

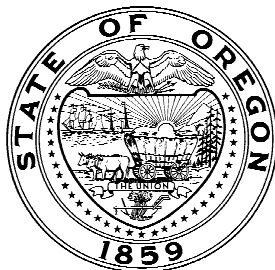
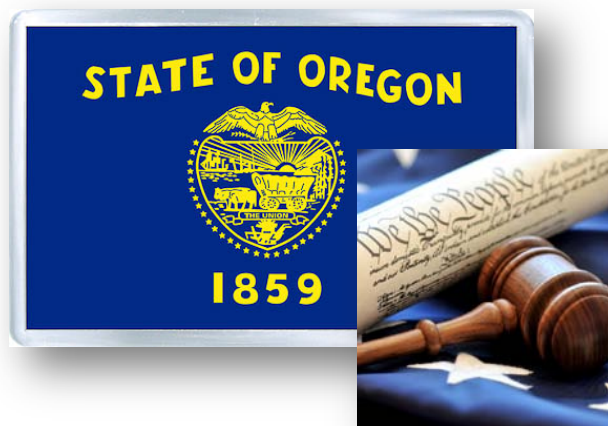
Randomized Controlled Trial of Measure 57 Intensive Drug Court for Medium- to High-Risk Property Offenders

Process, Interviews, Costs, and Outcomes

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Commission**
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EXECUTIVE SUMMARY

Drug courts are designed to guide offenders identified as drug-addicted into treatment that will reduce drug dependence and improve the quality of life for the offenders and their families. Oregon voters approved Ballot Measure 57 in 2008, which required that certain offenders be provided substance abuse treatment services, and provided state grant funds to Oregon counties to assist in offering post-adjudication services and treatment. Four sites received Measure 57 drug court funding and participated in the drug court evaluation, including Douglas County, Jackson County, Multnomah County, and Umatilla County.

In December 2011, the Oregon Criminal Justice Commission (CJC) contracted with NPC Research to work with co-principal investigators Dr. J. Mark Eddy and Dr. Paul Bellatty on an existing study of individuals convicted of Measure 57 offenses. Eligible offenders who agreed to participate in the study were randomly assigned to the treatment group or to a control group that went through traditional court processing. The study was organized into four parts: 1) a *process evaluation* of the four participating sites; 2) an *interview study* designed to obtain participant perceptions of their court experiences through interviews with treatment and control group members; 3) an *outcome evaluation* based on data from administrative court records, and 4) a *cost analysis* that examined costs associated with the program and its outcomes. NPC Research joined the project approximately halfway through participant recruitment. Ultimately, 388 participants were included in the outcome data analysis, 225 in the treatment group, and 163 in the control group. A total of 283 participants entered the study in time to be eligible to be interviewed. Of these, 172 (61%) had been randomly assigned to the treatment group and 111 (39%) had been randomly assigned to the control group. A total of 84 respondents completed both baseline and follow-up interviews (59 in the treatment group and 25 in the control group).

Process Evaluation

Although generally similar in implementation, there was some variation among the four sites. The program populations of Measure 57 drug courts are similar in that all participants must have a Measure 57-eligible offense (felony property or repeat drug delivery offense) and have scored a 3 or higher on the Texas Christian University (TCU) drug screen. They are all moderate or high risk. The sites all had other treatment courts in operation prior to the implementation of the Measure 57 drug courts: the Douglas County drug court began in 1996, the Umatilla County drug court began in 2006, and the original drug courts in Jackson and Multnomah counties began in 1991. Multnomah County created a new drug court (the START Court) specifically for Measure 57 participants in 2010, and Jackson County created a new drug court (the ROC Court) also in 2010. The sites also varied in the minimum length of service intended by the program, which was 9 months in Umatilla County, 12 months in Douglas and Multnomah counties, and 19 months in Jackson County. At the time the process evaluations were completed, the programs had served the following Measure 57 drug court participants: Douglas County served 42 participants, of whom four had graduated; Jackson County served 138 participants, of whom 20 had

graduated; Umatilla County served 97 participants, of whom 25 had graduated; and Multnomah County served 118 participants, of whom 26 had graduated.¹

The process evaluation considered drug court implementation from the perspective of the 10 Key Components. The 10 Key Components set the model for drug courts—they are well established and widespread among drug court systems, although they are essentially guidelines for implementation and leave much room for each drug court's interpretation. NPC examined 52 research-based best practices associated with the 10 Key Components (e.g., see Carey, Mackin, & Finigan, 2012). Three of the four sites had implemented 44 (85%) of the best practices and one site had implemented 41 (79%) of the best practices. Thus, the sites had implemented drug courts with reasonable fidelity to the drug court model.

Interview Study

BASELINE CHARACTERISTICS

A total of 84 respondents (59 in the treatment group and 25 in the control group) completed both a baseline (to reflect information about the participants at the time of random assignment) and a 6-month follow-up interview. Actual and retrospective baseline interviews were combined for analysis, as no significant differences in baseline demographics or key constructs of interest were found between the respondents with actual and retrospective interviews.

Treatment and control group participants were compared on several demographic variables. No significant differences were found between the treatment and control groups at baseline with regard to any of the demographic characteristics.

Interviewees reported experiencing a moderate level of support from their families, and a neutral level of conflict. No significant differences in these variables were found between the treatment and control groups at baseline.

Interviewees were asked about any use of substances in the 30 days prior to court involvement. Of the total sample, 35% reported having drunk alcohol, 35% reported having used marijuana, and 52% reported having used a substance other than alcohol or marijuana. Treatment and control groups did not differ regarding past-month alcohol use. However, there were significant differences between the groups for the past-month use of marijuana and other drugs, with greater proportions of the treatment group reporting use of these substances.

Examination of the baseline data suggests that the study's random assignment protocol was generally successful in creating treatment and control groups that were mostly demographically equivalent. The primary exception pertained to the use of marijuana and other drugs in the 30 days prior to court involvement, during which time the treatment group was significantly more likely than the control group to report having done so. It's possible that the treatment group was more likely to admit use due to their participation in the drug court programs and in treatment.

¹ Douglas, Jackson, and Umatilla numbers were current as of February 2013, and Multnomah County numbers were current as of June 2012.

INTERVIEWEE COURT-RELATED PERCEPTIONS AND EXPERIENCES

Perception of court members working as a team. At baseline, there was no significant difference between treatment and control groups in their perception of how much the judge, their lawyer, and others involved in their case worked as a team. However, the groups did significantly differ at follow-up, due to a greater proportion of the treatment group (65%) indicating *a lot* of teamwork on their behalf, compared to the control group (29%).

Attitudes toward the judge. Treatment and control participants completed a scale pertaining to their attitudes about the judge. At baseline, both groups had scores indicating that they perceived the judge similarly and relatively positively, although the treatment group's mean score was higher than the control group's mean score. This is most likely due to the number of retrospective baseline interviews, which means that the treatment group was already experiencing the drug court program at the time of baseline and had more positive attitudes about the judge. However, both groups' scores decreased significantly over time and at the same rate, which indicates that the drug court program did not impact interviewee perceptions more strongly than traditional court processing over time.

Perceptions of the judge. The treatment group was asked specifically about its perceptions of the judge. At follow-up, when asked "What words would you use to describe the judge?" the most common responses were related to the judge's personality (e.g., nice, caring, good person, friendly, loving, kind) or to the judge's optimism (e.g., wants to see people succeed, believes in everyone, wants to help). When asked about how the judge was helpful or unhelpful, interviewees remarked on the judge's willingness to give them a chance, belief in the participant, holding the participant accountable, positive reinforcement, positive attitude, and willingness to work with the participant.

Perceptions of other members of the drug court staff. The treatment group was asked specifically about its perceptions of other members of the drug court staff. The staff people most frequently cited as being particularly helpful were the probation officer and the treatment counselor. Interviewees generally thought that all staff members were respectful to participants, although a few gave a qualified "yes" or simply did not agree.

Likelihood of detection. Treatment and control group participants were asked about the likelihood of staff finding out if they did not abide by the court's expectations, in particular if they had used drugs. On average, interviewees in both groups felt that it was fairly likely that their non-compliance would be detected. Although the treatment group's mean score was significantly higher than the control group's mean score, neither group's scores increased significantly over time. Again, due to interviews being performed retrospectively, it is likely that the higher mean scores for drug court participants at baseline indicate that the participants were drawing on their current experience in drug court and felt that the drug court was more likely to detect non-compliance.

Certainty of sanctions. Treatment and control group participants completed a scale pertaining to their perceived certainty of a variety of sanctions if they did not follow the expectations of their program/parole/probation. At baseline and follow-up, mean scores remained just over 3, indicat-

ing an average perception of *somewhat likely*. Analyses found that mean scores did not change significantly over time, nor did they differ between the two groups.

Understanding of program requirements and capability to meet them. Treatment group interviewees were asked what they needed to graduate from (complete) the program. Their most common response was to stay clean (abstinent) and to participate in treatment, and they most frequently felt that it was possible for them to do what the program says they have to do. Those participants who did not feel they could meet the requirements commented on the difficulty of the program or that the program was not set up for people who had jobs, and therefore they had difficulty complying with the program schedule.

Drug court participants' perception of the program. Treatment group interviewees were asked open-ended questions about their general perceptions of the drug court program. During the follow-up interview, respondents were asked what was the most helpful part of being in drug court for them, what would be the most helpful in keeping them from using alcohol/drugs, and what they thought of the program overall. Interviewees reported that the most helpful part of being in the program was the treatment and sobriety, the accountability or supervision, the team support, the structure, and learning new skills. Interviewees also indicated that a support system is (or would be) most helpful in keeping them from using alcohol or drugs. Overall, 30 (63%) interviewees thought the program was a good or positive experience, 11 (23%) thought it was a mixed or neutral experience (some good and some bad), and seven (15%) thought it was a bad experience.

Drug court participants' perception of their peers in the program. At follow-up, treatment group participants were asked about their perceptions of their peers in the drug court program. About one third of the participants thought that half or more of the other participants were employed (36%) or that they were people they could hang out with and not get into trouble (37%). Nearly two thirds of the participants thought that the other participants had friends who were involved in the criminal justice system. Approximately one fifth (17%) of participants thought that half or most of the other participants were taking illegal drugs or still using any drugs or alcohol.

Substance use treatment. At follow-up, interviewees in both groups were asked about any substance use treatment they had received in the previous 6 months (i.e., the time since the baseline survey). At follow-up, treatment group participants were significantly more likely than control group participants to have received outpatient group counseling (64% versus 36%, respectively), and outpatient individual counseling (46% versus 16%, respectively).

Support activities. At follow-up, interviewees in both groups were asked about any support activities they participated in during their court involvement. For both groups, the activities most often endorsed pertained to substance use assessment, treatment, and support groups. At follow-up, treatment group participants were significantly more likely to have participated in a drug and alcohol assessment than control group participants (88% versus 64%, respectively), and control group participants were significantly more likely to have participated in mental health treatment than treatment group participants (40% versus 19%, respectively). One explanation for this find-

ing is that control group participants did not understand the distinction between different types of treatment. Another explanation is that traditional probation was more likely to offer mental health services rather than drug and alcohol treatment.

Ancillary services. Interviewees in both groups were also asked about any ancillary services they received through their court program. At follow-up, treatment group participants were significantly more likely to have obtained substance abuse treatment than were control group participants (81% versus 56%, respectively).

Drug testing. Interviewees in both groups were asked about their participation in random drug testing as part of their court involvement. When asked “Do you have to take drug tests as part of your court involvement (program/probation/parole)?” nearly all (90%) of the treatment group said yes, which was significantly higher than the control group (68%). When asked if they knew when the tests would be, most of the participants from both groups (80% of treatment and 77% of control) said no. When asked how often they were tested, there was a range of responses. However, treatment group participants had a significantly higher likelihood of being tested more frequently than control group participants.

Substance use. Interviewees were asked about their use of any substances in the 30 days prior to each interview—that is, the 30 days prior to being randomly assigned (baseline) and the 30 days prior to their 6-month follow-up interview. As described earlier, there were no significant differences between the groups in rates of use of various substances, with one exception: a significantly larger proportion of treatment participants (42% at baseline and 16% at follow-up), relative to control participants (17% and 0%) reported having used marijuana. Across all drug categories except injection drugs (and including the scale comprising items that tend to signify addiction), the percentage of users decreased significantly at follow-up. This significant decrease was present for both the treatment and control groups, suggesting that court involvement generally (and not necessarily drug court) may be related to reductions in substance use. However, due to the majority of interviews being performed retrospectively, it is possible that participation in the drug court (and treatment) may have led participants to be more honest about their use.

Criminal behavior. At both baseline and follow-up, interviewees were asked whether they had committed each of several different criminal acts in the previous 6 months, regardless of whether or not they were caught. The groups’ scores did not significantly differ from each other, both groups’ scores decreased significantly from baseline to follow-up, and at similar rates.

Peer group. Interviewees were asked to think of their four closest friends and state how many of these friends: are employed; have ever been arrested; have ever served time in a correctional facility, such as jail, prison, or a juvenile correction facility; are gang members; are taking illegal drugs regularly (more than a couple of times per month); and are social partners with whom trouble is unlikely. Examining these percentages suggests that there was some improvement over time—specifically, that interviewees reported that fewer of their closest friends had engaged in criminal behavior or drug use and more of their closest friends were employed. There were not differences between groups on the peer items.

Summary. The random assignment process was generally successful in creating treatment and control groups that were equivalent at baseline, except for the use of marijuana and other drugs in the 30 days prior to court involvement (the treatment group was more likely to report having done so). At follow-up, treatment group members were more likely than control group members to: perceive court members working as a team, have participated in a substance use assessment, indicate receiving outpatient group or individual substance use counseling, and to have been drug tested more frequently. Control group members were more likely than treatment group to report participating in mental health treatment. The drug court program did not impact treatment group members more strongly than traditional court processing affected the control group members in terms of attitudes toward the judge, the certainty of sanctions if they were not compliant with court instructions, substance use in the past 30 days, or reported criminal acts in the past 6 months.

Outcome Evaluation

Recidivism. The rate of participants in the treatment group who had a new charge was not significantly lower than the group who were on traditional probation (control group), though the trend was in the right direction (21% lower). The treatment group had 28% fewer new charges, and 26% fewer new cases (cases can contain multiple charges), than the control group; these differences are statistically significant. When charges are categorized, drug court participants also had significantly fewer felony and drug charges. Overall, the treatment group had 37% fewer new charges for drug crimes than the control group. A follow-up evaluation with a longer time frame to analyze recidivism is planned.

Program completion. For the participants in this study, all four programs were graduating participants in longer than the expected time frames, which is the case for most drug court programs nationally. In working with a population of high-risk and high-need offenders, it can be expected that they may struggle to comply with program requirements and take additional time to successfully complete the program. The average length of stay in drug court for all study participants, both graduates and non-graduates—who entered the programs in 2010 or 2011—was 367 days (approximately 12 months). As expected given the differences in program models, the average length of time varied among the sites. As described earlier, the expected time to graduation in each of the programs was 12 months in Douglas County, 19 months in Jackson County, 12 months in Multnomah County, and 9 months in Umatilla County. The average number of days participants spent in the program was:

- 437 (about 15 months) in Douglas County; 754 days for the graduate² (about 25 months; $n = 1$)
- 385 (about 13 months) in Jackson County; 502 days for graduates (about 17 months; $n = 6$)
- 383 (about 13 months) in Multnomah County; 524 days for graduates (about 18 months; $n = 11$)
- 337 (about 11 months) in Umatilla County; 361 days for graduates (about 12 months; $n = 16$)

² Note that the number of graduates reported on in this section is lower than the numbers described in the process evaluation, because this section reflects the earlier cohorts of participants (people who entered in 2010 and 2011), and the data from the process evaluation was updated later in the overall study.

The program *graduation rate* is the percentage of participants who graduated from the programs, out of a cohort of participants who started during a similar time frame and who have left the programs either by graduating or by being unsuccessfully discharged. The graduation rate was calculated for entry years from 2010 and 2011 (not enough time has elapsed for participants who entered in 2012 and 2013 to calculate a graduation rate, given the amount of time participants typically spend in the program). The program's graduation rate for participants entering in 2010 was 33% and for participants entering in 2011 was 34%. This rate is lower than the national average graduation rate of 57% (Huddleston & Marlowe, 2011). However, the sample of participants included in the random assignment study at each site was small and may not have been representative of the participants in the drug court programs overall.

Characteristics that predict program success. Graduates were significantly more likely to be female and older than non-graduates. Graduates also spent longer in the program, had more drug tests during the first year of the program, and spent fewer days in jail than non-graduates.

Summary. This evaluation showed a reduction in recidivism for this group of property offenders when compared to the group of offenders who received traditional probation. Many of the participants in the study were prison-eligible under Measure 57, and this evaluation provides support for drug courts as an effective alternative to prison. The Measure 57 Intensive Drug Court Program is one strategy within the continuum of services and programs for all offenders involved in the criminal justice system. This program is targeted toward a specific population and a specific point of involvement within the criminal justice system. Other types of offenders, including low risk and/or low need, and those at different points of involvement within the criminal justice system, may be better served with other types of services and programs.

Cost Analysis

This analysis included the costs of Measure 57 drug court sessions, case management, drug treatment, drug testing, and jail sanctions. The average total program cost per participant was \$22,917 (the average cost ranged from \$16,273 to \$31,918 across sites). The largest average contributor to the cost of the program was outpatient treatment (\$12,546). The second largest contributor to program costs was residential treatment (\$2,985) followed by jail sanctions (\$2,756). That the two largest contributors to program costs are outpatient and residential treatment should come as no surprise, as the main purpose of drug courts is to engage participants in treatment and ensure that they stay engaged in treatment.

BACKGROUND

In November 2008, Oregon voters approved a legislative referral known as Measure 57, which increases prison sentences for persons convicted of certain nonviolent drug and property crimes (i.e., drug trafficking, aggravated theft against the elderly, repeat offenses of identity theft, burglary, robbery, mail theft, car theft, forgery, criminal mischief, and fraud).³ In addition, Measure 57 provides state grants to counties in Oregon to assist in offering post-adjudication intensive supervision services and drug treatment for Measure 57 offenders on probation, parole, and post-prison supervision.

Measure 57 was suspended in 2009, due to the high cost associated with its implementation and a severe economic recession that began in 2008. Measure 57 applies to sentences imposed on or before February 15, 2010, for crimes committed on or after January 1, 2009. It was reinstated in 2012, and applied to crimes committed on or after January 1, 2012.

Despite the suspension of Measure 57, the CJC awarded approximately \$11 million in federal grant money through the Byrne JAG Fund to counties that elected to implement the Measure 57 Intensive Drug Court Grant Program. The purpose of the grant program was to offer funding to new or existing adult drug court programs to provide mandated post-adjudication intensive drug court services for offenders who were on supervision for crimes covered under Measure 57.

A portion of the federal grant money was designated for a rigorous evaluation of the Measure 57 Intensive Drug Court Grant Program. The Oregon Criminal Justice Commission, in cooperation with the Department of Corrections and other partners, designed a multi-site randomized controlled trial study to evaluate the effectiveness of the Measure 57 drug courts for medium- to high-risk property offenders. The study was an “intent to treat” model that compared the Measure 57 Drug Court Program to traditional probation. All study participants were included in the analysis, regardless of how long they attended drug court, and whether or not they graduated from drug court, successfully completed probation, or had their supervision revoked. Participants were randomly assigned to either drug court or probation after they had been assessed as eligible for drug court. Randomization took place once the client was sentenced to probation. Entering the drug court was not part of a plea negotiation. Study participants may have been prison-eligible based on the Measure 57 conviction, but the decision to impose a dispositional downward departure sentence was made before the randomization into the probation or drug court group. Cases that received a dispositional downward departure conditional on drug court participation were not eligible for the study. The study was designed to compare Measure 57 Intensive Drug Court to traditional probation, and does not evaluate a prison sentence compared to participation in the Measure 57 Drug Court Program. An experimental study that randomized whether an individual was sentenced to prison or the drug court program would not be feasible: the CJC did not believe such a

³ Measure 57 offenders are those convicted of the crimes mentioned in Section 6 and 7 of Senate Bill 1087: <https://olis.leg.state.or.us/liz/2008S1/Measures/Text/SB1087/Enrolled>

study was appropriate or likely to be approved by an Institutional Review Board. Participants must have been convicted of a Measure 57 crime, been assessed as medium or high risk to recidivate based on the Public Safety Checklist risk assessment tool,^{4,5} and have a drug dependency as measured by the Texas Christian University Drug Screen.⁶ Community corrections departments in each of the participating counties use the LS/CMI tool⁷ for case planning purposes. Each county was afforded the flexibility to build in other specific requirements unique to that particular program.

Drug courts are one of the most researched criminal justice intervention programs in the country. Previous evaluations have been conducted on drug courts in Oregon, as well as courts nationwide. The Criminal Justice Commission funded a statewide drug court evaluation that was released in 2011.⁸ This quasi-experimental evaluation, completed by NPC Research, showed that drug court participants had a 22% lower 1-year new charge rate when compared to a matched comparison group. The Washington State Institute of Public Policy (WSIPP) has conducted an extensive meta-analysis of drug courts nationwide.⁹ This meta-analysis includes results from 67 evaluations, and shows an effect size of -25% for drug courts, meaning that on average drug court groups have 25% lower recidivism rates. The Campbell Collaboration has also conducted an extensive meta-analysis that includes 92 evaluations of adult drug courts.¹⁰ This meta-analysis shows an effect size for adult drug courts of -24%.

This report displays statistical significance results based on statistical modeling and hypothesis testing. Statistical significance is determined by a probability threshold called a p-value, which indicates the probability that an observed difference would have occurred due to chance. A low p-value indicates a low probability that an observed difference occurred by chance. A low p-value also results in the conclusion of a statistically significant difference. In this report, the statistical significance threshold is a p-value less than 5%, and the marginal significance threshold is a p-value less than 10%.

⁴ <https://risktool.ocjc.state.or.us/psc/>

⁵ http://www.oregon.gov/CJC/Documents/Publications/Public_Safety%20Checklist_Rpt.pdf

⁶ <http://ibr.tcu.edu/projects/completed-projects/texas-christian-university-drug-screen-evaluation/>

⁷ <http://www.mhs.com/product.aspx?gr=saf&id=overview&prod=ls-cmi>

⁸ http://www.oregon.gov/CJC/docs/ordc_bja_cost_and_best_practices_final_report_rerelease_march_2011.pdf

⁹ <http://www.wsipp.wa.gov/BenefitCost/ProgramPdf/75/Drug-courts>

¹⁰ <http://www.campbellcollaboration.org/lib/project/74/>

METHODS

The methods used to conduct each of the four aspects of the evaluation are described in this section. This includes a description of the random assignment process.

Process Evaluation Methods

The information for the process evaluation was collected from online program assessments of each site, staff interviews, observations of team staffing meetings and court sessions, and program documents such as policy and procedure manuals, participant orientation packets, and treatment intake materials. As part of the process evaluation, NPC staff conducted the following activities with the study sites.

ONLINE PROGRAM ASSESSMENT

An online assessment was used to gather basic program process information from key program staff. The survey covers a number of areas; particularly areas related to the 10 Key Components such as team membership, staffing, court and drug testing procedures, and communication between team members. The use of an electronic survey allowed NPC to begin building an understanding of the program process.

OBSERVATION

NPC staff members visited the sites to observe staffing meetings and court sessions and to interview each of the team members. These observations and team member interviews provided information about the drug court structure, procedures, and routines.

KEY STAKEHOLDER INTERVIEWS

NPC staff conducted detailed, in-person interviews with individuals involved in the operations of the drug courts. Team members varied from site to site. The interviews across sites included team members such as the judge, drug court coordinator, program manager, probation officer, prosecutor, defense attorney, treatment representative, social services specialist, mental health services provider, treatment court clerk, case manager, program analyst, and Department of Human Services (DHS) representative. Interviews were conducted to clarify and expand upon information gained from the online assessment and to obtain a more comprehensive understanding of the drug court process. The information gathered through the interviews assisted the evaluation team in focusing on the day-to-day operations as well as the most important and unique characteristics of each of the drug courts.

DOCUMENT REVIEW

In order to better understand the operations and practices of the drug courts, the evaluation team also reviewed program documents at each site, including the policy and procedure manual, participant orientation packet, referral forms, exit surveys, and incentive/sanction guidelines.

Randomized Controlled Trial Design & Methods

A randomized controlled trial evaluation is considered the “gold standard” in program evaluation. The design greatly mitigates threats to validity such as selection bias and unobserved bias.¹¹ It is also the most difficult evaluation to implement. Ethical and feasibility criteria must be addressed, and the planning and preparation required before the study begins is substantial. The Criminal Justice Commission, along with other partners, began planning the study in 2009. The full design and Institutional Review Board (IRB) approval was completed by spring 2010. Randomization began in two of the four counties in September 2010 and was completed in April 2013.

In the initial study projections, a larger sample size was expected. However, initial implementation took longer than expected. The new drug court programs needed time to implement and stabilize their interventions and to introduce a substantial number of participants before randomization began. The randomization process also took longer to implement than initially estimated. Both of these factors resulted in a smaller final sample size than was initially designed.

Local sites were trained by DOC staff in sample selection and random assignment procedures. Defendants convicted of at least one Measure 57 eligible offense were ordered by the judge to enter and successfully complete the Measure 57 drug court program if directed to do so by their probation officer, and to pay the \$500 fee associated with the program. The probation officer then conducted an intake interview with the offender, administered the Public Safety Checklist risk assessment tool, and administered the TCU Drug Screen Tool II. If the defendant was eligible for the Measure 57 drug court and consented to participate in the study, the probation officer then entered the participant into a computer system that randomly assigned the defendant to either the treatment group (that received Measure 57 drug court services) or the control group (which received traditional court processing and probation as usual).

In December 2011, approximately halfway through participant recruitment, CJC contracted with NPC Research to conduct a process evaluation, interview study, and cost analysis in conjunction with the outcome analysis work conducted by the CJC. At that time there was evidence that the randomization process was not being implemented as planned. NPC contacted site liaisons to provide additional clarification regarding the random assignment process, and worked with sites to improve implementation. Further evidence of less-than-ideal implementation emerged during data analysis. At that time, the study team noticed that there were treatment group members who were missing program entry and exit dates, and that there were control group members who had program entry and exit dates. NPC again contacted site liaisons for clarification.

Ideally, all participants would be evaluated as eligible for drug court before randomization. However, there was a small number of cases ($n = 18$) in which participants were found to be ineligible for the program after randomization. These cases were removed from the analyses. This is not the ideal situation in a randomized controlled trial design; however, it provided a more accurate analysis. Each county was allowed a small number of overrides, where the random as-

¹¹ <https://www.ncjrs.gov/pdffiles/171676.PDF>

signment could be ignored if the team deemed the treatment option most appropriate for that individual. This exception allowed the counties to override assignment where the officials in that drug court believed drug court supervision was necessary; these cases ($n = 7$) were removed from the analyses. Randomization was completed on April 1, 2013, with 413 participants in the study, though ultimately, 388 participants were included in the outcome data analysis, 225 in the treatment group, and 163 in the control group. A smaller group of these participants were included in the interview component of the evaluation, as interviews commenced when NPC began work on the study; approximately 1 year after random assignment began.

Participant Interview Study Methods

NPC staff conducted interviews with participants who entered the study from May 2012 through October 2013. Interview instruments and protocols were developed specifically for this study. The instruments (which varied slightly for baseline and follow-up) covered a variety of life domains relevant to participants' overall functioning and court involvement. Interview questions addressed domains such as basic demographic information; education, employment, and housing status; physical health problems; family relationships, including the presence of support, conflict, and family member drug/criminal histories; and social environment and peer relationships. Other questions inquired about participants' experience with the court—such as their attitude toward the judge, their perceived certainty of various sanctions, and their general perceptions of the program—as well as about specific outcomes of interest to the drug court program, such as current and previous substance use, engagement in addiction treatment, and utilization of other services. Interviews took approximately 1 hour to complete. A total of 149 baseline interviews were conducted (99 by telephone and 50 in person) and a total of 93 follow-up interviews were conducted (70 by telephone and 23 in person). Respondents provided verbal consent prior to conducting the baseline and follow-up interviews.

The study design called for interviews to be conducted at baseline (i.e., within 30 days of randomization) and at 6 months after randomization. NPC used extensive procedures to track and locate participants for interviewing. Contact information was obtained from participants (both for themselves and others, such as family members, who could help locate the participant), probation officers, court officers, jail officers, drug court coordinators, treatment providers, online searches in criminal justice databases, general online searches, and social networking sites. NPC made repeated attempts to contact participants by telephone (including voicemail), using phones with two different area codes, text messages, email, and postal mail. Retrospective baseline data were collected from participants who were difficult to locate or with whom it was difficult to arrange an interview (i.e., baseline data were collected more than 30 days after randomization), and—when necessary—baseline and follow-up interviews were conducted consecutively. Ultimately, 93% of the baseline interviews were conducted retrospectively. Participants who entered the study prior to October 1, 2011, were not included in the interview study, as they had already passed the 6-month follow-up point by the time the interview study began. A total of 84 respondents completed both a baseline and follow-up (59 in the treatment group and 25 in the control group).

The interview data were analyzed using descriptive statistics, *t* tests, and chi-square tests. Cronbach's alpha was computed to determine scale reliabilities. Open-ended questions were summarized qualitatively by extracting key themes that came up frequently and were important to the research questions from a random sample of 20 interviews. These themes became building blocks for codebooks (that is, guidelines) that were applied to the remaining interviews. Additional categories were created to code new themes that emerged. After all transcripts were coded, a second researcher reviewed the initial coding and discussed with the first researcher any discrepancies in how they would have categorized the response to reach a resolution.

Outcome Evaluation Methods

DATA COLLECTION AND SOURCES

NPC staff members adapted procedures developed in previous drug court evaluation projects for data collection, management, and analysis. Data on the study participants were compiled, cleaned, and moved into SPSS for statistical analysis. The data for the outcome evaluation were gathered from the administrative databases described in Table 1.

Table 1. Oregon Measure 57 Outcome Evaluation Data Sources

Database	Source	Examples of Variables
<i>Oregon Treatment Court Management System (OTCMS)</i>	Three local sites	For treatment group only: Demographics, dates of entry and exit, discharge status, information about participation in substance abuse treatment
<i>InAct</i>	One local site that did not use OTCMS	For treatment group only: Demographics, dates of entry and exit, discharge status, information about participation in substance abuse treatment
<i>Client Progress and Monitoring System (CPMS)</i>	Oregon Health Authority	Information about participation in substance abuse treatment, for example: treatment open and close dates, modality (e.g., residential, outpatient, methadone), treatment termination type
<i>Department of Corrections (DOC)</i>	Oregon Department of Corrections (DOC)	Information provided (via CJC) regarding the number of days participants were sentenced to incarceration in a state institution (i.e., prison), local control (i.e., county jail), probation, or post prison supervision (similar to probation but the participant had been released from incarceration or local control)
<i>Oregon Justice Information Network (OJIN), Oregon e-Court Case Information (OECI), and Odyssey</i>	Oregon Judicial Department	Court case information used to determine arrest history prior to, and after entering the drug court program, e.g., arrest dates, case filing dates, hearing dates

DATA ANALYSES

The data analyses for the evaluation were constructed to answer the specific questions below.

1. *How successful was the program in reducing recidivism?*

The purpose of an outcome evaluation is to determine whether the program has improved participant outcomes, or achieved its intended goals. One of the largest impacts of interest for drug court programs is recidivism: are program participants avoiding the criminal justice system? How often are participants being re-arrested, compared to similar people who are not in the program? For this study, recidivism included any new arrest with a criminal charge for 12 months after randomization. Future studies will look at longer follow-up time periods when more time has elapsed. Recidivism was assessed in three different ways.

- What proportion of the treatment and control groups had at least one new criminal charge?
- How many new charges on average did people in each group have?
- How many new cases on average did people in each group have? (each case could contain multiple charges)

2. *How successful was the program in bringing program participants to completion and graduation within the expected time frame?*

Whether a program is bringing its participants to completion in the intended time frame is measured by program graduation (successful completion) rates, and by the amount of time participants spent in the program. The program graduation rate is the percentage of participants who graduated from the program out of the total group of participants who started during a specified time period and who have all left the program either by graduating or being unsuccessfully discharged (that is, none of the group is still active and all have had an equal chance to graduate). The Measure 57 drug court graduation rate is included for all participants, by entry year, from 2010 to 2013. The average graduation rate (for participants entering in 2010 and 2011, to allow for enough time to complete the program) was compared to the national average for drug court graduation rates and the differences were discussed qualitatively. In addition, the average length of stay for graduates and for all participants was compared to the intended time to program completion and the differences discussed qualitatively.

3. *What participant characteristics predicted program success and decreased recidivism?*

Graduates and unsuccessfully discharged participants were compared on the basis of demographic characteristics and number of arrests during the 2 years prior to random assignment to determine whether any significant patterns predicting program graduation or recidivism could be found. In order to best determine which demographic characteristics were related to successful drug court completion, chi-square and independent samples *t* tests were performed to identify which factors were significantly associated with program completion (graduation). A logistic regression was used including all variables in the model to determine if any factors were significantly related to graduation status above and beyond the other factors.

Participant characteristics and arrest history were also examined in relation to whether an individual was re-arrested following drug court entry. Chi-square and independent samples *t* tests

were performed to identify which factors were significantly associated with recidivism. A logistic regression was used including all variables in the model to determine if any factors were significantly related to recidivism above and beyond the other factors.

Cost Evaluation Methods

This section of the report describes the research design and methodology used for the cost analysis of the four Measure 57 drug court programs evaluated in this study. The cost evaluation was designed to address the following study question:

- How much do Oregon’s Measure 57 drug court programs cost taxpayers?

COST EVALUATION DESIGN

The cost approach utilized by NPC Research is called Transactional and Institutional Cost Analysis (TICA). The TICA approach views an individual’s interaction with publicly funded agencies as a set of *transactions* in which the individual utilizes resources contributed from multiple agencies. Transactions are those points within a system where resources are consumed and/or change hands. In the case of drug courts, when a drug court participant appears in court or has a drug test, resources such as judge time, defense attorney time, court facilities, and urine cups are used. Court appearances and drug tests are 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 a fitting approach to conducting costs assessment in an environment such as a drug court, which involves complex interactions among multiple taxpayer-funded organizations.

Cost to the Taxpayer

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

COST EVALUATION METHODS

The cost evaluation involves calculating the costs of four Oregon Measure 57 drug court programs.

TICA Methodology

The TICA methodology is based upon six distinct steps. Table 2 lists each of these steps and the tasks involved. All the transactional costs for each individual were added to determine the overall cost per participant. This calculation was generally reported as an average cost per person for the Measure 57 drug court program. In addition, due to the nature of the TICA approach, it was also possible to calculate the cost for drug court processing for each agency.

Program costs consist of drug court sessions, case management, drug treatment, drug testing, and jail sanctions.

Table 2. The Six Steps of TICA

	Description	Tasks
Step 1:	Determine flow/process (i.e., how program participants move through the system)	Site visits/direct observations of program practice Interviews with key stakeholders (agency and program staff) using a drug court typology and cost guide (See guide on www.npcresearch.com)
Step 2:	Identify the transactions that occur within this flow (i.e., where clients interact with the system)	Analysis of process information gained in Step 1
Step 3:	Identify the agencies involved in each transaction (e.g., court, treatment, police)	Analysis of process information gained in Step 1 Direct observation of program transactions
Step 4:	Determine the resources used by each agency for each transaction (e.g., amount of judge time per transaction, amount of attorney time per transaction, number of transactions)	Interviews with key stakeholders 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

FINDINGS

This section presents findings from the process evaluation, interview study, outcome evaluation and cost analysis.

Process Evaluation

This section highlights results summarized across the four site-level process evaluation studies. In particular, the results are framed within the 10 Key Components of Drug Courts. Additional detail is available in the site-level reports.

Although generally similar in implementation, there was some variation among the four sites. The sites varied in length of implementation: the Douglas County drug court began in 1996, the Umatilla County drug court began in 2006, and the original drug courts in Jackson and Multnomah counties began in 1991. Multnomah County created a new drug court (the START Court) specifically for Measure 57 participants in 2010, and Jackson County created a new drug court (the ROC Court) also in 2010. The program populations of Measure 57 drug courts are similar in that all participants must have a Measure 57-eligible offense (felony property or repeat drug delivery offense) and have scored a 3 or higher on the Texas Christian University (TCU) drug screen. They are all moderate or high risk. The sites varied in the minimum length of service intended by the program, which was 9 months in Umatilla County,¹² 12 months in Douglas and Multnomah counties, and 19 months in Jackson County. At the time the process evaluations were completed, the programs had served the following Measure 57 drug court participants: the Douglas County drug court had served 42 participants, of whom four had graduated; the Jackson County drug court had served 138 participants, of whom 20 had graduated; the Umatilla County drug court had served 97 participants, of whom 25 had graduated, and the Multnomah County drug court had served 118 participants, of whom 26 had graduated.¹³

The process evaluation considered drug court implementation from the perspective of the 10 Key Components. The 10 Key Components set the model for drug courts—they are well established and widespread among drug court systems, although they are essentially guidelines for implementation and leave much room for each drug court's interpretation. NPC examined 52 research-based best practices associated with the 10 Key Components (e.g., see Carey et al., 2012). These best practices are included in the process evaluation checklist in site specific reports provided to each program and are detailed in Appendix A. Findings related to the key components included:

Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing. This key component comprises 10 best practices related to service integration and teamwork. All four counties met the intent of sev-

¹² After the process study site visit, Umatilla County changed the minimum length of service intended by the program to 12 months.

¹³ Douglas, Jackson, and Umatilla numbers were current as of February 2013, and Multnomah County numbers were current as of June 2012.

en of the 10 best practices. Two of the counties could improve their program through increased representation and participation by law enforcement.

Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights. This key component comprises three best practices related to having both prosecuting and defense attorneys on the team who participated in staffing meeting and court sessions. With the exception of one site, all four programs met the intent of all three best practices.

Key Component #3: Eligible participants are identified early and promptly placed in the drug court program. This key component comprises four best practices related to court caseloads and timing of program entry. All four sites kept the program caseload below 125 persons and allowed other charges in addition to drug charges. Three of the programs accepted offenders with serious mental health issues. Two of the programs could be improved by reducing the time between arrest and program entry to 50 days or less.

Key Component #4: Drug courts provide access to a continuum of alcohol, drug and other treatment and rehabilitation services. This key component comprises 13 best practices related to the types of services available to participants. All four sites met the intent of the seven best practices related to treatment (i.e., working with two or fewer treatment agencies, providing participants with guidelines on the frequency of individual treatment sessions, and offering gender specific services, mental health services, parenting classes, and residential treatment). Three of the sites also provided family counseling or anger management classes. One drug court offered health care and none offered dental care.

Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing. This key component comprises three best practices related to drug testing. All four sites collected drug tests at least twice per week in the first phase of drug court and expected participants to have at least 90 days clean (negative drug tests) before graduation. Two sites could improve their program by ensuring drug test results are returned in 48 hours or less.

Key Component #6: A coordinated strategy governs drug court responses to participants' compliance. This key component comprises eight best practices related to incentives and sanctions in response to participant behavior. All four sites met the intent of five elements related to sanctions being immediately imposed, keeping jail sanctions to 2 weeks or less, retaining participants with new possession charges, and requiring participants to pay court fees and to have a sober housing environment in order to graduate. Three of the sites also gave team members a copy of the guidelines for sanctions or required participants to have a job or be in school in order to graduate. Only one site required participants to pay all court-ordered fines and fees in order to graduate.

Key Component #7: Ongoing judicial interaction with each participant is essential. This key component comprises five best practices related to participant interaction with the judge. All four sites met the intent of four best practices related to the frequency of

status review (every 2 weeks in the first phase, and at least once per month in the final phase), and to the nature of the judge's appointment (voluntary and for at least 2 years). Two of the sites could improve their program by ensuring the judge spends an average of at least 3 minutes with each participant during status review hearings.

Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness. This key component comprises three best practices related to program evaluation. All four sites indicated that the drug court maintains case management and evaluation data in electronic format, and that the results of program evaluations have led to program improvements. Three of the sites indicated that the regular review or reporting of program statistics has led to modifications in drug court operations.

Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations. This key component comprises two best practices related to training. Three of the sites indicated that new hires to the drug court complete a formal training or orientation and that all members of the team are provided with training in the drug court model. One site could improve its program by providing this training.

Key Component #10: Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness. This key component comprises one best practice related to partnerships. Three of the sites indicated that the drug court has an advisory committee that includes community members. One site could improve its program by creating such a committee.

All together, the results within the 10 Key Components comprise 52 best practices. Three of the four sites had implemented 44 (85%) of the best practices and one site had implemented 41 (79%) of the best practices. Thus, the sites had implemented drug courts with reasonable fidelity to the drug court model. All sites maintained a caseload less than 125, had two or fewer treatment agencies, conducted drug testing twice per week, imposed sanctions immediately, minimized the length of jail sanctions when used, collected program fees, required that participants be in sober housing in order to graduate, and keep electronic program data. There remains room for improvement in several areas in some programs, including ensuring access to dental and medical care, inclusion of law enforcement on teams, decreasing the time from arrest to drug court entry, decreasing the time between drug testing and receipt of results, and increasing the time each participant spends in front of the judge.

Interview Study

The findings reported in this section are based on participant interviews. A total of 149 respondents completed a baseline interview and 88 respondents completed a follow-up interview. A total of 84 respondents completed both a baseline and follow-up interview (baseline interviews reflect information about the participants at the time of random assignment, and follow-up interviews re-

flect information about the participants 6 months later, regardless of participant status in the program). These 84 respondents constitute the analysis sample for this report. Of the 84 interviewees, 59 (70%) were drug court participants and constitute the treatment group. The remaining 25 (30%) were part of the traditional court and probation system and constitute the control group.¹⁴ Seventy-eight (93%) baseline interviews were completed retrospectively and six (7%) interviews were completed as an actual baseline. No significant differences in baseline demographics or key constructs of interest were found between the respondents with actual and retrospective interviews. Thus, actual and retrospective baseline interviews were combined for analysis.

Some of the concepts assessed during the interview were based on items from established psychometric scales, many of which were used in the National Institute of Justice's Multisite Adult Drug Court Evaluation (MADCE¹⁵). The items included in the scales, along with results for scale reliability, are included in Appendix B.

BASELINE STATUS OF INTERVIEWEES

This section describes the status and characteristics of study participants across a variety of domains at time of the baseline interview. In each domain, the total sample of interviewees is described and any pre-program differences between the treatment and control groups are discussed.

Demographic Characteristics

Of the total sample of 84 interviewees, 60% were male and the average age was 30 years (range = 19 to 56 years). Nearly three quarters (74%) were White, and the remainder self-identified as Hispanic/Latino (6%), African American (5%), American Indian/Alaskan Native (4%), Asian/East Indian (2%), Native Hawaiian/Pacific Islander (1%), and multi-racial (7%). All interviewees except one spoke English as a primary language.

At baseline, 6% of the total sample reported being married and just over one third (35%) reported being in a steady, intimate relationship. Nearly half (46%) had no children. Sixty respondents (71%) had graduated from high school or obtained a GED. Thirty-three respondents (39%) had some education beyond high school. Sixteen (16) respondents (19%) reported currently having a job. Of those 16 with jobs, eight (50%) had full-time work, six (38%) had part-time work, and two (12%) were called in to a job as needed. Most interviewees (83%) had a place to keep food and cook meals, indicating some stability in housing, and 8% of the interviewees had ever been in a gang. Table 3 shows the percentages for these demographic characteristics for the treatment and control groups separately. No significant differences were found between the treatment and control groups at baseline with regard to any of these characteristics.

¹⁴ One site (Umatilla) was allowed by the DOC to randomly assign participants at a three-to-one ratio. That is, they assigned three participants to the treatment group for every one participant assigned to the control group. The other three sites randomized at a ratio of one-to-one.

¹⁵ Rossman S. B., Roman, J., Zweig, J. M., Rempel, M., & Lindquist, C. (2011). [The Multi-site Adult Drug Court Evaluation: Study Overview and Design — Volume 1](#), Urban Institute.

Table 3. Baseline Characteristics: Percent of Interviewees Reporting Each Demographic Characteristic

Characteristic	Treatment Group (n = 59)	Control Group (n = 25)
Gender		
Male	64%	48%
Female	36%	52%
Race/Ethnicity		
Black or African American	5%	4%
Hispanic, Latino, or Spanish	7%	4%
White or Caucasian	71%	80%
American Indian or Alaska Native	5%	0%
Asian or East Indian	2%	4%
Native Hawaiian or other Pacific Islander	2%	0%
Multiracial	7%	8%
Other	2%	0%
Primary Language		
English	98%	100%
Spanish	2%	0%
Marital Status		
Married/In a relationship	37%	48%
Not married or in a relationship	58%	52%
Don't know/Refused/Missing	5%	0%
Number of Children under age 18		
None	49%	40%
1	25%	28%
2	12%	16%
3	9%	4%
4	0%	4%
5 or more	5%	8%
Education Beyond High School		
Yes	41%	36%

Characteristic	Treatment Group (<i>n</i> = 59)	Control Group (<i>n</i> = 25)
<i>Technical certification or license</i>	9%	4%
<i>Some college</i>	25%	28%
<i>Associate's degree</i>	5%	4%
<i>Bachelor's degree</i>	2%	0%
<i>Beyond Bachelor's degree</i>	0%	0%
<i>Don't know / Refused / Missing</i>	0%	4%
No	56%	60%
Don't know / Refused / Missing	3%	4%
Currently has a job		
Yes	19%	20%
No	80%	80%
Don't know / Refused / Missing	2%	0%
Has someplace to keep food and cook meals		
Yes	83%	84%
No	17%	16%
Ever been a gang member		
Yes	9%	8%
No	88%	92%
Don't know / Refused / Missing	3%	0%

Note: Percentages may not add to 100 due to rounding.

Family Characteristics and Substance Use History

Interviewees reported experiencing a moderate level of support from their families. This topic was assessed using a scale that asked interviewees, for example, if they had someone in their family to turn to for suggestions dealing with a personal problem, who would provide support for dealing with a substance abuse problem, and who loved them and made them feel wanted. The total sample mean was 3.0, on a scale from *strongly disagree* (= 1), *disagree* (= 2), *agree* (= 3), to *strongly agree* (= 4), indicating agreement (on average) with statements describing a supportive family.

Interviewees were also asked about the level of conflict in their families, such as whether they fought a lot with family members, were criticized a lot by family members, and felt as if they disappointed their family. The total sample mean was 2.5, just between 2 (disagree) and 3 (agree) on the response scale. No significant differences in family support or conflict were found between the treatment and control groups at baseline. Findings are shown in Table 4 (and Table C-1 in Appendix C).

Table 4. Baseline Characteristics: Percent of Interviewees Reporting Family Support and Conflict

	Treatment Group	Control Group
	Mean	Mean
Family Support	3.0	3.1
Family Conflict	2.5	2.5

When asked who raised them, 27% of interviewees indicated that they were raised by both parents, 42% by their mother alone, 5% by their father alone, 5% had been in foster care, and 21% had other family arrangements (e.g., grandparents, extended family). When asked whether their parents, or parent figures, were ever arrested, 44% of the total sample said yes. When asked whether their parents or caregivers ever had a problem with alcohol or drugs, just over half (51%) said yes. Of the 34 respondents who were currently married or in a steady, intimate relationship at baseline, 44% reported that their spouse/partner had never been arrested and 53% reported that their spouse/partner had never had an alcohol or drug problem. No significant differences were found between the treatment and control groups at baseline. Findings are shown in Table 5 (and Table C-2 in Appendix C).

**Table 5. Baseline Characteristics: Percent of Interviewees Reporting
Family Crime and Drug Use**

	Treatment Group (n = 59)	Control Group (n = 25)
Family of Origin (n = 84)		
Parents ever arrested		
Yes	39%	56%
No	58%	44%
Don't know/Refused/Missing	3%	0%
Parents have a drug problem		
Yes	44%	68%
No	53%	32%
Don't know/Refused/Missing	3%	0%
Current Spouse/Partner (n = 34)		
Spouse or partner ever arrested		
Yes	46%	42%
No	46%	50%
Not applicable/Don't know/Refused	9%	8%
Spouse or partner have a drug problem		
Yes	59%	42%
No	36%	58%
Not applicable/Don't know/Refused	5%	0%

Interviewees were asked about any use of substances in the 30 days prior to random assignment (shown in Table 6 below and Table C-3 in Appendix C). Of the total sample, 35% reported having drunk alcohol, 35% reported having used marijuana, and 52% reported having used a substance other than alcohol or marijuana. Treatment and control groups did not differ regarding past-month alcohol use. However, chi-square analyses revealed significant differences between the groups for the past-month use of marijuana¹⁶ and use of other drugs.¹⁷ Specifically, a greater proportion of the treatment group reported using marijuana (42%) or other illicit drugs (59%) in the 30 days prior to court involvement, as compared to the control group (17% and 36%, respectively). This may indicate true substance use issues that are more serious for the treatment group, or this could be an indication that the treatment group was more open than the control group due to their participation in drug court (since the majority of interviews were conducted retrospectively).

Table 6. Baseline Characteristics: Percent of Interviewees Reporting Substance Use in the Past 30 Days

In the past 30 days....	Treatment Group (<i>n</i> = 59)	Control Group (<i>n</i> = 25)
Any Alcohol Use	36%	33%
Any Marijuana Use*	42%	17%
Any Use of Drugs Other than Alcohol or Marijuana*	59%	36%

* $p \leq .05$

Interviewees were asked about several aspects of their substance use that tend to signify addiction, such as using larger amounts than intended, being unable to cut down, and experiencing withdrawal symptoms. The scale included 12 items, and respondents indicated whether or not they had each experience (yes = 1; no = 0) within the past month. Scale scores ranged from 0 to 12, and the average score for the total sample was 3.9. Although the treatment group mean ($M = 4.3$) was higher than that of the control group ($M = 2.8$), the difference was not statistically significant.¹⁸ Again, this may be an indication that the treatment group had more issues with substance abuse than the control group.

Conclusion regarding random assignment: Examination of the baseline data suggests that the study's random assignment protocol was generally successful in creating treatment and control groups that were mostly demographically equivalent. The primary exception pertained to the use of marijuana and other drugs in the 30 days prior to random assignment, on which the treatment group was significantly more likely than the control group to report having used.

¹⁶ Cross-tabulation results: $X^2(1, 83) = 4.96, p \leq .05$

¹⁷ Cross-tabulation results: $X^2(1, 83) = 3.83, p \leq .05$

¹⁸ For treatment group: $M = 4.34, SD = 4.10$, range = 0-12. For control group: $M = 2.80, SD = 3.89$, range = 0-12. For overall sample: $M = 3.88, SD = 4.08$, range = 0-12.

INTERVIEWEE COURT-RELATED PERCEPTIONS AND EXPERIENCES

Interviewees, in both treatment and control groups, were asked at the 6-month follow-up interview about their perceptions of their court involvement and their experiences while in court. This section presents comparative analyses of the groups' perceptions at the time of follow-up.

Treatment group members (i.e., drug court participants) were asked additional open-ended questions about their perceptions of their drug court program. Where appropriate in this section, this qualitative information is presented as descriptive of treatment group attitudes and to support the comparative findings of the quantitative data.

Perceptions of Court Involvement

Treatment and control group participants were asked about their perceptions of court members' collaboration on their behalf, of the judge, and of the certainty of sanctions within the program.

Court Members Work as a Team

A collaborative, interdisciplinary team is paramount to drug court functioning. Treatment group participants were asked, "How much do you think that the Judge, your treatment provider, and your lawyer worked as a team for you?" and were able to respond *not at all*, *a little*, or *a lot*. Control group participants were asked, "How much do you think that the Judge, your lawyer, and your parole/probation officer worked as a team for you?" and were given the same response options. As shown in Table 7, at baseline, there was no significant difference between treatment and control groups. However, chi-square analyses indicated that the groups did significantly differ at follow-up.¹⁹ This difference was largely due to a greater proportion of the treatment group (65%) indicating *a lot* of teamwork on their behalf, as compared to that of the control group (29%).

Table 7. Perception that Judge, Lawyer, and other Representative Worked as a Team (Percent of Interviewees)

	Baseline			Follow-up**		
	Not at all	A little	A lot	Not at all	A little	A lot
Treatment ^a	16%	38%	46%	8%	27%	65%
Control ^b	28%	40%	32%	17%	54%	29%

^a For treatment participants: "How much do you think that the Judge, your treatment provider, and your lawyer worked as a team for you?" Baseline $n = 55$, follow-up $n = 52$. ^b For control participants: "How much do you think that the Judge, your lawyer, and your parole/probation office worked as a team for you?" Baseline $n = 25$, follow-up $n = 24$.

** $p < .05$

Attitudes Toward Judge

The judge is the cornerstone of a drug court. Treatment and control participants completed a scale pertaining to their attitudes about the judge (for additional information about the scale, please see Appendix B). The scale included items such as: the judge is knowledgeable about your case,

¹⁹ Cross-tabulation results: $X^2(2, 76) = 8.68, p < .05$

knows you by name, helps you succeed, and can be trusted to treat you fairly. The response options were *strongly agree* (= 5), *agree* (= 4), *neither agree nor disagree* (= 3), *disagree* (= 2), and *strongly disagree* (= 1). At baseline, both groups had scores indicating that they perceived the judge similarly and relatively positively. Analyses found that the treatment group's mean score was higher than the control group's mean score and both groups' scores decreased significantly over time. Both groups' decrease over time indicates that the drug court program may not have impacted interviewee perceptions more strongly than traditional court processing did.²⁰ However, at baseline and particularly at follow-up, the treatment group had more positive views of the judge. Table 8 displays the mean scores for each group.

Drug Court Participants' Perception of the Drug Court Judge

The treatment group was asked specifically about its perceptions of the judge. At follow-up, when asked "What words would you use to describe the judge?" the most common responses were related to the judge's personality (e.g., nice, caring, good person, friendly, loving, kind; $n = 25$) or to the judge's optimism (e.g., wants to see people succeed; believes in everyone, wants to help; $n = 12$). When asked about how the judge was helpful or unhelpful, interviewees remarked on the judge's willingness to give them a chance ($n = 9$), belief in the participant ($n = 7$), holding the participant accountable ($n = 7$), positive reinforcement, ($n = 6$), positive attitude ($n = 5$), and willingness to work with the participant ($n = 5$). Interviewees reported that judges were most likely to talk to them in court about abstinence ($n = 24$), what is going on in the participant's life ($n = 19$), treatment ($n = 14$), or giving encouragement or support ($n = 9$). Interviewees most often stated that these conversations gave them positive feelings ($n = 22$), although sometimes there were negative feelings (e.g., nervous, scared, stressed, uncomfortable, embarrassed, angry, hurt). Interviewees generally felt that these discussions were important to them ($n = 33$). As one interviewee commented:

"I would say the biggest help from the judge is that he treats you as a human being. That at some point you have faults, and that faults can be worked through. That eventually with enough determination that you can finish the program. He's willing to work with you every step of the way."

²⁰ Repeated measures analysis of variance (ANOVA) found a significant main effect for time [$F(1,75) = 9.467, p < .01$] and a significant main effect for group [$F(1,75) = 6.872, p < .05$], but the interaction effect was not significant.

Table 8. Attitude toward Judge, Likelihood of Detection, and Certainty of Sanctions Scales (Mean Scores)

	Baseline	Follow-up
Attitude Toward Judge^{a, b}		
Treatment	3.9	3.7
Control	3.6	3.0
Likelihood of Detection^b		
Treatment	3.6	3.7
Control	3.3	3.4
Certainty of Sanctions		
Treatment	3.0	3.1
Control	3.1	3.0

^a Significant difference over time ($p < .01$), no significant difference between groups or for time by group interaction

^b Significant difference between the groups ($p < .05$); no significant difference over time or for time by group interaction

Drug Court Participants' Perception of the Drug Court Staff

The treatment group was asked specifically about its perceptions of other members of the drug court staff. The staff most frequently cited as being particularly helpful were the probation officer ($n = 22$) and the treatment counselor ($n = 18$). Interviewees generally thought that all staff members are respectful to participants ($n = 33$), although a few gave a qualified “yes” or simply did not agree. As one interviewee commented:

“My PO is 100%. There were a couple times where [we] got into in an argument, but we're on pretty level ground now.”

Likelihood of Detection

Treatment and control group participants were asked about the **likelihood of detection** if they did not abide by the court's expectations. Specifically, they were asked, “If you used drugs, didn't keep appointments, or otherwise didn't meet your supervision conditions while (in the drug court program or on parole/probation), how likely do you think it is that your parole/probation officer would find out?” They answered on a scale of *very likely* (= 4) to *very unlikely* (= 1). As shown in Table 8, on average, interviewees in both groups felt that it was fairly likely that their noncompliance would be detected. Analyses found that the treatment group's mean score was significantly higher than the control group's mean score, though neither group's scores decreased significantly over time.²¹ Descriptively, the follow-up mean for the treatment

²¹ Repeated measures ANOVA found a significant main effect for group [$F(1,80) = 4.060, p < .05$]. However, the main effect for time and the interaction effect were not significant.

group was notably high ($M = 3.7$), suggesting that the drug court team was competent in staying abreast of participants' progress and the high mean at both time points indicated that those in drug court felt that it was more likely their non-compliance would be detected than those in the control group. Table 8 displays the mean scores for both groups.

Certainty of Sanctions

Sanctions are a key part of drug court participation, as they serve an influential role in behavior modification. Treatment and control group participants completed a scale pertaining to their perceived **certainty of a variety of sanctions** if they did not follow the expectations of their program/parole/probation. Specifically, they were asked, "If (the drug court program or your parole/probation officer) thought that you used drugs while on probation/parole, didn't keep appointments, or otherwise didn't meet your supervision conditions, how likely do you think it is that the following things would happen?" They were then read a list of 11 possible sanctions, such as increased drug testing, increased drug treatment, community service, house arrest, or jail time. They could respond with *very likely* (= 4), *somewhat likely* (= 3), *somewhat unlikely* (= 2), and *very unlikely* (= 1). At all assessment points, mean scores remained just over 3, indicating an average perception of *somewhat likely*. Analyses found that mean scores did not change significantly over time, nor did they differ between the two groups. Table 8 displays the mean scores for both groups.

Treatment Group Experiences in the Drug Court Program

The next section describes treatment group participants' responses about their experiences in the program, including their understanding of the program requirements, perception of the program, and perception about program services.

Understanding of Program Requirements and Capability to Meet Them

Treatment group interviewees were asked what they needed to graduate from (complete) the program. Their most common response was to stay clean (abstinent) ($n = 37$) and participate in treatment ($n = 34$), and they most frequently felt that it was possible for them to do what the program says they have to do ($n = 41$). Those participants who did not feel they could meet the requirements commented on the difficulty of the program, or that the program was not set up for people who had jobs, and therefore they had difficulty complying with the program schedule.

Perception of the Program Overall

Treatment group interviewees were asked open-ended questions about their general perceptions of the drug court program. During the follow-up interview, respondents were asked what was the most helpful part of being in drug court for them, what would be the most helpful in keeping them from using alcohol/drugs, and what they thought of the program overall. Interviewees reported that the most helpful part of being in the program was the treatment and sobriety ($n = 11$), the accountability or supervision ($n = 10$), the team support ($n = 8$), the structure ($n = 6$), and learning new skills ($n = 4$). Interviewees also indicated that a support system is (or would be) most helpful in keeping them from using alcohol or drugs ($n = 16$). Overall, of participants who responded to the open-ended questions, 30 (63%) interviewees thought the program was a good or positive experience, 11 (23%) thought it was a mixed or neutral experience (some good and

some bad), and 7 (15%) thought it was a bad experience. Example comments from interviewees include:

(Good experience): “I think for me the program is very helpful, although it’s not perfect, but it’s very helpful for me. Helpful in helping me to develop better coping skills and addressing my decision-making skills, things related to my addiction, compulsive behaviors, [things] like that.”

(Neutral experience): “If someone dedicates themselves to the program, it can be successful.”

(Bad experience): “It’s too stressful. It takes a lot of time. It shouldn’t be so intense. Just because it’s a drug court doesn’t mean they need to make it all intense and pressure you. The whole reason they do is because you are a criminal now. They treat you like one.”

Drug Court Participants’ Perception of their Peers in the Program

At follow-up, treatment group participants were asked about their perceptions of their peers in the drug court program. As detailed in Table 9, about one third (36%) of the participants thought that half or more of the other participants were employed or that they were people they could hang out with and not get into trouble (37%). Nearly two thirds of the participants thought that the other participants had friends who were involved in the criminal justice system. Nearly one fifth (18%) of participants thought that half or most of the other participants were taking illegal drugs or still using drugs or alcohol.

Table 9. Perception of Drug Court Peers at Follow-up (Percent of Interviewees)

How many of the other participants...					Don’t know/ Missing
	Most	Half	Few	None	
Are employed?	12%	24%	37%	0%	27%
Can you hang out with and know you won’t get into trouble?	32%	5%	29%	12%	22%
Have friends who are involved in the criminal justice system?	56%	7%	10%	0%	27%
Are gang members?	0%	3%	34%	29%	34%
Are taking illegal drugs regularly (more than a couple times per month)?	5%	12%	32%	19%	32%
Are still using any drugs or alcohol?	5%	14%	42%	7%	32%

Substance use treatment

At follow-up, interviewees in both groups were asked about any substance use treatment they had received in the previous 6 months (i.e., the time since the baseline survey). Specifically, they were asked if they had been to the emergency room, participated in a detoxification program in a hospital or treatment center, participated in residential treatment, received medicinal interventions such as methadone maintenance or buprenorphine/suboxone, participated in outpatient group counseling, received outpatient individual counseling, or attended self-help groups such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA). Table 10 details the percentage of interviewees who received each of these services. Chi-square analyses revealed two significant group differences: Treatment group participants were significantly more likely than control group participants to have received outpatient group counseling (64% versus 36%, respectively),²² and outpatient individual counseling (46% versus 16%, respectively).²³

Table 10. Percent of Interviewees (at Follow-up) who Received Substance Abuse Treatment During the Past 6 Months

Treatment Type	Treatment (<i>n</i> = 59)	Control (<i>n</i> = 25)
Emergency Room	32%	24%
Detox in a hospital or treatment center	5%	8%
Residential treatment	20%	32%
Medicinal interventions (e.g., methadone, suboxone)	5%	16%
Outpatient group counseling*	64%	36%
Outpatient individual counseling**	46%	16%
Self-help groups (e.g., AA, NA)	75%	68%

* $p < .05$ ** $p < .01$

Support Activities, Ancillary Services, and Drug Testing

Support Activities. At follow-up, interviewees in both groups were asked about any support activities they participated in during their court involvement. Treatment group participants were asked, “What activities have you participated in since you started Drug Court?” and control group participants were asked “What activities have you participated in so far (in the last six months)?” Table 11 details the percentage of interviewees who participated in the different activities. For both groups, the activities most often endorsed pertained to substance use assessment, treatment, and support groups. Chi-square analyses compared the proportions of the treatment and control groups that endorsed each activity. Two differences were found: Treatment group participants were significantly more likely to have participated in a drug and alcohol assessment

²² Cross-tabulation results: $X^2(1,83) = 6.30, p < .05$

²³ Cross-tabulation results: $X^2(1,83) = 7.27, p < .01$

than control group participants (88% versus 64%, respectively),²⁴ and control group participants were significantly more likely to have participated in mental health treatment than treatment group participants (40% versus 19%, respectively).²⁵

Ancillary Services. Interviewees in both groups were also asked about any ancillary services they received through their court program. Drug court participants were asked, “What kind of help did you receive from the program?” and control group participants were asked, “What type of help have you received from your parole/probation officer?” Although the percentages are higher across nearly all services for the treatment court group, chi-square analyses revealed one significant difference: Treatment group participants were significantly more likely to have obtained substance abuse treatment than were control group participants (81% versus 56%, respectively).²⁶ The lack of significance in the other categories is most likely due to the small sample size. The results are detailed in Table 11.

Table 11. Percent of Interviewees (at Follow-up) Who Participated in Support Activities or Received Ancillary Services via Court Involvement

	Treatment (<i>n</i> = 59)	Control (<i>n</i> = 25)
Support Activities		
Drug and alcohol assessment*	88%	64%
Drug and alcohol treatment	78%	60%
Mental health assessment	54%	44%
Mental health treatment*	19%	40%
Skill development group	36%	24%
Employment services	24%	16%
Educational services	19%	16%
AA/NA/self-help groups	75%	60%
Ancillary Services		
Find employment	22%	12%
Find housing	25%	8%
Find childcare	5%	0%
Obtain healthcare	22%	8%
Obtain treatment*	81%	56%

**p* < .05

²⁴ Cross-tabulation results: $X^2(1,83) = 6.63, p < .05$

²⁵ Cross tabulation results: $X^2(1,83) = 4.27, p < .05$

²⁶ Cross tabulation results: $X^2(1,83) = 5.84, p < .05$

Drug Testing. Interviewees in both groups were asked about their participation in random drug testing as part of their court involvement. When asked “Do you have to take drug tests as part of your court involvement (program/probation/parole)?” nearly all (90%) of the treatment group said yes, which was significantly higher than the control group (68%).²⁷ When asked if they knew when the tests would be, most of the participants from both groups (80% of treatment and 77% of control) said no. When asked how often they were tested, there was a range of responses. However, treatment group participants had a significantly higher likelihood of being tested more frequently than control participants: 77% of treatment group participants, versus 20% of control group participants, reported that they were drug tested twice per week or more often.²⁸ When asked how hard it would be to get away with using drugs while involved with the court, groups did not differ in their responses and most thought it would be difficult to avoid detection. About one half of both groups (53% of treatment and 48% of control) thought it would be *very hard* and another one fifth (20% of treatment and 19% of control) thought it would be *a little hard*.

Housing

At follow-up, interviewees in both groups were asked about their current housing status. Notable percentages of both groups were in a house/apartment, living with a friend/relative, or incarcerated. Very few participants reported being homeless. Table 12 displays these percentages. There were no significant differences between groups.

Table 12. Housing Status at Follow-up (Percent of Interviewees)

Current Living Situation	Treatment (n = 59)	Control (n = 25)
House/apartment that is not public housing	31%	44%
Public housing unit or Section 8 unit	2%	0%
Residential treatment facility	0%	0%
Transitional housing, halfway house, group home, hotel/motel	12%	8%
Shelter, abandoned building, vacant unit, car, street/homeless	5%	0%
With friend or relative	22%	16%
Incarcerated	25%	32%
No set place	3%	0%

²⁷ Cross-tabulation results: $X^2(1,83) = 6.03, p < .05$

²⁸ Cross-tabulation results: $X^2(5,63) = 25.15, p < .001$

When asked if they had a place to cook meals and keep food, 81% of treatment and 80% of control participants indicated they did. Respondents were also asked how frequently they had moved in the past 6 months (i.e., the time since the baseline interview). Of those who had moved at least once, when asked about the main reason for their move, 53% of the treatment group and 33% of the control group reported that they had moved for positive reasons (i.e., to improve their housing situation); 34% and 58%, respectively, had moved for negative reasons (e.g., problems with their housing). Participants were also asked, “What barriers or difficulties have you faced in trying to find housing?” Approximately one third of both groups, at both time points, stated that their criminal history and/or not having enough money were barriers.^{29, 30} Percentages are shown in Table 13.

Table 13. Number of Moves from Baseline to Follow-up (Percent of Interviewees)

Number of Times Moved	Treatment (<i>n</i> = 59)	Control (<i>n</i> = 25)
0	37%	44%
1	19%	28%
2	17%	12%
More than 2	19%	8%
Missing/don't know	9%	8%

²⁹ At baseline, 32% of the treatment group and 28% of the control group indicated that their criminal history was a barrier to finding housing. At follow-up, 36% of both the treatment and control groups indicated that their criminal history was a barrier to finding housing.

³⁰ At baseline, 32% of the treatment group and 28% of the control group indicated that not having enough money was a barrier to finding housing. At follow-up, 29% of the treatment group and 36% of the control group indicated that not having enough money was a barrier to finding housing.

Education

Interviewees from both groups were asked about their educational status at follow-up. Three fourths of the treatment group had graduated from high school or attained a GED and 41% had some education beyond high school, compared to 64% and 36%, respectively, of the control group. A minority of both groups (15% of treatment and 28% of control) were currently in a school or some other educational setting. These differences were not statistically significant. The percentages at follow-up (shown in Table 14) were very similar to those at baseline (shown in Table 3).

Table 14. Educational Status at Follow-up (Percent of Interviewees)

Current Educational Status	Treatment (n = 59)	Control (n = 25)
Graduated from high school or attained GED	76%	64%
Education beyond high school		
Yes	41%	36%
<i>Technical certification or license</i>	7%	0%
<i>Some college</i>	31%	32%
<i>Associate's degree</i>	2%	4%
<i>Bachelor's degree</i>	2%	0%
<i>Beyond Bachelor's degree</i>	0%	0%
No	56%	64%
Currently in school or educational setting	15%	28%

Health

At baseline, 29% of treatment group participants and 40% of control group participants reported having a chronic medical problem that interfered with their lives. Roughly one fourth of each group (22% and 29%, respectively) was taking prescribed medication on a regular basis for a physical problem. Very few (two treatment participants and no control participants) received a pension for a physical disability. When asked what kind of health insurance or health care coverage they had, the majority of all participants (treatment and control) reported being uninsured at baseline and follow-up (see Table 15).

Table 15. Health Insurance Status

Type of Health Insurance	Baseline	Follow-up
Treatment Group (<i>n</i> = 59)		
Private health insurance purchased directly	14%	15%
Medicare/Medicaid	14%	10%
Other government insurance plan	10%	12%
No insurance	63%	63%
Don't know/missing/refused	0%	0%
Control Group (<i>n</i> = 25)		
Private health insurance purchased directly	16%	12%
Medicare/Medicaid	24%	24%
Other government insurance plan	12%	8%
No insurance	40%	56%
Don't know/missing/refused	8%	0%

Interviewees in both groups were asked about their perceptions of their physical health. Specifically, they were asked, “How would you rate your overall health right now?” to which they could respond on a scale from *poor* (= 1) to *excellent* (= 5). Analyses found that, although the groups did not significantly differ from each other, the average scores did decrease significantly over time.³¹ That is, interviewees reported poorer health at follow-up. This may be due to interviewees being more aware of their health after having been clean (and not having the medicating effect of their drug use). Interviewees were also asked on how many days in the past 30 days they had experienced medical problems. At both time points, more than half of both groups said 0 days (54% treatment and 60% control at baseline; 58% treatment and 52% control at follow-up); the other responses ranged from 1 to 30 days. There were no significant differences found for this item. Group means are shown in Table 16 (and Table C-4 in Appendix C).

Table 16. Physical Health

	Baseline	Follow-up
	Mean	Mean
How would you rate your overall health right now?		
Treatment (<i>n</i> = 59)	3.0	2.4
Control (<i>n</i> = 25)	2.7	2.5
How many days have you experienced medical problems in the past 30 days?		
Treatment (<i>n</i> = 59)	5.9	6.0
Control (<i>n</i> = 25)	5.7	8.5

When asked about the barriers they experienced to obtaining health care, interviewees from both groups noted similar obstacles. The most frequently mentioned barriers, at baseline and follow-up, included not having insurance and the cost of care being too high. Several members of both groups indicated that they were not chosen for the Oregon Health Plan during the lottery, which left them with few resources for coverage.

Employment

At follow-up, interviewees in both groups were asked if they were currently employed. One fourth of both groups said yes (25% of treatment and 24% of control). These percentages were similar to those at baseline, 19% and 20%, respectively. At follow-up, those participants with jobs were asked whether they were full or part time. Of the 15 employed treatment group participants, nine had full-time jobs, four had part-time jobs, and two had jobs that functioned on an as-needed basis. Of the six employed control group participants, two were employed full time, two part time, and two as needed.

³¹ Repeated measures analysis of variance (ANOVA) found a significant main effect for time [$F(1,82) = 5.535, p < .05$], but not for group or the group by time interaction.

Those who were not working at follow-up were asked about the reason(s) for their unemployment. Their responses are shown in Table 17. When asked for the main reason for their unemployment (i.e., they could only choose one response), the most often cited reasons for treatment participants were incarceration and being in school/drug treatment, and among control participants were incarceration and criminal history.

Table 17. Reasons for Unemployment at Follow-up (Percent of Interviewees)

Reason(s) for not currently working	Treatment (n = 59)	Control (n = 25)
Retired or sick or disabled	2%	8%
Taking care of home or family	0%	8%
Going to school or in drug treatment	29%	16%
Cannot find work	10%	8%
Cannot get transportation	2%	0%
Incarcerated	31%	36%
Conviction history	10%	16%

In the next section, participant responses related to substance use, criminal behavior, and their peer group are summarized.

Substance use

Interviewees were asked about their use of any substances in the 30 days prior to each interview—that is, the 30 days prior to random assignment (baseline or retrospective baseline) and the 30 days prior to their 6-month follow-up interview. They were asked about their use of several different drugs. The percentages of interviewees who reported having used each substance are displayed in Table 18.

Table 18. Percent of Interviewees Reporting Past 30-day Substance Use

In the past 30 days....	Baseline	Follow-up
Any Use of Any Substance (including Alcohol) ^a		
Treatment (<i>n</i> = 59)	71%	31%
Control (<i>n</i> = 25)	52%	16%
Any Alcohol Use ^a		
Treatment (<i>n</i> = 59)	36%	12%
Control (<i>n</i> = 25)	33%	12%
Any Marijuana Use ^{a,b}		
Treatment (<i>n</i> = 59)	42%	16%
Control (<i>n</i> = 25)	17%	0%
Any Use of Drugs Other than Alcohol or Marijuana ^a		
Treatment (<i>n</i> = 59)	59%	22%
Control (<i>n</i> = 25)	36%	8%
Injected drugs with a needle		
Treatment (<i>n</i> = 59)	22%	14%
Control (<i>n</i> = 25)	28%	8%

^a Significant difference over time ($p < .01$).

^b Significant difference between groups ($p < .05$).

Analyses examined the proportions of respondents that reported having used: 1) any substance including alcohol, 2) any alcohol, 3) any marijuana, 4) any substance other than alcohol or marijuana, and 5) any injection drug. Analyses compared the proportion of interviewees who reported use by the substance in question between groups, and no significant group differences were found with one exception: A significantly larger proportion of treatment participants reported having used marijuana, as compared to control participants (42% vs. 17% at baseline³² and 16% vs. 0% at follow-up³³). Analyses also compared the rates of reported substance use over time, and across all drug categories except injection drugs, the percentage of users decreased signifi-

³² Cross tabulation results: $X^2(1,83) = 4.96, p < .05$.

³³ Cross tabulation results: $X^2(1,82) = 4.43, p < .05$.

cantly at follow-up.^{34,35} This decrease was present for both the treatment and control groups, suggesting that court and probation involvement generally may be related to reductions in substance use.

As described earlier, treatment and control interviewees completed a scale regarding several different behaviors that tend to signify addiction. Analyses found that the groups' mean scores did not differ significantly from each other; however, both groups' scores decreased significantly over time.³⁶ Indeed, the mean group scores fell notably from 4.3 (treatment) and 2.8 (control) at baseline to 0.73 and 0.36, respectively, at follow-up. Both groups' scores decreased over time at the same rate, indicating that the drug court participants did not have a greater decrease in reported substance use beyond the control group who received traditional court processing. Mean scores are shown in Table 19.

Table 19. Addiction and Criminal Acts

	Baseline			Follow-up		
	Min	Max	Mean	Min	Max	Mean
Addiction^a						
Treatment	0.0	12.0	4.3	0.0	8.0	0.7
Control	0.0	12.0	2.8	0.0	4.0	0.4
Criminal Acts^a						
Treatment	0.0	7.0	2.7	0.0	7.0	1.2
Control	0.0	7.0	2.5	0.0	6.0	1.2

^a Significant difference over time ($p < .001$) but no significant difference between the groups or for the time by group interaction

³⁴ McNemar Test results: $X^2(1,83) = 23.81, p < .001$ for any substance; $X^2(1,79) = 11.12, p < .005$ for any alcohol; $X^2(1,80) = 12.00, p < .005$ for any marijuana; $X^2(1,83) = 20.10, p < .001$ for any substance other than alcohol or marijuana.

³⁵ Generalized Estimating Equations were also run to examine the main effects for group and time and the interactions between group and time. No significant effects for group were found for any substance category. Significant effects for time were found for all substance categories except injection drugs. No significant interactions effects were found for any substance category.

³⁶ Repeated measures ANOVA found a significant main effect for time [$F(1,82) = 35.997, p < .001$], but no significant main effect for group nor for the group by time interaction.

Criminal behavior

At both baseline and follow-up, interviewees were asked whether they had committed each of several different criminal acts in the previous 6 months, regardless of whether or not they were caught. Specifically, they were asked if they had committed any property crimes, driven while under the influence, possessed illegal drugs or paraphernalia, engaged in illegal drug sales, carried a weapon, engaged in any violence against another person, or engaged in any other illegal activity. Interviewees answered *yes* (= 1) or *no* (= 0) to each of the seven items, which were then summed to form a scale of recent criminal behavior. Analyses found that although the groups' scores did not significantly differ from each other, both groups' scores decreased significantly from baseline to follow-up.³⁷ The groups' scores decreased at similar rates, suggesting that drug court participation did not have an effect beyond traditional court on reported criminal activity. Mean scores are shown in Table 19 (and Table C-5 in Appendix C).

Peer Group

Interviewees were asked to think of their four closest friends and then to state how many of these friends are employed; have ever been arrested; have ever served time in a correctional facility, such as jail, prison, or a juvenile correction facility; are gang members; are taking illegal drugs regularly (more than a couple of times per month); and are social partners with whom trouble is unlikely. Participants could respond *none*, *few*, *half*, or *most*. *Few* and *none* responses were collapsed into one category, as were *half* and *most*. Table 20 shows the percentages of treatment and control participants who indicated that *half/most* of their friends met the criterion of each question.

Examining these percentages suggests that there was some improvement over time—specifically, interviewees reported that fewer of their closest friends had engaged in criminal behavior or drug use, and more of their closest friends were employed. These percentages are shown in Table 20 below (and in Table C-6 in Appendix C). In addition, these six items were combined into a scale, with the responses coded from 1 (*none*) to 4 (*most*), the positive trait items were reverse-coded to align with the other traits, and then they were summed. Analyses found that the groups' scores did not significantly differ from each other and that both groups' scores decreased significantly over time and at similar rates,³⁸ indicating the absence of a treatment effect.

³⁷ Repeated measures ANOVA found a significant main effect for time [$F(1,82) = 26.007, p < .001$], but no significant main effect for group nor for the group by time interaction.

³⁸ Repeated measures ANOVA found a significant main effect for time [$F(1,77) = 11.309, p = .001$], but the main effect for group and the interaction effect were not significant.

Table 20. Perception of Peers: Percentage of Interviewee Who Reported that Half or Most of Their Peers Exhibited Selected Characteristics

Think of your four closest friends. How many ...	Baseline	Follow-up
Treatment Group		
Are employed?	44%	60%
Can you hang out with and know you won't get into trouble?	49%	74%
Have ever been arrested?	72%	58%
Have ever served time in a correctional facility?	54%	49%
Are gang members?	18%	13%
Are taking illegal drugs regularly?	54%	23%
Control Group		
Are employed?	56%	50%
Can you hang out with and know you won't get into trouble?	67%	79%
Have ever been arrested?	54%	50%
Have ever served time in a correctional facility?	40%	46%
Are gang members?	13%	0%
Are taking illegal drugs regularly?	38%	17%

Summary

The random assignment process was generally successful in creating treatment and control groups that were equivalent at baseline, except for the use of marijuana and other drugs in the 30 days prior to court involvement (the treatment group was more likely to report having done so). At follow-up, treatment group members were more likely than control group members to: perceive court members working as a team, have participated in a substance use assessment, indicate receiving outpatient group or individual substance use counseling, have obtained substance abuse treatment, and have been drug tested more frequently. Control group members were more likely than treatment group to have participated in mental health treatment. The drug court program impacted treatment group members more strongly than control group members in terms of attitudes toward the judge and perceived likelihood of detection for noncompliance at both baseline and follow-up. However, there was no difference between groups on the certainty of sanctions for noncompliance, substance use in the past 30 days, or criminal acts in the past 6 months.

Outcome Evaluation

TREATMENT AND CONTROL GROUP CHARACTERISTICS

The Measure 57 Drug Court random assignment study includes 388 participants who qualified for and consented to participate in the study: 163 in the traditional probation group, or the control group, and 225 in the drug court group, or the treatment group. Table 21 provides the demographic information and criminal history of the study sample of treatment group (drug court) participants (all participants who entered from 2010 to 2013) and the control group. Independent samples *t* tests and chi-square analyses confirmed the only significant differences between groups on the characteristics listed in the first half of the table (i.e., those available for both groups) was PSC score (proportion of males and adjudication were marginally significant).

Table 21. Treatment and Control Group Characteristics

Characteristics	Treatment Group <i>n</i> = 225*	Control Group <i>n</i> = 163*
Gender		
Male	71%	63%
Female	29%	37%
Race/Ethnicity		
Hispanic/ Latino	5%	3%
White	86%	92%
Black/ African American	4%	4%
Other	5%	1%
Age at Entry Date		
Mean age in years	30	31
Range	18 – 61	19 – 60
Assessment Information		
Average PSC Score ^a	39.1	34.0
Average TCU Score	5.5	5.5
Average LS/CMI Score	24.8	24.3
Adjudication		
Post-Prison Supervision from Prison ^b	12.9%	9.8%
Post-Prison Supervision from Local Control ^b	16.4%	9.8%
Probation ^b	70.7%	80.4%

Characteristics	Treatment Group <i>n</i> = 225*	Control Group <i>n</i> = 163*
Prior Arrests		
Average number of arrests in the 2 years prior to randomization	3.2	3.27
Average number of person arrests in the 2 years prior to randomization	0.21	0.19
Average number of property arrests in the 2 years prior to randomization	2.88	3.07
Average number of drug arrests in the 2 years prior to randomization	1.38	1.15
<i>Additional Characteristics (available on treatment group only)</i>		
Education		
Less than high school	67%	
High school/GED or more	33%	
Marital Status		
Single	88%	
Married/Partnered	12%	
Drug of Choice		
Methamphetamine	76%	
Marijuana	66%	
Alcohol	37%	
Heroin	23%	
Prescription Drugs	12%	
Opioid	11%	
Cocaine	10%	

^a statistical significance ($p < .05$)

^b marginal significance ($p < 0.10$)

*Note: The sample size (*n*) for each category may be smaller than the total group *N* due to missing data.

Most of the study participants are male, Caucasian, probationers, and show an average age in the early 30s. The average TCU score is above 3, indicating drug dependence. The average PSC score is in the medium range, indicating the study participants are, on average, at a medium level risk to recidivate. The Oregon Association of Community Corrections Directors (OACCD) has defined medium risk for supervision purposes as a PSC score greater than 25% and less than or equal to

42%. The PSC is a static risk assessment tool, and includes age, gender, and criminal history variables. With a random assignment study design this would not be initially suspected. However, this difference is due to the imbalance in study groups across counties. For example, Umatilla County has a higher percentage of participants who are on post-prison supervision, and this county had a higher percentage of participants in the treatment group. Umatilla County also includes participants who are on average at a higher risk to recidivate, and therefore the difference across study groups by PSC score is significant. The average LS/CMI score is in the medium range, providing further evidence of the study participants' risk to recidivate.

Table 22 below shows the composition by county in group membership. For detailed information about the characteristics of the sample by county, please see Appendix E.

Table 22. County Membership of Study Sample

	Treatment Group (<i>n</i> = 225)		Control Group (<i>n</i> = 163)	
	N	%	N	%
Douglas	20	53%	18	47%
Jackson	43	54%	36	46%
Multnomah	91	51%	86	49%
Umatilla	71	76%	23	25%

Multnomah County had the highest number of study participants with 177, Jackson County had 79, Umatilla County had 94, and Douglas County had 38. Randomization in Jackson, Multnomah, and Douglas counties was designed to assign 50% of participants to the treatment group and 50% to the control group. The table above shows the actual assignment results, and they are fairly close to the 50% level. Umatilla County randomization was designed to assign 75% of participants to the treatment group and 25% to the control group. The actual assignment results for Umatilla County are fairly close to those percentages.

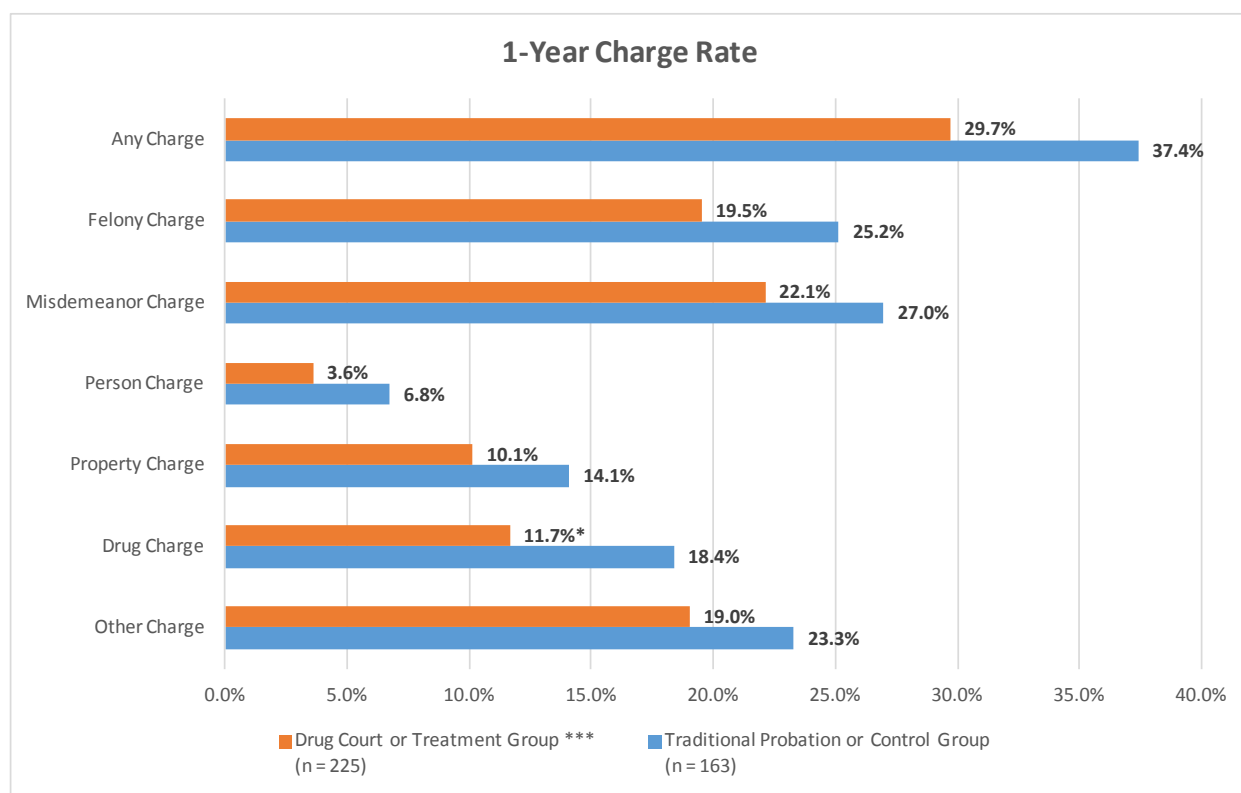
RESEARCH QUESTION #1: RECIDIVISM

Are these drug court programs successful in reducing recidivism?

For the 388 participants in the study, 1-year new charge rates were analyzed. Any new misdemeanor or felony charge listed in either of these data sets with an offense date or crime commit date within 1 year of randomization was considered a recidivating event. This measure compares the percentage of recidivists in each group, and does not consider the number of crimes committed. Figure 1 shows the overall 1-year charge rates for the control and treatment groups, as well as rates for several different charge categories. The results show multivariate-adjusted charge rates specifically using logistic regression modeling; see Appendix F for details. The control group's rate of new charges, including both misdemeanors and felonies, was 37%, and

the treatment group's rate was 30%, which is a difference of 21%. This difference did not reach statistical significance. This effect size (-21%) is very similar to effect sizes found in previous research. The statewide evaluation of Oregon's drug courts described earlier found an effect size of -22%, while the meta-analysis from WSIPP found a -25% effect size and the meta-analysis from the Campbell Collaboration showed an effect size of -24%. While felony and misdemeanor charges do not show a significant difference, directionally they are supportive of lower recidivism rates in the treatment group. New person, property, and other charges are also not significantly different, but again are directionally supportive of lower recidivism rates in the drug group. The new drug charge rates are 18% in the control group and 12% in the treatment group, which is a difference of 37%. This difference is marginally significant ($p < 0.10$).

Figure 1. Charge Rates for the Control and Treatment Groups

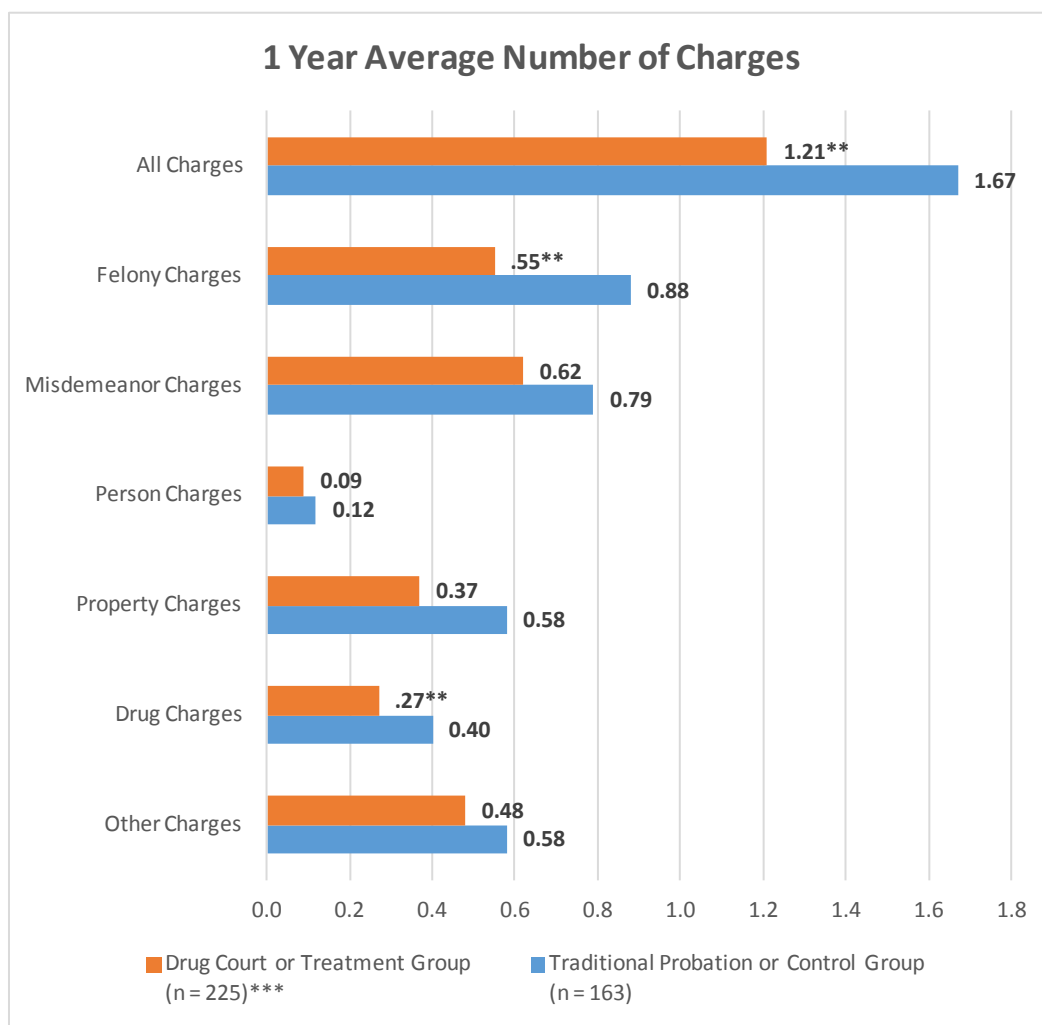


* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

***Multivariate-adjusted charge rate, see appendix for details

In addition to the charge rate, the number of new charges within 1 year was analyzed. The same data sources were used, and the number of new charges filed across all new cases for each individual within 1 year of randomization was summed. Figure 2 below shows the average number of charges overall for the control and treatment groups, as well as the charge categories displayed above. The results are compiled from a multivariate regression model; see Appendix F for details.

Figure 2. Average Number of Charges for the Control and Treatment Groups

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

***F-Test in multivariate model, see appendix for details

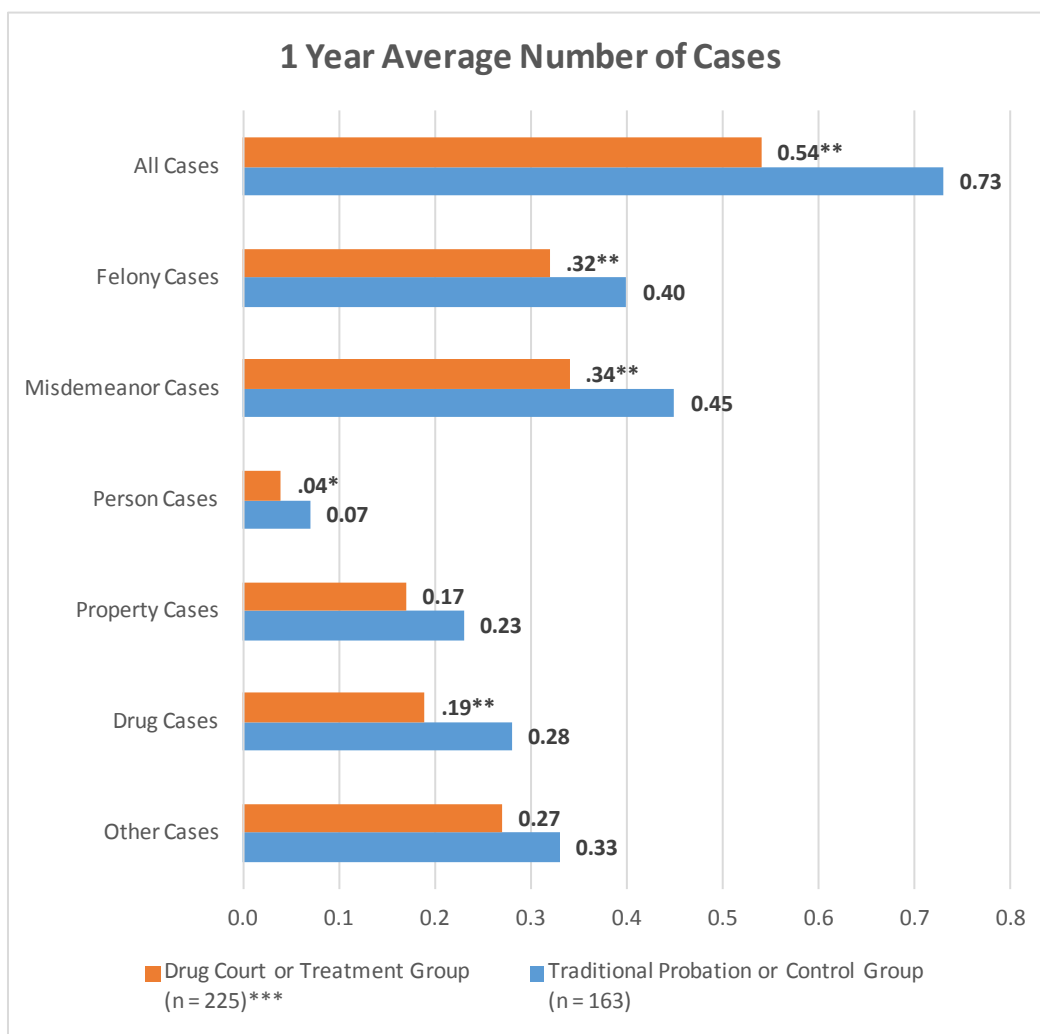
When looking at all new criminal charges, the treatment group had an average of 1.21 new charges, and the control group had 1.67. The treatment group had 28% fewer new charges than the control group; this difference is statistically significant. The difference of 38% in the average number of felony charges is also statistically significant. The difference in the average number of misdemeanor charges, person charges, property charges, and other charges do not show significant differences; however, the effect sizes indicate fewer new charges in the treatment group. The average number of drug charges is statistically significant, with the treatment group having 33% fewer than the control group.

Lastly, the number of new cases (regardless of the number of charges within each case) within 1 year of randomization was also analyzed as a recidivism outcome. The same data sources were used, and the number of new cases filed for each individual was compiled. Figure 3 shows the

average number of new cases overall for the control and treatment groups, as well as the cases within each crime category. The results are compiled from a multivariate regression model; see Appendix F for details.

The treatment group had an average of 0.54 new cases filed in the year following randomization, and the control group had an average of 0.73. This difference (26%) is statistically significant. The differences in the average number of felony, misdemeanor, and drug cases are also statistically significant. The difference in the average number of person cases, property cases, and other cases are not statistically significant. However, directionally, the effect sizes show fewer new cases in the treatment group.

Figure 3. Average Number of New Cases for the Control and Treatment Groups



* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

***F-Test in multivariate model, see appendix for details

The treatment group had significantly fewer new cases than the control group, and this difference (-26%) was significant for misdemeanor, felony, and drug-related cases.

One-year recidivism is a preliminary outcome measure. The CJC plans on analyzing 2-year recidivism measures, including the charge rates and number of new charges. Depending on the criminal activity of both study groups in the second year, the effects reported above may increase or decrease accordingly. This follow-up analysis will provide a better sense of the timing of recidivism, as well as the rates and number of new charges. At the 3-year mark, the CJC plans on analyzing these same recidivism measures, as well as felony conviction and prison admission measures.

RESEARCH QUESTION #2: PROGRAM COMPLETION

Are these drug court programs successful in bringing program participants to completion and graduation within the expected time frame?

The programs are graduating participants in longer than the expected time frames, and the aggregate program graduation rate is less than the national average. Whether a program is bringing its participants to successful completion and doing so in the intended time frame is measured by the program graduation (completion) rate, and by the amount of time participants spend in the program. To measure whether the program is following its expected time frame for participant completion, the average amount of time in the program was calculated for participants who had enrolled in the drug court program and have graduated from the program. All four programs graduated participants over a longer time period than the minimum time required by the programs. This is the case for most drug court programs nationally. In working with a population of high-risk and high-need offenders, it is to be expected that they may struggle to comply with program requirements and take additional time to successfully complete the program. As expected given the differences in program models, the average length of time to exit varied among the sites. As described earlier, the minimum time to graduation for each program was 12 months in Douglas County, 19 months in Jackson County, 12 months in Multnomah County, and 9 months in Umatilla County. The average number of days participants spent in the program was:

- 437 (about 15 months) in Douglas County for all participants (graduates and non-graduates combined); 754 for the one graduate (about 25 months; $n = 1$)
- 385 (about 13 months) for all participants in Jackson County; 502 days for graduates (about 17 months; $n = 6$)
- 383 (about 13 months) for all participants in Multnomah County; 524 days for graduates (about 18 months; $n = 11$)
- 337 (about 11 months) for all participants in Umatilla County; 361 days for graduates (about 12 months; $n = 16$)

Participants who did not graduate spent an average of 279 (about 9 months; $n = 2$) days in the program in Douglas County, 356 days (about 12 months; $n = 24$) in Jackson County, 287 days

(about 10 months; $n = 16$) in Multnomah County, and 321 days (about 11 months; $n = 24$) in Umatilla County.

The program *graduation rate* is the percentage of participants who graduated from the programs, out of a cohort of participants who started during a similar time frame and who have left the programs either by graduating or by being unsuccessfully discharged. The graduation rate was calculated for each entry year from 2010 to 2013. Table 23 shows the graduation rate for 2010 and 2011, the years that had complete data because participants entering those years have had enough time to finish the program. The program's graduation rate for participants entering in 2010 was 33%³⁹ and for participants entering in 2011 was 34%.⁴⁰ These rates are lower than the national average graduation rate of 57% (Huddleston & Marlowe, 2011). Not enough time has elapsed for participants who entered in 2012 and 2013 to calculate a graduation rate, given the amount of time participants typically spend in the program.

Table 23. Measure 57 Drug Court Completion Status by Entry Year

Completion Status	2010 $n = 29$	2011 $n = 88$
Graduates	33%	34%
Non-Graduates	61%	56%
Other Exit	7%	9%

For programs to increase their graduation rates, they must increase the number of participants who comply with program requirements. One strategy drug court staff can use in dealing with this complex population is to provide additional assistance so participants can learn new skills to successfully meet program requirements. To successfully increase graduation rates, drug court teams must consider common life challenges participants face in meeting program requirements, continually review program operations, and adjust as necessary. This work can include practices such as finding transportation for participants who have none (e.g., having participants with cars get rewards for picking up those without transportation and bringing them to treatment and court sessions, or providing bus passes) or assisting participants with childcare while they participate in program requirements. The analysis for Research Question #3 examines more closely the difference between graduates and non-graduates to determine if there are any clear trends for non-graduates that will point to a need for different types of services or supports.

³⁹ Using a denominator of 27 people who were either graduates or non-graduates; percents do not add to 100% due to rounding

⁴⁰ Using a denominator of 74 people who were either graduates or non-graduates; percents do not add to 100% due to rounding

RESEARCH QUESTION #3: PREDICTORS OF PROGRAM SUCCESS

Are there participant characteristics that predict program success?

Graduates were significantly more likely to be female and older than non-graduates. Graduates and unsuccessfully discharged participants were compared on demographic characteristics and criminal history to determine whether there were any patterns in predicting program graduation. Of the 225 people who entered the drug court programs during the study period, 219 had a known program status. Of these 219 people, at the time of this study, 49 (22%) had graduated from the program, 121 (55%) were unsuccessfully discharged, 22 (10%) had some other discharge from the program, and 27 (12%) were still active in the program. Analyses were performed to determine if there were any demographic or criminal history characteristics of participants, or program characteristics, that were related to successful drug court completion, including gender, age, race/ethnicity, drug of choice, length of time in the program, number of drug tests, number of days of jail sanctions, and number of arrests in the 2 years before drug court entry. Table 24 shows the results for graduates and non-graduates. Characteristics that differ significantly⁴¹ between graduates and non-graduates are bolded.

Table 24. Characteristics of Measure 57 Drug Court Graduates Compared to Non-Graduates: Demographics

	Graduates <i>n</i> = 49*	Non-Graduates <i>n</i> = 121*
Gender		
Male	61%	77%
Female	39%	23%
Race/Ethnicity		
Hispanic/ Latino	2%	4%
White	90%	87%
Black/ African American	4%	4%
Other	4%	5%
Age at Entry Date		
Mean age in years	33	28
Education		
Less than high school	68%	72%
High school/ GED or more	33%	30%

⁴¹ ($p < .05$)

	Graduates <i>n</i> = 49*	Non-Graduates <i>n</i> = 121*
Marital Status		
Single ⁴²	97%	86%
Married/Partnered	3%	14%

*Note: The sample size (*n*) for each category may be smaller than the total group *N* due to missing data.

Table 25 shows that graduates and non-graduates had similar rates of crime in the 2 years before randomization, regardless of type of criminal activity.

Table 25. Characteristics of Measure 57 Drug Court Graduates Compared to Non-Graduates: Prior Criminality and Substance Abuse

	Graduates <i>n</i> = 49*	Non-Graduates <i>n</i> = 121*
Prior Arrests ⁴³		
Average number of arrests in the 2 years prior to randomization	2.71	3.03
Average number of person arrests in the 2 years prior to randomization	0.12	0.24
Average number of property arrests in the 2 years prior to randomization	2.39	2.78
Average number of drug arrests in the 2 years prior to randomization	1.47	1.27
Substance Use History		
Drug of Choice ⁴⁴		
Methamphetamine	77%	78%
Marijuana	50%	70%
Alcohol	27%	43%
Heroin	19%	28%
Cocaine	12%	12%
First used drug at 16 years or younger	37%	45%

⁴² Includes never married, divorced, separated, and widowed

⁴³ Prior arrests include any arrest occurring 2 years before randomization. Eligible entry arrest is included if it falls within 2 years prior to randomization.

⁴⁴ Numbers based on self-reported data at randomization. Numbers do not add up to 100% as participants reported up to three drugs of choice.

*Note: The n for each category may be smaller than the total group N due to missing data.

Graduates spent longer in the program, had more drug tests during the first year of the program, and spent fewer days in jail than non-graduates (see Table 26). Note that graduates had on average 17 drug tests during the first 3 months of the program, well below the best practice of at least two drug tests per week; only eight persons out of 29 with drug test data (28 percent) had 26 or more drug tests during the first 3 months of the program. Even when controlling for number of days in the program, graduates had significantly more drug tests and spent less time in jail for sanctions and while awaiting placement in treatment. These results imply two things: 1) participants who are drug tested more often are more likely to graduate from the program, and 2) although participants who were terminated were more likely to be non-compliant and therefore end up with jail sanctions, the increased time in jail did not result in better outcomes for those participants. Research shows that jail should be used sparingly (e.g., Carey et al., 2012).

Table 26. Characteristics of Measure 57 Drug Court Graduates Compared to Non-Graduates: Program Activities

	Graduates $n = 49^*$	Non-Graduates $n = 121^*$
Program Length of Stay		
Average number of days in program	448	317
Drug Testing		
Average number of UAs administered during first 3 months in program	17	13
Average number of UAs administered during first year in program ⁴⁵	67	43
Jail Days		
Average number of days spent in jail for sanctions while in program	9	41
Average number of days spent in jail for sanctions during first year in program ⁴⁶	15	51

*Note: The sample size (n) for each category may be smaller than the total group N due to missing data.

After reviewing the characteristics listed in Tables 24, 25, and 26, all significant factors were entered into a logistic regression. The only characteristic that approached statistical significance over and above all the other factors in the analysis as being tied to graduation was the number of drug tests in the first year of participation ($p < .10$). That is, more frequent drug testing was the strongest predictor of graduation.

⁴⁵ For those who were in the program at least 1 year. Graduates, $n = 14$; non-graduates, $n = 32$.

⁴⁶ For those who were in the program at least 1 year. Graduates, $n = 19$; non-graduates, $n = 33$.

RESEARCH QUESTION #4: PROGRAM COSTS

How much do Oregon's Measure 57 drug court programs cost?

As described in the cost methodology, the Transactional and Institutional Cost Analysis (TICA) approach was used to calculate the costs of each of the transactions that occurred while participants were engaged in the program. Transactions are those points within a system where resources are consumed and/or change hands. Program transactions for which costs were calculated in this analysis included Measure 57 drug court sessions, case management, drug treatment, drug testing, and jail sanctions. The costs for this study were calculated to include taxpayer costs only. All cost results provided in this report are based on fiscal year 2014 dollars or were updated to fiscal year 2014 using the Consumer Price Index.

Program Transactions

A Measure 57 drug court session, as is the case for the majority of drug courts, is one of the most staff- and resource-intensive program transactions. These sessions typically include representatives from some or all of the following agencies:

- Circuit Court (judge, coordinator, data specialist, judicial clerk, judicial assistant);
- District Attorney's Office (deputy district attorney);
- Public Defender (defense attorney);
- Community Corrections/Community Justice- Adult Probation (probation officer);
- Oregon Department of Human Services (Intensive case consultant, addiction recovery team specialist);
- Treatment Agency (treatment director, counselors, case manager, mental health counselor, clinician);
- Law Enforcement (sheriff's deputy, police officer).

The cost of a **Measure 57 Drug Court Appearance** (the time during a session when a single program participant interacts with the judge) is calculated based on the average amount of court time (in minutes) each participant interacts with the judge during the court session. This calculation includes the direct costs of each Measure 57 drug court team member present, the time team members spend preparing for the session, the agency support costs, and jurisdictional overhead costs. The cost for a single Measure 57 drug court appearance ranged from \$56.62 to \$145.46, with an average cost per Measure 57 drug court appearance of **\$109.61** 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).⁴⁷ The agencies typically involved in case management are the Circuit Court, Community Corrections/Community Justice, Oregon Department of Human Services, law enforcement, and

⁴⁷ Case management includes meeting with participants, evaluations, phone calls, referring clients out for other help, answering questions, reviewing referrals, consulting, making community service connections, assessments, documentation, file maintenance, and residential referrals.

treatment agencies. The daily cost of case management ranged from \$2.05 to \$13.58, with an average daily cost of case management of **\$7.70** per participant.

Drug Treatment for Measure 57 drug court participants is typically provided by one main treatment agency. Because detailed treatment usage and billing information was not readily available from all treatment providers from the four Measure 57 drug court sites included in this study (and also to ensure a uniform data source across all sites), treatment usage data were acquired from the Oregon Client Process Monitoring System (CPMS). The drug treatment costs used in this analysis were based on the Oregon Department of Human Services' Medicaid Chemical Dependency Reimbursement rates.⁴⁸ Using those rates, the cost of outpatient treatment was **\$79.32** per day, the cost of methadone administration was **\$4.54** per day, the cost of clinically managed detoxification was **\$135.00** per day, and the cost of residential treatment was **\$100.00** per day.

Drug Testing is mainly performed by Community Corrections/Community Justice and by the treatment agencies. The cost per UA test ranged from \$0 (clients pay all drug testing costs) to \$11.48, with an average cost per UA test of **\$4.81**. Community Corrections/Community Justice drug testing costs were obtained from the drug court coordinator or a representative of Community Corrections/Community Justice. The cost of drug tests performed by treatment agencies were based on the Oregon Department of Human Services' Medicaid Chemical Dependency Reimbursement rates.

Jail Sanctions are provided by the Sheriff's Offices. The cost of jail was acquired from representatives of each study site's Sheriff's Office and includes staff, facilities, and support and overhead costs. The cost of jail ranged from \$70.08 to \$168.00, with an average cost per day of jail of **\$103.36** per day.

Measure 57 Drug Court Participant Fees are usually paid to Community Corrections/Community Justice. The fee ranged from \$150 to \$1,500, with an average fee of \$587.50 per participant. The actual fee paid typically does not vary according to the participant's ability to pay, but due to a lack of data on the exact amount of fees paid by each participant, for this analysis it was assumed that the full fee was paid.

⁴⁸ See <http://www.oregon.gov/OHA/healthplan/pages/feeschedule.aspx> for behavioral health rates.

Program Costs

Table 27 provides the range of costs per participant by county and the four counties' average costs per participant for each Measure 57 drug court transaction, based on program cost results from the four Oregon Measure 57 drug court sites NPC evaluated.

Table 27. Program Costs per Participant

Transaction	Measure 57 Drug Court Program Costs per Participant	
	Range	Average
Drug Court Sessions	\$1,482 - \$2,904	\$2,182
Case Management Days	\$557 - \$4,636	\$2,569
Outpatient Treatment Days	\$8,958 - \$15,943	\$12,546
Methadone Days	\$0 - \$75	\$19
Detoxification Days	\$0 - \$279	\$76
Residential Treatment Days	\$1,116 - \$3,814	\$2,985
UA Drug Tests	\$137 - \$604	\$372
Jail Sanction Days	\$1,018 - \$5,072	\$2,756
Drug Court Fees ⁴⁹	(-) \$150 - \$1,500	(-) \$588
TOTAL	\$16,273 - \$31,918	\$22,917

The average total program cost per participant is \$22,917. The largest average contributor to the cost of the program is outpatient treatment (\$12,546). The second largest contributor to program costs is residential treatment (\$2,985) followed by jail sanctions (\$2,756). That the two largest contributors to program costs are outpatient and residential treatment should come as no surprise, as the main purpose of drug courts is to engage participants in treatment and ensure that they stay engaged in treatment.

Another useful way to examine program costs is by agency. Table 28 shows the range of costs and the average cost per Measure 57 drug court participant by agency, based on program cost results from the four Oregon Measure 57 drug court sites NPC evaluated.

⁴⁹ The Measure 57 drug court fees paid are subtracted from the total cost per participant.

Table 28. Program Costs per Participant by Agency

Agency	Measure 57 Drug Court Program Costs per Participant	
	Range	Average
Circuit Court	\$541 - \$2,208	\$1,147
District Attorney's Office	\$191 - \$447	\$308
Public Defender	\$124 - \$374	\$243
Community Corrections/Community Justice	\$1,005 - \$17,905	\$5,540
Law Enforcement	\$1,140 - \$5,072	\$2,808
OR Department of Human Services	N/A - \$130	\$58
Treatment	N/A - \$22,138	\$13,401
Drug Court Fees ⁵⁰	\$150 – \$1,500	\$588
TOTAL	\$16,273 - \$31,918	\$22,917

Table 28 shows that the treatment agencies have the largest average cost per participant of all involved agencies (\$13,401). The next largest cost is for Community Corrections/Community Justice (\$5,540), followed by law enforcement (\$2,808).

Program Costs Summary

The largest portion of Measure 57 drug court costs is due to outpatient treatment (an average of \$12,546). Residential treatment (an average of \$2,985) and jail sanctions (an average of \$2,756) are also significant program costs. When average program costs are evaluated by agency, the largest portion of costs accrues to treatment agencies (an average of \$13,401), followed by Community Corrections/Community Justice (an average of \$5,540) and law enforcement (an average of \$2,808). Since one of the key goals of Measure 57 drug courts is to get participants into treatment, these treatment costs demonstrate that the programs are successfully reaching this goal.

⁵⁰ The Measure 57 drug court fees paid are subtracted from the total cost per participant.

CONCLUSION

This report described the results of a study of Oregon's Measure 57 drug court programs, as implemented by four sites (Douglas, Jackson, Multnomah, and Umatilla counties). The study was organized into four parts: 1) a *process evaluation* of the four participating sites; 2) an *interview study* designed to obtain participant perceptions of their court experiences through interviews with treatment and control group members; 3) an *outcome evaluation* based on data from administrative court records, and 4) a *cost analysis* that examined costs associated with the program.

Although generally similar in implementation, there was some variation among the four sites in terms of how long their program had been implemented and the minimum length of service intended by the program. From the perspective of the 10 Key Components of effective drug courts, three of the four sites had implemented 44 (85%) of the best practices associated with the key components, and one site had implemented 41 (79%) of the best practices. Thus, the sites had implemented drug courts with reasonable fidelity to the drug court model.

Although there were problems with the initial implementation of random assignment, once under contract (about halfway through the study) NPC Research worked with the sites to improve the process. Examination of the baseline data suggests that the study's random assignment protocol was generally successful in creating treatment and control groups that were mostly demographically equivalent, with the primary exception related to the use of marijuana and other drugs in the 30 days prior to court involvement. However, the sample of participants included in the random assignment study at each site was small and may not have been representative of the participants in the drug court programs overall. This is one of the key limitations of this study, and may have impacted the outcome findings significantly.

As reported by participants who were interviewed, at follow-up, treatment group members were more likely than control group members to: perceive court members working as a team, have participated in a substance use assessment, indicate receiving outpatient group or individual substance use counseling, have obtained substance abuse treatment, to have been drug tested more frequently, to have a more positive attitude toward the judge, and a higher perceived likelihood of detection of non-compliant behavior. Control group members were more likely than treatment group to have participated in mental health treatment. The drug court program did not impact treatment group members more strongly than control group members in terms of the certainty of sanctions if they were not compliant with court instructions, substance use in the past 30 days, or criminal acts in the past 6 months.

The Measure 57 drug court programs were implemented with reasonable fidelity to the drug court model, and helped treatment group participants obtain substance abuse treatment at a significantly greater rate than control group participants. The program led to significant differences between treatment and control group members in the number of new charges and new cases

(numbers for the treatment group members were lower than for control group members). Thus, the program appears to have value in terms of providing participants with an opportunity to improve their lives by receiving substance abuse treatment and in terms of recidivism. We suggest that the CJC continue with its plan to perform follow up analyses on recidivism for the study participants over a longer time period, to determine if the Measure 57 drug court programs had any additional impact over future years.

REFERENCES

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- Huddleston, W., & Marlowe, D.B. (2011). *Painting the picture: A national report on drug courts and other problem-solving court programs in the United States*. Alexandria, VA: National Drug Court Institute.

APPENDIX A: BEST PRACTICES RESPONSES BY KEY COMPONENT

Measure 57 Drug Courts: Best Practices Responses by Key Component

“Yes” indicates that the program reports performing this practice.

“No” indicates that the program reports not performing this practice.

Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
<i>1.1</i> Law enforcement (e.g., police, sheriff) is a member of the drug court team	Yes	Yes	No	No	2
<i>1.2</i> Judge, both attorneys, treatment, program coordinator, and probation attend staffings	Yes	Yes	Yes	Yes	4
<i>1.3</i> The defense attorney attends drug court team meetings (staffings)	Yes	Yes	Yes	Yes	4
<i>1.4</i> A representative from treatment attends drug court team meetings (staffings)	Yes	Yes	Yes	Yes	4
<i>1.5</i> Coordinator attends drug court team meetings (staffings)	Yes	Yes	Yes	Yes	4
<i>1.6</i> Law enforcement attends drug court team meetings (staffings)	Yes	Yes	No	No	2
<i>1.7</i> Judge, attorneys, treatment, probation, and coordinator attend court sessions (status review hearings)	Yes	Yes	Yes	Yes	4
<i>1.8</i> A representative from treatment attends court sessions (status review hearings)	Yes	Yes	Yes	Yes	4
<i>1.9</i> Law enforcement attends court sessions (status review hearings)	Yes	Yes	No	No	2
<i>1.10</i> Treatment communicates with court via email	Yes	Yes	Yes	Yes	4

Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
2.1 A prosecuting attorney is part of the drug court team	Yes	Yes	Yes	Yes	4
2.2 A defense attorney is part of the drug court team	Yes	Yes	Yes	Yes	4
2.3 Attorneys on the drug court team attend staffing meetings and court sessions	Yes	Yes	Yes	No ^a	3
Key Component #3: Eligible participants are identified early and promptly placed in the drug court program.	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
3.1 The time between arrest and program entry is 50 days or less	Yes	No	Yes	No	2
3.2 Program caseload (number of individuals actually participating at any one time) is less than 125	Yes	Yes	Yes	Yes	4
3.3 The drug court allows other charges in addition to drug charges	Yes	Yes	Yes	Yes	4
3.4 The drug court accepts offenders with serious mental health issues (except for those who are unable to understand program requirements)	No	Yes	Yes	Yes	3
Key Component #4: Drug courts provide access to a continuum of alcohol, drug and other treatment and rehabilitation services	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
4.1 The drug court works with two or fewer treatment agencies	Yes	Yes	Yes	Yes	4

4.2 The drug court has guidelines on the frequency of individual treatment sessions that a participant must receive	Yes	Yes	Yes	Yes	4
4.3 The drug court offers gender specific services	Yes	Yes	Yes	Yes	4
4.4 The drug court offers mental health treatment	Yes	Yes	Yes	Yes	4
4.5 The drug court offers parenting classes	Yes	Yes	Yes	Yes	4
4.6 The drug court offers family/domestic relations counseling	Yes	Yes	No	Yes	3
4.7 The drug court offers residential treatment	Yes	Yes	Yes	Yes	4
4.8 The drug court offers health care	No	No	Yes	No	1
4.9 The drug court offers dental care	No	No	No	No	0
4.10 The drug court offers anger management classes	No	Yes	Yes	Yes	3
4.11 The drug court provides relapse prevention services for all participants	Yes	Yes	Yes	Yes	4
4.12 Program allows participants who are taking legally prescribed psychotropic or addiction medication	No	Yes	Yes	No	2
4.13 The minimum length of the drug court program is 12 months or more	Yes	Yes	Yes	No	3
Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
5.1 Drug test results are back in 2 days or less	Yes	No	Yes	No	2
5.2 Drug tests are collected at least two times per week in the first phase of drug court.	Yes	Yes	Yes	Yes	4

5.3 Participants are expected to have greater than 90 days clean (negative drug tests) before graduation	Yes	Yes	Yes	Yes	4
Key Component #6: A coordinated strategy governs drug court responses to participants' compliance	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
6.1 Sanctions are imposed immediately after non-compliant behavior (e.g., other team members can impose some sanctions outside of court hearings, or drug court will impose sanctions in advance of a client's regularly scheduled court hearing)	Yes	Yes	Yes	Yes	4
6.2 Team members are given a copy of the guidelines for sanctions	Yes	No	Yes	Yes	3
6.3 In order to graduate participants must have a job or be in school	No	Yes	Yes	Yes	3
6.4 In order to graduate participants must have a sober housing environment	Yes	Yes	Yes	Yes	4
6.5 In order to graduate participants must have pay all court-ordered fines and fees (e.g., fines, restitution)	No	No	No	Yes	1
6.6 Participants are required to pay court fees	Yes	Yes	Yes	Yes	4
6.7 The drug court reports that the typical length of jail sanctions is 2 weeks or less	Yes	Yes	Yes	Yes	4

6.8 The drug court retains participants with new possession charges (new possession charges do not automatically prompt termination)	Yes	Yes	Yes	Yes	4
Key Component #7: Ongoing judicial interaction with each participant is essential	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
7.1 Participants have status review sessions every 2 weeks, or once per week, in the first phase	Yes	Yes	Yes	Yes	4
7.2 Judge spends an average of 3 minutes or greater per participant during status review hearings	No	Yes	Yes	No - Pendleton Yes - Hermiston	2
7.3 The judge's term is indefinite or at least two full years	Yes	Yes	Yes	Yes	4
7.4 The judge was assigned to drug court on a voluntary basis	Yes	Yes	Yes	Yes	4
7.5 In the final phase of drug court, the clients appear before the judge in court at least once per month	Yes	Yes	Yes	Yes	4
Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
8.1 The results of program evaluations have led to modifications in drug court operations	Yes	Yes	Yes	Yes	4
8.2 Review of program data and/or regular reporting of program statistics has led to modifications in drug court operations	Yes	Yes	No	Yes	3

8.3 The drug court maintains data that are critical to monitoring and evaluation in an electronic database (rather than paper files).	Yes	Yes	Yes	Yes	4
Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
9.1 All new hires to the drug court complete a formal training or orientation	Yes	No	Yes	Yes	3
9.2 All members of the drug court team are provided with training in the drug court model	Yes	No	Yes	Yes	3
Key Component #10: Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court program effectiveness	Douglas County	Jackson County	Multnomah County	Umatilla County	Number of Counties Performing this Practice
10.1 The drug court has an advisory committee that includes community members	Yes	Yes	No	Yes	3

^a The public defender does attend court sessions in Hermiston.

APPENDIX B: MEASUREMENT SCALES

Table B-1 shows the internal reliability for the scales in the current study. Scales reflecting family support, family conflict, addiction, and attitude toward the judge all had moderate to high levels of internal consistency (Cronbach's alphas from .75 to .93). The scale regarding the certainty of sanctions yielded a lower reliability (alpha = .59). This result may be due to the responses of the comparison sample, for whom sanctions would not follow as predictable a pattern as for the drug court participants.

Table B-1. Internal Reliability for Scales

Scale	# Items	# respondents	Cronbach's alpha
Family Support	6	80	.89
Family Conflict	3	81	.76
Attitude toward Judge	9	70	.88
Certainty of Sanctions	11	63	.59
Addiction	12	81	.93

Note. All scales except the Addiction scale were used in the MADCE study.

Note: Cronbach's alpha for the Certainty of Sanctions scale increases to .61 if one item is removed.

However, to be consistent with other studies, and because the change in alpha is minimal, subsequent analyses are based on the scale with all items.

The following items were included in the Family Support scale:

1. You have someone in your family to turn to for suggestions about how to deal with a personal problem.
2. You have someone in your family who would provide support for dealing with a substance abuse problem.
3. You have someone in your family who would provide transportation to work or other appointments, if needed.
4. You have someone in your family who would provide you with financial support.
5. You have someone in your family to talk with about your interests.
6. You have someone in your family to love you and make you feel wanted.

The following items were included in the Family Conflict scale:

1. You fight a lot with your family members.
2. You often feel like you disappoint your family.
3. You are criticized a lot by your family.

The following items were included in the Attitude toward Judge scale:

I'm going to ask some questions about how the [drug court] judge has treated your case. As you answer these questions, please think about your most recent experience in court [drug court if applicable] with a judge. Please tell me if you strongly agree, agree, disagree, or strongly disagree with the following statements about your experience with the judge.

1. The judge is knowledgeable about your case.
2. The judge knows you by name.
3. The judge helps you to succeed.
4. The judge emphasizes the importance of drug and alcohol treatment.
5. The judge is intimidating or unapproachable.

6. The judge remembers your situations and needs from hearing to hearing.
7. The judge gives you a chance to tell your side of the story.
8. The judge can be trusted to treat you fairly.
9. The judge treats you with respect.

The following items were included in the Certainty of Sanctions scale:

If [the drug court program/ your probation/parole officer] did think that you used drugs while on probation/parole, didn't keep appointments, or otherwise didn't meet your supervision conditions, how likely do you think it is that the following things would happen? I will read you a list and your choices are very likely, somewhat likely, somewhat unlikely or very unlikely:

1. You would receive increased drug testing?
2. You would receive increased drug treatment?
3. Your case manager/probation/parole officer would increase the number of times you have to meet with them or other supervision requirements?
4. You would receive community service, a writing assignment, or be made to sit in the jury box to observe court proceedings?
5. You would receive a formal warning in writing?
6. You would receive an informal verbal warning?
7. You would be given electronic monitoring (like an ankle bracelet)?
8. You would be required to attend day reporting? {Day reporting is when someone has to report to the supervision officer on a daily basis.}
9. You would be placed on house arrest or community control?
10. You would be given or charged with a violation?
11. You would get revoked and end up in jail or prison?

The following items were included in the Addiction scale:

I'm going to ask some questions about your use of alcohol and drugs. As you answer these questions, please think about things that have happened in the last 30 days and not anything in the future.

During the last 30 days

1. Did you use larger amounts of drugs or use them for a longer time than you planned or intended?
2. Did you try to cut down on your drug use but were unable to do it?
3. Did you spend a lot of time getting drugs, using them, or recovering from their use?
4. Did you get so high or sick from drugs that it kept you from doing work, going to school, or caring for children?
5. Did you get so high or sick from drugs that it caused an accident or put you or others in danger?
6. Did you spend less time at work, school, or with friends so that you could use drugs?
7. Did your drug use cause emotional or psychological problems?
8. Did your drug use cause problems with family, friends, work or police?
9. Did your drug use cause physical health or medical problems?
10. Did you increase the amount of a drug you were taking so that you could get the same effects as before?
11. Did you ever keep taking a drug to avoid withdrawal symptoms or keep from getting sick?
12. Did you get sick or have withdrawal symptoms when you quit or missed taking a drug?

APPENDIX C: DETAILED TABLES

Table C-1. Baseline Characteristics: Family Support and Conflict

	Treatment Group				Control Group				Total Sample			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Family Support	1.00	4.00	3.01	0.74	1.83	4.00	3.10	0.54	1.00	4.00	3.04	0.69
Family Conflict	1.00	4.00	2.45	0.74	1.33	3.67	2.45	0.51	1.00	4.00	2.45	0.68

Table C-2. Baseline Characteristics: Family Crime and Drug Use

	Treatment Group		Control Group		Total Sample	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
<i>Family of Origin (N = 84)</i>	59		25		84	
Parents ever arrested						
Yes	23	39	14	56	37	44
No	34	58	11	44	45	54
Don't know/Refused/Missing	2	3	0	0	2	2
Parents have a drug problem						
Yes	26	44	17	68	43	51
No	31	53	8	32	39	46
Don't know/Refused/Missing	2	3	0	0	2	2
<i>Current Spouse/Partner (n = 34)</i>	22		12		34	
Spouse or partner ever arrested						
Yes	10	46	5	42	15	44
No	10	46	6	50	16	47
Not applicable/Don't know/Refused	2	9	1	8	3	9
Spouse or partner have a drug problem						
Yes	13	59	5	42	18	53
No	8	36	7	58	15	44
Not applicable/Don't know/Refused	1	5	0	0	1	3

Table C-3. Baseline Characteristics: Past 30-day Substance Use

	Treatment Group (n = 59)		Control Group (n = 25)		Total Sample (N = 84)	
In the past 30 days....	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Any Alcohol Use	21	36	8	33	29	35
Any Marijuana Use*	25	42	4	17	29	35
Any Use of Drugs Other than Alcohol or Marijuana*	35	59	9	36	44	52

* $p < .05$

Table C-4. Physical Health

	Baseline				Follow-up			
	Min	Max	Mean	SD	Min	Max	Mean	SD
How would you rate your overall health right now?								
Treatment (n = 59)	1.0	5.0	3.0	1.1	1.0	4.0	2.4	1.1
Control (n = 25)	1.0	5.0	2.7	1.4	1.0	5.0	2.5	1.1
How many days have you experienced medical problems in the past 30 days?								
Treatment (n = 59)	0.0	30.0	5.9	9.9	0.0	30.0	5.8	10.2
Control (n = 25)	0.0	30.0	5.7	10.0	0.0	30.0	8.6	12.0
How troubled or bothered have you been by these medical problems in the past 30 days?								
Treatment (n = 25)	1.0	5.0	3.6	1.3	2.0	5.0	3.5	1.1
Control (n = 10)	2.0	5.0	4.3	1.1	2.0	5.0	3.9	1.2
How important to you now is treatment for these medical problems?								
Treatment (n = 25)	1.0	5.0	3.7	1.5	2.0	5.0	3.9	1.2
Control (n = 10)	1.0	5.0	4.0	1.6	1.0	5.0	4.1	1.4

Table C-5. Addiction and Criminal Acts

	Baseline				Follow-up			
	Min	Max	Mean	SD	Min	Max	Mean	SD
<i>Addiction</i>								
Treatment	0.0	12.0	4.3	4.1	0.0	8.0	0.7	1.7
Control	0.0	12.0	2.8	3.9	0.0	4.0	0.4	0.9
<i>Criminal Acts</i>								
Treatment	0.0	7.0	2.7	2.1	0.0	7.0	1.2	1.7
Control	0.0	7.0	2.5	2.0	0.0	6.0	1.2	1.8

Table C-6. Perception of Peers

	Baseline		Follow-up	
Think of your four closest friends. How many ...	Few or None	Half or Most	Few or None	Half or Most
<i>Treatment</i>				
Are employed?	56%	44%	40%	60%
Can you hang out with and know you won't get into trouble?	51%	49%	26%	74%
Have ever been arrested?	28%	72%	42%	58%
Have ever served time in a correctional facility?	46%	54%	51%	49%
Are gang members?	82%	18%	88%	13%
Are taking illegal drugs regularly?	46%	54%	77%	23%
<i>Control</i>				
Are employed?	44%	56%	50%	50%
Can you hang out with and know you won't get into trouble?	33%	67%	21%	79%
Have ever been arrested?	46%	54%	50%	50%
Have ever served time in a correctional facility?	60%	40%	54%	46%
Are gang members?	88%	13%	100%	0%
Are taking illegal drugs regularly?	63%	38%	83%	17%

APPENDIX D: PARTICIPANT RETENTION IN INTERVIEW STUDY

Participant Retention in Interview Study

A total of 283 participants entered the study in time to be eligible to be interviewed. Of these, 172 (61%) had been randomly assigned to the treatment group and 111 (39%) had been randomly assigned to the control group. Of the 172 people assigned to the treatment group, 102 (59%) completed a baseline interview and 68 completed a follow-up interview (40% of the treatment group; 67% of those treatment group participants who completed a baseline interview). Of the 70 people who were assigned to the treatment group and did not complete a baseline interview, 7 (4%) refused the interview and 63 (37%) were unreachable and timed out of the study. Of the 111 people assigned to the control group, 47 (42%) completed a baseline interview and 25 completed a follow-up interview (23% of the control group; 53% of those control group participants who completed a baseline interview). Of the 64 people who were assigned to the treatment group and did not complete a baseline interview, 13 (12%) refused the interview and 51 (46%) were unreachable and timed out of the study. A total of 84 respondents completed both a baseline and follow-up (59 in the treatment group and 25 in the control group). By the end of the interview period, a total of 48 (17%) participants were unreachable due to having absconded or having a warrant out for their arrest.

APPENDIX E: SUMMARY STATISTICS

	Traditional Probation or Control Group (n = 163)	Drug Court or Treatment Group (n = 225)	p-value	Statistical Significance	Statistical Significance Test
Gender: Male	62.6%	70.7%	0.0937	*	Chi-Square Test
Ethnicity: Native American	0.6%	2.7%	0.3188		Fisher's Exact Test
Ethnicity: Asian	0.6%	1.3%			
Ethnicity: Hispanic	2.5%	5.3%			
Ethnicity: African-American	4.3%	4.4%			
Ethnicity: Caucasian	92.0%	86.2%			
Average Age	31.1	29.9	0.2068		T-test
Average PSC Score	34.0	39.1	0.0049	**	T-test
Average TCU Score	5.5	5.5	0.8081		T-test
Average LS/CMI Score	24.3	24.8	0.5553		T-test
Post-Prison Supervision from Prison	9.8%	12.9%	0.0821	*	Chi-Square Test
Post-Prison Supervision from Local Control	9.8%	16.4%			
Probation	80.4%	70.7%			

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

Table E-1

Douglas County	Traditional Probation or Control Group (n = 18)	Drug Court or Treatment Group (n = 20)	p-value	Statistical Significance	Statistical Significance Test
Gender: Male	44.4%	65.0%	0.2032		Chi-Square Test
Ethnicity: Native American	0.0%	0.0%	1.0000		Fisher's Exact Test
Ethnicity: Asian	0.0%	0.0%			
Ethnicity: Hispanic	0.0%	0.0%			
Ethnicity: African-American	0.0%	0.0%			
Ethnicity: Caucasian	100.0%	100.0%			
Average Age	28.3	28.3	0.9998		T-test
Average PSC Score	31.5	40.8	0.1219		T-test
Average TCU Score	5.1	5.5	0.5838		T-test
Average LS/CMI Score	24.0	20.9	0.2255		T-test
Post-Prison Supervision from Prison	0.0%	0.0%	0.4879		Fisher's Exact Test
Post-Prison Supervision from Local Control	0.0%	10.0%			
Probation	100.0%	90.0%			

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

Table E-2

Jackson County	Traditional Probation or Control Group (n = 36)	Drug Court or Treatment Group (n = 43)	p-value	Statistical Significance	Statistical Significance Test
Gender: Male	75.0%	65.1%	0.3414		Chi-Square Test
Ethnicity: Native American	0.0%	0.0%	1.0000		Fisher's Exact Test
Ethnicity: Asian	0.0%	0.0%			
Ethnicity: Hispanic	1.0%	4.7%			
Ethnicity: African-American	0.0%	0.0%			
Ethnicity: Caucasian	97.2%	95.4%			
Average Age	29.3	26.5	0.1119		T-test
Average PSC Score	39.5	41.2	0.6788		T-test
Average TCU Score	5.8	6.9	0.0256	**	T-test
Average LS/CMI Score	19.0	21.9	0.0870	*	T-test
Post-Prison Supervision from Prison	2.8%	0.0%	0.5049		Fisher's Exact Test
Post-Prison Supervision from Local Control	19.4%	25.6%			
Probation	77.8%	74.4%			

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

Table E-3

Multnomah County	Traditional Probation or Control Group (n = 86)	Drug Court or Treatment Group (n = 91)	p-value	Statistical Significance	Statistical Significance Test
Gender: Male	61.6%	69.2%	0.2874		Chi-Square Test
Ethnicity: Native American	0.0%	0.0%	0.6784		Fisher's Exact Test
Ethnicity: Asian	1.2%	2.2%			
Ethnicity: Hispanic	2.3%	5.5%			
Ethnicity: African-American	8.1%	9.9%			
Ethnicity: Caucasian	88.4%	82.4%			
Average Age	32.7	30.6	0.1655		T-test
Average PSC Score	32.2	34.9	0.2899		T-test
Average TCU Score	5.8	6.0	0.6873		T-test
Average LS/CMI Score	27.5	27.1	0.7001		T-test
Post-Prison Supervision from Prison	10.5%	9.9%	0.6037		Chi-Square Test
Post-Prison Supervision from Local Control	5.8%	9.9%			
Probation	83.7%	80.2%			

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

Table E-4

Umatilla County	Traditional Probation or Control Group (n = 23)	Drug Court or Treatment Group (n = 71)	p-value	Statistical Significance	Statistical Significance Test
Gender: Male	60.9%	77.5%	0.1175		Chi-Square Test
Ethnicity: Native American	4.4%	8.5%	0.9324		Fisher's Exact Test
Ethnicity: Asian	0.0%	1.4%			
Ethnicity: Hispanic	4.4%	7.0%			
Ethnicity: African-American	0.0%	1.4%			
Ethnicity: Caucasian	91.3%	81.7%			
Average Age	30.2	31.5	0.5428		T-test
Average PSC Score	33.7	42.7	0.0379	**	T-test
Average TCU Score	3.8	4.1	0.4004		T-test
Average LS/CMI Score	25.0	24.4	0.6513		T-test
Post-Prison Supervision from Prison	26.1%	28.2%	0.9025		Fisher's Exact Test
Post-Prison Supervision from Local Control	17.4%	21.1%			
Probation	56.5%	50.7%			

* marginal significance ($p < 0.10$)

** statistical significance ($p < 0.05$)

Table E-5

APPENDIX F: MULTIVARIATE MODELS

Multivariate Models

Logistic regression analysis was used to calculate the model-adjusted charge rates. The probation and drug court groups show differences across variables that are usually strong predictors of recidivism such as gender and risk to recidivate scores. Because of these differences, the multivariate-adjusted charge rates are a better predictor of the differences between the two groups. The corresponding p-value and effect sizes are based on the multivariate model shown in detail below in Table F-2. The models for felony, misdemeanor, person, property, any, other, and drug charges are shown below. The race variable was not included in the person charge or property charge models due to poor model fit. The regression coefficient was used to adjust the charge rate for the treatment group. Using the charge rate of the comparison group (abbreviated as 'c') and the regression coefficient for the group variable (abbreviated as 'a') the adjusted charge rate for the treatment group was calculated as follows:

$$\frac{\left(\frac{c}{1-c}\right) * e^{-a}}{1 + \left(\frac{c}{1-c}\right) * e^{-a}}$$

1 Year Charge Rate Outcome	Traditional Probation or Control Group (n = 163)	Unadjusted Drug Court or Treatment Group (n = 225)	Multivariate-Adjusted Drug Court or Treatment Group * (n = 225)	p-value	Effect Size
Any Charge	37.4%	34.7%	29.7%	0.1382	-20.6%
Felony Charge	25.2%	23.6%	19.5%	0.2070	-22.3%
Misdemeanor Charge	27.0%	25.3%	22.1%	0.2962	-18.0%
Person Charge	6.8%	4.4%	3.6%	0.1582	-46.5%
Property Charge	14.1%	12.4%	10.1%	0.2438	-28.1%
Drug Charge	18.4%	14.7%	11.7%	0.0712	-36.6%
Other Charge	23.3%	21.3%	19.0%	0.3274	-18.3%

*Multivariate-adjusted charge rate, see Table F-2 for details

Table F-1

	Any Charge		Felony Charge		Misdemeanor Charge	
Variable	Parameter Estimate	p-value	Parameter Estimate	p-value	Parameter Estimate	p-value
Group	0.3464	0.1382	0.3251	0.2070	0.2630	0.2962
Intercept	-1.2798	0.1010	-3.0964	0.0050	-0.9957	0.2317
Gender	-0.8301	0.0013	-0.8443	0.0046	-0.9574	0.0010
White/non-white	-0.3868	0.2712	0.0082	0.9832	0.0438	0.9089
PSC score	-0.1076	0.8734	1.0517	0.1513	-0.6776	0.3542
LS/CMI score	0.0710	0.0001	0.0637	0.0013	0.0573	0.0033
Abscond	-0.6073	0.0126	-0.3803	0.1535	-0.7797	0.0023
Age	-0.0154	0.2311	-0.0095	0.5159	-0.0235	0.1008
TCU score	0.0559	0.2687	0.1049	0.0582	0.0219	0.6891

Table F-2

	Person Charge		Property Charge	
Variable	Parameter Estimate	p-value	Parameter Estimate	p-value
Group	0.6589	0.1582	0.3746	0.2438
Intercept	-3.1463	0.0303	-3.7883	0.0003
Gender	-1.0609	0.1014	-0.5443	0.1358
White/non-white	--	--	--	--
PSC score	1.3643	0.2844	0.6701	0.4702
LS/CMI score	0.0529	0.1233	0.0605	0.0140
Abscond	-0.2126	0.6657	-0.4618	0.1596
Age	-0.0184	0.5090	-0.0255	0.2019
TCU score	-0.1887	0.0933	0.1967	0.0049

Table F-2 continued

Variable	Drug Charge		Other Charge	
	Parameter Estimate	p-value	Parameter Estimate	p-value
Group	0.5355	0.0712	0.2565	0.3274
Intercept	-4.4495	<0.0001	-1.2447	0.1500
Gender	-0.8079	0.0215	-0.9164	0.0027
White/non-white	-0.1674	0.6993	-0.2535	0.5045
PSC score	1.5146	0.0739	-1.0115	0.1911
LS/CMI score	0.0715	0.0020	0.0570	0.0055
Abscond	-0.2039	0.5105	-0.5736	0.0329
Age	0.0036	0.8289	-0.0135	0.3510
TCU score	0.0983	0.1241	0.0182	0.7503

Table F-2 continued

Multivariate generalized linear regression was used to model the mean number of charge and case outcomes. The Type III partial sum of squares F-test was used as the statistical significance measure for the predictor variables.

Variable	Mean Charges		Mean Felony Charges		Mean Misdemeanor Charges	
	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	40.1755	0.0386	18.5562	0.0362	5.7088	0.1424
Gender	137.1540	0.0001	32.0778	0.0060	37.3524	0.0002
White/non-white	0.1391	0.9029	0.1068	0.8734	0.3957	0.6990
PSC score	0.2631	0.8667	1.9514	0.4958	0.5875	0.6375
LS/CMI score	37.1199	0.0467	5.6929	0.2450	11.9815	0.0339
Abscond	58.0700	0.0130	6.5276	0.2132	26.4314	0.0017
Age	4.0093	0.5124	2.2791	0.4617	0.1752	0.7969
TCU score	19.6397	0.1475	11.2687	0.1022	2.2849	0.3530

Table F-3

	Mean Person Charges		Mean Property Charges	
Variable	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	0.1591	0.4123	7.2429	0.1748
Gender	0.5432	0.1292	23.0908	0.0157
White/non-white	0.0009	0.9508	0.3760	0.7569
PSC score	0.0442	0.6654	0.2283	0.8094
LS/CMI score	0.0328	0.7096	0.8874	0.0590
Abscond	0.2418	0.3123	14.0563	0.0590
Age	0.0704	0.5855	0.8649	0.6388
TCU score	0.4662	0.1609	23.3404	0.0151

Table F-3 continued

	Mean Drug Charges		Mean Other Charges	
Variable	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	3.4739	0.0384	1.9166	0.2835
Gender	3.4269	0.0397	18.6254	0.0009
White/non-white	1.8885	0.1264	1.3548	0.3671
PSC score	1.6387	0.1544	2.1177	0.2596
LS/CMI score	3.8822	0.0287	8.9947	0.0205
Abscond	0.4954	0.4332	7.1588	0.0386
Age	0.3404	0.5158	1.9333	0.2814
TCU score	1.1304	0.2367	0.6082	0.5455

Table F-3 continued

	Mean Cases		Mean Felony Cases		Mean Misdemeanor Cases	
Variable	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	6.8746	0.0114	1.8063	0.0488	2.4896	0.0454
Gender	15.8668	0.0001	3.9658	0.0036	9.5606	<.0001
White/non-white	0.3102	0.5893	0.1318	0.5938	0.0000	0.9935
PSC score	0.2432	0.6327	1.3279	0.0910	0.0282	0.8310
LS/CMI score	9.8033	0.0026	3.2471	0.0084	4.5890	0.0067
Abscond	8.3135	0.0054	0.6438	0.2388	6.9915	0.0008
Age	0.0036	0.9380	0.0077	0.8975	0.0001	0.9876
TCU score	5.2802	0.0264	1.8736	0.0448	0.9056	0.2266

Table F-4

	Mean Person Cases		Mean Property Cases	
Variable	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	0.1622	0.0944	0.6472	0.1616
Gender	0.1681	0.0887	1.5828	0.0289
White/non-white	0.0260	0.5023	0.0433	0.7170
PSC score	0.0538	0.3347	0.0152	0.8297
LS/CMI score	0.2016	0.0624	0.2958	0.3437
Abscond	0.0150	0.6103	1.9704	0.0149
Age	0.0426	0.3910	0.0001	0.9841
TCU score	0.2070	0.0590	3.1334	0.0022

Table F-4 continued

Variable	Mean Drug Cases		Mean Other Cases	
	Type III Partial Sum of Squares	p-value	Type III Partial Sum of Squares	p-value
Group	1.4766	0.0320	0.8527	0.1313
Gender	2.2500	0.0082	4.6841	0.0004
White/non-white	0.2221	0.4044	0.0416	0.7384
PSC score	0.7990	0.1142	0.1826	0.4845
LS/CMI score	2.5517	0.0049	3.7871	0.0016
Abscond	0.2547	0.3720	1.5567	0.0417
Age	0.2115	0.4159	0.0013	0.9531
TCU score	0.5211	0.2019	0.0442	0.7308

Table F-4 continued