearrested than non-graduates, and earlier analyses of VTC graduation rates demonstrated that graduates were more likely to be low risk. These recidivism findings are evidence that the VTCs should focus on performing risk and need assessments and matching services to participant assessed need, particularly through the use of multiple tracks in the programs that have not already implemented them. This is likely to result in the higher risk participants graduating, and a decrease in recidivism.

APPENDIX A

DENVER ADULT TREATMENT COURT

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Reduce caseloads or increase court capacity to ensure sufficient resources to implement best practices

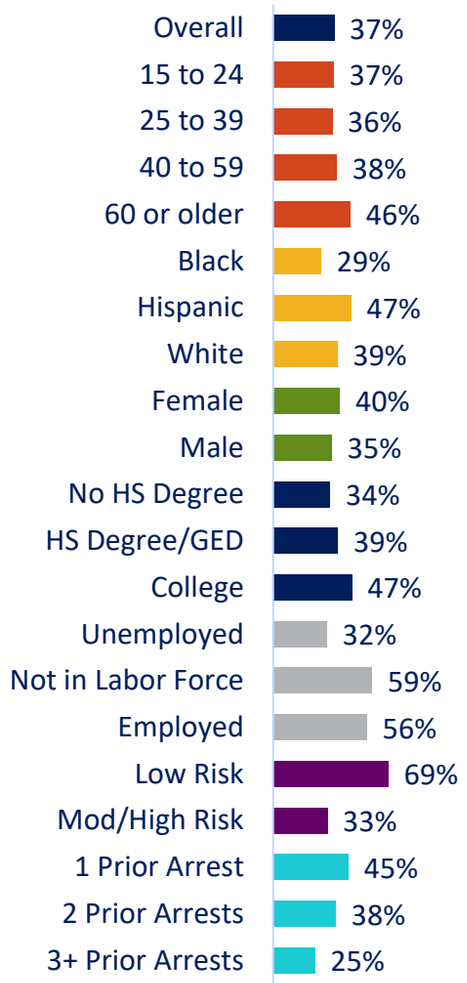
KEY FINDING: The Denver ATC graduation rate is 37%, which is substantially lower than the national average of 59%.

There were 2,245 participants included in the analysis for the Denver adult treatment court (ATC). The average graduation rate for Denver ATC participants was 37%, which is lower than the national average for adult drug treatment courts (59%) and lower than the average graduation rate of Colorado's other ATC programs (48%).

Key Finding: Lower risk participants and those with fewer priors were more likely to graduate from the program.

An exploration of graduates and non-graduates showed several characteristics related to the likelihood of graduating. Participants who identified as **Hispanic**, had at least **some college**, were **employed** at entry, or assessed as **low risk** at entry had higher graduation rates. Graduates of the program also tended to have fewer arrests in the two years prior to program entry. Above all other factors, analyses revealed that risk level was the factor most strongly related to graduation status. Sixty-nine percent of participants who were assessed as low to low-moderate risk graduated compared to 25% of participants who were assessed as moderate to high risk.

Figure A1: Denver ATC Graduation Rate by Characteristic



69%

Of Low to Low-Moderate Risk Participants Graduated

VS.

25%

Of Moderate to High Risk Participants Graduated

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Denver ATC participants exhibited an unusually high rate of missed and positive drug tests.

Best practices research indicates participants should be tested for the presence of drugs at least twice per week (or about 8 times per month) throughout their participation in treatment court. The Denver ATC is meeting this best practice with graduates tested about 8 times per month and non-graduates tested about 7 times per month. Roughly half of all drug tests were either missed or positive for graduates in the first 3 months of the program while 83% of all drug tests were missed or positive for non-graduates. Nearly half (49%) of tests marked as positive were actually missed tests (the participant did not show up for the test). An examination of missed tests by year of Denver ATC entry shows that the number of missed tests has increased markedly. In 2009, just over half of all scheduled drug screens were missed but by 2015 this number increased to 79%. An examination of the overall drug testing policies and practices is highly recommended for the Denver ATC.

Figure A2: Average Number of Drug Tests Per Month

Best Practices: 8 per month

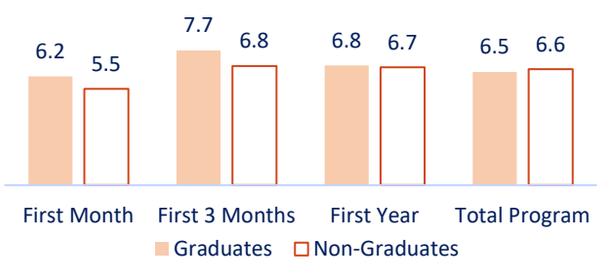
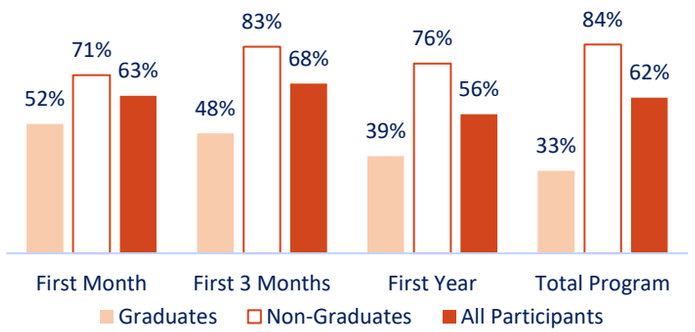


Figure A3: Percent of Missed or Positive Drug Screens



KEY FINDING: There was an average of 24 days between the last positive drug test and graduation date.

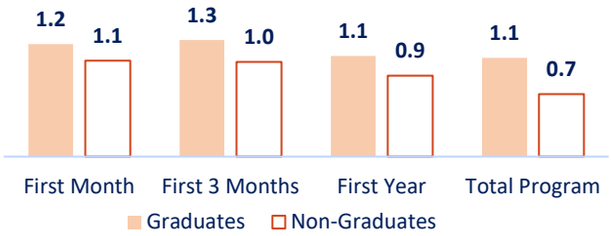
Research indicates that at least 90 days consecutive sobriety is related to a higher likelihood of long-term recovery, as well as substantially lower criminal justice recidivism. For the Denver ATC, the median length of time from the last positive drug screen to participant graduation was 24 days, well under the 90 day best practice.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: The average frequency of court hearing attendance is lower than the Best Practice of attending twice per month in the first phase.

Figure A4: Average Number of Court Hearings Per Month

Best Practices: at least 2 per month in first phase

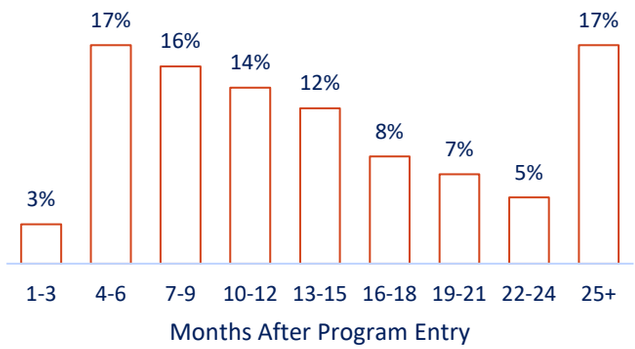


In terms of program activities, both graduates and non-graduates attended an average of 1 status review hearing per month during the first 3 months of the program (Figure A-4), which is fewer than the recommended best practice of holding hearings at least once every two weeks during the first phase of the program. As described earlier, it is common for large treatment courts, like Denver, to start decreasing the frequency of court hearings due to the lack of capacity of the team to spend the time needed in court to see participants more frequently. Unfortunately, this decrease in frequency also leads to poorer outcomes. Denver ATC should consider working toward increasing the capacity of their programs to ensure court hearings at least twice per week in the first phase, or decrease participant numbers, so that participants can benefit from the full "dose" of the treatment court program.

KEY FINDING: The largest percentage of Denver ATC non-graduates exit the program in the second and third quarter of the first year.

An examination of when the most participants were terminated from the Denver ATC program reveals that termination happens most frequently in the second and third quarter of the first year. The Denver ATC may want to examine their expectations of high risk, high need participants to ensure that their expectations are realistic for those with high criminogenic and clinical needs, and that participants have the tools they need to meet those expectations at those points in the program.

Figure A5: Percent of Participants Terminated by Months in Program



Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Recommendations: Denver ATC Graduation Rate

The Denver ATC is a very large program with hundreds of participants active at a time. It is common for drug courts of this size to struggle with implementing best practices, many of which are time and resource intensive. Although, the Denver ATC is following best practices for frequency of scheduled drug tests, participants are missing (not showing for) over half of all scheduled tests, indicating either an issue with drug testing protocols, or a potential problem with participant engagement, or both. In addition, drug testing results show that many participants are not sober for 90 days before graduation and court session frequency is approximately once per month, rather than the best practice of twice per month. Further, the Denver ATC accepts participants at multiple risk levels (36% of participants assessed as low risk on the LSI) while also reporting no tracks for participants at different risk and need levels. The lack of best practice implementation as well as the mixing of individuals at different risk and need levels generally leads to poorer recovery outcomes, and higher likelihood of recidivism. (The recidivism results discussed later in this report do show higher recidivism for Denver ATC participants.)

Denver should consider either decreasing their caseload or increasing their capacity in order to ensure that all participants receive the appropriate level of services. In addition, the Denver ATC would benefit from developing separate tracks to address participant individualized risks and needs. Incorporating appropriate risk need responsivity (RNR), including ASAM clinical criteria that addresses participant basic human needs and individual ability to participate in various interventions, would help increase participant success rates. Lastly, sharing assessment results with the team and training for team members on using assessment results to guide individualized responses to participant behavior will help engage participants in the program and increase the likelihood of successful completion.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Denver Adult Treatment Court (ATC)

The following analyses included 2,527 participants from Denver ATC who entered between 2009 and 2015 (regardless of completion status) and 2,527 comparison group members. The comparison group was selected from individuals with case filings that would have otherwise made them eligible to enter Denver ATC, but received traditional court processing for their offense(s). The comparison group was matched to Denver ATC participants based on gender, race, age, criminal history, and arresting jurisdiction (no statistically significant differences). About three out of four Denver ATC participants were male, two out of three were White, and the average age at program entry was 34 years. In the two years prior to program entry (or equivalent for the comparison group), Denver ATC participants had an average of 2.3 arrests (median = two arrests). In both groups, prior arrests usually included at least one drug offense and one felony. The two groups were not matched on risk due to lack of available risk information for the comparison group. The table below shows the demographics and average number of prior arrests for both groups.

Table A1: Demographics and Criminal History of Denver ATC Participants and Comparison Group

	Denver ATC	Comparison
Number of Individuals	2,527	2,527
Age	34 years	34 years
Male	70%	75%
Female	30%	25%
Black	27%	23%
Hispanic	8%	13%
White	63%	62%
Other Race	1%	2%
2 Year Prior Arrests (Any)	2.3	2.3
2 Year Prior Drug Arrests	1.2	1.1
2 Year Prior Felony Arrests	1.3	1.4

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Key Recommendation: Denver ATC should retain participants arrested for new drug or DUI charges while in program

KEY FINDING: Participating in Denver ATC does not reduce the number of new arrests in the 3 years following program entry. Terminated participants were more likely to have a new drug or DUI charge while in program than graduates.

Analyses were conducted to determine if Denver ATC participants were rearrested (had new case filings) at different rates compared to individuals who experienced the traditional court system, controlling for gender, age, race/ethnicity, criminal history, and the year participants entered the program. At three years post program entry, 61% of all Denver ATC participants were rearrested for at least one offense, compared to 43% of the comparison group. The average number of rearrests at 3 years post program entry was 1.7 for the program group and 1.0 for the comparison (a 78% increase in the number of rearrests, holding all other factors constant; not depicted).[23] Figure A-6 shows the percent of graduates, all Denver ATC participants (including actives), and the comparison group rearrested for any offense. Graduates (*n*=825, the light peach bar) are included for descriptive purposes only and should not be compared directly to the comparison group, as there is not a similar completion status for these individuals.

Figure A6: Percent Rearrested for Any Offense over 3 Years

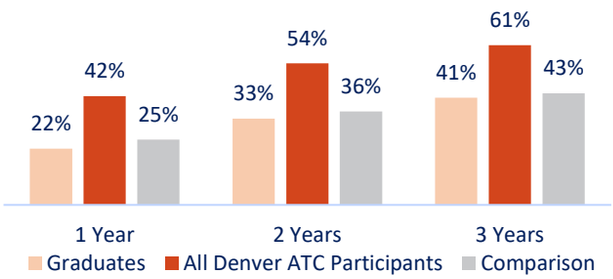
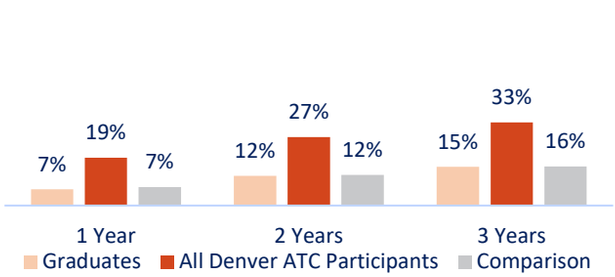


Figure A7: Percent Rearrested for a Drug Offense over 3 Years



In addition to all rearrests, a key measure for treatment courts is new arrests associated with drug charges, as this is an indication of continued substance use. At 3 years post program entry, 33% of all Denver ATC participants were rearrested for a new drug offense, compared to 16% of the comparison group (Figure A7).

KEY FINDING: Fewer Denver ATC graduates were rearrested than terminated participants.

Participant characteristics and criminal history were analyzed to determine what, if any, factors were related to being rearrested. Analyses revealed that the top factor related to Denver ATC participant recidivism was completion status. Forty-one percent of graduates and active participants were rearrested in the 3 years following program entry, compared to 71% of terminated participants.[24]

41%

Of Graduates and Active Denver ATC Participants Were Rearrested

vs.

71%

Of Terminated Denver ATC Participants Were Rearrested

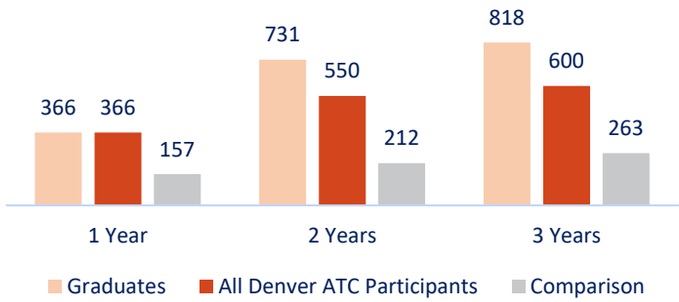
Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

KEY FINDING: Denver ATC participants were under supervision twice as long as non-participants, but spent fewer days incarcerated.

The average number of days under supervision were compared for the Denver ATC participants and the comparison group. Local probation and parole supervision were combined to create a composite number, although very few individuals were under parole supervision.[25] This time includes time on probation while participating in ATC, plus any time accrued after exit. Regardless of completion status, Denver ATC participants spent twice as long on probation as the comparison group, averaging more than an additional year on supervision, and graduates were under supervision more than 3 times as long as the comparison group, at 3 years post entry.

The average number of days incarcerated were compared for Denver ATC participants and comparison group members to determine if there were any differences in the opportunity to be rearrested (as well as cost findings, discussed later). The total number of days incarcerated (jail and prison) was similar for both groups. Denver ATC participants spent an average of 101 days incarcerated in the 3 years following program entry, compared to 175 days for the comparison group. Denver ATC participants spend significantly less time incarcerated. It appears as if Denver ATC participants had an increased opportunity (time in the community) to be rearrested, averaging about 2.5 months over a 3 year period.

Figure A8: Average Number of Days Under Supervision Over 3 Years



Recommendations: Denver ATC Recidivism

Overall, participation in Denver ATC is not related to lower recidivism. However, ATC participants spend substantially more time on probation and are under heightened scrutiny as well as having additional requirements while in the ATC program, increasing the ways it is possible to be non-compliant and the likelihood that the non-compliance as well as any criminal activities will be observed. However, ATC participants do spend less time incarcerated and therefore have more opportunity to engage in treatment in the community.

In an assessment of PSC practices, Denver ATCs reported that they are not following the best practice to retain participants (rather than terminating them) when they receive a new drug arrest. A new drug arrest is generally a symptom of participant continued use, which is expected behavior for someone who has a substance use disorder and is best responded to with treatment adjustments and increased recovery support and monitoring, rather than removal from the program.

The recidivism results showed that graduates were less likely to be rearrested than non-graduates, and earlier analyses of Denver's graduation rates demonstrated that graduates were more likely to be low risk. These recidivism findings are further evidence that the ATCs should focus on performing risk and need assessments and using the results to develop case plans that match services to participant criminogenic and clinical need. In addition, Denver includes a large population of participants at different risk and need levels. The Denver program would benefit from developing multiple tracks to address participant risk and need, and using the RANT to triage their large population.

APPENDIX B

RESULTS BY COURT TYPE AND BY SITE

APPENDIX B1: PARTICIPANT CHARACTERISTICS BY COURT TYPE

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

The table below displays the demographics and background characteristics of graduates and non-graduates by court type. These statistics include only participants with at least 3 months in program; with at least 1 court hearing to be included in averages; and at least one UA test to be included in averages

Table B1: Characteristics of Graduates and Non-Graduates by Treatment Court Type

	Adult ATC		Denver ATC		DUI		Mental Health		Veterans	
	Grads	Non-Grads	Grads	Non-Grads	Grads	Non-Grads	Grads	Non-Grads	Grads	Non-Grads
Number	1,249	1,347	825	1,420	661	206	66	99	194	61
Average Age	32 years	30 years	34 years	34 years	42 years	37 years	36 years	34 years	35 years	35 years
Female	35%	37%	32%	28%	21%	32%	50%	37%	5%	7%
Male	65%	63%	68%	72%	79%	68%	50%	63%	95%	93%
Black	2%	5%	22%	31%	2%	4%	8%	18%	15%	26%
Hispanic	4%	5%	11%	7%	5%	7%	8%	1%	4%	2%
White	92%	88%	65%	60%	91%	81%	79%	78%	78%	72%
Other Race	2%	2%	2%	1%	2%	8%	6%	3%	3%	0%
No HS Diploma	16%	21%	18%	20%	10%	10%	0%	1%	0%	0%
HS Diploma or GED	33%	31%	24%	21%	28%	27%	3%	1%	0%	0%
College	27%	17%	26%	17%	38%	22%	0%	0%	0%	0%
Missing	24%	31%	32%	42%	23%	40%	97%	98%	100%	100%
Employed	34%	19%	23%	10%	57%	30%	0%	0%	0%	0%
Unemployed	35%	44%	37%	44%	12%	22%	3%	2%	0%	0%
Not in Labor Force	6%	3%	8%	3%	6%	3%	0%	0%	0%	0%
Missing	25%	34%	32%	42%	26%	45%	97%	98%	100%	100%
Single	42%	40%	42%	41%	30%	26%	2%	0%	0%	0%
Sep/Divorced	20%	15%	15%	14%	25%	20%	2%	2%	0%	0%
Married	15%	12%	11%	8%	22%	14%	0%	0%	1%	0%
Missing	23%	34%	31%	36%	23%	40%	97%	98%	99%	100%
Low Risk	29%	7%	51%	13%	58%	29%	21%	1%	57%	26%
High Risk	42%	41%	43%	52%	15%	32%	56%	54%	14%	21%
Missing	29%	52%	6%	35%	27%	39%	23%	45%	28%	52%
Prior Arrests	1.8	2.7	1.9	2.6	1.4	2.0	1.9	2.5	1.7	2.2
Time in Program	16 Months	11 Months	19 Months	14 Months	16 Months	11 Months	22 Months	16 Months	18 Months	15 Months
PSC Program Activities (first 3 months)										
Court Hearings	7.0	6.9	3.9	3.1	6.0	5.5	8.4	7.8	5.0	5.5
UA Tests	23.6	21.7	23.0	20.3	18.0	16.8	14.7	14.1	14.0	15.4
% Positive UAs	22%	55%	48%	83%	14%	45%	31%	49%	26%	48%

APPENDIX B2: OUTCOME RESULTS BY ATC

The table below displays information about the 27 adult treatment courts included in this evaluation, including the total court size, percent of best practices met, graduation rate, 3-year recidivism, and average number of 3 year rearrests. Courts must have at least 10 discharged participants for graduation rate calculations. Outcome information for courts with fewer than 10 participants is suppressed, but was included in aggregated analyses.

Table B2. Adult Treatment Courts Outcomes

Court Name (alphabetical by county)	N	% BPs Met	Grad Rate	3 Year Recidivism Rate		Significant ?	3 Year Avg. Rearrests		Significant ?
				Program	Comp		Program	Comp	
Adams County Drug Court	76	95%	25%	59%	39%	Yes	1.2	1.1	
18th Judicial District Recovery Court (Arapahoe/Douglas)	72	95%	24%	65%	47%	Yes	1.4	1.4	
Adult Integrated Treatment Court (Boulder/Longmont)	379	62%	45%	54%	35%	Yes	1.3	0.8	Yes
Adult Treatment Court (Chaffee)	75	69%	71%	73%	48%	Yes	1.9	1.3	Yes
Delta Adult Treatment Court	69	74%	43%	64%	33%	Yes	1.5	0.9	Yes
Denver Adult Drug Court	2527	81%	37%	61%	43%	Yes	1.7	1.0	Yes
Eagle County Drug Court	10	84%	50%	20%	20%		0.6	0.2	
Recovery Court: HEALS and ACDC (El Paso/Teller)	681	96%	60%	46%	44%		1.0	0.9	
Judge John Anderson (Fremont)	245	N/A	54%	57%	40%	Yes	1.2	0.8	Yes
Garfield Ray Combest Drug Court	85	81%	47%	66%	39%	Yes	1.4	0.9	
Gunnison Recovery Court	52	83%	61%	44%	37%		0.9	1.0	
Huerfano Adult Drug Treatment Court	4	87%	--	--	--		--	--	
1st Judicial District Recovery Court (Jefferson)	375	88%	30%	62%	44%	Yes	1.4	0.9	Yes
Drug Court (La Plata)	139	94%	62%	57%	38%	Yes	1.2	0.9	
8th Judicial District Adult Drug Court (Larimer)	233	65%	52%	49%	42%		1.1	1.0	
Las Animas Adult Drug Treatment Court	16	87%	29%	56%	38%		1.3	1.1	
Logan County Adult Drug Court	12	84%	--	50%	25%		1.2	0.4	
14th Judicial District Drug Court (Moffat)	24	66%	61%	71%	67%		1.5	1.5	
Adult Drug Court Program (Montezuma)	73	82%	43%	51%	34%	Yes	1.1	1.0	
Personal Action Towards Health and Sobriety (fka Montrose Adult Drug Court)	144	84%	48%	67%	51%		1.9	1.5	
Morgan County Adult Drug Court	23	69%	22%	48%	48%		0.6	1.2	
Integrated Treatment Court (Otero)	53	79%	35%	68%	57%		2.0	2.1	
Park County Drug Court	31	N/A	54%	58%	26%	Yes	1.6	0.4	Yes
14th Judicial District Drug Court (Routt)	10	N/A	45%	80%	20%	Yes	3.4	0.4	Yes
Choosing Alternatives in Recovery through Empowerment (fka San Miguel County Alternative Court)	6	84%	--	--	--		--	--	
Summit County Recovery Court	23	82%	55%	57%	26%	Yes	1.2	0.4	Yes
Weld County Adult Treatment Court	139	84%	40%	53%	46%		1.0	0.9	

PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

APPENDIX B3: OUTCOME RESULTS BY DUI COURT

The table below displays information about the 17 DUI treatment courts included in this evaluation, including the total court size, percent of best practices met, graduation rate, 3 year recidivism, and average number of 3 year rearrests. Courts must have at least 10 discharged participants for graduation rate calculations. Outcome information for courts with fewer than 10 participants is suppressed, but was included in aggregated analyses

Table B3. DUI Courts Outcomes

Court Name (alphabetical by county)	N	% BPs Met	Grad Rate	3 Year Recidivism Rate		Significant ?	3 Year Avg. Rearrests		Significant ?
				Program	Comp		Program	Comp	
Pagosa Springs DWI Court (Archuleta)	75	N/A	69%	29%	15%	Yes	0.7	0.3	
DUI Integrated Treatment Court (Boulder)	166	N/A	82%	28%	16%	Yes	0.4	0.3	
DUI Integrated Treatment Court (Boulder-Longmont)	126	N/A	84%	24%	17%		0.4	0.3	
Judge William Alderton (Chaffee)	56	N/A	70%	38%	20%	Yes	0.8	0.4	
Eagle County DUI Court	25	82%	91%	24%	16%		0.4	0.3	
Eagle County AISP Court	81	N/A	82%	31%	14%	Yes	0.5	0.2	Yes
Driving Under the Influence Court (El Paso)	148	87%	74%	30%	36%		0.6	0.8	
Sobriety Court (Fremont)	28	50%	62%	25%	25%		0.4	0.9	
Lake County Sobriety Court	41	82%	67%	39%	34%		0.8	0.7	
DUI Recovery Court (La Plata)	1	69%	--	--	--		--	--	
Larimer County DUI Court	81	76%	81%	26%	27%		0.4	0.5	
Las Animas DUI Court	4	76%	--	--	--		--	--	
Combined Courts DUI Court (Montezuma)	46	N/A	50%	28%	22%		0.4	0.4	
Park County Sobriety Court	13	N/A	75%	15%	23%		0.5	0.4	
9th Judicial District Hybrid Drug/DUI Court (Pitkin)	30	74%	81%	23%	27%		0.4	0.6	
Driving Under the Influence Court (Teller)	29	N/A	82%	31%	24%		0.6	0.3	
Weld County DUI Court Program	77	71%	70%	31%	30%		0.5	0.6	

APPENDIX B4: OUTCOME RESULTS BY MHC

The table below displays information about the 9 mental health courts included in this evaluation, including the total court size, percent of best practices met, graduation rate, a comparison of arrests two years prior and two years after program entry, as well as 3 year recidivism, and average number of 3 year rearrests. Courts must have at least 10 discharged participants for graduation rate calculations. Outcome information for courts with fewer than 10 participants is suppressed, but was included in aggregated analyses.

Table B4. Mental Health Courts Outcomes

Court Name (alphabetical by county)	N	% BPs Met	Grad Rate	Pre/Post Comparison		Significant ?	3 Year Recidivism Rate	3 Year Rearrests
				2 Yr. Priors	2 Yr. Rearrests			
18th Judicial District Wellness Court (Arapahoe/Douglas)	94	93%	34%	1.8	0.5	Yes	49%	0.8
Denver Adult Drug Court: Mental Health Track	7	81%	--	--	--		--	--
Mental Health Court (El Paso/Teller)	41	N/A	30%	3.2	0.8	Yes	51%	1.0
Wellness Treatment Court (Fremont)	21	62%	--	2.6	0.6	Yes	52%	1.1
1st Judicial District Adult Mental Health Court (Jefferson)	5	84%	--	--	--		--	--
Behavioral Health Court (La Plata)	26	86%	48%	2.7	0.5	Yes	35%	0.5
8th Judicial District Wellness Court (Larimer/Jackson)	28	80%	--	3.0	1.1	Yes	64%	2.0
Mental Health Court (Pitkin)	9	N/A	--	--	--		--	--
10th Judicial District Behavioral Health Treatment Court (Pueblo)	50	81%	69%	2.0	1.0	Yes	52%	Table B4

APPENDIX B5: OUTCOME RESULTS BY VTC

The table below displays information about the 6 veterans treatment courts included in this evaluation, including the total court size, percent of best practices met, graduation rate, a comparison of arrests two years prior and two years after program entry, as well as 3 year recidivism, and average number of 3 year rearrests. Courts must have at least 10 discharged participants for graduation rate calculations. Outcome information for courts with fewer than 10 participants is suppressed.

Table B5. Veterans Treatment Courts Outcomes

Court Name (alphabetical by county)	N	% BPs Met	Grad Rate	Pre/Post Comparison		Significant ?	3 Year Recidivism Rate	3 Year Rearrests
				2 Yr. Priors	2 Yr. Rearrests			
Adams County Court for Veterans	26	92%	45%	1.5	0.8	Yes	46%	0.9
18th Judicial District Veterans Treatment Court (Arapahoe/Douglas/Elbert/Lincoln)	26	94%	--	1.7	0.3	Yes	31%	0.5
Denver District Drug Court: Vet track	2	89%	--	--	--		--	--
Veterans Trauma Court (El Paso/Teller)	294	91%	82%	1.9	0.7	Yes	41%	0.8
1st Judicial District Veterans Treatment Court (Jefferson/Gilpin)	36	78%	40%	2.8	0.9	Yes	67%	1.1
10th Judicial District Veterans Treatment Court (Pueblo)	10	82%	--	3.2	1.1	Yes	60%	Table B5

APPENDIX C
OUTCOME EVALUATION TECHNICAL NOTES

APPENDIX C: OUTCOME EVALUATION TECHNICAL NOTES

NPC conducted an analysis of all problem solving courts (PSC) in Colorado (excluding juvenile and family treatment courts) to assess the short term (e.g., graduation rates) and long term (e.g., rearrests) outcomes of these programs. Evaluation activities included an administration of an electronic assessment to all Colorado PSCs, as well as administrative data collection from a number of statewide and local sources. This section provides the methods and technical notes for the outcome analyses performed. The outcome evaluation addresses the following study questions:

- What program practices are associated with higher graduation rates?
- How successful is the program in bringing program participants to completion and graduation within the expected time frame?
- What PSC participant characteristics are associated with program success (program completion and reduced recidivism)?
- What PSC program activities (e.g., attendance at status review hearings, rate of positive drug screens) are associated with program success (program completion and reduced recidivism)?
- What is the impact of the PSCs on criminal recidivism?
    - What are the differences in recidivism rates (the percent of participants who were rearrested) between PSC participants and the comparison group (those who went through traditional court processing)?
    - What are the differences in the average number of rearrests between PSC court participants and the comparison group?
    - What are the differences in supervision (including number of days spent under probation or parole supervision) between PSC participants and the comparison group?
    - What are the differences in incarceration (including number of days spent in jail or prison) between PSC participants and the comparison group?

Evaluation Data Collection and Sources

NPC staff members adapted procedures developed in previous treatment court evaluation projects for data collection, management, and analysis of the PSC data. The data necessary for the evaluation were gathered from administrative databases as described in Table C1. The table lists the type of data needed and the source of these data.

Table C1. Evaluation Data Sources

Data Type	Source and Time Period	Data Element Examples
PSC Program Practices	**Best Practices Self Assessment Tool (BeST), 2018** Advanced Computer Technologies (ACT), tool co-owned by NPC Research	• Court practices performed • Number of graduates and terminated participants • PSC characteristics
PSC Program Data	**Problem Solving Court Data Drives Dollars (PSC3D), 2007-2016** Colorado State Court Administrator's Office (SCAO) **ICON/Eclipse, 2007-2019** Colorado Judiciary (trial court database)	• PSC participant identifiers • Participant demographics • Program start and end dates • PSC completion status • Sanctions and incentives • Dates of court appearances
Court Records	**ICON/Eclipse, 2007-2019** Colorado Judiciary (trial court database) **Denver County Court, 2007-2016**	• Study participant identifiers • Study participant demographics • Arrest or offense dates • Dates of case filings • Charges (type and class)
Probation	**Eclipse, 2007-2019** Colorado Judiciary (trial court database)	• Probation entry and exit dates • LSI (risk) assessment information • Drug test dates and results
Prison and Parole	**2007-2016** Colorado Department of Corrections	• Prison entry and exit dates • Parole entry and exit dates
Substance Use Treatment	**Drug Alcohol Coordinated Data System (DACODS), 2007-2019** Colorado Office of Behavioral Health (OBH)	• Treatment start and end dates • Treatment modality
Jail	**Denver County Jail, 2010-2017** **Fremont County Jail, 2007-2017** **Jefferson County Jail, 2007-2017** **Larimer County Jail, 2007-2017** **Otero County Jail, 2014-2017**	• Jail entry and exit dates

Best Practices Assessment

NPC developed an online assessment to examine the extent to which treatment courts are implementing best practices within the 10 Key Components of Drug Courts. The original instrument was based on three main sources: NPC's extensive experience and research on treatment courts, the American University Drug Court Survey, and a published paper by Longshore et al. (2001), which lays out a conceptual framework for treatment courts. The assessment is regularly updated based on literature from the latest treatment court research, as well as feedback from program staff and experts in the field. The assessment covers a number of areas, particularly topics related to the 10 Key Components, including eligibility guidelines, specific program processes (e.g., phases, treatment providers, drug and alcohol testing, fee structure, rewards/sanctions), graduation, aftercare, termination, and identification of program team members and their roles. The use of a standardized assessment allows NPC to begin building an understanding of the program, as well as to collect information to support a thorough review of the site. This assessment is hosted online and data are maintained by Advanced Computer Technologies (ACT).

Statewide ICON/Eclipse and PSC3D Program Participant Data

NPC obtained and reviewed Colorado statewide court data exported from the ICON/Eclipse (I/E) case management system and the Problem Solving Courts Data Drives Dollars (PSC3D) database. I/E exports of adult Problem Solving Court (PSC) participant data consisted of multiple files, which were audited and linked, each with a focus on specific data elements. The I/E participant data files included: demographics, court intakes, court charges, court discharges, program sanctions, and court review hearings. The PSC3D data export included additional PSC program participant data elements, such as prior substance use and Level of Service Inventory (LSI) scores, for individuals entered into the PSC3D system (approximately seventy percent of the total number of participants in the final sample).

Both the PSC3D and I/E databases included extracts that covered roughly the same time period (2007 to 2016), although I/E provided a more comprehensive list of individuals. I/E files containing various unique identifiers and data points were linked, where possible, to obtain demographics and other variables of interest for outcome analyses. After cleaning each I/E dataset to ensure data reliability and resolve any conflicts across records (such as duplicated records or unique identifiers repeating across individuals), files were merged via myriad matching methods to maximize the number of data points retained for each program participant. Due to data entry inconsistencies, some individuals who could not be mapped with a high degree of certainty across I/E data files were not included in the final study sample. Instances of truly missing data points occurred across datasets and remain missing for some cases in the final sample.

The PSC3D dataset was audited for data integrity and cleaned. Additional program participant data, such as employment and education at entry, as well as prior substance use, were extracted from PSC3D and merged into the I/E sample file. In cases where demographic data such as gender or race/ethnicity were missing in the I/E demographics file, PSC3D data were used, if available. The I/E race ethnicity coding convention was retained due to the fact that the data were available for most of the sample, and were consistent with the statewide case file dataset, and PSC3D race/ethnicity was re-coded accordingly prior to imputation in the I/E file.

Statewide Case File Data

Statewide case file data were also obtained via ICON/Eclipse (I/E) file exports and consisted of all felony, misdemeanor, and DUI cases filed between January 2007 and March 2019. However, Denver County case file data consisted solely of felony cases and did not include misdemeanor or DUI cases. To supplement this gap, Denver County Court provided all Denver County misdemeanor cases filed between January 2007 and June 2016. These two datasets were appended to provide a comprehensive dataset of all court filings (with the exception of Denver misdemeanors filed between July 2016 and March 2019). Multiple methods were employed to cross link individuals across data files, including use of Link King software to conduct probabilistic record linkage,[1] to ensure maximum retention of data points across all individuals when merging and finalizing data sets.

I/E case file data were used to assess prior criminality and recidivism outcomes. Offense dates included in case filings (cases filed with the court by the prosecutor's office) and associated charges were used as a proxy for participant arrests for 2 years prior to program entry and 3 years after program entry. Charge data were also available in this dataset and were used to calculate recidivism for different charge types (e.g., drug charges, property charges, felony vs. misdemeanor charges). Charges classified as Petty Offense II or infractions were removed from the dataset and not included in outcome results.

Statewide Substance Use Disorder Treatment Data

The Drug/Alcohol Coordinated Data System (DACODS) is the primary client level data collection instrument used by the Office of Behavioral Health (OBH) of the Colorado Department of Human Services. The Substance Abuse and Mental Health Services Administration (SAMHSA) requires that OBH collect and report on the data items in DACODS as a requirement of funding. OBH requires completion of DACODS as a requirement of agency licensure. All individuals differentially assessed for a substance use disorder by or receiving treatment from an OBH-licensed substance use treatment provider, detoxification, or DUI program should have their information reported in DACODS, regardless of payer source. Due to strict privacy controls, NPC Research provided a specific list of study individuals to OBH and OBH performed an exact match on first name, last name, and date of birth. Records were returned to NPC Research will all personally identifiable data removed (identified only by a non-PHI serial number).

Data Limitations

The following is a list of data limitations impacting data analyses, followed by a list of recommendations for future data collection.

Differing Database Time Periods

The main study period includes individuals arrested (ultimately resulting in a new case filing) between 2009 and 2015, with at least 3 years of outcome data available. While the main database used for outcome analyses, ICON/Eclipse, covered the full time period, there were several sources that did not have the full time period of interest. They include:

- **Best Practice Assessment**. The best practice assessment was administered in November 2018 and may not reflect the court practices participants experienced by study participants (those entering PSC between 2009-2015).

[1] https://support.sas.com/resources/papers/proceedings/proceedings/sugi30/020-30.pdf

- **Denver County Misdemeanors**. This dataset only includes misdemeanor court cases from 2007 through June 2016. It is possible that misdemeanor cases (where the most severe charge was a misdemeanor) may be undercounted for both program and comparison group members entering near the end of the study time period. Since these court cases are missing for both types of study participants, and since the comparison group was selected from a contemporaneous group of individuals (as opposed to a historical sample), we do not anticipate that the recidivism outcomes are biased more towards one group or the other, but rather undercounted for both groups proportionally.
- **Jail**. Currently, there is not a statewide database collecting information about jail incarceration. Researchers worked with five individual counties to obtain local jail records to use as an estimate for statewide incarceration rates. Due to limitations in data coverage (e.g., when the individual databases were created), the jail datasets did not cover the full study time period. When calculating rates of jail incarceration, only individuals with complete information for the time period were used (e.g., if an individual was arrested in 2015 and did not have a full three year outcome window for cost, this person would be included in the one and two-year estimates, but removed from year three calculations).
- **Prison and Parole**. Similarly, the incarceration and supervision records obtained from the Department of Corrections covered 2007-2016. Only individuals with complete information were used in these calculations.

Missing or Unavailable PSC Program Data

As mentioned earlier, there are two main data systems that collect PSC participant data: PSC3D and ICON/Eclipse (I/E). PSC3D was implemented in 2008, but not regularly used until approximately 2010. At some point after 2012, data entry into this database became voluntary, which impacted the number of records entered and the consistency of data entry. Because I/E is linked with all trial court data, it appears to provide a more comprehensive list of program participants (of the entire PSC study population, approximately 70% were included in PSC3D), however, the data elements tracked in I/E are not as broad as those collected in PSC3D (for example, I/E does not include employment or education level of participants). Newer programs, many of which were Mental Health Courts and Veteran Treatment Courts, came primarily from I/E, resulting in missing data elements for a larger proportion of these court types.

Additionally, neither PSC3D or I/E contained the name of the PSC program, only the jurisdiction of the case filing and PSC court type. When possible, the county in which the court case was filed was used as a reasonable approximation; however, if there were multiple PSCs in operation in a county and the PSC court type was not included, it was impossible to determine which court the participant belonged. Approximately 500 participants were excluded from the evaluation because they could not be reasonably connected to a specific PSC.

Any participant missing a program completion status was assumed to still be active in their PSC.

Finally, information about program jail sanctions was not consistently tracked in either ICON/Eclipse or PSC3D. After confirming from the Best Practice Assessment responses that none of the five focus sites

reported using jail as a sanction for longer than two consecutive weeks, any jail stay in the county jail records that was less than two weeks was assumed to be a PSC program jail sanction. Program jail sanctions were counted separately from longer jail stays, which were assumed to be related to subsequent rearrests.

Missing or Unavailable Supervision and Incarceration Data

Not all study participants were found in the statewide probation dataset provided by Colorado Judicial. Roughly 79% of PSC participants were found at least once in the probation data (not necessarily coinciding with their time in PSC), and just 60% of comparison group members. It is possible that comparison group members were sentenced to serve time in jail or prison, and were never under the jurisdiction of the Department of Probation Services. Since drug test and Level of Service Inventory (LSI) were available only in the probation exports, much of the missing data is actually due to study participants not found in the probation database. For purposes of calculating average time spent under probation supervision, study participants missing from the database were assumed to have never been on probation, and a value of "0" was imputed to represent their time on probation in the study window. It is possible that the time spent on probation is an undercount of the true time spent under probation supervision for both the program and comparison groups. For drug tests and LSI risk information, only individuals with complete information were used in analyses of those data items (i.e., individuals were still retained in the final sample for recidivism analyses, but not included in calculations for average drug screens administered or analyses of risk assessment scores).

Similarly, not all study individuals were found in the Department of Corrections database (prison and parole). Approximately 10% of PSC participants and 17% of comparison group members were successfully located in these records. Any individual not found in the DOC records was assumed to have never been under the jurisdiction of DOC, and a value of "0" was imputed to represent their time incarcerated in prison or under parole supervision for the study window. It is possible that the time spent incarcerated in prison or on parole is an undercount of the true time spent under the jurisdiction of DOC for both the program and comparison groups.

Substance Use Treatment Availability

Substance use treatment data was requested for all study participants (both program and comparison group members) from the Colorado Office of Behavioral Health. Due to strict privacy laws, OBH only provided treatment records if the individual's name and date of birth provided by researches matched *exactly* to identifiers in DACODS record. Overall, of the more than 8,000 PSC participants requested, OBH was able to locate records for 64% of participants. Once the treatment records were linked with program data, only 41% of all participants and 48% of graduates had a treatment service record that coincided with their participation in problem solving court (this rate was 30% for DUI court graduates and 56% for drug court graduates). Since graduates are presumed to have complied with all PSC program requirements, including successful completion of substance use disorder treatment, the poor link rate for graduates provides a good indicator that a substantial amount of treatment received was missing for PSC participants. For these reasons, OBH treatment data was used minimally throughout the study, primarily for cost estimates (which only included participants with at least one treatment record found in the DACODS database).

State-level Recommendations for Problem Solving Court Data Collection and Storage

It is admirable that the State of Colorado has allocated time and resources to enable statewide PSC program data collection, including the provision of PSC3D to treatment court programs and adapting the trial court database (ICON/Eclipse) to include additional PSC participant information. Since the release of the last statewide evaluation of Colorado's Problem Solving Courts (2012), many PSCs have retroactively entered participant information into PSC3D. In 2012, roughly 50% of all PSC participants included in I/E were found in PSC3D; for the current study (starting in 2016), that proportion increased to 70%. Additionally, the PSC3D database was modified in 2012 to include prior substance use, which was a recommendation included in the prior report. It is clear that the State of Colorado and its Problem Solving Courts are invested in tracking and monitoring PSC participant progress.

Following are several recommendations for enhancements to the current statewide data collection strategy. These enhancements would allow for more accurate, valid, efficient, and cost-effective evaluation of statewide Problem Solving Court effectiveness in the future as well as more effective case management.

- **Centralize data storage**. While PSC3D captures many data points specific to PSC program participants, there are ways in which the overall data collection and storage could be improved. It is the researchers' understanding that the State of Colorado intends to roll out a new data system that will streamline data storage of all court case management data, and would eliminate the need for having individuals' data split across separate storage systems. Data streamlining, to minimize entry redundancies and discrepancies across data sets and centralize storage, is in line with good data practices and the researchers commend efforts to this end. It is recommended that, as much as possible, the PSC3D data be retained and incorporated alongside ICON/Eclipse data in the new system to prevent loss of valuable PSC program data and prior time spent collecting and entering data.
- **Ensure consistent entry and accuracy of unique participant identifier variables**. With the current data storage configuration, in which supplemental data such as court hearing attendance are housed in ICON/Eclipse, drug tests are housed by the Division of Probation Services, and treatment data housing by the Office of Behavioral Health (OBH), it is extremely important to be able to easily and confidently link individuals across these datasets. Aside from party name and date of birth, the only unique identifier common to both the PSC3D and ICON/Eclipse data files was case number, however, individuals can have multiple case numbers associated with their PSC participation, making links across datasets very complex (due to these inconsistencies, researchers used probabilistic matching techniques to link participants based on name, date of birth, race, gender, and case number).

  The unique identifier variable (MLnumber) in PSC3D, when available and accurate, maps to the unique identifier of the same name in the probation data files. To this end, it is recommended that the future PSC database require entry of the MLnumber, before moving on to additional data entry, and that existing data be audited to impute missing data and resolve ID numbers that seem to repeat across multiple individuals. Additionally, applying a masking format to the case number that would require data entry in a specific format (such as beginning with the four-

digit year rather than the last two digits of the year) will help ensure consistent formatting, and improve data integrity and confidence when cross linking individual cases between PSC3D and ICON/Eclipse data files.

- **Collect program name data**. The PSC3D system has fields to capture court location, case number, and program type (e.g., ATC or DUI), but does not currently have a field identifying the specific program that participants enter. Similarly, the ICON/Eclipse records only include the court and judge processing the court case, which may or may not be the same judge or jurisdiction supervising the PSC participant. ICON/Eclipse also includes a field indicating the program type (e.g., ATC or DUI), however this data element was missing for a large majority of records. With the ever-expanding PSC programs in Colorado, due to the fact that some court locations run multiple programs and program types and that demand for program-level data analysis is ongoing, it is recommended that a *program name* and *program type* variable fields be added to the new database. To maximize utility and data entry consistency, the fields should be an updatable drop-down selection list from which the person conducting data entry can choose an existing program and administrators can add new programs as needed. The program name and program type variable fields will allow for more accurate program-level data collection and analysis.
- **Track treatment data while participating in PSC**. While some treatment data at entry and exit are captured in the current PSC3D data system, it is recommended that treatment data throughout the program participation window be incorporated into PSC data collection efforts for use in program service delivery monitoring, participant case management, and overall program evaluation. As treatment is a central tenet of problem solving court programs, researchers strongly advise that ongoing treatment data, including recommendations, referrals, attendance, drug screens, and completion status, be incorporated into the new database developed by Colorado Judicial. If the state continues using PSC3D exclusively for tracking PSC program data, it is recommended that, if possible, treatment providers be given access to screens in PSC3D that would allow them to enter and track program participant treatment data. Confidential fields could have restrictions applied that would allow only the provider or other appropriate persons to either view or edit the content.
- **Collect judge associated with case in the PSC data system**. The *judge name* and *judge number*, in a drop-down selection list format, associated with a problem-solving court entry case would be useful additions to PSC3D and/or should be included in the new database system developed by Colorado Judicial (not just the judge associated with the criminal case, which may or may not be the same as the PSC judge). The judge data can be useful when describing a program at a certain time point, tracking judge tenure and continuity across the life of a program and ensuring data integrity by ensuring that a case leading to program entry is associated with a judge presiding over a problem-solving court at the time of entry.
- **Identify PSC-relevant ICON/Eclipse data to be combined with PSC3D data for ongoing program monitoring and evaluation**. Currently there are variables tracked in ICON/Eclipse that need to continue being tracked and linked to PSC program participant data in PSC3D. Prior to the new

PSC database roll-out, researchers suggest identifying all variables tracked in ICON/Eclipse that should be merged with the PSC3D data elements in the new combined system. Based on data review, the researchers suggest (at a minimum) retaining the following ICON/Eclipse data points, at entry, during the program and at exit, in the new database system: program phase data, court hearing appearance data (dates and decisions), participant assessment data (LSI, ASUS etc.), drug test dates and results, and case file and charge data both prior to and after program entry and exit. Variables that are redundant across ICON/Eclipse and PSC3D such as gender, name, race/ethnicity, etc. should only be entered one time into the new data system and a choice will need to be made as to which data source (in terms of both data content and variable format) to use for each variable.

- **If possible, house Denver County misdemeanor and traffic case file data in the statewide ICON/Eclipse data system**. As Denver runs one of the largest ATC programs in the state, it would be useful for Denver case file data to be accessible in the statewide data to facilitate ongoing and future analysis of participant criminality beyond felony data. Centralized access to all Denver case file and charge data will allow for a more accurate assessment and portrait of the kinds of charges precipitating program entry and occurring after program exit.

Outcome Evaluation Methods

For the outcome study, NPC included all participants who entered one of Colorado's 59 adult problem solving courts between January 2009 and June 2015, as well as a sample of individuals with case filings that would have made them eligible for either traditional adult treatment court (ATC) or driving under the influence (DUI) court, but who received traditional court processing for their charge(s).

Depending on data availability, program and comparison participants were tracked through existing administrative databases for a period of 1 to 3 years following PSC program entry (or equivalent for the comparison group). The evaluation team used data sources as described in Table C1 to determine whether the program sample and comparison groups differed in program activities or criminal justice involvement (e.g., arrests) over time.

Sample Selection

Participant Group

There are two samples of the PSC participant group throughout the evaluation:

1) All non-active PSC participants entering between January 2009 and June 2015 (one year prior to the time of earliest data extraction). This group was used to compare **differences in characteristics between graduates and non-graduates** of the program, overall **graduation rates**, and **typical service utilization profile** of a participant in the program (also used in the cost calculations).

2) All PSC participants entering between January 2009 and June 2015, regardless of completion status. This group was used for all **comparative analyses** (e.g., recidivism and cost comparisons). Recidivism data were initially extracted in June 2016 and again in June 2019 to provide additional years of follow-up data. Only participants with at least 3 full years of post-entry outcomes were selected for analyses. NPC employs an intent to treat (ITT) approach, where every participant entering the program, regardless of program status, is used to describe program impact. Non-graduates of the program may also have reduced recidivism as a result of their participation in the program, and an ITT model allows for this analysis. For descriptive purposes only, graduates entering prior to June 2015 are presented alongside the entire PSC population for all outcome and comparative cost analyses.

Comparison Group

The comparison group was composed of individuals who were similar to those who participated in the PSC programs (e.g., demographics, criminal history), but went through the traditional court process. The retrospective comparison group was selected from observational data collected by governmental agencies (i.e., participants were not randomly assigned to PSC or a control group, but were selected based on the natural course of program implementation). Using observational data for inferential statistics is complicated by the fact that program participants may systematically differ from comparison group members, and those differences, rather than problem solving court, may account for some or all of the differences in the impact measures. To reduce this selection bias, NPC employed a matching method called Propensity Score Matching (PSM) to remove study participants from the comparison

sample that did not have similar demographics or criminal histories as the PSC population (Rosenbaum & Rubin, 1983).

Propensity scores are a weighting scheme designed to mimic random assignment. The first step of propensity score analysis was to estimate the probability that a study participant will or will not be a drug court participant. This prediction (the estimated probability of whether an individual is likely to enter the program) is known as the propensity score. Once the propensity score for each individual was established, the extent to which PSC participants differed from comparison group members was calculated for each program using Weighted Least Squares (WLS) regression. This calculation is done by using the propensity scores to weight the parameters in the equation, which adjusts for any pre-existing differences between the two groups. This methodology has advantages over other techniques that statistically adjust for pre-existing differences because it uses a multivariate approach (taking into account many possible measured variables) to create propensity weights and thus reduces potential bias in impact (e.g., recidivism) results.

To conduct propensity score analyses, NPC obtained court case data for all counties in Colorado from the Colorado Judiciary covering the time period between January 2007 and June 2019. Individuals with offense dates occurring between January 2009 and June 2015 were identified as potential comparison group members from court case filings (to allow for the calculation of two y ear prior criminal history and at least three years of study follow-up time). Potential comparison group members for traditional adult drug treatment courts (ATC) must have had court case filings that included a drug or property charge (if the case included only a property charge, the individual must have had at least one prior drug charge in their history). Case filings with drug charges were the best proxy for identifying comparison group members with probably substance use disorders. Similarly, potential DUI comparison group members must have had at least one court case filing that included a driving under the influence (DUI) charge. If a potential comparison group member had more than one qualifying event, a random number generator was used to select one of these events as the index event.

NPC reviewed additional information such as demographics, criminal history, and prior treatment information for all potential comparison group members. Researchers matched PSC ATC and DUI participants in the comparative analysis sample using a one-to-one matching scenario, without replacement (i.e., each ATC or DUI participant was matched to one comparison group member, and comparison group members could only be used once). Matching included all available information: age, gender, race, arresting jurisdiction, year of arrest, number of prior arrests, charges on the index (or eligible) arrest, and prior treatment (from DACODS). Some participants were excluded from outcome results if a suitable comparison group member could not be located (e.g., the participant had an abnormally high number of priors, in conjunction with other characteristics). Each problem solving court population was matched separately (via Propensity Score Matching) to comparison group members charged with crimes in the same county (or counties), then the groups were aggregated together to form a statewide sample. Table C2 in lists the data elements used in the matching process.

Table C2. Data Elements Employed in Propensity Score Matching

Data Element
Age at program entry
Gender
Race (White or non-White)
PSC program entry year (or equivalent for comparison group)
Location of qualifying arrest
Number of total arrests 2 years prior to PSC entry
Number of total DUI offenses 2 years prior to PSC entry (DUI courts only)
Whether the qualifying arrest included a felony charge (DUI courts only)
Any Prior Substance Use Disorder Treatment

Analytic Approach

Once all data were gathered on the study participants, researchers cleaned and moved the data into Statistical Package for the Social Sciences (SPSS) 23.0 for statistical analysis. Propensity Score and Mahalanobis Distance Matching was performed using a tool developed in R used in conjunction with SPSS (Ho, D. et al, 2007; Hansen, B. B., 2004; Hansen, B. & Bowers, J., 2008; and Thoemmes, F. & Kim, E., 2011). The analyses used to answer specific questions are described below. Some analyses include data sources that do not cover the full three year outcome window for every participant (such as jail). In these instances where all participants do not have the full outcome time available, only those with complete information are included. These discrepancies in sample sizes are noted throughout the report. Outcomes are counted with respect to the participant program entry date (or a similar date randomly generated for comparison group members based on average time from arrest to program entry).

Outcome Study Question #1: What program practices are associated with higher graduation rates?

The percent of best practices performed by each court was calculated for each court based on the number of possible best practices (the specific number of practices varied by court type). This same calculation was also performed to create subscales by Key Component (i.e., the percent of best practices met within each Key Component). The reported graduation rate was calculated out of the number of graduates and terminated participants reported by the program in the assessment. Pearson correlations were run on the overall percent of best practices met, as well as by Key Component. Correlations within each Key Component were reviewed only if the overall Key Component was significant. The results of these findings are then presented and discussed throughout the report as in conjunction with other evaluation findings.

Outcome Study Question #2: How successful is the program in bringing program participants to completion and graduation within the expected time frame?

Program graduation, or successful completion, rates measures whether a program is bringing its participants to completion. The program graduation rate is the percentage of participants who graduated from the program out of all participants who started during a specified time period and who have all left the program either by successful or unsuccessful discharge (i.e., none of the group is still

active and all have had an equal amount of time to complete). Graduates of PSC program were identified by the following codes from the PSC3D and ICON/Eclipse databases: DCGO (Drug Court Graduate, Terminated Supervision) and DCGP (Drug Court Graduate: Continued Supervision). Drug court non-graduates were identified as DCFL (Drug Court Failed). Individuals identified as DCOT (Drug Court Exit/Out) or those missing a discharge status (assumed to still be active) were not included in graduation rate calculation. The PSC graduation rate is included for all programs with at least 10 discharged participants, by entry year, from January 2009 to December 2015. The average graduation rate is compared to the national average for drug court graduation rates, and the differences are discussed qualitatively.

Currently, there are not published graduation rates for specific court types outside of traditional drug courts (ATCs). NPC Research calculated a national DUI graduation rate based on a review of 145 DUI court evaluation (the court must have had at least 15 exited participants) performed internally, across 19 states. The average DUI court graduation rate was 75% and ranged from 35 to 95%. Eighty-six percent of DUI courts had a higher graduation rate than the nation ATC average of 59% (2014). Colorado's DUI courts are compared to this average and the differences are discussed qualitatively. There are not enough studies of Mental Health or Veteran Treatment Courts to perform a similar analyses, so these courts are also compared qualitatively to the national ATC average.

To measure whether the program is graduating participants in its expected timeframe, the average amount of time in the program was calculated for participants who had enrolled in a PSC between January 2009 and June 2015, by entry year, and have been successfully discharged from the program. Since each court had different requirements for program completion, the average length of stay for graduates and for all participants was compared to best practices research (12 months), and the differences are discussed qualitatively.

Outcome Study Question #3: What participant characteristics are associated with program success and decreased recidivism?

Graduate and non-graduate participants were compared on the basis of demographic characteristics, criminal justice history, and a variety of activities occurring during the program to determine whether any significant patterns predicting program graduation could be found. Chi-square and independent samples *t* tests were performed to identify which factors were significantly associated with program completion (graduation).

Additionally, researchers performed analyses to determine which, if any, characteristics were most associated with program completion. Classification and regression tree (CART) methodologies are used to identify predictor variables that classify a population along an outcome variable. In this report, participant characteristics and PSC program activities were examined to see how they classify cases with regard to graduation status and rearrests (the outcome variables). These methodologies produce an inverted "tree" with branches indicating variables that are associated with differences in the outcome variable. The CART model splits nodes descriptively so that branches contain groups that are as homogenous as possible. In these analyses, the minimum cell size was 25 cases, thus additional branches could not form if a cell would have fewer than 25 participants.

Participant characteristics, criminal justice history, and program activities were also examined in relation to whether an individual was involved in subsequent criminal justice recidivism following PSC entry. Chi-square, independent samples *t* test, and CART methodologies were performed to identify which factors were significantly associated with recidivism.

Outcome Study Question #4: What is the impact of PSC on criminal recidivism?

4A. Does participation in PSC lead to a lower overall recidivism rate (the percent of participants who were rearrested) compared with traditional processing?

For ATC and DUI programs, crosstabs were run to examine differences in recidivism rate (the number/percentage of individuals rearrested at least once during the specified time period) between PSC participants and the comparison groups at 3 years post program entry. Chi-square analyses were used to identify any significant differences in rearrest rates between PSC and comparison group participants. A logistic regression was used to determine if differences between PSC participants and the comparison group were significant over and above any differences due to sex, age, race, and criminal history. For MHC and VTC programs, the average recidivism rate is compared qualitatively to the comparison group for ATC participants.

4B. Does participation in PSC reduce the average number of all rearrests for those individuals compared with traditional processing?

For ATC and DUI programs, independent sample *t* tests and a negative binomial regression model were performed to compare the mean number of all rearrests for all PSC participants and the comparison groups at 3 years post program entry. Means generated by regression model were adjusted in the analysis based on sex, age, race, program entry year, and criminal history to determine the difference in rearrests, controlling for all other factors. Time at risk is NOT controlled for in this or subsequent research questions as the intention of the analysis is to determine whether PSC participation (which typically occurs in the community) reduces recidivism more effectively than business-as-usual, which typically includes at least some incarceration. If incarceration was used for non-PSC participants and was effective in reducing crime, then controlling for this factor would prevent us from determining which path (PSC or business as usual) was more effective.

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

For MHC and VTC programs, paired sample *t* tests were performed to compare the mean number of arrests two years prior to participating in PSC with the mean number of arrests in the two years after entering treatment court.

4C. What are the differences in supervision (including number of days spent under probation or parole supervision) between PSC participants and the comparison group?

Independent sample *t* tests were performed to compare the mean number of days under supervision for all PSC participants and the comparison groups at 3 years after program entry.

4D. What are the differences in incarceration (including number of days spent in jail or prison) between DUI court participants and the comparison group?

Independent sample *t* tests were performed to compare the mean number of days incarcerated for all PSC participants and the comparison groups (with available data) at 3 years post program entry.

Additional Technical Notes

The following information is meant to supplement the figures and analyses presented in the main body of the report.

Statewide Summary

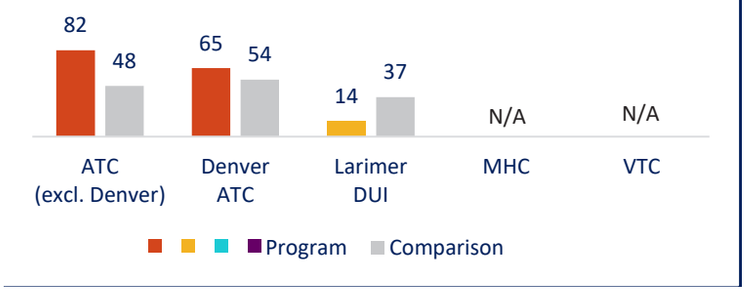
Days Incarcerated (Jail and Prison)

Researchers also examined whether there were any differences in reincarceration for PSC participants and the comparison groups post PSC entry. Information from every county jail was not available, so estimates were created using data from Denver, Fremont, Jefferson, Larimer, and Otero counties. (Note that any days incarcerated as a result of PSC program sanctions were removed from these analyses.) Time incarcerated varied by court type, but on average, PSC participants spent anywhere from one week to about 4 months incarcerated in the 3 years following program (Figure C1).

ATC participants (excluding Denver ATC) were incarcerated for a total of 131 days on average, most of which was spent in jail, and this was about two weeks longer than the comparison group. Denver ATC participants spent an average of 101 days incarcerated, about two months less than their respective comparison group, who spent most of the time incarcerated in prison (an average of 4 months). DUI and VTC participants spent very little time incarcerated, and in fact, DUI court participants spent substantially less time incarcerated than comparison group members, while their recidivism rates were roughly equivalent. This indicates that DUI courts are at least as effective as the traditional court system in responding to DUI offenders, while using fewer resources. This is explored further in the cost analysis section of this report.

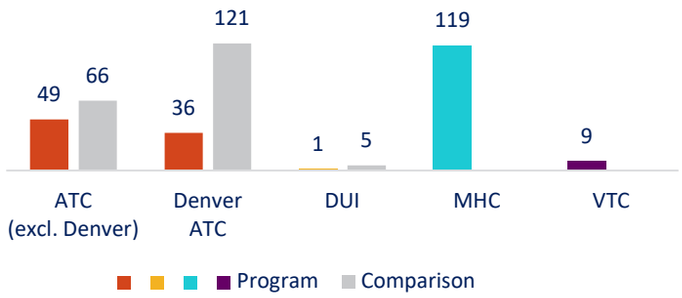
MHC participants spent an average of 4 months incarcerated in prison in the 3 years following program entry and VTC participants spent a little more than a week.

Figure C1. Average Number of Days In Jail 3 Years Post Entry



Note. Sample sizes for jail are (program, comparison): ATC *n*=536, 438; Denver ATC *n*=2,134, 1,858; DUI *n*=49, 45.

Figure C2. Average Number of Days in Prison 3 Years Post Entry



Note. Sample sizes for prison are (program, comparison): ATC *n*=2,271, 2,189; Denver ATC *n*=2,054, 1,876; DUI *n*=778, 758; MHC *n*=130; VTC *n*=199.

Endnotes

1 Sample sizes for parole are as follows (program, comparison): ATC *n*=2,271, 2,189; Denver ATC *n*=2,054, 1,876; DUI *n*=778, 758; MHC *n*=130; VTC *n*=199.

2 Sample sizes for prison are (program, comparison): ATC *n*=2,271, 2,189; Denver ATC *n*=2,054, 1,876; DUI *n*=778, 758; MHC *n*=130; VTC *n*=199.

3 For ATC programs, 42% of participants were missing information about risk; 27% for Denver ATC, 33% for DUI courts, 48% for MHC, and 47% for VTC.

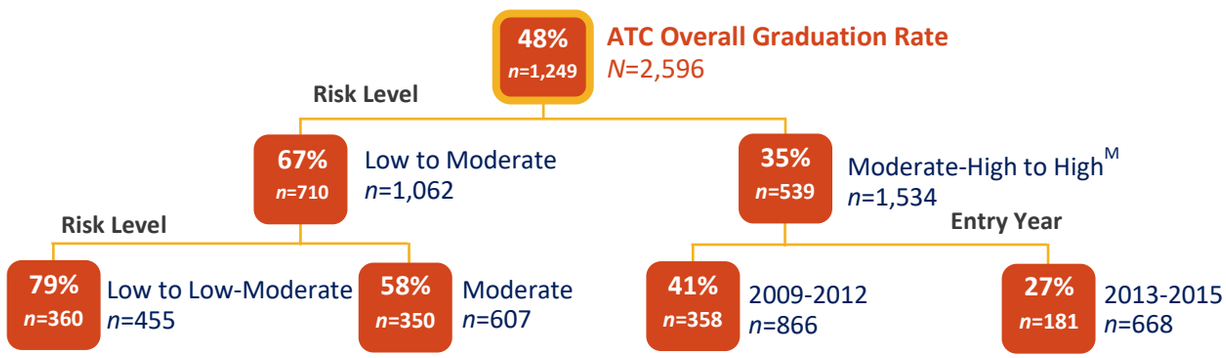
4 The sample size for ATC graduates *n*=1,249; Denver ATC graduates *n*=825.

5 The sample size for DUI Graduates *n*=661; MHC graduates *n*=66; VTC graduates *n*=194.

CART Analysis: Successful Program Completion

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of the ATC Program. As shown in Figure C3, analyses revealed that participants assessed as **lower risk** and those entering **before 2013** were more likely to graduate. The biggest factor related to graduation status is represented as the first split in the tree (and the graduation rate is represented inside the box); 67% of participants who were assessed as low to moderate risk graduated (middle left of figure below), compared to 35% of participants who were assessed as moderate-high to high risk (middle right). The next branches of the tree (or factors related to graduation) were dependent on the participant's risk level. For participants assessed as low to moderate risk, that group could be divided even further into moderate vs. low to low-moderate risk to show the differences in graduation rates. Not surprisingly, those assessed as low to low-moderate had the highest graduation rates (79%, bottom-left). On the right side of the tree, for participants assessed as moderate-high to high risk, program entry year mattered next. Out of those assessed as moderate-high or high risk, those entering the program between 2013 to 2015 had the lowest graduation rate (27%, bottom right of figure).

Figure C3. CART Analysis: Factors Related to ATC Completion Status



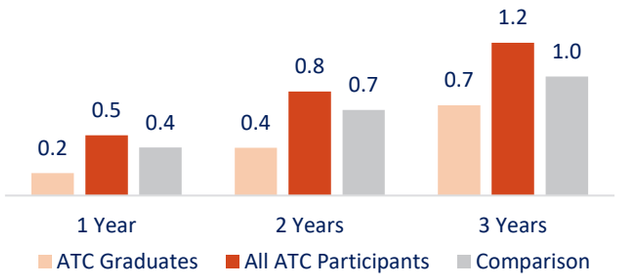
Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25. M=Grouping includes a small number of participants missing info on this characteristic, but had similar graduation rates.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Average Number of Rearrests

The average number of rearrests were counted for all ATC participants, ATC graduates, and the comparison group. At three years post program entry, the average number of rearrests for all ATC participants (excluding Denver) was 1.2. The average number of rearrests for comparison group members was 1.0 (Figure C4).

Figure C4. Average Number of Rearrests for Any Offense over 3 Years

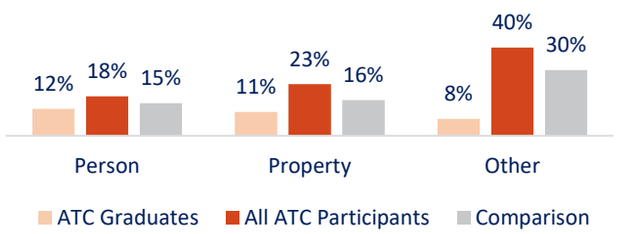


Note. Sample sizes for rearrests (all years): ATC Graduates *n*=1,249; All ATC Participants *n*=3,049; Comparison *n*=3,049.

Recidivism by Charge Type and Class (Severity)

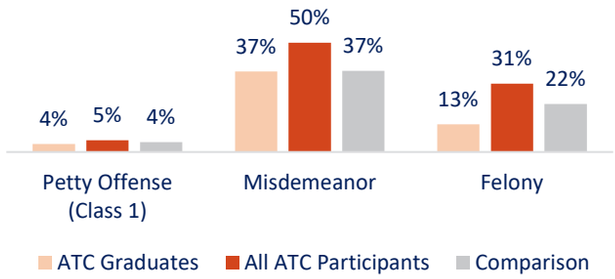
To create a more complete picture of the types of new rearrests, researchers also reviewed offenses by type of charge including person (e.g., assault), property (e.g., theft), or other charges (e.g., driving without a license) for 1 to 3 years post-program entry. Consistent with previous results, ATC participants were rearrested more often than the comparison group for all types of charges. The largest category of rearrests was "other," of which about half of charges were for non-DUI motor vehicle offenses. In both groups, most new offenses were for misdemeanor crimes, although 31% of ATC participants were rearrested for a new felony charge. Figures C5 and C6 show the percent of graduates, all ATC court participants, and comparison group members rearrested, by charge type and class.

Figure C5. Percent Rearrested by Charge Type at 3 Years Post Entry



Note. Sample sizes for rearrests: ATC Graduates *n*=1,249; All ATC Participants *n*=3,049; Comparison *n*=3,049.

Figure C6. Percent Rearrested by Charge Class at 3 Years Post Entry

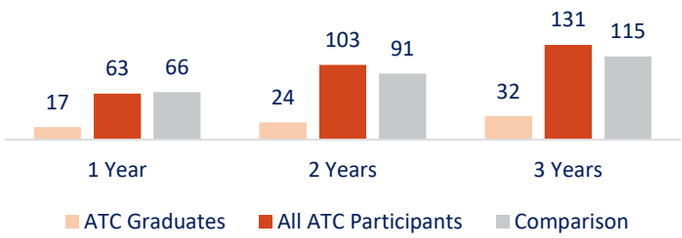


Note. Sample sizes for rearrests: ATC Graduates *n*=1,249; All ATC Participants *n*=3,049; Comparison *n*=3,049.

Incarceration Analyses

Similar, to probation, the average number of days incarcerated were compared for ATC participants and comparison group members (Figure C7). Jail data from every jurisdiction in this study were not available, so averages from Fremont, Jefferson, and Otero County ATC programs were used as estimates. Additionally, any jail time attributed to an ATC sanction was removed. Jail and prison data were combined to reflect total time incarcerated. ATC participants spent an average of 131 days incarcerated in the 3 years following program entry, compared to 115 days for the comparison group.

Figure C7. Average Number of Days Incarcerated Over 3 Years

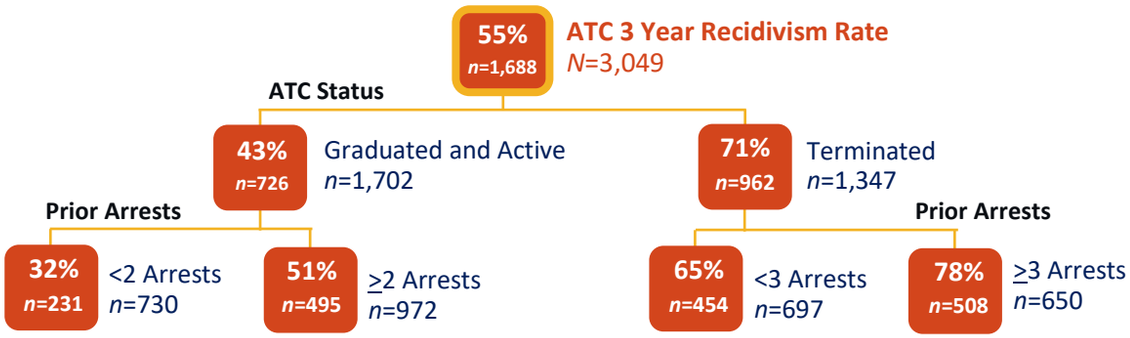


Note. Sample sizes for jail are (1 Year, 2 Years, 3 Years): ATC Graduates *n*=218, 218, 206; All ATC Participants *n*=630, 630, 536; Comparison *n*=555, 555, 438. Sample sizes for prison are (1 Year, 2 Years, 3 Years): ATC Graduates *n*=1,249, 1,224, 1,098; All ATC Participants *n*=3,049, 2,797, 2,271; Comparison *n*=3,049, 2,779, 2,189.

CART Analyses: ATC Participant Recidivism

The average recidivism rate for all ATC participants (excluding Denver ATC) was 55%. As shown in Figure C8, analysis of all ATC participants revealed that those who were **terminated** and had **more arrests two years prior to program entry** were more likely to be rearrested in the 3 years after program entry. The biggest factor related to recidivism is represented as the first split in the tree (and the recidivism rate is represented inside the box). Forty-three percent of participants who graduated from their ATC court program (or were still active) were rearrested (middle left of figure below), compared to 71% of participants who were terminated from their ATC program. The next branches of the tree (or factors related to recidivism) were dependent on the participant's program status. Graduates and active participants who had fewer than 2 arrests in the two years prior to entry had the lowest recidivism rates (32%, bottom left). On the right side of the tree, of terminated participants, those with three or more arrests in the two years prior to program entry had the highest recidivism rates (78%, bottom right).

Figure C8. CART Analysis: Factors Related to ATC Participant Recidivism



Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

Endnotes

6 Logistic regression for any type of rearrest at 3 years post entry: Group Odds Ratio = 2.107, p = 0.000; Group*Priors Odds Ratio = .926, p = .014.

7 Estimated marginal means of negative binomial regression for number of arrests (program, comparison): 1.19, 0.90. Dependent variable: number of rearrests 3 years after program entry (or the equivalent for comparison group). Covariates appearing in the model are evaluated at the following values: Priors = 2.46, Age at Entry = 31.0, Program Year of Entry = 2012; fixed factors appearing in the model are: Gender = Male, Race = White.

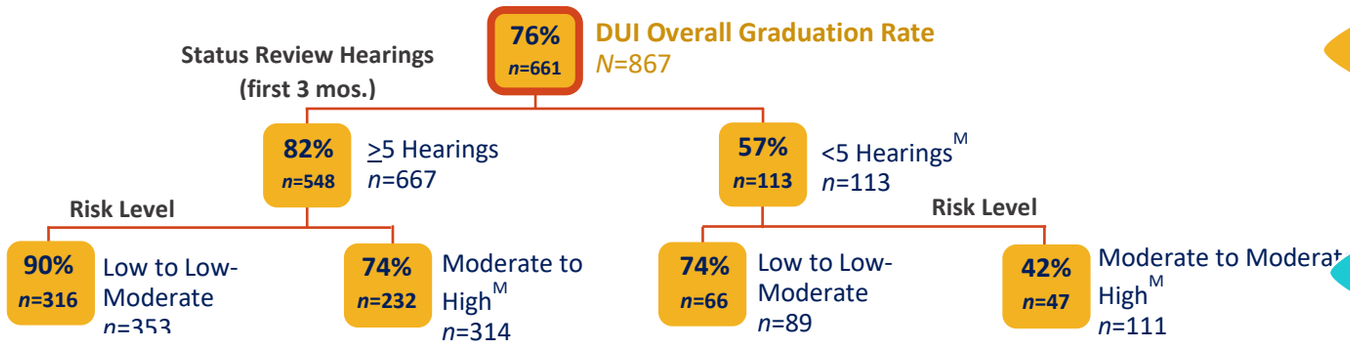
8 Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

9 Complete information for all participants was available from probation. Parole sample sizes by group and time period (1 Year, 2 Year, 3 Years): ATC Graduates n=1,249, 1,224, 1098; All ATC Participants n=3,049, 2,797, 2,271; Comparison Group n=3,049, 2,779, 2,189.

CART Analysis: Successful Program Completion

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of DUI court. As shown in Figure C9, analyses revealed that participants **attending more status review hearings** and those assessed as **lower risk** were more likely to graduate. The biggest factor related to graduation status is represented as the first split in the tree (and the graduation rate is represented inside the box); 82 percent of participants who attended 5 or more status review hearings in the first 3 months of program graduated (middle left of figure below), compared to 57% of participants who attended fewer than 5 hearings (middle right). The next branches of the tree (or factors related to graduation) were dependent on the participant's attendance at status review hearings. For those participants attending 5 or more hearings in the first 3 months of program, those assessed as lower risk (low to low-moderate) had the highest graduation rate (90%, bottom left). On the right side of the tree, for participants attending fewer than 5 hearings in the first three months, those also assessed as higher risk (moderate to moderate-high) had the lowest graduation rate (42%, bottom right).

Figure C9. CART Analysis: Factors Related to DUI Court Completion Status



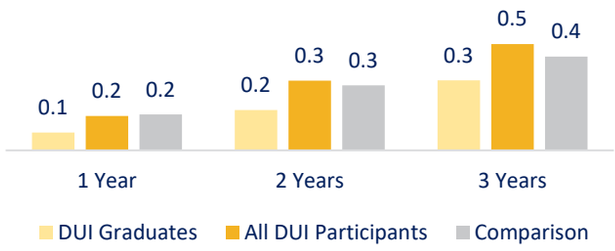
Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25. M=Grouping includes a small number of participants missing info on this characteristic, but had similar graduation rates.

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

Average Number of Rearrests

The average number of rearrests were counted for all DUI participants, DUI graduates, and the comparison group. At three years post program entry, the average number of rearrests for all DUI participants was 0.5. The average number of rearrests for comparison group members was 0.4 (Figure C10).

Figure C10. Average Number of Rearrests for Any Offense over 3 Years

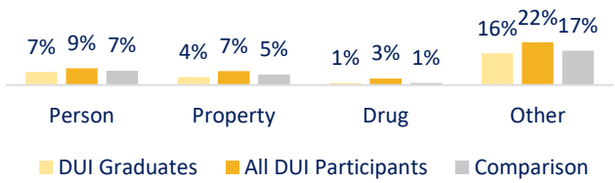


Note. Sample sizes for rearrests (all years): DUI Graduates *n*=661; All DUI Participants *n*=1,027; Comparison *n*=1,027.

Recidivism by Charge Type and Class (Severity)

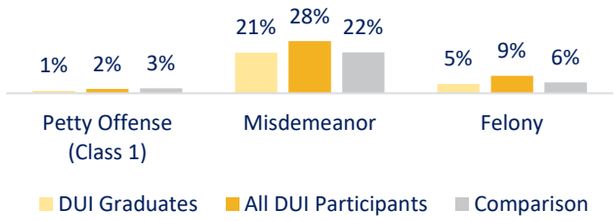
To create a more complete picture of the types of new rearrests, researchers also reviewed offenses by type of charge including person (e.g., assault), property (e.g., theft), drug (e.g., possession), or other charges (e.g., driving without a license) for 1 to 3 years post-program entry. The rearrest rates for DUI participants and the comparison group were similar at most periods, although the DUI court group had a slightly higher rate of rearrests. The largest category of rearrests was "other," of which the majority of charges were for non-DUI motor vehicle offenses (e.g., driving without a license). In both groups, most new offenses were for misdemeanor crimes. Figures C11 and C12 show the percent of graduates, all DUI court participants, and comparison group members rearrested, by charge type and class.

Figure C11. Percent Rearrested by Charge Type at 3 Years Post Entry



Note. Sample sizes for rearrests: DUI Graduates *n*=661; All DUI Participants *n*=1,027; Comparison *n*=1,027.

Figure C12. Percent Rearrested by Charge Class at 3 Years Post Entry

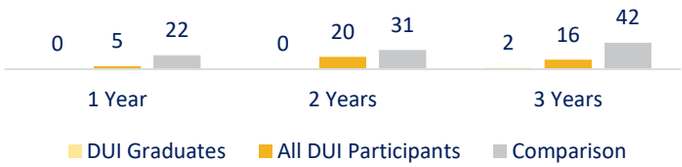


Note. Sample sizes for rearrests: DUI Graduates *n*=661; All DUI Participants *n*=1,027; Comparison *n*=1,027.

Days Incarcerated (Jail and Prison)

Similarly, the average number of days incarcerated were compared for DUI court participants and comparison group members (Figure C13). Jail data from every jurisdiction in this study was not available, so averages from Larimer County DUI Court were used as estimates. Additionally, any jail time attributed to a DUI court sanction was removed. Jail and prison data were combined to reflect total time incarcerated, although very few DUI court participants were incarcerated in prison in the 3 years following program entry. DUI court participants spent an average of 16 days incarcerated in the 3 years following program entry, compared to 42 days for the comparison group.

Figure C13. Average Number of Days Incarcerated Over 3 Years

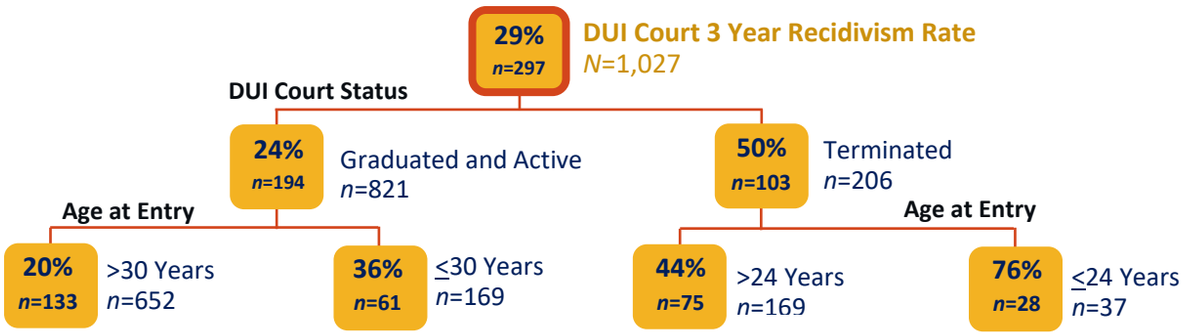


Note. Sample sizes for jail are (1 Year, 2 Years, 3 Years): DUI Graduates *n*=41, 41, 38; All DUI Participants *n*=68, 68, 49; Comparison *n*=59, 59, 45. Sample sizes for prison are (1 Year, 2 Years, 3 Years): DUI Graduates *n*=661, 649, 540; All DUI Participants *n*=1,027, 955 788; Comparison *n*=1,027, 953, 758.

CART Analyses: ATC Participant Recidivism

The average recidivism rate for all DUI participants was 29%. As shown in Figure C14, analyses of all DUI court participants revealed that those who were **terminated** and were **younger** at program entry were more likely to be rearrested in the 3 years post program entry. The biggest factor related to recidivism is represented as the first split in the tree (and the recidivism rate is represented inside the box). Twenty-four percent of participants who graduated from their DUI court program (or were still active) were rearrested (middle left of figure below), compared to 50% of participants who were terminated from the DUI court. The next branches of the tree (or factors related to recidivism) were dependent on the participant's program status. Graduates and active participants who were over the age of 30 had the lowest recidivism rates (20%, bottom-left). On the right side of the tree, of terminated participants, those under the age of 25 had the highest recidivism rates (76%, bottom right of figure).

Figure C14. CART Analysis: Factors Related to DUI Participant Recidivism



Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

Endnotes

10 Logistic regression for any type of rearrest at 3 years post entry: Group Odds Ratio = 2.126, p = 0.000; Group*Priors Odds Ratio = .772, p=0.015.

11 Estimated marginal means of negative binomial regression for number of arrests (program, comparison): 0.51, 0.42. Dependent variable: number of rearrests 3 years after program entry (or the equivalent for comparison group). [a] Covariates appearing in the model are evaluated at the following values: Priors = 1.56, Age at Entry = 40.5, Program Year of Entry = 2012; fixed factors appearing in the model are: Gender = Male, Race = White.

12 Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

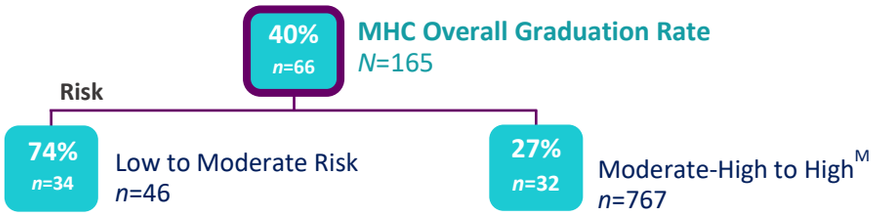
13 Sample sizes for parole are (1 Year, 2 Years, 3 Years): DUI Graduates n=661, 649, 540; All DUI Participants n=1,027, 955 788; Comparison n=1,027, 953, 758.

14 Sample sizes for jail are (1 Year, 2 Years, 3 Years): DUI Graduates n=41, 41, 38; All DUI Participants n=68, 68, 49; Comparison n=59, 59, 45. Sample sizes for prison are (1 Year, 2 Years, 3 Years): DUI Graduates n=661, 649, 540; All DUI Participants n=1,027, 955 788; Comparison n=1,027, 953, 758.

CART Analysis: Successful Program Completion

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of the MHC program. As shown in Figure C15, analyses indicated that a sole factor was associated with graduation rates: participants assessed as **low to moderate risk**. Seventy-four percent of participants who were assessed as low to moderate risk graduated (bottom left of figure below), compared to 27% of participants who were assessed as moderate-high to high risk at entry (27%, bottom right of figure). There were no other characteristics significantly associated with graduation status. Given that the vast majority of MHC participants are higher risk, and graduation rates are low, this indicates that the MHCs would benefit from some additional support for services appropriate to individuals with extensive criminogenic and clinical needs, and from training in appropriate behavior modification and expectations for this population.

Figure C15. CART Analysis: Factors Related to MHC Completion Status

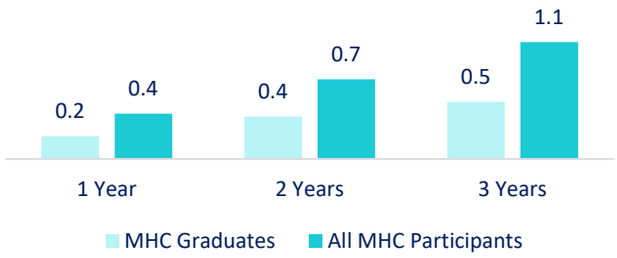


Note. Covariates appearing in the model include: program status, gender, race, marital status, income at entry, age at entry, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25. M=Grouping includes a small number of participants missing info on this characteristic, but had similar graduation rates.

Average Number of Rearrests

The average number of rearrests were counted for graduates and all MHC participants. At three years post program entry, the average number of rearrests for all MHC participants was 1.1 (Figure C16).

Figure C16. Average Number of Rearrests for Any Offense over 3 Years

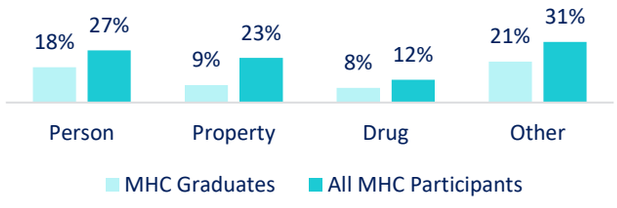


Note. Sample sizes for rearrests: MHC Graduates *n*=66; All MHC Participants *n*=281.

Recidivism by Charge Type and Class (Severity)

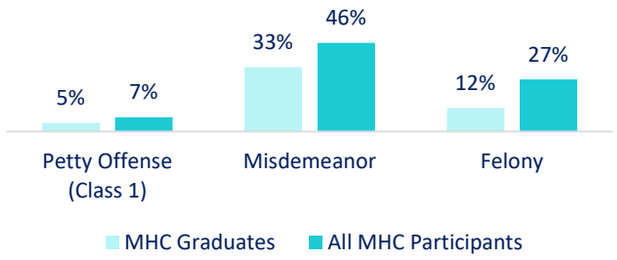
To create a more complete picture of the types of new rearrests, offenses were also reviewed by type of charge including person (e.g., assault), property (e.g., theft), drug (e.g., possession or DUI), or other charges (e.g., driving without a license) for 1 to 3 years post-program entry (Figure C17). The types of offenses for which MHC participants were rearrested was somewhat varied. About one out of four participants was rearrested for a person charge and another quarter was rearrested for a property charge. Additionally, about one out of four MHC participants was rearrested for a new felony offense (Figure C18). The figures below show the percent of graduates and all MHC court participants rearrested, by charge type and class.

Figure C17. Percent Rearrested by Charge Type at 3 Years Post Entry



Note. Sample sizes for rearrests: MHC Graduates *n*=66; All MHC Participants *n*=281.

Figure C18. Percent Rearrested by Charge Class at 3 Years Post Entry

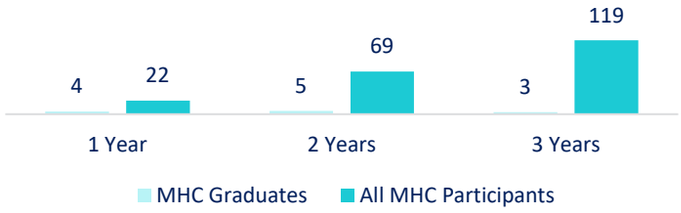


Note. Sample sizes for rearrests: MHC Graduates *n*=66; All MHC Participants *n*=281.

Days Incarcerated (Jail and Prison)

The average number of days incarcerated was calculated for MHC participants (Figure C19). Jail data for MHC participants was not available, so only days incarcerated in prison are represented. On average, MHC participants (mostly non-graduates) spent 119 days incarcerated in prison over a three- year period after entering treatment court.

Figure C19. Average Number of Days Incarcerated in Prison Over 3 Years

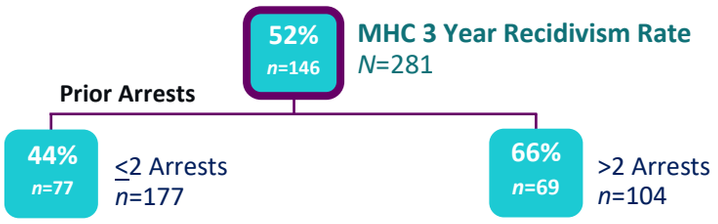


Note. Sample sizes for prison are (1 Year, 2 Years, 3 Years): MHC Graduates *n*=66, 57, 45; All MHC Participants *n*=281, 193, 130.

CART Analyses: ATC Participant Recidivism

The average 3-year recidivism rate for all MHC participants was 52%. As shown in Figure 3.38, analyses of all MHC participants revealed that those who with **more prior arrests** (i.e., those who are higher risk) at program entry were more likely to be rearrested in the 3 years post program entry. Forty-four percent of participants who had two or fewer arrests in the two years prior to program entry were rearrested (middle left of figure below), compared to 66% of participants with more than 2 arrests. There were no other characteristics significantly associated with recidivism.

Figure C20. CART Analysis: Factors Related to MHC Participant Recidivism



Note. Covariates appearing in the model include: program status, gender, race, marital status, income at entry, age at entry, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

Endnotes

15 Results of the dependent (paired) sample t-tests for arrests 2 years before and after program entry: $t(280) = 14.165$, $p < .001$.

16 Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

17 Sample sizes for parole are (1 Year, 2 Years, 3 Years): MHC Graduates *n*=66, 57, 45; All MHC Participants *n*=281, 193, 130.

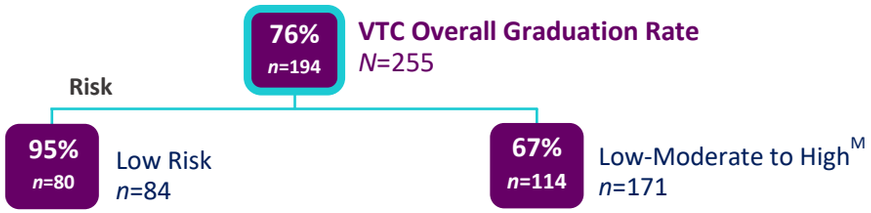
18 Sample sizes for prison are (1 Year, 2 Years, 3 Years): MHC Graduates *n*=66, 57, 45; All MHC Participants *n*=281, 193, 130.

Veteran Treatment Courts

CART Analysis: Successful Program Completion

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of the VTC program. As shown in Figure C21, analyses indicated that a sole factor was associated with graduation rates: participants assessed as **low risk** were more likely to graduate. Ninety-five percent of participants who were assessed as low risk at entry graduated (bottom left of figure below), compared to 67% of participants who were assessed as low-moderate to high risk (bottom right). There were no other characteristics significantly associated with graduation status.

Figure C21. CART Analysis: Factors Related to VTC Completion Status

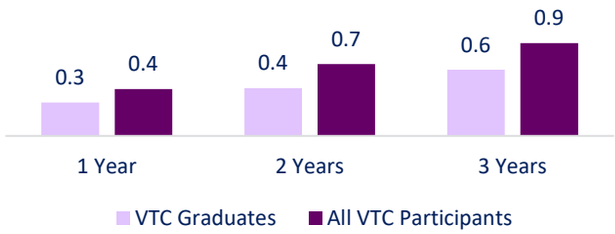


Note. Covariates appearing in the model include: program status, gender, race, marital status, income at entry, age at entry, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25. M=Grouping includes a small number of participants missing info on this characteristic, but had similar graduation rates.

Average Number of Rearrests

The average number of rearrests were counted for graduates and all VTC participants. At three years post program entry, the average number of rearrests for all VTC participants was 0.9 (Figure C22).

Figure C22. Average Number of Rearrests for Any Offense over 3 Years

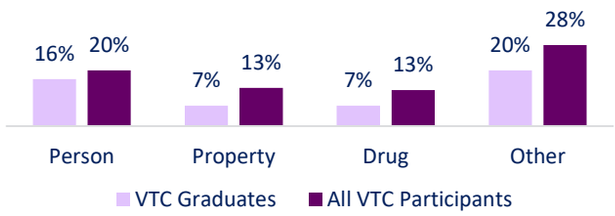


Note. Sample sizes for rearrests: VTC Graduates *n*=194; All VTC Participants *n*=394.

Recidivism by Charge Type and Class (Severity)

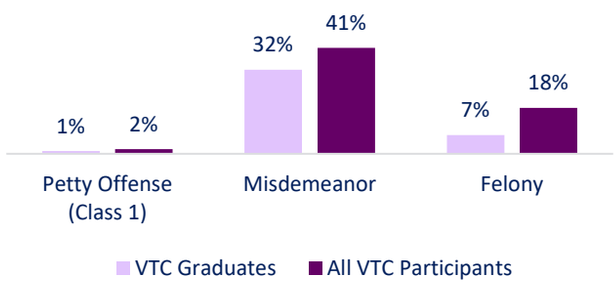
To create a more complete picture of the types of new rearrests, offenses were also reviewed by type of charge including person (e.g., assault), property (e.g., theft), drug (e.g., possession or DUI), or other charges (e.g., driving without a license) for 1 to 3 years post-program entry. The types of offenses for which VTC participants were rearrested was somewhat varied. About one out of five participants was rearrested for a person charge and about one out of eight was rearrested for a drug or DUI-related offense. Most rearrests were for misdemeanor offenses and less than one out of five VTC participants was rearrested for a new felony offense. Figures C23 and C24 show the percent of graduates and all VTC court participants rearrested, by charge type and class.

Figure C23. Percent Rearrested by Charge Type at 3 Years Post Entry



Note. Sample sizes for rearrests: VTC Graduates *n*=194; All VTC Participants *n*=394.

Figure C24. Percent Rearrested by Charge Class at 3 Years Post Entry

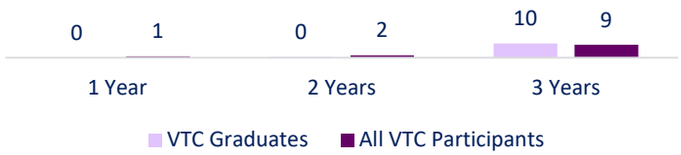


Note. Sample sizes for rearrests: VTC Graduates *n*=194; All VTC Participants *n*=394.

Days Incarcerated (Jail and Prison)

The average number of days incarcerated was calculated for VTC participants (Figure C25). Jail data for VTC participants was not available, so only days incarcerated in prison are included. On average, VTC participants spent very few days incarcerated in prison, averaging 9 days over a three year period after entering treatment court. VTC graduates were similar and spent an average of 10 days over the same time period. The figure to the right shows the average number of days incarcerated in prison over the three years following VTC program entry.

Figure C25. Average Number of Days Incarcerated in Prison Over 3 Years

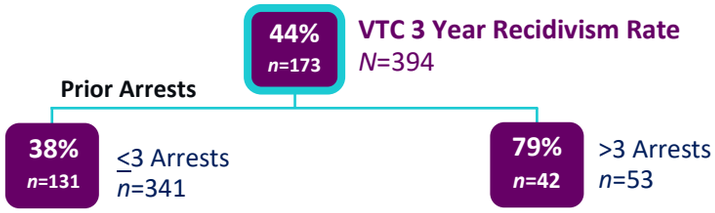


Note. Sample sizes for prison are (1 Year, 2 Years, 3 Years): VTC Graduates *n*=194, 178, 134; All VTC Participants *n*=394, 285, 199.

CART Analyses: ATC Participant Recidivism

The average recidivism rate for all VTC participants was 44%. As shown in Figure C26, analyses of all VTC participants revealed that those who with **more** prior arrests at program entry were more likely to be rearrested in the 3 years post program entry. Thirty-eight percent of participants who had three or fewer arrests in the two priors prior to program entry were rearrested (bottom left of figure below), compared to 79% of participants with more than 3 arrests. There were no other characteristics significantly associated with recidivism.

Figure C26. CART Analysis: Factors Related to VTC Participant Recidivism



Note. Covariates appearing in the model include: program status, gender, race, marital status, income at entry, age at entry, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

Endnotes

19 Results of the dependent (paired) sample t-tests for arrests 2 years before and after program entry: t(393) = 15.316, $p < .001$.

20 Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

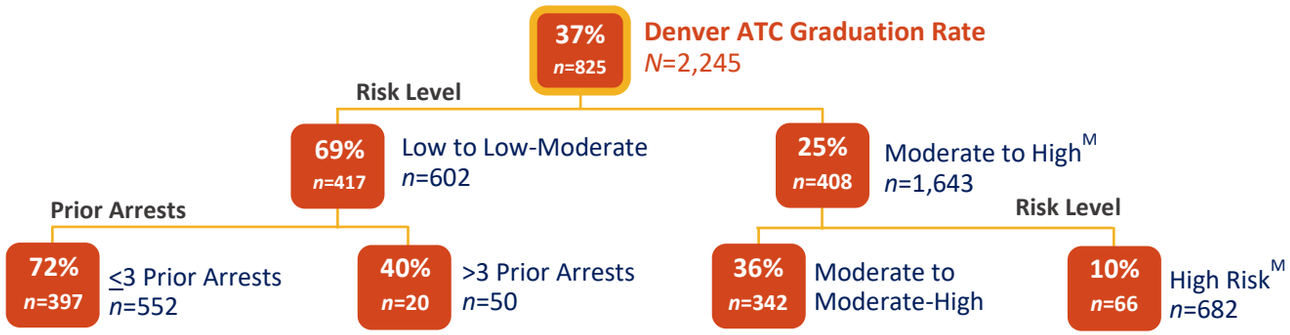
21 Sample sizes for parole are (1 Year, 2 Years, 3 Years): VTC Graduates *n*=194, 178, 134; All VTC Participants *n*=394, 285, 199.

Denver Adult Treatment Court

CART Analysis: Successful Program Completion

Participant background information and program activities were analyzed to determine which characteristics above all others were related to successful completion of the Denver ATC Program. As shown in Figure C27, analyses revealed that participants with **lower risk** and **fewer prior arrests** were more likely to graduate. The biggest factor related to graduation status is represented as the first split in the tree (and the graduation rate is represented inside the box); 69% of participants who were assessed as low to low-moderate risk graduated (middle left of figure below), compared to 25% of participants who were assessed as moderate to high risk (middle right). The next branches of the tree (or factors related to graduation) were dependent on the participant's risk level. For participants assessed as low to low-moderate risk, the number of arrests in the two years prior to program entry mattered most. For participants assessed as low to low-moderate risk, those with 3 or fewer prior arrests had the highest graduation rates (72%, bottom-left). On the right side of the tree, for participants assessed as moderate to high risk, that group could be further divided by risk level to show differences in graduation rates. Those assessed as high risk (an LSI score 40 or higher) had the lowest graduation rate (10%, bottom right of figure).

Figure C27. CART Analysis: Factors Related to Denver ATC Completion Status

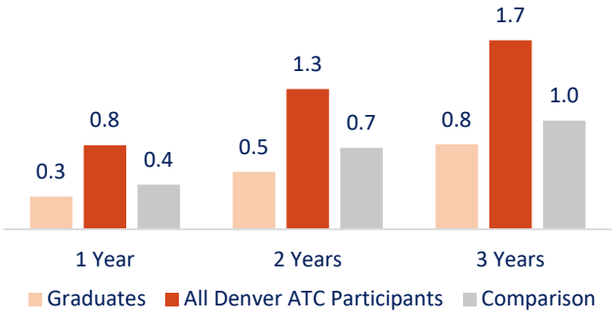


Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25. M=Grouping includes a small number of participants missing info on this characteristic, but had similar graduation rates.

Average Number of Rearrests

The average number of rearrests were counted for Denver ATC graduates, all Denver ATC participants, and the comparison group. At three years post program entry, the average number of rearrests for all Denver ATC participants was 1.7 and the number of arrests for the comparison group was 1.0 (Figure C28).

Figure C28. Average Number of Rearrests for Any Offense over 3 Years

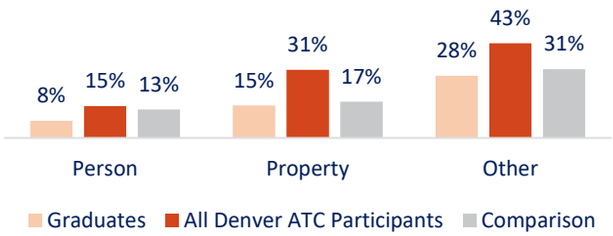


Note. Sample sizes for rearrests (all years): Denver ATC Graduates *n*=825; All Denver ATC Participants *n*=2,527; Comparison *n*=2,527.

Recidivism by Charge Type and Class (Severity)

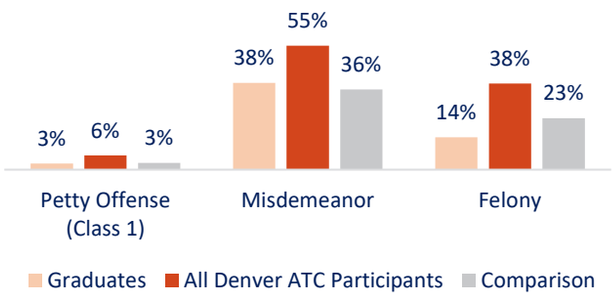
To create a more complete picture of the types of new rearrests, offenses by type of charge were also reviewed including person (e.g., assault), property (e.g., theft), or other charges (e.g., driving without a license) for 1 to 3 years post-program entry. Consistent with previous results, Denver ATC participants were rearrested more often than the comparison group for all types of charges. The largest category of rearrests was "other," of which about half of charges were for non-DUI motor vehicle offenses. In both groups, most new offenses were for misdemeanor crimes, although 38% of Denver ATC participants were rearrested for a new felony charge. Figures C29 and C30 show the percent of graduates, all Denver ATC court participants, and comparison group members rearrested, by charge type and class.

Figure C29. Percent Rearrested by Charge Type at 3 Years Post Entry



Note. Sample sizes for rearrests: Denver ATC Graduates *n*=825; All Denver ATC Participants *n*=2,527; Comparison *n*=2,527.

Figure C30. Percent Rearrested by Charge Class at 3 Years Post Entry

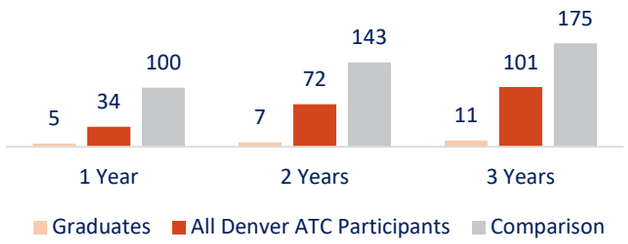


Note. Sample sizes for rearrests: Denver ATC Graduates *n*=825; All Denver ATC Participants *n*=2,527; Comparison *n*=2,527.

Days Incarcerated (Jail and Prison)

The average number of days incarcerated were also compared for Denver ATC participants and comparison group members (Figure C31). Any jail time attributed to a Denver ATC sanction was removed. Jail and prison data were combined to reflect total time incarcerated. Denver ATC participants spent an average of 101 days incarcerated in the 3 years following program entry, compared to 175 days for the comparison group. Denver ATC participants spend significantly less time incarcerated, averaging about 2.5 months over a 3 year period.

Figure C31. Average Number of Days Incarcerated Over 3 Years

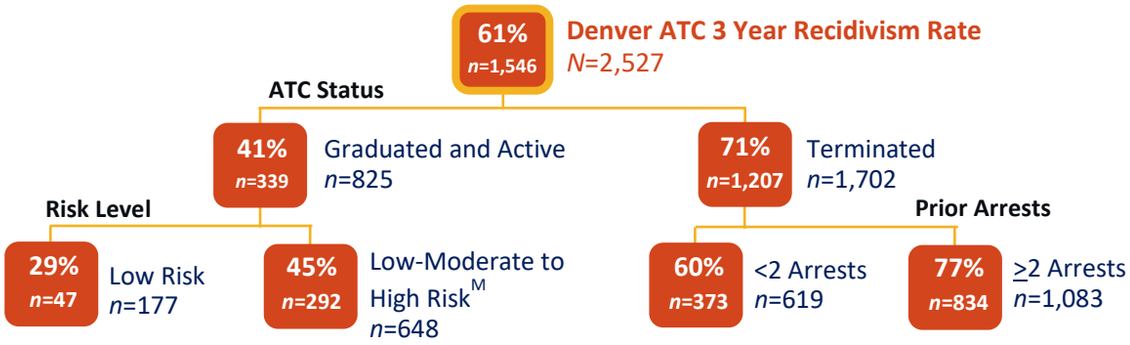


Note. Sample sizes for jail are (1 Year, 2 Years, 3 Years): Denver ATC Graduates *n*=752, 752, 708; All Denver ATC Participants *n*=2,404, 2,404, 2,134; Comparison *n*=2,254, 2,254, 1,858. Sample sizes for prison are (1 Year, 2 Years, 3 Years): Denver ATC Graduates *n*=825, 817, 737; All Denver ATC Participants *n*=2,527, 2,400, 2,054; Comparison *n*=2,527, 2,331, 1,876.

CART Analyses: ATC Participant Recidivism

The recidivism rate for the Denver ATC was 61% at 3 years from program entry. As shown in Figure C32, analyses of all Denver ATC participants revealed that those who were **terminated**, were assessed as **higher risk,** and had **more arrests two years prior to program entry** were more likely to be rearrested in the 3 years post program entry. The biggest factor related to recidivism is represented as the first split in the tree (and the recidivism rate is represented inside the box). Forty-one percent of participants who graduated from the Denver ATC court program (or were still active) were rearrested (middle left of figure below), compared to 71% of participants who were terminated from Denver ATC. The next branches of the tree (or factors related to recidivism) were dependent on the participant's program status. For graduates and actives, risk level was the next strongest factor. Graduates and active participants who were assessed as low risk had the lowest recidivism rates (29%, bottom left). On the right side of the tree, for terminated participants, the number of priors mattered most. Of terminated participants, those with two or more arrests in the two years prior to program entry had the highest recidivism rates (77%, bottom right of figure). In sum, those who were higher risk (who had a more extensive criminal history) were more likely to be rearrested, regardless of graduation status.

Figure C32. CART Analysis: Factors Related to Denver ATC Participant Recidivism



Note. Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

Endnotes

22 Logistic regression for any type of rearrest at 3 years post entry: Group Odds Ratio = 2.220, p = 0.00; Group*Priors Odds Ratio = 1.015, p=.710.

23 Estimated marginal means of negative binomial regression for number of arrests (program, comparison): 1.62, 0.91. Dependent variable: number of rearrests 3 years after program entry (or the equivalent for comparison group). [a] Covariates appearing in the model are evaluated at the following values: Priors = 2.34, Age at Entry = 33.9, Program Year of Entry = 2012; fixed factors appearing in the model are: Gender = Male, Race = White.

24 Covariates appearing in the model include: program status, employment status, education level, gender, race, marital status, income at entry, age at entry, substances used, number of priors 2 years before entry, program entry year, any prior substance use disorder treatment, number of court hearings attended in the first 3 months of program entry. Minimum node size was set to 25.

25 Sample sizes for parole are (1 Year, 2 Years, 3 Years): Denver ATC Graduates n=825, 817, 737; All Denver ATC Participants n=2,527, 2,400, 2,054; Comparison n=2,527, 2,331, 1,876.

APPENDIX D
COST EVALUATION DETAILS

APPENDIX D: COST EVALUATION

NPC conducted cost analyses of four treatment courts and one DUI court in Colorado to assess the cost of the programs, and the extent to which program costs are offset by any cost-savings related to participant outcomes. This appendix provides the methods and specific results for each of the cost-benefit analyses performed. The same program and comparison groups used for the outcome evaluation are used for the cost analyses.

The cost evaluation addresses the following study questions for each of the five programs evaluated:

- How much does the program cost?
- What is the cost impact on the criminal justice system of sending individuals through the program compared to individuals eligible for the program but who received traditional processing?
- What is the cost-benefit ratio, or is there a return on the investment in the program?[2]
- What is the cost from the time of the original arrest to the time of program entry in terms of rearrests and jail days?

Cost Evaluation Methods

Transaction and Institutional Cost Analysis (TICA)

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

The TICA methodology is based upon six distinct steps. Table D1 lists each of these steps and the tasks involved.

NPC conducted step 1 (determining program process) during a site visit, through analysis of program documents, and through interviews with key informants. Researchers completed step 2 (identifying program transactions) and Step 3 (identifying the agencies involved with transactions) through observation during a site visit and by analyzing the information gathered in Step 1. Step 4 (determining the resources used) was performed through extensive interviewing of key informants, direct observation during a site visit, and by collecting administrative data from the agencies involved in the program. NPC

[2] See treatment court cost-benefit studies at http://npcresearch.com/reports-publications

completed step 5 (determining the cost of the resources) through interviews with program and non-program staff and with agency financial officers, as well as analysis of budgets found online or provided by agencies. Finally, Step 6 (calculating cost results) involved calculating the cost of each transaction and multiplying this cost by the number of transactions. For example, to calculate the cost of drug testing, NPC multiplied the drug test cost by the average number of drug tests performed per person. All the transactional costs for each individual were added to determine the overall cost per program participant/comparison group individual. This was reported as an average cost per person for the program, and outcome/impact costs due to rearrests, jail time and other recidivism costs. NPC was also able to calculate the cost of program processing per agency, so that it was possible to determine which agencies contributed the most resources to the program and which agencies gained the most benefit.

Table D1. The Six Steps of TICA

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

		The transaction cost is multiplied by the average number of transactions to determine the total average cost per transaction type. These total average costs per transaction type are added to determine the program and outcome costs.

Cost to the Taxpayer

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

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

Opportunity Resources

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

Cost Data Collection

NPC based cost analyses on a cohort of adults who participated in each program and a matched comparison group of individuals who were eligible for the programs but who did not attend. These individuals were tracked through administrative data for 3 years post program entry (and a similar time period for the comparison group). This study compares recidivism costs for the two groups over 3 years, as well as the costs by agency. NPC selected a 3-year follow-up period to allow a large enough group of both program and comparison individuals representative of the program, as well as to allow more robust cost calculations through use of a follow-up period with as many individuals as possible.

The cost evaluation involved calculating the costs of the program and the costs of outcomes (or impacts) after program entry (or the equivalent for the comparison group) using NPC's TICA methodology. In order to determine if there were any benefits (or avoided costs) due to program participation, it was necessary to determine what the participants' outcome costs would have been had they not participated in the program. One of the best ways to do this is to compare the costs of outcomes for program participants to the outcome costs for similar individuals who were eligible for the program but did not participate.

NPC Researchers collected cost data for the evaluation and divided them into program costs and outcome costs. The **program costs** were those associated with activities performed within the program. The program-related "transactions" included in this analysis were court sessions (including pre-court staffing meetings and any time spent preparing for the court session), case management[3], drug treatment, drug tests, jail sanctions, and program fees.

The **outcome costs** were those associated with activities that occurred outside the program. These transactions included criminal justice-related activities (e.g., new arrests subsequent to program entry, subsequent court cases, jail days, prison days, probation days, parole days), as well as other events that occurred such as victimizations[4]. The costs for this study were calculated to include taxpayer costs only. All cost results provided in this report are based on fiscal year 2020 dollars or were updated to fiscal year 2020 using the Consumer Price Index. The outcome costs discussed do not represent the entire cost to the criminal justice system. Rather, the outcome costs include the transactions for which NPC's research team was able to obtain outcome data and cost information on both the program and comparison group from the same sources. However, we believe that the costs represent the majority of system costs.

[3] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

[4] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

Cost Evaluation Results by Site

Jefferson County Recovery Court (JCRC)

Jefferson County Recovery Court Program Transactions

Court Sessions. Court sessions tend to be one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- 1ST Judicial District Court (including the Probation Department)
- Jefferson County District Attorney's Office
- Colorado Public Defender's Office
- Jefferson County Sheriff's Office
- National Institute for Change (NIC)
- Jefferson Center for Mental Health (JCMH)
- Intervention Inc.

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This includes the direct costs for the time spent for each JCRC team member present, the time team members spend preparing for the session, the time team members spend in the pre-court staffing meeting, the agency support costs, and jurisdictional overhead costs. NPC estimated the cost for a single JCRC court appearance at $153.04 per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).5 The agencies involved in case management are the 1st Judicial District Court, 1st Judicial District Probation Department, Colorado Public Defender's Office, and National Institute for Change (NIC). The daily cost of case management is $3.50 per participant.

Drug Treatment Services for JCRC participants are provided by National Institute for Change (NIC), Jefferson Center for Mental Health (JCMH), and Intervention Inc. The treatment costs used for this analysis were obtained from a representative of the Colorado Department of Human Services, Office of Behavioral Health (OBH) and all costs for treatment in this analysis accrue to OBH as the individual provider for each treatment service was not available. Each service specifies a fixed price for each unit of service. The cost per differential assessment is $250.00. The cost of traditional outpatient is $15.71 per day. The cost of intensive outpatient is $28.93 per day. The cost of therapeutic community residential and transitional residential is $143.00 per day. The cost of intensive residential is $216.00 per day. The cost of opioid replacement therapy was not available for this analysis. The cost of short term intensive residential remediation treatment (STIRRT) is $226.00 per day. The cost of residential detoxification is $475.00 per day. The cost of DUI Level I education is $165.00 per episode. The cost of DUI Level II

[5] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

education is $330.00 per episode. The cost of DUI Level II therapy and education is $4,295.00 per episode.

Drug Testing is performed by Jefferson County Probation. Drug testing costs were obtained from program staff and is an average cost for a urinalysis (UA) test. The average cost per UA test per participant is $12.00.

Jail Sanctions are provided by the Jefferson County Sheriff's Office. Using information obtained online, the cost per person per day of jail was calculated to be $88.37 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $90.90.

Program Fees are collected from JCRC participants and paid to the District Court. NPC was able to obtain an average amount paid by participants, so the program fee of $300.00 included in this cost analysis is the average amount paid/collected per participant.

Program Cost Results

Table D2 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the JCRC events for program graduates and for all participants who exited the program (graduates and non-graduates combined).[6] The sum of these events or transactions is the total per participant cost of the JCRC program. The table includes the average for JCRC graduates (*N* = 101) and for all JCRC participants regardless of completion status (*N* = 339). It is important to include participants who were discharged as well as those who graduated as all participants use program resources, whether they graduate or not.

Table D2. JCRC Program Costs per Participant by Transaction

Transaction	Unit Cost	Graduates		All JCRC Participants	
		Avg. # of Events per Person	Avg. Cost per Person	Avg. # of Events per Person	Avg. Cost per Person
Court Sessions	$153.04	38.72	$5,926	25.45	$3,985
Case Management Days	$3.50	607.26	$2,125	456.06	$1,596
Differential Assessment	$250.00	0.01	$3	0.04	$10
Traditional Outpatient	$15.71	90.96	$1,429	68.87	$1,082
Intensive Outpatient	$28.93	5.72	$165	10.65	$308
Therapeutic Community/ Transitional Residential	$143.00	0.78	$112	6.91	$988
Intensive Residential	$216.00	0.80	$173	0.89	$192
Opioid Replacement Therapy	N/A	14.83	N/A	12.58	N/A
Short Term Intensive Residential Remediation Treatment	$226.00	0.92	$208	1.63	$368
Residential Detoxification	$475.00	0.09	$43	0.08	$38
DUI Level I Education	$165.00	0.01	$2	0.00	$0
DUI Level II Education	$330.00	0.00	$0	0.00	$0
DUI Level II Therapy & Education	$4,295.00	0.03	$129	0.01	$43
UA Drug Tests	$12.00	140.18	$1,682	86.47	$1,038
Jail Sanctions	$90.90	5.15	$468	11.21	$1,019
Program Fees	($300.00)	1.00	($300)	1.00	($300)
Total			**$12,165**		**$10,277**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions are summed the result is a total JCRC program cost per participant of $10,277. The cost per graduate is $12,165.

[6] Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

Another useful way to examine program costs is by agency. Table D3 shows the cost per participant by agency.

Table D3. JCRC Program Costs per Participant by Agency

Agency	Avg. Cost per Person for JCRC Graduates	Avg. Cost per Person for All JCRC Participants
1st Judicial District Court	$5,644	$3,653
Jefferson County District Attorney's Office	$252	$165
Colorado Public Defender's Office	$662	$445
Jefferson County Sheriff's Office	$983	$1,357
National Institute for Change (NIC)	$1,930	$1,343
Jefferson Center for Mental Health (JCMH)	$105	$69
Intervention Inc.	$327	$215
Office of Behavioral Health (Treatment)	$2,262	$3,030
Total	$12,165	$10,277

JCRC Program Costs Summary

The total cost for the JCRC program is estimated at $10,277 per participant. Overall, the largest portion of JCRC costs is due to resources put into court sessions (an average of $3,985, or 39% of total costs), followed by treatment ($3,030 or 29%), and case management (an average of $1,596, or 15% of total costs). When program costs are evaluated by agency, the largest portion of costs accrues to the District Court ($3,653 or 36% of total costs), followed by the Office of Behavioral Health ($3,030 or 29%), and the Sheriff's Office ($1,357 or 13%).

Outcome Cost Transactions

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include re-arrests, district court cases, days incarcerated (jail and prison), time on probation and parole, and victimizations.

Arrest costs incorporate the time of law enforcement positions involved in making an arrest, law enforcement salaries and benefits, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis is the average cost of an arrest by the Jefferson County Sheriff, Golden Police Department, Lakewood Police Department, and Westminster Police Department. NPC contacted staff at the departments to obtain these figures. NPC used that information in its TICA methodology to calculate the cost of an average arrest episode. Some cost information was obtained online from agency budgets or pay scales. The average cost of a single arrest by the four departments is $167.55 in 2020.

Court Cases include those cases that are dismissed as well as those cases that result in conviction. Because they are the main agencies involved, court case costs in this analysis are shared among the 1st Judicial District Court, Jefferson County Court, Jefferson County District Attorney's Office, and Colorado Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case is $1,612.16.

Jail costs were provided by the Jefferson County Sheriff's Office. Using budget and average daily population information obtained online, the cost per person per day of jail was calculated to be $88.37 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $90.90.

Probation costs were obtained through online information from the Colorado Judicial Branch. The average cost of probation was $4.97 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $5.11.

Parole costs were obtained through online information from the Colorado Department of Corrections. The average cost of parole was $16.28 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $16.75.

Prison costs were obtained through online information from the Colorado Department of Corrections. The statewide cost per person per day of prison was $108.77 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $111.88.

Victimizations were calculated from the National Institute of Justice's Victim Costs and Consequences: A

New Look (1996).[7] The costs were updated to fiscal 2020 dollars using the Consumer Price Index. Property crimes are $14,224.83 per event and person crimes are $46,081.54 per event.

Outcome Cost Results

Table D4 shows the average number of recidivism-related events per individual for JCRC graduates, all JCRC participants (regardless of graduation status) and the comparison group over 3 years. These events are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups).

Table D4. Average Number of Recidivism Events per Person over 3 Years from JCRC Entry

Recidivism Related Events	Average Number of Events (per person)		
	JCRC Graduates (*N* = 101)	All JCRC Participants (*N* = 375)	Comparison Group (*N* = 375)
Rearrests	0.82	1.41	0.93
Court Cases	0.82	1.44	1.11
Jail Days	13.19	68.92	43.27
Probation Days	323.91	289.95	192.99
Parole Days	0.00	37.26	29.16
Prison Days	0.00	82.11	54.16
Property Victimizations	0.22	0.53	0.28
Person Victimizations	.09	0.15	0.18

Overall, as demonstrated in Table D4, JCRC participants have more rearrests, court cases, probation days, parole days, jail days, prison days and property victimizations than the comparison group, but fewer person victimizations.

Table D5 displays the costs of outcomes by transaction that occurred in the 3 years after program entry for JCRC graduates, all JCRC participants (regardless of graduation status), and the comparison group. The first subtotal in Table D5 displays the costs associated with outcomes that occurred in the 3 years after program entry for JCRC graduates, all JCRC participants, and the comparison group, not including victimizations. Because victimizations were not calculated using the TICA methodology, the costs for these events are presented separately, with the final total providing the total costs for all events from

[7] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

program entry to 3 years after program entry. Table D5 shows that the difference in the 3-year outcome cost between all JCRC participants and the comparison group is a negative $6,703 per participant, indicating that JCRC participants cost more than the comparison group. When costs due to victimizations are included, the difference increases, with JCRC participants costing $8,876 more (per participant) than comparison group members. This difference shows that there is not a benefit, or savings, due to JCRC participation. Graduates of the program show savings compared to the comparison group (a savings of $9,099 without victimizations and a savings of $14,101 when victimizations are included); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of people who would have terminated prior to graduation.

Table D5. Outcome Costs per Person over 3 Years from JCRC Entry

Recidivism Related Events	Unit Cost	Outcome Costs (per person)		
		JCRC Graduates (*N* = 101)	All JCRC Participants (*N* = 375)	Comparison Group (*N* = 375)
Rearrests	$167.55	$137	$236	$156
Court Cases	$1,612.16	$1,322	$2,322	$1,790
Jail Days	$90.90	$1,199	$6,265	$3,933
Probation Days	$5.11	$1,655	$1,482	$986
Parole Days	$16.75	$0	$624	$488
Prison Days	$111.88	$0	$9,186	$6,059
Subtotal		**$4,313**	**$20,115**	**$13,412**
Property Victimizations	$14,224.83	$3,129	$7,539	$3,983
Person Victimizations	$46,081.54	$4,147	$6,912	$8,295
Total		**$11,589**	**$34,566**	**$25,690**

These same outcome costs were also examined by agency to determine the relative benefit to each agency that contributes resources to the JCRC program. The transactions shown above are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the 1st Judicial District Court, Jefferson County District Attorney's Office, and Colorado Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table D6 provides the cost for each agency and the difference in cost between the JCRC participants and the comparison group per person. A positive number in the difference column indicates a cost savings for JCRC participants.

Table D6. Outcome Costs per Person by Agency over 3 Years from JCRC Entry

Agency	JCRC Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
1st Judicial District Court	$584	$451	($133)
Jefferson County District Attorney's Office	$1,017	$784	($233)
Colorado Public Defender's Office	$721	$555	($166)
Jefferson County Sheriff's Office	$6,265	$3,933	($2,332)
Law Enforcement	$236	$156	($80)
1st Judicial Probation Department	$1,482	$986	($496)
Colorado Department of Corrections	$9,810	$6,547	($3,263)
Subtotal	**$20,115**	**$13,412**	**($6,703)**
Victimizations[a]	$14,451	$12,278	($2,173)
Total	**$34,566**	**$25,690**	**($8,876)**

[a] These costs accrue to a combination of many different entities including the individual, medical care, etc. and therefore cannot be attributed to any particular agency above.

Table D6 shows that not a single agency appears to benefit from savings associated with JCRC participation. As demonstrated in Tables C5 and C6, the total outcome cost over 3 years from program entry for the JCRC per participant (regardless of graduation status) was $34,566, while the cost per comparison group member was $25,690. The difference between the JCRC and comparison group represents a loss of $8,876 per participant.

Conclusion

Over time, the JCRC does not result in significant cost savings or a return on taxpayer investment in the program. The program investment cost is $10,277 per JCRC participant. When the cost difference in outcomes between JCRC participants and comparison group members is calculated without victimization costs, the loss due to more outcome transactions for JCRC participants over the 3 years included in this cost-benefit analysis came to -$6,703. When victimization costs are included, the loss increases, to -$8,876 per participant. This amount does not result in a positive return on the investment over the 3-year time period, so there is no cost-benefit.

Denver Adult Drug Court (DADC)

Denver Adult Drug Court Program Transactions

Court Sessions. Court sessions tend to be one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- 2nd Judicial District Court
- Denver County District Attorney's Office
- Colorado Public Defender's Office
- Addiction Research and Treatment Services (ARTS)
- National Institute for Change (NIC)
- Mile High Behavioral Healthcare

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This includes the direct costs for the time spent for each DADC team member present, the time team members spend preparing for the session, the time team members spend in the pre-court staffing meeting, the agency support costs, and jurisdictional overhead costs. NPC estimated the cost for a single DADC court appearance at $92.93 per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).[8] The agencies involved in case management are the 2nd Judicial District Court, Colorado Public Defender's Office, Addiction Research and Treatment Services (ARTS), National Institute for Change (NIC), and Mile High Behavioral Healthcare. The daily cost of case management is $3.48 per participant.

Drug Treatment Services for DADC participants are provided by National Institute for Change (NIC), Addiction Research and Treatment Services (ARTS), and Mile High Behavioral Healthcare. The treatment costs used for this analysis were obtained from a representative of the Colorado Department of Human Services, Office of Behavioral Health (OBH) and all costs for treatment in this analysis accrue to OBH as the individual provider for each treatment service was not available. Each service specifies a fixed price for each unit of service. The cost per differential assessment is $250.00. The cost of traditional outpatient is $15.71 per day. The cost of intensive outpatient is $28.93 per day. The cost of therapeutic community residential and transitional residential is $143.00 per day. The cost of intensive residential is $216.00 per day. The cost of opioid replacement therapy was not available for this analysis. The cost of short term intensive residential remediation treatment (STIRRT) is $226.00 per day. The cost of residential detoxification is $475.00 per day. The cost of DUI Level I education is $165.00 per episode. The cost of DUI Level II education is $330.00 per episode. The cost of DUI Level II therapy and education is $4,295.00 per episode.

[8] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

Drug Testing is performed by Denver County Probation. Drug testing costs were obtained from program staff and is an average cost for a urinalysis (UA) test. The average cost per UA test per participant is $10.50.

Jail Sanctions are provided by the Denver Sheriff Department. Using information obtained online, the cost per person per day of jail was calculated to be $174.78 in 2017. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $186.11.

Program Fees are not collected from DADC participants.

Program Cost Results

Table D7 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the DADC events for program graduates and for all participants who exited the program (graduates and non-graduates combined).[9] The sum of these events or transactions is the total per participant cost of the DADC program. The table includes the average for DADC graduates (*N* = 851) and for all DADC participants regardless of completion status (*N* = 2,352). It is important to include participants who were discharged as well as those who graduated as all participants use program resources, whether they graduate or not.

Table D7. DADC Program Costs per Participant by Transaction

Transaction	Unit Cost	Graduates		All DADC Participants	
		Avg. # of Events per Person	Avg. Cost per Person	Avg. # of Events per Person	Avg. Cost per Person
Court Sessions	$92.93	23.92	$2,223	17.40	$1,617
Case Management Days	$3.48	600.35	$2,089	496.96	$1,729
Differential Assessment	$250.00	0.04	$10	0.03	$7
Traditional Outpatient	$15.71	140.76	$2,211	83.67	$1,314
Intensive Outpatient	$28.93	20.52	$594	13.00	$376
Therapeutic Community/ Transitional Residential	$143.00	5.39	$771	3.57	$511
Intensive Residential	$216.00	2.99	$646	4.61	$996
Opioid Replacement Therapy	N/A	47.45	N/A	29.23	N/A
Short Term Intensive Residential Remediation Treatment	$226.00	1.95	$441	1.75	$396
Residential Detoxification	$475.00	0.38	$180	0.59	$280
DUI Level I Education	$165.00	0.00	$0	0.00	$0
DUI Level II Education	$330.00	0.02	$7	0.01	$3
DUI Level II Therapy & Education	$4,295.00	0.07	$301	0.04	$172
Drug Tests	$10.50	95.11	$999	63.16	$663
Jail Sanctions	$186.11	3.42	$636	6.82	$1,269
Total			**$11,108**		**$9,333**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions are summed the result is a total DADC program cost per participant of $9,333. The cost per graduate is $11,108.

9 Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

Another useful way to examine program costs is by agency. Table D8 shows the cost per participant by agency.

Table D8. DADC Program Costs per Participant by Agency

Agency	Avg. Cost per Person for DADC Graduates	Avg. Cost per Person for All DADC Participants
2nd Judicial District Court	$3,594	$2,680
Denver County District Attorney's Office	$291	$212
Colorado Public Defender's Office	$575	$445
Addiction Research and Treatment Services (ARTS)	$111	$85
National Institute for Change (NIC)	$505	$405
Mile High Behavioral Healthcare	$235	$182
Denver Sheriff Department	$636	$1,269
Office of Behavioral Health (Treatment)	$5,161	$4,055
Total	**$11,108**	**$9,333**

DADC Program Costs Summary

The total cost for the DADC program is estimated at $9,333 per participant. Overall, the largest portion of DADC costs is due to resources put into treatment (an average of $5,161, or 55% of total costs), followed by case management [$1,729 or 19%), and court sessions (an average of $1,617, or 17% of total costs). When program costs are evaluated by agency, the largest portion of costs accrues to the Office of Behavioral Health ($4,055 or 43% of total costs), followed by the District Court ($2,680 or 29%), and the Sheriff Department ($1,269 or 14%).

Outcome Cost Transactions

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include re-arrests, district court cases, days incarcerated (jail and prison), time on probation and parole, and victimizations.

Arrest Costs incorporate the time of law enforcement positions involved in making an arrest, law enforcement salaries and benefits, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis is the average cost of an arrest by the Denver Sheriff Department, Denver Police Department, Brighton Police Department, and Adams County Sheriff Office. NPC contacted staff at the departments to obtain these figures. NPC used that information in its TICA methodology to calculate the cost of an average arrest episode. Some cost information was obtained online from agency budgets or pay scales. The average cost of a single arrest by the four departments is $158.06 in fiscal year 2020.

Court Cases include those cases that are dismissed as well as those cases that result in conviction. Because they are the main agencies involved, court case costs in this analysis are shared among the 2nd Judicial District Court, Denver County District Attorney's Office, and Colorado Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case is $1,288.40 in fiscal year 2020.

Jail costs were provided by the Denver Sheriff Department. Using budget and average daily population information obtained online, the cost per person per day of jail was calculated to be $174.78 in 2017. Using the Consumer Price Index, this was updated to fiscal 2020 dollars, or $186.11.

Probation costs were obtained through online information from the Colorado Judicial Branch. The average cost of probation was $4.97 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $5.11.

Parole costs were obtained through online information from the Colorado Department of Corrections. The average cost of parole was $16.28 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $16.75.

Prison costs were obtained through online information from the Colorado Department of Corrections. The statewide cost per person per day of prison was $108.77 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $111.88.

Victimizations were calculated from the National Institute of Justice's Victim Costs and Consequences: A New Look (1996).[10] The costs were updated to fiscal 2020 dollars using the Consumer Price Index. Property crimes are $14,224.83 per event and person crimes are $46,081.54 per event.

Outcome Cost Results

Table D9 shows the average number of recidivism-related events per individual for DADC graduates, all DADC participants (regardless of graduation status) and the comparison group over 3 years. These events are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups). Overall, as demonstrated in Table D9, DADC participants have more rearrests, court cases, jail days, probation days, and property and person victimizations than the comparison group, but fewer parole days and prison days.

Table D9. Average Number of Recidivism Events per Person over 3 Years from DADC Entry

Recidivism Related Events	Average Number of Events (per person)		
	DADC Graduates (*N* = 825)	All DADC Participants (*N* = 2,527)	Comparison Group (*N* = 2,527)
Rearrests	0.78	1.73	1.00
Court Cases	0.79	1.77	1.16
Jail Days	9.71	65.14	54.11
Probation Days	299.55	303.58	219.53
Parole Days	0.01	8.94	43.68
Prison Days	0.80	35.67	120.75
Property Victimizations	0.19	0.59	0.27
Person Victimizations	0.09	0.20	0.19

[10] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

Table D10 displays the costs of outcomes by transaction that occurred in the 3 years after program entry for DADC graduates, all DADC participants (regardless of graduation status), and the comparison group. The first subtotal in Table D10 displays the costs associated with outcomes that occurred in the 3 years after program entry for DADC graduates, all DADC participants, and the comparison group, not including victimizations. Because victimizations were not calculated using the TICA methodology, the costs for these events are presented separately, with the final total providing the total costs for all events from program entry to 3 years after program entry. Table D10 shows that the difference in the 3-year outcome cost between all DADC participants and the comparison group is $6,719 per participant, indicating that DADC participants cost less than the comparison group. When costs due to victimizations are included, however, the difference decreases, with DADC participants costing $1,706 less (per participant) than comparison group members. This difference shows that there is a benefit, or savings, due to DADC participation. Graduates of the program show savings compared to the comparison group (a savings of $22,518 without victimizations and a savings of $28,264 when victimizations are included); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of people who would have terminated prior to graduation.

Table D10. Outcome Costs per Person over 3 Years from DADC Entry

Recidivism Related Events	Unit Cost	Outcome Costs (per person)		
		DADC Graduates (*N* = 825)	All DADC Participants (*N* = 2,527)	Comparison Group (*N* = 2,527)
Rearrests	$158.06	$123	$273	$158
Court Cases	$1,288.40	$1,018	$2,280	$1,495
Jail Days	$186.11	$1,807	$12,123	$10,070
Probation Days	$5.11	$1,531	$1,551	$1,122
Parole Days	$16.75	$0	$150	$732
Prison Days	$111.88	$90	$3,991	$13,510
Subtotal		**$4,569**	**$20,368**	**$27,087**
Property Victimizations	$14,224.83	$2,703	$8,393	$3,841
Person Victimizations	$46,081.54	$4,147	$9,216	$8,755
Total		**$11,419**	**$37,977**	**$39,683**

These same outcome costs were also examined by agency to determine the relative benefit to each agency that contributes resources to the DADC program. The transactions shown above are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the 2nd Judicial District Court, Denver County District Attorney's Office, and Colorado Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table D11 provides the cost for each agency and the difference in cost

between the DADC participants and the comparison group per person. A positive number in the difference column indicates a cost savings for DADC participants.

Table D11. Outcome Costs per Person by Agency over 3 Years from DADC Entry

Agency	DADC Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
2nd Judicial District Court	$333	$218	($115)
Denver County District Attorney's Office	$1,062	$696	($366)
Colorado Public Defender's Office	$885	$581	($304)
Denver Sheriff Department	$12,123	$10,070	($2,053)
Law Enforcement	$273	$158	($115)
2nd Judicial Probation Department	$1,551	$1,122	($429)
Colorado Department of Corrections	$4,141	$14,242	$10,101
Subtotal	**$20,368**	**$27,087**	**$6,719**
Victimizations[a]	$17,609	$12,596	($5,013)
Total	**$37,977**	**$39,683**	**$1,706**

[a] These costs accrue to a combination of many different entities including the individual, medical care, etc. and therefore cannot be attributed to any particular agency above.

Table D11 shows that no agencies, except for the Colorado Department of Corrections, appear to benefit from savings association with DADC participation. As demonstrated in Tables C10 and C11, the total outcome cost over 3 years from program entry for the DADC per participant (regardless of graduation status) was $37,977, while the cost per comparison group member was $39,683. The difference between the DADC and comparison group represents a savings of $1,706 per participant.

Conclusion

Over time, the DADC results in significant cost savings and a return on taxpayer investment in the program. The program investment cost is $9,333 per DADC participant. When the cost difference in outcomes between DADC participants and comparison group members is calculated without victimization costs, the savings due to less prison and parole time for DADC participants over the 3 years included in this cost-benefit analysis came to $6,719. When victimization costs are included, however, the return decreases, to $1,706 per participant. This amount does not result in a positive return on the investment over the 3-year time period. However, if we make the assumption that the cost savings will continue to accrue over time as has been shown in long term drug court studies (e.g., Finigan, Carey, & Cox, 2007[11]) this cost-benefit ratio will improve over time as the investment is repaid.

[11] Finigan, M. W., Carey, S. M., & Cox, A. (2007). *The impact of a mature drug court over 10 years of operation: Recidivism and costs.* Final report submitted to the U. S. Department of Justice, National Institute of Justice, July 2007. NIJ Contract 2005M073.

Fremont County Adult Drug Court (FCADC)

Fremont County Adult Drug Court Program Transactions

Court Sessions. Court sessions tend to be one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- 11th Judicial District Court
- Fremont County Sheriff's Office
- Rocky Mountain Behavioral Health

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This includes the direct costs for the time spent for each FCADC team member present, the time team members spend preparing for the session, the time team members spend in the pre-court staffing meeting, the agency support costs, and jurisdictional overhead costs. NPC estimated the cost for a single FCADC court appearance at $160.03 per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).[12] The agencies involved in case management are the 11th Judicial District Court and Rocky Mountain Behavioral Health. The daily cost of case management is $3.89 per participant.

Drug Treatment Services for FCADC participants are provided by Rocky Mountain Behavioral Health. The treatment costs used for this analysis were obtained from a representative of the Colorado Department of Human Services, Office of Behavioral Health (OBH) and all costs for treatment in this analysis accrue to OBH as the individual provider for each treatment service was not available. Each service specifies a fixed price for each unit of service. The cost per differential assessment is $250.00. The cost of traditional outpatient is $15.71 per day. The cost of intensive outpatient is $28.93 per day. The cost of therapeutic community residential and transitional residential is $143.00 per day. The cost of intensive residential is $216.00 per day. The cost of opioid replacement therapy was not available for this analysis. The cost of short term intensive residential remediation treatment (STIRRT) is $226.00 per day. The cost of residential detoxification is $475.00 per day. The cost of DUI Level I education is $165.00 per episode. The cost of DUI Level II education is $330.00 per episode. The cost of DUI Level II therapy and education is $4,295.00 per episode.

Drug Testing is performed by the 11th Judicial Probation Department. Drug testing costs were obtained from program staff and is an average cost for a urinalysis (UA) test. The average cost per UA test per participant is $11.00.

[12] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

Jail Sanctions are provided by the Fremont County Sheriff's Office. Using information obtained online, the cost per person per day of jail was calculated to be $60.75 in 2016. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $66.31.

Program Fees are not collected from FCADC participants.

Program Cost Results

Table D12 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the FCADC events for program graduates and for all participants who exited the program (graduates and non-graduates combined).[13] The sum of these events or transactions is the total per participant cost of the FCADC program. The table includes the average for FCADC graduates (*N* = 141) and for all FCADC participants regardless of completion status (*N* = 264). It is important to include participants who were discharged as well as those who graduated as all participants use program resources, whether they graduate or not.

Table D12. FCADC Program Costs per Participant by Transaction

Transaction	Unit Cost	Graduates		All FCADC Participants	
		Avg. # of Events per Person	Avg. Cost per Person	Avg. # of Events per Person	Avg. Cost per Person
Court Sessions	$160.03	18.35	$2,937	15.22	$2,436
Case Management Days	$3.89	404.21	$1,572	392.67	$1,527
Differential Assessment	$250.00	0.00	$0	0.00	$0
Traditional Outpatient	$15.71	284.47	$4,469	245.19	$3,852
Intensive Outpatient	$28.93	7.38	$213	8.00	$231
Therapeutic Community/ Transitional Residential	$143.00	6.62	$947	6.83	$977
Intensive Residential	$216.00	1.68	$363	2.83	$611
Opioid Replacement Therapy	N/A	7.86	N/A	4.12	N/A
Short Term Intensive Residential Remediation Treatment	$226.00	0.81	$183	1.25	$283
Residential Detoxification	$475.00	0.18	$85	0.17	$81
DUI Level I Education	$165.00	0.00	$0	0.00	$0
DUI Level II Education	$330.00	0.00	$0	0.00	$0
DUI Level II Therapy & Education	$4,295.00	0.00	$0	0.00	$0
Drug Tests	$11.00	91.87	$1,011	71.36	$785
Jail Sanctions	$66.31	9.89	$656	10.79	$715
Total			**$12,436**		**$11,498**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions are summed the result is a total FCADC program cost per participant of $11,498. The cost per graduate is $12,436.

13 Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

Another useful way to examine program costs is by agency. Table D13 shows the costs per participant by agency.

Table D13. FCADC Program Costs per Participant by Agency

Agency	Avg. Cost per Person for FCADC Graduates	Avg. Cost per Person for All FCADC Participants
11th Judicial District Court	$4,754	$4,045
Fremont County Sheriff's Office	$656	$715
Rocky Mountain Behavioral Health	$765	$703
Office of Behavioral Health (Treatment)	$6,261	$6,035
Total	**$12,436**	**$11,498**

FCADC Program Costs Summary

The total cost for the FCADC program is estimated at $11,498 per participant. Overall, the largest portion of FCADC costs is due to resources put into treatment (an average of $6,035, or 52% of total costs), followed by court sessions ($2,436 or 21%), and case management (an average of $1,527, or 13% of total costs). When program costs are evaluated by agency, the largest portion of costs accrues to the Office of Behavioral Health ($6,035 or 52% of total costs), followed by the District Court ($4,045 or 35%), and the Sheriff's Office ($715 or 6%).

Outcome Cost Transactions

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include re-arrests, district court cases, days incarcerated (jail and prison), time on probation and parole, and victimizations.

Arrest Costs incorporate the time of law enforcement positions involved in making an arrest, law enforcement salaries and benefits, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis is the average cost of an arrest by the Fremont County Sheriff's Office. NPC contacted staff at the department to obtain these figures. NPC used that information in its TICA methodology to calculate the cost of an average arrest episode. Some cost information was obtained online from agency budgets or pay scales. The average cost of a single arrest by the Sheriff's Office is $165.88 in fiscal year 2020.

Court Cases include those cases that are dismissed as well as those cases that result in conviction. Because they are the main agencies involved, court case costs in this analysis are shared among the 11th Judicial District Court, Fremont County District Attorney's Office, and Colorado Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case is $1,468.16 in fiscal year 2020.

Jail costs were provided by the Fremont County Sheriff's Office. Using budget and average daily population information obtained online, the cost per person per day of jail was calculated to be $60.75 in 2016. Using the Consumer Price Index, this was updated to fiscal 2020 dollars, or $66.31.

Probation costs were obtained through online information from the Colorado Judicial Branch. The average cost of probation was $4.97 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $5.11.

Parole costs were obtained through online information from the Colorado Department of Corrections. The average cost of parole was $16.28 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $16.75.

Prison costs were obtained through online information from the Colorado Department of Corrections. The statewide cost per person per day of prison was $108.77 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $111.88.

Victimizations were calculated from the National Institute of Justice's Victim Costs and Consequences: A New Look (1996).[14] The costs were updated to fiscal year 2020 dollars using the Consumer Price Index. Property crimes are $14,224.83 per event and person crimes are $46,081.54 per event.

Outcome Cost Results

Table D13 shows the average number of recidivism-related events per individual for FCADC graduates, all FCADC participants (regardless of graduation status) and the comparison group over 3 years. These events are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups). Overall, as demonstrated in Table D13, FCADC participants have more rearrests, court cases, jail days, probation days, and property and person victimizations than the comparison group, but fewer parole days and prison days.

Table D13. Average Number of Recidivism Events per Person over 3 Years from FCADC Entry

Recidivism Related Events	Average Number of Events (per person)		
	FCADC Graduates (*N* = 120)	All FCADC Participants (*N* = 245)	Comparison Group (*N* = 245)
Rearrests	0.52	1.18	0.84
Court Cases	0.60	1.23	1.07
Jail Days	48.20	106.29	56.11
Probation Days	310.20	276.79	170.79
Parole Days	1.74	24.42	46.48
Prison Days	3.33	67.81	122.40
Property Victimizations	0.11	0.34	0.21
Person Victimizations	0.12	0.24	0.18

[14] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

Table D14 displays the costs of outcomes by transaction that occurred in the 3 years after program entry for FCADC graduates, all FCADC participants (regardless of graduation status), and the comparison group. The first subtotal in Table D14 displays the costs associated with outcomes that occurred in the 3 years after program entry for FCADC graduates, all FCADC participants, and the comparison group, not including victimizations. Because victimizations were not calculated using the TICA methodology, the costs for these events are presented separately, with the final total providing the total costs for all events from program entry to 3 years after program entry. Table D14 shows that the difference in the 3-year outcome cost between all FCADC participants and the comparison group is $2,317 per participant, indicating that FCADC participants cost less than the comparison group. When costs due to victimizations are included, however, the difference turns negative, with FCADC participants costing $2,297 more (per participant) than comparison group members. This difference shows that there is not a benefit, or savings, due to FCADC participation. Graduates of the program show savings compared to the comparison group (a savings of $14,627 without victimizations and a savings of $18,814 when victimizations are included); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of people who would have terminated prior to graduation.

Table D14. Outcome Costs per Person over 3 Years from FCADC Entry

Recidivism Related Events	Unit Cost	Outcome Costs (per person)		
		FCADC Graduates (*N* = 120)	All FCADC Participants (*N* = 245)	Comparison Group (*N* = 245)
Rearrests	$165.88	$86	$196	$139
Court Cases	$1,468.16	$881	$1,806	$1,571
Jail Days	$66.31	$3,196	$7,048	$3,721
Probation Days	$5.11	$1,585	$1,414	$873
Parole Days	$16.75	$29	$409	$779
Prison Days	$111.88	$373	$7,587	$13,694
Subtotal		**$6,150**	**$18,460**	**$20,777**
Property Victimizations	$14,224.83	$1,565	$4,836	$2,987
Person Victimizations	$46,081.54	$5,530	$11,060	$8,295
Total		**$13,245**	**$34,356**	**$32,059**

These same outcome costs were also examined by agency to determine the relative benefit to each agency that contributes resources to the FCADC program. The transactions shown above are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the 11th Judicial District Court, Fremont County District Attorney's Office, and Colorado Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table D15 provides the cost for each agency and the difference in cost

between the FCADC participants and the comparison group per person. A positive number in the difference column indicates a cost savings for FCADC participants.

Table D15. Outcome Costs per Person by Agency over 3 Years from FCADC Entry

Agency	FCADC Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
11th Judicial District Court	$730	$635	($95)
Fremont County District Attorney's Office	$461	$401	($60)
Colorado Public Defender's Office	$615	$535	($80)
Fremont County Sheriff's Office	$7,048	$3,721	($3,327)
Law Enforcement	$196	$139	($57)
11th Judicial Probation Department	$1,414	$873	($541)
Colorado Department of Corrections	$7,996	$14,473	$6,477
Subtotal	**$18,460**	**$20,777**	**$2,317**
Victimizations[a]	$15,896	$11,282	($4,614)
Total	**$34,356**	**$32,059**	**($2,297)**

[a] These costs accrue to a combination of many different entities including the individual, medical care, etc. and therefore cannot be attributed to any particular agency above.

Table D15 shows that only the Department of Corrections appears to benefit from savings association with FCADC participation. As demonstrated in Tables C14 and C15, the total outcome cost over 3 years from program entry for the FCADC per participant (regardless of graduation status) was $34,356, while the cost per comparison group member was $32,059. The difference between the FCADC and comparison group represents a loss of $2,297 per participant.

Conclusion

Over time, the FCADC does not result in cost savings or a return on taxpayer investment in the program. The program investment cost is $11,498 per FCADC participant. When the cost difference in outcomes between FCADC participants and comparison group members is calculated without victimization costs, the savings due to fewer parole days and prison days for FCADC participants over the 3 years included in this cost-benefit analysis came to $2,317. When victimization costs are included, however, the return turns negative, to -$2,297 per participant. This amount does not result in a positive return on the investment over the 3-year time period.

Otero County Adult Drug Court (OADC)

Otero County Adult Drug Court Program Transactions

Court Sessions. Court sessions tend to be one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- 16th Judicial District Court
- 16th Judicial District - District Attorney's Office
- Colorado Public Defender's Office
- Otero County Sheriff's Office
- Colorado State Patrol
- Southeast Health Group (SHG)

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This includes the direct costs for the time spent for each OADC team member present, the time team members spend preparing for the session, the time team members spend in the pre-court staffing meeting, the agency support costs, and jurisdictional overhead costs. NPC estimated the cost for a single OADC court appearance at $390.45 per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).15 The agencies involved in case management are the 16th Judicial District Probation Department and Southeast Health Group (SHG). The daily cost of case management is $12.79 per participant.

Drug Treatment Services for OADC participants are provided by Southeast Health Group (SHG). The treatment costs used for this analysis were obtained from a representative of the Colorado Department of Human Services, Office of Behavioral Health (OBH) and all costs for treatment in this analysis accrue to OBH as the individual provider for each treatment service was not available. Each service specifies a fixed price for each unit of service. The cost per differential assessment is $250.00. The cost of traditional outpatient is $15.71 per day. The cost of intensive outpatient is $28.93 per day. The cost of therapeutic community residential and transitional residential is $143.00 per day. The cost of intensive residential is $216.00 per day. The cost of opioid replacement therapy was not available for this analysis. The cost of short term intensive residential remediation treatment (STIRRT) is $226.00 per day. The cost of residential detoxification is $475.00 per day. The cost of DUI Level I education is $165.00 per episode. The cost of DUI Level II education is $330.00 per episode. The cost of DUI Level II therapy and education is $4,295.00 per episode.

Drug Testing is performed by 16th Judicial District Probation Department. Drug testing costs were obtained from program staff and is an average cost for a urinalysis (UA) test. The average cost per UA test per participant is $6.80.

---

[15] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

Jail Sanctions are provided by the Otero County Sheriff's Office. Using information obtained online, the cost per person per day of jail was calculated to be $56.19 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $57.80.

Program Fees are not collected from OADC participants.

Program Cost Results

Table D16 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the OADC events for program graduates and for all participants who exited the program (graduates and non-graduates combined).[16] The sum of these events or transactions is the total per participant cost of the OADC program. The table includes the average for OADC graduates (*N* = 17) and for all OADC participants regardless of completion status (*N* = 49). It is important to include participants who were discharged as well as those who graduated as all participants use program resources, whether they graduate or not.

Table D16. OADC Program Costs per Participant by Transaction

Transaction	Unit Cost	Graduates		All OADC Participants	
		Avg. # of Events per Person	Avg. Cost per Person	Avg. # of Events per Person	Avg. Cost per Person
Court Sessions	$ 390.45	50.19	$19,597	35.34	$13,799
Case Management Days	$12.79	459.18	$5,875	308.02	$ 3,941
Differential Assessment	$250.00	0.00	$0	0.00	$0
Traditional Outpatient	$15.71	258.00	$4,053	149.85	$2,354
Intensive Outpatient	$28.93	0.00	$0	1.28	$37
Therapeutic Community/ Transitional Residential	$143.00	7.92	$1,133	9.44	$1,350
Intensive Residential	$216.00	0.00	$0	0.74	$160
Opioid Replacement Therapy	N/A	0.00	$0	0.00	$0
Short Term Intensive Residential Remediation Treatment	$226.00	1.67	$377	0.87	$197
Residential Detoxification	$475.00	0.58	$276	0.95	$451
DUI Level I Education	$165.00	0.00	$0	0.00	$0
DUI Level II Education	$330.00	0.00	$0	0.03	$10
DUI Level II Therapy & Education	$4,295.00	0.08	$344	0.08	$344
Drug Tests	$6.80	109.43	$744	58.50	$398
Jail Sanctions	$57.80	0.75	$43	2.66	$154
Total			**$32,442**		**$ 23,195**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions are summed the result is a total OADC program cost per participant of $23,195. The cost per graduate is $32,442.

[16] Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

Another useful way to examine program costs is by agency. Table D17 shows the cost per participant by agency.

Table D17. OADC Program Costs per Participant by Agency

Agency	Avg. Cost per Person for OADC Graduates	Avg. Cost per Person for All OADC Participants
16th Judicial District Court	$18,404	$12,645
16th Judicial District - District Attorney's Office	$580	$409
Colorado Public Defender's Office	$1,409	$992
Otero County Sheriff's Office	$819	$700
Colorado State Patrol	$1,458	$1,027
Southeast Health Group (SHG)	$3,590	$2,520
Office of Behavioral Health (Treatment)	$6,182	$4,902
Total	**$32,442**	**$23,195**

OADC Program Costs Summary

The total cost for the OADC program is estimated at $23,195 per participant. Overall, the largest portion of OADC costs is due to resources put into court sessions (an average of $13,799, or 59% of total costs), followed by treatment [$4,902 or 21%), and case management (an average of $3,941, or 17% of total costs). When program costs are evaluated by agency, the largest portion of costs accrues to the District Court ($12,645 or 55% of total costs), followed by the Office of Behavioral Health ($4,902 or 21%), and Southeast Health Group ($2,520 or 11%).

Outcome Cost Transactions

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include re-arrests, district court cases, days incarcerated (jail and prison), time on probation and parole, and victimizations.

Arrest Costs incorporate the time of law enforcement positions involved in making an arrest, law enforcement salaries and benefits, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis is the cost of an arrest by the Otero County Sheriff's Office. NPC contacted staff at the department to obtain this figure. NPC used that information in its TICA methodology to calculate the cost of an average arrest episode. Some cost information was obtained online from agency budgets or pay scales. The average cost of a single arrest by the Otero County Sheriff's Office is $125.93 in fiscal year 2020.

Court Cases include those cases that are dismissed as well as those cases that result in conviction. Because they are the main agencies involved, court case costs in this analysis are shared among the 16th Judicial District Court, 16th Judicial District- District Attorney's Office, and Colorado Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case is $1,503.79 in fiscal year 2020.

Jail costs were provided by the Otero County Sheriff's Office. Using budget and average daily population information obtained online, the cost per person per day of jail was calculated to be $56.19 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $57.80.

Probation costs were obtained through online information from the Colorado Judicial Branch. The average cost of probation was $4.97 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $5.11.

Parole costs were obtained through online information from the Colorado Department of Corrections. The average cost of parole was $16.28 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $16.75.

Prison costs were obtained through online information from the Colorado Department of Corrections. The statewide cost per person per day of prison was $108.77 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $111.88.

Victimizations were calculated from the National Institute of Justice's Victim Costs and Consequences: A New Look (1996).[17] The costs were updated to fiscal year 2020 dollars using the Consumer Price Index. Property crimes are $14,224.83 per event and person crimes are $46,081.54 per event.

Outcome Cost Results

Table D18 shows the average number of recidivism-related events per individual for OADC graduates, all OADC participants (regardless of graduation status) and the comparison group over 3 years. These events are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups). Overall, as demonstrated in Table D18, OADC participants have fewer rearrests, court cases, jail days, probation days, parole days, prison days, and property victimizations than the comparison group, but more person victimizations.

Table D18. Average Number of Recidivism Events per Person over 3 Years from OADC Entry

Recidivism Related Events	Average Number of Events (per person)		
	OADC Graduates (*N* = 17)	All OADC Participants (*N* = 53)	Comparison Group (*N* = 53)
Rearrests	0.65	1.98	2.06
Court Cases	0.64	1.94	2.15
Jail Days	0.00	33.33	39.70
Probation Days	86.88	130.53	140.79
Parole Days	0.00	21.79	48.69
Prison Days	0.00	9.76	40.14
Property Victimizations	0.06	0.26	0.75
Person Victimizations	.18	0.77	0.55

[17] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

Table D19 displays the costs of outcomes by transaction that occurred in the 3 years after program entry for OADC graduates, all OADC participants (regardless of graduation status), and the comparison group. The first subtotal in Table D19 displays the costs associated with outcomes that occurred in the 3 years after program entry for OADC graduates, all OADC participants, and the comparison group, not including victimizations. Because victimizations were not calculated using the TICA methodology, the costs for these events are presented separately, with the final total providing the total costs for all events from program entry to 3 years after program entry. Table D19 shows that the difference in the 3-year outcome cost between all OADC participants and the comparison group is $4,597 per participant, indicating that OADC participants cost less than the comparison group. When costs due to victimizations are included, however, the difference decreases, with OADC participants costing $1,430 less (per participant) than comparison group members. This difference shows that there is a benefit, or savings, due to OADC participation. Graduates of the program show savings compared to the comparison group (a savings of $10,325 without victimizations and a savings of $37,191 when victimizations are included); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of people who would have terminated prior to graduation.

Table D19. Outcome Costs per Person over 3 Years from OADC Entry

Recidivism Related Events	Unit Cost	Outcome Costs (per person)		
		OADC Graduates (*N* = 17)	All OADC Participants (*N* = 53)	Comparison Group (*N* = 53)
Rearrests	$125.93	$82	$249	$259
Court Cases	$1,503.79	$962	$2.917	$3,233
Jail Days	$57.80	$0	$1,926	$2,295
Probation Days	$5.11	$444	$667	$719
Parole Days	$16.75	$0	$365	$816
Prison Days	$111.88	$0	$1,092	$4,491
Subtotal		**$1,488**	**$7,216**	**$11,813**
Property Victimizations	$14,224.83	$853	$3,698	$10,669
Person Victimizations	$46,081.54	$8,295	$35,483	$25,345
Total		**$10,636**	**$46,397**	**$47,827**

These same outcome costs were also examined by agency to determine the relative benefit to each agency that contributes resources to the OADC program. The transactions shown above are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the 16th Judicial District Court, 16th Judicial District- District Attorney's Office, and Colorado Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table D20 provides the cost for each agency and the difference in

cost between the OADC participants and the comparison group per person. A positive number in the difference column indicates a cost savings for OADC participants.

Table D20. Outcome Costs per Person by Agency over 3 Years from OADC Entry

Agency	OADC Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
16th Judicial District Court	$1,351	$1,497	$146
16th Judicial District - District Attorney's Office	$596	$660	$64
Colorado Public Defender's Office	$970	$1,076	$106
Otero County Sheriff's Office	$1,926	$2,295	$369
Law Enforcement	$249	$259	$10
16th Judicial District Probation Department	$667	$719	$52
Colorado Department of Corrections	$1,457	$5,307	$3,850
Subtotal	**$7,216**	**$11,813**	**$4,597**
Victimizations[a]	$39,181	$36,014	($3,167)
Total	**$46,397**	**$47,827**	**$1,430**

[a] These costs accrue to a combination of many different entities including the individual, medical care, etc. and therefore cannot be attributed to any particular agency above.

Table D20 shows that all agencies, except for victimizations, appear to benefit from savings associated with OADC participation. As demonstrated in Tables C19 and C20, the total outcome cost over 3 years from program entry for the OADC per participant (regardless of graduation status) was $46,397, while the cost per comparison group member was $47,827. The difference between the OADC and comparison group represents a savings of $1,430 per participant.

Conclusion

Over time, the OADC results in a small cost savings and a return on taxpayer investment in the program. The program investment cost is $23,195 per OADC participant. When the cost difference in outcomes between OADC participants and comparison group members is calculated without victimization costs, the savings due to fewer re-arrests, court cases, jail days, probation days, parole days, prison days, and property victimizations for OADC participants over the 3 years included in this cost-benefit analysis came to $4,597. When victimization costs are included, however, the return decreases to $1,430 per participant. This amount does not result in a positive return on the investment over the 3-year time period. However, if we make the assumption that the cost savings will continue to accrue over time as has been shown in long term drug court studies (e.g., Finigan, Carey, & Cox, 2007[18]) this cost-benefit ratio will improve over time as the investment is repaid.

[18] Finigan, M. W., Carey, S. M., & Cox, A. (2007). *The impact of a mature drug court over 10 years of operation: Recidivism and costs.* Final report submitted to the U. S. Department of Justice, National Institute of Justice, July 2007. NIJ Contract 2005M073.

Larimer County DUI Court (LCDUI)

Larimer County DUI Court Program Transactions

Court Sessions. Court sessions tend to be one of the most staff and resource intensive program transactions. These sessions include representatives from the following agencies:

- 8th Judicial District Court
- Larimer County District Attorney's Office
- Colorado Public Defender's Office
- Larimer County Alternative Sentencing
- Creative Counseling Services
- Colorado State University Police Department

NPC based the cost of a court session (the time during a session when a single program participant interacts with the judge) on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This includes the direct costs for the time spent for each LCDUI team member present, the time team members spend preparing for the session, the time team members spend in the pre-court staffing meeting, the agency support costs, and jurisdictional overhead costs. NPC estimated the cost for a single LCDUI court appearance at $241.25 per participant.

Case Management is based on the amount of staff time dedicated to case management activities during a regular work week and is then translated into a total cost for case management per participant per day (taking staff salaries and benefits, and support and overhead costs into account).[19] The agencies involved in case management are the 8th Judicial District Court, Colorado Public Defender's Office, Larimer County Alternative Sentencing, and Creative Counseling Services. The daily cost of case management is $5.31 per participant.

Drug Treatment Services for LCDUI participants are provided by Creative Counseling Services. The treatment costs used for this analysis were obtained from a representative of the Colorado Department of Human Services, Office of Behavioral Health (OBH) and all costs for treatment in this analysis accrue to OBH as the individual provider for each treatment service was not available. Each service specifies a fixed price for each unit of service. The cost per differential assessment is $250.00. The cost of traditional outpatient is $15.71 per day. The cost of intensive outpatient is $28.93 per day. The cost of therapeutic community residential and transitional residential is $143.00 per day. The cost of intensive residential is $216.00 per day. The cost of opioid replacement therapy was not available for this analysis. The cost of short term intensive residential remediation treatment (STIRRT) is $226.00 per day. The cost of residential detoxification is $475.00 per day. The cost of DUI Level I education is $165.00 per episode. The cost of DUI Level II education is $330.00 per episode. The cost of DUI Level II therapy and education is $4,295.00 per episode.

Drug Testing is performed by the 8th Judicial District Probation Department. Drug testing costs were obtained from program staff and is an average cost for a urinalysis (UA) test. The average cost per UA

[19] Case management includes meeting with participants, evaluations, phone calls, referring out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

test per participant is $15.00. After the 2nd phase, participants pay for testing, but data on the phase each participant was in during each test was not available, so for this analysis all drug testing costs (even after the 2nd phase) accrues to the Probation Department.

Jail Sanctions are provided by the Larimer County Sheriff's Office. Using information obtained online, the cost per person per day of jail was calculated to be $106.96 in 2017. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $113.89.

Program Fees are not collected from LCDUI participants.

Program Cost Results

Table D21 displays the unit cost per program related event (or "transaction"), the number of events and the average cost *per individual* for each of the LCDUI events for program graduates and for all participants who exited the program (graduates and non-graduates combined).[20] The sum of these events or transactions is the total per participant cost of the LCDUI program. The table includes the average for LCDUI graduates (*N* = 55) and for all LCDUI participants regardless of completion status (*N* = 68). It is important to include participants who were discharged as well as those who graduated as all participants use program resources, whether they graduate or not.

Table D21. LCDUI Program Costs per Participant by Transaction

Transaction	Unit Cost	Graduates		All LCDUI Participants	
		Avg. # of Events per Person	Avg. Cost per Person	Avg. # of Events per Person	Avg. Cost per Person
Court Sessions	$241.25	29.75	$ 7,177	30.72	$7,411
Case Management Days	$5.31	588.42	$3,125	596.90	$ 3,170
Differential Assessment	$250.00	0.00	$0	0.00	$0
Traditional Outpatient	$15.71	24.73	$389	17.86	$281
Intensive Outpatient	$28.93	0.00	$0	0.00	$0
Therapeutic Community/ Transitional Residential	$143.00	0.00	$0	1.22	$174
Intensive Residential	$216.00	0.00	$0	0.00	$0
Opioid Replacement Therapy	N/A	0.00	$0	0.00	$0
Short Term Intensive Residential Remediation Treatment	$226.00	0.00	$0	2.86	$646
Residential Detoxification	$475.00	0.00	$0	0.00	$0
DUI Level I Education	$165.00	0.00	$0	0.00	$0
DUI Level II Education	$330.00	0.00	$0	0.03	$10
DUI Level II Therapy & Education	$4,295.00	0.73	$3,135	0.72	$3,092
Drug Tests	$15.00	94.17	$1,413	97.82	$1,467
Jail Sanctions	$113.89	0.86	$98	3.62	$412
Total			**$15,337**		**$16,663**

The unit cost multiplied by the number of events per person results in the cost per person for each transaction during the course of the program. When the costs of the transactions are summed the result is a total LCDUI program cost per participant of $16,663. The cost per graduate is $15,337.

20 Program participants included in the program cost analysis are those who had sufficient time to complete the program and who exited the program either through graduation or termination. Active participants were not included in the analysis as they were still using program services so did not represent the cost of the full program from entry to exit.

Another useful way to examine program costs is by agency. Table D22 shows the cost per participant by agency.

Table D22. LCDUI Program Costs per Participant by Agency

Agency	Avg. Cost per Person for LCDUI Graduates	Avg. Cost per Person for All LCDUI Participants
8th Judicial District Court	$7,923	$8,142
Larimer County District Attorney's Office	$1,313	$1,355
Colorado Public Defender's Office	$651	$671
Larimer County Alternative Sentencing	$986	$1,013
Creative Counseling Services	$524	$537
Colorado State University Police Department	$318	$329
Larimer County Sheriff's Office	$98	$412
Office of Behavioral Health (Treatment)	$3,524	$4,204
Total	**$15,337**	**$16,663**

LCDUI Program Costs Summary

The total cost for the LCDUI program is estimated at $16,663 per participant. Overall, the largest portion of LCDUI costs is due to resources put into court sessions (an average of $7,411, or 44% of total costs), followed by drug treatment [$4,204 or 25%), and case management (an average of $3,170, or 19% of total costs). When program costs are evaluated by agency, the largest portion of costs accrues to the District Court ($8,142 or 49% of total costs), followed by the Office of Behavioral Health ($4,204 or 25%), and the District Attorney's Office ($1,355 or 8%).

Outcome Cost Transactions

Outcome costs include any events (transactions) that occur after program entry that are not related to program activities. For this study, criminal justice system related events and life events are included in the cost analyses. These events include re-arrests, district court cases, days incarcerated (jail and prison), time on probation and parole, and victimizations.

Arrest Costs incorporate the time of law enforcement positions involved in making an arrest, law enforcement salaries and benefits, support costs and overhead costs. Information about which law enforcement agencies typically conduct arrests was obtained by talking with program staff along with web searches. The cost of an arrest used in this analysis is the average cost of an arrest by the Larimer County Sheriff Office. NPC contacted staff at the department to obtain these figures. NPC used that information in its TICA methodology to calculate the cost of an average arrest episode. Some cost information was obtained online from agency budgets or pay scales. The average cost of a single arrest by the department is $193.38 in fiscal year 2020.

Court Cases include those cases that are dismissed as well as those cases that result in conviction. Because they are the main agencies involved, court case costs in this analysis are shared among the 8th Judicial District Court, Larimer County District Attorney's Office, and Colorado Public Defender's Office. Using budget and caseload information from each agency, the cost of a Court Case is $1,959.78 in fiscal year 2020.

Jail costs were provided by the Larimer County Sheriff's Office. Using budget and average daily population information obtained online, the cost per person per day of jail was calculated to be $106.96 in 2017. Using the Consumer Price Index, this was updated to fiscal 2020 dollars, or $113.89.

Probation costs were obtained through online information from the Colorado Judicial Branch. The average cost of probation was $4.97 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $5.11.

Parole costs were obtained through online information from the Colorado Department of Corrections. The average cost of parole was $16.28 per day in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $16.75.

Prison costs were obtained through online information from the Colorado Department of Corrections. The statewide cost per person per day of prison was $108.77 in 2018. Using the Consumer Price Index, this was updated to fiscal year 2020 dollars, or $111.88.

Victimizations were calculated from the National Institute of Justice's Victim Costs and Consequences: A New Look (1996).[21] The costs were updated to fiscal year 2020 dollars using the Consumer Price Index. Property crimes are $14,224.83 per event and person crimes are $46,081.54 per event.

Outcome Cost Results

Table D23 shows the average number of recidivism-related events per individual for LCDUI graduates, all LCDUI participants (regardless of graduation status) and the comparison group over 3 years. These events are counted from the time of program entry (an estimated "program entry date" was calculated for the comparison group to ensure an equivalent time period between groups). Overall, as demonstrated in Table D23, LCDUI participants have fewer rearrests, court cases, jail days, parole days, prison days, and property and person victimizations than the comparison group, but more probation days.

Table D23. Average Number of Recidivism Events per Person over 3 Years from LCDUI Entry

Recidivism Related Events	Average Number of Events (per person)		
	LCDUI Graduates (*N* = 53)	All LCDUI Participants (*N* = 81)	Comparison Group (*N* = 81)
Rearrests	0.25	0.38	0.52
Court Cases	0.23	0.38	0.52
Jail Days	1.18	14.49	37.47
Probation Days	281.30	338.38	152.57
Parole Days	0.00	0.00	8.84
Prison Days	0.00	0.00	8.45
Property Victimizations	0.02	0.09	0.16
Person Victimizations	0.04	0.05	0.20

[21] The costs for victimizations were based on the National Institute of Justice's *Victim Costs and Consequences: A New Look (1996).* This study documents estimates of costs and consequences of personal crimes and documents losses per criminal victimization, including attempts, in a number of categories, including fatal crimes, child abuse, rape and sexual assault, other assaults, robbery, drunk driving, arson, larceny, burglary, and motor vehicle theft. The reported costs include lost productivity, medical care, mental health care, police and fire services, victim services, property loss and damage, and quality of life. In our study, arrest charges were categorized as violent or property crimes, and therefore costs from the victimization study were averaged for rape and sexual assault, other assaults, and robbery and attempted robbery to create an estimated cost for violent crimes, arson, larceny and attempted larceny, burglary and attempted burglary, and motor vehicle theft for an estimated property crime cost. All costs were updated to fiscal 2020 dollars using the consumer price index (CPI).

Table D24 displays the costs of outcomes by transaction that occurred in the 3 years after program entry for LCDUI graduates, all LCDUI participants (regardless of graduation status), and the comparison group. The first subtotal in Table D24 displays the costs associated with outcomes that occurred in the 3 years after program entry for LCDUI graduates, all LCDUI participants, and the comparison group, not including victimizations. Because victimizations were not calculated using the TICA methodology, the costs for these events are presented separately, with the final total providing the total costs for all events from program entry to 3 years after program entry. Table D24 shows that the difference in the 3-year outcome cost between all LCDUI participants and the comparison group is $3,063 per participant, indicating that LCDUI participants cost less than the comparison group. When costs due to victimizations are included, the difference increases, with LCDUI participants costing $10,971 less (per participant) than comparison group members. This difference shows that there is a benefit, or savings, due to LCDUI participation. Graduates of the program show savings compared to the comparison group (a savings of $5,190 without victimizations and a savings of $14,554 when victimizations are included); however, graduates cannot be fairly compared to the comparison group as the two groups are not equivalent. Some of the comparison group is made up of people who would have terminated prior to graduation.

Table D24. Outcome Costs per Person over 3 Years from LCDUI Entry

Recidivism Related Events	Unit Cost	Outcome Costs (per person)		
		LCDUI Graduates (*N* = 53)	All LCDUI Participants (*N* = 81	Comparison Group (*N* = 81)
Rearrests	$193.38	$48	$73	$101
Court Cases	$1,959.78	$451	$745	$1,019
Jail Days	$113.89	$134	$1,650	$4,267
Probation Days	$5.11	$1,437	$1,729	$780
Parole Days	$16.75	$0	$0	$148
Prison Days	$111.88	$0	$0	$945
Subtotal		**$2,070**	**$4,197**	**$7,260**
Property Victimizations	$14,224.83	$285	$1,280	$2,276
Person Victimizations	$46,081.54	$1,843	$2,304	$9,216
Total		**$4,198**	**$7,781**	**$18,752**

These same outcome costs were also examined by agency to determine the relative benefit to each agency that contributes resources to the LCDUI program. The transactions shown above are provided by one or more agencies. If one specific agency provides a service or transaction (for example, the Department of Corrections provides all prison days), all costs for that transaction accrue to that specific agency. If several agencies all participate in providing a service or transaction (for example, the 8th Judicial District Court, Larimer County District Attorney's Office, and Colorado Public Defender's Office are all involved in court cases), costs are split proportionately amongst the agencies involved based on their level of participation. Table D25 provides the cost for each agency and the difference in cost

between the LCDUI participants and the comparison group per person. A positive number in the difference column indicates a cost savings for LCDUI participants.

Table D25. Outcome Costs per Person by Agency over 3 Years from LCDUI Entry

Agency	LCDUI Outcome Costs per Participant	Comparison Outcome Costs per Person	Cost Difference per Person
8th Judicial District Court	$170	$233	$63
Larimer County District Attorney's Office	$385	$526	$141
Colorado Public Defender's Office	$190	$260	$70
Larimer County Sheriff's Office	$1,650	$4,267	$2,617
Law Enforcement	$73	$101	$28
8th Judicial Probation Department	$1,729	$780	($949)
Colorado Department of Corrections	$0	$1,093	$1,093
Subtotal	**$4,197**	**$7,260**	**$3,063**
Victimizations[a]	$3,584	$11,492	$7,908
Total	**$7,781**	**$18,752**	**$10,971**

[a] These costs accrue to a combination of many different entities including the individual, medical care, etc. and therefore cannot be attributed to any particular agency above.

Table D25 shows that all agencies, except for the Probation Department, appear to benefit from savings association with LCDUI participation. As demonstrated in Tables C24 and C25, the total outcome cost over 3 years from program entry for the LCDUI per participant (regardless of graduation status) was $7,781, while the cost per comparison group member was $18,752. The difference between the LCDUI and comparison group represents a savings of $10,971 per participant.

Conclusion

Over time, the LCDUI results in significant cost savings and a return on taxpayer investment in the program. The program investment cost is $16,663 per LCDUI participant. When the cost difference in outcomes between LCDUI participants and comparison group members is calculated without victimization costs, the savings due to fewer re-arrests, court cases, jail time, prison time, and parole time for LCDUI participants over the 3 years included in this cost-benefit analysis came to $3,063. When victimization costs are included, the return increases to $10,971 per participant. This amount does not result in a positive return on the investment over the 3-year time period. However, if we make the assumption that the cost savings will continue to accrue over time as has been shown in long term drug court studies (e.g., Finigan, Carey, & Cox, 2007[22]) this cost-benefit ratio will improve over time as the investment is repaid. If these average cost savings per year are projected just 2 more years (to 5 years)

[22] Finigan, M. W., Carey, S. M., & Cox, A. (2007). *The impact of a mature drug court over 10 years of operation: Recidivism and costs.* Final report submitted to the U. S. Department of Justice, National Institute of Justice, July 2007. NIJ Contract 2005M073.

the savings come to $18,285 per participant resulting in a cost-benefit ratio of 1:1.10. That is, for taxpayer every dollar invested in the program, there is $1.10 return after 5 years.

Many of these costs are due to positive outcomes while the participant is still in the program. Therefore, it is reasonable to state that savings to the state and local criminal justice systems are generated from the time of participant entry into the program. If LCDUI participants continue to have positive outcomes in subsequent years (as has been shown in other courts NPC has evaluated, e.g., Carey et al., 2005; Finigan et al., 2007) then these cost savings can be expected to continue to accrue over time, repaying the program investment costs and providing further savings in opportunity resources to public agencies. These findings indicate that LCDUI is both beneficial to participants and beneficial to Larimer County and Colorado taxpayers.

Arrest to Program Entry Costs by Site

NPC analyzed the criminal justice system events and costs from the time of the original arrest to the time of program entry in terms of rearrests and jail days. The tables include the average for all program participants regardless of completion status.

Table D26. Average Costs from Arrest to Jefferson County Recovery Court Entry per Person

Arrest to Program Entry Events	Unit Costs	Avg. # of Events per Person	Avg. Cost per Person (N = 375)
Rearrests	$167.55	0.56	$94
Jail Days	$90.90	82.91	$7,537
Total			**$7,631**

For the Jefferson County Recovery Court, the average number of days from arrest to program entry was 388.19 days. In this time period from arrest to program entry there was a total cost to the criminal justice system of $7,631 per participant, just in terms of rearrests and jail days.

Table D27. Average Costs from Arrest to Denver Adult Drug Court Entry per Person

Arrest to Program Entry Events	Unit Costs	Avg. # of Events per Person	Avg. Cost per Person (N = 2,527)
Rearrests	$158.06	0.14	$22
Jail Days	$186.11	11.46	$2,133
Total			**$2,155**

For the Denver Adult Drug Court, the average number of days from arrest to program entry was 97.32 days. In this time period from arrest to program entry there was a total cost to the criminal justice system of $2,155 per participant, just in terms of rearrests and jail days.

Table D28. Average Costs from Arrest to Fremont County Adult Drug Court Entry per Person

Arrest to Program Entry Events	Unit Costs	Avg. # of Events per Person	Avg. Cost per Person (N = 245)
Rearrests	$165.88	0.34	$56
Jail Days	$66.31	30.72	$2,037
Total			**$2,093**

For the Fremont County Adult Drug Court, the average number of days from arrest to program entry was 162.61 days. In this time period from arrest to program entry there was a total cost to the criminal justice system of $2,093 per participant, just in terms of rearrests and jail days.

Table D29. Average Costs from Arrest to Otero County Adult Drug Court Entry per Person

Arrest to Program Entry Events	Unit Costs	Avg. # of Events per Person	Avg. Cost per Person (N = 53)
Rearrests	$125.93	0.81	$102
Jail Days	$57.80	9.73	$562
Total			**$664**

For the Otero County Adult Drug Court, the average number of days from arrest to program entry was 313.17 days. In this time period from arrest to program entry there was a total cost to the criminal justice system of $664 per participant, just in terms of rearrests and jail days.

Table D30. Average Costs from Arrest to Larimer County DUI Court Entry per Person

Arrest to Program Entry Events	Unit Costs	Avg. # of Events per Person	Avg. Cost per Person (N - = 81)
Rearrests	$193.38	0.02	$4
Jail Days	$113.89	16.59	$1,889
Total			**$1,893**

For the Larimer County DUI Court, the average number of days from arrest to program entry was 168.40 days. In this time period from arrest to program entry there was a total cost to the criminal justice system of $1,893 per participant, just in terms of rearrests and jail days.

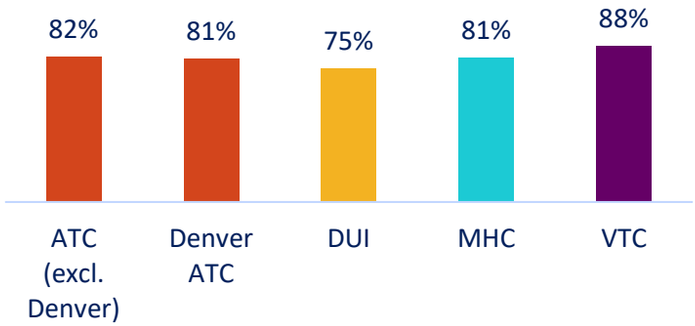
APPENDIX E
BEST PRACTICE RESULTS

APPENDIX E: BEST PRACTICE RESULTS

Adherence to Best Practices

In November 2018, a total of 52 adult treatment courts responded to an online assessment of PSC practices. The assessment asked about practices related to team composition, team member roles and responsibilities, caseload, drug testing procedures, treatment offerings, and behavior modification. Each PSC's assessment was then analyzed and translated into a report listing research based best practices (BPs) based on the 10 Key Components (NADCP 1997) and NADCP's Adult Drug Court Best Practice Standards (NADCP 2013, 2015), and whether or not the court had implemented each best practice. Of the approximately 80 best practices in this analysis (the number of practices varied by court type), across all PSCs, the percent of best practices met by individual programs ranged from 50% to 96%. On average by court type (see Figure 2.31). DUI courts reported the lowest percentage of BPs met (75%) and VTCs reported the highest (88%).

Figure E1: Average Number of Best Practices Met by Court Type



The most common best practices met by all court types include:

- Having a written policy and procedures manual (BP 1.1)
- Treatment providers communicate with the team through email between court sessions (BP 1.8)
- Participants are given a handbook at program entry (BP 3.7)
- Treatment includes evidence-based manualized interventions (BP 4.7)
- Treatment providers are licensed and/or certified (BP 4.28)
- The PSC provides interventions for trauma (BP 4.18)
- Drug testing is random and includes weekends and holidays (BP 5.3)

Best practices that most CO PSCs were <u>not</u> implementing include:

- Swift entry into the program and treatment (i.e., within 50 days) (BP 3.1)
- Providing services for family/children (BP 4.23)
- Participants may continue in the program after new drug charges (BP 6.10)
- Staff receive training on cultural competence (BP 9.3)
- The PSC has an advisory committee that includes community members (BP 10.1)

Table E1. Percent of Courts Performing Each Best Practice by Court Type

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing						
BP1.1 Program has a Memorandum of Understanding (MOU) in place between the treatment court team members (and/or the associated agencies)	75%	100%	86%	57%	83%	77%
BP1.1a MOU specifies team member roles	83%	100%	83%	100%	100%	88%
BP1.1b MOU specifies what information will be shared	94%	100%	75%	100%	80%	88%
BP1.2 Program has a written policy and procedure manual	100%	100%	93%	86%	100%	96%
BP1.3 All key team members attend pre-court team meetings (staffings) (judge, prosecutor, defense attorney, treatment, program coordinator, and probation)	92%	100%	79%	86%	100%	88%
BP1.4 All key team members attend court sessions/status review hearings (judge, prosecutor, defense attorney, treatment, program coordinator, and probation)	71%	100%	71%	86%	100%	77%
BP1.5 Law enforcement (e.g., police, sheriff) is a member of the treatment court team	88%	0%	71%	86%	83%	81%
BP1.6 Law enforcement attends pre-court team meetings (staffings)	96%	0%	64%	86%	67%	81%
BP1.7 Law enforcement attends court sessions (status review hearings)	96%	0%	64%	71%	83%	81%
BP1.8 Treatment communicates with court via email	96%	100%	100%	100%	100%	98%
Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights						
BP2.1 A prosecuting attorney attends pre-court team meetings (staffings)	92%	100%	93%	86%	100%	92%
BP2.2 A prosecuting attorney attends court sessions (status review hearings)	92%	100%	93%	86%	100%	92%
BP2.3 A defense attorney attends pre-court team meetings (staffings)	83%	100%	79%	86%	100%	85%
BP2.4 A defense attorney attends court sessions (status review hearings)	83%	100%	79%	86%	100%	85%
Key Component #3: Eligible participants are identified early and promptly placed in the drug court program.						
BP3.1 The time between arrest and program entry is 50 days or less	8%	0%	0%	0%	0%	4%

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
BP3.2 Current program caseload/census (number of individuals actively participating at any one time) is less than 125	92%	0%	100%	100%	100%	94%
BP3.3 The treatment court accepts other charges in addition to drug charges (VTC, ADC only)	96%	100%	100%	N/A	100%	97%
BP3.4 The treatment court accepts offenders with serious mental health diagnoses, as long as appropriate treatment is available	92%	100%	79%	100%	83%	88%
BP3.5 The treatment court accepts offenders who are using medications to treat a substance use disorder	96%	100%	93%	100%	100%	96%
BP3.6 Program uses validated, standardized assessment tool(s) to determine eligibility	92%	100%	64%	86%	100%	85%
BP3.7 Participants are given a participant handbook upon entering the program	100%	100%	100%	86%	100%	98%
Key Component #4: Drug courts provide access to a continuum of alcohol, drug and other treatment and rehabilitation services						
BP4.1 The mental health court offers or makes referrals to mental health treatment (MHC only)	N/A	N/A	N/A	100%	N/A	100%
BP4.2 The treatment court uses no more than two treatment agencies to provide treatment for a majority of participants or a single agency/individual provides oversight for any other treatment agencies treating treatment court participants	75%	0%	86%	57%	83%	75%
BP4.3 The treatment court requires participants to meet individually with a treatment provider or clinical case manager weekly in the first phase of the program	58%	100%	43%	86%	50%	58%
BP4.4 The treatment court offers or makes referrals to a continuum of care for substance use disorder treatment (detoxification, outpatient, intensive outpatient, day treatment, residential)	54%	100%	57%	100%	83%	65%
BP4.5 Program uses validated, standardized assessment tool(s) to determine level or type of services needed	75%	100%	79%	100%	100%	83%
BP4.6 Participants with co-occurring disorders are connected to coordinated treatment whenever possible	96%	100%	86%	100%	100%	94%

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
BP4.7 Treatment providers administer evidence-based, manualized behavioral or cognitive-behavioral treatments	100%	100%	100%	100%	100%	100%
BP4.8 The treatment court offers training for participants in illness self-management (VTC, MHC only)	N/A	N/A	N/A	100%	80%	92%
BP4.9 The treatment court offers or makes referrals to gender specific services	79%	100%	79%	100%	100%	85%
BP4.10 The treatment court offers or makes referrals to mental health treatment (VTC, DUI, ADC only)	100%	100%	100%	N/A	100%	100%
BP4.11 The treatment court offers or makes referrals to parenting classes	92%	100%	86%	86%	100%	90%
BP4.12 The treatment court offers or makes referrals to family/domestic relations counseling	100%	100%	100%	100%	100%	100%
BP4.13 The treatment court offers or makes referrals to health care	75%	0%	50%	86%	100%	71%
BP4.14 The treatment court offers or makes referrals to dental care	75%	0%	57%	86%	100%	73%
BP4.15 The treatment court offers or makes referrals to anger management classes	100%	100%	93%	100%	100%	98%
BP4.16 The treatment court offers or makes referrals to housing assistance	79%	100%	86%	100%	100%	87%
BP4.17 The mental health treatment court offers or makes referrals to supportive living residences (MHC only)	N/A	N/A	N/A	100%	N/A	100%
BP4.18 The treatment court offers or makes referrals to trauma-related services	100%	100%	100%	100%	100%	100%
BP4.19 The treatment court offers or makes referrals to a criminal thinking intervention	96%	100%	100%	100%	100%	98%
BP4.20 The treatment court offers or makes referrals to crisis intervention services (VTC, MHC only)	N/A	N/A	N/A	100%	100%	100%
BP4.21 The mental health treatment court offers or makes referrals to supported employment (MHC only)	N/A	N/A	N/A	100%	N/A	100%
BP4.22 The treatment court provides relapse prevention services for all participants with substance use disorders	75%	100%	71%	43%	50%	67%
BP4.23 The treatment court offers or makes referrals to services for participants' children	42%	0%	21%	29%	33%	33%
BP4.24 The treatment court provides childcare while participants are in treatment or in court (or	25%	100%	21%	14%	50%	27%

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
participating in other treatment court requirements)						
BP4.25 Program provides (or partners with service providers who provide) participants with legally prescribed psychotropic medication or medication assisted treatment for substance use disorder (MAT)	92%	100%	93%	100%	100%	94%
BP4.26 The DWI court offers or makes referrals to transportation assistance (DUI only)	N/A	N/A	85%	N/A	N/A	85%
BP4.27 The minimum length of the treatment court program is 12 months or more	83%	100%	100%	100%	100%	92%
BP4.28 Treatment providers are licensed or certified to deliver substance use disorder treatment	100%	100%	100%	100%	100%	100%
BP4.29 Treatment providers have training and/or experience working with a criminal justice population	100%	100%	100%	100%	100%	100%
BP4.30 The treatment court program has processes in place to ensure the quality and accountability of the treatment provider	96%	100%	N/A	100%	100%	94%
BP4.31 Caseloads for probation/supervision officers do not exceed 30 active participants (up to 50 if mix of low risk and no other caseloads/responsibilities)	75%	0%	N/A	14%	83%	54%
BP4.32 Caseloads for clinicians providing case management and treatment do not exceed 30 active participants (up to 40 if only counseling OR 50 if only case management)	38%	0%	71%	57%	33%	37%
Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing						
BP5.1 Participants receive regular drug testing to ensure they are using any prescribed and approved medications appropriately (MHC only)	N/A	N/A	N/A	71%	N/A	71%
BP5.2 Drug testing is random/unpredictable	96%	100%	86%	100%	83%	92%
BP5.3 Drug testing occurs on weekends/holidays	88%	100%	86%	86%	100%	88%
BP5.4 Collection of test specimens is witnessed directly by staff	63%	100%	71%	86%	100%	73%
BP5.5 Staff members who collect drug testing specimens are trained in appropriate collection protocols	96%	100%	86%	100%	100%	94%
BP5.6 Drug test results are back in 2 days or less	50%	100%	57%	57%	67%	56%
BP5.7 Drug tests are collected at least 2 times per week	100%	100%	79%	100%	100%	94%

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
BP5.8 Participants are expected to have greater than 90 days of negative drug tests before graduation	71%	100%	71%	43%	50%	65%
BP5.9 Program uses devices to continuously monitor alcohol use (e.g., SCRAM) (DUI only)	N/A	N/A	77%	N/A	N/A	77%
Key Component #6: A coordinated strategy governs drug court responses to participants' compliance						
BP6.1 Program has incentives for graduation such as avoiding a criminal record, avoiding incarceration, or receiving a substantially reduced sentence	100%	100%	79%	86%	100%	92%
BP6.2 Sanctions are imposed immediately after non-compliant behavior (e.g., treatment court will impose sanctions in advance of a participant's regularly scheduled court hearing)	100%	100%	93%	100%	83%	96%
BP6.3 Team members are given a written copy of the incentive and sanction guidelines	71%	100%	71%	86%	100%	77%
BP6.4 Program has a range of sanction options (including less severe sanctions such as writing assignments and community services and more severe sanctions such as jail time)	100%	100%	86%	86%	100%	94%
BP6.5 In order to graduate participants must have a job, be in school, or be involved in some qualifying positive activity	83%	100%	57%	29%	67%	67%
BP6.6 In order to graduate participants must have a sober housing environment	75%	100%	43%	57%	83%	65%
BP6.7 In order to graduate participants must gave paid all court-ordered fines and fees (e.g., fines, restitution)	33%	0%	36%	14%	50%	33%
BP6.8 Participants are required to pay treatment court fees	92%	100%	100%	86%	67%	90%
BP6.9 The treatment court reports that the typical length of jail sanctions is 6 days or less	92%	100%	93%	100%	100%	94%
BP6.10 The treatment court retains participants with new possession charges (new possession charges do not automatically prompt termination)	83%	100%	50%	100%	83%	77%
Key Component #7: Ongoing judicial interaction with each participant is essential						
BP7.1 Participants have court sessions (status review hearings) every 2 weeks, or once per week, in the first phase	100%	100%	79%	86%	100%	92%

Best Practice	Percent Performing Practice					
	ATC (n=24)	Denver ATC	DUI (n=14)	MHC (n=7)	VTC (n=6)	All Courts
BP7.2 Judge spends an average of 3 minutes or more per participant during court sessions (status review hearings)	100%	100%	100%	100%	100%	100%
BP7.3 The judge's term is as least 2 years or indefinite	96%	100%	100%	100%	100%	98%
BP7.4 The judge was assigned to treatment court on a voluntary basis	88%	100%	86%	100%	83%	88%
BP7.5 In the final phase of treatment court, the participants appear before the judge in court at least once per month	96%	100%	79%	71%	100%	88%
Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness						
BP8.1 The results of program evaluations have led to modifications in treatment court operations	71%	100%	50%	86%	100%	71%
BP8.2 Review of program data and/or regular reporting of program statistics has led to modifications in treatment court operations	67%	100%	71%	86%	100%	75%
BP8.3 The treatment court maintains data that are critical to monitoring and evaluation in an electronic database (rather than paper files)	96%	100%	93%	100%	100%	96%
Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations						
BP9.1 All new hires to the treatment court complete a formal training or orientation	75%	0%	71%	43%	67%	67%
BP9.2 All members of the treatment court team are provided with training in the drug court model	83%	100%	86%	86%	100%	87%
BP9.3 treatment court staff members receive ongoing cultural competency training	29%	0%	43%	57%	67%	40%
Key Component #10: Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness						
BP10.1 The treatment court has an advisory committee that includes community members	50%	0%	21%	43%	83%	44%
BP10.2 The treatment court has a steering committee or policy group that meets regularly to review policies and procedures	96%	100%	71%	86%	100%	88%

APPENDIX F
REFERENCES

Home (cover page)
TOC
PSC Statewide (p. 1)
Background
PSC Description
Graduation
Recidivism
Trends
Cost
ATC (p. 27)
ATC Graduation
ATC Recidivism
DUI (p. 34)
DUI Graduation
DUI Recidivism
MHC (p. 41)
MHC Graduation
MHC Recidivism
VTC (p. 48)
VTC Graduation
VTC Recidivism
App A: Denver
App B: Court Results
App C: Methods
App D: Cost Details
App E: BP Results
App F: Ref

APPENDIX F: REFERENCES

Carey, S. M., & Finigan, M. W. (2004). A detailed cost analysis in a mature drug court setting: a cost-benefit evaluation of the Multnomah County Drug Court. *Journal of Contemporary Criminal Justice*, *20*(3), 292-338.

Carey, S. M., Finigan, M. W., & Pukstas, K. (2008). *Exploring the Key Components of Drug Courts: A Comparative Study of 18 Adult Drug Courts on Practices, Outcomes and Costs.* Submitted to the U. S. Department of Justice, National Institute of Justice, May 2008. NIJ Contract 2005M114.

Carey, S. M., Finigan, M. W., Waller, M. S., Lucas, L. M., & Crumpton, D. (2005). *California drug courts: A methodology for determining costs and benefits, Phase II: Testing the methodology, final report.* Submitted to the California Administrative Office of the Courts, November 2004. Submitted to the USDOJ Bureau of Justice Assistance in May 2005.

Carey, S. M., Mackin, J. R., & Finigan, M. W. (2012). What Works? The 10 Key Components of Drug Courts: Research Based Best Practices. *Drug Court Review (VIII)*1: 6-39.

Colorado Department of Public Safety (2016). *SUMMARY: Report on the C.L.E.A.R. Act: Community Law Enforcement Action Report Act, Pursuant to Senate Bill 2015-158.* Available at: http://cdpsdocs.state.co.us/ors/docs/reports/2016-SB15-185-Rpt.pdf

Finigan, M. W., Carey, S. M., & Cox, A. (2007). *The impact of a mature drug court over 10 years of operation: Recidivism and costs.* Final report submitted to the U. S. Department of Justice, National Institute of Justice, July 2007. NIJ Contract 2005M073.

Hansen, B. B. (2004). Full Matching in an Observational Study of Coaching for the SAT, *Journal of the American Statistical Association, 99:467*, 609-618, DOI: 10.1198/016214504000000647

Hansen, B.B. & Bowers, J. Covariate balance in simple, stratified and clustered comparative studies, Statist. Sci., 23 (2), 219-236.

Ho, D., Imai, K., King, G., & Stuart, E. (2007). Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference. *Political Analysis, 15*(3), 199-236. doi:10.1093/pan/mpl013

Ho, T., Carey, S.M., & Malsch, A. (2018).Racial and Gender Disparities in Treatment Courts: Do They Exist and Is There Anything We Can Do to Change Them? *The Journal for Advancing Justice* (1) 5-34.

Longshore, D. L., Turner, S., Wenzel, S. L., Morral, A. R., Harrell, A., McBride, D., et al. (2001). Drug courts: A conceptual framework. *Journal of Drug Issues, 31*(1), Winter 2001, 7-26.

National Association of Drug Court Professionals (2013). *Adult Drug Court Best Practice Standards, Volume I*. Alexandria, VA: NADCP.

National Association of Drug Court Professionals (2015). *Adult Drug Court Best Practice Standards, Volume II*. Alexandria, VA: NADCP.

National Association of Drug Court Professionals Drug Court Standards Committee (1997). *Defining drug courts: The key components.* U.S. Department of Justice, Office of Justice Programs, Drug Court Programs Office.

National Center for DWI Courts (2005). National Center for DWI Courts: 10 Guiding Principles of DWI Courts. http://www.dwicourts.org/learn/about-dwi-courts/-guiding-principles

National Institute of Justice. (2006, June). *Drug courts: The second decade* [Special report, NCJ 211081]. Washington, DC: Office of Justice Programs, U.S. Dept. of Justice.

Rosenbaum, P. R. & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika, 70 (1),* pp.41-55.

SAMHSA/CSAT Treatment Improvement Protocols (1994). TIP 8: Intensive outpatient treatment for alcohol and other drug abuse. Retrieved October 23, 2006, from http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.section.28752

Thoemmes, F. J. & Kim, E. S. (2011). A Systematic Review of Propensity Score Methods in the Social Sciences, *Multivariate Behavioral Research, 46:1*, 90-118, DOI: 10.1080/00273171.2011.540475