

The Akron Municipal Drug Court: Outcome Evaluation Findings

July 2001

By:

Shelley Johnson Listwan, M.S.
Co-Project Director

Deborah Koetzle Shaffer, M.A.
Co-Project Director

and

Edward J. Latessa, Ph.D.
Principal Investigator

Center for Criminal Justice Research
PO Box 210389
University of Cincinnati
Cincinnati, OH 45221-0389

This research was made possible with a grant from the Supreme Court of Ohio. Views expressed are those of the authors and do not necessarily reflect the views of the Supreme Court.

Table of Contents

Topic	Page
Acknowledgements	3
Introduction	4
Site Description	5
Methods	6
Design	6
Sample	6
Data Collection	8
Analysis	8
Limitations	8
Profile	9
Social Demographics	9
Offense and Disposition	11
Prior Criminal History	14
Drug and Alcohol Abuse History	16
Treatment Considerations	20
Treatment Needs	21
Treatment Retention Rates	24
In-Program Behavior and Perceptions	28
Court Reported Violations	28
Participant Satisfaction	30
Subsequent Criminal Behavior (Recidivism Rates)	41
Termination Information	41
Rearrest Rates	44
Determinants of Rearrest	44
Summary and Conclusions	49
Recommendations	51
References	54
Appendix	55

Acknowledgements

This report would not have been possible without the cooperation and support of a number of individuals. We would like to thank everyone involved in the project for their time and effort. In particular, we would like to thank the following:

Supreme Court of Ohio:

Meghan Wheeler, Melissa Knopp, and Chief Justice Moyer.

Akron Municipal Drug Court:

Judge Eleanor Stormer, Lisa Gearhardt, Mark Lombardi, and Bob Henderson.

University of Cincinnati:

Alexander Holsinger, Christopher Lowenkamp, Heather Benac, Luahna Winnigham, and J.W. Carter.

INTRODUCTION

Drug use and related crime remains as a consistent priority among policymakers, however, the treatment of drug abusing offenders has recently changed. The shift toward rehabilitative efforts came in the 1980s with the development of the drug court model. The typical drug court model provides community-based drug treatment and increased judicial involvement. Since 1989 with the inception of the first drug court in Miami Florida, over 360 courts have emerged and approximately 220 more are in the planning process (National Association of Drug Court Professionals, 2000). Currently, drug courts exist in every state in the nation and have served over 14,000 individuals. The U.S. Department of Justice also placed a high priority on drug courts; since 1995, the Drug Courts Programs Office provided \$56 million in funding for development and research (Belenko, 1998). Given the degree of support and fiscal commitment, the implementation of these specialized courts will likely increase.

Recognizing the need to evaluate the efficacy of the drug court model, the Supreme Court of Ohio contracted with the University of Cincinnati's Center for Criminal Justice to develop an outcome evaluation model and data collection process. The long-term objective of the Supreme Court is to utilize the evaluation model and data collection process to engage in on-going evaluations of Ohio's drug court programs. Currently, there are approximately 34 operating drug courts in Ohio. This report represents the outcome results from the adult drug court in Summit County, Ohio.

EVALUATING DRUG COURTS

As with any program evaluation, assessing the operations and impacts of a drug court program is a complex process. Each drug court is 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 vary across sites. The statewide evaluation system was designed to handle differences between the courts while also producing summary information about drug courts in general.

A drug court program can be viewed as a process designed to produce specific impacts, much like a manufacturing operations. The program has inputs (offenders and offenses, staff, resources), throughput (procedures, treatments, sanctions), and outputs (changes in recidivism and substance abuse). The drug court evaluation required the measurement of each component. 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. The outcome evaluation is designed to compare the drug court products (recidivism rates, relapse, severity of addiction) with similar measures for cases that did not participate in the drug court program. Ideally, the evaluation would enable us to attribute any observed differences to the drug court.

SITE DESCRIPTION

This report contains data from an outcome evaluation conducted on the Akron Municipal Drug Court. The evaluation compared those who participated in the drug court with those designated as comparison cases to determine whether participation in the drug court was associated with differences in outcome. The Akron Municipal Drug Court, located in Akron Ohio, began in June 1995. The target population includes felony level four and five offenders who have been charged with drug abuse, possession, or

complicity. Such charges are amended to a level one misdemeanor attempted drug abuse charge. Referrals to the program come from pretrial services in the common pleas court. Eligibility screening is conducted through several agencies including the narcotics unit, the prosecutor, police, judges, and the Oriana House¹ caseworker. Once deemed eligible, the treatment provider assesses potential participants on alcohol and drug dependency. The Substance Abuse Subtle Screening Inventory (SASSI) is used to assess substance use and Level of Service Inventory-Revised (LSI-R) is used to assess the risk and need levels of drug court participants.

METHODS

Research Design

This project used a quasi-experimental matched comparison group design in order to estimate the impact of the drug court on future criminal involvement. Random assignment to groups was not feasible; however, groups were matched with regard to selected demographic characteristics as well as the presence of a substance abuse problem. The criteria for inclusion in the comparison group were that each participant must have (1) a reported substance abuse problem, and (2) be eligible for the drug court program. The sample includes cases screened for the program during the time between November 1997 and April 2000.

Treatment Group

Individuals who are eligible and willing to participate in court mandated drug treatment were required to attend status review hearings, submit to random drug screens, and attend four phases of chemical dependency treatment. The first phase of the drug court is considered the pre-treatment/treatment phase and lasts for two to three months.

¹ Oriana House provides treatment services to drug court participants.

Treatment services during this phase are dependent on the results of a substance abuse screening. Participants who receive “no diagnosis” enter a 10-week outpatient marijuana education group. Clients in this group meet once a week for sessions lasting one and a half hours. Participants diagnosed as chemically dependent or as chemical abusers are placed into either outpatient programming or intensive outpatient services dependent upon the severity of their drug and alcohol use. The outpatient group meets once a week for 12 weeks with each session lasting one and a half hours. The intensive outpatient group, lasting four weeks, meets four times per week for four hours each time. Also included in the first phase of the treatment program is a relapse prevention component. Individuals who experience relapse during subsequent phases of the drug court are placed back into phase one for relapse prevention. This group meets four times a week for four weeks. Similar to the intensive outpatient group, sessions are four hours each.

Upon completion of the assigned treatment, participants advance to the Aftercare Phase which lasts for 12 weeks. During this phase, participants receive treatment services for one and a half hours once each week. The third phase of the program, the Maintenance or Step-Down Phase, lasts for 26 to 36 weeks. Throughout this phase, clients participate in substance abuse treatment twice a month. The final phase of the program is the Maintained Sobriety Phase which generally lasts three months. Aside from 12-step programming, participants are not required to attend any specific substance abuse treatment. Throughout all four phases, participants are required to attend 12-step groups. Individuals receiving no diagnosis are required to attend a minimum of one meeting per week, while participants receiving a diagnosis must attend a minimum of two meetings per week. This requirement is constant throughout the program. Successful

completion of the drug court program requires completion of treatment requirements, maintained sobriety, 70% compliance with all reporting requirements, drug screens, and curfew requirements, and continued attendance at 12-step meetings.

Comparison Group

The comparison group included in the present study consisted of men and women who were eligible for drug court, but for a variety of reasons did not receive drug court services. The reasons offered include: individuals with too many pending cases against them, those denied for “other” reasons by the Narcotics Unit, Prosecutor, Police Department, or Probation Department.

Data Collection

As part of the Supreme Court project, the University of Cincinnati created an automated database to assist courts with data collection and provide a mechanism for reporting results. The database was installed at the Akron Municipal Drug Court in 1997. Akron Municipal Drug Court personnel collect and enter data into this automated system. The data collected include: basic offender demographics, offense and disposition, prior criminal history, drug use and treatment history, current treatment needs, treatment placement and outcome, court reported violations, satisfaction with the drug court and its process, and termination status of drug court participants. Recidivism data were collected in October 2000.

Analysis

This study examines the differences among the drug court and comparison group members along a variety of measures. In some circumstances data were not collected for the comparison group cases and only data from the treatment group is presented. The impact of drug court on future criminal behavior is assessed by examining recidivism

rates among both groups. Chi-square and t-tests were conducted to examine the differences between the groups, and logistic regression was used to demonstrate the probability of arrest.

RESULTS

Social demographic data were collected in an effort to describe the drug court and control groups, and to investigate whether differences in outcome were related to individual differences within the two samples. Moreover, knowing the population served by the drug court allows us to determine whether case outcomes were influenced by any of these factors. This section profiles the two groups based on basic demographic characteristics such as race, gender, age, marital status, education level, employment status, number of children, residential stability, current offense characteristics, disposition, and criminal history. This section will address the following questions:

- *What are the characteristics of the offenders served by the Akron Municipal Drug Court?*
- *What if any differences exist between drug court and control group participants with regard to demographics, current offense, disposition, and prior history factors?*

Social Demographic Information

Table 1 compares the two groups race, gender, age, marital status, education level, employment status, number of dependents, and residential stability. There are a variety of similarities and differences between the two groups. With regard to race the groups are comparable with slightly fewer African Americans (53%) in the treatment group in comparison to the control group (61%). There is a statistically significant

Table 1. Frequency and percentage distribution of participants' intake information.

Characteristics	Treatment N % (n= 334)		Control N % (n= 137)	
	Race			
White	156	46.7	52	38.0
Black	177	53.0	84	61.3
Hispanic	1	0.3	1	0.7
Gender				
Male	252	75.4	115	83.9
Female	82	24.6	22	16.1
$X^2 = 4.072; p = .004$				
Age				
18 – 22	91	27.9	13	37.1
23 – 27	49	14.7	3	8.6
28 – 32	43	12.9	4	11.4
33 – 37	56	16.8	4	11.4
38 – 42	55	16.5	6	17.1
43 & above	39	11.7	5	14.3
Mean	31.1		30.9	
Marital Status				
Married	41	12.3	17	12.8
Not Married	293	87.7	116	87.2
Highest Grade Completed				
Less than High School Graduate	115	34.5	34	54.8
High School Graduate	200	60.1	27	43.5
Post High School	18	5.4	1	1.6
$X^2 = 9.755; p = .008$				
Hours Per Week Worked				
35 hours or more a week	123	37.0	18	15.9
15- 34 hours a week	37	11.1	17	15.0
Less than 15 hours a week	10	3.0	5	4.4
Zero hours (outside home)	162	48.8	73	64.6
$X^2 = 17.41; p = .001$				
Number of Dependents Under 18				
None	161	48.2	37	56.9
One	80	24.0	12	18.5
Two or more	93	27.8	16	24.6
Number of Moves in the Last 12 Months				
None	172	51.5	11	35.5
One	118	35.3	19	61.3
Two or more	44	13.2	1	3.2
$X^2 = 8.821; p = .012$				

difference between the two groups, however, with regard to gender; there are more males and fewer females in the comparison group. The two groups are similar with regard to age and marital status. The average age for both groups was 31 and the clear majority were not married. However, differences between the two groups emerge with education and employment status. Members of the treatment group were significantly more likely to have graduated from high school (60%) in comparison to the control group members (44%). Treatment group members were more likely to work full time, although the majority in both group were unemployed. The treatment and control groups were similar with regard to number of children, with 48 percent and 57 percent reporting no dependents under the age of 18. Finally, control group members appear less stable, as significantly more individuals in the comparison group moved at least once in the last 12 months (61% versus 35%).

Offense and Disposition Information

As illustrated by Table 2, the two groups were also similar with regard to charge or offense information; however, differences emerge in how the clients are treated by the court. Specifically, both groups served similar amounts of time in jail prior to disposition (i.e., pretrial). Moreover, 95 percent of both groups were arrested on a drug or drug related crime. However, the vast majority of the drug court clients had their original charges reduced in contrast to the control group members. Further, more drug court clients were sentenced to drug court treatment and thereby considered diverted. In contrast the majority of control group members were sentenced to community supervision or secure placement.

Table 2. Frequency and percentages of participants' offense & disposition information.

Characteristics	Treatment		Control	
	N	%	N	%
	(n= 334)		(n= 137)	
Number of Pre-trial Days Served				
None	10	3.0	0	0.0
1-5	245	73.4	95	91.3
6-10	40	12.0	4	3.8
11-15	16	4.8	3	2.9
16 or more	23	6.9	2	1.9
Current Charge:				
Drug	317	94.9	130	94.9
Property	3	0.9	0	0.0
System Violation	14	4.2	7	5.1
Charges Reduced				
Yes	331	99.1	7	5.1
No	3	0.9	129	94.9
$X^2 = 42.41; p = .000$				
Legal Status				
Convicted/Adjudicated	324	97.0	117	91.4
Treatment In Lieu	10	3.0	5	3.9
Preconviction/Adjudication	0	0.0	6	4.7
Sentence for Current Charge				
Community Supervision	12	3.6	93	75.6
Secure Placement	0	0.0	27	22.0
Residential	0	0.0	2	1.6
Diversion	332	96.4	1	0.8
$X^2 = 39.781; p = .000$				
Disposition Drug Treatment				
Yes	327	98.2	99	80.5
No	6	1.8	24	19.5
$X^2 = 45.839; p = .000$				
Disposition Intensive Supervision				
Yes	334	100.0	9	7.3
No	0	0.0	115	92.7
$X^2 = 413.6; p = .000$				

Table 2. Frequency and percentages of participants' offense & disposition information, continued.

Characteristics	Treatment N % (n= 334)		Control N % (n= 137)	
	Disposition Drug Testing			
Yes	333	99.7	100	80.6
No	1	0.3	24	19.4
$X^2 = 63.63; p = .000$				
Disposition Court Cost and Fines				
Yes	334	100.0	107	86.3
No	0	0.0	17	13.7
$X^2 = 47.55; p = .000$				
Disposition License Suspension				
Yes	11	3.3	61	48.8
No	323	96.7	64	51.2
$X^2 = 142.42; p = .000$				
Disposition Fees				
Yes	12	3.6	90	73.2
No	322	96.4	33	26.8
$X^2 = 251.01; p = .000$				
Disposition Work Detail				
Yes	0	0.0	24	19.4
No	334	100.0	100	80.6
$X^2 = 68.22; p = .000$				
Disposition Electronic Monitoring				
Yes	6	1.8	3	2.4
No	328	98.2	121	97.6
Disposition Community Service				
Yes	3	0.9	11	8.9
No	330	99.1	113	91.1
Disposition Restitution				
Yes	1	0.3	2	1.6
No	332	99.7	122	98.4

Table 2 also illustrates the various sanctions utilized by the judge in sentencing. Specifically, drug court clients were likely to be given terms of ISP, drug court sponsored treatment, drug testing and were required to pay court costs and fines. A few clients were also given license suspensions, fees, work detail, electronic monitoring, community service and restitution. In contrast the comparison group members were likely to receive court costs and fines, fees, license, drug testing, work detail, and unspecified drug treatment. Similarly, a few clients were sentenced to community service, intensive supervision, electronic monitoring, and restitution.

Prior Criminal History

Table 3 illustrates the number of prior arrests among the drug court and control group members. Overall, it appears that 78 percent of the drug court group and 70 percent of the control group had a prior record. Significant differences emerge when comparing both prior felony and misdemeanor arrests. The control group members were more likely to have multiple felony arrests with a mean of 1.05 in comparison to .33 among drug court clients. Similarly, although a majority of the drug court clients have a history of misdemeanor arrests, the control group members were significantly more likely to be arrested more often; with an average number of arrests of 11 in comparison to the treatment groups' average of four. Finally, the majority in both group did not have a prior delinquent arrests.

The two groups are also very similar with regard to sentences to prior community supervision, unsuccessful terminations, or evidence of gang membership. Specifically, as reported by the staff at Oriana House, the majority were not sentenced to prior

Table 3. Frequency and percentages of participants' prior criminal history and risk information.

Characteristics	Treatment N % (n= 334)		Control N % (n= 137)	
	Prior Record (Adult or Juvenile)			
Yes	259	77.5	91	69.5
No	75	22.5	40	30.5
Number of Prior Felony Arrests				
None	255	76.3	86	66.2
1	56	16.8	25	19.2
2 or more	23	6.9	19	14.6
Mean		.33		1.05
F = 8.357; p = .004				
Number of Prior Misdemeanor Arrests				
None	103	30.8	40	32.3
1-5	139	41.6	24	19.4
6-10	51	15.3	21	16.9
11-15	27	8.1	8	6.5
16 or more	14	4.2	31	25.0
Mean		4.40		10.79
F = 36.969; p = .000				
Number of Prior Delinquent Arrests				
None	288	86.2	102	93.6
1	23	6.9	3	2.8
2 or more	23	6.9	4	3.7
Number of Prior Sentences to Community Supervision				
None	241	72.2	65	69.9
1	71	21.3	21	22.6
2	17	5.1	5	5.4
3 or more	5	1.5	2	2.2
Unsuccessful Terminations				
None	275	82.3	82	92.1
1	40	12.0	5	5.6
2	16	4.8	1	1.1
3 or more	3	0.9	1	1.1
Evidence of Gang Membership				
Yes	7	2.2	1	1.4
No	307	97.8	72	98.6

community supervision, have not been terminated as unsuccessful while under supervision, nor report any involvement with gangs.

Drug & Alcohol Abuse History²

Drug court participants are typically assessed with both the LSI-R and the SASSI. As indicated in Table 4, 96 percent of the treatment group were assessed with the SASSI and 80 percent assessed with the LSI-R. The LSI-R risk and need classification was collapsed into five risk categories³. As illustrated by Figure 1, the majority would be considered moderate to low risk.

Drug court participants were asked a variety of questions related to their drug and alcohol use. Table 4 illustrates that the participants' primary drug of choice was crack/cocaine, marijuana, and alcohol. The same trend continues for the second drug of choice, however, more individuals in the treatment group cited alcohol first followed by marijuana and then crack/cocaine. The same three drugs are again listed as important in the third drug of choice. A small percentage also mentioned a preference for narcotics, stimulants, and hallucinogens.

Participants also provided the age at which they began using drugs and alcohol and the current frequency of use. Capturing the frequency of the current use is a proxy for the severity of the clients' drug use problem. The average age of first alcohol use was 13 for the treatment group and the majority indicated they used alcohol less than once a week, however, 37 percent used alcohol at least once a week. The typical drug court client began using drugs around the age of 14. Moreover, nearly 41 percent used drugs on a daily basis and 34 percent at least once a week.

² Comparison group data were not available.

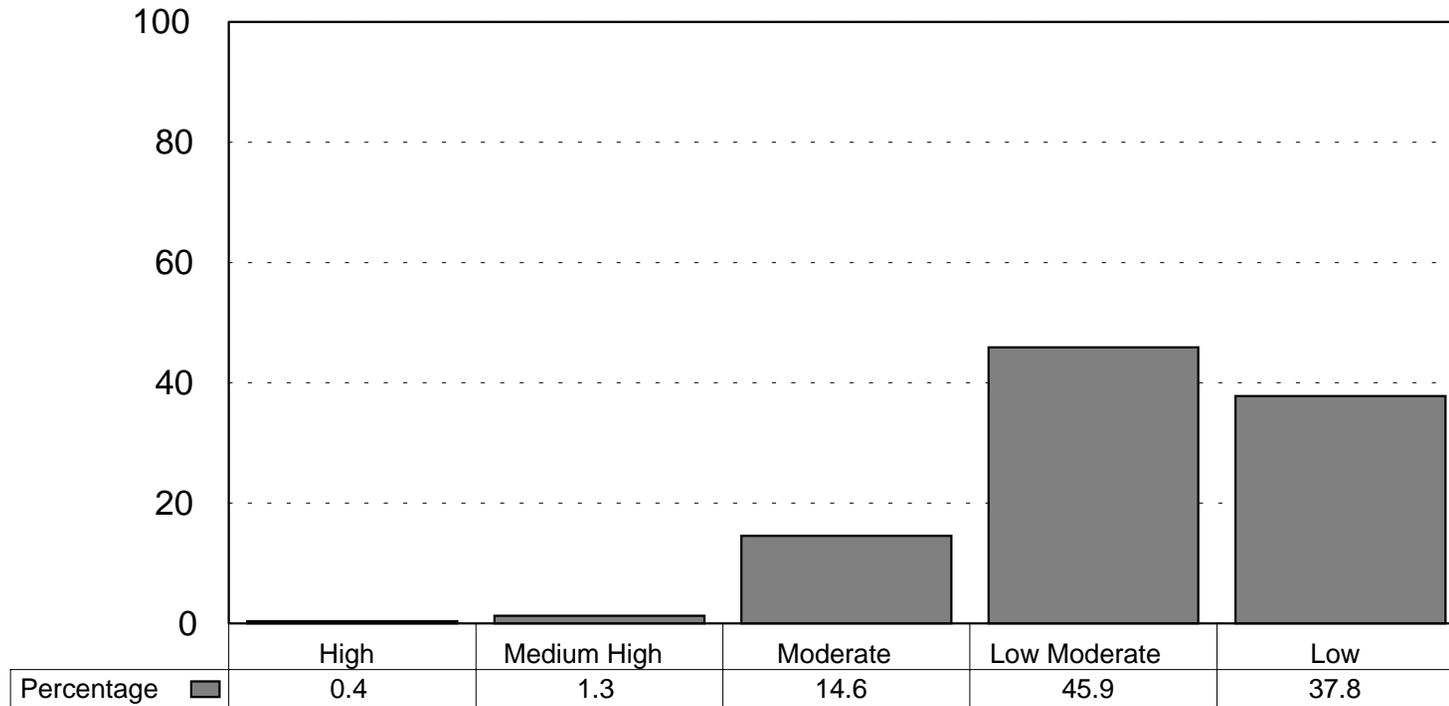
³ Risk categories are based on norms established with a sample of probationers in Canada.

Table 4. Frequency and percentage distribution of participants' substances use severity

Characteristics	Treatment	
	N	%
(n= 334)		
Was offender assessed with risk/need instrument		
Yes	247	79.9
No	62	20.1
Risk/Need Classification		
High	1	0.4
Medium High	3	1.3
Moderate	34	14.6
Low Moderate	107	45.9
Low	88	37.8
Did Offender Receive Drug Assessment		
Yes	305	96.2
No	12	3.8
Primary Drug of Choice		
Alcohol	73	23.3
Marijuana	107	34.2
Crack/Cocaine	121	38.7
Narcotics	8	2.6
Stimulants	4	1.3
Second Drug of Choice		
Alcohol	113	41.4
Marijuana	86	31.5
Crack/Cocaine	72	26.4
Narcotics	1	0.4
Hallucinogens	1	0.4
Third Drug of Choice		
Alcohol	75	37.3
Marijuana	66	32.8
Crack/Cocaine	50	24.9
Narcotics	4	2.2
Stimulants	5	2.5
Hallucinogens	1	0.5

Figure 1

LSI Risk Level



Data only available among drug court participants

Table 4. Frequency and percentage distribution of participants' substance use severity, continued.

Characteristics	Treatment	
	N	%
(n= 334)		
Age of First Alcohol Use		
Under 10	14	4.6
10 – 13	55	18.0
14 – 17	147	48.2
18 – 22	83	27.2
23 – 27	4	1.3
Over 28	2	0.7
Mean	12.43	
Frequency of Alcohol Use		
Daily	44	14.3
Once a week	114	37.1
Less than once a week	149	48.5
Age of First Drug Use		
Under 10	6	2.0
10 – 13	41	13.5
14 – 17	129	42.6
18 – 22	91	30.0
23 – 27	16	5.3
Over 28	20	6.6
Mean	14.0	
Frequency of Drug Use		
Daily	126	41.0
Once a week	104	33.9
Less than a week	77	25.1
Family Have Chemical Dependency Problem		
Yes	104	33.9
No	203	66.1
Has Offender Had Previous Drug Treatment		
Yes	124	39.6
No	189	60.4
Is Offender Dual Diagnosed with Drug/Mental		
Yes	28	8.9
No	286	91.1

Finally, clients were asked whether family members had chemical dependency issues, whether they previously engaged in drug treatment, or whether they received a dual diagnosis of drug dependency and mental illness. As indicated in Table 4, 34 percent report that at least one family member had a chemical dependency problem. The vast majority (60%) had not engaged in prior drug treatment. And finally, only a very small percentage (9%) received a dual diagnosis. In sum, while the two groups are similar on a variety of indicators, subsequent analyses will delineate whether any of the differences between the groups are related to the likelihood of arrest.

Treatment Considerations

Drug courts that are able to identify and target various needs other than substance abuse increase the likelihood of reducing recidivism among their clients. In addition, outcome evaluations are enhanced when the researcher is able to determine what happened to the client while under supervision. This may include documenting whether a participant moved to different phases based on progress and the outcome of treatment. Throughput data allow us to document the drug court treatment and determine how differences in treatment are related to differences in case outcome. The purpose of this section is to identify treatment needs, services rendered, and retention rates. The specific questions addressed were:

- *What were the treatment needs presented by drug court participants?*
- *What services referrals were made for participants?*
- *What were the treatment retention rates among participants as they proceeded through the treatment program?*

Treatment Needs

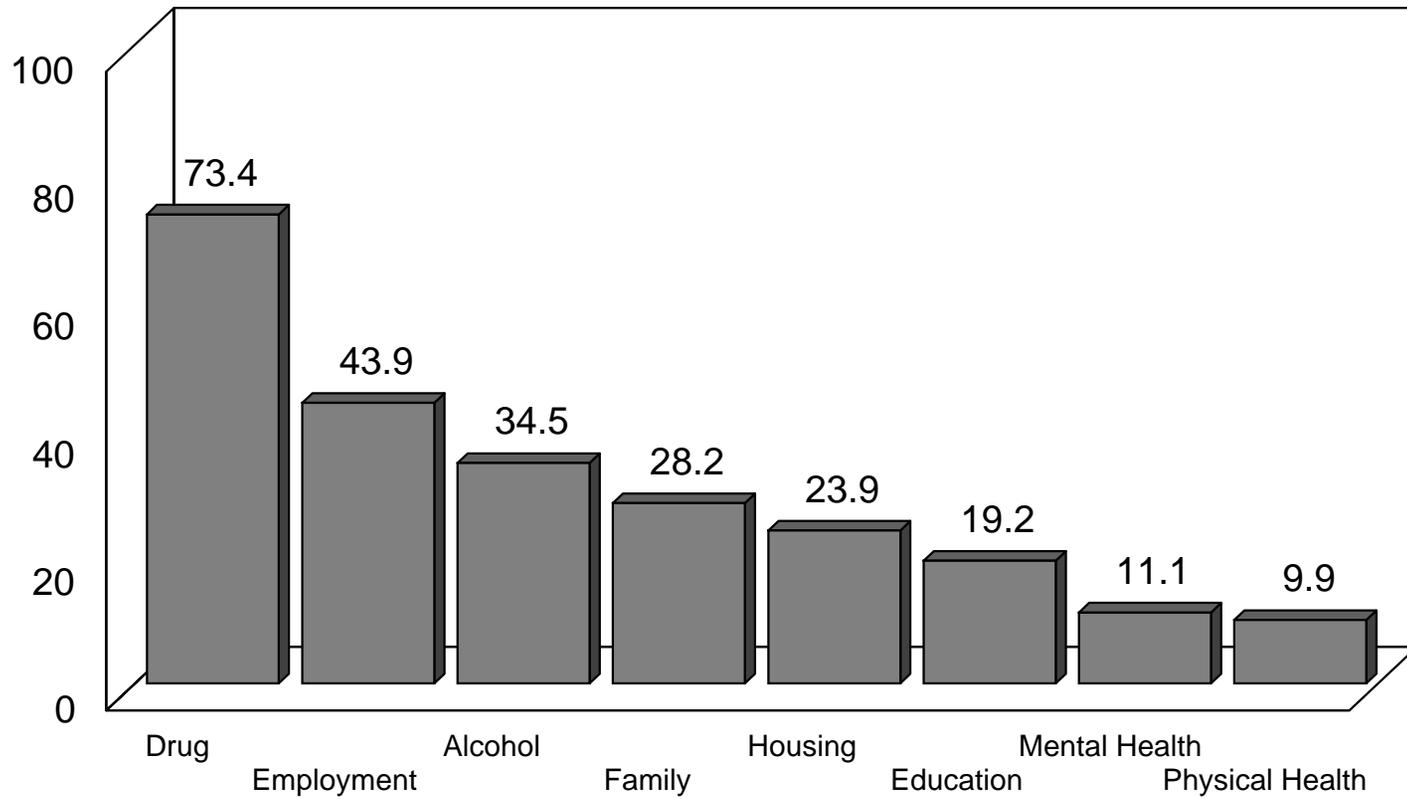
Logically, drug-abusing offenders have drug and alcohol problems, however, they often have other needs in the areas of housing, mental and physical health, family circumstances, employment, and education. Each drug court participant was asked to provide information relevant to each of these areas and the interviewer rated whether the problem was chronic, frequent, situational, or non-existent. Figure 2 lists the areas of need in order of most severe or chronic to least. Table 5 delineates the areas of need among drug court participants⁴. As expected, a clear majority, 74 percent, reported a drug problem that was either chronic or frequent in nature⁵. Moreover, 34 percent of the sample indicated that their alcohol problem could be considered chronic or frequent, whereas another 40 percent viewed their alcohol problem as at least situational. Nearly half of the drug court participants felt they had significant problems in the area of employment. Family was also an area of concern expressed by participants as 28 percent felt it was a chronic or frequent problem and 34 at least an occasional need. Of those who consider housing an important need, 24 percent felt it was a chronic or frequent problem that should be addressed through services. The majority, 60 percent, did not feel that education was an area of great concern. Finally, mental and physical health were not areas of great concern for most of the participants as it was reported as not a problem among 76 and 78 percent respectively.

⁴ Data on comparison group members were not available.

⁵ The court does accept clients into drug court that have no diagnosis of drug dependency.

Figure 2

Percent Exhibiting Various Treatment Needs



Combination of chronic and frequent categories

Table 5. Frequency and percentage distribution of participants' treatment needs.

Characteristics	Treatment	
	N	%
Treatment Needs:		
Drug Abuse		
Chronic, Severe disruption	149	48.2
Frequent disruption	78	25.2
Situational/Occasional problems	65	21.0
No disruption of functioning	17	5.5
Alcohol Abuse		
Chronic, Severe disruption	39	12.7
Frequent disruption	67	21.8
Situational/Occasional problems	124	40.4
No disruption of functioning	77	25.1
Employment		
Chronic, Severe disruption	56	18.2
Frequent disruption	79	25.7
Situational/Occasional problems	79	25.7
No disruption of functioning	93	30.3
Family		
Chronic, Severe disruption	25	8.3
Frequent disruption	60	19.9
Situational/Occasional problems	104	34.4
No disruption of functioning	113	37.4
Housing		
Chronic, Severe disruption	37	12.1
Frequent disruption	36	11.8
Situational/Occasional problems	67	22.0
No disruption of functioning	165	54.1
Education		
Chronic, Severe Disruption	21	6.8
Frequent disruption	38	12.4
Situational/Occasional problems	54	17.6
No disruption of functioning	194	63.2
Mental Health		
Chronic, Severe disruption	12	3.9
Frequent disruption	22	7.2
Situational/Occasional problems	39	12.7
No disruption of functioning	233	76.1
Physical Health		
Chronic, Severe disruption	10	3.3
Frequent disruption	20	6.6
Situational/Occasional problems	37	12.1
No disruption of functioning	238	78.0

Services Referred

The court was also asked to track the treatment or service referrals made for each participant. As indicated by Table 6, 95 percent were referred to substance abuse treatment, 25 percent to employment, 22 percent to education, 11 percent to housing, 8 percent family, 5 percent to medical, and 14 percent to mental health services. While it could be argued that the drug court's primary goal is to treat substance abuse, the court could increase its effectiveness by matching services to the clients' specific needs. According to the needs identified by the clients in the previous section, it appears that the clients are not receiving services matched to their needs.

Treatment Retention Rates

The retention rate among drug courts across the nation averages 70 percent for drug court participants (Drug Court Programs Office, 1999). The data indicate that the treatment agency was able to retain a majority of its clients in treatment⁶. The court was asked to track clients through the various phases of treatment. Table 7 illustrates that 11 percent of the drug court participants began treatment in the residential phase, 24 percent in the intensive outpatient phase, and 63 percent in the outpatient phase. Of those individuals, 65 percent completed the phase. Of those who did not complete, the majority were found to be non-compliant (33%) or absconded (34%). Similarly, in the second phase of treatment 11 percent began residential, 26 percent intensive outpatient, 50 percent outpatient, and 13 percent aftercare. A full 67 percent of the group in this second phase completed treatment. Again, of those who did not complete, the majority were either non-compliant (43%) or absconded (35%). Finally, in the third phase of

⁶ Missing data due to incomplete treatment records limited treatment phase status information on some cases. This data, although informative, should be viewed with caution.

Table 6. Frequency and percentage distribution of participants' service referrals.

Characteristics	Treatment	
	N	%
Referred to Substance Abuse Treatment		
Yes	291	95.4
No	14	4.6
Referred to Employment Services		
Yes	77	25.4
No	226	74.6
Referred to Educational Services		
Yes	68	22.4
No	236	77.6
Referred to Housing Assistance		
Yes	34	11.2
No	269	88.8
Referred to Family Services		
Yes	24	7.9
No	279	92.1
Referred to Medical Services		
Yes	16	5.3
No	287	94.7
Referred to Mental Health Services		
Yes	42	14.0
No	259	86.0

Table 7. Frequency and percentage distribution of participants' treatment activity.

Characteristics	Treatment	
	N	%
First Treatment Setting		
Long Term Residential	23	8.3
Short Term Residential	9	3.2
Intensive Outpatient	67	24.1
Outpatient	176	63.3
Aftercare	3	1.1
Outcome of Placement 1		
Completed phase	188	64.8
Did not complete phase	102	35.2
Reason for Not Completing Placement		
Referred to another level of care	19	18.4
Non-compliance	34	33.0
Absconded	35	34.0
Revoked	1	1.0
Other	14	13.6
Second Treatment Setting		
Long Term Residential	9	3.8
Short Term Residential	16	6.7
Intensive Outpatient	62	25.8
Outpatient	121	50.4
Aftercare	32	13.3
Outcome of Placement 2		
Completed Phase	162	66.7
Did not Complete Phase	81	33.3
Reason for not Completing Phase		
Referred to another level of care	11	13.9
Non-compliance	34	43.0
Absconded	28	35.4
Revoked	1	1.3
Other	5	6.3

Table 7. Frequency and percentage distribution of participants' treatment activity, continued.

Characteristics	Treatment	
	N	%
Third Treatment Setting		
Long Term Residential	4	2.2
Short Term Residential	14	7.8
Intensive Outpatient	30	16.7
Outpatient	88	48.9
Aftercare	44	24.4
Outcome of Placement 3		
Completed Phase	115	64.6
Did not complete phase	63	35.4
Reason for not Completing Placement		
Referred to another level of care	12	20.0
Non-compliance	16	26.7
Absconded	25	41.7
Revoked	0	0.0
Other	7	11.6

treatment, 10 percent began residential, 17 percent intensive outpatient, 49 percent outpatient, and 24 percent aftercare. A majority (65%) completed the phase. Of those who did not, 20 percent were referred to another level of care, 27 percent were non-compliant, and 41 percent absconded. In sum, it appears that the court is identifying appropriate targets for treatment and retaining a majority of its clients, however, the service referrals should increase to meet other needs related to their criminal behavior.

In-Program Behavior and Perceptions

The purpose of this section is to reveal how the client behaves while in the drug court program and outline his or her satisfaction with the process. In-program behavior, as measured by technical violations, and perceived satisfaction with the process may have a significant impact on treatment retention and behavioral change. Data were only available on drug court participants. Questions addressed in this section will include:

- *What were the court reported violation rates for the drug court participants?*
- *Among those charged with a violation, what were the sanctions given for violations?*
- *What was the level of satisfaction with the process among drug court participants?*

Court Reported Violations

Table 8 indicates that 76 percent of the drug court clients had at least one court reported violation while under supervision. Of those with a violation, the majority (78%) had more than one violation, with 3.4 as a mean number of violations. Given many of the 254 individuals who were charged with a violation committed multiple violations, Table 8 indicates that an overall total of 834 violations were committed. The type of violations committed include new arrest (3%), failure to appear (1.9%), positive urine test (60%),

Table 8. Frequency and percentage distribution of participants' supervision activity

Characteristics	Treatment	
	N	%
<hr/>		
Court Reported Violation:		
Yes	254	76.0
Number of Times Violated		
One	55	21.7
Two	53	20.9
Three	44	17.3
Four	31	12.2
Five	42	16.5
Six	7	2.8
Seven	8	3.1
Eight	7	2.8
Nine or more	7	2.8
Mean		3.35
Total	254	100.0
Type of Violations Reported:		
New Arrest	26	3.1
Failure to Appear	16	1.9
Positive Urine Screen	499	59.8
Absconded	71	8.5
Non-compliant with Treatment	94	11.3
Other	128	15.3
Total	834	100.0
Sanctions Rendered for Violations:		
Bench Warrant	194	23.4
Work Detail	8	1.0
Jail	183	22.1
Fines	1	0.1
Community Service	96	11.6
House Arrest	75	9.0
Intensive Supervision	2	0.2
Electronic Monitoring	9	1.1
Increased Drug Testing	1	0.1
Change in Treatment Intensity	40	4.8
Increased Court Observation	155	18.7
Other	65	7.8
Total	829	100.0

abscission (9%), non-compliance with treatment (11%), and other (15%) which may include not reporting to the treatment agency or missing meetings with probation staff.

The drug court judge chose to use a number of sanctions for those individuals who were brought to the court on a violation. Table 8 indicates that in 23 percent of the cases a bench warrant was issued, in 22 percent the participant was required to spend a short time in jail, 18 percent of the clients were instructed to report to the court with more frequency, and 12 percent of the participants were assigned to community service. Other sanctions used less frequently included: work detail, fines, house arrest, intensive supervision, electronic monitoring, increase in drug testing, change in the intensity of treatment.

Participant Satisfaction

Drug court clients were asked to complete a self-report survey of their level of satisfaction with the drug court process, the judge, the probation staff, and the treatment staff. All drug court clients were asked to complete the 36-item survey. On average, the drug court participants who filled out the survey are generally satisfied with the drug court and its process.

Table 9 details the responses to all 36 questions. Figure 3 displays the overall satisfaction with each component (i.e., judge, probation, and treatment provider) on a variety of indicators. The responses of strongly agree and agree were summed to create an overall percentage satisfied with each component. The participants rated the judge, probation staff, and treatment staff as respectful and fair. Slightly more individuals felt the probation and treatment staff were more concerned than the judge, however, it is apparent that the clear majority felt all three were concerned. As illustrated by Figure 4,

Table 9. Frequency and percentage distribution of participants' satisfaction survey information.

Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
The Judge treated me with respect		
Strongly agree	59	48.4
Agree	58	47.5
Disagree	4	3.3
Strongly Disagree	1	0.8
The Judge was fair		
Strongly agree	55	45.5
Agree	59	48.8
Disagree	4	3.3
Strongly Disagree	3	2.5
The Judge was concerned about me		
Strongly agree	36	29.8
Agree	71	58.7
Disagree	13	10.7
Strongly Disagree	1	0.8
Visits with the Judge helped me to stay drug free		
Strongly agree	34	28.3
Agree	61	50.8
Disagree	21	17.5
Strongly Disagree	4	3.3
The Judge expected too much of me		
Strongly agree	2	1.7
Agree	17	14.0
Disagree	78	64.5
Strongly Disagree	24	19.8
My probation officer treated me with respect		
Strongly agree	79	69.3
Agree	32	28.1
Disagree	1	0.9
Strongly Disagree	2	1.8

Table 9. Frequency and percentage distribution of participants' satisfaction survey information, continued.

Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
My probation officer was fair		
Strongly agree	73	64.0
Agree	37	32.5
Disagree	2	1.8
Strongly Disagree	2	1.8
My probation officer was concerned about me		
Strongly agree	73	64.0
Agree	37	32.5
Disagree	1	0.9
Strongly Disagree	3	2.6
Visits with my probation officer helped me stay drug free		
Strongly agree	56	49.6
Agree	51	45.1
Disagree	2	1.8
Strongly Disagree	4	3.5
My probation officer expected too much of me		
Strongly agree	4	3.5
Agree	12	10.5
Disagree	69	60.5
Strongly Disagree	29	25.4
The treatment staff treated me with respect		
Strongly agree	54	45.0
Agree	62	51.7
Disagree	2	1.7
Strongly Disagree	2	1.7
The treatment staff was fair		
Strongly agree	48	40.0
Agree	66	55.0
Disagree	3	2.5
Strongly Disagree	3	2.5

Table 9. Frequency and percentage distribution of participants' satisfaction survey information, continued.

Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
The treatment staff was concerned about me		
Strongly agree	44	36.7
Agree	70	58.3
Disagree	3	2.5
Strongly Disagree	3	2.5
Visits with the treatment staff helped me stay drug free		
Strongly agree	36	30.0
Agree	68	56.7
Disagree	12	10.0
Strongly Disagree	4	3.3
The treatment staff expected too much of me		
Strongly agree	3	2.5
Agree	16	13.3
Disagree	77	64.2
Strongly Disagree	24	20.0
It helped me appear in court on a regular basis		
Strongly agree	20	16.8
Agree	59	49.6
Disagree	33	27.7
Strongly Disagree	7	5.9
It helped me to report regularly to my probation officer		
Strongly agree	28	25.0
Agree	72	64.3
Disagree	8	7.1
Strongly Disagree	4	3.6
It helped me attend treatment on a regular basis		
Strongly agree	34	28.8
Agree	76	64.4
Disagree	6	5.1
Strongly Disagree	4	3.6

Table 9. Frequency and percentage distribution of participants' satisfaction survey information, continued.

Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
Drug Court was easier than jail or prison		
Strongly agree	76	63.9
Agree	37	31.1
Disagree	5	4.2
Strongly Disagree	1	0.8
Drug Court was easier than regular probation		
Strongly agree	36	31.6
Agree	52	45.6
Disagree	23	20.2
Strongly Disagree	3	2.6
I think my Drug Court participation will help me in the future		
Strongly agree	69	58.0
Agree	46	38.7
Disagree	2	1.7
Strongly Disagree	2	1.7
In general, I am better off for participating in Drug Court as opposed to other court sanctions		
Strongly agree	53	45.3
Agree	60	51.3
Disagree	2	1.7
Strongly Disagree	2	1.7
I was personally helped through participation in Drug Court		
Strongly agree	42	35.3
Agree	70	58.8
Disagree	5	4.2
Strongly Disagree	2	1.7
Residential Treatment		
Poor	7	5.9
Good	28	23.7
Excellent	10	8.5
Did not participate	73	61.9

Table 9. Frequency and percentage distribution of participants' satisfaction survey information, continued.

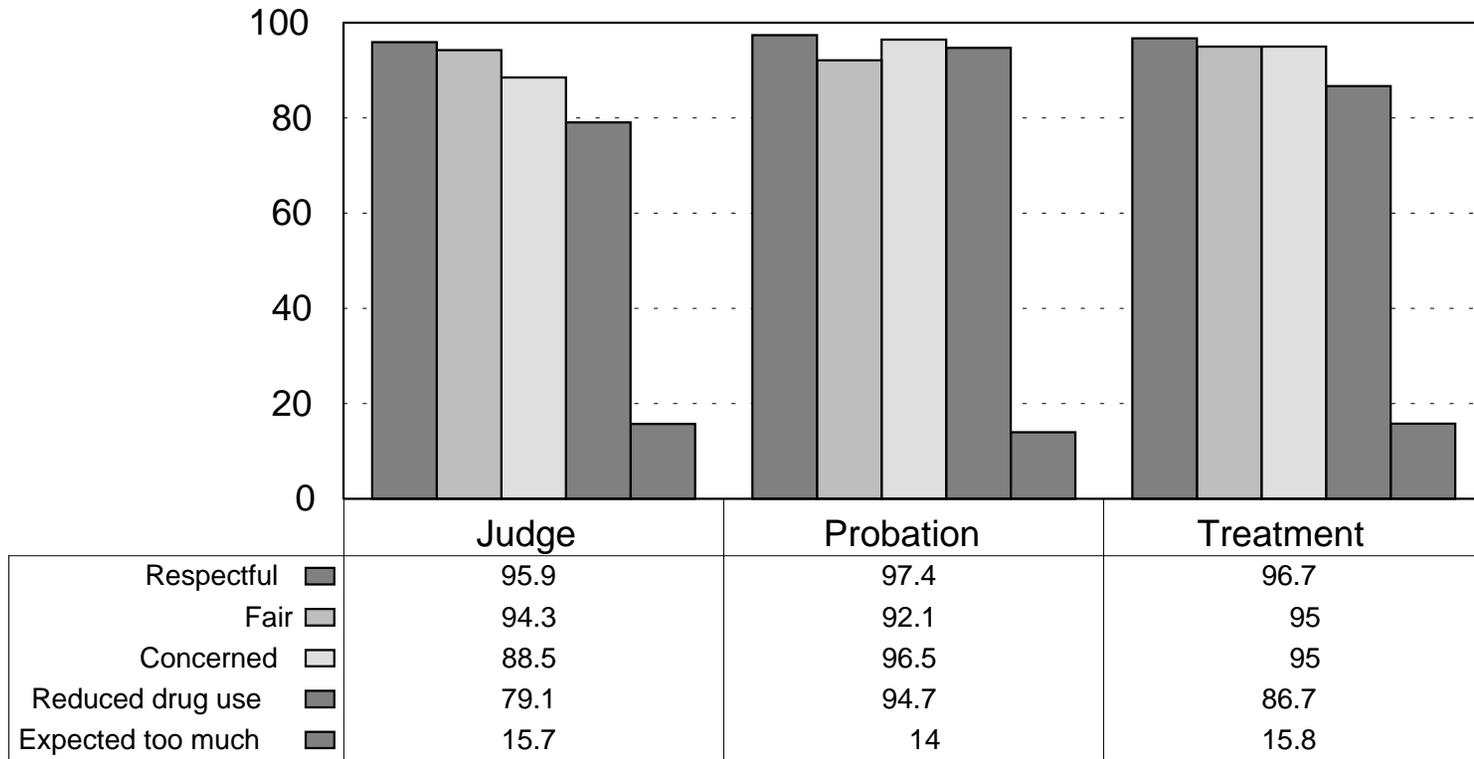
Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
Outpatient Treatment		
Poor	1	0.9
Good	68	58.1
Excellent	38	32.5
Did not participate	10	8.5
Intensive Probation Supervision		
Poor	0	0.0
Good	25	21.2
Excellent	26	22.0
Did not participate	67	56.8
Regular Probation Supervision		
Poor	1	0.9
Good	40	34.2
Excellent	22	18.8
Did not participate	54	46.2
Electronic Monitoring		
Poor	5	4.2
Good	26	21.8
Excellent	10	8.4
Did not participate	78	65.6
Community Service		
Poor	8	6.7
Good	32	26.9
Excellent	9	7.6
Did not participate	70	58.8
Drug Testing		
Poor	4	3.4
Good	65	55.1
Excellent	46	39.0
Did not participate	3	2.5

Table 9. Frequency and percentage distribution of participants' satisfaction survey information, continued.

Characteristics	Treatment	
	N	%
Survey of Drug Court Clients		
AA/NA		
Poor	8	6.7
Good	56	47.1
Excellent	54	45.4
Did not participate	1	0.8
Previous Trouble with the Law		
Yes	71	60.2
No	47	39.8
Previous Substance Abuse Treatment		
Yes	33	28.0
No	85	72.0

Figure 3

Overall Agreement by Component



Combination of strongly agree and agree categories

Figure 4

Drug Court was easier than jail or prison

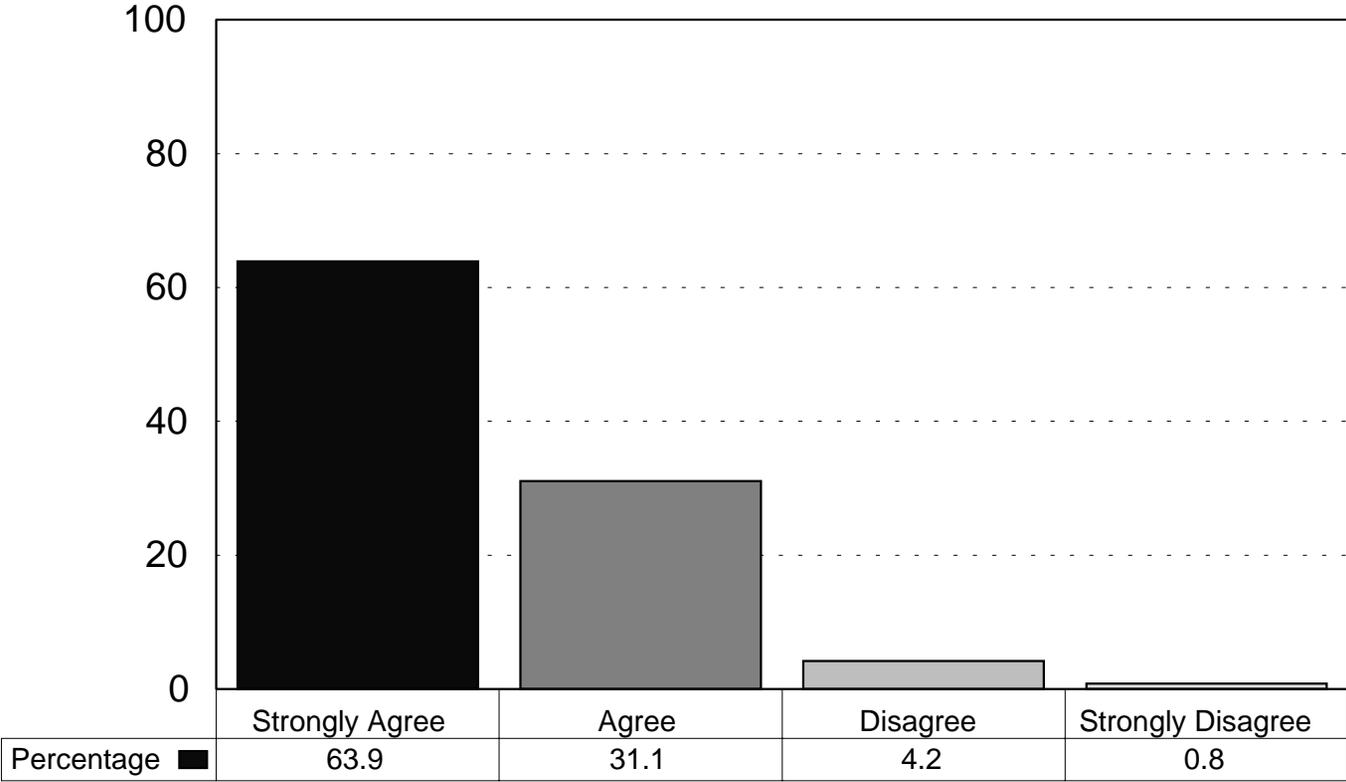


Figure 5

Drug Court was easier than regular probation

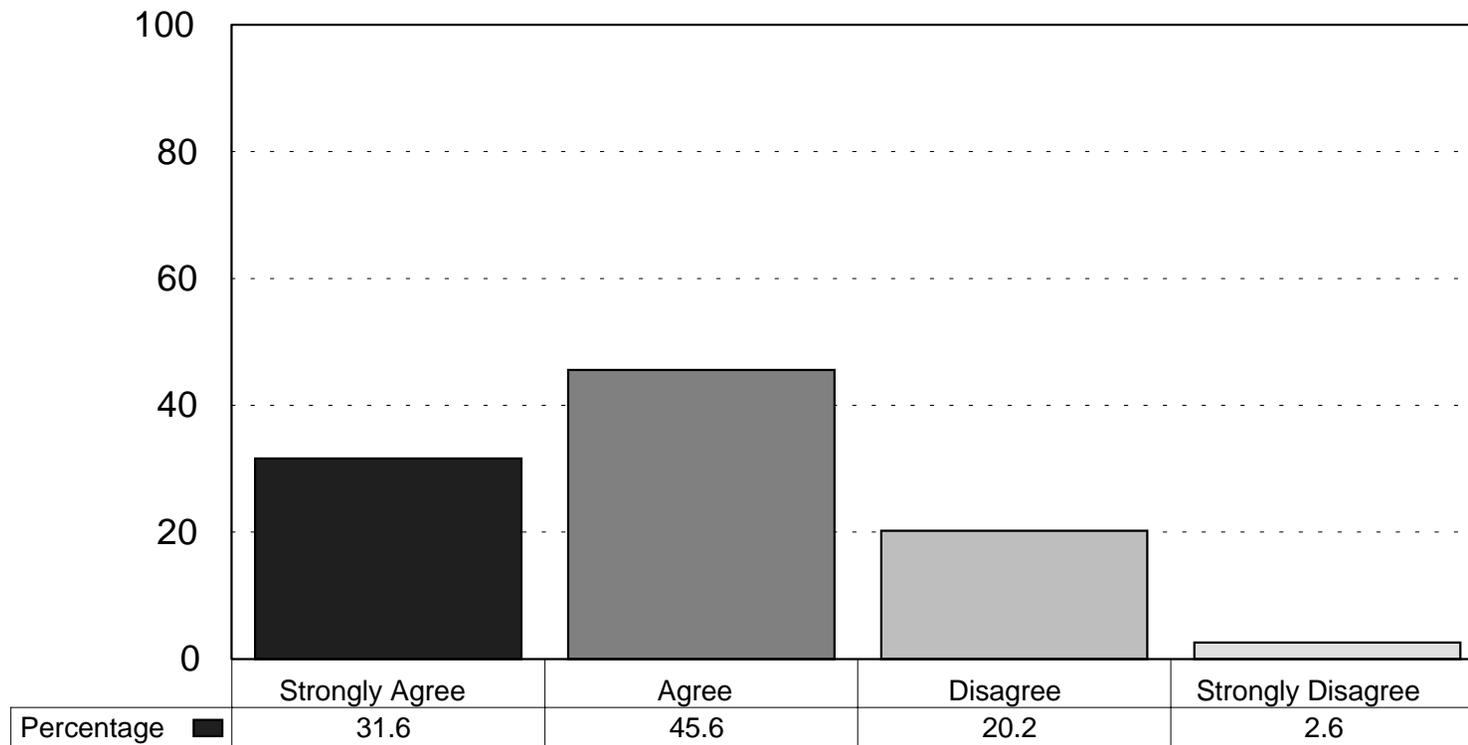
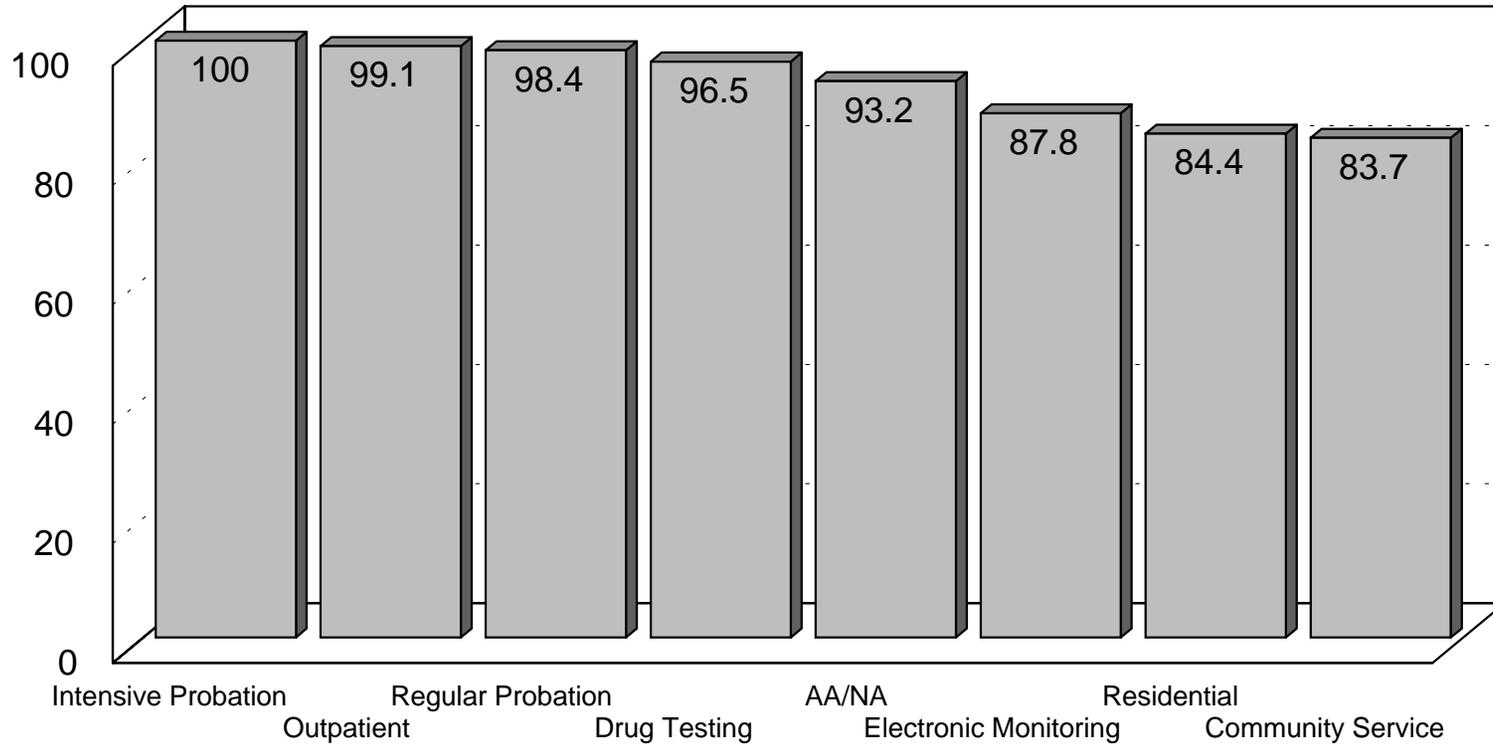


Figure 6

Percent Satisfied with Requirements



Combined Excellent and Good Categories of those who participated

the majority felt the drug court was easier than jail or prison. Although less emphatically, the majority also agree drug court was easier than regular probation (see Figure 5). Finally, Figure 6 illustrates an overall satisfaction among those who participated in a variety of services. In sum, the participants appear to feel very satisfied with the drug court team and with the services offered.

Case Outcome & Subsequent Criminal Behavior

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. Hence, the purpose of this section is to address the recidivism rates between the two groups and identify factors associated with outcome. A number of research questions are examined.

- *What were the completion rates among drug court participants?*
- *What were the rearrest rates among the experimental and comparison groups?*
- *What were the determinants or factors associated with recidivism?*

Termination Information

Table 10 illustrates the termination status of the drug court participants as of April 2000. One key component of many drug courts is the status review or treatment hearing. However, this particular drug court did not frequently utilize the status review hearing with participants. According to staff, 71 percent of the offenders did not participate in any status review hearing in front of the Judge while participating in the drug court. Of those who completed the program, 57 percent had the original charge that brought them to the drug court dismissed and 13 percent had their record expunged. With regard to termination status, as indicated by Table 10, 43 percent graduated, 33 percent were

Table 10. Frequency and percentage distribution of participants' supervision and outcome.

Characteristics	Treatment	
	N	%
<hr/>		
Treatment (n= 334)		
<hr/>		
Number of Status Hearing		
None	217	70.9
1	48	15.7
2	22	7.2
3 or more	19	6.2
Were Original Charges Dismissed		
Yes	173	57.1
No	130	42.9
Was Defendant's Record Expunged		
Yes	38	12.5
No	266	87.5
Termination Status		
Graduated from Drug Court	129	42.7
Terminated Unsuccessful	100	33.1
Expiration of Term	1	0.3
Absconded	62	20.5
Other	10	3.3

Table 11. Frequency and percentages of participants' outcome information.

Characteristics	Treatment		Control	
	N	%	N	%
	(n= 334)		(n= 137)	
Arrested for a New Offense:				
Yes	119	39.4	69	51.5
No	183	60.6	65	48.5
$X^2 = 5.530; p = .019$				
Arrest Charge (of those rearrested):				
Drug Related	49	46.7	38	65.5
Property	24	22.9	7	12.1
DUI	3	2.9	2	3.4
Violence	12	11.4	2	3.4
System Violation	9	8.6	5	8.6
Other	8	7.6	4	6.9
Level of Charge:				
Felony	70	59.3	55	79.7
Misdemeanor	48	40.7	14	20.3
$X^2 = 8.166; p = .004$				
Arrested Multiple Times:				
Yes	44	37.0	30	43.5
No	75	63.0	39	56.5
Number of Times Arrested:				
One	75	63.0	39	56.5
Two	27	22.7	20	29.0
Three	11	9.2	6	8.7
Four or more	6	5.0	4	5.8

terminated unsuccessfully, 1 person (.3%) had their sentence expire before completion, 21 percent absconded, and 3 percent were listed as failing for other reasons.

Rearrest Rates

As indicated by Table 11, there is a statistically significant difference between the two groups with regard to rearrest. Specifically, 40 percent of the treatment groups were rearrested during the follow-up period in comparison to 52 percent of the control group. The new arrest could have occurred either during drug court supervision or after termination. Among individuals in both groups, drug related charges were the most common followed by property offenses. A smaller number of those arrested were charged with DUI, violent offenses, system violations or other charges (e.g. complicity, making false alarms, tampering with evidence, etc.). A statistically significant difference exists with regard to level of offense. Significantly more control group members were arrested on a felony charge in comparison to the drug court participants. Moreover, although not significant, control group members were also more likely to be arrested multiple times; with thirty percent arrested twice during the follow-up period.

Determinants of Rearrest

In an effort to identify factors associated with recidivism and control for differences between the two groups, a logistic regression analysis was conducted. The characteristics in the model included: gender, race, education, employment, group membership, prior record, and time to arrest. Time at risk was included as a control for the differing lengths of time each client was followed. The results indicated that education, employment, group membership, and time were also significantly related to rearrest (see Appendix). In other words, those offenders who were unemployed, did not

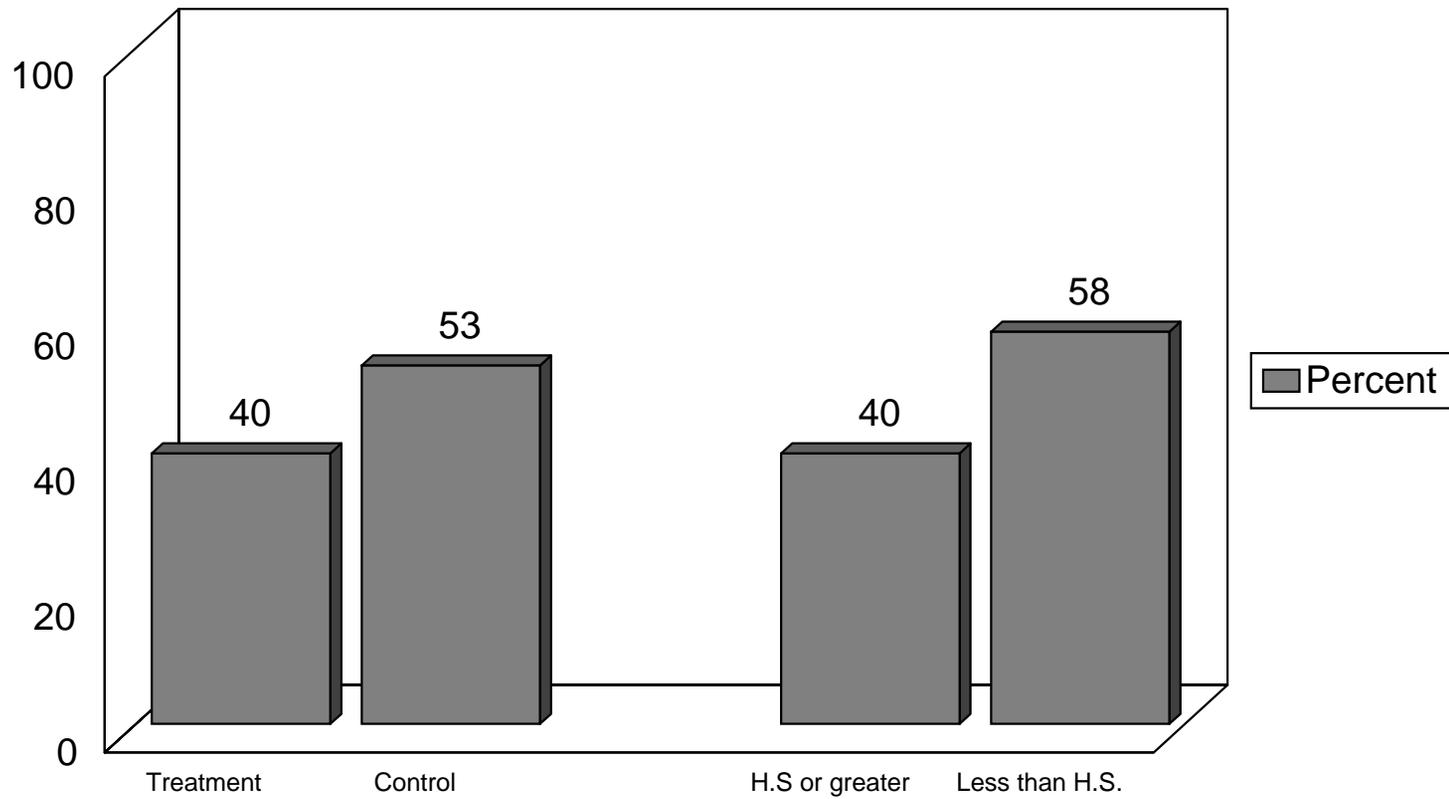
complete high school, did not receive drug court services, and who were at risk longer were more likely to be rearrested. Although this analysis does not allow us to delineate the specific treatment component that contributed to a reduction in recidivism it does allow us to conclude that the drug court is having a treatment effect.

In order to examine the results in more detail, the four variables predictive of rearrest were translated into log-odds ratios to simple odds. Failure rates for each of the significant factors were estimated from the odds. Figures 7 and 8 present the estimated probabilities and delineate the percentage with which each factor has in predicting arrest. Those individuals who are a member of the control group, earned less than a high school diploma, were unemployed, and remain at risk longer have a higher probability of being arrested for a new offense. Although LSI-R scores were only available for the drug court group, failure rates for the risk levels were estimated. Figure 9 illustrates the estimated probabilities associated with failure by LSI-R risk level. It there is a linear relationship between risk and failure. In other words, the higher the LSI-R classification level, the higher the probability of failure⁷.

⁷ Reassessment data were not available.

Figure 7

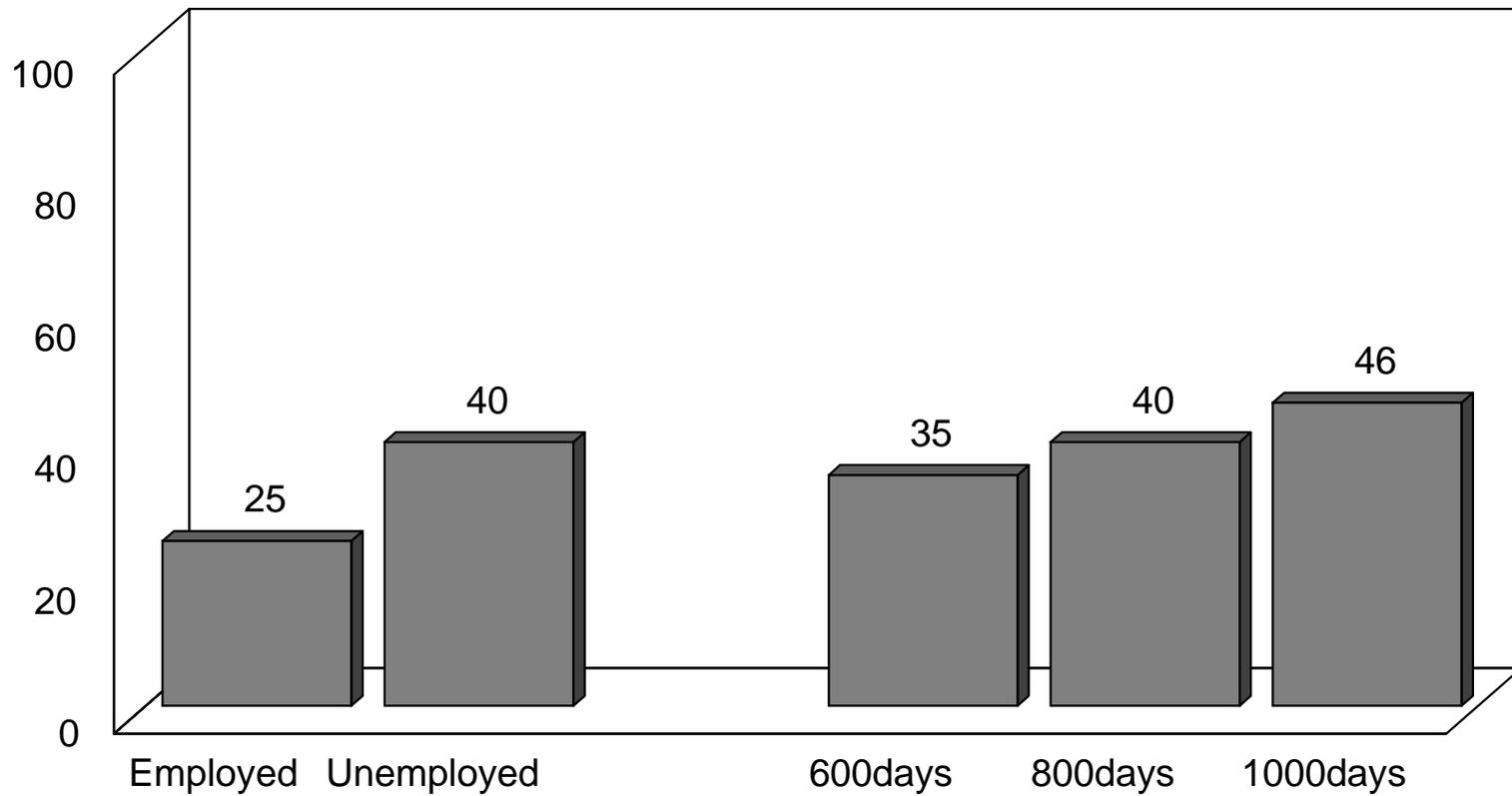
Probabilities Associated with Significant Predictors of Arrest: Group & Education



Note: Probabilities were calculated from significant logit coefficients

Figure 8

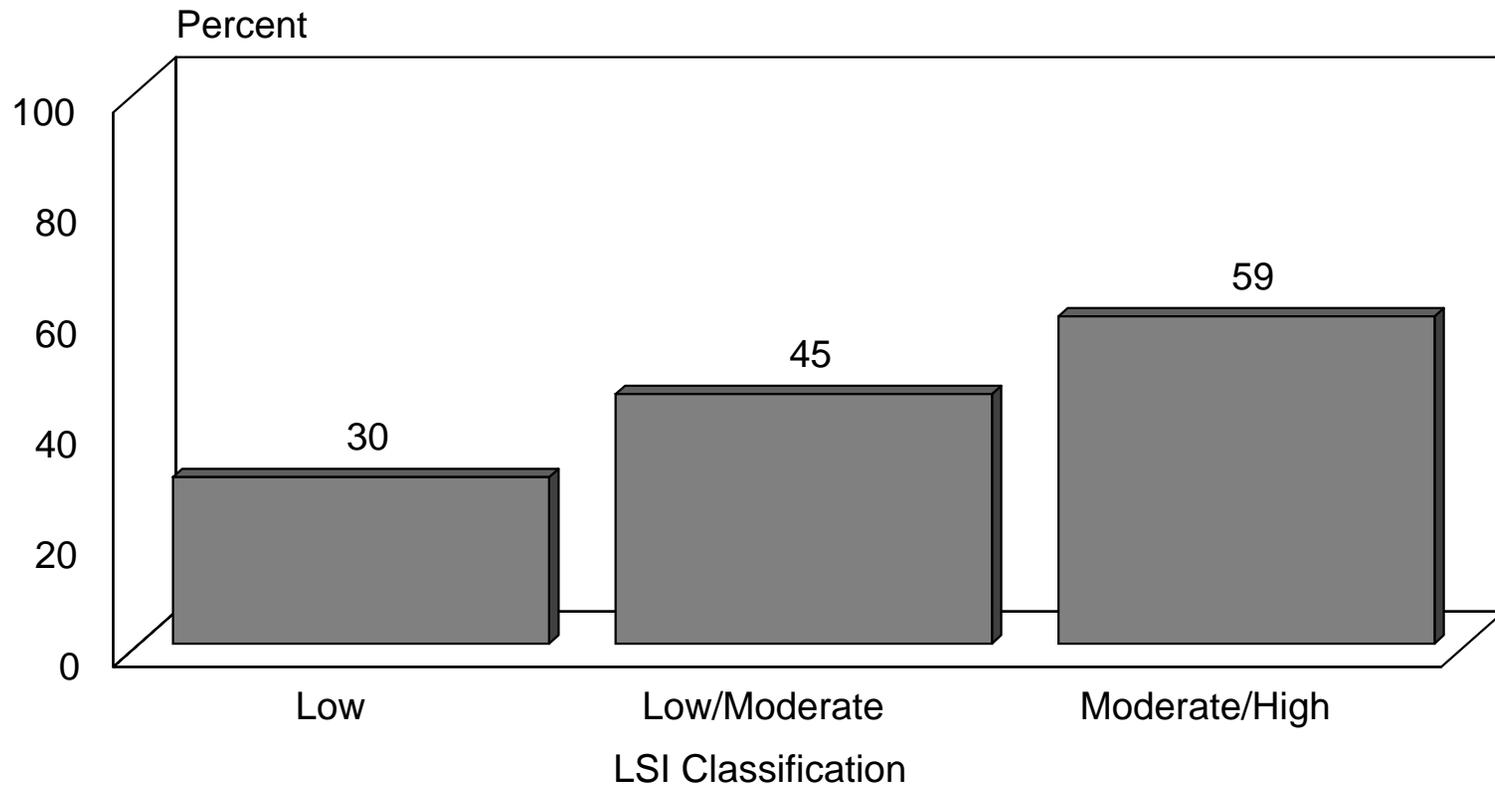
Probabilities Associated with Significant Predictors of Arrest: Employment & Time at Risk



Note: Probabilities were calculated from significant logit coefficients

Figure 9

Probabilities Associated with LSI Risk Score and Rearrest



Note: Only drug court clients were assessed

SUMMARY AND CONCLUSIONS

The findings of this evaluation can be summarized as follows:

- There are a variety of similarities and differences between the drug court and control group. Specifically, the typical person in both groups was African American, male, approximately 31 years of age, and not married, unemployed, and reported no dependents. However, there were significantly more individuals in the treatment group that were female, graduated from high school, employed full time, and moved less often.
- A majority of offenders in both groups were referred on a drug charge. However, drug court clients were more likely to have their original charge reduced and considered diverted. In contrast, the majority of control group members were sentenced to community supervision or secure placement.
- With regard to criminal history, the control group members were more likely to have multiple felony and misdemeanor arrests. Moreover, the majority in both groups did not have a prior record that included community supervision, unsuccessful terminations, or involvement with gangs.
- The majority of the participants were classified as moderate to low risk according to the Level of Service Inventory-Revised. The majority of the participants in ranked crack/cocaine as their primary drug of choice followed by marijuana and alcohol. The top three drugs of choice were crack/cocaine, marijuana, and alcohol.
- The typical participant started using alcohol at 13 and drugs at 14 years of age. Moreover, participants indicated they used alcohol less than once a week, however, 37 percent used alcohol at least once a week. Forty-one percent used drugs daily and 34 percent at least once a week. Finally, 34 percent had a family member with a chemical dependency problem and only 40 percent had previously engaged in drug treatment.
- The drug court participants exhibited a number of treatment needs. When ranked in order of importance the following treatment needs emerged: drug use, education, employment, alcohol use, family difficulties, housing, mental health, and physical health.
- The court made a variety of service referrals. 95 percent were referred to substance abuse treatment, 25 percent to employment services, 22 to education, 14 percent to mental health, 11 percent to housing, 8 percent to family, and 5 percent to medical services.

- The drug court was successful in retaining its clients. Specifically, 65 percent completed their first phase of treatment. For those who did not complete the first phase, the majority were either non-compliant or absconded.
- Seventy-six percent of the drug court clients had at least one court reported violation while under supervision. Given many of these individuals violated on multiple occasions, 834 violations were committed overall. The type of violations included: rearrest, failure to appear, positive drug screen, absconded, non-compliance with treatment, and other.
- Overall, the drug court clients who completed the survey were very satisfied with the drug court. The clients were satisfied with process as well as the judge, the probation staff, and the treatment staff. While they felt the drug court was more difficult than standard probation, they also agreed that their participation in the drug court would help them in the future with their drug abuse problem.
- Bivariate analyses revealed a statistically significant difference between the treatment and comparison group with regard to rearrest. The data indicate that 40 percent of the drug court treatment group were rearrested during the follow up period versus 52 percent of the comparison group. The majority of those rearrested were charged with a drug related crime. Significantly more individuals in the control group were arrested on a felony charge.
- The multivariate analysis indicated that education, employment, group membership, and time at risk were significantly related to rearrest. In other words, those offenders who were unemployed, did not complete high school, did not receive drug court services, and who were at risk longer were more likely to be rearrested.

Overall, the results of this evaluation are very promising. The outcome findings indicate that offenders who participated in the Akron Municipal Drug Court were less likely to be rearrested than a comparison group of offenders who did not receive drug court services. Moreover, the drug court participants were less likely to be arrested for a felony or arrested multiple times during the follow-up period. As noted earlier, there were differences with regard to some of the basic social demographic (i.e. gender, education, employment status). However, even when these variables were included as

controls in the multivariate analysis, group membership or whether an individual received drug court services was still a significant predictor of outcome.

While the results are encouraging, it should be noted that one important difference between the two groups is that the drug court participants elected to engage in drug court sponsored treatment and related services while the comparison group did not. Due to this and other limitations to the study we must offer a word of caution when interpreting the results. Increasing the sample size of the control group, collecting LSI data and substance use severity information on control group members, extending the follow-up period, and tracking the services received by control group members are all necessary ingredients to learning more about the effectiveness of the drug court in Summit County.

Given the popularity of the drug court model across the country as well as in Ohio, their ability to reduce drug abuse and recidivism remains a key issue. The drug court model embraces the perspective that get tough policies towards drug abuse have fallen short. By endorsing the view that treatment can be an effective tool in reducing recidivism, drug courts hold more promise than traditional policies that rely on incarceration and stricter sentences.

In order to further increase the effectiveness of the Akron Municipal Drug Court, the following recommendations can be offered:

RECOMMENDATIONS

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, and so forth). The court already uses a standardized risk/need assessment instrument (i.e., LSI-R), however, assessment results are not available for control group members. The

LSI includes risk and need factors that are known correlates of criminal behavior. Furthermore, it provides a summary score that predicts the offender's likelihood of recidivism. The findings should be used in selection and treatment planning by both the court and the providers. The program staff should be using the results of the assessment to match offenders to group based on their individual needs. Moreover, these results should be used when considering the intensity and duration of the program.

Drug courts will have a better chance at success if they can facilitate participation in treatment programs that are appropriate. Reducing criminality and addictions begins with the recognition that drug addiction is a chronic relapsing condition that will not be effectively reduced by applying short term, education-based treatment services. The success of a treatment program rests with the selection of an empirically validated and theoretically driven treatment model (Prendergast, et al., 1995). Although drug abuse is considered the primary need of many drug court participants, the majority have multiple needs that may include, among other factors, attitudes supportive of criminal behavior, interpersonal relationships with criminal associates or a lack of educational and vocational skills. Treatment services must first take into consideration the offenders' specific needs and then apply the most effective model to remedy the needs.

Research is now indicating that the most effective programs aimed at changing offender behavior are those based on cognitive, social learning, multisystemic family, and radical behavioral (e.g. operant conditioning) strategies (see, e.g., Andrews, Zinger, Hoge, Bonta, Gendreau, Cullen 1990; Antonowicz & Ross 1994; Gendreau 1996; Gendreau & Andrews 1990; Henggeler & Borduin 1990; Izzo & Ross 1990; Lipsey 1992; Van Voorhis, Braswell, & Morrow 1997). These strategies attempt to change

behavior by addressing thinking errors or values and attitudes supportive of crime, providing a means for the offender to observe and imitate prosocial behavior, including the family and community in the rehabilitation of the offender, and decreasing inappropriate behavior through reinforcement for appropriate behavior. The court could further increase their effectiveness by including these treatment models into drug court programming.

Finally, in order to conduct a more comprehensive evaluation of the Akron Municipal Drug Court, more detailed information on the comparison cases should be collected. This would include risk assessment results, supervision activities, substance use and severity, drug testing results, and services received. These data would allow for a more detailed comparison between the groups and would allow the researcher to further explore the factors related to success or failure.

REFERENCES

Belenko, S. 1998. "Research on Drug Courts: A Critical Review." *National Drug Court Institute Review*, 1, 1-43.

Goldkamp, J. S. (1994). Miami's treatment drug court for felony defendants: some implications of assessment findings. *Prison Journal*, 74, 110-144.

_____. 2000. National Association of Drug Court Professionals. Alexandria, VA.

APPENDIX

Logistical Regression Predicting Arrest:
Treatment versus Control

Variable	B	S.E.	Wald	df	Significance
Gender	.144	.257	.315	1	.575
Race	-.138	.219	.399	1	.528
Education	.728	.214	11.616	1	.001**
Employment	.655	.217	9.087	1	.003**
Group	-.529	.250	4.486	1	.034*
Prior Record	-.073	.237	.095	1	.758
Time to arrest	.001	.536	4.494	1	.009**

*p < .01

**p < .001