

**EXAMINING THE DIFFERENTIAL IMPACT
OF DRUG COURT SERVICES
BY COURT TYPE: FINDINGS FROM OHIO**

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The drug court model developed out of an organizational need for a community-based alternative to incarceration. These courts attempt to reduce substance abuse and recidivism through techniques such as monitoring, alternative sanctions, and treatment. Evaluations of drug courts around the country are encouraging; however, not all of the research shows a reduction in rearrest rates. The fact remains that despite the rapid expansion of drug courts and their growing prevalence and popularity, little is known about the ability of the drug court model to achieve its objectives in a variety of circumstances. The current study explores the characteristics and outcomes among seven adult and three juvenile drug courts across Ohio. The findings suggest that drug courts reduce recidivism rates, regardless of drug court type.

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ARTICLE SUMMARIES

**OHIO'S DIFFERING
DRUG COURTS**

[5] This study examines several different types of drug courts found in Ohio: felony, misdemeanor, and juvenile. It is as yet unclear if the positive effects seen in drug courts are uniform across court type.

METHODS

[6] The three court types were evaluated using a quasi-experimental design.

**RESULTS IN
REARREST RATE**

[7] Drug court clients were rearrested less than their respective comparison groups regardless of court type. Regression analysis specified a number of different predictors of rearrest for clients of each court type.

**CONCLUSIONS FROM THE
EVALUATION**

[8] Drug court appears to be effective across population, albeit at differing rates. The efficacy of the intervention is supported in general, although many avenues of research remain unexplored.

INTRODUCTION

Drug courts have played a significant role in the treatment of drug-abusing offenders over the last 15 years. The recognition that drug abuse is a chronic and relapsing condition that requires intensive treatment has changed how the drug offender is treated in the criminal justice system. The drug court movement emerged in the late 1980s and since then has burgeoned into a popular method for treating the drug-abusing offender. Today, there are over 1,500 adult drug courts (Bureau of Justice Assistance, Drug Court Clearinghouse Project, 2006a) and nearly 500 juvenile drug courts across all 50 states (Bureau of Justice Assistance, Drug Court Clearinghouse Project, 2006b) and it is estimated that over 70,000 offenders are participating in drug court at any given time (Huddleston, Freeman-Wilson, Marlowe, & Roussell, 2005).

The rapid expansion of the drug court concept has occurred for several reasons. Most notably, drug courts are the result of a political and social movement against drugs. The war on drugs severely taxed the criminal justice system and drug courts were offered as a cost effective alternative. In addition, drug courts may be seen as an outgrowth of the interest in developing community-based, team-oriented, criminal justice innovations that have the flexibility to mobilize community support and resources (NADCP, 1997). Research also has revealed that treatment for drug-addicted offenders can work to reduce addiction and drug-related crime (Anglin & Hser, 1990; French, Zarkin, Hubbard, & Valley, 1993; Prendergast, Anglin, & Wellisch, 1995; Van Stelle, Mauser, & Moberg, 1994), even when treatment is involuntary (Anglin, Brecht, & Maddahian, 1989; Hubbard et al, 1989). Taken together, these factors have been instrumental in shaping the drug court movement.

[5] While drug courts generally are implemented at the local level, states often play an integral role in the

development, support, and evaluation of these specialized courts. Ohio's support for the drug court model is evidenced in a number of ways. First, the state routinely provided funding for the development and sustainability of the courts over the last 10 years. Second, resources were dedicated for evaluation and research activities. The Supreme Court of Ohio funded a statewide initiative requiring all of the drug courts to collect specific data elements for future evaluation research. Finally, the Supreme Court provided training and conference opportunities for practitioners through a number of organizations, including the Ohio Drug Court Practitioner Network. This combined support has resulted in the implementation of over 60 drug courts across the state. Given this level of commitment by the state, it is important to ascertain whether drug courts are effective on a statewide level. The current study will examine the combined efforts of several drug courts operating in Ohio.

EXISTING RESEARCH

Drug courts differ substantially from one jurisdiction to the next, which makes comparisons between evaluations that use different designs and data collection tools problematic. Despite these limitations, much of the existing research places the drug court model in a positive light (Brewster, 2001; Goldkamp & Weiland, 1993; Latessa, Listwan, Shaffer, Lowenkamp, & Ratansi, 2001; Peters, Haas, & Murrin, 1999; Spohn, Piper, Martin, & Frenzel, 2001). Research also reports that graduates of drug court programs fare significantly better than non-graduates (Peters et al., 1999; Vito & Tewksbury, 1998) even in a three year follow up period (Dydia & Sung, 2000). In addition to rearrest, drug courts can have other important outcomes. Sechrest and Shicor (2001) report that graduates of a drug court in California are more likely to be self-supporting. An observational study by Wolf and Colyer (2001) revealed that those who successfully completed the program were less

likely to present with problems at treatment review hearings with the judge.

Several national summaries of drug court evaluations also conclude that drug courts are seeing moderate success. Specifically, in 1997 the U.S. Government Accountability Office (GAO) reviewed several evaluations. While the GAO (1997) concluded the research was limited, they were generally optimistic about the effectiveness of drug courts. This review was updated in 2005 when the GAO reviewed 27 evaluations representing 39 drug courts. Twenty-three of these evaluations included recidivism data which the GAO used to conclude that drug court participants tend to recidivate less often, have fewer rearrests or reconvictions, and take longer to recidivate than comparison group members (GAO, 2005). Belenko (1998; 1999; 2001) reached similar conclusions in his reviews of the research. He argued that drug courts appear successful in reducing recidivism and substance abuse, have high retention rates, provide close supervision and monitoring, and have successfully increased partnerships among criminal justice agencies. Similarly, meta-analytic reviews of drug court effectiveness have been supportive with average effect sizes ranging from 9% to 24% (Aos, Phipps, Barnoski, & Lieb, 2001; Lowenkamp, Holsinger, & Latessa, 2005; Shaffer, 2006; Wilson, Mitchell, & MacKenzie, 2002).

Although much of the research is promising, it is important to acknowledge that some courts have failed to show evidence of a reduction in criminal behavior as measured by arrest. Belenko, Fagan, and Dumanovsky (1993) found no difference in arrest rates between drug court and comparison group members in New York City. Similarly, Deschenes and Greenwood (1994) report no difference in arrest rates among drug court participants and controls in Maricopa County, Arizona, although they did find that drug court participants had fewer technical violations. Findings from a study of a Denver drug court failed to find

significant difference in arrests among similar offenders processed in previous courts (Granfield, Eby, & Brewster, 1998). While Listwan, Sundt, Holsinger and Latessa (2003) found arrests for drug related offenses were higher among comparison group members, they failed to find differences in the overall arrest rate. Finally, Meithe, Lu, and Reese (2000) found that drug court participants in Las Vegas had higher recidivism rates (both drug and non-drug offenses) than comparison group subjects.

While many of the reviews focus on adult drug courts, it is imperative that evaluations also consider juvenile drug court participants. While juvenile drug courts can be very similar to adult drug courts in many respects, they inevitably must contend with a number of issues unique to an adolescent population. Specifically, the court must consider the impact of system involvement on school access and family dynamics (Cooper, 2002), or the impact of foster care involvement on treatment and program retention. Moreover, it also may be more difficult to ensure that juvenile drug courts are receiving appropriate clients as they may accept juveniles who are simply experimenting with drugs instead of dedicating resources only to those with an assessed drug addiction (Sloan & Smylka, 2003).

Given the unique circumstances facing juvenile drug courts, it is important to consider their effectiveness separate from that of adult drug courts. However, the research on juvenile drug courts is relatively scarce and the evaluations that have been completed are decidedly mixed. There is some research to support the efficacy of juvenile drug courts (Canterbury, 2003; Rodriguez & Webb, 2004; Thompson, 2002), although others have found null (Anspach, Ferguson, & Phillips, 2003; O'Connell, Nestlerode, & Miller, 1999) or negative (Wright & Clymer, 2001) effects.

This study will attempt to add to the existing literature by providing a multi-site impact study of both adult

and juvenile drug courts in Ohio. This study examines the differences between drug court and comparison group members along a variety of measures. Examining rearrest rates between both groups will provide an assessment of the impact of drug courts on future criminal behavior. While most published evaluations report outcomes of only one court, the current study reports outcomes of several adult and juvenile drug courts across the state in an effort to fill this gap in our overall knowledge of drug courts. The current study will assess whether drug courts are effective in reducing recidivism and identify the factors associated with failure.

METHODS

Research Design and Subjects

[6] The evaluation utilized a quasi-experimental matched comparison group design in an effort to estimate the impact of drug courts on future criminal involvement.¹ Three distinct types of drug courts were evaluated: 1) common pleas (felony), 2) municipal (misdemeanor), and 3) juvenile. Random assignment to groups was not feasible; however, in order to develop the comparison group, the 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 was that each participant must have (1) a reported substance abuse problem; and (2) be eligible for the drug court program. The quasi-experimental design is a common approach with program evaluations since random assignment is difficult to obtain in court-related programs.²

¹ The Summit County Juvenile Drug Court has used random assignment.

² There are several problems with a quasi-experimental design which should be noted. First, there are often important differences between those offenders who participate in a drug court and those who do not. When known, significant differences are controlled

Similar to other states, Ohio has seen a tremendous growth in the number of existing drug courts. Since the first drug court began accepting participants in 1995, over 40 counties have developed and implemented drug courts of their own (Bureau of Justice Assistance, Drug Court Clearinghouse Project, 2006a). This study provides a snapshot of participants processed through ten of these courts between 1997 and 2000. The ten courts were chosen because they provide an adequate sampling of both adult and juvenile drug courts. Moreover, the courts have been in existence for at least 4 years, thus providing sufficient follow up periods.

Ohio's criminal courts are structured along three levels. Common pleas and municipal courts process adult offenders. The common pleas courts typically process those charged with felony offenses while the municipal courts typically target offenders charged with misdemeanor offenses. The juvenile courts process youth (typically under the age of 18) who have been charged with felony, misdemeanor, or status offenses. The current sample includes 788 drug court participants and 429 comparison group members in the common pleas court group; 556 drug court participants and 228 comparison group members in the municipal court group; and 310 participants and 134 comparison group members in the juvenile court group.³

for, however, offender motivation to change and other important factors cannot be accounted for. Second, one cannot assume that some members of the comparison group did not receive treatment of some type. What we do know is that they did not receive the "drug court" model; however, it is also likely that treatment services similar to those offered through drug courts were available to these offenders.

³ For a detailed description of the various drug courts included in this study see: Shaffer, Johnson, and Latessa, *Description of Ohio Drug Courts* (2000).

While there are basic differences between the types of drug courts evaluated in this study, the courts are similar to one another and to drug courts across the country. Specifically, community-based treatment services, judicial monitoring, and frequent urinalysis are utilized by each site. Moreover, 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. The judge, prosecutor, drug court staff, and treatment agency typically screen the potential participants. The courts generally accept individuals who have been arrested for a drug or drug-related crime and/or exhibit a drug problem. Upon disposition, offenders are often given a suspended sentence of jail or prison time; in the event that they fail to successfully complete the program, the court may invoke the terms. Traffickers, those with a history of violence, sex offenders, severe mental illness, and those with acute health conditions are excluded from participation in the drug courts. Finally, offenders who refuse to participate in the drug court program have their cases adjudicated through traditional courts and typically receive probation or, in some cases, jail or prison.

Variables

There were a number of independent variables examined in this study. Specifically, demographics such as age, race, gender, employment, education, and marital status were examined to determine the comparability of groups. Prior arrest also was used as a measure of criminal history as were factors related to current charges. The primary dependent variables included in this study were arrest and whether an individual had been arrested on multiple occasions. The average follow-up period was 21.4 months for the common pleas courts, 25.6 months for municipal drug courts, and 27.7 months for the juvenile courts.

RESULTS

Intake Data

[7] Table 1 compares the various drug court groups with regard to race, gender, age, marital status, education, and employment at the time of arrest. It also illustrates prior criminal record and information related to current charge. The common pleas drug court and comparison group members were very similar with regard to social demographic characteristics. The typical person in each group was non-white, male, approximately 31 years of age, working part-time, and not married. Drug court participants, however, were significantly more likely to have graduated from high school than members of the comparison group. Common pleas drug court participants were more likely to have a prior record than members of the comparison group.

Similarly, clients of the municipal drug courts and comparison group differed only in terms of education and employment. The typical participant in each group was non-white, male, 30 years of age, and not married. However, drug court participants were not only more likely to have graduated from high school but also were more likely to be employed full-time. Finally, the groups had similar prior records; in fact, the majority of both groups had been previously arrested.

Table 1. Background Characteristics of Drug Court Participants and Comparison Group Members

Characteristics	Common Pleas		Municipal		Juvenile	
	DC % (n=788)	Comp % (n=429)	DC % (n=556)	Comp % (n=288)	DC % (n=310)	Comp % (n=134)
Race ^a						
White	48.8	49.8	45.5	32.3	69.7	56.7
Non - White	51.2	50.2	54.5	67.7	30.3	43.3
Gender						
Male	76.7	72.5	72.9	78.0	75.5	72.4
Female	23.3	27.5	27.1	22.0	23.9	27.6
Age (mean)						
Adult	32.22	30.91	31.58	29.72	---	---
Juvenile	---	---	---	---	15.77	15.58
Marital Status						
Married	23.0	23.4	15.8	12.0		
Not Married	77.0	76.6	84.2	88.0		

Table 1 Con't.

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Highest Grade Completed^b

< High School	58.5	80.4	38.7	53.7
High School	41.5	19.6	61.3	46.3

Highest Grade Completed

< 9 th			35.8	43.3
9 th -10 th grade			55.1	44.1
11 th -12 th grade			7.1	12.6

The majority of individuals in the juvenile drug courts and comparison group were male. Despite this similarity, they differed significantly on a number of dimensions. Members of the drug court group were more likely to be white, more educated, and employed. Similar to the other groups, the majority of both participants and comparison group members had a prior record; however, the drug court participants were significantly more likely to have a prior record.

In addition to examining demographics and criminal history, it is also important to consider current charges and legal status. The majority of adult offenders, both in the treatment and comparison groups, had been convicted of drug charges. In contrast, members of the juvenile drug court and comparison group were typically charged with property offenses. While the majority of both juvenile groups had been adjudicated, juvenile drug court clients were significantly more likely to have received treatment in lieu of conviction.

Rearrest Rates

Table 2 illustrates the differences in rearrest rates between drug court participants and comparison group members by court type. For each court type, drug court clients fared significantly better than comparison group members in terms of rearrest. Specifically, approximately 32% of the common pleas drug court clients were rearrested versus 44% of the comparison group. Similarly, 41% of the municipal drug court clients were rearrested compared to 49% of the comparison group, while nearly 56% of the juvenile drug court participants were rearrested compared with 75% of the comparison group.

Table 2. Rearrest of Drug Court Participants and Comparison Group Members

Characteristics	Common Pleas		Municipal		Juvenile	
	DC % (n=788)	Comp % (n=429)	DC % (n=556)	Comp % (n=288)	DC % (n=310)	Comp % (n=134)
Rearrest^a						
Yes	31.8	44.2	41.0	49.1	55.7	75.0
No	68.2	55.8	59.0	50.9	44.3	25.0
Arrested Multiple Times^b						
Yes	66.3	64.3	26.3	39.3	55.1	68.7
No	33.7	35.7	73.7	60.7	44.9	31.3

^aCommon Pleas: $\chi^2 = 18.583$, $p = .000$; Municipal: $\chi^2 = 4.710$, $p = .030$; Juvenile 5.121, $p = .024$

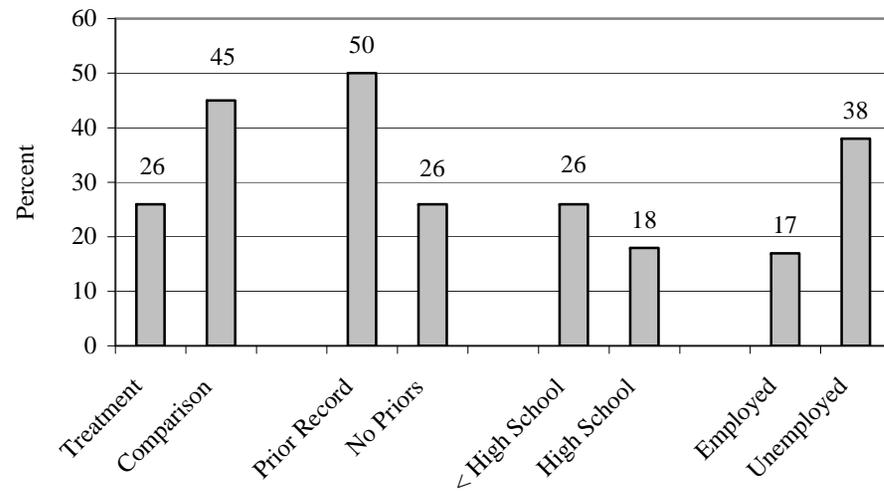
^bMunicipal: $\chi^2 = 8.941$, $p = .003$

In addition to examining whether or not participants had been rearrested, the study examined differences in the frequency of arrests. There were no significant differences in terms of the number of arrests for the common pleas and the juvenile groups. However, municipal drug court participants were arrested significantly fewer times than their comparison group counterparts. Over 26% of the municipal drug court group was arrested on multiple occasions versus 39% of the comparison group.

Determinants of Rearrest

It is also important to explore the factors associated with rearrest to be certain that the services delivered by drug courts have an impact independent of the characteristics of the individuals they serve. Logistic regression was used to identify factors associated with recidivism and to control for differences between the groups. As illustrated in Figure 1, a number of factors predicted rearrest for members of the common pleas group. Specifically, prior record, education, employment status, and group membership (e.g., drug court vs. comparison) were all significant. Those who were members of the comparison group, had a prior record, had less than a high school education, and were unemployed, were significantly more likely to be rearrested.

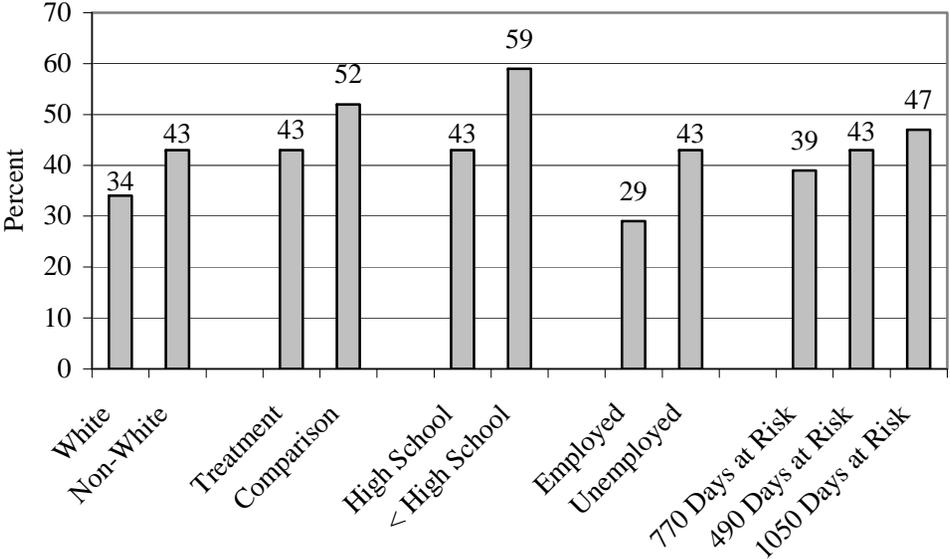
Figure 1. Impact of Significant Predictors on Probability of Rearrest: Adult Common Pleas Court, N = 1217^a



^aOnly the probabilities for the significant factors from the logistic regression are depicted in this figure.

Figure 2 illustrates the factors predicting rearrest for the municipal group. Similar to the common pleas group, logistic regression analysis indicated that race, education, employment, time at risk, and group status all were related to rearrest. Offenders who were non-white, less than high school educated, unemployed, at risk for rearrest the longest, and comparison group members, were significantly more likely to be rearrested.

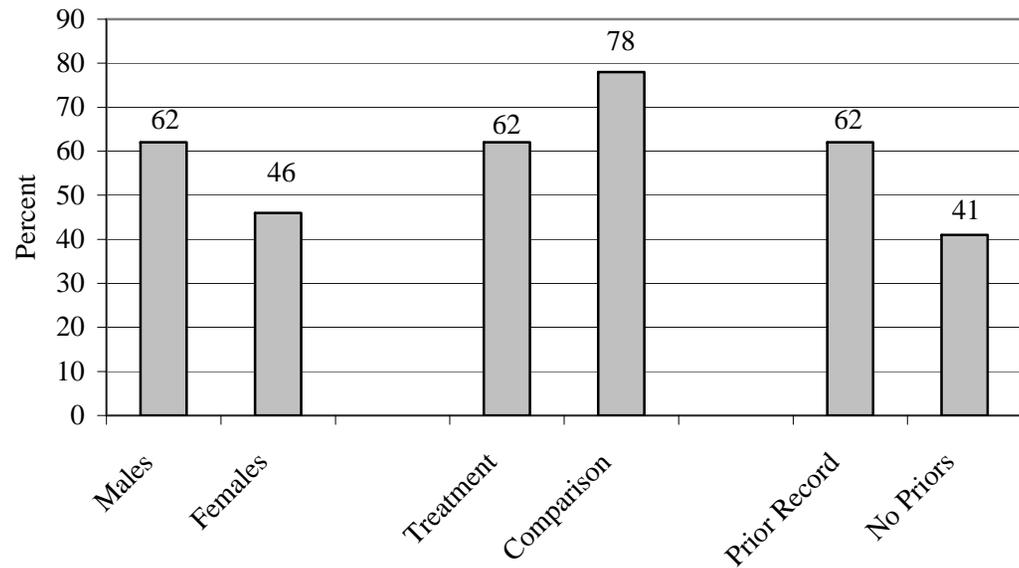
Figure 2. Impact of Significant Predictors on Probability of Rearrest: Adult Municipal Court, N = 884^a



^aOnly the probabilities for the significant factors from the logistic regression are depicted in this figure.

A third regression equation predicting outcomes for the juvenile groups was also illustrative. Gender, prior record, and group status were found to predict whether juveniles were rearrested as illustrated in Figure 3. Specifically, males, those with prior arrests, and comparison group members, were significantly more likely to be rearrested.

Figure 3. Impact of Significant Predictors on the Probability of Rearrest: Juvenile Court, N = 448^a



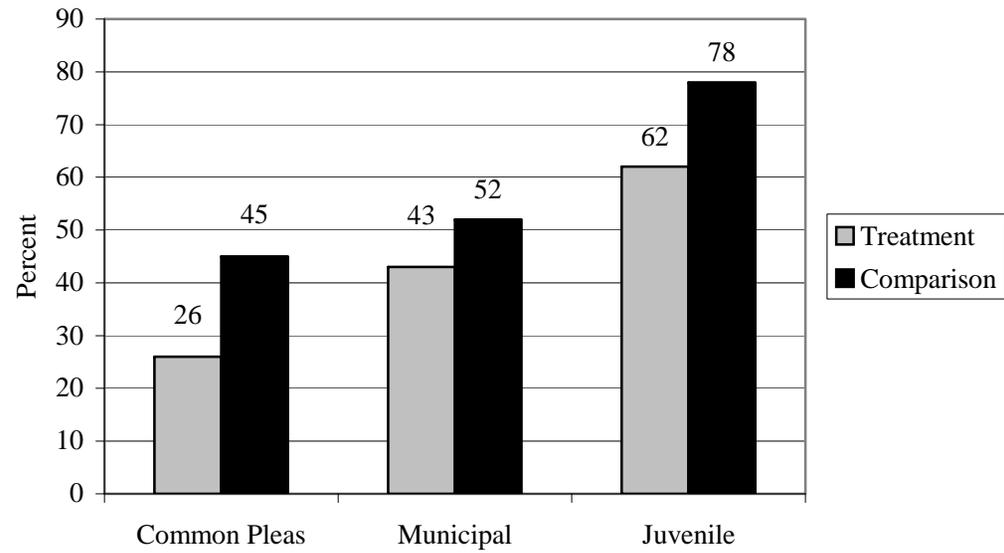
^aOnly the probabilities for the significant factors from the logistic regression are depicted in this figure.

Finally, in addition to determining which factors predict arrest, it is important to determine the probability associated with rearrest⁴. For each group, there was a lower

⁴ The log-odds probabilities are the estimates of the anti-logs of the constants. This has the effect of using the parameter estimates that control for the differences to estimate the odds of failure. Using the constant to derive the “base failure expectancy” has the effect of setting all the other values to 0. The estimate thus was derived from the following formula: $\log \text{ odds of failure} = \text{constant} + b_{\text{race}}(0) + b_{\text{education}}(0) + b_{\text{employment}}(0) + \dots + b_{\text{group}}(0)$. The odds ratios were converted from the log odds by taking the antilog of the estimates described above. The estimated percentages presented throughout the report were derived from the odds ratios. For example, an odds ratio of .644 was translated to a percentage by taking its reciprocal ($1/.644=1.55$) to derive the odds (1:1.55). The odds ratio means that the sample comprised 1 failure and 1.55 successes. The total sample then was the sum of failure and success ($1 + 1.55 = 2.55$), and the percentage who failed was $(1/2.55)*100=39.2$. (For a more detailed description of this procedure see: Langworthy and Latessa’s “Treatment of Chronic Drunk Drivers: The Turning Point Project [1993].)

likelihood of rearrest for drug court participants (see Figure 4). After controlling for differences between the groups, the probability of rearrest for the common pleas drug court group was 26% compared to 45% for the comparison group. The probability of rearrest for the municipal drug court group was 43% versus 52% for the comparison group. Finally, the probability of rearrest for the juvenile drug court group was 62% versus 78% for the comparison group.

Figure 4: Comparisons in Rearrest Rates between Treatment and Comparison Group Members



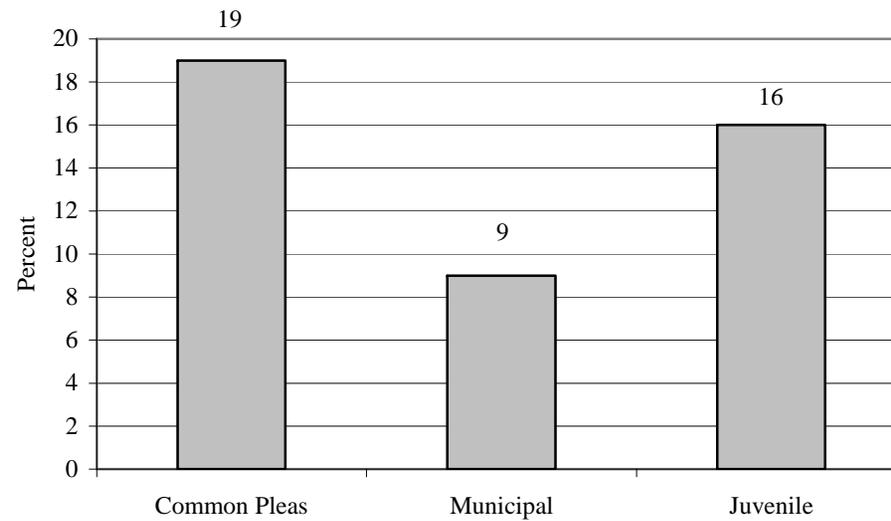
SUMMARY AND CONCLUSIONS

[8] Overall, the evaluation results are very promising. The findings indicate that clients who receive drug court services, regardless of type of court, fare significantly better as a group than individuals who did not receive drug court services. As noted earlier, the basic social demographic characteristics were similar between the two groups and the findings held true when statistically controlling for any differences between the groups. Certain court types (e.g., common pleas) appear to be seeing more significant reductions in recidivism; however, the results support the efficacy of the drug court model in Ohio.

There are several limitations to the study that are worth noting. Assessment results were not available at the time of the study, which limits our ability to examine risk and need levels of the groups. Data were not available on comparison group members on several important dimensions such as level of motivation, participation in treatment activities, and histories of drug and alcohol use. These factors are all important in the effort to learn more about the effectiveness of drug courts in Ohio. Finally, although we have no reason to believe that Ohio's drug courts are substantively different from other drug courts, the findings from this study are limited to Ohio.

Despite the limitations, it is clear that the drug courts under study are having a significant and appreciable effect on recidivism. On two indicators of criminality, initial and repeated arrests, drug court members fared significantly better than those in the comparison group. As illustrated in Figure 4, there was a 19-percentage point difference among the common pleas groups, a 16-percentage point difference for the juvenile groups, followed by the municipal court groups with a 9-percentage point difference. In addition to having lower rearrest rates, we also found that members of the municipal drug court group were arrested significantly fewer times than members of the comparison group.

Figure 5. Reductions in Rearrest Rates between Treatment and Comparison Groups Across all Drug Court Groups



In addition to the significant differences in rearrest among drug court participants and comparison group members, several other important findings emerged. First, gender was a significant predictor among the juvenile group. Specifically, boys were more likely to be arrested than girls. Second, employment and education emerged as significant predictors in both adult courts. Specifically, those with less than a high school education and who were unemployed were more likely to be rearrested. Among all of the various needs of drug offenders, education and employment may be some of the easiest to remedy. Drug courts, however, should pay particular attention to the characteristics of those individuals who are least likely to be successful when developing and modifying services.

It is also important to note that while these results are promising, it is likely that the effects could be stronger. Our previous descriptions of the drug court treatment offered throughout Ohio indicated that the vast majority of treatment providers relied on one primary approach (i.e., 12-Step models). There is some research to indicate that many offenders fail to connect to this model and that other approaches such as cognitive behavioral interventions should be utilized (see Listwan, Hubbard, & Latessa, 2000; Listwan, Shaffer, & Latessa, 2002). Improved offender assessment, treating a wider range of risk and need factors, and utilization of a more skill-based cognitive approach likely will produce stronger results. Thus, improved treatment services, coupled with the supervision and monitoring provided by drug courts likely would result in even greater reductions in recidivism.

The results of this evaluation also are encouraging for the juvenile court group. The juvenile drug court group was significantly less likely to be arrested as compared to those who did not receive services. As mentioned, juvenile drug courts often are confronted with a number of unique

challenges. The community-based drug court model is an important one for an adolescent population that may face risk of incarceration and the further deterioration of important social and protective factors (e.g., schooling, family, peers, etc). The results are supportive of the drug court model; however, it should be noted that the recidivism rate of the juvenile group was higher (62% vs. 26% for the common pleas group and 43% for the municipal group) than the other courts. While it is difficult to pinpoint why this is the case, the findings are in line with the mixed research on juvenile drug courts. We may speculate that system-involved youth often have multiple risk factors that may not be addressed by the traditional drug court model (e.g., parental, abuse/neglect, school failure, mental illness, etc). Further, as noted by Sloan & Smylka (2003), the courts may be inappropriately targeting juveniles where drugs are not a driving force in their criminal behavior. Regardless, the current study points to the need for further research on this topic.

In sum, the findings provide a greater understanding of the impact of this intervention across Ohio. This study is consistent with national studies and other individual studies across the country that find support for the drug court model in reducing criminal behavior. As federal and state legislatures grapple with developing cost effective measures to manage the criminal population, drug courts can provide some answers. However, further research is needed to identify the characteristics that distinguish “successful” and “unsuccessful” drug court models. Future research has the potential to inform the continued development and enhancement of drug courts themselves, as well as other specialty courts (e.g., mental health, domestic violence, young offender, etc).

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