The Kootenai and Ada County Drug Courts: Outcome Evaluation Findings

FINAL REPORT

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Addendum

It came to our attention that the finding regarding the primary drug of choice for participants in the Ada County drug court was inaccurate. Further communication with the court coordinator revealed that the coding scheme used in the original analysis was inaccurate. The relevant variables in question were re-analyzed and changed to more accurately reflect the clients served by the court. The change can be found on page 22 & 23. We apologize for any inconvenience this mistake may have caused.

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Introduction

Drug courts have played a growing role in responding to the dramatic increase in drug offenses entering the criminal justice system in the past fifteen years. The recognition that drug abuse is a chronic and relapsing condition that requires intensive treatment has changed how the drug offender is treated in the criminal justice system as well as by the general public. Funding for these drug courts across the country and in Idaho has led to a great expansion of this innovation. The first drug court began in Idaho in 1998, currently; there are 30 drug courts in operation. In 2001, the University of Cincinnati was contracted by the Idaho Supreme Court to provide an evaluation of its drug court efforts. The project consists of three phases. In the first phase, the Kootenai and Ada County Drug Courts were selected for outcome evaluations. The second phase will include a statewide process evaluation that will detail how well selected drug courts across the state have been implemented, how effectively they process their cases, and whether they are serving their intended target populations. Finally, the third phase will include a statewide outcome evaluation of selected courts across the state. The evaluation effort is designed to inform the courts and stakeholders of how well drug courts have been implemented and their overall effectiveness. This report illustrates the results of the phase one outcome study and provides a preliminary picture of the effectiveness of two drug courts in Idaho.

Evaluating Drug Courts

As with any evaluation, assessing the operations and impacts of a drug court is a complex process. Each drug court was planned to achieve specific outcomes for identified types of cases or offenders. While some program impacts are common to all courts (reduced criminality, reduced substance abuse, etc.), the characteristics of

participants, treatment options, monitoring activities, and sanctions are expected to vary. An evaluation model needs to be sensitive to differences between the courts while also producing summary information about drug courts in general.

A drug court can be viewed as a process designed to produce specific impacts, much like a manufacturing operation. The program has inputs (offenders and offenses, staff, resources), throughput (procedures, treatments, sanctions) and outputs (changes in recidivism and substance abuse). The impact or effect of drug court programming can be understood against a benchmark of what would be expected had there been no court program. Thus, an outcome evaluation requires the comparison of a drug court product (recidivism rates, relapse, levels of substance abuse) with similar measures for cases that did not participate in the drug court. Ideally, the evaluation would enable us to attribute any observed differences only to the drug court.

To do this, the effect of the drug court on participant levels of recidivism and substance use would need to be isolated through the development of a comparison for each court, where the only difference between groups was participation in the drug court. Thus, uniform measures of input and output for drug court cases and a sample of offenders who did not participate are essential. Further, to understand how the drug court produces differences in output, we need to compare how treatments differed.

This outcome study is designed to examine the effects of this community-based alternative on recidivism rates. The current study builds upon the previous evaluations and research by examining the following research questions:

(1) What are the characteristics of the offenders served by the drug court?

(2) How do drug court participants appear on various indicators of drug use?

(3) Does participation in the drug court affect the likelihood that an individual will recidivate?

(4) What factors predict the likelihood of success/failure?

(5) What are the outcomes among graduates of the programs?

Methods

Research Design

The project used a quasi-experimental matched control group design in order to estimate the impact of the drug court involvement on future criminal behavior. Both drug courts serve adult drug offenders with a reported substance abuse problem. Each court was also asked to identify a comparison group consisting of individuals similar to those participating in the drug court, however, did not receive any of its services. Random assignment to groups (e.g., drug court versus comparison) was not feasible; however, groups were matched with regard to selected demographic characteristics as well as the presence of a substance abuse problem. In addition, the comparison group members had to be eligible for the drug court. A description of the two drug courts follows.

Sample

Kootenai County Drug Court. The Kootenai County Drug Court, located in Coeur d' Alene Idaho, began in September of 1998. The court was developed to serve non-violent drug defendants charged in District Court with possession of schedule I, II or III controlled substances, forged prescription, some possession with intent to sell and some property crimes. Offenders with a violent or sexual history are ineligible for the program. Final determination concerning program entry resides with the staffing team consisting of: a deputy prosecuting attorney, a deputy public defender, probation officer, treatment provider and the coordinator.

At the first drug court appearance, the offender/client pleads guilty to the felony charge but sentencing is held in abeyance. The offender is then assigned to the caseload

of a probation officer from the Idaho Department of Correction. The offender must be participating in treatment to be allowed into drug court. Upon successful completion of the program, the offender will be found guilty of a reduced misdemeanor charge as agreed upon at the entry into drug court and sentenced to court costs.

In order to successfully graduate from the drug court, each offender must be employed, maintain sobriety for at least seven months, obtain their high school diploma or equivalency, and pay drug court fees. Offenders may be required to participate in classes dealing with parenting, cognitive self-change, living skills, and communications in addition to the drug-counseling program. Offenders may also be required to attend AA or NA meetings.

The program is designed to last twelve months. The drug court program includes three phases. Phase 1, lasting approximately 8 weeks, includes 72 hours of intensive outpatient treatment. Phase 2, lasting an average of seven months, includes 32 hours of aftercare services with a minimum of one hour of counseling per week. Finally, phase 3, which lasts three months, includes three hours of treatment with a minimum of one hour counseling per month. There were 141 offenders selected for the Kootenai County Drug Court sample.

Ada County Drug Court. The Ada County drug court, located in Boise, Idaho began in October of 1998. The drug court was developed as an option for those arrested with felony possession offenses. Prior to acceptance, the defendant is to complete an intake and screening process with the treatment provider. Further, if the defendant is accepted into the program, he or she is required to plead guilty but still receives representation throughout their participation in the court. Successful completion and "graduation" from the program results in having the guilty plea set aside and the charges

dismissed. Failure or dismissal from the program results in the case proceeding to sentencing on the basis of the guilty plea.

The Ada County Drug Court is a court-supervised, comprehensive outpatient treatment program for selected chemically dependent defendants. The drug court treatment provider is Ada County Treatment Services. Counselors assist in obtaining education and skills assessments and provide referrals for vocational training, education and/or job placement services. The program length, determined by each participant's progress, is not less than twelve months. Outpatient treatment includes frequent and random urinalysis and counseling in three separate formats: individual, group, and education.

The drug court treatment program is a four-phase, highly structured, outpatient treatment program lasting a minimum of one year, which may be extended depending upon individual progress. Each phase lasts approximately three months and consists of specified treatment objectives, therapeutic and rehabilitative activities, and specific requirements for "graduation" into the next phase. Phase 1 includes urinalysis at least two times per week and participation in cognitive self-change, substance abuse education, and process groups. Phase 2 includes urinalysis at least once a week, and participation in individual sessions and cognitive and substance abuse relapse packets. Phase 3 includes urinalysis at least once a week, and individualized treatment focusing on living in recovery. Finally, phase 4 requires the completion of a treatment plan, which focuses on using all of the program tools to establish a long-term recovery plan and urinalysis at least once a week. There were 250 offenders selected for the Ada County Drug Court sample.

Comparison Groups. The comparison group members selected for each county include men and women who were eligible for drug court. This group of clients did in fact have a drug abuse problem and were eligible for the program, however, for a variety of reasons did not participate. The participants in this group were selected by the individual courts; Kootenai County staff identified 133 comparison group members and Ada County identified 161.

Sources of Data

For this first evaluation report, we are relying on data collected by the courts over the last several years. It is intended that future evaluations will include a more comprehensive array of factors based on the data collection forms and database recently adopted across the state. In October and November of 2002, the Idaho State Police, Bureau of Criminal Identification collected the necessary recidivism data for each court.

Measures

Independent Variables: To explore the determinates of recidivism, we examine the effects of a number of independent variables. Of primary interest was whether participation in the drug court influenced the probability that an individual would recidivate. To assess this issue, we explored whether being assigned to the drug court group versus being assigned to a control group affected various outcomes (1 = drug court, 0 = control group). Also of interest was whether any of the social demographic variables influenced the probability of future offending or predicted the likelihood of success. As such, gender, race, age, employment status, education level, and prior record were included in the analysis. Similarly, given that each participant was at risk for differing time periods, we have included a measure of time at risk as a control variable.

Dependent Variables: The dependent variable included in this study is defined as any new arrest. We also explored arrest charge and whether an individual was arrested on multiple occasions. Using these data, the multivariate analyses distinguished the various predictors associated with program completion and recidivism. Outcome findings will be presented for participants and comparison group members as well as graduates of the program.

Data Analysis

This study examined the differences among the drug court and comparison group members along a variety of measures. In some circumstances data were not available for the comparison group. In this situation, only data from the drug court group is presented. Examining recidivism rates between both groups will be used to assess the impact of drug court participation on future criminal behavior. Chi-square and t-tests were conducted to examine the differences between the groups, and logistic regression was used to determine the probability of arrest.

Evaluation Findings: Kootenai County

Intake

Table 1 reports the drug court participant and comparison group's social demographic information. The groups are similar with regard to race, gender, age, and marital status. That is, the majority in both groups are Caucasian, male, approximately 28 years of age, and not married. With regard to education, significantly more drug court participants have engaged in some post high school education. Finally, the majority of the drug court participants reported having part-time employment. Employment data were not available for comparison group members.

Table 1. Frequency and percentage distribution of Kootenai County Drug Court participants' and comparison group members intake information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Race				
White	138	97.9	131	98.5
Non-white	3	2.1	2	1.5
Gender				
Male	92	65.2	80	60.2
Female	49	34.8	53	39.8
Age				
18-22	51	36.2	38	28.8
23-27	23	16.3	39	29.5
28-32	23	16.3	18	13.6
33-37	17	12.1	21	15.9
38 and over	27	19.1	16	12.1
Mean	28.48		27.54	
Marital Status				
Married	23	16.4	11	16.7
Not Married	117	83.6	55	83.3
Highest Grade Completed				
Less than High School Grad	37	31.6	23	33.8
High School Graduate	59	50.4	45	66.2
Post High School	21	17.9	0	0.0
$X^2 = 14.167$; p=.001				
Employed				
Full-time	46	32.6	--	--
Part-time	95	67.4	--	--

Table 2. Frequency and percentage distribution of Kootenai County Drug Court participants' and comparison group members offense information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Offense				
Possession				
Methamphetamine	113	80.1	111	83.5
Other	18	12.8	15	11.3
Theft	10	7.1	7	5.3
Prior Record				
Yes	127	95.5	97	78.9
No	6	4.5	26	21.1
X^2=16.15; p = .000				
Prior Record Involving Drugs				
Yes	118	88.7	79	64.2
No	15	11.3	44	35.8
X^2= 21.617; p= .000				

Table 2 reports the group's offense and prior record information. In order to have a significant impact on the at-risk population, many courts select those individuals with more extensive drug and criminal histories. Kootenai County fits this profile as well. The two groups are very similar with regard to arresting charge, with 93 percent of the drug court participants and 95 percent of the comparison group members arrested for possession of drugs. As seen in Table 2, possession of methamphetamine is common among this target population. With regard to prior record, there is statistically significant difference between the two groups. Ninety-six percent of the drug court group has a prior record in contrast to 79 percent of the comparison group. Similarly, 89 percent of the drug court group has prior record involving drugs in contrast to 64 percent of the comparison group.

Drug Use Patterns

While drug assessment data were not available, drug court participants were asked to report their primary drug of choice, age of first use, and the frequency of their drug use. Unfortunately missing data among comparison group members does not allow us to compare differences among the groups based on these factors.

In a survey of drug courts across the nation, American University found that many drug court participants present moderate to severe substance abuse histories (Cooper, 1997). As seen in Table 3, we find that drug court clients in Kootenai County are no exception. The data illustrate that the primary drug of choice is stimulants (methamphetamine) followed by marijuana.

In addition to drug of choice, history of drug using behavior is a concern for drug courts. The majority of participants began using drugs during adolescence; specifically between 14 and 18 years of age with the mean age of 17. Table 3 also illustrates that 60 percent of the drug court clients report daily use of drugs. These data illustrate that the Kootenai County Drug Court is targeting those with a significant substance addiction.

Treatment Participation & Termination Status

The sample includes drug court participants selected between February 1998 and July 2002. Within that time frame, 45 percent of the participants were in phase 1, less than one percent in phase 2, 27 percent in phase 3, and 25 percent in phase 4. The participant's status in the program is also captured in this evaluation. We find that 27 (19%) were still enrolled in the program, 41 (29%) graduated, and 76 (52%) were terminated for a variety of reasons. A positive drug test and a probation violation were listed as typical reasons for termination.

Table 3. Frequency and percentage distribution of Kootenai County Drug Court participants' drug use and treatment information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Drugs Used				
Alcohol	9	6.6	--	--
Marijuana	30	22.1	--	--
Crack/Cocaine	5	3.7	--	--
Narcotics	1	0.7	--	--
Depressants	1	0.7	--	--
Stimulants	84	61.8	--	--
Other	6	4.4	--	--
Age of First Use				
14-18	79	82.3	--	--
19-23	10	10.4	--	--
24-28	2	2.1	--	--
29 and over	5	5.2	--	--
Mean	17.08			
Frequency of Drug Use				
Daily	55	59.8	--	--
Once a Week or More	24	26.1	--	--
Less than Once a Week	13	14.1	--	--
Current Treatment Phase				
Phase 1	64	45.4	--	---
Phase 2	1	0.7	--	---
Phase 3	38	27.0	--	---
Phase 4	35	24.8	--	---
Current Status				
Enrolled	27	19.1	--	---
Graduated	41	29.1	--	---
Terminated by defense request	11	7.8	--	---
Terminated for FTA	7	5.0	--	---
Terminated for New arrest	8	5.7	--	---
Terminated for Pos UA	27	17.0	--	---
Terminated for P.V.	22	15.6	--	---
Terminated to leave state	1	0.7	--	---

Outcome

The main purpose of an outcome evaluation is to determine the impact of the intervention, in this case the drug court, on behavior. The commonly used measure of behavior is recidivism. Recidivism in this evaluation is measured as any arrest during the follow-up period. The follow up period was an average of 820 days (2 years 3 months) for the drug court group and 677 days (1 year 10 months) for the comparison group members. Recidivism includes both arrests while in the program and post graduation. As shown in Table 4, there is a difference in arrest rates between the two groups, with the drug court participants less likely (41%) to be rearrested in contrast to comparison group members (53%), however, the difference only approaches statistical significance ($p= .06$).

Of those arrested, the majority in both groups were arrested for a drug related offense. Specifically, 46 percent of the drug court group and 55 percent of the comparison group members were arrested for drug related charge. With regard to charge level, the majority of the drug court members (55%) were arrested for a felony offense in comparison to 46 percent of the comparison group members. These differences were not statistically significant.

We also explored whether the group members were arrested on multiple occasions. Given the chronic and relapsing nature of drug addiction, the number of times the offender fails is an important consideration. A significant difference between the groups emerged with only 10 percent of the drug court clients having been arrested multiple times during the follow-up period in contrast to 24 percent of the comparison group members. Finally as seen in Table 4, 29 percent of the comparison members were arrested at least twice in contrast to 15 percent of the drug court participants.

Table 4. Frequency and percentage distribution of Kootenai County Drug Court participants' and comparison group members outcome information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Rearrested for a New Offense				
Yes	55	41.4	65	52.8
No	78	58.6	58	47.2
Rearrest Charge (of those rearrested)				
Drug Related	25	46.3	36	55.4
Trafficking	3	5.6	0	0.0
Theft	8	14.8	14	21.5
Violent	6	11.1	3	4.6
Probation Violation	9	16.7	4	6.2
Other	3	5.6	8	12.3
Level of Initial Rearrest				
Felony	30	54.5	30	46.2
Misdemeanor	25	45.5	35	53.8
Arrested Multiple Times				
Yes	13	9.8	29	23.6
No	120	90.2	94	76.4
Number of Times Rearrested				
One	42	76.4	36	55.4
Two	8	14.5	19	29.2
Three	3	5.5	9	13.8
Four	2	3.6	1	1.5
Mean	1.36		1.62	
Average Follow-up period (in days) F= 9.28; p=.003	819.69		676.85	
Arrest Rates by Year				
Year 1	7	12.7	7	10.8
Year 2	14	25.5	23	35.4
Year 3	16	29.1	24	36.9
Year 4	15	27.3	10	15.4
Year 5	3	5.5	1	1.5

Given the average follow-up period for the two groups was statistically different, we explored the rearrest rates by year to determine if any differences existed. While comparison group members are slightly more likely to be rearrested overall, Table 4 indicates that there are no significant differences in the rate of arrest in any given year between the drug court and comparison groups.

Predictors. In an effort to identify factors associated with recidivism, a logistic regression analysis was conducted. Logistic regression estimates the probability of an event occurring (e.g., an arrest) while taking into consideration the impact of the independent variables (e.g., social demographics, prior record, etc). This allows us to determine the predictors or factors related to outcome. Due to missing data, the factors included in the model were limited to group, gender, race, age, prior record, and time at risk. Time at risk was included to control for the differing lengths of time each client was followed. As illustrated by Table 5, three variables were significantly related to arrest: gender, prior record, and time at risk. Specifically, men, those without a prior record, and those at risk longer were more likely to be arrested during the follow-up period.

In order to examine the results in more detail, the three variables predictive of rearrest were translated into log-odds ratios to simple odds. In essence, this translates the results of the regression equation into probabilities which estimates failure rates for each of the significant factors. Figures 1 presents the estimated probabilities and delineate the percentage with which each factor has in predicting arrest.

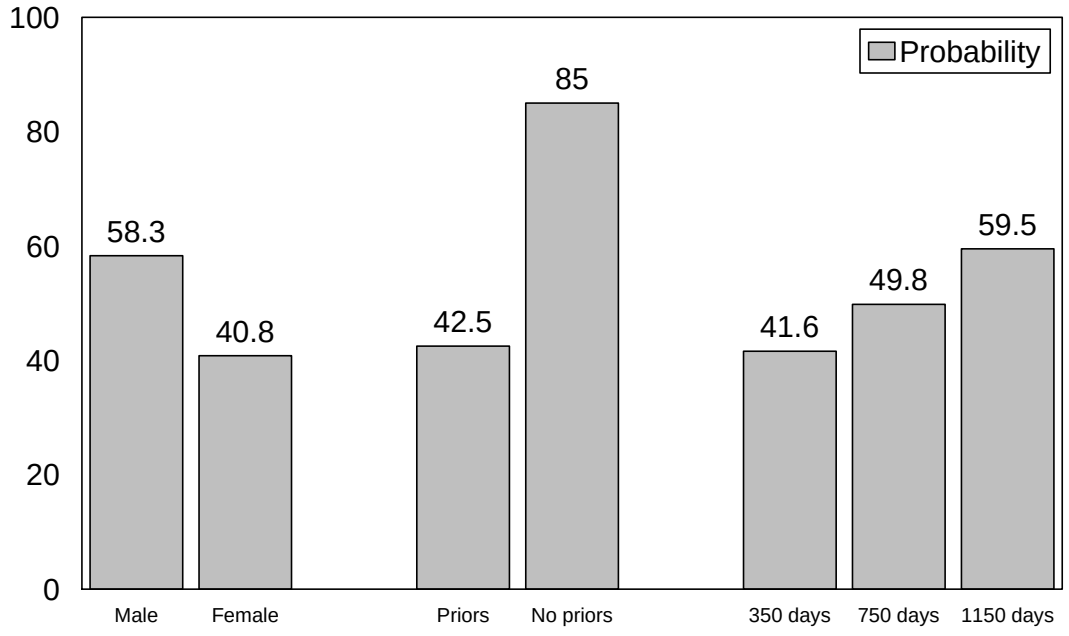
Table 5. Logistical Regression Predicting Arrest: Drug Court versus Comparison Group

Variable	B	S.E.	Wald	df	Significance
Group	-.371	.279	1.769	1	.183
Gender	.706	.286	6.092	1	.014*
Race	.643	1.072	.360	1	.549
Age	.005	.017	.100	1	.752
Prior Record	2.038	.512	15.868	1	.000*
Time to arrest	.001	.000	8.272	1	.004*

*p < .05

Figure 1

Probabilities associated with significant predictors of arrest



Note: Probabilities were calculated from significant logit coefficients

Those individuals who are male, had a prior record, and remain at risk longer have a higher probability of being arrested for a new offense. The drug court should consider these factors when developing treatment plans for these offenders. Specifically, these factors contribute to the overall risk profile of the participant and these individuals may need more intensive or alternative services.

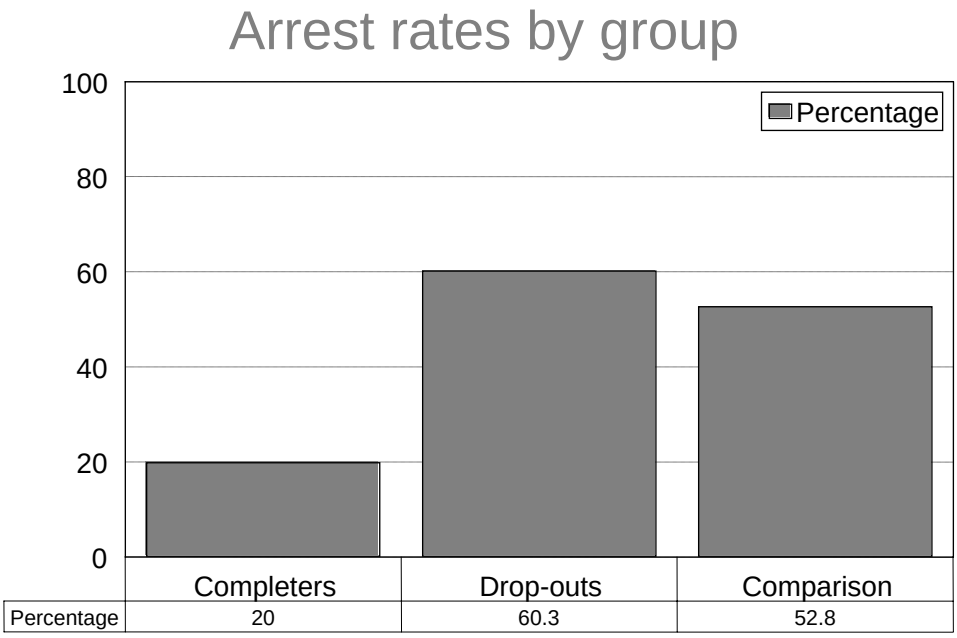
Graduates. At the time of this evaluation, Kootenai County had graduated 41 participants. We explored the recidivism rates among these individuals and compared them to those who were unsuccessfully discharged (non-graduates) and comparison group members. On average, these individuals were followed for 1006 days, 902 days, and 677 days respectively[1]. Related, graduates were followed for 115 days (approximately 4 months) post-graduation. The results are presented in Table 6. Among the 41 graduates, only 7 (20%) were arrested for a new offense during the follow-up period. This rate is in drastic contrast (and statistically different) to the 60 percent arrest rate among non-graduates and the 53 percent rate among comparison group members, which is illustrated in Figure 2. Interestingly, these differences emerged even though the comparison group members were followed for a shorter period of time. Similarly, of those arrested, 14 percent of the drug court group was arrested for a drug charge in contrast to 54 percent of the non-graduates and 55 percent of the comparison group members. Interestingly, the non-graduates were more likely than both groups to be arrested for a felony. Specifically, Table 6 indicates that 29 percent of the graduates and 46 percent of the comparison group members were arrested for a felony in comparison to 61 percent of the non-graduates. In sum, not only were non-graduates more likely to be

[1] These differences in time frame are statistically significant and should be considered when interpreting the results

Table 6. Frequency and percentage distribution of Kootenai County Drug Court graduates, non-graduates, and comparison group members outcome information

Characteristic	Graduates N	Graduates %	Non-Graduates N	Non-Graduates %	Comparison N	Comparison %
Rearrested for a New Offense						
Yes	7	20.0	44	60.3	65	52.8
No	28	80.0	29	39.7	58	47.2
$X^2 = 16.07$; p= .000						
Rearrest Charge (of those rearrested)						
Drug Related	1	14.3	23	53.5	36	55.4
Trafficking	1	14.3	2	4.7	0	0.0
Theft	3	42.9	5	11.6	14	21.5
Violent	0	0.0	5	11.6	3	4.6
Probation Violation	1	14.3	2	4.7	8	12.3
Other	1	14.3	6	14.0	4	6.2
Level of Initial Rearrest						
Felony	2	28.6	27	61.4	30	46.2
Misdemeanor	5	71.4	17	38.6	35	53.8
Arrested Multiple Times						
Yes	0	0.0	13	29.5	29	23.6
No	7	100.0	31	70.5	36	55.4
$X^2 = 10.19$; p= .006						
Mean Number of Times Arrested	0.0		1.45		1.62	
Avg. Follow-up Period (in days)	1006.92		902.34		676.86	
F = 17.41; p= .000						

Figure 2



Differences are statistically significant

arrested, but also to be arrested for a drug offense, and more likely at the felony level. Finally, when exploring whether the individuals across the three groups were arrested multiple times during the follow-up period, we find that none of the graduates were arrested more than once, however, 30 percent of the non-graduates and 24 percent of the comparison group members were.

Summary

The following can be summarized from the above findings.

What are the characteristics of the offenders served by the drug court?

- The majority of both groups were Caucasian, male, 28 years of age, and not married.
- The drug court participants were more likely to report some degree of post-high school education than comparison group members. The majority of drug court participants worked at least part time.
- The majority in both groups were arrested for possession of methamphetamine or other drugs.

- With regard to prior record, significant differences emerged. Although the majority in both groups had a prior record and a prior record involving drugs, a higher percentage of drug court participants emerged in both of these categories.

How do drug court participants look on various indicators of drug use?

- With regard to drug court participant's primary drug of choice, the majority cite stimulants (most often methamphetamine) followed by marijuana. They also report that they began using drugs between ages 14 and 18; and 60 percent report they use drugs daily.

Does participation in the drug court affect the likelihood that an individual will recidivate?

- At the time of this study, 27 individuals were still enrolled in the program, 41 had graduated, and 76 were terminated for a variety of reasons.

- With regard to arrest, while not statistically significant, the drug court group was less likely to be arrested for a new offense (41%) in contrast to the comparison group members (53%).

- In terms of charge, the groups are more similar with 46 percent of the drug court group arrested for a drug offense versus 55 percent of the comparison group. In addition, 55 percent of the drug court group was arrested for a felony versus to 46 percent of the comparison group.

- The analysis also explored whether participants were arrested multiple times. We find a significant difference here as only 10 percent of the drug court group was rearrested more than once versus 24 percent of the comparison group. Related, of those arrested multiple times only 15 percent of the drug court group was arrested twice in contrast to 29 percent of the comparison group. It is important to note that while we do not have data pertaining to disposition or incarceration, a majority in both groups were arrested for a felony charge and may not be "at risk" as the charge could have resulted in their subsequent incarceration.

What factors predict the likelihood of success/failure?

- In an effort to identify factors associated with recidivism, a logistic regression analysis was conducted. The results indicated that three variables were significantly related to recidivism: gender, prior record, and time at risk. That is, males, those with a prior record, and those at risk longer were more likely to be rearrested.

What are the outcomes of those who complete the drug court?

- Among graduates, only 7 (20%) were rearrested during the follow-up period. This is in contrast to 60 percent of the non-graduates and 53 percent of the comparison group members. Of those arrested, 14 percent of the drug court group were charged with a drug offense in comparison to 54 percent of the non-graduates and 55 percent of the comparison group members. Graduates were also less likely to be arrested for a felony charge. Importantly, none of the graduates were arrested more than once during the follow-up period, whereas 30 percent of the non-graduates and 24 percent of the comparison group members were.

Evaluation Findings: Ada County

Intake

Table 1 lists the participants and comparison group member's intake information. The majority in both groups are Caucasian, male, and not married. This is similar to the profile of the Kootenai County groups. Although date of birth was not available for comparison group members, we see that the Ada County participants are similar to those in Kootenai Co as well as participants across the country with regard to age (e.g., average 30 years of age). With regard to education, significant differences emerge with drug court participants being more likely to report having a high school degree. Moreover, 28 percent report some post high school education. There was a significant difference in terms of employment status between the two groups. While 53 percent of the drug court participants report being employed at part or full time, 71 percent of the comparison group members report full time employment of 35 hours per week or more. Significant differences emerged when we explored prior record. Similar to Kootenai County, likely to have a prior record and that record was also more likely to involve drugs.

Table 1. Frequency and percentage distribution of Ada County Drug Court participants' and comparison group members intake information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Race				
White	245	99.6	151	96.8
Non-white	1	0.4	5	3.2
Gender				
Male	145	58.9	81	51.9
Female	101	41.1	75	48.1
Age				
18-22	67	26.8	--	--
23-27	41	16.4	--	--
28-32	50	20.0	--	--
33-37	34	13.6	--	--
38 and over	58	23.2	--	--
Mean	29.88			
Marital Status				
Married	67	27.0	18	17.5
Not Married	181	73.0	85	82.5
Highest Grade Completed				
Less than High School Grad	59	23.9	82	78.8
High School Graduate	120	48.6	3	2.9
Post High School	68	27.5	19	18.3
X^2= 101.17; p=.000				
Employed				
35 hours or more	88	35.5	72	71.3
15 – 34 hours	37	14.9	6	5.9
15 hours or less	8	3.2	0	0.0
Unemployed	115	46.4	23	22.8
X^2 = 38.13; p=.000				
Prior Record				
Yes	243	98.8	95	60.9
No	3	1.2	61	39.1
X^2 = 102.35; p=.000				
Prior Record Involving Drugs				
Yes	232	94.3	61	39.1
No	14	5.7	95	60.9
X^2 = 147.22; p=.000				

This is not unusual, given the results of national surveys that find drug courts are increasingly targeting those with more extensive criminal histories.

Drug Use Patterns

Similar to Kootenai County, drug assessment data were not available; however, drug court participants were asked to report their primary drug of chose, age of first use and the frequency of their drug use. Unfortunately missing data among comparison group members does not allow us to report findings on these factors. Drug use patterns, age of first use, and frequency of drug use allow us to assess the relative seriousness of the addictions among the participants under study. Similar to Kootenai County, the majority of the participants (56%) in Ada County sample report methamphetamine as their primary drug of choice. Twenty four percent of the clients served reported marijuana use; and the remaining 20 percent reported alcohol, heroin, cocaine, pain medication, diet pills and ecstasy as their drug of choice.

With regard to age, Table 2 indicates that the majority began using drugs between the ages of 14 and 18 with an average age of 17. Interestingly, some of the participants estimate their use of drugs began as early as age 7. This is similar to the patterns found in Kootenai County. Table 2 also indicates that the majority (77%) report daily use of drugs.

Current Status

The sample includes drug court participants selected between March 1999 and June 2002. Within that time frame, the drug court had 56 (25.7%) individuals currently enrolled and receiving drug court services, 91 (41.7%) had graduated, and 71 (32.6%) were discharged unsuccessfully.

Table 2. Frequency and percentage distribution of Ada County Drug Court participants' drug use and treatment information.

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Drugs Used				
Marijuana	56	24.3	--	--
Alcohol	17	7.4	--	--
Cocaine	8	3.5	--	--
Methamphetamines	129	56.1	--	--
Pain Medications	5	2.2	--	--
Diet Pills	1	0.4	--	--
Ecstasy	1	0.4	--	--
Age of First Use				
7-13	38	34.2	--	--
14-18	53	47.7	--	--
19-23	13	11.7	--	--
24-28	2	1.8	--	--
31 and over	1	0.9	--	--
Mean	17.05			
Frequency of Drug Use				
Daily	86	77.5	--	--
Once a Week or More	11	9.9	--	--
Less than Once a Week	14	12.6	--	--
Current Status				
Currently Enrolled	56	25.7	--	--
Graduated	91	41.7	--	--
Discharged	71	32.6	--	--

Outcome

As mentioned previously, the main purpose of an outcome evaluation is to determine the impact of the intervention, in this case the drug court on behavior. The commonly used measure of behavior is recidivism. Recidivism in this evaluation is measured as any arrest during the follow-up period. The follow up period was an average of 851 days (2 years 4 months) for the drug court group and 660 days (1 year 8 months) for the comparison group members[2]. Recidivism includes both arrests while in the program or post graduation.

As seen in Table 3, a statistically significant difference emerged between the drug court participants and comparison group members. Significantly fewer (38%) of the drug court participants were arrested in contrast to the comparison group members (63%). Moreover, significantly more individuals in the comparison group were arrested for drug related charge. These rate differences are illustrated in Figure 1. This is a important finding that illustrates that not only are fewer participants being arrested, fewer are also being arrested for drug offenses which is arguably a central goal of the drug court. Of those arrested, both groups were likely to be arrested for a felony charge.

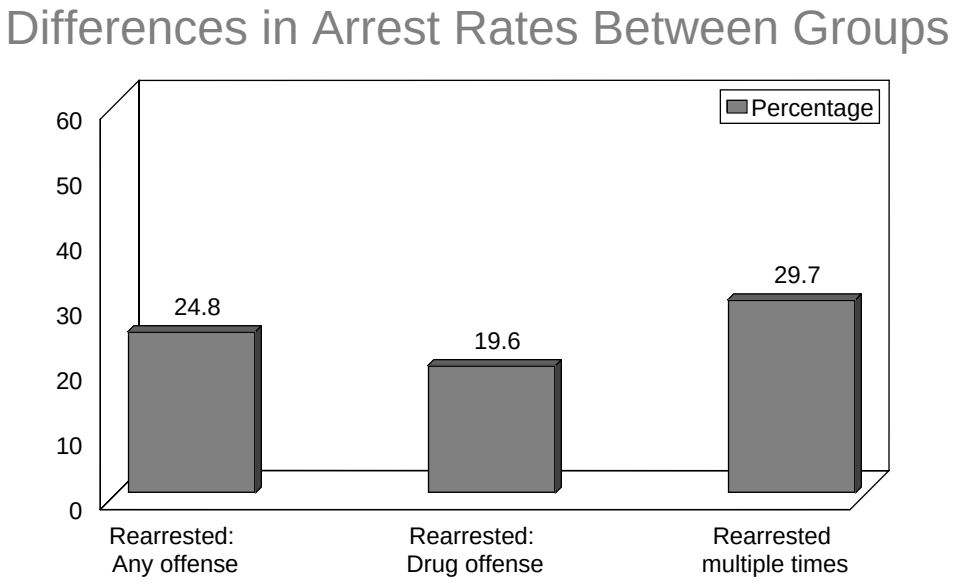
We also explored whether the group members were arrested on multiple occasions. Again, a significant difference between the groups emerged with only 22 percent of group members in contrast to 51 percent of the comparison group members arrested multiple times; Figure 1 illustrates the rate differences. Given the average follow-up period for the two groups was statistically different, we explored the rearrest rates by year to determine if any differences existed. Table 3 indicates that there are significant differences between rate of arrest by year between the drug court and

[2] These differences are statistically significant.

Table 3. Frequency and percentage distribution of Ada County Drug Court participants' and comparison group members outcome information

Characteristic	Drug Court N	Drug Court %	Comparison N	Comparison %
Rearrested for a New Offense				
Yes	93	38.0	98	62.8
No	152	62.0	58	37.2
$X^2 = 23.671$; p = .000				
Rearrest Charge (of those rearrested)				
Drug Related	43	45.7	64	65.3
Trafficking	2	2.1	1	1.0
Theft	18	19.1	11	11.2
Violent	4	4.3	4	4.1
Probation Violation	14	14.9	11	11.2
Other	13	13.8	7	7.1
$X^2 = 7.44$; p= .006				
Level of Initial Rearrest				
Felony	70	74.5	79	80.6
Misdemeanor	24	25.5	19	19.4
Arrested Multiple Times				
Yes	42	21.6	61	51.3
No	152	78.4	58	48.7
$X^2 = 29.29$; p= .000				
Number of Times Rearrested				
One	52	55.3	37	37.8
Two	22	23.4	31	31.6
Three	11	11.7	17	17.3
Four	9	9.6	13	13.3
Mean	1.8		2.2	
Average Follow-up period (in days)	851.43		660.48	
F= 20.94; p=.000				
Arrest Rates by Year				
Year 1	18	19.4	22	24.4
Year 2	12	12.8	24	26.7
Year 3	20	21.5	21	23.3
Year 4	39	41.9	23	25.6
Year 5	4	4.3	0	0.0
$X^2 = 12.508$; p= .014				

Figure 1



comparison groups. It appears that more drug court group members (42%) were arrested in year four of the follow up period in contrast to comparison group members (26%). In fact, it appears the arrest rate peaks at year four for the drug court group whereas the rate of arrest by year is fairly consistent among comparison group members[3].

Predictors. In an effort to identify factors associated with recidivism, a logistic regression analysis was conducted. As mentioned, logistic regression estimates the probability of an event occurring (e.g., an arrest) while taking into consideration the impact of the independent variables (e.g., social demographics, prior record, etc). The factors included in the model were group, gender, race, marital status, employment, grade, prior record, and time at risk[4]. Time at risk was included to control for the differing lengths of time each client was followed. Table 4 illustrates that four of the variables were significantly related to arrest: group, gender, employment, and time at

[3] Additional data is required to explain why this result may be occurring.

[4] Due to missing data drug use severity was excluded from the model

risk. It appears that those in the comparison group were more likely to be arrested; this was similar to what was found in the bivariate analysis. Moreover, males were more likely than females to be arrested as were those individuals who report being unemployed. Finally, those at risk longer were also more likely to be arrested.

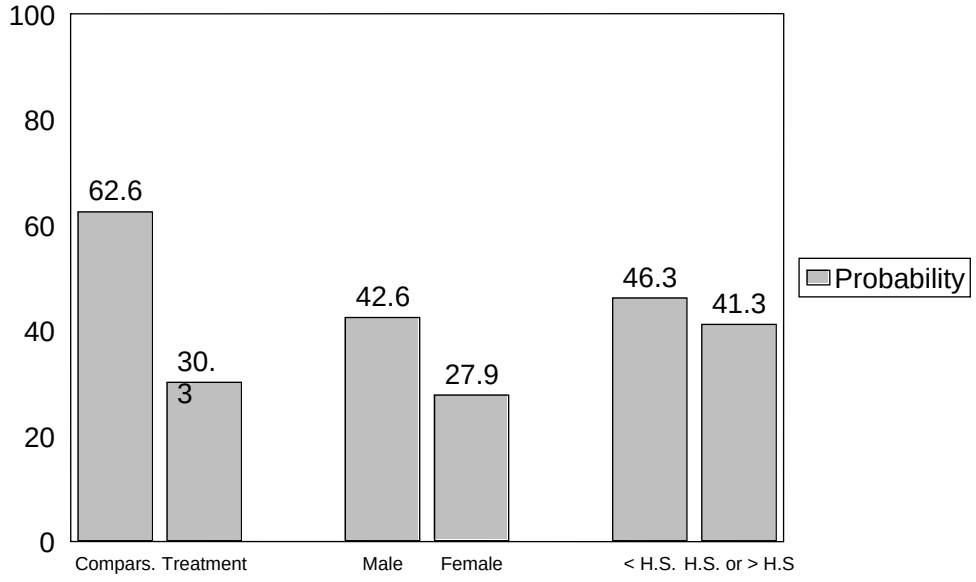
In order to examine the results in more detail, the four variables predictive of rearrest were translated into log-odds ratios to simple odds. This translation takes the results of the regression equation and turns them into probabilities that estimate failure rates for each of the significant factors. Figures 2 and 3 present the estimated probabilities and delineate the percentage with which each factor has in predicting arrest. Comparison group members, men, those who were unemployed, and individuals who were at risk longer have a higher probability of being arrested for a new offense.

Table 4. Logistical Regression Predicting Arrest: Drug Court versus Comparison Group

Variable	B	S.E.	Wald	df	Significance
Group	-1.344	.370	13.179	1	.000*
Gender	.650	.256	6.452	1	.011*
Race	.840	1.002	.704	1	.401
Marital Status	-.311	.293	1.127	1	.288
Education	-.122	.288	.179	1	.672
Employment	-1.320	.266	24.675	1	.000*
Prior Record	-.526	.440	1.428	1	.232
Time to arrest	.001	.000	9.366	1	.002*

Figure 2

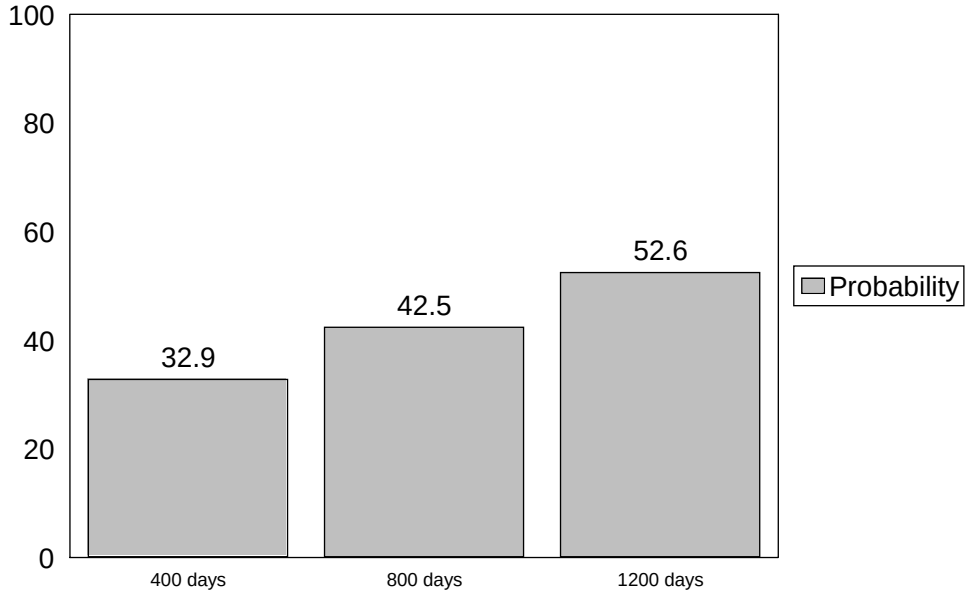
Probabilities associated with significant predictors of arrest



Note: Probabilities were calculated from significant logit coefficients

Figure 3

Probabilities associated with significant predictors of arrest



Note: Probabilities were calculated from significant logit coefficients

Graduates. At the time of this evaluation, the Ada County Drug Court had graduated 91 participants. Like Kootenai County, we also explored the recidivism rates among these graduates and compared them to those who were unsuccessfully discharged (nongraduates) and comparison group members. On average, these individuals were followed for 1084 days, 1003 days, and 660 days respectively. On average, graduates were followed for 502 days (approximately 1 year and 4 months) post-graduation. The results are presented in Table 5. Of the 91 graduates, 17 (19%) were arrested during the follow up period. This is in contrast to the arrest rate of 77 percent for non-graduates and 63 percent of comparison group members. The results are displayed is Figure 4. Of those arrested, slightly more comparison group members were arrested for a drug related charge (65%) in contrast to the graduates (47%) and non-graduates (44%).

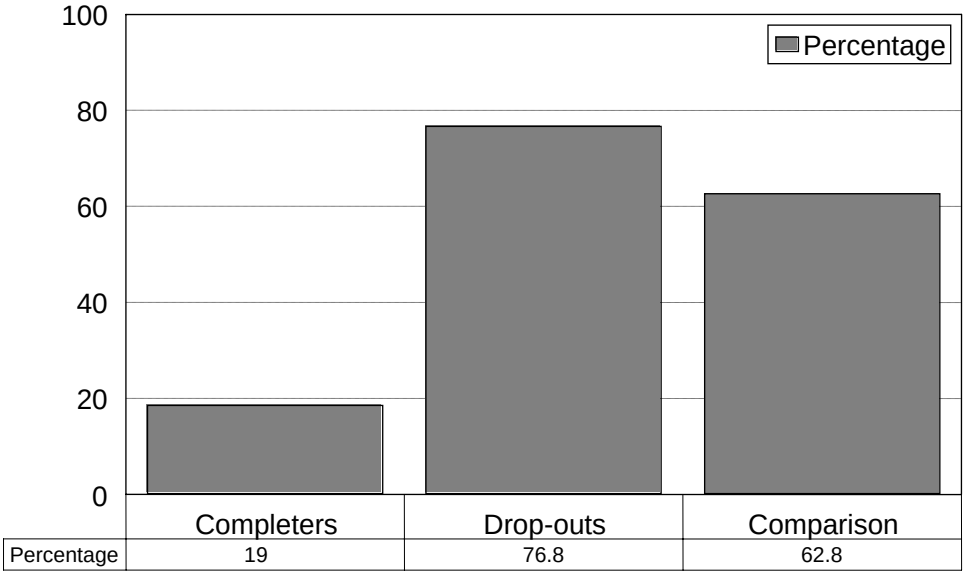
Significant differences also emerged when we explored whether offenders were charged with a felony or a misdemeanor. Specifically, 29 percent of the graduates were arrested for a felony in comparison to 85 percent of the non-graduates and 81 percent of the comparison group members. We also explored whether those who were arrested were arrested on multiple occasions during the follow up period. The results indicate that 41 percent of the graduates group, 53 percent of the non-graduates, and 62 percent of the comparison group members were arrested on multiple occasions during the follow-up period.

Table 5. Frequency and percentage distribution of Ada County Drug Court graduates, non-graduates, and comparison group members outcome information

Characteristic	Graduates N	Graduates %	Non-Graduates N	Non-Graduates %	Comparison N	Comparison %
Rearrested for a New Offense						
Yes	17	18.7	53	76.8	98	62.8
No	74	81.3	16	23.2	58	37.2
$X^2 = 64.79$; p= .000						
Rearrest Charge (of those rearrested)						
Drug Related	8	47.1	24	44.4	64	65.3
Trafficking	0	0.0	1	1.9	1	1.0
Theft	3	17.6	11	20.4	11	11.2
Violent	2	11.8	2	3.7	4	4.1
Probation Violation	2	11.8	9	16.7	11	11.2
Other	2	11.8	7	13.0	7	7.1
$X^2 = 6.90$; p= .032						
Level of Initial Rearrest						
Felony	5	29.4	46	85.2	79	80.6
Misdemeanor	12	70.6	8	14.8	19	19.4
$X^2 = 24.44$; p= .000						
Arrested Multiple Times						
Yes	7	41.2	28	52.8	61	62.2
No	10	58.8	25	47.2	37	37.7
$X^2 = 49.95$; p= .000						
Mean Number of Times Arrested	1.88		2.01		2.17	
Avg. Follow-up Period (in days)	1084.16		1003.28		660.49	
F = 46.17; p= .000						

Figure 4

Arrest Rates by Group



Differences are statistically significant

Summary

The following can be summarized from the above findings.

What are the characteristics of the offenders served by the drug court?

- The majority of both groups were Caucasian, male, and not married.
- The average age of the drug court participant in this study was 30 years old.
- The drug court participants at intake were more likely to report some degree of post-high school education. Forty-seven percent of the drug court participants reported being unemployed, however, the remaining 53 percent report having a part or full time job. This was significantly different from the comparison group members who were more likely to report full time employment.
- With regard to prior record, significant differences emerged. Although the majority in both groups had a prior record and a prior record involving drugs at intake, drug court participants were more likely to report a prior record.

How do drug court participants look on various indicators of drug use?

- With regard to drug court participant's primary drug of choice, the majority cite methamphetamine use. They also report that they began using drugs between ages 14 and 18, and 78 percent report they use drugs daily.

Does participation in the drug court affect the likelihood that an individual will recidivate?

- At the time of this study, 56 individuals were still enrolled in the program, 91 had graduated, and were 71 discharged.

- With regard to arrest, a statistically significant difference emerged with 38 percent of the drug court participants arrested for at least one offense during the followed up period in contrast to 63 percent of the comparison group members.

- In terms of charge, a statistically significant difference emerged between the two groups. Overall, the comparison group members (65%) were more likely to be arrested for a drug related charge than the drug court participants (46%). The majority in both groups, however, were arrested for felony offense

- The analysis also explored whether participants were arrested multiple times. We find a significant difference here as only 22 percent of the drug court group was rearrested more than once versus 51 percent of the comparison group. Related, arrest rates by year did differ significantly between the two groups. Significantly more individuals in the drug court group were arrested in contrast to the comparison group.

What factors predict the likelihood of success/failure?

- In an effort to identify factors associated with recidivism, a logistic regression analysis was conducted. The results indicated that four variables were significantly related to recidivism: group membership, gender, employment, and time at risk. That is those individuals in the comparison group, those that are male, those that are unemployed, and those at risk longer were more likely to be rearrested.

What are the outcomes of those who complete the drug court program?

- Among graduates, only 17 (19%) were rearrested during their post-graduation follow-up period. However, 77 percent of non-graduates and 63 percent of comparison group members were rearrested during the follow-up period. Comparison group members were also more likely to be arrested for a drug charge (65%) when compared to the graduates (47%) and non-graduates (44%). Graduates were statistically less likely to be arrested for a felony in comparison to the other groups. Finally, graduates were less likely to be arrested multiple times during the follow-up period.

Conclusions

This report summarizes the outcome findings from both the Kootenai and Ada County Drug Courts. Both courts serve similar target populations. Methamphetamines are synthetic drugs that have a high potential for abuse and dependence. With many newspaper reports and media stories calling methamphetamine use a national crisis, it is increasingly important to find effective strategies to combat this problem. Without assessment results, we are unable to accurately estimate the exact nature and extent of the addiction or dependence of either court's target population. However, it is promising to see Ada County having a significant treatment effect with this population.

The effectiveness of the drug court model across the country is somewhat mixed. While many studies have found lower recidivism and substance abusing rates among participants, especially among graduates, other studies are less promising. In this study the findings are relatively positive across both courts. Both courts can be seen as having an impact with their intended populations. While the effect was significantly greater for the Ada County Drug Court, participants from both courts had lower recidivism rates in contrast to comparison group members. More research and data is needed to explain the effects.

For both courts, it appears that graduates are a highly successful group. This is in line with the current research that finds that graduates fare better than comparison group members (Peters, Haas, and Murrin 1999). In both courts we found the arrest rates among graduates to be quite low, especially in comparison to the non-graduates or those unsuccessfully discharged from the program. We can speculate based on this finding that those individuals who receive the full "dosage" of treatment and finish the program are

impacted, at least in terms of future criminal behavior. Given this finding, both of the courts should make strides to increase retention in the program.

Both courts should consider the results of the regression analysis as they continually revise and implement treatment and supervision plans. Both courts have higher recidivism rates among males. More detailed assessment information on the men that are likely to fail would allow us to more accurately assess the relationship between gender and outcome. Employment was a key consideration in Ada County. Those who were unemployed were more likely to fail. The court should continue to develop employment opportunities for the offenders under supervision.

There are several limitations to this study that are worth noting. Sample sizes among the comparison group members should increase. This was especially relevant for the Ada County sample. Adequate sampling of those individuals who did not receive drug court services is essential in answering whether participation in the drug court is having an impact on recidivism. The samples collected should be similar in make-up (e.g., demographics, drug use severity, etc) and should be followed for similar time periods. Related to this, the length of follow-up for the groups should increase. A follow-up period lasting at least three years (post-graduation) would allow for not only a more accurate assessment of the court's effectiveness with participants, but also among graduates of the program.

More comprehensive measures detailing both groups are needed. The lack of data on comparison group members hindered the evaluation's ability to determine their comparability on drug use and severity. Standardized assessment data such as the Level of Service Inventory-Revised would allow us to control for differences between the groups. These groups are different on a number of factors (e.g., martial status, education,

etc.). While placing these variables in a regression model theoretically "controls" for those differences, assessment data would give us a measure of risk and drug severity that would allow us to claim with more certainty that the effect was due to the drug court and not individual differences.

In addition, the lack of process data available among drug court participants hinders our ability to determine which part of the drug court is most successful. We were unable to assess what happened while the participant was engaged in treatment. Again, it is difficult to determine why certain individuals fail or succeed without detailed data describing how the individual fared while in the program (e.g., program attendance, group participation, etc).

Finally, random assignment to the groups was not used in either of the courts. It is recognized that random assignment is often not a feasible option, however, in its absence careful consideration must be given to the selection of comparison group members. The groups should be similar on factors such as demographics, criminal history, severity of their addiction, and motivation for treatment. If the comparison group is not closely matched to the drug court group we can not conclude that differences in outcome are not due to differences in factors other than the drug court treatment such as background factors or drug use severity.

Evaluation Recommendations

The following recommendations serve as important considerations given the evaluation findings.

- In order to assess the impact of the drug court model statewide, more detailed evaluation information should be collected. This would include social demographics, prior record, offense information, court process data, assessment results, substance use and severity, supervision and treatment activities, drug testing results, and outcome information. All of this information is contained in

the ISTARS system offered to each court across the state. As much information as possible should be collected on both participant's and comparison group members. Important questions such as: of those who did not graduate, when did they drop out of the program, what was their level of satisfaction with the services, what services did they receive and at what intensity were not able to be answered with the existing data provided for this evaluation. These factors would allow for a better overall assessment of how the court operates and why the courts are successful with some and not others. This information would allow each court to adjust their policies and possibly their target population to increase their overall impact on the community and their effectiveness.

- The facilitation of a statewide process and outcome evaluation will require the cooperation among a great number of individuals. Drug courts will be required to submit data for the evaluation and provide narratives detailing the development, implementation, and operations of their court. In addition, the selection of an adequate comparison group will be essential in answering the question of whether drug courts "work" in Idaho.

Programmatic Recommendations

- Leadership and collaboration are important components of the drug court model. Court should continually develop ties within the community to increase resources and support. Court should be cognizant of political disputes and strive to increase support from the judiciary, probation department, police department and program directors throughout the community. This may be conducted through holding meetings or public workshops to describe the model and its objectives as well as providing periodic updates on graduates of the programs. In addition, the team should schedule team building retreats and hold regular meeting with stakeholders.

- The LSI is now being used among drug courts across the state. This information should be used not only to ascertain the needs of each participant but also in treatment planning. Treatment intensity, or dosage should be clearly matched to the offender's level of risk as measured by standardized assessment instruments. Higher risk offenders should receive more intense levels of treatment. In addition to varying degrees of substance abuse problems, offenders will have varying degrees of other risk factors (e.g., antisocial values, antisocial peer associations) that should also be considered when determining the intensity and duration of the program.

- Drug courts should develop quality assurance mechanisms to ensure that the providers are offering high quality services. The majority of the program activities, groups, and services should be directed toward reducing criminogenic needs and risk factors. While substance abuse does provide the starting point for treatment, the courts should also ensure that the providers are using effective models to address other problems as well. The providers should adopt an effective treatment model across the entire program. Cognitive-behavioral

approaches are very structured and emphasize the importance of modeling and behavioral rehearsal techniques that engender self-efficacy, challenging cognitive distortions, and assist clients in developing good problem solving and self control skills. These strategies have been demonstrated to be effective in reducing recidivism. All treatment staff and the drug court team should be trained on a cognitive behavioral model. This will increase the consistency of treatment, and will facilitate application of behavioral strategies throughout their treatment.