

Preliminary Evaluation of Ohio's Drug Court Efforts

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Introduction

In 1995, researchers in the Center for Criminal Justice Research at the University of Cincinnati began an evaluation of Ohio's first drug court (Hamilton, County). Since that time numerous other drug courts have been implemented throughout the State. As part of an on-going evaluation of these efforts, the Center for Criminal Justice Research has been studying and gathering data from across the drug court in Ohio. This report provides a preliminary picture of who is being served, and the effectiveness of Ohio's drug court programs. The current report presents the results from combining data from three of the older drug courts in the State and is part of a larger effort to examine existing data from all of the operating drug courts in the State of Ohio.¹

Ohio's Drug Court Movement: Development & Evaluation Activities

According to the National Association of Drug Court Professionals (2001), there are approximately 700 drug courts in operation and another 400 in the planning process. A similar movement in Ohio has paralleled the rapid development of drug courts around the country. Since 1995 and the inception of the first drug court in Hamilton County, Ohio, the implementation of this community based initiative has grown exponentially. What started as two drug courts in 1994 has now grown into 35 fully operating courts and several more in the planning process. From these numbers it is clear that the Supreme Court of Ohio and the legislature have made drug courts a priority.

In the early stages of drug court development in Ohio, the Supreme Court of Ohio decided to engage in a statewide evaluation initiative. In 1997, the University of Cincinnati's Center for Criminal Justice Research was asked to provide this important

¹ We are currently gathering data from twelve of the Ohio drug courts that have been in operation for several years. In addition, we will be drawing a random sample of drug court participants from other Ohio

component. The Supreme Court of Ohio asked the University of Cincinnati to develop evaluation tools that could be used by drug courts statewide.

In our effort to develop a standardized data collection model that could be maintained at each drug court site, a review of previous outcome and process evaluations of drug courts was conducted. We found that despite the rapid expansion of drug courts, very little was known about the effectiveness of the drug court model. After reviewing the limited assessments of drug court programs, relying on our own experiences with outcome evaluations, and consulting the literature released from American University's Justice Program Office, we began to develop a data collection process to support future drug court outcome evaluations.

Evaluating Drug Courts

As with any evaluation, assessing the operations and impacts of a drug court program 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 were expected to vary across sites. The statewide evaluation model needed to be sensitive to 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 operation. 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 that we

drug courts sites. The report from this effort should be available in January 2002.

develop measures 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. Thus, the outcome evaluation required an ability to compare drug court product (recidivism rates, relapse, levels of substance abuse) 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 only to the drug court.

To do this, the effect of drug court programming 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 program. 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.

The research team from the University of Cincinnati, had two tasks at hand: (1) include essential standardized data elements to conduct a future outcome evaluation and, (2) include all the drug court sites' recommendations and system requirements in the development of the data collection forms. Drawing on previous experience, the literature reviews, and discussions with representatives from the various drug courts, we identified a set of required data elements to be included in the data collection process. The evaluation protocol and database was subsequently installed at almost every drug court in operation².

² A few courts chose to develop their own systems and include the necessary data elements for future evaluation purposes.

Current Research Focus: Evaluating What We Know

Over the last several years, the drug court project has produced several evaluations of drug courts across Ohio. Specifically, the Hamilton County (Cincinnati) drug court has been evaluated twice; once in 1997 capturing their first 18 months in operation and again in 1999 once the court had a period of time to become better established. In addition, we recently completed evaluations of both the Erie County Common Pleas Drug Court, and the Akron (Summit County) Municipal Drug Court.

This outcome study is designed to examine the relative and combined effects of frequent court contacts and community-based drug treatment 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? What if any differences exist between the drug court and comparison groups with regard to demographics, current offense, and disposition?
- (2) Do drug court participants differ from comparable groups of offenders on various indicators of criminality?
- (3) How do drug court participants look on various indicators of drug use?
- (4) What are the treatment needs and retention rates among drug court participants?
- (5) What are the court reported violation rates for the drug court participants? And, in the event of a violation, how does the court handle such matters?
- (6) Does participation in the drug court affect the likelihood that an individual will recidivate?
- (7) What factors predict the likelihood of success/failure?

Methods

Research Design & Sample

This project used a quasi-experimental matched comparison group design in order to estimate the impact of the drug court involvement on future criminal behavior. This study reports combined data from three different drug courts across Ohio. The three drug courts serve adult drug offenders. 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 856 drug court participants and 415 comparison group members. Of the three courts, one court is in a small jurisdiction (e.g. a population less than 100,000 persons) and two are in large jurisdictions (e.g. population above 350,000 persons). A description of the three drug courts follows.

Akron Co Municipal Drug Court Group

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 House caseworker. Once deemed eligible, the treatment provider assesses potential participants on alcohol and drug dependency.

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. 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 percent compliance with all reporting requirements, drug screens, and curfew requirements, and continued attendance at 12-step meetings.

Erie County Drug Court Group

The Erie County Drug Court, located in Sandusky Ohio, began in April 1996. The target population included drug dependent adults charged with a non-violent drug or alcohol related misdemeanor or felony offense. To qualify for the drug court the client had to apply through the Public Defender's Office. Background checks were then conducted and provided to the Public Defenders office, the Prosecutor's office, and the Drug Task and provided to the Public Defenders office, the Prosecutor's office, and the Drug Task Force. If the parties approved the applicant, the treatment agency provided an assessment of drug and alcohol dependency. The results were then given to all involved parties and a hearing with the judge was scheduled to determine whether the client should enter the program.

Individuals who are eligible and willing to participate in court mandated drug treatment are required to attend status review hearings in front of the judge and attend four phases of chemical dependency treatment. In the first phase of treatment, participants engage in a six to eight week intensive outpatient (IOP) program. Programming is provided four days per week for three hours per day. The services offered include individual and group counseling, crisis intervention services, offered include individual and group counseling, crisis intervention services, occupational

therapy, activities therapy, expression therapy (art, drama, poetry, music, movement), and drug screening. The agency also provides alcohol and drug education, relapse prevention education, and individual counseling once a week. Family counseling sessions are also provided to willing family members. Phase II, called continuing care, offers group and individual counseling for five hours a week for approximately twelve weeks. Phase III, also considered continuing care, offers group and individual counseling for three hours a week for eight weeks. Phase IV offers services once a week for the remainder of the program. The total amount of time between phases one to four spans an average of 17 months. Successful completion of the treatment program requires that the client comply with all conditions set out by the court, attend court hearings, comply with treatment goals, provide clean drug and alcohol screens, attend AA/NA meetings, develop a sober support system, and not be charged with any new violations. Placement into additional services such as residential and inpatient hospitalization is determined on a case-by-case basis.

Hamilton County Drug Court Group

The Hamilton County Drug Court began in March 1995. The target population includes those arrestees who are drug dependent or in danger of becoming drug dependent. To qualify for the drug court, the following criteria must be met: (1) the defendant must be charged with a fourth or fifth degree felony (2) there must be no history of violent behavior (3) the current and/or past criminal behavior is drug-driven (4) the Hamilton County Prosecutor must approve of all incarcerated offenders' applications, (5) the defendant must have no active mental illness, and (6) the offender must demonstrate a sincere willingness to participate in a 15-month treatment process and have no acute health conditions.

Individuals who are eligible and willing to participate in court mandated drug treatment are transported to the ADAPT treatment facility for an assessment. This treatment program was established for all male and female drug court participants. Individuals must remain at the treatment facility until their court hearing at which time the treatment recommendation is submitted to the drug court Judge. The treatment program is community-based and includes three phases: inpatient, outpatient, and aftercare. Placement in each level of treatment is determined by level of substance addiction. The residential phase serves fifty-two males and sixteen females. Offenders sent to the residential phase were required to stay a minimum of two weeks up to a maximum of ninety days. The intensive outpatient phase lasts approximately four weeks and groups meet three hours a day four times a week. The continuing care or aftercare phase initially offers services twice a week for one hour but is eventually scaled down to one meeting every two weeks. Services offered during all three phases include: group and individual counseling, sobriety meetings, educational services, and family involvement. The total amount of time between commencing the residential phase to completion of aftercare spans an average of 15 months. The purpose of the treatment facility is to provide community-based substance abuse treatment coupled with close supervision and frequent urinalysis.

Control Group

All of the control group members selected for each county include men and women who were eligible for drug court, however did not receive drug court services. This group of clients did in fact have a drug abuse problem, however either refused drug treatment or were refused by the treatment facility. A total of 415 offenders were included in the comparison group.

Comparability of the Courts

The courts used in the analysis are similar to one another as well as those across the United States. The drug courts all provide community based treatment services, judicial monitoring, and frequent urinalysis. The eligibility criteria used by each court is based on the current and past behavior of the defendant and a willingness to participate in the services provided. Typically, the courts accept participants who are arrested for a drug or drug related crime or those who exhibit a drug problem. The judge, prosecutor, and treatment agency typically screen the potential participants. Offenders are often given a suspended sentence of jail or prison time in the event that they fail the program, the court may invoke the terms. The courts normally exclude traffickers, those with a history of violence, sex offenses, mental illness, and those with acute health conditions. Offenders who refuse to participate in the drug court program have their case adjudicated through traditional courts and typically receive probation or, in some cases, jail or prison.

Although random assignment to the treatment and control groups was not possible, we may be cautiously optimistic that members of the two groups do not differ significantly on factors associated with relapse and criminality. Specifically, the treatment group does not differ significantly from the control groups with regard to race, gender, age, marital status, or education level (see Table 1). The majority in both groups was African American (58%), male, approximately 31 years of age, and not married. In fact, the only significant differences between the two groups are with regard to education level and employment status. Specifically, Table 1 indicates that significantly more individuals in the treatment group graduated from high school (66%) and were employed full time (30%) in contrast to the comparison group with 58 percent and 16 percent respectively.

Table 1. Background Characteristics of the Drug Court and Comparison Groups

Characteristics	Drug Court N % (n=856)		Comparison N % (n=415)	
	Race			
White	354	41.4	170	41.0
Black	497	58.1	241	58.1
Hispanic	2	.2	1	.2
Other	2	.2	3	.7
Gender				
Male	659	77.0	307	74.0
Female	197	23.0	108	26.0
Age				
18-22	176	22.2	82	29.9
23-28	131	16.5	40	14.6
29-34	147	18.5	44	16.1
35-40	190	23.9	54	19.7
41 & above	150	18.9	54	19.7
Mean		31.2		32.1
Marital Status				
Married	101	17.2	81	20.8
Not Married	485	82.8	308	79.2
Highest Grade Completed				
Less than High School	197	33.7	134	42.1
High School Graduate	388	66.3	184	57.9
$\chi^2 = 6.355; p = .012$				
Hours Per Week Worked				
Full Time	143	29.6	48	16.2
Part Time	163	33.7	139	46.8
Unemployed	177	36.6	110	37.0
$\chi^2 = 1.679; p = .000$				

Ns may not total 856 or 415 due to missing data. This pertains to all tables and figures.

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 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. Each site collected recidivism data.

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 treatment 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, etc. were included in the analysis as control variables in both analyses. Similarly, given different follow-up periods, we have included a measure of time at risk as a control variable.

Dependent Variables: There were two major dependent variables included in this study; program completion and recidivism, define as a 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 a new arrest.

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 which only data from the treatment group is presented. Examining recidivism rates between both groups assesses the impact of drug court 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

Offense & Disposition

Table 2 reports the group's offense and disposition status at the time of screening. All of the drug courts screen clients prior to acceptance to the drug court. All of the drug courts target drug abusing or addicted offenders and will consider those arrested for drug related charges to be eligible for screening. As expected, drug courts are selecting clients who fit this profile. The courts were also asked to select comparison group members who were similar to the drug court participants. Again it appeared that the comparison group members were similar to the drug court clients in that the vast majority in both groups, (87%), were charged with a drug related offense. Similarly, the majority of the clients processed by these drug courts were convicted or adjudicated at the time of disposition.

The sanctions and supervision conditions given drug court offenders were considerably different than those required of the comparison group. As expected, drug court participants were more likely to be sentenced to drug treatment, drug testing or monitoring, and intensive supervision. However, comparison group members were more likely to be sentenced to pay court costs, fines, and fees, have their license suspended,

Table 2. Offense & Disposition Information for Drug Court & Comparison Groups

Characteristics	Drug Court N % (n=856)		Comparison N % (n=415)	
	Current Charge:			
Drug	646	86.8	229	87.1
Theft	66	8.9	2	.8
Trafficking	15	2.0	23	8.7
System Violation	16	2.2	8	3.0
Legal Status				
Convicted/Adjudicated	324	87.1	117	83.6
Treatment In Lieu	10	2.7	5	3.6
Preconviction/Adjudication	38	10.2	18	12.9
Disposition Drug Treatment				
Yes	539	94.2	99	77.3
No	33	5.8	29	22.7
$\chi^2 = 36.949; p = .000$				
Disposition Intensive Supervision				
Yes	368	46.9	9	7.0
No	417	53.1	120	93.0
$\chi^2 = 72.792; p = .000$				
Disposition Drug Testing				
Yes	570	99.0	100	77.5
No	6	1.0	29	22.5
$\chi^2 = 102.675; p = .000$				
Disposition Court Cost and Fines				
Yes	564	73.8	110	85.3
No	200	26.2	19	14.7
$\chi^2 = 7.816; p = .005$				
Disposition License Suspension				
Yes	285	35.7	63	48.5
No	513	64.3	67	51.5
$\chi^2 = 7.750; p = .005$				

Table 2. Offense & Disposition Information for Drug Court & Comparison Groups, Continued

Characteristics	Drug Court (n=856)		Comparison (n=415)	
	N	%	N	%
Disposition Fees				
Yes	101	19.3	90	70.3
No	421	80.7	38	29.7
$\chi^2 = 128.668; p = .000$				
Disposition Work Detail				
Yes	2	.4	24	18.6
No	521	99.6	105	81.4
$\chi^2 = 89.742; p = .000$				
Disposition Electronic Monitoring				
Yes	6	1.1	3	2.3
No	516	98.9	126	97.7
Disposition Community Service				
Yes	15	2.0	11	8.5
No	734	98.0	118	91.5
$\chi^2 = 16.302; p = .000$				
Disposition Restitution				
Yes	11	2.1	2	1.6
No	511	97.9	127	98.4

Figure 1

Sanctions Utilized for Drug Court Participants

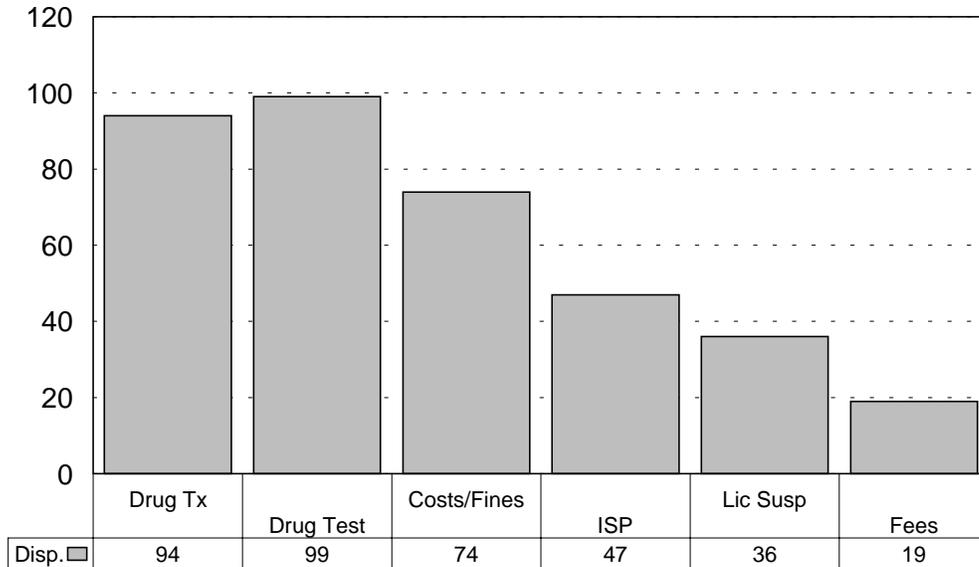
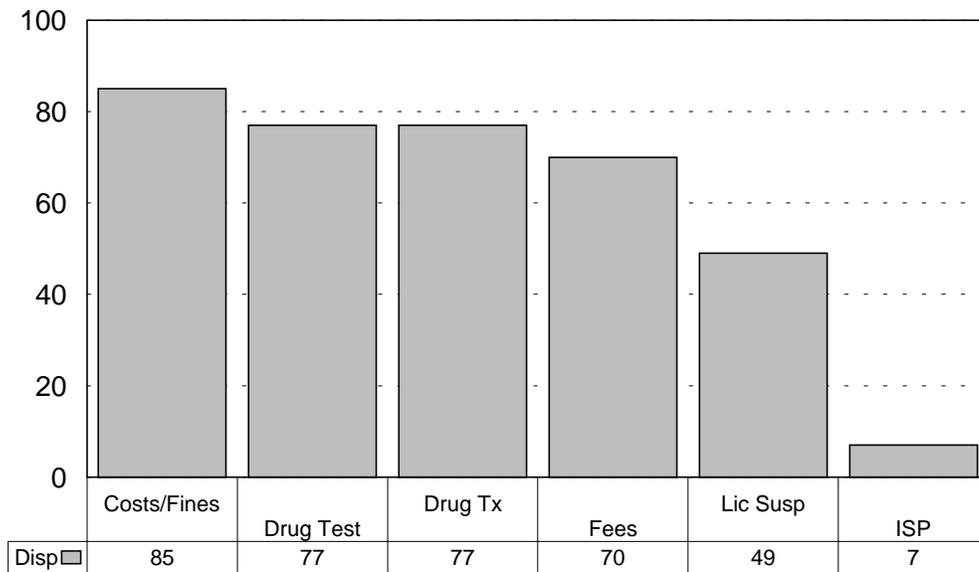


Figure 2

Sanctions utilized for comparison group members



participate in work detail and community service. Figures 1 and 2 list the various sanctions used for each group in the order of importance.

Prior Criminal Involvement

As indicated by the results of the 1997 Drug Court Survey Report, compiled by American University, although many drug courts began as pretrial diversion programs, we now see that these program have now moved towards accepting more serious offenders. The drug courts in Ohio are no exception.

Table 3 illustrates the prior criminal involvement of the drug court and comparison groups. Specifically, 88 percent of the drug court participants had a prior adult or juvenile record, in contrast to 80 percent of the comparison group members. With regard to felony arrests, drug court clients were slightly less likely than comparison group members to have a record, however, better than 50 percent had at least one prior arrest in their history. While this is again lower than the close to 70 percent of the comparison group that had a prior felony record, it still illustrates that the drug courts are considering a wide array of clients. With regard to misdemeanor arrests, the two groups are similar with better than 80 percent in both group having a prior misdemeanor record. Finally, the vast majority in both groups did not have a prior delinquent record.

Another important predictor of behavior is whether the client has previously been under supervision and their participation therein. The courts indicated that to their knowledge the majority in both groups did not have prior sentences to community supervision. However, when comparing those who were under supervision at one time, we find that the comparison group members were significantly more likely to be terminated unsuccessfully.

Table 3. Criminal History for the Drug Court & Comparison Group

Characteristics	Drug Court N % (n=856)		Comparison N % (n=415)	
	Prior Record (Adult or Juvenile)			
Yes	756	88.3	330	79.5
No	100	11.7	85	20.5
$\chi^2 = 17.402; p = .000$				
Number of Prior Felony Arrests				
None	281	47.5	120	30.5
1	141	23.8	114	29.0
2 or more	170	28.7	159	40.5
Number of Prior Misdemeanor Arrests				
None	111	18.8	65	16.8
1-5	378	63.9	245	63.3
6-10	57	9.7	26	6.7
11-15	30	5.1	12	3.2
16 or more	16	2.9	39	10.0
Number of Prior Delinquent Arrests				
None	322	86.3	144	91.7
1	24	6.4	3	1.9
2 or more	27	7.3	10	6.4
Number of Prior Sentences to Community Supervision				
None	273	73.6	94	67.6
1	73	19.7	35	25.2
2 or more	25	6.7	10	7.2
Unsuccessful Terminations				
None	312	84.1	129	94.9
1	40	10.8	5	3.7
2 or more	19	5.1	2	1.5
$\chi^2 = 10.186; p = .006$				

Drug Use Patterns

In a survey of drug courts across the nation, American University found that most programs report that participants are presenting moderate to severe substance abuse histories (Cooper, 1997). As seen in Table 4, we find that drug court clients in Ohio are no exception. The clients were asked drug of choice and severity of their use. These data illustrate that the primary drug of choice was crack/cocaine (38%), followed by marijuana (35%) and alcohol (22%). The drugs reported as a second choice, however, differ among participants. Specifically, the drug listed in order of importance was alcohol (44%), marijuana (31%), and crack/cocaine (25%). The third drug of choice clearly illustrated that these three drugs were the most commonly used and preferred by drug court clients.

In addition to drug of choice, history of drug abusing behavior is also an important concern for drug courts. The data in Table 4 further indicated that 45 percent of the participants began using alcohol and/or drugs between the ages of 14 and 17; which illustrates the chronic nature of their addiction. With regard to their current use, only 20 percent use alcohol daily, however, the group was evenly split between those who used once a week (40%) or less than once a week (40%). Drug using behavior appeared to occur with more frequency, with 35 percent reporting daily drug use followed by 36 percent who used on a weekly basis, and 29 percent less than once a week.

Finally, participants were also asked to report whether their family used drugs or alcohol, whether they had participated in previous drug treatment, or whether they have previously received a dual diagnosis. As indicated, while the majority reported no to the above mentioned questions, it is still worth noting that 38 percent did have families with

Table 4. Substance Use Severity for the Drug Court Group

Characteristics	Drug Court	
	N	%
<hr/>		
Did Offender Receive Drug Assessment		
Yes	342	96.1
No	14	3.9
Primary Drug of Choice		
Alcohol	79	22.4
Marijuana	124	35.2
Crack/Cocaine	135	38.4
Narcotics	9	2.6
Depressants	1	.3
Stimulants	4	1.1
Second Drug Choice		
Alcohol	134	43.6
Marijuana	94	30.6
Crack/Cocaine	76	24.8
Narcotics	2	.7
Hallucinogens	1	.3
Third Drug of Choice		
Alcohol	79	36.6
Marijuana	71	32.9
Crack/Cocaine	51	23.6
Narcotics	4	1.9
Stimulants	6	2.8
Hallucinogens	4	1.9
Other	1	.5

Table 4. Substance Use Severity for the Drug Court Group, continued

Characteristics	Drug Court	
	N	%
<hr/>		
(n=856)		
<hr/>		
Age of First Alcohol Use		
Under 10	76	12.4
10-13	125	20.5
14-17	274	44.8
18-22	123	20.2
23-27	10	1.6
Over28	3	0.5
Mean	13.3	
Age of First Drug Use		
Under 10	52	8.5
10-13	95	15.6
14-17	272	44.5
18-22	141	23.1
23-27	22	3.6
Over28	29	4.7
Mean	14.9	
Frequency of Alcohol Use		
Daily	114	21.0
Once a week	212	39.0
Less than once a week	218	40.1
Frequency of Drug Use		
Daily	185	35.4
Once a week	186	35.6
Less than once a week	151	28.9
Family Have Chemical Dependency Problem		
Yes	132	38.3
No	213	61.7
Has Offender Had Previous Drug Treatment		
Yes	145	41.3
No	206	58.7
Is Offender Dual Diagnosed with Drug/Mental		
Yes	29	8.3
No	322	91.7

chemical dependency problem and 41 percent have previously engaged in treatment. This gives us a perspective about both the type of client and the problems they are confronted within their social settings, and although only 8 percent of the clients have received a dual diagnosis of drug dependency and mental illness, this group poses significant challenges to the drug court team. Specifically, it raises the question as to whether the court is equipped to serve a population with these specific needs.

Treatment & Performance

The drug court participants were asked to discuss their various treatment needs and rate those needs as chronic, frequent, situational, or not a problem at all. Table 5 lists the areas of need discussed with the clients. Over 80 percent of the participants felt their drug addiction was either chronic or frequent in nature. Of those who cited alcohol as a problem, nearly half (47%) also felt their addiction was chronic or frequent. With regard to other needs, 47 percent also cited employment as a major need that presented frequent or chronic problems with their functioning. Other needs cited included: housing concerns, educational deficits, and mental and physical health concerns.

While it is recognized that all of the drug court follow the typical model of providing clients with community based treatment services, less is known about the specific type of services utilized. Table 6 lists the various referrals made by the drug court on behalf of the client. The referrals included substance abuse treatment, services such as employment, education, family, medical, housing, and mental health. While it is difficult to ascertain whether the service referrals are appropriately targeting the offender's specific needs, there is evidence that the courts are making efforts to provide other services besides drug abuse treatment.

Table 5. Treatment Needs for the Drug Court Group

Characteristics	Drug Court	
	N	%
Treatment Needs:		
Drug Abuse		
Chronic, Severe disruption	332	63.4
Frequent disruption	106	20.2
Situational/Occasional problems	67	12.8
No disruption of functioning	19	3.6
Alcohol Abuse		
Chronic, Severe disruption	137	27.5
Frequent disruption	97	19.5
Situational/Occasional problems	161	32.3
No disruption of functioning	103	20.7
Employment		
Chronic, Severe disruption	111	22.0
Frequent disruption	125	24.8
Situational/Occasional problems	127	25.2
No disruption of functioning	141	28.0
Family		
Chronic, Severe disruption	57	11.4
Frequent disruption	123	24.6
Situational/Occasional problems	171	34.3
No disruption of functioning	148	29.7
Housing		
Chronic, Severe disruption	61	12.9
Frequent disruption	58	12.2
Situational/Occasional problems	106	22.4
No disruption of functioning	249	52.5
Education		
Chronic, Severe disruption	46	9.2
Frequent disruption	69	13.8
Situational/Occasional problems	89	17.8
No disruption of functioning	297	59.3

Table 5. Treatment Needs for the Drug Court Group, continued

Characteristics	Drug Court	
	N	%
	(n=856)	
<hr/>		
Mental Health		
Chronic, Severe disruption	23	4.8
Frequent disruption	37	7.8
Situational/Occasional problems	69	14.5
No disruption of functioning	347	72.9
Physical Health		
Chronic, Severe disruption	28	5.8
Frequent disruption	37	7.7
Situational/Occasional problems	67	13.9
No disruption of functioning	350	72.6

Table 6. Service Referrals for the Drug Court Participants

Characteristics	Drug Court	
	N	%
<hr/>		
	(n=856)	
<hr/>		
Referred to Substance Abuse Treatment		
Yes	474	97.1
No	14	2.9
Referred to Employment Services		
Yes	206	44.1
No	261	55.9
Referred to Educational Services		
Yes	185	39.6
No	282	60.4
Referred to Housing Assistance		
Yes	94	22.4
No	326	77.6
Referred to Family Services		
Yes	168	35.7
No	303	64.3
Referred to Medical Services		
Yes	126	27.9
No	325	72.1
Referred to Mental Health Services		
Yes	55	14.0
No	337	86.0
<hr/>		

Drug courts typically enjoy fairly high retention rates. Specifically, the retention rate among drug courts across the nation averages 70 percent for drug court participants (Drug Court Programs Office, 1999). As part of the current study, the drug courts were asked to track clients through the various phases of treatment. As indicated by Table 7, the courts typically use either long term residential (31%), intensive outpatient (31%) or outpatient (36%) treatment services. Similar to the national average, of those who began treatment, 69 percent completed the first phase. Of those who did not complete, 25 percent were referred to another level of care, 32 percent were deemed non-compliant, and 29 percent absconded. The remaining percentage were either revoked or failed for other reasons. With regard to the second phase of treatment, the majority was placed in either intensive outpatient (33%) or outpatient (48%) services. Similarly, 70 percent completed this second phase of treatment. Finally, Table 7 indicates that 64 percent of the drug court clients completed their third phase of treatment. In conclusion, it appears that the drug courts are referring clients to a variety of services and are able to retain a majority of their clients.

Program Violations

In-program behavior as measured by technical violation rates, can aid in our understanding of the participants' progress through the drug court program. It is recognized (see Goldkamp, 1994) that drug courts may suffer from high technical violation rates, given the visibility of the participants. As indicated in Table 8, this is also the case for the drug courts included in this study. It was found that 64 percent of the drug court participants received at least one violation while engaged in the drug court. Table 8 also lists the sanctions utilized by the court. The most frequently used were: jail, bench warrants, and increased court observation.

Table 7. Treatment Activity for the Drug Court Participants

Characteristics	Drug Court	
	N	%
<hr/>		
Drug Court (n=856)		
<hr/>		
First Treatment Setting		
Long Term Residential	154	31.1
Short Term Residential	9	1.8
Intensive Outpatient	151	30.5
Outpatient	177	35.8
Aftercare	4	.8
Outcome of 1st Placement		
Completed phase	311	69.3
Did not complete phase	138	30.7
Reason for Not Completing Placement		
Referred to another level of care	34	24.5
Non-compliance	44	31.7
Absconded	40	28.8
Revoked	5	3.6
Other	16	11.5
Second Treatment Setting		
Long Term Residential	19	5.3
Short Term Residential	18	5.0
Intensive Outpatient	119	33.2
Outpatient	170	47.5
Aftercare	32	8.9
Outcome of 2nd Placement		
Completed phase	227	70.3
Did not complete phase	96	29.7
Reason for Not Completing Placement		
Referred to another level of care	15	15.8
Non-compliance	40	42.1
Absconded	30	31.6
Revoked	1	1.1
Other	9	9.5
<hr/>		

Table 7. Treatment Activity for the Drug Court Participants, continued

Characteristics	Drug Court	
	N	%
<hr/>		
Third Treatment Setting		
Long Term Residential	5	2.0
Short Term Residential	16	6.5
Intensive Outpatient	36	14.7
Outpatient	144	58.8
Aftercare	44	18.0
Outcome of 3 rd Placement		
Completed phase	131	63.6
Did not complete phase	75	36.4
Reason for Not Completing Placement		
Referred to another level of care	17	24.3
Non-compliance	19	27.1
Absconded	27	38.6
Revoked	0	00.0
Other	7	10.0

Table 8. Drug Court Participants' Supervision Activity

Characteristics	Treatment	
	N	%
<hr/>		
Court Reported Violation:		
Yes	384	64.2
Type of Violations Reported:		
New Arrest	50	4.4
Failure to Appear	22	1.9
Positive Urine Screen	611	54.4
Absconded	97	8.6
Non-compliant with Treatment	165	14.6
Other	179	15.9
Total	1124	100.0
Sanctions Rendered for Violations:		
Bench Warrant	224	21.5
Work Detail	8	0.8
Jail	251	24.0
Fines	2	0.2
Community Service	108	10.3
House Arrest	92	8.8
Intensive Supervision	14	1.3
Electronic Monitoring	17	1.6
Increased Drug Testing	14	1.3
Change in Treatment Intensity	45	4.3
Increased Court Observation	156	14.9
Other	113	10.8
Total	1044	100.0

³ Data on technical violations was not collected for this first Hamilton County sample (1997 evaluation), thus the participants are excluded from this analysis.

Termination Status

Many drug courts around the country use an approach whereby they dismiss charges or expunge the record of successful drug court participants. Table 9 lists the termination status of drug court participants. Nearly 56 percent of the participants had their original charges dismissed and 12 percent had their record expunged. As far as graduation rates, 145 (36%) individuals in the study graduated, 125 (31%) were terminated unsuccessfully, 8 (2%) had their term expire, 116 (28%) absconded, and 14 (3%) were terminated for other reasons.

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. As shown in Table 10, there is a statistically significant difference between the arrest rates of the drug court participants and the control group members. In fact, nearly half (46%) of the comparison group was rearrested during the follow-up period compared to 34 percent of the drug court group. These results are also illustrated in Figure 3. The new arrest could have been incurred while the participant was engaged in drug court services or during the follow-up period. With regard to arrest charge, Figure 4 illustrates that the comparison group members (56%) were significantly more likely to be arrested for a drug related charge than drug court participants (41%). Although not significant, comparison group members (42%) were slightly more likely to be arrested multiple times.

We also looked at the relationship between termination from drug court and rearrest. Table 11 shows that there was a significant difference between those offenders who completed drug court successfully and those who did not with regard to rearrest. Of

Table 9. Supervision and Outcome for the Drug Court Participants

Characteristics	Drug Court	
	N	%
<hr/>		
Were Original Charges Dismissed		
Yes	178	55.8
No	141	44.2
Was Defendant's Record Expunged		
Yes	39	12.2
No	281	87.8
Termination Status		
Graduated from Drug Court	145	35.5
Terminated Unsuccessful	125	30.6
Expiration of Term	8	2.0
Absconded	116	28.4
Other	14	3.4

Table 10. Drug Court and Comparison Group Rearrest Information

Characteristics	Drug Court (N = 856)		Comparison (N = 415)	
	N	%	N	%
Rearrested for a New Offense:				
Yes	279	34.0	187	45.9
No	541	66.0	220	54.1
$\chi^2 = 16.41; p=.000$				
Rearrest Charge (of those rearrested):				
Drug Related	95	40.8	81	55.5
Theft	50	21.5	26	17.8
Disorderly conduct	18	7.7	6	4.1
DUI	8	3.4	2	1.4
Violence	12	5.2	8	5.5
System Violation	35	15.0	14	9.6
Other	15	6.4	9	6.2
$\chi^2 = 7.805; p=.005$				
Arrested Multiple Times:				
Yes	97	34.8	79	42.2
No	182	65.2	108	57.8

Figure 3

Rearrest Rate by Group

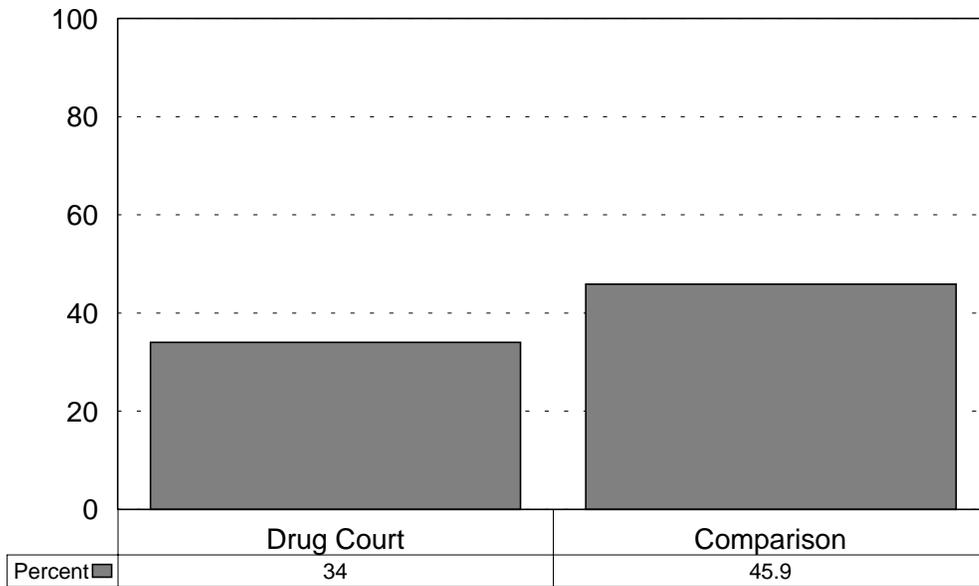


Figure 4

Arrest Charge: Drug offenses vs all others

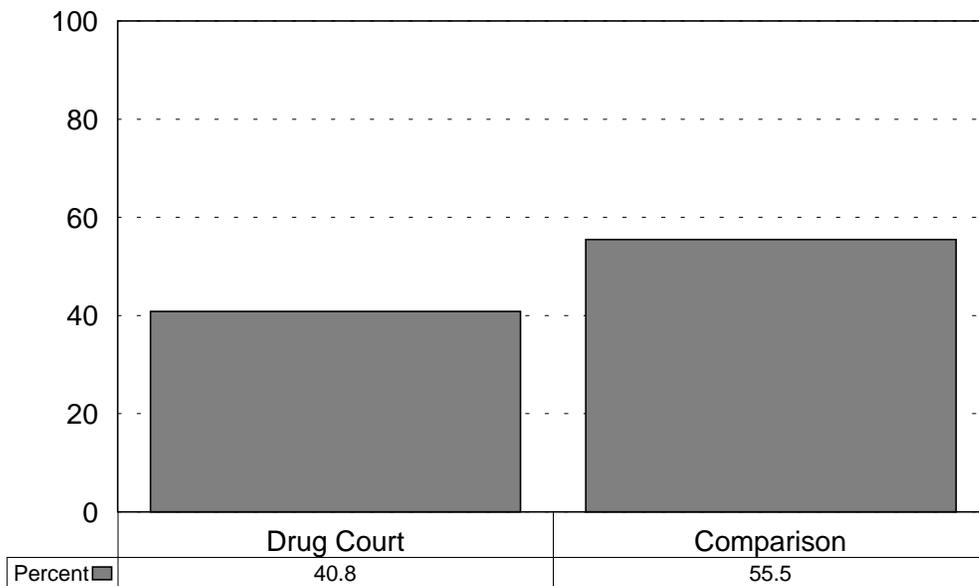


Table 11. Percent Rearrested by Termination Status

	N	%
Unsuccessful	124	39.9
Successful	45	28.8

$X^2 = 5.5; p \leq .05$

those offenders who successfully completed drug court, 29 percent were rearrested, compared to 40 percent of those who were terminated unsuccessfully.

Predictors

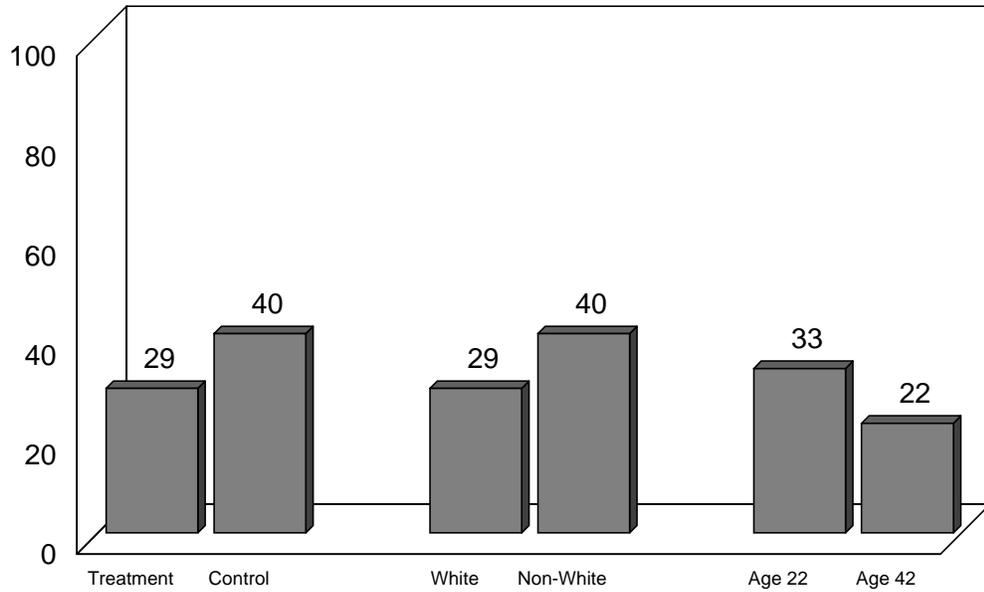
In an effort to identify the factors associated with recidivism, a logistic regression analysis was conducted. The characteristics in the model were group, race, time at risk, age, prior record, educational status, and employment (see Appendix). Time at risk was included as a control for the differing lengths of time each client was followed. The results indicated that five variables predicted the likelihood of arrest: group, race, time at risk, employment status, and education level. Figures 5-7 list the probabilities of failure associated with each significant predictor.

The key finding here is that those individuals who received drug court treatment services were less likely to be rearrested. Furthermore, the characteristics of the individual were also significant in predicting who would be rearrested. The finding that education and employment status are related to the probability of failure can be directly addressed by the drug court staff. In addition, factors such as race and age should be considered when developing alternative program options to specifically meet the needs of these groups. Targeting treatment services to the appropriate populations to meet their needs will increase both program effectiveness and retention rates.

We also examined the factors related to successful completion of a drug court program. Three factors were significant; education level, employment status, and prior record. Similar to above, those offenders who had graduated from high school, were employed, and did not have a prior record were more likely to successfully complete drug court. These results are shown in Figure 8.

Figure 5

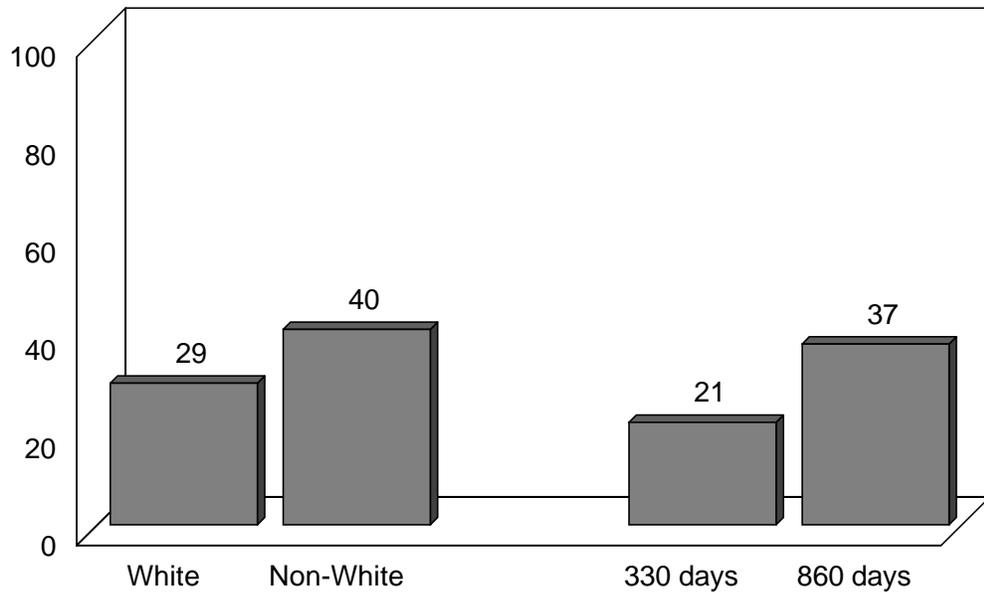
Probabilities Associated with Arrest



Note: Probabilities were calculated from significant logit coefficients

Figure 6

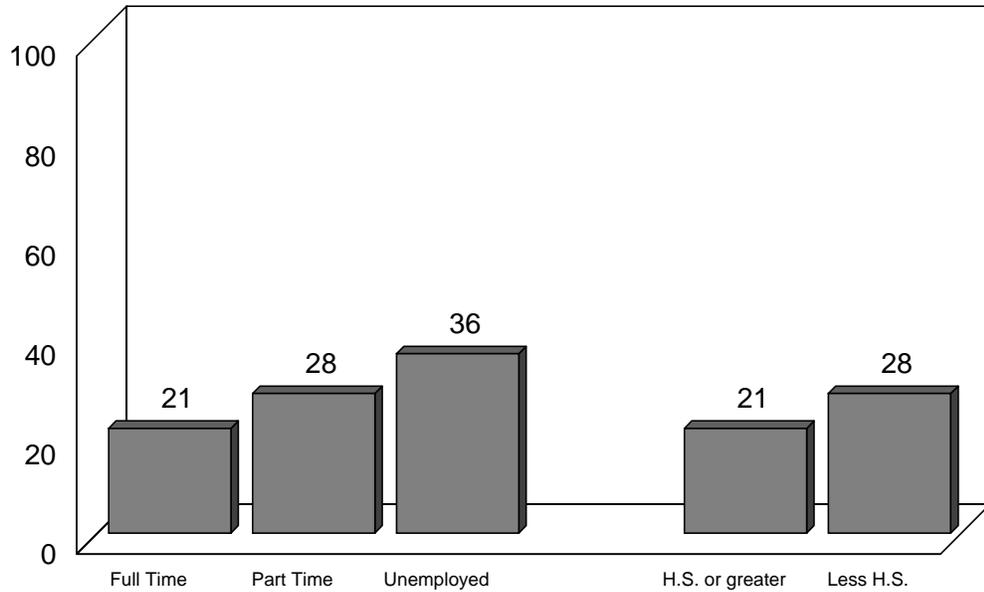
Probabilities Associated with Arrest



Note: Probabilities were calculated from significant logit coefficients

Figure 7

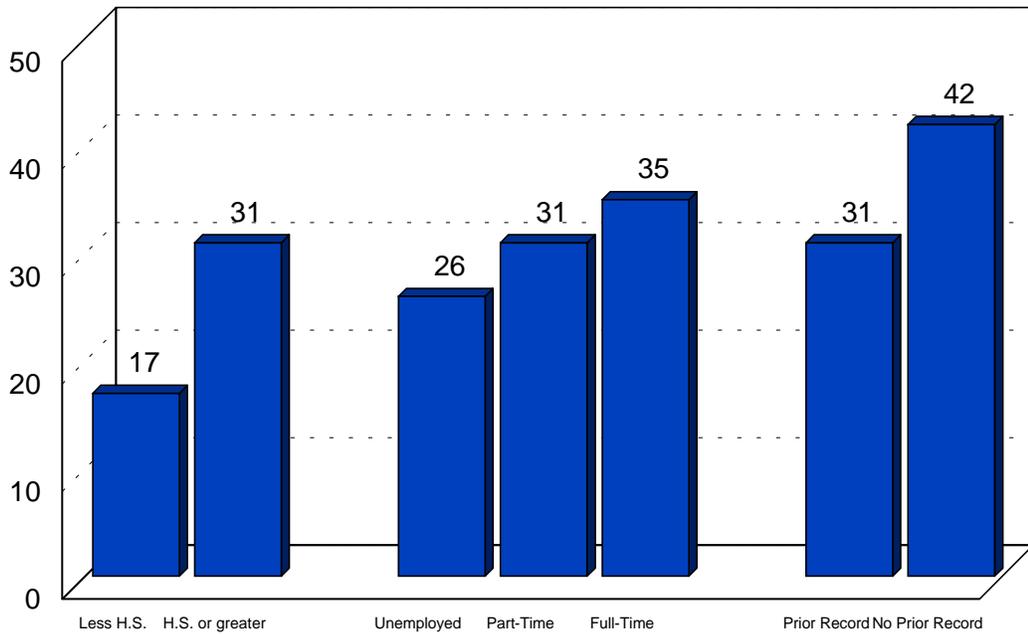
Probabilities Associated with Arrest



Note: Probabilities were calculated from significant logit coefficients

Figure 8

Impact of Significant Factors Predicting Successful Completion



Note: Probabilities were calculated from significant logit coefficients

Summary & Conclusions

The following research questions can be summarized from this report:

What are the characteristics of the offenders served by the drug court? What if any differences exist between the drug court and comparison groups with regard to demographics, current offense, and disposition?

- The majority in both groups was African American (58%), male, approximately 31 years of age, and not married.
- The only significant differences between the two groups are with regard to education level and employment status. Specifically, significantly more individuals in the treatment group graduated from high school and were employed full time.
- The comparison group members are similar to the drug court clients in that the vast majority in both groups, (87%), were charged with a drug related offense. Similarly, the majority of the clients processed by these drug courts were convicted or adjudicated at the time of disposition.
- What drug court judges decided to do with drug court clients versus comparison group clients, differs significantly. As we would expect, drug court participants are more likely to be sentenced to drug treatment, drug testing or monitoring, and intensive supervision. However, comparison group members are more likely to be sentenced to pay court costs, fines, and fees, have their license suspended, participate in work detail and community service

Do drug court participants differ from comparable groups of offenders on various indicators of criminality?

- With regard to prior record, 88 percent of the drug court participants had a prior adult or juvenile record in contrast to 80 percent of the comparison group members. With regard to felony arrests, drug court clients were slightly less likely than comparison group members to have a record, however, better than 50 percent had at least one prior arrest in their history. With regard to misdemeanor arrests, the two groups are similar with better than 80 percent in both group having a prior misdemeanor record. Finally, the vast majority in both groups did not have a prior delinquent record.
- The courts indicated that to their knowledge the majority in both groups did not have prior sentences to community supervision. However, when comparing those who were under supervision at one time, we find that the comparison group members were significantly more likely to be terminated unsuccessfully.

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

- With regard to the participant's primary drug of choice, the majority (38%) prefers crack/cocaine, followed by marijuana (35%) and alcohol (22%). The drugs reported as a second choice, however, differ among participants. Specifically, the drugs listed in order of importance are alcohol (44%), marijuana (31%), and crack/cocaine (25%).
- Data on age of first use indicates that 45 percent of the participants began using alcohol and/or drugs between the ages of 14 and 17.
- With regard to their current use, only 20 percent use alcohol daily, however, the group is evenly split between those who use once a week (40%) or less than once a week (40%). Drug using behavior appears to occur with more frequency as we see 35 percent report daily drug use followed by 36 percent who use on a weekly basis and 29 percent less than once a week.
- Thirty-eight percent do have families with a chemical dependency problem and 41 percent have previously engaged in treatment. Finally 8 percent have received a dual diagnosis of mental illness and substance addiction.

What are the treatment needs and retention rates among drug court participants?

- Over 80 percent of the participants felt their drug addiction was either chronic or frequent in nature. Of those who cited alcohol as a problem, nearly half (47%) also felt their addiction was chronic or frequent. With regard to other needs, 47 percent also cited housing as a major need that presented frequent or chronic problems with their functioning. Other needs cited included: housing concerns, educational deficits, and mental and physical health concerns.
- There is evidence that the courts are making efforts to provide other services besides drug abuse treatment. The referrals included substance abuse treatment, services such as employment, education, family, medical, housing, and mental health.
- The courts typically use long term residential (31%), intensive outpatient (31%) or outpatient (36%) treatment services. Similar to the national average, of those who began treatment, 69 percent completed the first phase. Similarly, 70 percent completed this second phase of treatment and 64 percent of the drug court clients completed their third phase of treatment.

What are the court reported violation rates for the drug court participants? And, in the event of a violation, how does the court handle such matters?

- It was found that 64 percent of the drug court participants received at least one violation.

- The majority of violations (54%) were for positive urine test.
- There were a variety of sanctions utilized by the court. The most frequently used being: jail, bench warrants, and increased court observation.

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

- According to the courts, 145 (36%) individuals in the study graduated, 125 (31%) were terminated unsuccessfully, 8 (2%) had their term expire, 116 (28%) absconded, and 14 (3%) were terminated for other reasons.
- With regard to arrest, there is a statistically significant difference between the drug court group and the comparison group. In fact, nearly half (46%) of the comparison group were rearrested during the follow-up period in comparison to 34 percent of the drug court group.
- With regard to arrest charge, comparison group members (56%) were significantly more likely to be arrested for a drug related charge than drug court participants (41%). Although not significant, comparison group members (42%) were slightly more likely to be arrested multiple times.

What factors predict the likelihood of success/failure?

- In an effort to identify the factors associated with recidivism, a logistic regression analysis was conducted. The results indicated that five variables predicted the likelihood of arrest: group, race, time at risk, employment status, and education level.
- Three factors were significantly related to successful completion of a drug court program; education level, employment status, and prior record.

As depicted, the research on drug courts is fairly limited. More importantly, comparatively fewer studies have isolated the factors associated with recidivism. The current study builds upon the previous research conducted in Ohio to develop an understanding of whether adult drug courts are an effective community based initiative.

Drug courts are serving a population of adults that have been using drugs and alcohol for a fairly long period of time and tend to prefer addictive drugs such as crack/cocaine. These findings illustrate that drug courts must not only recognize they are dealing with a chronic and relapsing condition among many of these people, but also

determine the appropriate individualized plan of treatment to target their areas of need. In addition, drug court offenders often present a variety of needs in addition to their addiction. Findings from this study indicate that drug courts are considering other areas of need in addition to the obvious substance abuse addiction and are making appropriate referrals.

The outcome results of this evaluation are promising. The data with regard to outcome showed a moderate and significant relationship between drug court treatment and rearrest. The findings indicate that offenders who participated in drug court services (e.g., judicial supervision, community-based treatment, etc.) were less likely to be arrested in comparison to a similar group of offenders who did not receive these services. Moreover, the findings also highlight important factors that drug court can use to design treatment strategies; namely marital and employment status. Among other treatment strategies, courts should target the education level of its clients and develop their employment skills. The drug courts should also recognize that age and race are important factors to consider when developing their programs. These characteristics may be related to outcome in that they affect one's response or amenability to treatment.

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.

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RECOMMENDATIONS

In order to further increase the effectiveness of the drug courts across Ohio, the following recommendations can be offered:

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). Few courts used a standardized risk/need assessment instruments to guide treatment placement or duration. One example of an appropriate assessment tool is the Level of Service Inventory- Revised. This instrument 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.

While the outcome results are promising, drug courts increase the probability of 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 drug courts across Ohio, 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.

APPENDIX

Logistical Regression Predicting Arrest:
Treatment versus Control

Variable	B	S.E.	Wald	df	Significance
Gender	.214	.209	1.040	1	.308
Race	.506	.156	10.545	1	.001**
Education	-.389	.192	4.094	1	.043*
Employment	.363	.122	8.906	1	.003*
Group	-.638	.202	9.961	1	.001**
Prior Record	-.086	.238	.131	1	.718
Time to arrest	.002	.000	15.016	1	.000**

*p < .01

**p < .001

Logistic Regression Model Predicting Successful Program Completion

Variable	B	S.E.	Sig
Sex	.0033	.2564	.988
Race	.2216	.2245	.323
Educational Attainment	.7447	.2426	.002
Employment Status	-.2285	.1405	.054
Marital Status	.2641	.3007	.379
Any Prior Record	-.5156	.2662	.052
Constant	-.8551	.7531	

-2ll = 506.031; $\chi^2(6) = 21.28$, $p < .01$; Pseudo- $R^2 = 0.07$