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Waukesha Alcohol Treatment Court (WATC)

Process and Outcomes

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Executive Summary

This report presents findings from a process and outcome evaluation of the Waukesha Alcohol Treatment Court (WATC), a program initiated by a group of local stakeholders to address the Operating While Intoxicated (OWI) problem endemic to the county and to Wisconsin as a whole. With 3 years of implementation funding provided by the Bureau of Justice Assistance (BJA), the program has been in operation since April 2006. Specifically, this report examines an exhaustive sample of participants admitted to the WATC between May 1, 2006 and May 15, 2009. Process data summarized below compared the implementation of the program to both the plan laid out in the narrative of the grant funded by BJA as well as the 10 Key Components, a commonly accepted guideline that details the program theory underlying these types of programs. In addition to this, the outcome evaluation portion of this study compared WATC participants with a “waiting list” comparison group of 3rd OWI offenders who were precluded from participation because they served out their jail time before a program slot became available.

In general, findings showed that the program continues to be implemented well, adhering closely to the plan laid out in the grant proposal and to the 10 Key Components. Analysis of outcome data showed a measurable impact on 2-year recidivism rates, with 29% of the WATC group being rearrested for a new offense compared to 45% of the comparison group.

More specifically, the process evaluation shows a number of program strengths, including a team of dedicated professionals (with limited turnover evident), intensive supervision of convicted 3rd OWI offenders (a niche that historically has received limited local attention), a much greater than anticipated retention rate, and a high degree of on-going program fidelity. Suggested

improvements include more fully integrating substance abuse treatment into the program, engaging the District Attorney's office more actively in the program, and careful study of why OAR rates do not drop significantly while the participants are in the program (possibly suggesting the need for a specialized intervention focused around transportation issues faced by those in the program).

With respect to the outcome evaluation, reductions in overall recidivism (combining new OWI, OAR and other criminal offenses) were observed. However, because OWI reoffending was infrequently observed in both the comparison and WATC groups, additional study using larger samples and longer follow-up intervals is needed to determine whether the WATC substantially reduces the risk for OWI recidivism (i.e., small differences were observed, but statistical power was too low to determine whether these differences were statistically meaningful).

In conclusion, the WATC is a well-implemented program that is measurably impacting recidivism among individuals convicted for their 3rd OWI offense. It fulfills an important niche in the post-conviction supervision of these individuals (who are typically not under probation supervision after release from jail or Huber). Future examinations should determine the extent to which costs offset by the program (related to new offense and to the number of days participants do not serve on their original jail/Huber sentence because they are being supervised in the community) relate to costs incurred by the program.

Introduction and Background

General Overview of Adult Drug Courts

Drug courts were first developed in Dade County (Miami), Florida in 1989 as an alternative to the traditional, adversarial processing of court cases involving individuals who are using or abusing drugs (Butts and Roman, 2004; Harrell, 2003). This combination of criminal courts and local treatment delivery systems originally grew from a need to relieve the tremendous backlog of drug-related court cases that had clogged the criminal justice process across the country to a point of virtual paralysis in some jurisdictions. Drug Court is one of the most recent and promising advances made in the Criminal Justice system, and represents one of the fastest growing intervention approaches with drug-involved offenders across the nation. Following a set of standards known as the *10 Key Components* (Office of Justice Programs, 1997), the central organizing theme for drug court is combining traditional case processing with programming that emphasizes supervision and treatment for drug abusers. The drug court judge oversees a multi-disciplinary team comprised of professionals from all aspects of the criminal justice and treatment systems who have set aside traditionally adversarial roles to address the related goals of public safety and offender rehabilitation. These goals are addressed in a systematic manner within the highly-structured drug court program environment that includes intensive supervision (through regular urine drug testing, regular contact with the drug court judge, and frequent “visits” by drug court team members to participants’ home, work, and school), accountability through quick sanctions for non-compliant behavior, intensive substance abuse treatment (individual and group-based counseling), employment, and other services

needed by drug-involved offenders in order to have a chance at entering long-term recovery and becoming productive members of society.

As a treatment model, drug court provides a unique approach by combining long-term substance abuse treatment and criminal justice supervision, both of which have been shown to have separate and positive effects for increasing retention of drug-involved offenders in treatment and reducing recidivism and drug use among these individuals (Leukefeld, Tims, & Farabee, 2002; Hiller, Knight, Broome, & Simpson, 1998; Nurco, Hanlon, Bateman, & Kinlock, 1995). Drug courts have enjoyed widespread popularity across the political spectrum and have become in many jurisdictions the treatment of choice for drug-involved offenders (Belenko, 2002).

Drug Courts: The 10 Key Components

The central organizing principles of drug courts are outlined in Defining drug courts: the Key components (Office of Justice Programs, 1997). These 10 Key Components were developed by the Drug Court Standards Committee to ensure that a core set of standards (see Table 1) were defined for all drug court programs to follow. Although, individual programs vary to a certain degree in exactly how each of these standards are fulfilled, because the 10 Key Components are intended to be somewhat flexible for helping each jurisdiction answer specific needs unique to its drug court; these 10 Key Components provide an important standard by which to measure whether a particular Drug Court has been successfully implemented in the manner intended by the U.S. Department of Justice. In fact, jurisdictions that implement drug courts with funding from the Bureau of Justice Assistance Drug Court Discretionary Grant Program are expected to adhere to these 10 Key Components when specifying and implementing their local program (see Bureau of Justice Assistance, 2005a, b).

Performance benchmarks are associated with each of the Key Components (also detailed in Table 1), and are intended to help drug court teams to assess the extent to which the ideals represented by each specific component are upheld within their program. For example, with respect to the first key component, “Drug courts integrate alcohol and other drug treatment services with justice system case processing,” (OJP, 1997, p. 9), specific program benchmarks include (a) having an active drug court team with representatives from key stakeholder groups both from justice and treatment agencies; (b) having documents that define the drug court’s mission, goals, eligibility criteria, etc. that were collaboratively developed, reviewed and agreed upon; (c) specifying abstinence and law abiding behavior as goals with specific measurable criteria marking progress; (d) ensuring on-going communication between treatment providers and the court; (e) maintaining active judicial involvement; (f) accessing interdisciplinary training or cross-training between court and treatment staff; and (g) having mechanisms that ensure shared decision making and conflict resolution when necessary.

Table 1 10 Key Components of Drug Courts and Related Performance Benchmarks	
1.	<p>Drug Courts integrate alcohol and other drug treatment services with justice system case processing.</p> <ul style="list-style-type: none"> • Active drug court team with representatives from justice and treatment agencies • Mutually agreed upon documentation of program policies and procedures • Abstinence and law-abiding behavior are explicit goals • Timely communication between court and treatment providers • Active judicial involvement • Cross-training between court and treatment staff • Shared decision-making and mechanisms for resolving conflict among team members

Table 1 (Continued)

2. Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants', Drug Courts integrate alcohol and other drug treatment services with justice system case processing.
 - Prosecutors and defense participate in decisions on whether applicants should be admitted to the program
 - A core legal team that includes the same judge, and prosecution and defense attorneys that has existed long-enough for teamwork to develop
 - Specific but complementary roles for prosecution and defense attorneys that include review of case documents, participation in decisions regarding sanctions and rewards, and ensuring participants understand their legal rights
3. Eligible participants are identified early and promptly placed in the Drug Court program.
 - Eligibility screening is based on established written criteria
 - Eligible participants are promptly advised about the program
 - Trained professionals screen for alcohol and other drug problems
 - Initial appearance before the drug court judge happens soon after arrest
 - Participants are required to enroll in alcohol or other drug treatment services
4. Drug Courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.
 - Individuals are screened at treatment entry for drug abuse and other related problems
 - Treatment services are comprehensive to address every need of the participant
 - Treatment services are accessible
 - Funding for treatment is adequate, stable, and dedicated to the drug court
 - Treatment services have quality controls
 - Treatment agencies are accountable
 - Treatment is designed to be culturally competent

Table 1 (Continued)

5. Abstinence is monitored by frequent alcohol and other drug testing.
 - Testing policies are based on established and tested guidelines
 - Testing may be random or a minimum of twice a week during the first several months of an individual's enrollment
 - The scope of testing is sufficiently broad to detect the participant's primary drug problem as well as other potential drugs of abuse
 - Drug testing procedures must be certain
 - Results are quickly available and communicated to the court and participant within one day
 - The court is immediately notified when a participant tests positive
 - A coordinated strategy governs responses for non-compliance with testing
 - Participants must be abstinent for a substantial period of time prior to graduation
6. A coordinated strategy governs Drug Court responses to participants' compliance.
 - Treatment providers, the judge, and other program staff maintain frequent and regular communication providing timely updates on progress and non-compliance
 - Responses to compliance and non-compliance are explained to the participant
 - Responses for compliance vary in intensity
 - Sanctions for non-compliance vary in intensity
7. Ongoing judicial interaction with each Drug Court participant is essential.
 - Regular status hearings are used to monitor participant performance
 - The court applies appropriate incentives and sanctions
 - Payment of fine/fees/restitution is a part of the participant's treatment

Table 1 (Continued)

8. Evaluation measures the achievement of program goals and gauges effectiveness.

- Drug court leaders and managers should establish measurable goals
- Data should be collected on program operations and activities
- Data are regularly reviewed by program leaders and managers
- Ideally, information is collected and contained within an electronic management information system
- Process evaluation should be undertaken throughout program operations
- If feasible, evaluation should be done by a qualified, independent evaluator
- Evaluations should use a comparison group
- Follow-up data should be collected, including measures of recidivism
- Cost-benefit analyses are desirable for assessing economic impact of program

9. Continuing interdisciplinary education promotes effective Drug Court planning, implementation, and operations.

- Key staff attain a specific basic level of education relative to the role they play in the court
- Continuing education and training by all drug court team members is essential

10. Forging partnerships among Drug Courts, public agencies, and community-based organizations generates local support and enhances Drug Court effectiveness.

- Representatives from the court team meet regularly with community stakeholders to provide guidance and direction to the drug court
- The drug court plays a pivotal role in linking community agencies with the court system
- Partnerships between law enforcement and the court are important
- Participation of community agencies is formalized through a steering committee
- The drug court hires a professional staff that reflects the population served

Source: Office of Justice Programs (1997, January). *Defining Drug Courts: The Key components* (<http://www.ojp.usdoj.gov/BJA/grant/DrugCourts/DefiningDC.pdf>)

Brief Literature Review of Adult Drug Court Effectiveness

Only a brief review of the Drug Court treatment effectiveness literature is presented here because extensive reviews are readily available on this subject (see Belenko, 1998, 1999, 2001; Peyton, & Gossweiler, 2001; Bryan, Hiller, & Leukefeld, 2004). Nevertheless, it is important to summarize some of this literature to help emphasize that drug court has been shown to be an effective model for reducing recidivism and drug and alcohol abuse among offenders with substance abuse problems. This review will examine the major measures of drug court effectiveness including program retention, criminal recidivism, and substance abuse relapse and will also examine how specific program components or participant characteristics may impact drug court outcomes.

Many drug court studies measure recidivism of drug court participants by examining during and/or post-program criminal activity as measured by rearrest rates, reconvictions and new charges. In 2005, the Government Accountability Office (GAO) released a report summarizing evaluations of drug treatment courts from May 1997 through January 2004. The report showed a reduction in rearrests among drug court participants of approximately 10-30% below comparison groups during the follow-up periods (GAO, 2005).

The GAO report (2005) also found lower rates and numbers of reconvictions and new charges among drug court participants. Most studies showed a statistically significant reduction among drug court participants during the program and more than a year after program entry. Though the overall finding shows a reduction following program participation, there isn't always a statistically significant difference between drug court participants and nonparticipants. For example, Werb et al. (2007) found a statistically significant reduction in the number of new convictions among drug court participants in the Toronto Drug Treatment Court after program

completion. However, a similar reduction in the number of new convictions was found among the comparison group, as well.

Similar results indicating lower recidivism rates for drug court participants have been found in studies that were not included in the GAO report (Bavon et al., 2001¹; Gottfredson et al., 2005; Gottfredson et al., 2006; Guydish et al., 2006; Kalich & Evans, 2006; Shaffer et al., 2008). For example, Guydish et al. (2006) found an overall reduction of 11-14% in rearrest rates for California drug court participants. In addition, the evaluation conducted by Gottfredson et al. (2006) found that drug court participants had fewer new arrests while in the program and these effects persisted after program completion. Overall, drug court participants had a lower number of new arrests for every offense type compared with the comparison group, although results were not always statistically significant. Among drug offenses, however, the difference between the comparison group and drug court group was statistically significant. Similar patterns have been found in several other studies where, for example, drug court participants are less likely to be rearrested for violent crimes (Kalich & Evans, 2006) and felony offenses (Dyonia and Sung, 2000) and they also tend to have a lower rearrest rates for drug offenses (Dyonia and Sung, 2000).

Treatment retention, or length of stay in treatment, has also been shown to impact drug court program effectiveness as measured by recidivism. Kalich and Evans (2006) found an association between length of stay and rearrests where participants who dropped out or were terminated from the program had a higher recidivism rate than those in “good standing” or who did not participate. Galloway and Drapela (2006) further found that graduates from drug

¹ Bavon et al. (2001) not only found a lower rearrest rate among drug treatment court participants, but they also found that drug court participants were rearrested sooner than comparison groups during the follow-up period. Other studies have found contradictory results to this study (Fielding et al., 2002; Spohn et al., 2001).

treatment court had significantly lower odds of rearrests and a lower recidivism rate than nonparticipants.

Substance relapse has also been used as an indicator of recidivism, being that the goal of drug treatment court is to stop substance use and abuse. The GAO report (2005) did not find a consistent effect of drug treatment courts on drug use and abuse, but the report noted that research in this area was limited. Generally, studies reporting results from drug tests showed a statistically significant reduction for participants while they were still in the program, but self-reports did not show statistically significant reductions. Once participants leave a drug court program, often voluntary consent must be obtained before relapse information can be collected. Therefore, studies included in the GAO report were limited to within-program data (GAO, 2005). More recently, Kalich and Evans (2006) were able to examine post drug court substance use. These researchers found a program effect among drug court participants: those who were terminated or dropped out of the program were more likely to use drugs, specifically cocaine, than those who graduated (Kalich & Evans, 2006).

Drug courts consist of a myriad of services and activities and these various program components impact participants' success and post-program outcomes. It is critical to determine which components are the most effective so that drug courts and other problem-solving courts can be improved. However, it is difficult to measure which components and also what combination of components is most effective. For example, the Gottfredson et al. (2006) drug court study found a negative relationship between the amount of services received and rearrests. The specific components examined were: drug treatment, drug testing, judicial monitoring (hearings) and probation supervision. When examining the overall effect of drug treatment court on treatment outcomes, Gwydish et al. (2006) found that the impact is small, yet positive, and

that it may be dose-related. Therefore, higher exposure to treatment may lead to a greater likelihood of success. The highest reduction was found among drug treatment court graduates (Guydish et al., 2006). One of the key components of drug treatment courts is the involvement of the judge at the regularly scheduled judicial hearings or status conferences. The judge's role is to review the progress of the offender which includes monitoring client attendance at counseling and drug treatment sessions and examining results of drug tests and other indicators of treatment compliance or noncompliance (GAO, 2005). Compared with traditional court proceedings, drug court clients play a more active role in the courtroom which includes more judicial-client interaction. Accordingly, Gottfredson et al. (2007) found that participation in judicial hearings increase the offender's perception of procedural justice which directly reduces future criminal involvement.

Mandatory drug testing is one of the predominant ways the client's progress is monitored in drug court. The testing may be regularly scheduled or administered at random, and the frequency of testing may vary according to the offender's stage in the program (GAO, 2005). Drug test are also useful in reducing crime, as Gottfredson et al. (2007) showed in a recent study. Not only did drug testing reduce drug use, but it also reduced criminal involvement. More specifically, Gottfredson et al. (2006) found that drug testing was associated with significantly less rearrests.

In a drug court, rewards are used as incentives for compliance and sanctions are used both as punishment and as deterrence for noncompliance. The types of rewards and sanctions vary within each drug treatment court (GAO, 2005) and they can range from verbal praise or condemnation from the judge to a specific punishment or incentive. In addition, sanctions may be situation-specific or graduated with each infraction.

Researchers have examined the effect of perceived deterrence, and specifically of rewards and sanctions, on drug court outcomes. Marlowe et al. (2005) found that if participants had more of a connection between their behavior and the receipt of rewards and sanctions, then they had better outcomes. Hepburn and Harvey (2007) conducted a study in which offenders were placed in one of two drug treatment court tracks, one track threatened incarceration for noncompliance and the other did not. Interestingly, no difference was found between the tracks in program retention rates or average time to completion of drug court clients.

Research on drug courts also has examined the relationship between participant characteristics and treatment program outcomes. The predominant characteristics that have been studied include age, gender, race/ethnicity, employment status and education level. Studies typically find that older drug court participants remain in treatment longer than their younger counterparts. For example, Hepburn and Harvey (2007) found that age predicted program retention for 90 or more days, with older participants being more likely to continue treatment. Additionally, most studies show that older drug court participants are less likely to be rearrested and they are rearrested less often than their younger counterparts (Listwan et al., 2003; Peters and Murrin et al., 2000; Rempel et al., 2003; Spohn et al., 2001; Wolfe et al., 2002).

Inconsistent results have been found as to a gender-effect of drug court treatment. For example, some studies have determined that women drug court participants are more likely to be rearrested or to drop out of treatment compared with men (Listwan et al., 2003; Peters and Murrin, 2000; Rempel et al., 2001). Other studies have shown that women drug court participants have better outcomes than do male drug court participants (Listwan et al., 2003; Spohn et al., 2001; Wolfe et al., 2002).

The GAO review (2005) reported that overall, most drug court participants are white, though some drug court programs consist of predominantly African-American or multi-racial/ethnic participants. Studies of drug courts have found race to be a significant predictor for the likelihood of rearrest: minority drug court participants have been found to be more likely to be rearrested (Shaffer et al., 2008) and incarcerated (Listwan et al. 2003) than non minority participants. Moreover, Festinger et al. (2002) found that white drug court participants were significantly more likely to discontinue substance use than minorities.

Results regarding the effect of drug court participants' employment status tend to be consistent across studies. For example, in the 2005 study conducted by Roll and colleagues, employment status at admission to drug court was the only significant predictor of treatment outcome. In addition employed participants were more likely to be retained in the program for 90 or more days compared with unemployed participants in a study conducted by Hepburn and Harvey (2007). Further, this study showed that employment was the only significant predictor of retention for 180 days or more, and it was a significant predictor of program completion. With regard to recidivism, employment status was found to significantly predict rearrest in both the common pleas and municipal courts where unemployment increased the likelihood of being rearrested (Shaffer et al., 2008).

Level of education has repeatedly been a significant predictor of treatment outcome. For instance, Hepburn and Harvey (2007) found that higher education level of drug court participants significantly predicted program completion. And Shaffer et al (2008) showed that possessing less than a high school education increased the likelihood of rearrest in both the municipal and common pleas court.

In summary, while the research tends to have varying results, overall, drug treatment courts offer much promise. Drug courts appear to have the potential to not only reduce recidivism, but to also offer opportunity to help set offenders in a position for success following participation. More research into this revolutionary design, as well as other problem-solving courts, is needed.

Overview of DUI Court²

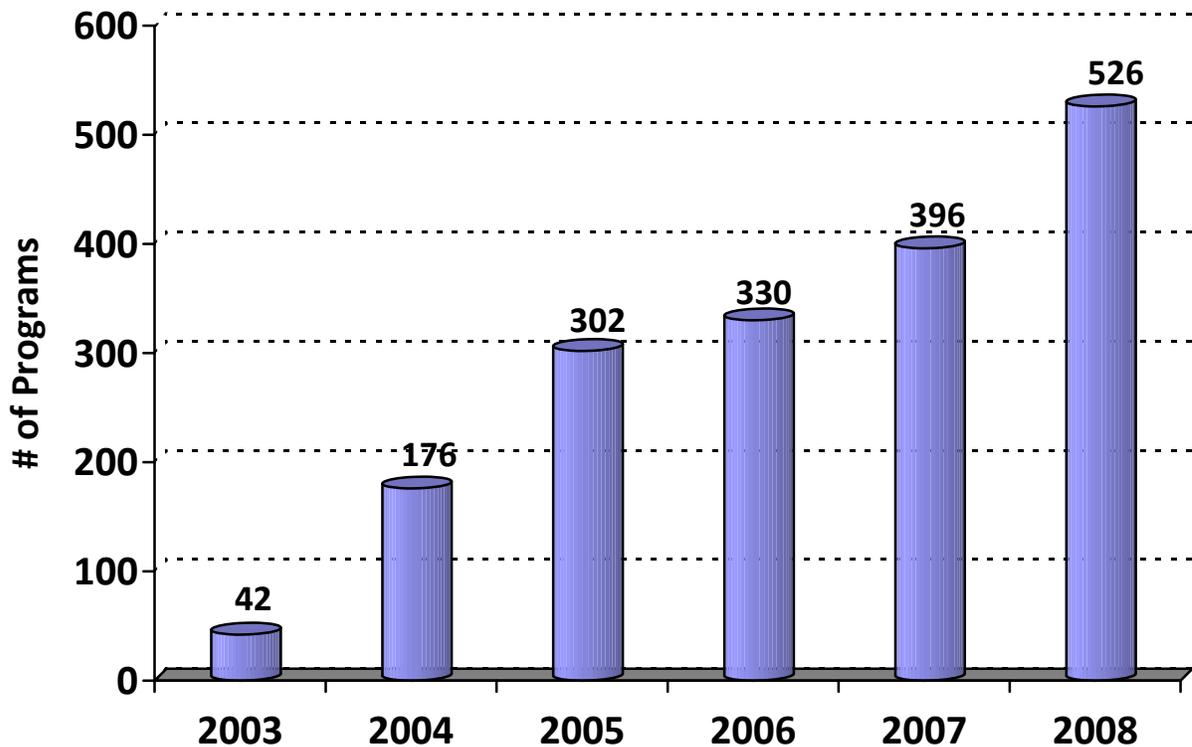
Interventions for reducing recidivism among DUI offenders tend typically to focus on applying sanctions or providing treatment to those convicted for driving under the influence, and many courts already implement specialized sanctions geared toward increasing the supervision and services provided to these offenders (MacDonald, Morral, Raymond, & Eibner, 2007). Furthermore, alcohol is just one of many types of substances that drug court programs attempt to address among offenders on their caseloads (National Drug Court Institute, 2007). DUI courts, therefore, appear to be a reasonable extension of the drug court model to possibly improve the existing supervision and treatment practices of many courts that deal with large dockets of DUI offenders.

As shown in Figure 1, drug courts and DUI courts continue to expand rapidly. By the end of 2004, there were a total of 1,621 drug courts nationwide, comprised of 811 adult, 357 juvenile, 153 family, and 176 combined drug court programs (Huddleston, Freeman-Wilson, Marlowe, & Roussell, 2005). By 2007, there were 81 designated DUI courts and another 249 hybrid DUI/Drug courts; drug courts that also take DUI offenders (National Drug Court Institute,

² A number of terms are used throughout the nation to label driving after one has drunk enough to reach a particular intoxication level (usually a blood alcohol level of .08 or higher). These terms are used interchangeably in the literature and include driving while intoxicated (DWI), driving under the influence (DUI), and operating under the influence (OWI). Wisconsin uses the latter of these terms.

2007). According to the most recent statistics from the National Drug Court Institute, as of December 2008 there were a total of 2,301 drug courts in operation. This number includes 1,253 Adult Drug Courts, of which 382 are Hybrid DWI/Drug Courts. There are another 144 designated DWI Courts bringing the total number of specialized courts dealing with impaired drivers to 526 (accessed statistics from: <http://www.ndci.org/research>).

Figure 1. Growth in DUI/DWI Courts



Conceptually, the DUI court model has been modified in three primary areas when compared to drug courts (described in the previous section). These modifications stem primarily from the type of offenders these programs serve—DUI offenders—whose drug-of-abuse typically is alcohol and who often have special legal conditions placed on them that the typical

drug court participant does not, namely they are prohibited from driving. A set of 10 Guiding Principles, akin to the 10 Key Components, have been proposed for developing and operating DUI Courts (National Drug Court Institute, 2007). As shown in Table 2, these guiding principles largely echo the key components. For example, the fourth guiding principle indicates that DUI courts should supervise the offender much like the 5th key component emphasizes doing this within drug courts. The first and eighth principles, however, diverge somewhat to reflect the fact that DUI courts specifically target DUI offenders (many of whom will not be involved in illicit drugs) and thus will work with a different type of participant. For example, it has been noted in the research literature that many repeat DUI offenders have clinically-problematic alcohol use (requiring treatment for alcoholism), and they also have high rates of co-occurring mental health problems (Lapham, C’de Baca, McMillan, & Lapidus, 2006). In a study of repeat DUI offenders in Massachusetts, Shaffer and colleagues (2007) found that 97.6% of the sample qualified for a lifetime diagnosis of an alcohol use disorder (i.e., 56.9% alcohol abuse, 40.7% alcohol dependence). They also found significantly higher rates of generalized anxiety, conduct disorder, attention deficit disorder, and post-traumatic stress disorder among repeat DUI offenders compared to a community sample from the National Comorbidity Survey Replication study (Kessler, Berglund, et al., 2004). Lifetime diagnoses of depressive disorders were similar to community samples, but past 12-month diagnoses of dysthymia and major depressive disorder were elevated in the DUI sample.

Table 2	
Guiding Principles of DUI Courts (Related Key Component)	
1.	Target the population.
2.	Perform a clinical assessment (3).
3.	Develop a treatment plan (1, 4).
4.	Supervise the offender (5).
5.	Forge agency, organization, and community partnerships (10).
6.	Take a judicial leadership role (7).
7.	Develop case management strategies (4).
8.	Address transportation issues.
9.	Evaluate the program (8).
10.	Create a sustainable program (10).
Source: National Drug Court Institute (2007). <i>The ten guiding principles for DWI courts</i> . Alexandria, VA: Author. http://www.ndci.org/pdf/Guiding_Principles_of_DWI_Court.pdf	

In addition to this, the nature of the offense and sanctions levied on DUI typically results in their license being revoked for a considerable length of time. This is necessary because it helps to ensure public safety by preventing the repeat DUI offender from driving, but it also can make it difficult for participants to meet program requirements. Often participants are required to attend treatment, court sessions, self-help meetings and other required elements of the program several times a week, and this can be particularly difficult for them to successfully navigate, particularly if public transportation is limited or not available, and if they do not have adequate networks of friends and families to help them to get to each place on time. Therefore,

the need to address transportation issues is particularly emphasized in the guiding principles of DUI courts.

Literature Review of DUI Court Effectiveness

Research on the effectiveness of DUI courts has been particularly limited when compared to the study of drug court effectiveness. In fact, only four evaluations were identified during a search of the scientific literature that specifically discuss outcome evaluations of DUI Courts (Breckenridge, Winfree, Maupin, & Clason, 2000; Eibner, Morral, Pacula, & MacDonald, 2006; Lapham, Kapitula, C’de Baca, & McMillan 2006; Lapham, C’de Baca, Lapidus & McMillan, 2007; MacDonald, et al., 2006). Because designated DUI courts and hybrid DUI courts were implemented years after the first drug courts, outcome research on DUI courts has lagged behind. In particular, studies that examine criminal justice recidivism and substance abuse relapse require adequate follow-up periods so that post-program outcomes can be properly assessed.

In 1995, the second dedicated DWI court in the nation was established in the Municipal Court of Las Cruces, New Mexico (Breckenridge et al., 2000). A study of the program’s effectiveness was conducted where convicted DWI offenders (primarily first-time but some second-time offenders) were assessed to determine their clinical status as an alcoholic and then randomly assigned to participate in DWI court (treatment group) or to normal court processing (control group). The third group consisted of nonalcoholic offenders who also received normal court processing. Conviction records for all three groups were examined for a period up to 24 months following DWI conviction. Results indicated that among those determined to be alcoholic; there were significantly fewer alcohol-related and serious reconvictions for those who went to DWI court compared with members of the control group. The nonalcoholic group was found to have the lowest overall reconviction rates. Researchers indicated that the findings were

promising, however cautionary, due to small sample sizes and the inability to collect complete reconviction data.

Modeled after 15 contemporary drug courts in Los Angeles County, the Rio Hondo DUI court was developed to help address the high rates of alcohol related collisions in the City of El Monte. In an effort to combat this problem, the Los Angeles drug court system made a new DUI court program that was modeled for individuals convicted of a second or third DUI and consisted of intensive treatment, electronic monitoring and court appearances (MacDonald et al., 2007). To evaluate whether the court reduced the incidence of subsequent DUI arrests and drinking and driving, researchers randomly assigned offenders to the DUI court or to a traditional criminal court. Findings from interviews and record checks conducted 24 months after program entry indicated that those individuals assigned to the DUI court showed very little differences in abstinence from alcohol or reduced drinking and driving behaviors compared to those individuals who received the mandatory minimum sanctions in the traditional court (MacDonald et al., 2006). The lack of a treatment effect may have been due to the fact that offenders who did not participate in DUI court also received intensive levels of treatment and close court monitoring. In addition, a cost-effectiveness study of the Rio Hondo DUI court found that the DUI court was more cost effective than traditional court expenditures for the third-time DUI offender participants, but actually exceeded traditional court costs for the second-time DUI offender participants (Eibner, Morral, Pacula, & MacDonald, 2006). Based on these results, it was suggested that DUI court interventions developed for more serious DUI recidivists may be the most worthwhile investment of public resources.

To help deter recidivism among repeat DUI offenders, the DUI Intensive Supervision Program (DISP) was developed in Multnomah County, Oregon (Lapham et al., 2006). This

three-year program includes treatment, intensive probation with electronic monitoring, regular court hearings, and breath tests. An evaluation of this intervention was conducted comparing DISP participants with a group of non DISP offenders matched on demographics and DUI arrest history. Results of the study showed that DISP participation was associated with a 48% reduction in re-arrests for DUI and a 54% reduction in re-arrests for driving with a revoked or suspended license (Lapham et al., 2006). The researchers indicate that these results are preliminary, but that the DISP is an effective means of reducing recidivism among repeat DUI offenders.

An additional study of the DISP DUI court in Multnomah County, Oregon was conducted to evaluate the degree to which electronic monitoring (EM) and mandatory vehicle sales (MVS) requirements impacted rates of post-sentence traffic violations (Lapham et al., 2007). DISP participants were randomly assigned into 4 different groups (EM and MVS; EM only; MVS only; neither EM or MVS). Results indicate that positive effects of EM are large in the short term, but have only small value in reducing traffic arrests in the long term. Findings regarding MVS were unclear; there may be some reduction in future traffic violation, but results across groups were inconsistent. Researchers concluded that for these sanctions, reduced rates of adverse traffic outcomes may be limited to the period during which the sanction is in place (Lapham et al., 2007). This study and the other studies reviewed here highlight the need for more research on the effectiveness of DUI court programs in general and also on the effectiveness of the specific program components within DUI court.

The National Picture DUI and the Picture for Wisconsin and Waukesha County

National statistics. Individuals who drive while under the influence of alcohol or illicit drugs represent a significant and persistent threat to the safety and health of the nation as a whole, of each state, and of local communities. For example, data from the National Highway

and Transportation Safety Administration (NHTSA) indicate that alcohol was involved in 7% (or about 450,000) of the accidents nationwide in 2005 (NHTSA National Center for Statistics and Analysis, 2006). It is estimated that 254,000 people were injured in alcohol-related accidents during this same timeframe.³ In 2007, it is estimated that 31.4 million persons drove under the influence of alcohol at least once in the past year (Office of Applied Studies, 2008). Furthermore, although the number of fatalities in DUI-related accidents has steadily decreased since the early 1990s, the proportion of fatal accidents in which alcohol has been involved has remained stable, indicating that DUI-related accidents are still a major public health problem.

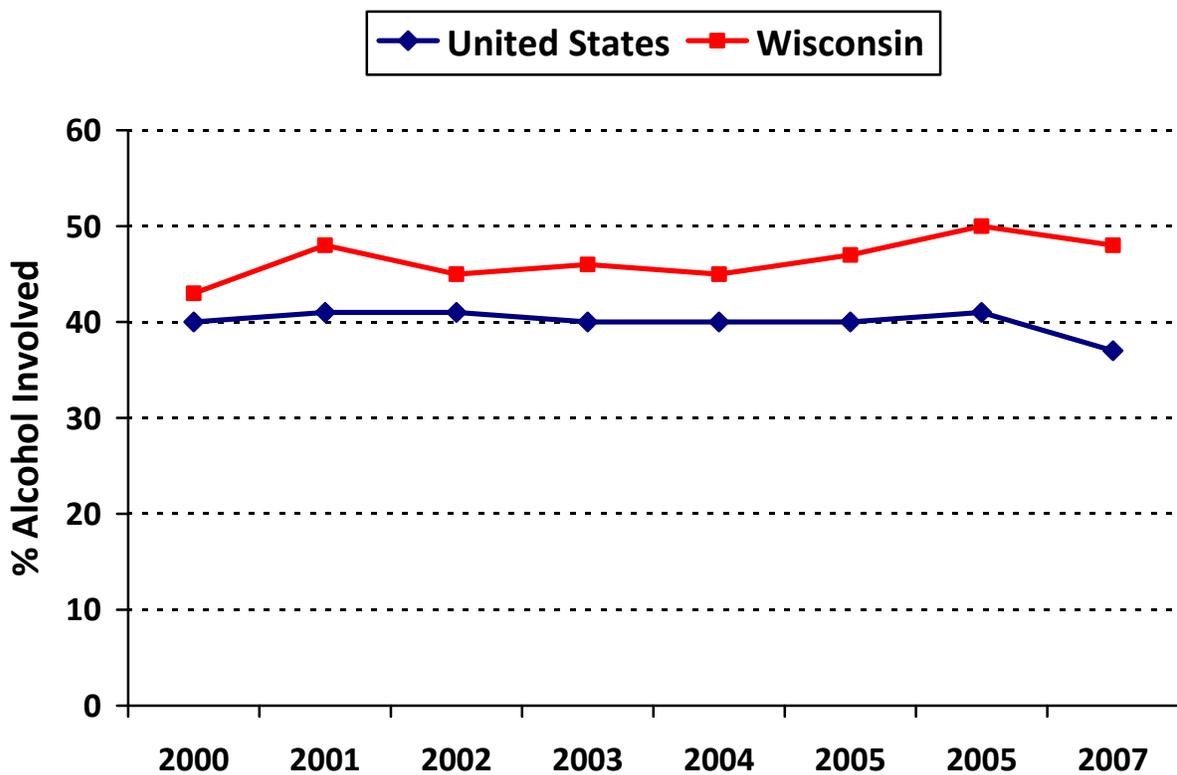
Indeed, alcohol has been shown repeatedly to be involved in a disproportionate number of accidents in which a fatality occurs. Data from 2007 show that alcohol was involved in 37% of accidents in which a fatality occurred, resulting in a total of 15,387 deaths. Further, almost 13,000 people who died were in crashes involving a driver with a blood alcohol content (BAC) of .08 or higher--representing an average of one alcohol-impaired-driving fatality every 40 minutes. Moreover, drivers with a BAC of .08 or higher involved in fatal crashes were eight times more likely to have a prior conviction for driving while impaired (DWI) than were drivers with no alcohol.

In addition to this, based on data from the Federal Bureau of Investigation Uniform Crime Reports (UCR), a total of 1.4 million arrests for driving under the influence (DUI) of alcohol or illicit drugs were made during 2007 (United States Department of Justice, 2008). DUI comprised fully 10% of arrests made during this year, and represents one of the most frequently arrested offenses. By way of comparison, UCR data show that 1.9 million arrests were made for

³ 2005 is the most recent year that alcohol-related non-fatal accident data were reported.

drug law violations, 1.6 million arrests were made for property crimes, 1.3 million for simple assault, and 1.2 million for larceny. With respect to those held in the nation’s jails, DUI was listed as the most serious offense for 6.4% of prisoners in 2002 (compared to 7.4% in 1996). These data also show that the median sentence length for DUI offenders was 6 months (average was 11 months), and that 33% of all jail inmates were under the influence of alcohol when they committed their offense (compared to 41% in 1996) (James, 2004).

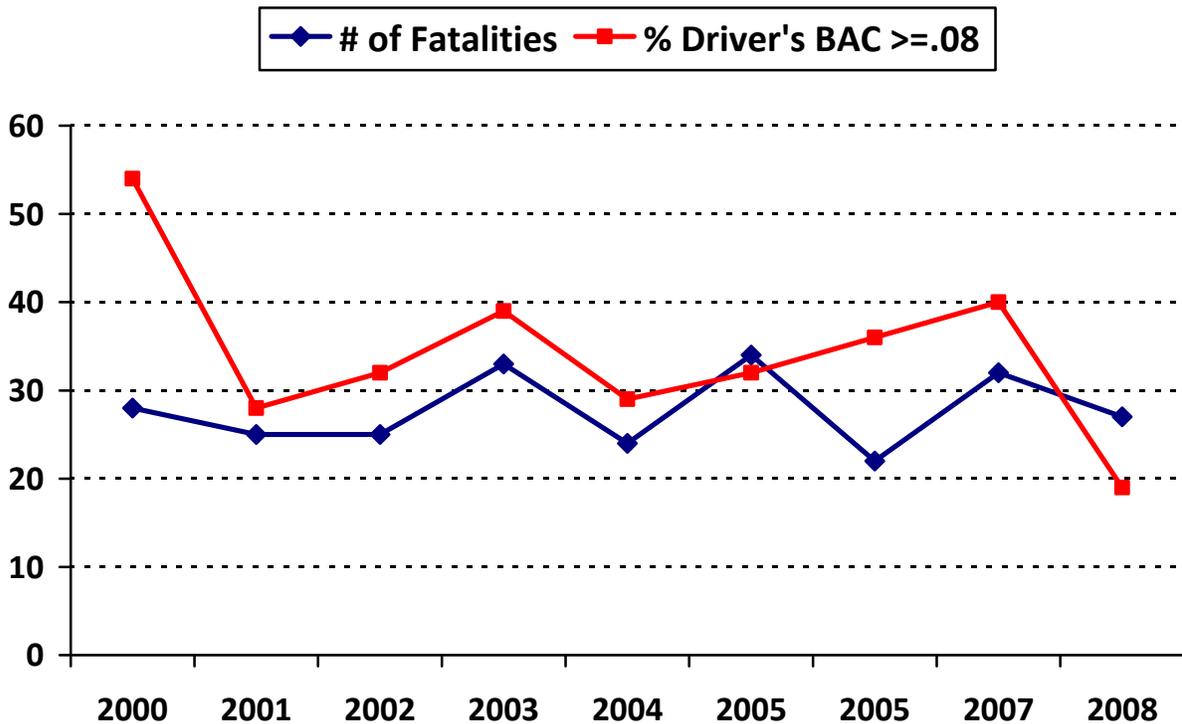
Figure 2. Alcohol-related Fatal Accidents in the US and Wisconsin 2000-2007



Wisconsin statistics. In 2008, a government study of adult drivers ranked the state of Wisconsin 1st out of all 50 states for having the highest rates of past year driving under the influence of alcohol (SAMHSA 2008). Researchers found that over one-fourth (26.4%) of adult

drivers in the state drove while under the influence, compared with the national average of 15%. Not surprisingly, a recent report indicates that Wisconsin ranks in the top one-third of states, along with Illinois, Missouri, Texas and others, for having the highest proportion of alcohol-related fatal crashes (NHTSA National Center for Statistics and Analysis, 2007). In fact, as shown in Figure 2, analyzing trends from 2000 until 2007, alcohol was implicated in fatal accidents in Wisconsin at rates that consistently exceeded the national rate for alcohol-related fatal accidents. In Wisconsin, data from the NHTSA Fatality Analysis Reporting System (FARS) show there was a total of 756 fatalities in accidents in 2007, and alcohol was a contributing factor in 48% of these accidents. In addition, trend data show that there was an 11% increase between 1997 and 2007 in the percentage of drivers with a BAC over .08% in fatal crashes. The FBI UCR data, aggregated by the Wisconsin Statistical Analysis Center, show that the number of arrests for driving under the influence (referred to as OWI or Operating While Intoxicated) in Wisconsin decreased 2.7% between 2004 and 2005, from 42,959 in 2004 to 41,817 in 2005 (Wisconsin Office of Justice Assistance, 2007). However, trend data from 1995-2005 indicate that adult arrests for OWI in Wisconsin have increased 17.4% over this ten year period. This trend appears to continue as the number of OWI arrests in 2006 increased to 42,270 and in 2007 increased to 42,284 (Wisconsin Office of Justice Assistance, 2007; 2008). Data indicated that DUI offenders were predominantly white (93%) and male (79%) (Wisconsin Office of Justice Assistance, 2007). OWI arrest rates assessed by gender were similarly disproportionate (1,549 per 100,000 males and 439 per 100,000 females), while OWI arrest rates for race were comparable (987 per 100,000 white residents and 923 per 100,000 black residents) (Wisconsin Office of Justice Assistance, 2008).

Figure 3. Fatalities in Motor Vehicle Accidents in Waukesha County 2000-2008



Waukesha County statistics. In Waukesha County, operating while intoxicated (OWI) was a theme repeatedly reflected during semi-structured interviews with several key informants to the current evaluation. The consensus of these comments was that OWI is considered to be one of the primary crime problems in Waukesha County, accounting for a significant amount of time and effort exerted by police and the court system as they protect the local communities. Data reported in Figure 3 for the time period spanning from 2000 to 2008 show that, locally, the number of fatalities in motor vehicle accidents has ranged from a high of 34 fatalities in 2005 to a low of 22 in 2006. Findings showed that the highest rate (54%) of alcohol-related fatalities attributed to a driver whose BAC \geq .08 was in 2000, and the lowest rate (19%) was in 2008. Collapsing across the timeframe of 2000 to 2008, about 34% of fatalities in motor vehicle accidents were attributable to a driver with a BAC \geq .08 (NHTSA, 2009).

DUI statistics for Waukesha County illustrate fairly consistent numbers of DUI arrests over the past 5 years. In 2004, 2,762 County residents were arrested for OWI, followed by 2,780 residents arrested for OWI in 2005 (Wisconsin Office of Justice Assistance, 2007). More recently, data indicate that there were 2,770 OWI arrests in Waukesha County in 2006 and 2,867 arrests for OWI in 2007 in Waukesha County (Wisconsin Office of Justice Assistance 2007; 2008).

Summary. In summary, data from the Nation as a whole, on Wisconsin, and on Waukesha County show that Driving under the Influence (DUI) is a persistent problem both from the perspectives of public safety and public health. Although the incidence of DUI has dropped during this decade nationally, this crime still accounted for 10% of arrests in 2007, and was involved in a disproportionate number of fatalities on the nation's roadways. In Wisconsin, data show that DUI arrests have increased slightly in the past two years and the rate of fatalities in alcohol-related accidents has continually exceeded the national average. Locally, in Waukesha County, the proportion of fatalities from alcohol-related accidents has varied greatly from 19% to 54%, with the average (34%) across the time period spanning from 2000 to 2008. Finally, OWI arrest rates have remained fairly stable in recent years. It appears that DUI clearly presents a significant problem to Waukesha County, with increasing numbers of arrestees presenting a greater need for supervision and services to address the needs of these individuals.

Waukesha Alcohol Treatment Court

The Waukesha Alcohol Treatment Court (WATC) has been in operation for over 3 years and is a court-based intervention program specifically designed by local stakeholders to address the OWI problem in Waukesha County, Wisconsin. It already has been the subject of an extensive process evaluation that documented the first 17 months it was implemented (see Hiller

& Samuelson, 2008) which found it was well-implemented, closely adhering to the plan laid out in the grant narrative that received funding from the Bureau of Justice Assistance (BJA) as well as a set of standards (i.e., 10 Key Components) developed by the drug court field as the program theory underlying these types of programs. The current report extends the process evaluation to the last 3 years of program implementation, highlighting changes in the program since the last report. In addition, this report also contains an outcome evaluation of the program that uses a strong quasi-experimental design that compares an intent-to-treat sample of WATC participants with a comparison group derived from a waiting list of potential participants who were unable to participate in the program because limited capacity precluded their involvement. To help describe the contexts within which the WATC program is situated, the following sections describe the history and the socioeconomic contexts of this program.

History. The Waukesha Alcohol Treatment Court was developed by a team of local stakeholders to specifically address the local DUI problem. In 2004, this team, composed of the chief judge (who later became the DUI court judge), the chair of the county board, the clerk of courts, representatives from both the district attorney and public defender's office, a representative from the Department of Health and Human Services, the president of the Waukesha County Police Chief's Association, a probation officer, an evaluator, and the planned DUI court coordinator attended a series of 3 national trainings sponsored by the Bureau of Justice Assistance through the Drug Court Planning Initiative (DCPI). Following these trainings this team submitted an application to the Bureau of Justice Assistance (BJA) Fiscal Year 2005 Drug Court Implementation Funding Program, and received notice in July 2005 that their application had been successful and that they would receive implementation funding for 3 years. In October 2005, funding was received and the court began the implementation process. In

February 2006, the first staff person was hired. After policies and procedures and additional staff were hired, the program formally began admitting participants in May of 2006. In April 2008, an evaluation report on the implementation of the program during its first 17 months in operation was completed. Findings from this evaluation showed that the program was well implemented, closely following the plan laid out in the narrative of the grant application funded by BJA. It also was found that the program had been implemented in a manner that was highly consistent with the 10 Key Components (OJP, 1997), thus expressing a program theory that adhered to the expectations of the funding agency. Some departures from the grant narrative and Key Components were noted. One of these was related to the number of participants who had been admitted to the program at that time. Based on the grant narrative, a total of 93 participants were expected to have been admitted to the program by September 1, 2007. Findings showed that only 70 participants had been involved by this point.⁴ With respect to program theory, departures related to Key Components #2 and #3 were apparent. Specifically, it was noted that there was very limited participation in the program by the District Attorney's Office and that admissions to the program were not being placed in a timely manner into the program.⁵

⁴ Although the enrollments were below what would have been anticipated based on the grant narrative, this was not considered a significant departure. In fact, this discrepancy is attributable to higher than expected retention rates of those admitted to the program. The original grant narrative anticipated a retention rate of 66%; however, the program had successfully retained 90%. Because monthly program capacity was limited to 50 participants, higher than expected retention rates resulted in fewer program slots opening up because participants were dropping out of the program thus limiting the number of slots available and limiting enrollment opportunities.

⁵ The lack of timely placement of participants was also related to higher than expected retention rates and to a demand that exceeded the capacity of the program. The number of OWI offenders who applied to the program exceeded its capacity. This led to a waiting list of individuals who had made application to be in the program. Because of limited capacity, however, some applicants were not able to get into the program before finishing their jail sentences.

The current evaluation study builds upon the previously completed process evaluation that documented the implementation activities of the program between May 1, 2006 and September 1, 2007 (see Hiller & Samuelson, 2008). The current study extends this timeframe to May 15, 2009 (covering the first 3 years of the program) and focuses on changes that occurred since the last evaluation as well as the recidivism outcomes of WATC participants and a comparison group of 3rd OWI defendants who did not participate in the program. Noted more fully below, a series of research questions are answered related both to changes in the program implementation and to the outcomes of program participants. If specific aspects of the program have not changed, to provide a full picture of the program, some material from the previous evaluation is repeated in this report. In addition, during-program outcomes (i.e., program retention) described in the previous report will be updated to include all participants admitted to the program between May 1, 2006 and May 15, 2009

Geographic and socioeconomic contexts of the program. The Waukesha Alcohol Treatment Court is located in a suburban county adjacent to Milwaukee, Wisconsin. Several key informants for this evaluation noted that despite its location on Interstate 94, which links Milwaukee to Chicago, Illinois, and the fact that Interstate 43 also provides quick and ready access from Milwaukee to the area, that serious crimes associated with these large urban areas (including gangs, homicide, sexual assaults) are uncommon in this county. Data from the United States Census indicates that in 2006, the total population for Waukesha County was 380,985, with 50.5% of the population being Female, 94.2% White/Caucasian, 1.2% African American, 3.2% Hispanic, 2.5% Asian, and .2% American Indian. About seventy-six percent of the population is age 18 or older, with the median age (40.6 years) about 4 years older than the median age (36.4 years) of the general U.S. population. Overall, 93.8% of residents over the age

of 25 have at least a high school degree, and 38.3% have a bachelor's degree or higher (compared to 84.1% and 27%, respectively, for the US population)

Waukesha County is an affluent area with the median household income (i.e., \$69,398) exceeding the national median (i.e., \$48,451) by more than \$20,000 per year. The unemployment rate was 3.5%. Fewer than 3% of families (3.9% of individuals) are impoverished (versus 9.8% and 13.3%, respectively, for the US population). Overall, 78% of housing units are owner occupied (versus 67.3% for the US), and the median home value was \$250,900 (versus \$185,200 for the US).

Method⁶

Data Sources

A variety of data sources were used to collect the information contained in this report. Central among these were the participant's files, the WCS Alcohol Treatment Court Database, the WCS Pretrial Database and the Wisconsin Consolidated Court Automation Programs (CCAP). In addition to this, particularly with respect to the process evaluation, data also were collected through semi-structured interviews with the team, participant observations, and WATC self-documentation (e.g., program handbooks) and a prior report prepared by Hiller and Samuelson (2008) that documented the first 17 months of WATC implementation, the structure of the program, as well as the extent to which it adhered to a commonly accepted framework that details the underlying theoretical model for drug courts (see OJP, 1997).

⁶ The current process and outcome evaluations of this program meet the requirements specified in the *Adult Drug Court Implementation Grants Solicitation for Fiscal Year 2005* and the *Drug Court Discretionary Grant Program: FY 2005 Resource Guide for Drug Court Applicants* (Bureau of Justice Assistance, 2005a, b), the solicitation under which the implementation of the Waukesha Alcohol Treatment Court program was funded.

Process Evaluation

Rationale for process evaluation. In-depth process evaluations of intervention programs like DUI courts are needed (a) to monitor the on-going implementation of and modifications to the program model, (b) to determine whether the theory around which the program is organized is well-specified and capable of addressing the problem, and (c) to aggregate and summarize during-program indicators of the participants' improvement and success (or failure) to provide a proxy for what can be expected on subsequent post-discharge outcome evaluations (Rossi, Lipsey, & Freeman, 2005). Process evaluations provide the essential contexts for interpreting findings from outcome evaluations. Regardless of whether the program is regarded as a "success" or as a "failure" through the lens of an outcome evaluation, the systematic analysis of the program accomplished during the process evaluations facilitates the identification of the specific program components, operations, and theory that help practitioners and policy makers to understand what parts were related to program effectiveness (or ineffectiveness).

Generally speaking, there are two primary reasons (implementation failure and theory failure) for why programs do not reach their specified goals and are regarded as being ineffective or "failures." The first reason, implementation failure, relates to the extent to which the program was implemented according to its original design. Simply stated, if the program is implemented very differently than it was planned, it likely will fail to reach its originally stated objectives. Such failures often occur when a program is poorly implemented, leading to a poorly and/or inconsistently specified program model that gives a less than optimal experience for program participants, thus reducing chances for positive participant outcomes. The primary way to determine whether a program has suffered an implementation failure is to compare the actual

implementation of the program to the plan presented in the program's application for funding. Therefore, as noted above, the standard of comparison for determining whether the program implementation succeeded will be the narrative of the Waukesha County Alcohol Treatment Court proposal submitted in 2005 and approved for funding through the Bureau of Justice Assistance. In this analysis, discrepancies between the actual and the planned implementation of the program can be identified, facilitating a judgment about whether the program was well implemented, adequately implemented, or poorly implemented.

If a program has not suffered a significant implementation failure (i.e., having been judged to be well implemented), it can still be determined to be ineffective during subsequent outcome evaluations. The failure of the program to reach its specific goals (i.e., outcomes), in this case, is not the result of implementation problems but rather it is due to a misspecification in the theory used to develop the program. That is, if the theoretical impact model around which a program has been developed is flawed, even when implemented with a high degree of fidelity, the program never had the potential to reach its desired objectives. Fortunately, for the drug court model, extant publications like *Defining Drug Courts: The Key Components* (Office of Justice Programs, 1997) provide specific guidance regarding the reason why specific program elements like regular contact with the judge, intensive supervision through regular drug testing, and substance abuse treatment are included in the program model (i.e., the program theory). Theoretically, each of these elements is specifically included to achieve a desired outcome. For example, in a typical drug court, substance abuse treatment services are included to specifically reduce and/or eliminate the use of illicit drugs and attendant criminality among the participants. Therefore, as noted above, the second frame of comparison for the process evaluations of the Waukesha DUI Court will be the *10 Key Components* (described in Table 1). Specifically, the

extent to which the implementation of the Waukesha DUI Court conforms to these guidelines will specifically inform judgments about whether the underlying theoretical model for drug courts was expressed well enough to enable the program to have a chance at achieving its desired outcomes.

Research design for process evaluation. Information from the implementation process evaluation of the Waukesha Alcohol Treatment Court (see Hiller & Samuelson, 2008), was updated for the current study by consulting agency records, discussions with team members, and participant observation of the treatment court staffing and hearing.

Process evaluation research questions. Because the current evaluation builds on a detailed implementation evaluation previously completed on the program (see Hiller and Samuelson, 2008), research questions focus on updating this prior evaluation and extending it to new questions that were not answered previously. With respect to updates, the general questions to be answered were whether the program continued to be implemented in a manner that was consistent with the Key Components and Guiding Principles for Driving Under the Influence (DUI) court (representing an assessment of the program theory, see Office of Justice Programs, 1997, 2004 and the National Drug Court Institute, 2007), and whether the program continued to be implemented in accord to the design laid out in the narrative of the grant funded through the Bureau of Justice Assistance, Drug Court Discretionary Grant program (representing an assessment of program fidelity). Because additional data sources (most notably the participant's files, the WCS Pretrial database, and the Wisconsin Consolidated Court Automation Programs database) were available, questions regarding how the WATC court process operated for 3rd Offense OWI defendants relative to those who did not participate in the court could be examined. The program narrative of the application funded by the BJA also listed specific process goals,

and these also served as a source for questions asked in the process evaluation. Specific questions addressed by the process evaluation included the following:

1. Were there significant changes in the demographic profile of WATC participants?
2. Did enrollments in the program meet projections set forth in the program narrative funded by the Bureau of Justice Assistance?
3. What was the retention rate of participants in the program?
4. What participant characteristics predict program dropout?
5. What was the average length of program stay and were goals expressed in the grant application reached?
6. Were there differences in the manner that cases were processed for WATC participants and non-participants?
7. Were there major changes in the manner in which the court adhered to the Key Components of Drug Courts?

Outcome Evaluation

Rationale and research questions for the outcome evaluation. Ultimately, the goal of interventions like the WATC program is to bring about a desired change(s) in an area that has been identified to be a problem. Often these changes are detailed in the goals of the grant application submitted to seek funding for the program. With respect to the WATC, aside from process goals like retaining a minimum of 66% of admissions in the program and having 66% of graduates complete the program within 14 months; the program narrative clearly lays out the desired impact of the program. In particular, the overall long-term goals of the WATC were to “reduce the recidivist rate of OWI 3rd offenders” and to “improve the integration of OWI 3rd offenders into the legal driving community.” Related to this, the narrative laid out specific goals

which are expressed as the research questions that this evaluation seeks to answer. These questions include the following:⁷

1. What was the number/percentage of participants arrested for a 4th OWI while in the program?
2. How do program participants' recidivist results compare to the results of OWI 3rd offenders who do not participate in the program?
3. Does the WATC reduce the number and percent of citizens arrested for a 4th OWI?
4. Did the WATC decrease the number and percent of participants' new convictions for other offenses?
5. Relative to a comparison group, did the WATC decrease the number and percent of participants' new convictions for driving-related offenses, e.g., driving after revocation, driving while suspended?

Research design for outcome evaluation. The “ideal” outcome evaluation would use a true experimental design with all eligible individuals randomly assigned either to a control group that does not receive the program of interest or a treatment group that is exposed to the program of interest. Because this is the most rigorous type of design possible, interpretation of findings regarding effectiveness are clear and unambiguous. Unfortunately, experimental studies of drug courts are rare because program staff often object to these on the basis of ethical principles (e.g., the control group should not be denied treatment), resources for evaluation are limited, and the operations and organizational culture of justice system agencies make the

⁷ Because data were unavailable, a sixth question related to the integration of OWI 3rd offenders into the legal driving community, does the program increase the rate of individuals who reobtain driving privileges, was not addressed in the current report.

implementation of experimental studies extraordinarily difficult (Belenko, 2002; Martin, Inciardi, & O'Connell, 2003).

Typically, much weaker quasi-experimental designs are used like comparing program graduates to program dropouts (see Belenko 2001; GAO 2005). Weaker designs are problematic because judgments about a program's effectiveness can be ambiguous. In the case of comparing graduates to dropouts, those who fail to complete the program differ systematically from graduates on key variables, which often are related to recidivism, significantly limiting conclusions regarding program effectiveness because it is unclear whether differences in recidivism are the result of different lengths of exposure to the program or because of the characteristics that systematically differentiated graduates and dropouts.

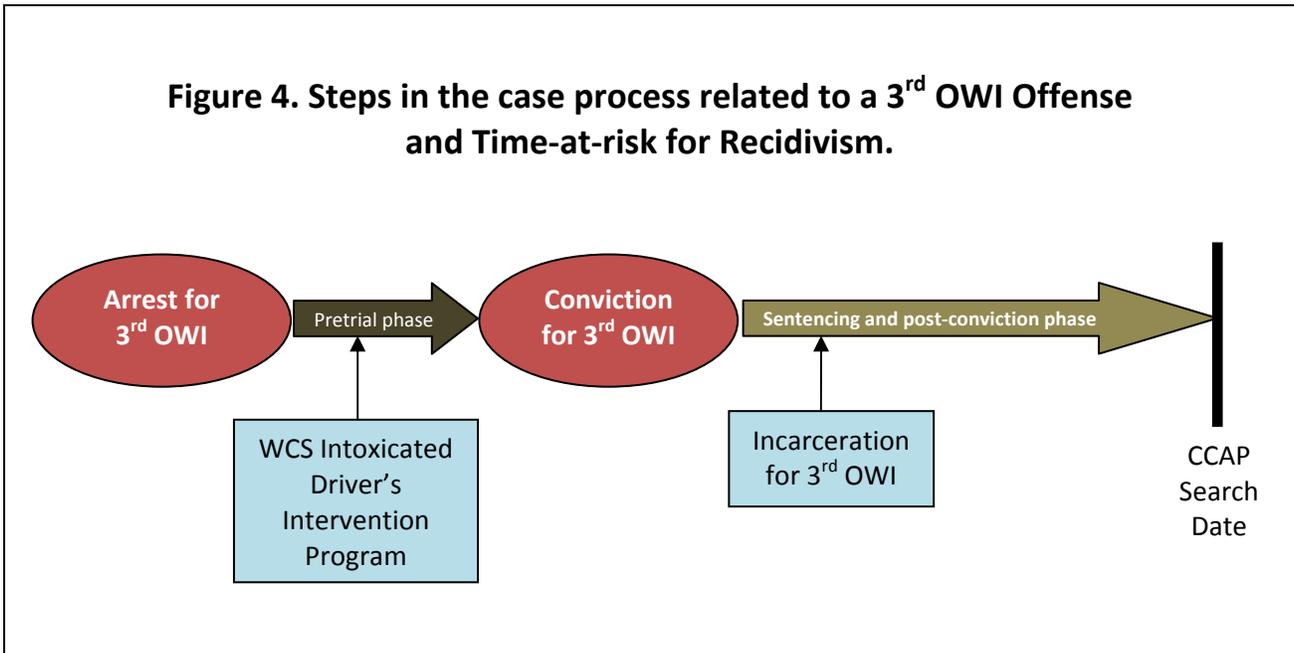
Treatment group. The current study represents a significant improvement over weaker quasi-experimental designs because it uses an intent-to-treat design (and as described in the next section it also uses a comparison group). That is, rather than distinguishing between WATC completers and non-completers, all cases, regardless of their program completion status, comprise the treatment group. For the current study, an exhaustive sample that totaled 141 participants enrolled in the WATC since its inception (representing the timeframe April 11, 2006 until May 13, 2009) comprised the treatment group.

Comparison group. Further strengthening the research design, a comparison group comprised of 81 individuals who had been placed on a waiting list for the WATC program but who were not able to participate in the program because capacity was limited was used in the current study. Use of a "waiting list" comparison group represents a rigorous quasi-experimental design, especially if the groups are similar on variables (like gender and age) that have been shown to be related to relapse to drinking and driving (see Nochajski & Stasiewicz, 2006)

because these are individuals who were eligible for and awaiting placement in the program but were not exposed to it due to conditions beyond their control (i.e., limited program capacity precluded their participation). As shown in Table 3, demographically, the comparison and WATC groups were similar. That is, there were no significant differences in the composition of the two groups in terms of gender, race/ethnicity, age when arrested for their 3rd OWI, and blood alcohol content at this arrest. For example, the average age (36.2) of comparison group members was statistically equivalent to WATC participants (37.6) [$t(220) = -.95, p = .342$]. Statistically similar proportions of each group were married, had never been married, or were divorced/separated/ or widowed. Each had similar proportions of individuals who had at least a high school education. Likewise, the average blood alcohol content (BAC) of .203 (SD = .06) for the comparison group was not significantly different than the average BAC of .215 (SD = .06) of the WATC group [$t(193) = -1.31, p = .193$]. The only statistically significant difference showed that a larger proportion of the comparison group was employed [$\chi^2(1, n=210) = 4.82, p = .028$]. Taken together, these findings, therefore, suggest that these groups are comparable on key characteristics related to recidivism for drinking and driving, and the current study represents a rigorous quasi-experimental design.

Table 3			
Demographic Profile of Comparison Group and WATC Participants			
Characteristic	Study Group		
	Comparison (n=81)	WATC (n=141)	Total (N=222)
Gender			
% Male	85.2	78.7	81.1
% Female	14.8	21.3	18.9
Race/Ethnicity			
% White/Caucasian	91.3	93.4	92.6
% Hispanic	7.5	6.6	6.9
% African American	1.3	0	0.5
Age at 3rd OWI Arrest			
Average (SD)	36.2 (8.88)	37.6 (10.71)	37.1 (10.1)
Marital Status			
% Single/Never Married	48.1	45.9	46.7
% Married	24.1	24.8	24.5
% Divorced/Separated/Widowed	27.8	29.3	26.4
% w/High School Education	84.8	85.7	85.4
% Employed*	93.7	83.2	87.1
Blood Alcohol Content			
Average (SD)	.203 (.06)	.215 (.06)	.211 (.06)
* $p < .05$			

Criminal history and recidivism information. Recidivism data were abstracted from the publicly available information on the Wisconsin Consolidated Court Automation Programs (CCAP, www.wcca.wicourts.gov/index.xsl) for every individual in both the WATC and comparison groups. As noted on this website, this database contains an exact copy of the case information entered by court staff in the counties where the case files are located. For the current study, a search for each individual was conducted to identify offense date, conviction date, incarceration date, length of sentence, and incarceration facility related to his or her 3rd operating while intoxicated (OWI) offense. Additional information, such as gender, ethnicity, and date of birth also were coded from this record. Any case in the CCAP system that was subsequent to one's 3rd OWI was examined. Only information from criminal traffic cases (i.e., OWI and operating after revocation, OAR) and for other types of criminal cases (e.g., theft, assault, disorderly conduct, bail jumping) were coded. This included the date of each offense, the charge, the level of charge (misdemeanor or felony) and whether or not one was convicted of it.



Time-at-risk for recidivism. A definition of time-at-risk must be couched within a clear understanding of the steps in the court process that begins with arrest for the 3rd OWI and ends at a specific time in the future following conviction for this offense when the individual's CCAP record is examined for new offenses. As shown in Figure 4, a person enters this process by being arrested for his or her 3rd OWI. Following this, procedurally, it takes time for the case to be resolved either through a trial or a plea arrangement and this timeframe often is referred to as the pretrial phase. During the pretrial phase, these individuals are supervised in the community by Wisconsin Community Services (WCS), Inc., through the Intoxicated Driver's Intervention Program, and most also access treatment services for their substance abuse problems. For the current sample, the pretrial phase lasted an average of 161.8 days (5.4 months) ranging from a low of 12 days up to 966 days, and 86% accessed substance abuse treatment.⁸ Because each of these individuals remains in the community during the pretrial phase, they may engage in additional illegal activity and thus are "at-risk" for recidivism. For the current sample, a total of 10.9% were rearrested for a new offense during the pretrial phase. Conceptually, however, it is illogical to use activity during the pretrial phase in an outcome evaluation of a particular program (unless that program is specifically addressing the pretrial population) because it precedes participation in the program. Accordingly, because the WATC is a post-conviction program, recidivism during the pretrial phase is not specifically examined in the current study.

Once a person is determined to be guilty (usually through a plea of guilty or no-contest), he or she then moves into the post-conviction phase of his or her case. As a part of this, by

⁸ Data on the specific type and duration of the substance abuse treatment programs as well as whether participants successfully completed their treatment was limited. Future studies would benefit from more careful tracking and documentation of this information.

statute, all are sentenced to spend some time incarcerated for their offense, either in the county jail or at Huber, a work-release program also operated by the Sheriff's Department. For the current sample, the average sentence for the 3rd OWI was 176.8 days (SD = 49.0 days). Sentences ranged from 40 to 300 days. Because 98.6% of the sample was sentenced directly to Huber and thus were able to be released a part of each day for work, child care, or elder care they were "at-risk" for recidivism during their incarceration. Likewise, once the sentence has been served or one is released from jail or Huber for participation in the WATC, one also is "at-risk" for recidivism. To account for the fact that after one was convicted one was at-risk both during their incarceration and once they returned to the community, the current study focuses on the entire post-conviction period as the window of risk for recidivism. To calculate time-at-risk, a variable was created that was defined as the number of days that elapsed between the time that one was convicted of their 3rd OWI and the date the CCAP record was searched (this search date was capped at 7/28/2009). Recidivism, therefore, represents any new illegal activity that occurred after being convicted for the 3rd OWI and before 7/28/2009. Time-at-risk was observed to vary considerably. On average, one was at-risk for a total of 776.2 days (SD = 303.2), ranging from 99 days to 1,258 days. Two approaches were used to address the wide range in time-at-risk. One of these, survival analysis, is described more fully in the Analytic Plan section of the report. The other approach focused on subsets of time-of-risk, partitioning the sample into those who were at-risk for a minimum of one year (n = 197, 88.7% of the sample) and for those at risk for a minimum of two years (n=136, 61.3%). Some findings, therefore, are described and interpreted as the % of individuals at-risk for one-year who had a new offense within one year of being convicted for their 3rd OWI. Similarly, two-year recidivism findings represent the proportion of

individuals at-risk for a full two years following their conviction who were rearrested for a new offense during this same timeframe.

Analytic plan. A variety of bivariate and multivariate statistics were used to analyze the data in the current report. Generally, analyses followed a two-stage approach that first examined simple relationships between two variables (e.g., bivariate) using both parametric and non-parametric techniques. For comparisons that included a categorical independent variable (i.e., comparison group versus WATC group), Chi-square (χ^2) analyses were used with categorical dependent variables (e.g., rearrested after 3rd OWI conviction; 0 = not rearrested, 1 = rearrested), and independent groups t-tests were used when dependent variables were ordinally or intervally scaled (e.g., age at 3rd OWI arrest, time-in-program). Bivariate analyses of recidivism were restricted only to those who were at risk for the full timeframe covered by that analysis. That is, comparisons of study groups (comparison versus WATC) on one year recidivism rates were limited only to those cases that were at-risk for rearrest for an entire year.

Following analysis of simple relationships, several multivariate techniques were used to establish the unique relationship between a predictor (e.g., study group; 0 = comparison, 1 = WATC) and an outcome (e.g., retention in program, recidivism) net the other predictors in the specified model. For dichotomously-scaled dependent variables (e.g., treatment retention, 0 = not retained in WATC; 1 = retained in the WATC), logistic regression analyses were used to model the relationships between predictors and outcomes.

Because of the unique structure of the recidivism data, survival analysis also was used to model recidivism. These analytic techniques are particularly useful when time-at-risk varies and when the outcome of interest does not occur during the study interval. Survival analysis does not assume equal time intervals and controls for unequal intervals by using the hazard rate (the total

number of times an event occurs within a specific time frame divided by the total number who were at risk for the event at the beginning of the interval). Survival analysis uses censoring to address the cases for which the event does not occur during the entire time interval study. If the event has not occurred by the end of the time the particular individual was at risk, this case is censored at this time and no longer contributes to the hazard rate beyond the end of his/her time at risk. Applied to the current data, as noted previously, time-at-risk varied widely within the sample and the majority of the cases did not recidivate. Regardless of absolute time at risk for recidivism, those who had not recidivated by the end of the time they were personally at risk were right hand censored and not included in subsequent iterations of the analysis. Bivariate survival analytic techniques, such as Kaplan Meier estimates, are available to test groups in terms of the proportion surviving over time (e.g., comparison versus ATC) and usually include a graphical presentation of survival curves to illustrate between-group differences in survival rates. Multivariate techniques, such as Cox proportional hazards regression, allow for the simultaneous estimation of multiple covariates. Results are interpreted very much like those in logistic regression. The size and valence of the coefficient is important for determining the nature and magnitude of the relationship between specific predictor (net the other predictors in the model) and hazard rates.

Results

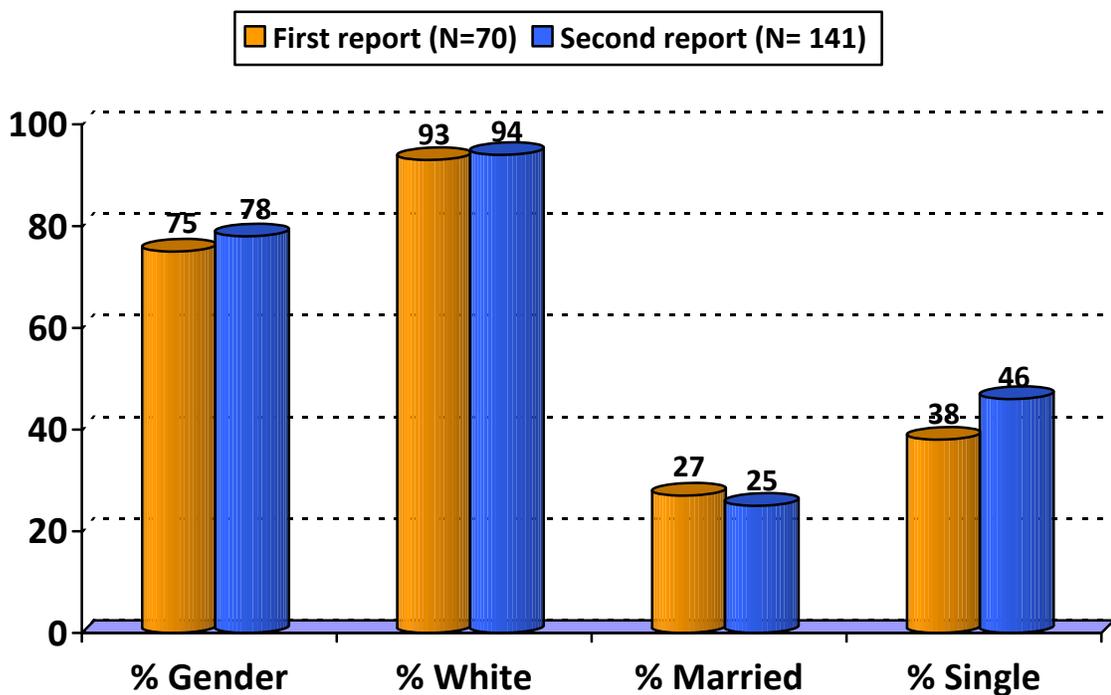
Process Evaluation⁹

Demographic profile of WATC participants. A total of 141 participants were admitted to the WATC between May 1, 2006 and May 15, 2009. To answer the first research

⁹ Please note the process evaluation research questions addressed this section can be found on page 32 of this report.

question, whether there was a change in the demographic profile of WATC participants since the last report, comparisons of the 70 participants from the prior report and the 141 examined in this report (referred to as the First Report and the Second Report, respectively, in the figures that follow) are presented.¹⁰

Figure 5. Changes in Demographic Profile of WATC Admissions

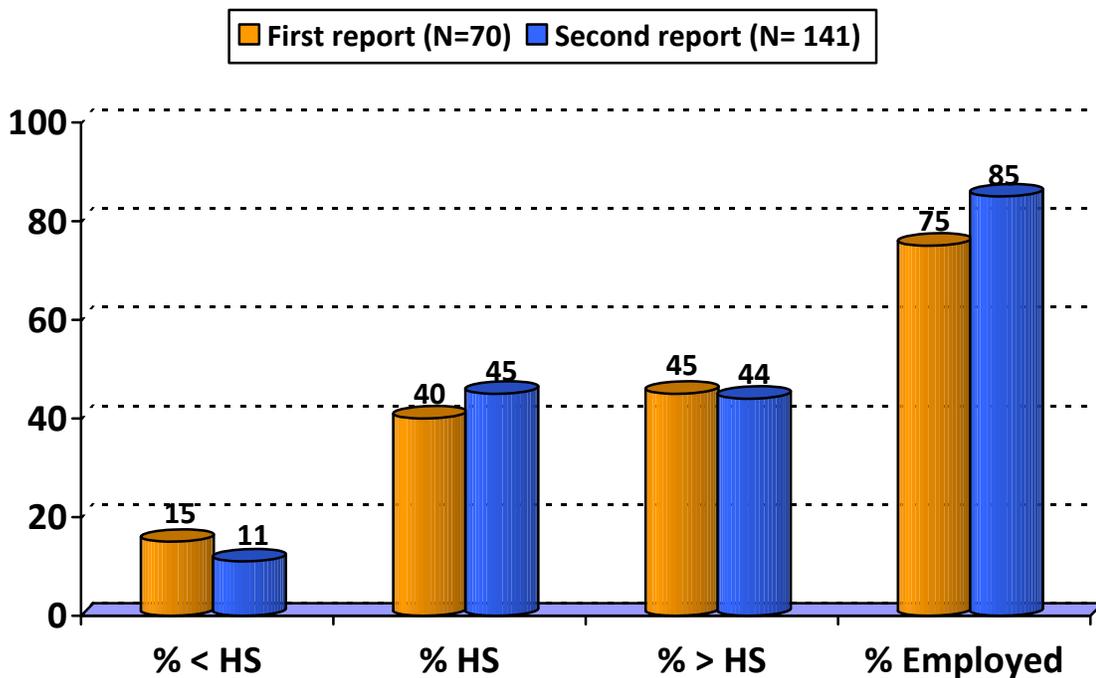


As shown in Figure 5, there was a slight increase (from 75% to 78%) in the proportion of males and a somewhat larger increase (from 38% to 46%) in the percentage of individuals who had never been married who were admitted to the program. There was a slight decrease in the

¹⁰ The 141 participants used in the current report represent an exhaustive sample of all individuals admitted to the WATC during its first 3 years in operation. Because the first report examined the first 17 months of the program, the 70 participants in that study also are a part of the 141 used in the current study. Findings related to the 141 participants represent an overall demographic profile of WATC participants.

proportion married and a slight increase in the proportion who are white/Caucasian. Some concern might be noted by outside observers that the vast majority of the sample was white/Caucasian; however, this is not inconsistent with the demographics of Waukesha County. Data from the United States Census Bureau (2009) show that the vast majority of the population (95.1%) in this county also is white/Caucasian. Although not depicted in Figure 5, findings also showed that the average age of participants remained approximately the same, with a median age of 37 for the sample. When considering the proportion in different age ranges, findings showed the age distribution varied little over time with 29% of the sample aged 20 – 29; 31% were aged 30-39; 27% were 40-39; and 14% were aged 50 or older.

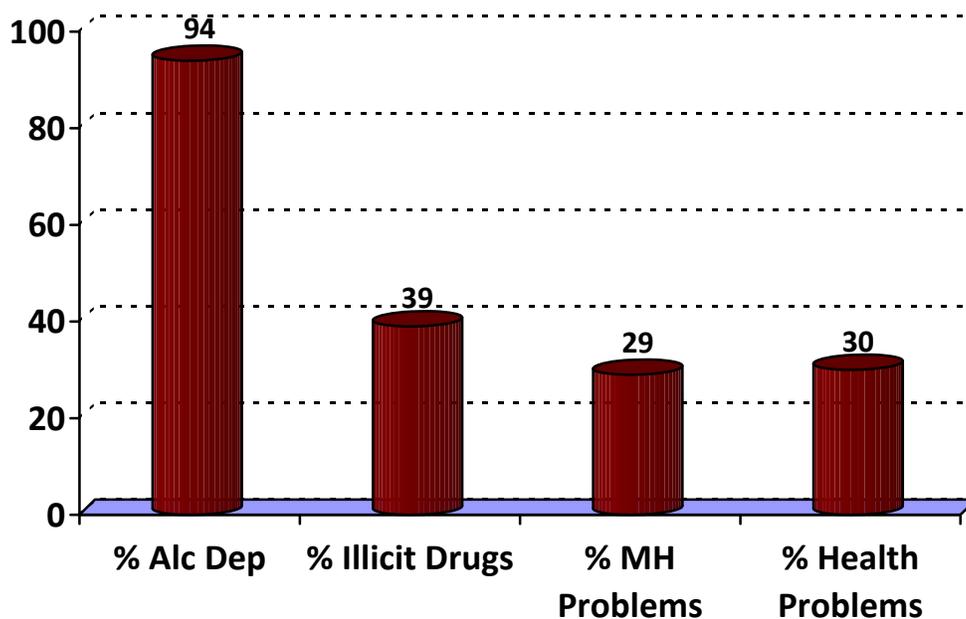
Figure 6. Changes in Education and Employment Profile of WATC Admissions



Examination of other characteristics showed (see Figure 6) some change in the

demographic profile over time. Generally, the overall proportion with at least a high school education increased from 85% to 89%. In terms of employment, an overall increase was evident here as well with 85% of the participants employed (versus 75% as reported in the first evaluation report. A total of 11% were unemployed when admitted to the WATC, and 4% were not in the workforce because they were either disabled, retired, a full-time homemaker or a student.

Figure 7. Clinical Characteristics of Participants



In terms of clinical profile (see Figure 7), data on alcohol and drug dependency were based on Safe Driver’s Plan reports prepared by the Addiction Resource Council that summarized the findings of the Wisconsin Assessment of the Intoxicated Driver (WAID). Overall, 94% of the WATC participants were categorized with Alcohol Dependency (78% active, 14% suspected, and 2% in remission). In terms of self-reported drug-of-choice, 93%

reported alcohol and 6% indicated illicit drugs, including marijuana and cocaine, were their primary substance abuse problems (an additional 36% listed illicit drugs as a secondary problem). All together, 39% of participants listed an illicit drug as either a primary or a secondary drug problem. Collectively, 29% had a history of mental health problems. Thirty percent had a history of health problems.

Projected and actual capacity of the WATC. The program narrative for the WATC funded by the Bureau of Justice Assistance indicated that a total of 75 participants would be served every year by the program; with a daily capacity of 50 participants. Central to the reasoning that 75 participants would be served every year was the expectation that only 66% of the individuals would be retained in the program. Findings in the first evaluation showed that the program fell below projected enrollment, but this was attributed to the fact that the program was much more successful than anticipated at retaining participants; the observed retention rate for the first 17 months of the program was 90% (Hiller & Samuelson, 2008).

To answer the second research question, whether the program had achieved its projected enrollment during the first 3 years of operation, data were examined regarding the admission and discharge of clients from the program. Findings showed, since the last report, an additional 71 participants had been admitted to the program, effectively doubling the number served (for a total of 141). However, projections based on the grant narrative were that a total of 225 participants would have been admitted by the end of the funding cycle (75 per year for 3 years). To understand whether this shortfall could be explained as before as a function of higher-than-expected retention rates, analyses described in the sections below focused on describing the program retention rate as well as the monthly case flow through the program. In general, findings showed the program continued to have a retention rate far above what was projected,

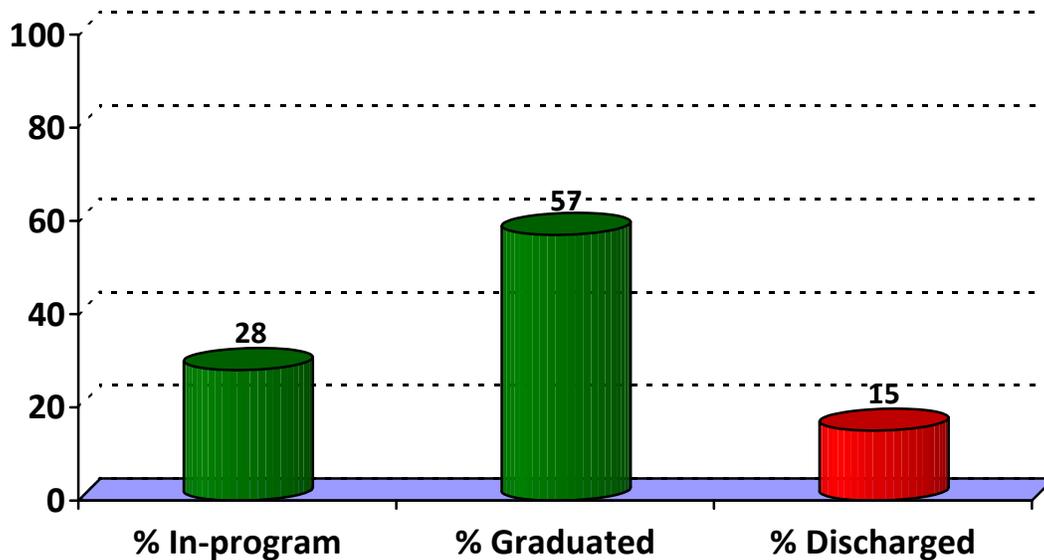
and case flow, while somewhat variable averaged 47.1 per quarter, and often the program ran well above capacity. Thus, it appears that the projections made in the grant application were overly pessimistic with respect to the proportion of participants who would be retained and thus overestimated how many participants it would serve during its first 3 years in operation.

Program retention. To provide an answer to the third question, “What was the retention rate of participants?” guidance given by the Bureau of Justice Assistance (2005b) indicates that programs should calculate their retention rate as the number of participants active in the program plus the number of participants who have graduated from the program divided by the total number of participants admitted to the program, that is:

~~(retention rate = $\frac{\text{\# of Active Participants} + \text{\# of graduates}}{\text{Total \# of Participants}}$)~~. Using this definition, as shown in

Figure 8, the WATC has retained 85% of its participants to date (as of July 31, 2009). A total of 15% have been discharged from the program for reasons including a new offense (3.5%), non-compliance with program rules (5%), and because the participant decided to quit (6.5%) and return to Huber to serve the remaining time on his/her sentence. Compared to the retention rate previously reported for the program (see Hiller and Samuelson, 2008), a slight decrease (from 90% to 85%) was noted; however, this is rate is still well above the 66% projected in the grant narrative funded by BJA. Because high rates of dropout often are taken as indicators of inefficient programs, the current findings suggest a high degree of efficiency with respect to how participants are handled in the WATC.

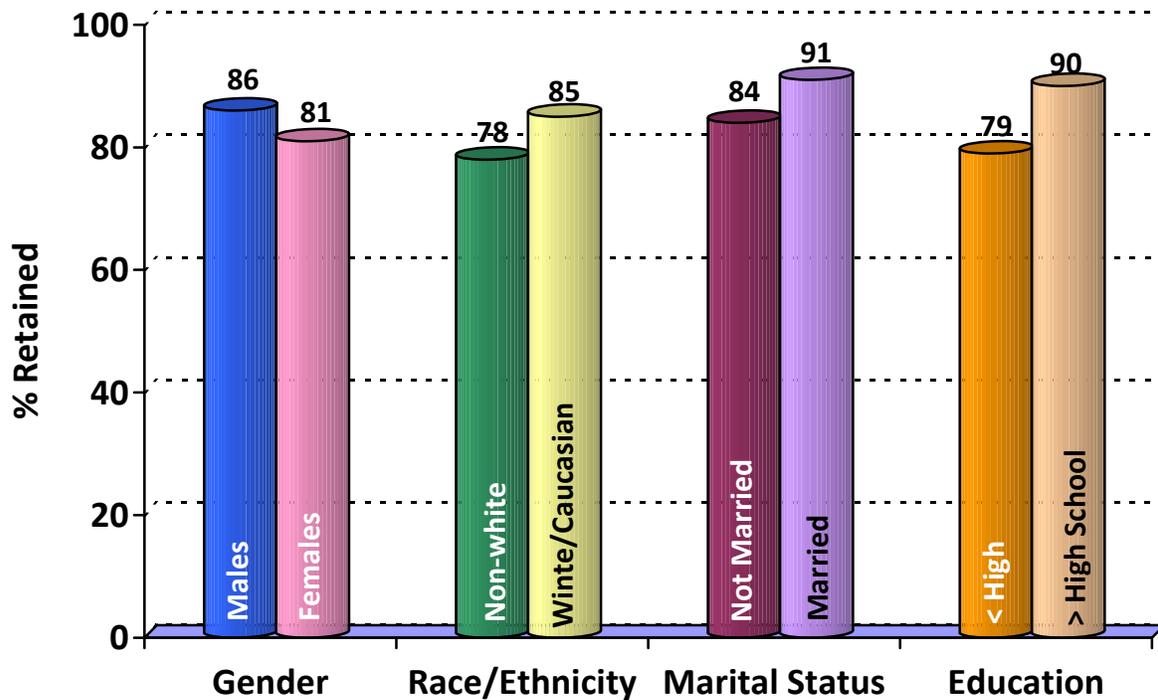
Figure 8. Retention of Participants Admitted between May 1, 2006 and May 15, 2009



Predictors of program retention. The simple relationships between participant characteristics and program retention, the focus of the fifth research question, were first examined using a series of bivariate analytic techniques. In these analyses, those who were still active in the program or who had graduated from the program were coded as 1 (retained). Dropouts were coded as 0 (not retained). Findings shown in Figure 9 indicated that similar proportions of males and females (86% versus 81%, respectively) were retained in the program [$\chi^2(1, n=141) = .62, p = .43$]. Comparison of race/ethnicity groups showed that there were no statistically significant differences in percentage of groups retained [$\chi^2(1, n=136) = .34, p = .56$]. Similarly, marital status [$\chi^2(1, n=133) = 2.03, p = .155$] and education level [$\chi^2(1, n=133) = 1.71, p = .192$] were not observed to be related to retention. Although not depicted here, neither age at

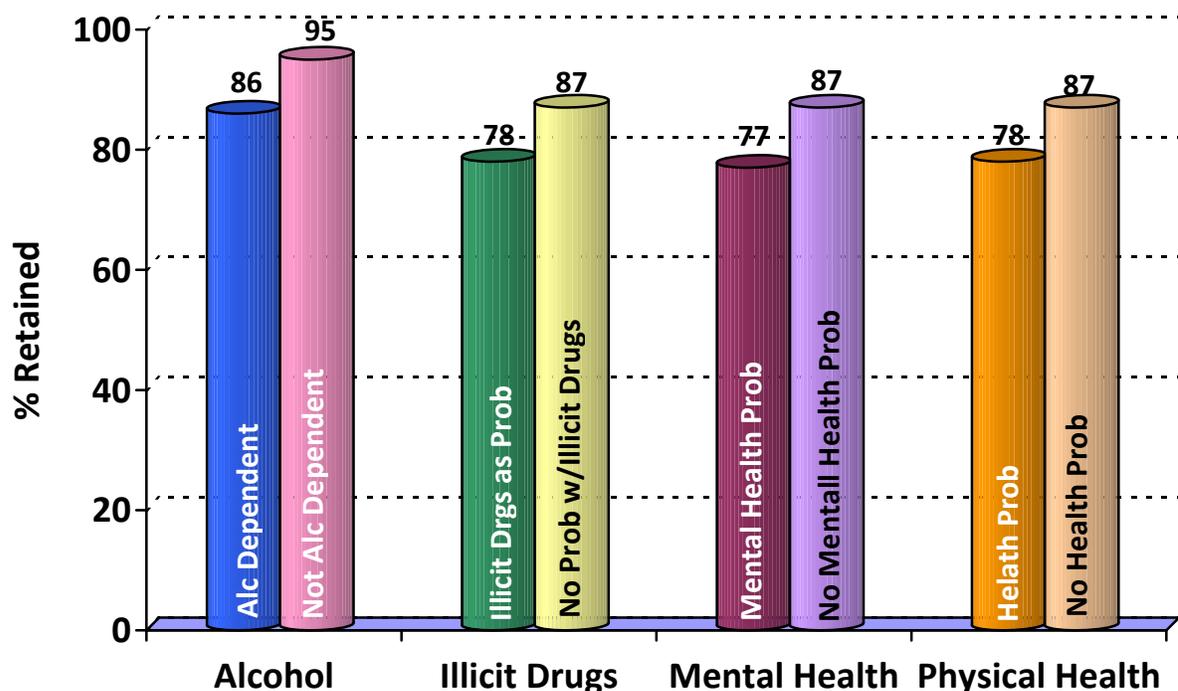
WATC entry (Spearman's rho = .11, $p = .198$) or being employed was related to retention [$\chi^2(1, n=131) = .88, p = .349$].

Figure 9. Retention Rates by Demographic Background



Examination of the relationship between clinical characteristics and retention in the program are presented in Figure 10. Whether a person was alcohol dependent (active or in remission) was not significantly related to whether he/she was retained in the program [$\chi^2(1, n=102) = 1.25, p = .26$]. Similarly, whether a person reported an illicit drug as a primary or secondary drug problem also was unrelated to retention [$\chi^2(1, n=117) = 1.69, p = .194$], as were having a history of mental health problems [$\chi^2(1, n=118) = 1.95, p = .163$] or physical health problems [$\chi^2(1, n=120) = 1.58, p = .209$].

Figure 10. Retention Rates by Clinical Characteristic



Findings presented in Table 4 showed that participants who dropped out of the program were similar in many respects to those who remained with respect to their experiences during the pretrial phase. For example, both groups had statistically similar blood alcohol content levels when arrested for their 3rd OWI [$t(127) = -.42, p = .675$]. These groups also were similar in their average sentence length [$t(138) = 1.40, p = .164$] as well as the amount of time remaining on their sentence when they were admitted to the program [$t(104) = 1.43, p = .156$]. Finally, a significantly larger proportion of those retained in the program received substance abuse treatment during the pretrial phase compared to those who dropped out [$\chi^2(1, n=140) = 7.17, p = .007$].

Table 4		
Relationship Between Pretrial Process Variables and Program Retention		
Variable	Was Participant Retained in Program?	
	Not Retained	Retained
Average Blood Alcohol Content ¹	.21 (.05)	.22 (.06)
# of Days Sentenced to Huber/Jail	195.0 (47.9)	179.7 (44.8)
# of Days Remaining on Sentence	177.2 (41.9)	158.2 (47.2)
Received Treatment during Pretrial**	71.4	91.6
1 Standard deviations are reported in parentheses. ** $p < .001$		

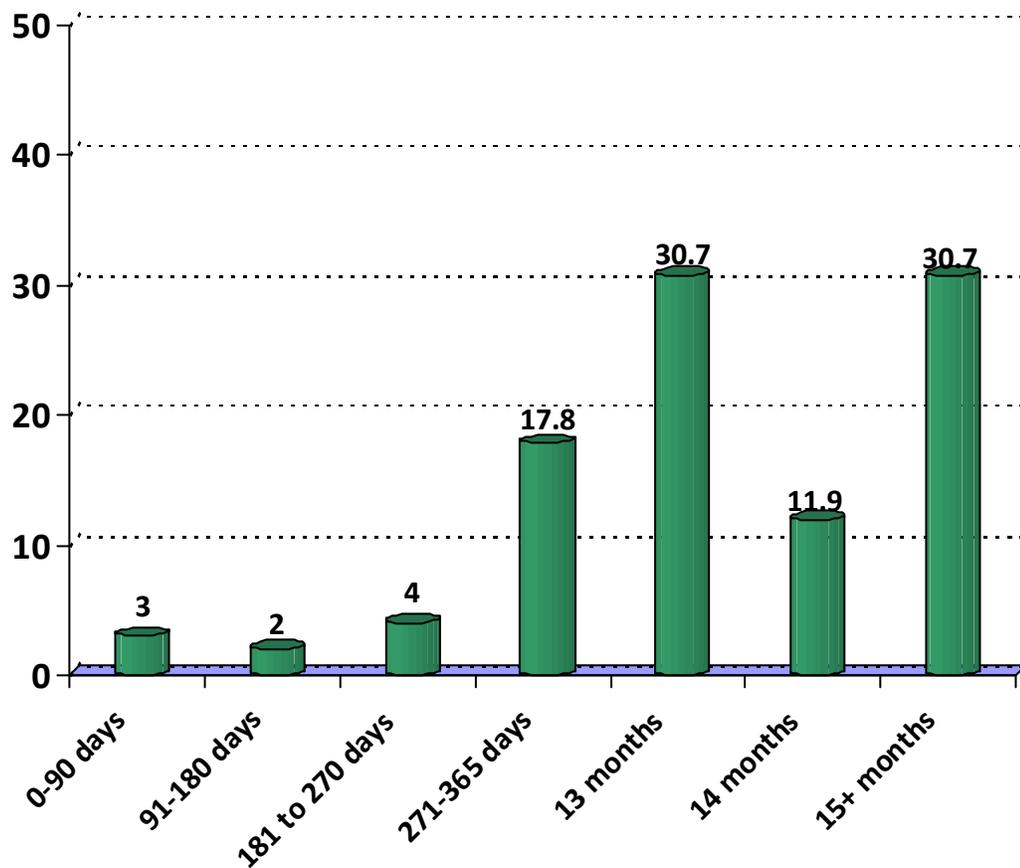
Following a model building approach suggested by Hosmer & Lemeshow (2000), the variables described in the preceding analysis that showed a relationship with program retention with an associated significance level of ($p \leq .25$) were loaded into a logistic regression equation to determine what participant characteristics predicted retention in the program when considered together in a multivariate context. This model had an acceptable fit to the data [Hosmer & Lemeshow Test = 3.75, $p = .879$]. However, findings reported in Table 5 showed that only one predictor had a marginally significant relationship with the probability of being retained in the program. That is, those who reported a history of medical problems were 3.7 times more likely to be retained in the program than those who did not ($b = 1.31$, $p = .051$).

Table 5				
Multiple Logistic Regression for Predicting Program Retention				
Predictor	B	Wald χ^2	OR	CI OR
Married	-.51	.26		
Single	.60	.44		
High School Graduate	-1.06	2.00		
Age	.03	.71		
Illicit Drugs	.20	.11		
Mental Health Problems	.74	1.02		
Physical Health Problems [†]	1.31	3.82	3.69	.99-13.7
Sentence Length	-0.001	.03		
Substance Abuse Tx during Pretrial	-.54	1.33		
† $p < .10$				

Length of stay. Based on the grant narrative, the minimum expected duration of the program was one year. Two process goals were explicitly stated in the narrative. One indicated that 66% of the graduates would complete the program within 14 months. The other process goal was that those who did not complete the program would do so in less average time than it takes graduates to complete. Analyses were restricted to focus only on those who are no longer in the program showed that the median length of time spent in the program (calculated as the difference between the date one was admitted and the date when one was discharged) was 384 days. As shown in Figure 11, about 27% spent 1 year or less in the program, about 31% stayed 13 months, 12% spent 14 months, and about 31% spent 15 months or longer in the program.

Comparison of graduates and completers showed that the average length of stay for dropouts (M = 302.9 days , SD= 172.3) was significantly less than that of graduates (M = 436.9 days, SD= 119.0) program [$t(99) = -4.15, p = .0001$], thus the program met the process goal of dropouts having shorter lengths of stay in the program than graduates. Examined another way, 68% of the graduates took 14 months or less to complete the program (also meeting this process goal).

Figure 11. Retention of WATC Participants



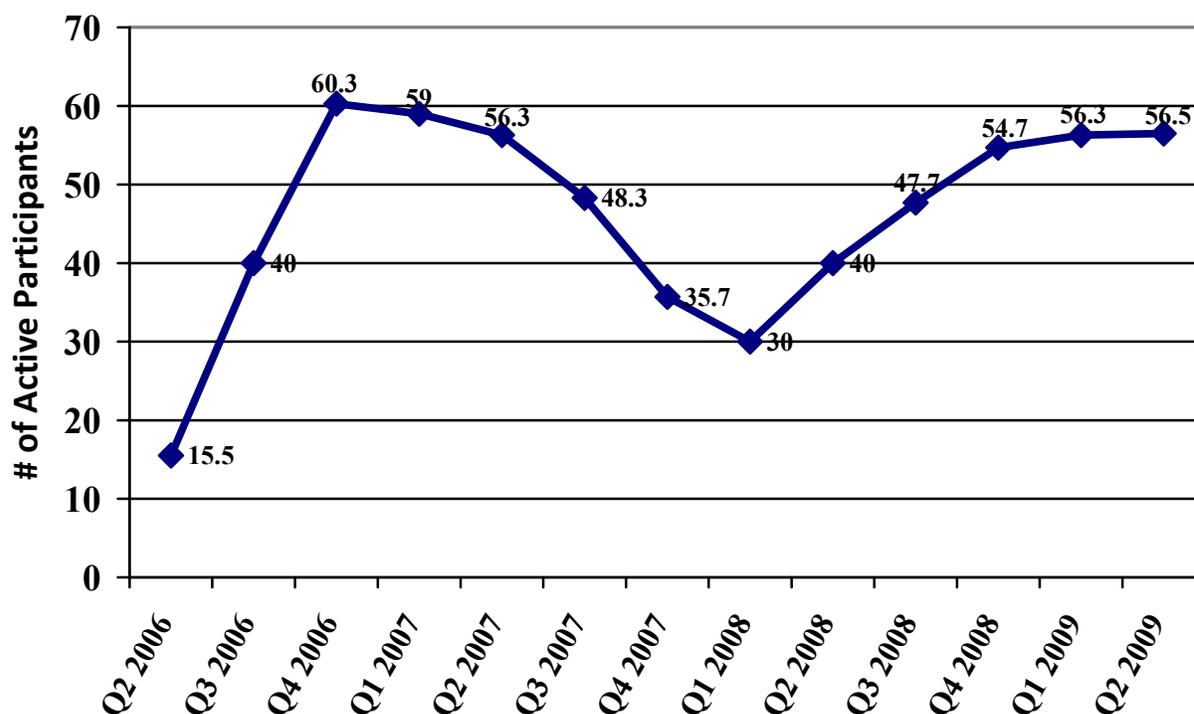
Case flow. In addition to examining overall capacity, it is important to describe case flow activity across the lifetime of the program. One clear advantage of doing this is to determine whether the number of active cases remains fairly constant (suggesting a high degree of stability

in program operations) or whether a somewhat chaotic picture emerges with the number of active cases varying widely across the timeframe. Either pattern provides important operations information and can be used in subsequent planning and program operations. Also, as noted in the grant narrative, a process goal of the WATC was to maintain an average monthly case flow of 50 participants.

Analyses focused on identifying the number of active participants during each month the program operated under BJA funding (May 1, 2006 – May 15, 2009). This was based on data collected from program records (i.e., dates of program admission and discharge) from which monthly case flow could be extrapolated. Analyses showed, on average, that during the course of the BJA funding cycle, the WATC averaged about 47.1 active participants each month.¹¹ As shown in Figure 12, the program capacity increased quickly growing from 15.5 during the first quarter in operation to an average of 40 active cases during the next quarter. There also was a great deal of variability in the case flow over the past 3 years of the program with the program often operating well above its monthly capacity of 50 participants (i.e., from the 4th quarter of 2006 through the 2nd quarter of 2007, and the last quarter of 2008 through the 2nd quarter of 2009). However, there was a significant drop in the number of active cases that ranged from the last quarter of 2007 through the 2nd quarter of 2008. This drop in case load coincided with the introduction of a the Waukesha County Day Report Center (managed by WCS) located at the Huber facility to help alleviate crowding. As this program sought to reach its enrollment goals, the number of 3rd OWI offenders applying to the WATC dropped significantly, finally rebounding in the 3rd quarter of 2008.

¹¹ Because it represented initial program start-up as well as an outlier in the distribution, this average omitted the first quarter the program operated (i.e., Q2 2006).

Figure 12. Average Case Flow from the 2nd Quarter of 2006 until the 2nd Quarter of 2009



Case processing differences between WATC and comparison group. Using the model described in Figure 4 and the time-at-risk for recidivism section of the report for context, a series of analyses sought to answer the sixth research question; whether there were case processing differences between those who enrolled in the WATC and those who did not. Findings showed there were a number of case processing related differences between 3rd OWI defendants who did and who did not participate in the WATC. With respect to the length of time spent in the pretrial phase, the comparison group (Mean = 5.99 months) was marginally different from the WATC group (Mean = 5.05 months) [$t(219) = 1.87, p = .063$], suggesting it took

slightly longer to finalize the disposition of cases for those in the WATC (see Table 6). In terms of sentencing and post-conviction, the WATC group received significantly longer sentences than the comparison group [$t(219) = -2.03, p = .043$] and a larger proportion were sentenced to Huber (100% versus 96.3%) [$\chi^2(1, n=221) = 5.26, p = .022$]. Overall, the comparison group had a significantly higher proportion at risk for at least one year [$\chi^2(1, n=222) = 11.22, p = .001$], and for at least two years [$\chi^2(1, n=222) = 17.73, p = .000$]. Finally, an average of 52.5 days elapsed between the date the person began serving their sentence in Huber and admission to the WATC.

Process Variable	Study Group		Total (N=222)
	Comparison (n=81)	WATC (n=141)	
Pretrial phase			
Average length of pretrial phase [†]	5.99 (4.53)	5.05 (2.89)	5.40 (3.60)
Substance abuse treatment			
% none	8.6	11.4	10.4
% outpatient	90.1	83.6	86.0
% residential	1.2	5.0	3.6
% Rearrested during pretrial phase ²	9.9	11.4	10.9

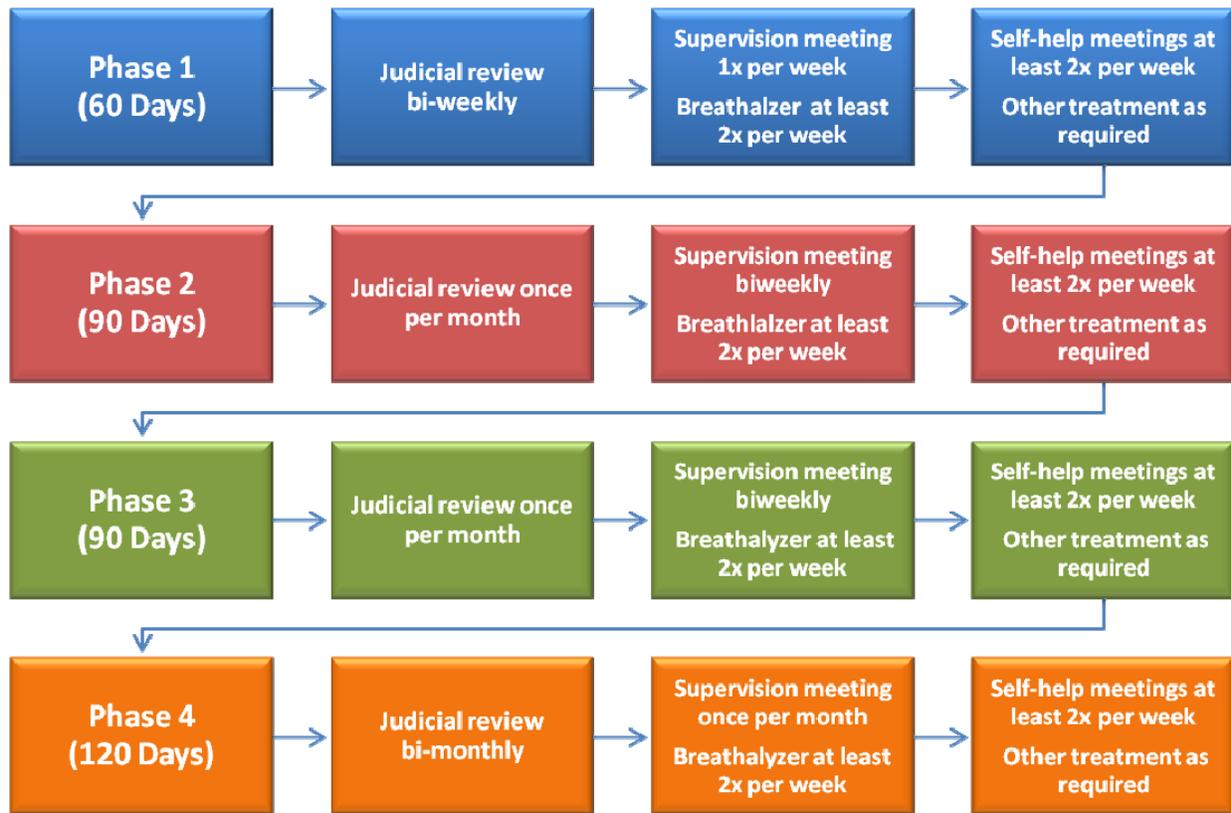
Table 6 (Continued)			
	Study Group		
Process Variable	Comparison (n=81)	WATC (n=141)	Total (N=222)
Sentencing/Post-Conviction Phase			
Average incarceration sentence*	168.1 (53.9)	181.9 (45.4)	176.8 (49.0)
% Sentenced to Huber	96.3	100	98.6
Average time-at-risk	823.3 (159.7)	754.6 (359.8)	779.8 (303.5)
% at-risk for at least 1 year**	97.5	82.3	87.8
% at-risk for at least 2 years	79.0	50.4	60.8
¹ Standard deviations (SD) are reported in parentheses. ² As noted previously, new arrests during the pretrial phase were not considered a program outcome because they preceded any involvement in the WATC. [†] $p < .10$ * $p < .05$; ** $p < .01$			

Structure of the WATC. As documented in the previous implementation evaluation (Hiller and Samuelson, 2008), the Waukesha Alcohol Treatment Court is a post-plea/post-conviction program that is organized along 4 discrete phases (see Figure 13). This matches what was originally proposed to BJA and the program has continued to use this structure unchanged.

To provide a context for the sections that follow regarding the adherence of the program to the 10 Key Components, a brief overview of these phases are provided. Similar to many other drug courts, these phases vary in terms of their expected duration and the intensity of supervision and services as well as in how often the participant interacts with the judge for a review of their

progress. During the first phase of the program (designed to last 60 days), participants are expected to attend 2 court hearings per month during which the judge reviews their progress/or lack of progress and provides reward/or sanctions to address the participant's behavior. Also during this phase, participants are expected to complete supervision appointments with WCS case managers weekly (one of which is a home visit), to submit to a breathalyzer at least twice per week (and to drug testing as directed), and to attend at least 2 self-help meetings (typically Alcoholics Anonymous) per week. Once a participant has completed the requirements for phase 1, he or she is promoted to phase 2. During this phase, supervision is relaxed a bit, with only 1 review hearing with the judge per month, bi-weekly supervision meeting with WCS case workers, and at least 2 breathalyzers per week (urine drug testing as required). The participant also is required to attend at least 2 self-help meetings per week and to remain in other treatment as required. During phase 3, the participant continues meeting with the judge once per month, has a biweekly supervision meeting with WCS staff, and is expected to attend at least 2 self-help groups per week. In the fourth and final phase, participants are monitored for an additional 120 days, meeting with the judge once every 2 months, meeting with WCS once per month, and attending at least 2 self-help group meetings per week. During phases 3 and 4, breathalyzers are collected a minimum of 2 times per week.

Figure 13. Phase Structure of the Waukesha Alcohol Treatment Court



Changes related to program theory and operations. As noted previously, a process evaluation has already documented the implementation of the WATC (see Hiller & Samuelson, 2008). Therefore, instead of repeating much of the information contained in the report from that past evaluation, only significant pieces key to understanding the program as well as the changes that have occurred in the program will be presented. So the focus of this part of the process evaluation will be to describe changes in the program related to the 10 Key Components (OJP, 1997) since the last evaluation report. A secondary focus is to speak to performance benchmarks (detailed in Table 1) associated with each Key Component that were not addressed in the previous evaluation. The following sections specifically address the 7th research question for the

process evaluation; were there major changes in the manner in which the court adhered to the Key Components of Drug Courts?

Key Component #1. Related to the first key component, “drug courts integrate alcohol and other drug treatment services with justice system case processing” (OJP, 1997, p. 9), the WATC continued to be operated by a dedicated team of professionals (the Alcohol Treatment Court Team) that included the drug court judge, the drug court coordinator, a drug court case manager, and representatives from the public defender’s office. Since the last evaluation report, there has been some turnover in team membership. In particular, the founding alcohol treatment court judge was rotated to a civil case load and another judge was appointed to be the WATC judge. The founding judge continues to be involved in the program, serving as the chair of the WATC steering committee. In addition to this, a case manager that had been with the program since inception left for another job. A new case manager was hired. It is a real strength that the program has had the same person who is the current coordinator and the same representatives from the public defender’s office for the past 3 years.

Related to the performance benchmarks, the WATC team has developed a mutually agreed upon set of policies and procedures for the program. These policies and procedures are a part of the *Waukesha County Alcohol Treatment Court: Participant Handbook*, most recently updated in July of 2009 and it is clearly indicated within this that abstinence and law abiding behaviors are paramount goals for the participants. Numerous observations of the team showed that they are very professional, work to build consensus, and work well together.

Key Component #2. With respect to the second key component, “prosecution and defense collaborate in a non-adversarial manner,” a good working relationship exists between the alcohol treatment court judge and team members from the public defender’s office. Evidence of

this was observed during site visits to the program. In particular, team members from the public defender's office (as well as the alcohol treatment court judge) attended a weekly meeting (i.e., pre-hearing conference/staffing of cases) during which the participants who would soon be reviewed during the alcohol treatment court hearing were discussed. Along with the coordinator and case manager, each participant's behavior since their last appearance in the treatment court hearing was reviewed, including results of alcohol and drug screens, participation in self-help programs, employment, and attendance at regularly scheduled case management meetings. The interchange observed on multiple occasions showed that each team member present was actively involved in discussing each case, with key decisions made collaboratively regarding phase promotions, sanctions, and rewards. The judge and defense attorneys were central figures in the subsequent review hearing. On several occasions, the defense attorney was observed asking participants whether they understood what was going on in their hearing and made additional clarifications to them when needed. Defense attorneys (including one from the private BAR) also attend the quarterly meetings of the steering committee to participate in decision making regarding the program. Defense attorneys also actively facilitated the development of 2 grant applications designed to enhance and expand the program.

It was noted in the first evaluation report that the district attorney's office did not play a central role in the program. To a large extent, this continues to be true. Representatives from the district attorney's office do not participate in the pre-hearing conferences or the alcohol treatment court hearings and thus provide no input into the sanctions and rewards that participants receive as a result of their during-program behavior. However, it should be noted that a representative from the district attorney's office attends each of the quarterly steering committee meetings and does participate in decision-making about the program. For example, it

was observed during one of these meetings that the district attorney's representative shared information, asked questions, and actively voiced opinions on the matters at hand.

Key Component #3. The timely placement of individuals into the program following their offense after screening and assessment are central to the third key component. Related to this, all participants are screened by professionals at Addiction Resource Council (ARC), the single county authority, using the Wisconsin Assessment of the Intoxicated Driver (WAID) after their arrest for their 3rd OWI. This information as well as a treatment plan developed by ARC is shared with Wisconsin Community Services (WCS) and thus also is available for consideration when a potential participant applies to be in the WATC. In addition to this, either the coordinator or the case manager collects an intake interview that gathers sociodemographic, alcohol and drug use history, criminal history, treatment history, and medical information from each participant.

Contrary to the performance benchmarks for this key component, potential participants are not presented to the alcohol treatment court judge soon after their 3rd OWI arrest. This, however, is an artifact of the structure of the program (described above). That is, because the WATC is a post-plea/post-conviction program, participants are not presented to the court until after their case has been adjudicated. This presentation does not always happen in a timely manner however because participants are typically required to serve at least 2 weeks of their jail/Huber term before being released to the community and placed on SCRAM for an additional 2 weeks. Data showed that the average length of time that elapsed between 3rd OWI conviction and program entry was 52.5 days (median = 40 days). Consistent with the practice of having participants serve 2 weeks of their sentence prior to WATC entry, the average length of time between entering jail/Huber and program entry was 13.2 days. Given the post-adjudication

structure of the program, having participants appear shortly after arrest is precluded, and it is unclear whether the length of time between conviction and incarceration and program entry would be expected to have any kind of impact on the program.

Key Component #4. A comprehensive array of treatment services to address the myriad of needs of drug court participants is required for the 4th key component. These services can include substance abuse treatment, case management, and other ancillary services (like education and vocational training). Case management is the principal service provided directly by the WATC. Both the coordinator and the case manager have active caseloads of 25 participants with whom they regularly interact. These interactions include brief contact during times participants are required to submit either a presumptive breath test or urinalysis. Longer contacts are made during regularly scheduled supervision visits with the case manager. As shown in the diagram of the programs phase structure above (see Figure 13), this includes a weekly meeting during phase 1, bi-weekly meetings during phases 2 & 3, and a monthly meeting when participants are in phase 4. Observation of these meetings showed that the case managers have developed good rapport with the participants, remember important details from previous sessions, provide guidance with respect to program rules and requirements and broker service referrals as needed. Analysis of case management data showed that participants had an average of 26 different meetings with the case managers over the course of the program.

In terms of treatment for alcoholism and substance abuse, most participants receive this during the pretrial phase of their case while they are participating in the WCS Intoxicated Drivers Program. Data showed that 89% of WATC participants received treatment (84% outpatient, 5% inpatient) through this mechanism prior to being admitted to the treatment court. Sometimes participants continue to receive treatment once they have been admitted to the

program. The WATC, however, does not systematically include substance abuse treatment as a part of program requirements. Some participants are referred to and urged to go to treatment, especially when they are having difficulty remaining sober. As seen in Figure 13 above, attendance at self-help meetings is a critical element of the program. In a sense, these self-help meetings function informally as aftercare following the primary treatment received during pretrial. Data showed that participants attended an average of 117 self-help sessions (range 60 – 231 sessions) while participating in the WATC.

Key Component #5. The fifth key component indicates that “abstinence is monitored by frequent alcohol and other drug testing.” (OJP, 1997, p. 21). WATC operations clearly adhere closely to this guideline. A variety of testing methodologies are used including Secure Continuous Remote Alcohol Monitoring (SCRAM), presumptive breath tests, urinalysis, Early Detection of Alcohol Consumption (EDAC) blood tests, as well as the Ethyl Glucuronide (EtG) urine test and use closely follows the performance benchmarks set for this component (see OJP, 1997).

As shown in the diagram of the phase structure of the program (Figure 13), participants are tested a minimum of 2 times per week for alcohol use in the each phase of the program. Selection for testing is done randomly, with participants calling each day to listen to a message for which “colors” have been selected. If a participant’s color has been selected, they must report to either the coordinator or case manager for a presumptive breath test (PBT) by 10 A.M. that day¹² (later if job conflicts). To accommodate work schedules, staff takes turn coming in early (by 7 am) to test those who work 8-5 jobs. When participants’ report for testing, they are

¹² Some participants are allowed to make arrangements with police agencies near them to do the PBT testing there. Also, participants may report to Huber and to other WCS staff for testing.

required to take a breath test and are immediately informed of their result. Staff also takes this time to get a quick update on what is going on in the participant's life.

In addition to presumptive breath tests, SCRAM bracelets are worn by each participant during their first 2 weeks in the program. This enables 24-7 monitoring of participants' alcohol consumption, and when a "suspect" result is present, the monitoring company automatically e-mails the coordinator with the findings. SCRAM also is used as a sanction when a participant has tested positive or admitted to drinking. In addition to SCRAM, the program began using EDAC testing since the initial implementation evaluation. This is a blood test that detects biological markers associated with heavy drinking. Participants are required to have one performed every 3 months¹³.

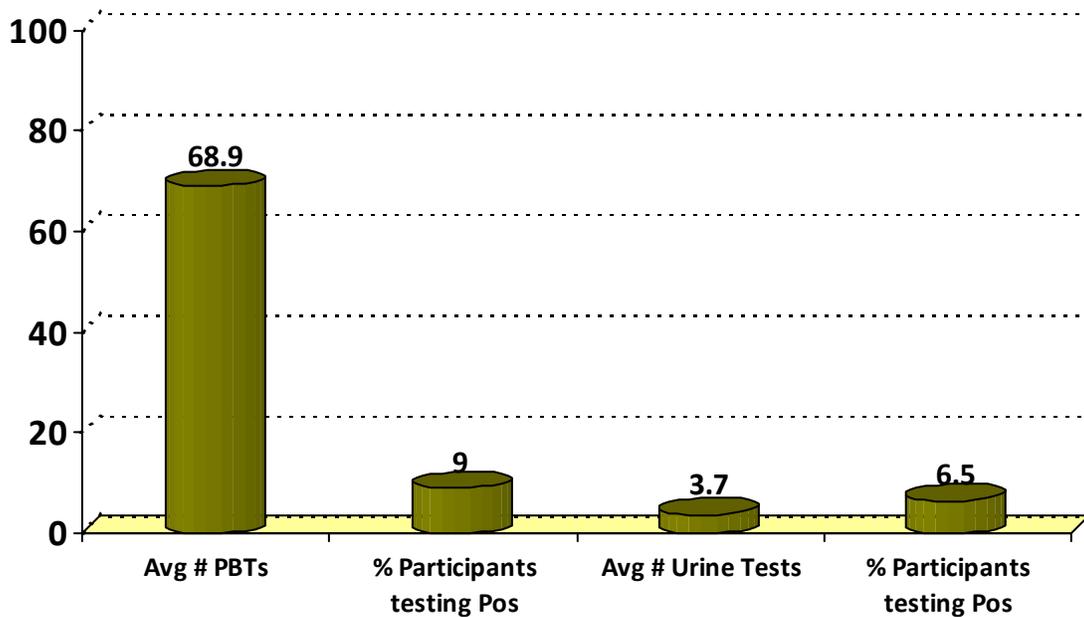
Urine drug screens are used much less frequently than PBTs because the majority of participants are in the program because they drove after drinking. For those who were under the influence of other drugs rather than alcohol when arrested for their 3rd offense, urine drug testing is used more frequently. Testing is done using by collecting a specimen and then sending it to a local lab. Like results from PBT, SCRAM, and EDAC screens, positive results are quickly communicated to the court team and the participant.

Findings presented in Figure 14 showed that participants were given an average of 68 PBT's during their time in the program. The vast majority of tests were negative, with only 9% of participants testing positive at least one time for alcohol use. On average, about 4 urine drug

¹³ An enhancement grant application was submitted to BJA in January 2009 to extend the use of SCRAM across the entire first phase of the program and to increase the number of times EDAC tests are collected. At the time of the writing of this report, the grant application was still under review.

screens were given to participants during their time in the WATC, and only 6.5% ever tested positive on these.

Figure 14. Alcohol and Drug Testing of Participants



Key Component #6. “A coordinated strategy governs drug court responses to participants’ compliance” (OJP, 1997, p.23) is the 6th key component guiding drug court operations. Accordingly, expectations for participant behavior and consequences for non-compliance are clearly laid out in the *Waukesha County Alcohol Treatment Court Participant Handbook*, most recently revised in July 2009. Specific program rules are declared in this handbook, and include “do not possess or consume any alcohol or drugs,” “no driving/operating any vehicle without a valid driver’s license,” and “meet with your case manager as directed, and attend all scheduled court sessions.” In addition to this, participants sign a contract for each program phase (see Appendix 1 for an example) that clearly lay out the specific requirements for that particular phase. Possible sanctions for non-compliance listed in the handbook include short-

term incarcerations in jail or Huber, phase demotions, extended time in a phase, increased frequency of court contacts, alcohol and drug testing, and self-help meetings. Other sanctions may be enrollment in treatment, community service, writing assignments, and SCRAM. Specific guidance is given for when sanctions may be imposed as well as when termination from the program may happen. For the latter, reasons for termination include a new OWI arrest, arrest for a felony, arrest for a violent misdemeanor, arrest for any aggravated OWI charge, tampering with alcohol and drug tests, and by team decision for continued non-compliance. A participant may also voluntarily withdraw (although they are required to serve the days remaining on their sentence).

Similarly, rewards that may be used when the participant is compliant with the program include reductions in the sentence for the participant's 3rd OWI, phase promotions, encouragement and praise from the team, and reduced driver's license revocation time. Additionally, gift certificates, certificates of completion, being called early in the during court review sessions, reduced meetings with case managers and longer periods of time between court reviews are used as rewards.

The sanctioning and reward procedure was directly observed during an alcohol treatment court hearing. In this particular hearing, 4 participants were taken into custody by bailiffs because they received a sanction of a short-term incarceration at Huber for non-compliance with the program (including positive results on urine drug screens and driving without a license). Other sanctions given included a phase demotion, increased self-help meetings, and community service. In these reviews, the judge and team clearly explained why the participant was receiving the sanction and the participants were allowed to reflect on them during the hearing. A number of rewards also were observed. In particular, applause and praise for compliance were common.

Also, some participants received phase promotions, were placed on the schedule for graduation, and received “just because” gift cards.

Key Component #7. A significant change related to *Key Component #7*, “ongoing judicial interaction with each participant is essential” (OJP, 1997, p. 27), occurred since the initial process evaluation of this program. Specifically, the founding judge of the WATC rotated to a civil court docket and a new judge took over leadership of the program in November 2007.¹⁴ The alcohol treatment court docket continues to be held each Thursday afternoon following the pre-hearing conference (described above) where the team meets to discuss each participant appearing in the hearing that day. Consistent with performance benchmarks, participants appear regularly for treatment court hearings throughout their participation in the program. As shown in Figure 13, during phase 1 of the program, participants’ progress (or lack of progress) is reviewed by the treatment court judge a minimum of 2 times per month. During phases 2 and 3, review hearings occur at least 1 time per month; during phase 4 hearings are at least once every other month.

Observation of treatment court pre-review staffings and hearings showed that much of Thursday afternoons is devoted to the treatment court docket. During one observation, the staffing began at about 2 o’clock and the court session convened at 4:15, lasting until about 5:30. During this hearing the treatment court team (including the case manager, coordinator, and a public defender), the judge, and 2 bailiffs were present. A total of 19 participants were reviewed. When called, each participant went to the podium in front of the judge for his/her review. On average, these face-to-face reviews lasted 3.3 minutes (range 1 minute, 35 seconds to 8 minutes,

¹⁴ The founding judge has continued be involved with the program as chair of the alcohol treatment court steering committee.

24 seconds). The judge individualized his interaction with each participant, remembered details from prior reviews, discussed what was happening in the participants' lives, and when indicated sanctioned or rewarded the participant based on their progress. These sanctions and rewards matched what had been discussed in the pre-hearing staffing.

Key Component #8. Related to data gathering and its use, this key component specifically indicates that a program should routinely collect information, regularly review summaries of this information and engage an independent evaluator (if possible) to do a process and outcome evaluation of the program. The WATC has conformed to the major benchmarks underlying this component. Specifically, an electronic management information system (MIS) was developed through a subcontract to Crowe Chizek and Co. LLC to systematically capture a set of data on each participant as well as to enable more effective case management of each individual. This contract yielded the web-enabled Alcohol Treatment Court Management Information System. It is used primarily by the DUI court coordinator and case manager. Briefly, the contents of this MIS system were based largely on recommendations made by the Bureau of Justice Assistance (2005b), and collects information on the sociodemographic background (e.g., gender, ethnicity, education, employment), addiction and health (e.g., type and frequency of alcohol and drug use, mental health, physical health), during program activities (e.g., attendance at court review hearings, sanctions and incentives, treatment attendance, results of alcohol and illicit drug testing), and notes made by the case managers in each of these primary areas. Initially it was maintained on county servers, but since the last evaluation report has been moved to WCS servers and is undergoing additional programming to make it more user friendly.

In addition to regular capture of important information on participants and program operations, the treatment court team reviews a monthly summary of program statistics prepared

by the treatment court coordinator (see Appendix 2). This report includes a variety of information summarized for activity in the preceding month, activity in the current year, and activity since program inception. This included program admissions and discharge information, summaries of participant demographics, service delivery, and other types of programmatic information needed for program management. In addition to this report, a court report is generated from data each time a person is scheduled to be reviewed by the court. Copies of these reports are distributed during the pre-hearing conferences and include material from the participant's intake interview, recent activity, a historical record of prior sanctions and rewards as well as other pertinent information needed for the review.

The current report submitted is evidence that the WATC has engaged an independent external evaluator. As noted previously, a prior report from the implementation evaluation as well as the current report that updates this previous process evaluation and provides data from a rigorous outcome evaluation of the program are specific products of these evaluations. In addition to this, grant applications have been submitted by the WATC (both pending review) to BJA and the Substance Abuse and Mental Health Services Administration (SAMHSA) for enhancing and expanding the program. A part of each application was devoted to ensuring on-going process and outcome evaluations of the program. The application to SAMSHA would greatly increase the capacity for evaluation.

Key Component #9. The ninth key component indicates that teams should continue to seek interdisciplinary education in order to promote effective planning, implementation, and operations. It was noted in the previous evaluation that the team had done this during the timeframe covered in this report. The team has continued to seek out and attend additional training. For example, in 2009, 3 members of the team went to the national training

conference conducted by the National Association of Drug Court Professionals. In addition to this, several attended the training conference held by the Wisconsin Association of Treatment Court Professionals.

Key Component #10. Having close ties to the community is the essence of the 10th key component. With respect to this, the community is engaged in the WATC primarily through the steering committee. Members of this committee come from numerous organizations including Waukesha County Health and Human Services, the Sheriff's office, the District Attorney's office, Public Defender's office, the private Defense BAR, Wisconsin Community Services, the County Clerk's of Court's office, community corrections, and judges who are not the presiding alcohol treatment court judge. In addition to this, a community group, SOPHIA, has been continuously involved in the program, and they have fundraisers to pay for incentives, like the "just because" gift cards used by the program to reward compliance.

Outcome Evaluation

As noted previously in the analytic plan, the analysis of 1-year recidivism rates focused first on describing and comparing the proportion of each study group who were rearrested within 1 year of their conviction for their 3rd OWI.¹⁵ Following this, multivariate analyses, specifically logistic regression and proportional hazards regression, were used to model study groups (comparison versus WATC) simultaneously with other predictors that have been shown in the empirical literature to be related to relapse to driving and drinking.

¹⁵ Although recidivism data were available for 222 cases, a year had not elapsed since their 3rd OWI conviction for 25 cases, and it is unclear whether those who had not yet recidivated would remain this way (and vice versa). To ensure a comparable risk window, only cases with a minimum of 1 year at risk were included in the analysis.

One-year recidivism rates. As shown in Table 7, examination of the 197 cases who were at-risk for recidivism for at least 1 year showed that a total of 22.8% had committed at least one new offense (including OWI, OAR, or a criminal offense), with a slightly smaller proportion of the WATC group recidivating; however, this comparison did not achieve statistical significance [$\chi^2(1, n=197) = 1.05, p = .306$]. Breaking recidivism down into different categories, findings showed a low overall rate (3.6%) of new OWI offenses, with the WATC group (3.4%) having about the same rate of new OWIs as the comparison group (3.8%) [$\chi^2(1, n=197) = 0.02, p = .88$]. The WATC group had a slightly higher but not statistically significant rate of new OARs [$\chi^2(1, n=196) = 0.24, p = .628$]. The WATC group had about 1/2 as many arrested for other criminal offenses relative to the comparison group (2.5% versus 6.3%) [$\chi^2(1, n=197) = 1.74, p = .187$]. Analyses that combined the 2 most serious types of offenses (OWI and other criminal) showed that 8.9% of the comparison group and 5.1% of the WATC group were arrested either for a new OWI and/or a new criminal offense within 1 year of their conviction for a 3rd OWI [$\chi^2(1, n=197) = 1.10, p = .295$].

Two-year recidivism rates. Like the analysis of one-year recidivism rates, analyses of the 136 cases who were at risk for recidivism for at least 2 years following their conviction for their 3rd OWI showed a total of 36.8% of the sample had recidivated by the end of their second year (see Table 7). Comparison of the study groups showed a significant difference in overall recidivism, with about 1/2 (45.3%) of the comparison group recidivating compared to 1/3 (29.2%) of the WATC group [$\chi^2(1, n=136) = 3.80, p = .051$]. Like the data for 1-year recidivism, analyses showed similar OWI rearrest rates for both groups [$\chi^2(1, n=136) = 0.04, p = .846$]. About twice as many of the comparison group was rearrested for a new criminal offense by the end of their second year [$\chi^2(1, n=136) = 2.03, p = .154$]. A slightly smaller percentage (but not

significantly different) of the WATC group were arrested for a new OAR offense [$\chi^2(1, n=135) = .14, p = .706$]. About 19% of the comparison group (versus 11% of the WATC group) were arrested either for a new OWI and/or other criminal offense [$\chi^2(1, n=135) = 1.58, p = .209$].

Table 7			
One and Two Year Recidivism Rates of Comparison Group and WATC Participants			
	Study Group		
Recidivism	Comparison	WATC	Total
One-Year Post 3 rd OWI Conviction ¹	(n=79)	(n=118)	(N=197)
Any new offense	26.6	20.3	22.8
OWI	3.8	3.4	3.6
OAR ²	17.7	20.5	19.4
Other criminal offense	6.3	2.5	4.1
OWI and/or other criminal	8.9	5.1	6.6
Two-Year Post 3 rd OWI Conviction ³	(n=64)	(n=72)	(N=136)
Any [†]	45.3	29.2	36.8
OWI	7.8	6.9	7.4
OAR	29.7	26.8	28.1
Criminal	12.5	5.6	8.8
OWI and/or other criminal [†]	18.8	11.1	14.7
¹ Limited to cases with a minimum of 1 year at risk following conviction for 3 rd OWI ² Operating after revocation (OAR) ³ Limited to cases with a minimum of 2 years at risk following conviction for 3 rd OWI [†] $p < .10$			

Logistic regression analysis of 1-year recidivism rates. A series of multiple logistic regression models were calculated for predicting 1-year recidivism of participants who were at risk for at least 1 year using variables noted in the literature as predictors of DUI recidivism

(Nochajski & Stasiewicz, 2006) as well as whether or not one participated in the WATC. In general, although Hosmer and Lemeshow tests showed models fit the data adequately, findings presented in Table 8 showed no significant predictors for recidivism.¹⁶ Only 2 marginally significant relationships were noted. Specifically, age was marginally related ($b = -.06, p = .066$) to recidivating with an OAR within 1 year of conviction for a 3rd OWI. Interpretation of this was that older offenders were marginally less likely to recidivate for an OAR than younger offenders. In addition to this, study group membership was marginally related to recidivism for other criminal offenses ($b = -1.33, p = .106$), suggesting participation in the WATC was related to a lower probability for being rearrested for this type of offense.

Logistic regression analysis of 2-year recidivism rates. A series of multiple logistic regression models also were calculated on participants who were at risk for at least 2 years for predicting 2-year recidivism. Hosmer and Lemeshow tests showed these models fit the data adequately, but contrary to findings presented for 1-year recidivism, results presented in Table 9 showed that there were several significant predictors of recidivism.¹⁷ In terms of any recidivism, 2 significant predictors emerged, with age at 3rd OWI conviction ($b = -.06, p = .047$) and education level ($b = -1.27, p = .047$) were related to lower rates of recidivism. Interpretation of odds ratios (ORs) indicated that for every 1 year increase in age, there was a corresponding 6% decrease in the probability of being rearrested. Offenders with a high school education (OR=.27) were about $\frac{3}{4}$ less likely to recidivate than those without one. Although only marginally significant ($b = -.01,$

¹⁶ Although the same model used to predict any recidivism, OAR recidivism, and recidivism for other criminal behavior was used to predict OWI recidivism, standard errors on several predictors were unacceptably high suggesting this model was unreliable. Findings for this model, therefore, are not reported.

¹⁷ Although the same model used to predict any recidivism, OAR recidivism, and recidivism for other criminal behavior was used to predict OWI recidivism, standard errors on several predictors were unacceptably high suggesting this model was unreliable. Findings for this model, therefore, are not reported.

$p = .057$), having a longer sentence for one's 3rd OWI was related to lower rates of recidivism. Age also was significantly related to a lower risk for recidivating with an OAR ($b = -.08, p = .018$). Additionally, being a high school graduate ($b = -1.30, p = .052$) and having a longer sentence ($B = -.01, p = .084$) were marginally related to OAR recidivism. Age ($b = -.08, p = .109$) and having participated in the WATC ($B = -1.37, p = .07$) were marginally related to a lower probability of being rearrested for an other criminal offense.

Table 8 Summary of Logistic Regressions for Predicting 1-year Recidivism								
Characteristic	OWI ¹		OAR		Other Criminal		Any Recidivism	
	B	OR	B	OR	B	OR	B	OR
Male	---		.17		-.39		-.11	
White/Caucasian	---		1.05		-.03		1.54	
Age	---		-.06 [†]	.95	-.07		-.03	
Married	---		-.05		.22		.14	
Single/Never Married	---		.32		-1.12		.29	
High School Graduate	---		-.18		.63		-.37	
Employed	---		-.15		-1.30		.05	
Pretrial Sub Abuse Tx	---		.98		-.61		1.24	
Sentence Length	---		-.002		-.003		-.005	
Blood Alcohol Level	---		-5.63		-.35		-2.91	
WATC Participation	---		.43		-1.33	.27	-.26	

¹ Several parameters in this model had unacceptably high standard errors indicating an unstable model.
[†] $p < .10$;

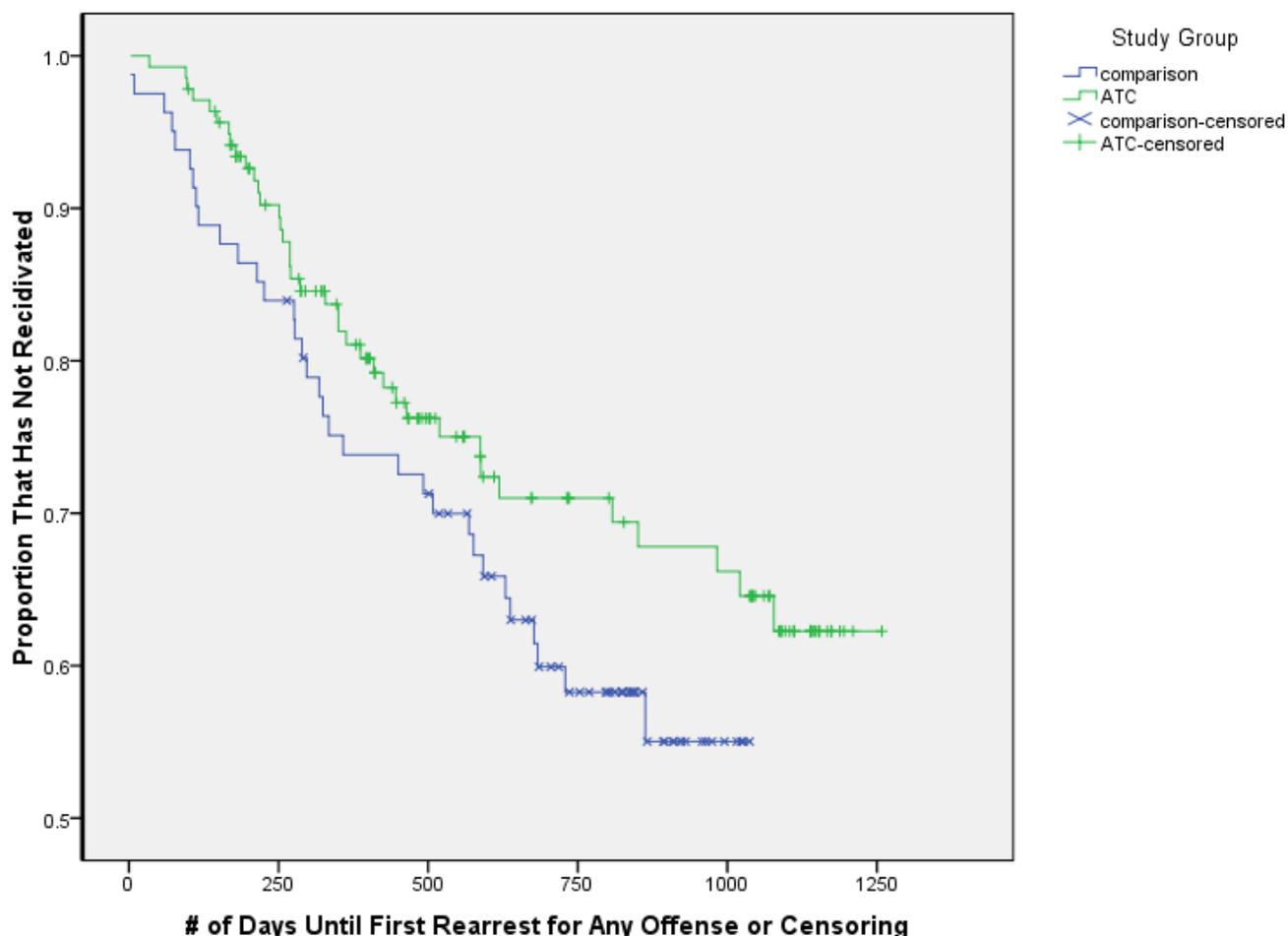
Table 9
Summary of Logistic Regressions for Predicting 2-year Recidivism

Characteristic	OWI ¹		OAR		Other Criminal		Any Recidivism	
	B	OR	B	OR	B	OR	B	OR
Male	---		-.41		.29		-.26	
White/Caucasian	---		-1.38		-.74		-.87	
Age	---		-.08*	.92	-.08		-.06*	.94
Married	---		-.36		.15		.004	
Single/Never Married	---		-.10		-.93		.10	
High School Graduate	---		-1.30 [†]	.27	.73		-1.27*	.28
Employed	---		.51		-.75		.86	
Pretrial Sub Abuse Tx	---		1.88		-1.05		1.06	
Sentence Length	---		-.01 [†]	.99	.004		-.01 [†]	.99
Blood Alcohol Level	---		3.16		1.89		4.29	
WATC Participation	---		.12		-1.37 [†]	.25	-.59	

¹ Several parameters in this model had unacceptably high standard errors indicating an unstable model.

[†] $p < .10$; * $p < .05$

Figure 15. Survival Curves for Time until Any Recidivism by Study Group



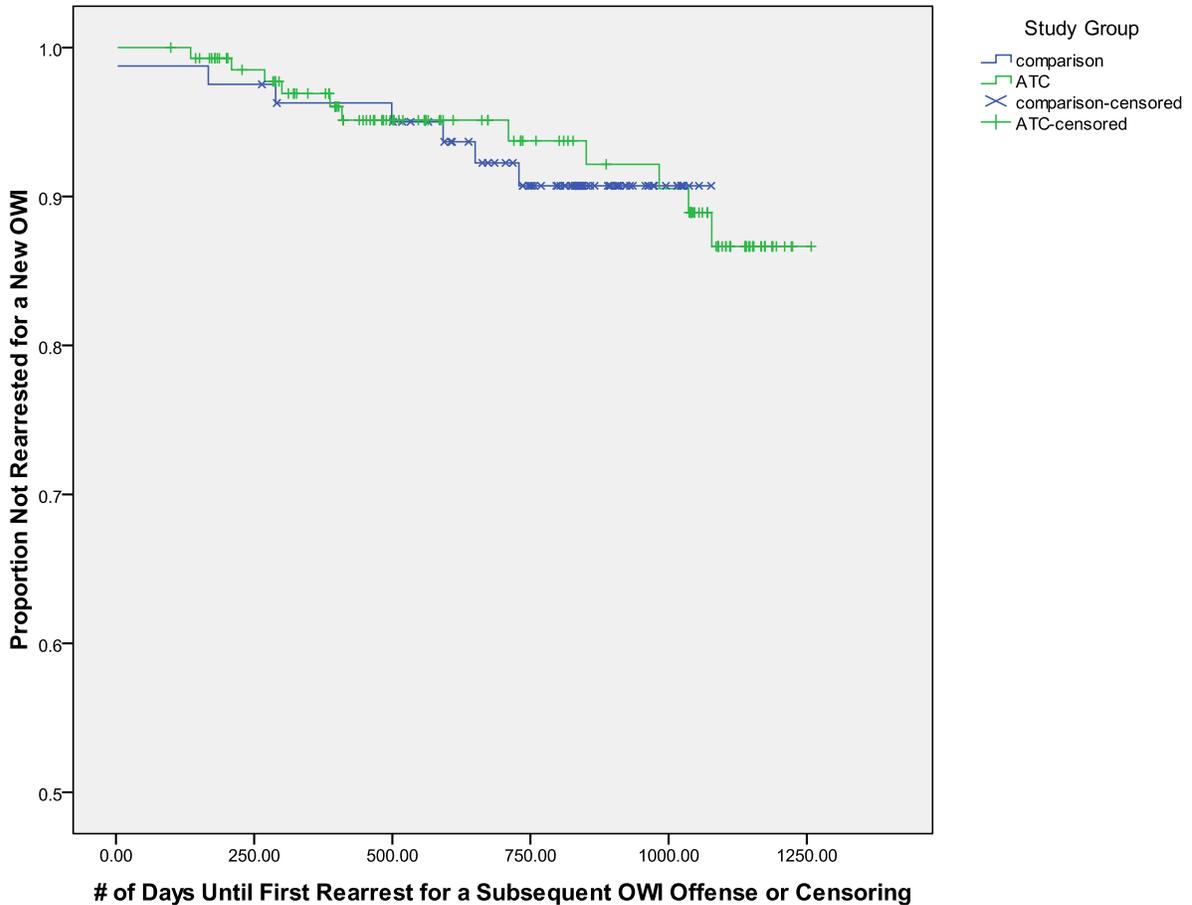
Survival analysis of any recidivism. Analysis of time until any recidivism was accomplished first by computing Kaplan-Meier estimates which often are summarized in a graphical presentation (i.e., survival curves) that shows the proportion of individuals “surviving” (in the current study, not recidivating) over time. Groups may be compared by comparing the survival curve with each against the other. The extent to which these lines diverge represents between group differences. As shown in Figure 15, the plot of the Kaplan-Meier estimates (i.e., the survival curve) showed over time that there was a marginally significant difference with a larger proportion of the WATC group (green line) surviving over time than the comparison

group (blue line) [Wilcoxon = 2.82, $p = .14$]. The multivariate associations between the same predictors used in the logistic regression (described in the preceding section)¹⁸ and risk for any recidivism were calculated using Cox proportional hazards regression. Findings presented in Table 10 showed that age ($b = -.04$, $p = .034$) was significantly related to a reduced risk for recidivism and not being a high school graduate was related to a marginally greater risk for recidivism ($b = .63$, $p = .061$). No other predictor reached statistical significance.

Table 10				
Summary of Proportional Hazards Regression for Predicting Any Recidivism				
Predictor	B	SE	χ^2	Risk Ratio
Female	.51	.42	1.49	
Not White/Caucasian	-.76	.60	1.57	
Age*	-.04	.02	4.51	.96
Not Married	.19	.38	.23	
Married	.09	.37	.07	
Not a High School Graduate [†]	.63	.34	3.50	1.87
Not Employed	-.32	.47	.45	
No Pretrial Substance Abuse Tx	-.21	.50	.18	
Sentence Length	-.004	.003	1.65	
Comparison Group	.29	.26	1.20	
[†] $p < .10$; * $p < .05$				

¹⁸ Race/ethnicity had an unacceptably high standard error (SE) in the model predicting OWI rearrest, so this variable was dropped from this Cox proportional hazards regression.

Figure 16. Survival Curves for Time until OWI Recidivism by Study Group



Survival analysis of OWI recidivism. Analysis of time until OWI recidivism also was accomplished first by computing Kaplan-Meier estimates and then Cox proportional hazards regressions. Findings presented in Figure 16 show there was not a statistically significant difference between the WATC and comparison groups in the proportion of individuals rearrested for a subsequent OWI (Wilcoxon = .14, $p = .71$). Multivariate survival analysis (see Table 11) showed there was only one statistically significant predictor of OWI recidivism. Specifically,

those who were not a high school graduate were a significantly greater risk for committing a subsequent OWI ($b=1.22, p = .036$).

Table 11				
Summary of Proportional Hazards Regression for Predicting OWI Recidivism				
Predictor	B	SE	χ^2	Risk Ratio
Female	1.25	1.07	1.38	
Age	.009	.03	.08	
Not Married	1.77	1.26	2.48	
Married	-.18	.73	.06	
Not a High School Graduate*	1.22	.58	4.38	3.4
Not Employed	.48	.80	.36	
No Pretrial Substance Abuse Tx	-.67	1.13	.35	
Sentence Length	-.005	.006	.66	
Comparison Group	.07	.66	.02	
* $p < .05$				

Survival analysis of OAR recidivism. Analysis of time until OAR recidivism was accomplished in the same manner as described above for any recidivism and for OWI recidivism. Examination of the survival curve (see Figure 17) shows no significant difference between the WATC and comparison group in terms of risk for OAR recidivism (Wilcoxon = .04, $p = .94$). Proportional hazards regression (see Table 12) showed that only age ($b = -.05, p = .011$) was a significant predictor of OAR recidivism. Specifically, younger individuals were at an increased risk for committing an OAR subsequent to their conviction for their 3rd OWI.

Figure 17. Survival Curves for Time until OAR Recidivism by Study Group

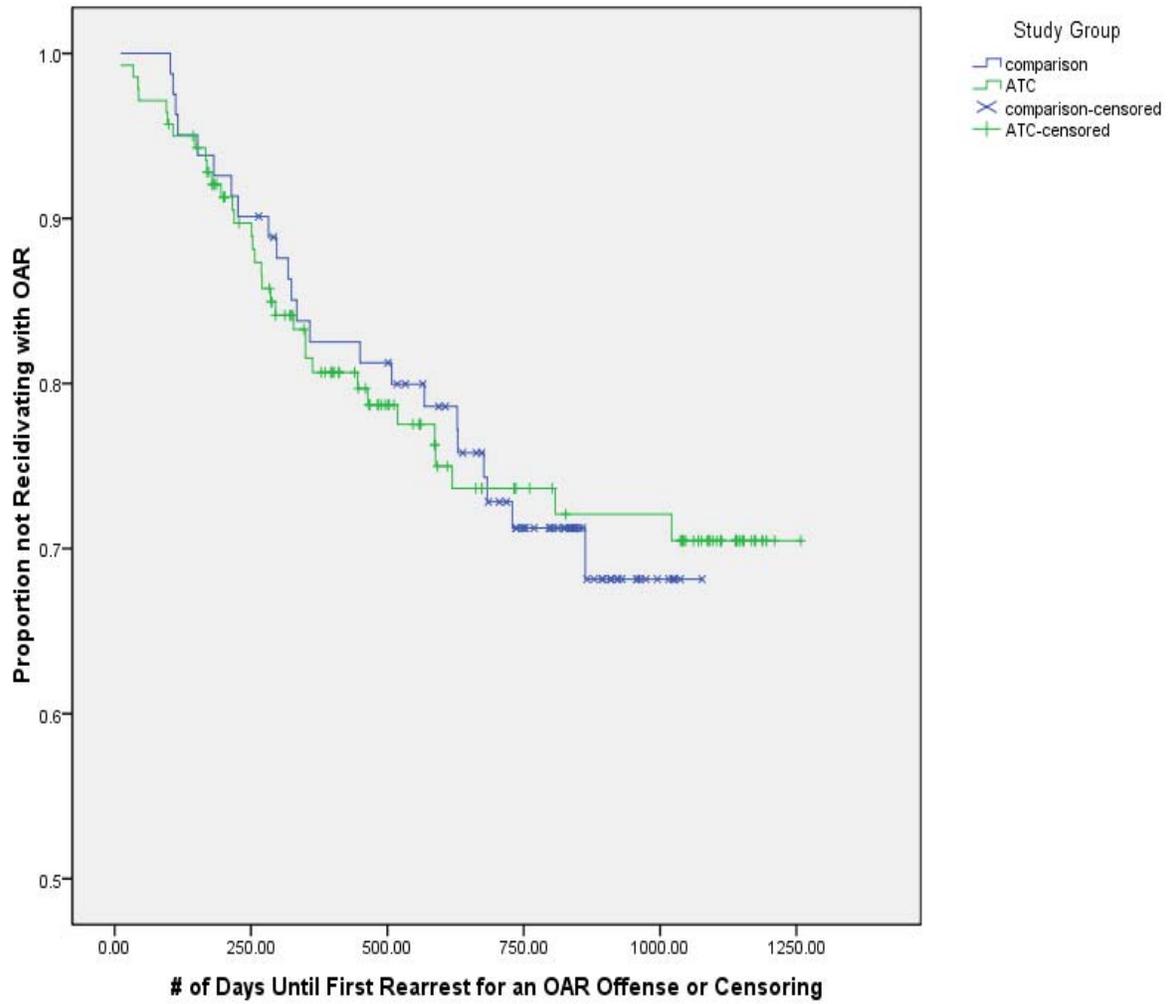


Table 12				
Summary of Proportional Hazards Regression for Predicting OAR Recidivism				
Predictor	B	SE	χ^2	Risk Ratio
Female	.46	.45	1.07	
Non-White/Caucasian	-.34	.61	.31	
Age*	-.05	.02	6.43	.95
Not Married	.09	.45	.04	
Married	-.07	.42	.03	
Not a High School Graduate	.37	.39	.93	
Not Employed	-.11	.48	.05	
No Pretrial Substance Abuse Tx	-.42	.62	.46	
Sentence Length	-.004	.003	1.67	
Comparison Group	-.20	.29	.48	
† $p < .10$; * $p < .05$				

Survival analysis of other criminal recidivism. Survival analysis of time until other criminal offenses revealed a marginal difference between the WATC and comparison groups. As shown in Figure 18, the WATC group (green line) was at a lower (but marginally significant) risk for committing a new criminal offense (Wilcoxon = 2.72, $p = .099$). Multivariate Cox proportional hazards regression showed there was only one marginally significant predictor of risk for recidivism with other criminal offenses. Specifically, those in the comparison group were more likely to recidivate ($b = 1.92$, $p = .063$) than those in the WATC group.

Figure 18. Survival Curves for Time until Other Criminal Offense by Study Group

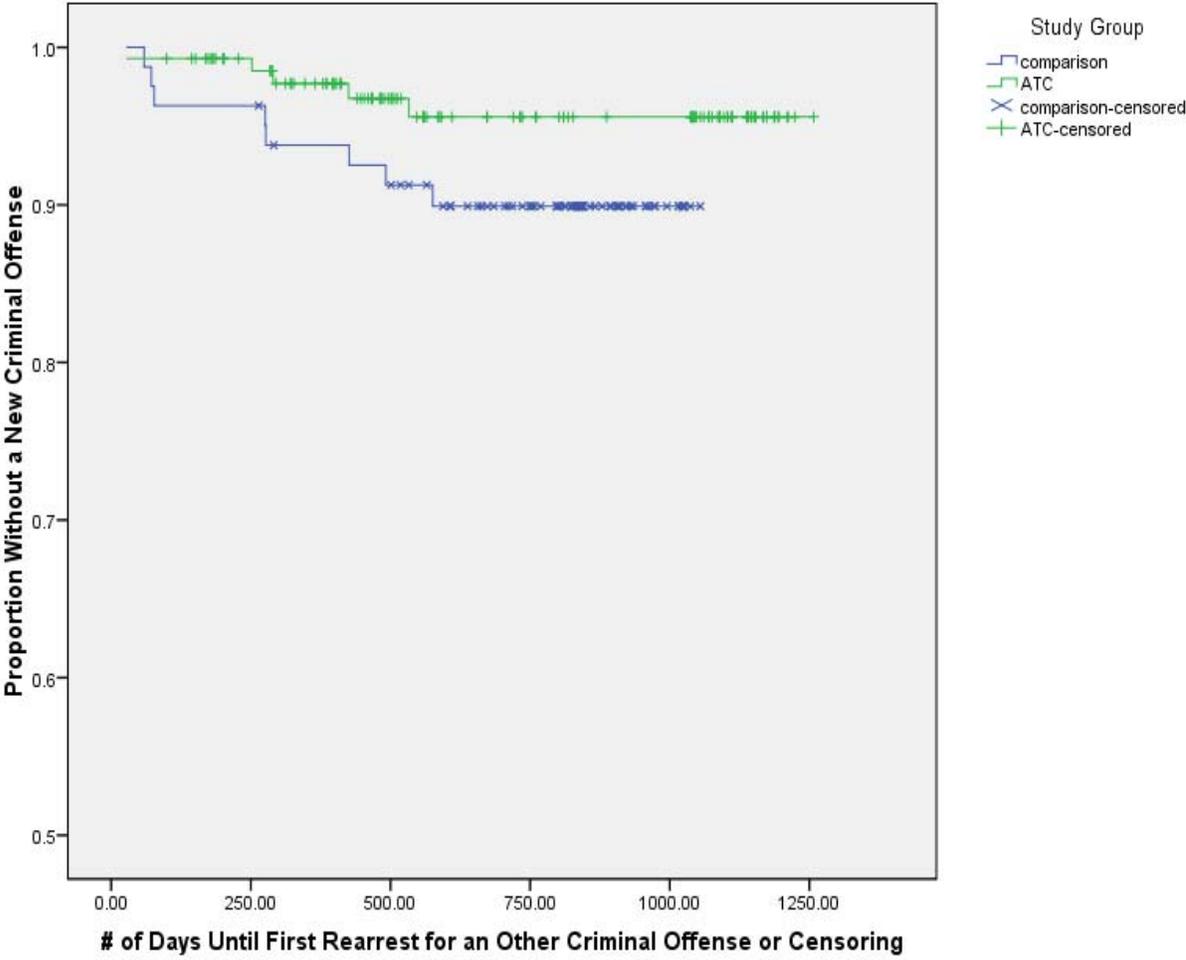


Table 13				
Summary of Proportional Hazards Regression for Predicting Other Criminal Recidivism				
Predictor	B	SE	χ^2	Risk Ratio
Female	-.19	.86	.05	
Not White/Caucasian	.22	1.16	.04	
Age*	-.07	.05	2.08	
Not Married	.36	.87	.17	
Married	1.06	.83	1.6	
Not a High School Graduate	-.77	1.11	.49	
Not Employed	.29	.89	.11	
No Pretrial Substance Abuse Tx	1.09	.87	1.56	
Sentence Length	.004	.006	.38	
Comparison Group [†]	1.19	.64	3.46	3.3
[†] $p < .10$;				

Discussion and Conclusions

The current report provides a summary of findings from an evaluation of the first 3 years (May 1, 2006 – May 15, 2009) of the Waukesha Alcohol Treatment Court (WATC). This included a process evaluation that compared the implementation and operations of the court against the plan laid out in the narrative of the grant funded by the Bureau of Justice Assistance as well as a set of guidelines (i.e., the 10 Key Components) that are commonly used to inform the development and operation of drug court programs. In fact, the solicitation under which the WATC was funded required that programs implement in a manner that was consistent with these

guidelines. In addition to the process evaluation, an outcome evaluation of an exhaustive program sample of the first 141 sequential admissions to the program was conducted.

Determinations of effectiveness are based on comparisons between the WATC participants and a group of 3rd OWI offenders who were precluded from participating in the program because capacity was limited and they served their entire sentence before a program slot was available for them.

A general statement of findings is that the program was well-implemented, with good adherence both to the plan funded by the BJA as well as the 10 Key Components. The program also appears to be effective, with 29% of the WATC group being rearrested for a new offense (including OWI, OAR, and other criminal offenses) compared to 45% of the comparison group. Even after adjusting for variables often found to be related to relapse to drunk driving, findings suggest that participating in the program reduces the risk for recidivism (particularly for other criminal offenses).

Beyond this general summary, the WATC clearly has a significant number of strengths. These include a dedicated team of professionals (which has experienced little turnover since the program began). When changes in this team have occurred, excellent replacements were found and quickly integrated into the operations of the program. A variety of supervision techniques are used to monitor participant behavior, including regular contact with case managers (including home visits), regular status hearings with the alcohol treatment court judge, and a variety of alcohol and drug testing technologies (including SCRAM, EDAC, ETG, presumptive breath tests, and urinalysis). Participants are quickly held accountable for non-compliance with program rules through a variety of sanctions that the team discussed (taking into consideration both the sanctions the participant has received in the past as well as the specific type of non-compliance

observed). Importantly, the team also works hard to recognize positive behavior and compliance with the program through a variety of rewards.

A clear statement of program rules and expectations are provided to each participant when they receive a copy of the participant handbook. This includes general rules, like not driving until one has a license, as well as contracts that spell out the specific requirements of each phase. Possible responses are clearly delineated, including sanctions and rewards, and the participants receive a significant benefit early in the program when his/her remaining jail sentence is held in abeyance until he/she successfully completes the program and then has this time set aside as a reward for completing the program. Although participants are required to serve a minimum of 1 month of their jail sentence, typically this involves 2 weeks in Huber and then 2 weeks on SCRAM, with an average sentence of 182 days, this likely translates into significant savings to the Sherriff's Department because participants are managed in the community rather than incurring costs associated with their incarceration. Quickly returning the participants to the community and placing them under intensive supervision also means they are able to retain gainful employment, take care of family responsibilities, and contribute to the community in other meaningful ways.

Because 3rd OWI offenders are not subject to mandatory terms of probation following release from jail or Huber and thus would receive no supervision upon reentry to the community, the WATC fills an important niche in local community corrections by ensuring that a group of high-risk offenders are intensively monitored in the community. At inception, the WATC was the only systematic means whereby this supervision could be accomplished. However, day reporting and electronic monitoring (EM) also now are available as options for 3rd OWI offenders. Despite having several options, the need and demand for the WATC is apparent. That

is, although a dip in WATC admissions was evident when the day reporting and EM programs started, the program again operates at capacity and above its capacity.

Related to capacity, this evaluation noted (like the previous implementation evaluation) that the number of enrollments fell short of those anticipated for the 3-years of BJA funding. This doesn't reflect negatively on the program, however. It is more a function of flawed estimates in the grant application that anticipated a 66% retention rate. The superior 85% retention rate significantly exceeds this, but also resulted in fewer slots opening for new participants, thus significantly limiting the total number that could have possibly been served. Analysis of case flow supports this conclusion. That is, the program quickly built to capacity and ran at or above capacity (except as noted in the preceding paragraph), with an average monthly case load of 47 participants. Discounting the initiation of day reporting and EM, the program maintained or exceeded capacity both before and after these other programs were started.

As already noted, the program has a demonstrated ability to retain participants in the program. This suggests that the program is operating at a high level of efficiency (especially when considered alongside the monthly program case flow). Furthermore, the program realized its process goals of 66% of graduates completing within 14 months, and those who did not complete the program had significantly shorter stays than those who did. This high retention rate is uncharacteristic of drug court programs, and represents a significant strength of the program. Furthermore, analyses of predictors of program retention showed no significant differences with respect to gender, ethnicity, age, educational and employment status, and alcohol and mental health problem severity. Having a history of physical health problems was significantly associated with remaining in treatment. This suggests the program confers important benefits for these types of participants, perhaps through referral to needed services or reduced

symptomology, related to their being required to be abstinent (which is closely monitored) from alcohol and other illicit drugs.

Although the program has many strengths and few weaknesses, it is important to note these few (potential) weaknesses with respect to program design. As was noted in the implementation evaluation of the program (see Hiller and Samuelson, 2008), the District Attorney's office does not play a significant role in the day-to-day operations of the program, contrary to the 2nd Key Component. Although the District Attorney's office does play a role in developing policy for and monitoring program operations through its participation on the steering committee, the program may benefit from additional investment from this office. For example, in many drug courts, the district attorney's office plays an active role in the screening of and decisions to admit potential participants to the program. In addition, in other programs, this office also plays a significant role in the decision making process related to sanctions for non-compliant behavior and rewards for compliance. A concerted effort by program staff to encourage the district attorney's office to invest in the day-to-day operations of the WATC likely would yield significant benefits to the program.

Related to Key Component #5, the WATC may benefit from more active involvement of the local substance abuse treatment delivery systems. Currently, no treatment representatives are involved in the day-to-day operations of the program. This is largely due to the fact that the vast majority of participants receive primary care for substance abuse problems while they are in the pre-trial phase of the process through their involvement in the WCS Intoxicated Drivers Program. These primary care episodes are typically short, and not particularly intensive, with most receiving 12-24 weeks of outpatient (1 time per week) counseling. Given the advanced nature of alcoholism among most of the participants, it may be that this primary care episode is

too short and that longer-terms of care are needed. Viewing the WATC as a means for ensuring participants receive aftercare following their primary care is another way of conceptualizing the role expanded professional substance abuse treatment could play in the program. Currently, the WATC does function as a means linking participants to aftercare through required attendance at self-help support groups, but it may be that adding more professional treatment would provide additional benefits to the participants.

As noted earlier, the WATC has a significant impact on the recidivism of participants, relative to a waiting list comparison group of 3rd OWI offenders precluded from participation because program capacity could not accommodate them before they finished their jail/Huber terms. This difference emerged most clearly when examining the overall recidivism rates (combining OWI, OAR, and other criminal offenses) for the 2-year interval following conviction. Although differences were observed with respect to overall recidivism within 1 year, and smaller differences were observed for each individual offense type, none of these achieved statistical significance in analyses. This is largely due to limitations related to the statistical power observed for these latter comparisons. In particular, the analysis of OWI recidivism was impacted by the small number of comparison group and WATC participants who were rearrested for a subsequent OWI. Because the numbers recidivating for subsequent OWI was so small, statistical power was adversely affected. Consequently, longer follow-up windows and sample sizes are needed in future evaluations to more fully test whether the program impacts these rates.

Although overall recidivism was impacted, it is important to note that recidivism for OAR was not significantly impacted. Thus, the program failed to reach the specific goal of reducing OAR and driving with suspended license offenses. This highlights the need for a more careful and in-depth study of the ways that 3rd OWI offenders cope with the legal restriction on

their driving. A process analysis is needed to determine whether participants continue to drive because this is really the only option they have for continuing to go to work, make WATC appointments, and function in their daily lives. If this is true, enhanced and targeted interventions around transportation problems would be indicated and may help the program reach its desired outcome of reducing OAR among its participants.

In conclusion, the WATC is a well-implemented program that is measurably impacting recidivism among individuals convicted for their 3rd OWI offense. It fulfills an important niche in the post-conviction supervision of these individuals (who are typically not under probation supervision after release from jail or Huber). This program is ripe for an economic analysis. Future examinations should determine the extent to which costs offset by the program (related to new offense and to the number of days participants do not serve on their original jail/Huber sentence because they are being supervised in the community) relate to costs incurred by the program.

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Appendix 1

Example of a Phase Contract

Waukesha County Alcohol Treatment Court Phase III Contract

Name _____

Color _____

In addition to the rules listed previously, you will also be required to:

1. Report to your case manager's office, in person once every two weeks, and/or as directed by your case manager.
2. Attend substance abuse counseling and/or group sessions as directed by your treatment provider.
3. Submit to random urinalysis and/or breath/blood tests at least once a week, or as directed by your case manager and/or treatment provider. (See page 15 for the procedure)
4. Attend Alcohol Treatment Court at least once a month, or as directed by your case manager.
5. Attend at least two self-help support meetings per week and provide written verification, as directed by your case manager. (See page 17)
6. Continue contact with your sponsor at least once per week and provide written verification, as directed by your case manager.
7. Attend Victim Impact Panel (if not previously attended).
8. Comply with Drivers Safety Plan.
9. Participant must stay current with financial obligations, including but not limited to: monthly program participation fee, SCRAM fees, and OWI fine payment plan.

I understand and agree to abide by all conditions of the Phase III Contract. Any violation of these conditions may result in possible sanctions, incarceration, return to Phase II or expulsion from the program.

Participant

Date

Case Manager

Date

Appendix 2
Example of a Monthly Statistical Report

**WAUKESHA COUNTY ALCOHOL TREATMENT COURT PROGRAM
WISCONSIN COMMUNITY SERVICES, INC.
October 2008**

<u>Active Participants</u>			
<u>Participants YTD:</u>	67		
<u>Participants PTD:</u>	118		
<u>Current caseload:</u>	49		
<u>New Participants:</u>	5		
<u>Program Phase Levels:</u>			
	Month	YTD	PTD
Phase 1:	11		
Phase 2:	13		
Phase 3:	15		
Phase 4:	10		
<u>Applications</u>			
	Month	YTD	PTD
In Review	8	74	109
Accepted	5	42	53
Denied	2	7	9
Clt Denied	3	16	16
<u>SCRAM</u>			
Completions	3	46	109
Violations			
Alcohol	1	7	10
Tamper	2	3	6
<u>EDAC Testing</u>	41	49	52

<u>Demographics</u>			
<u>Ethnicity</u>	Month	YTD	PTD
Caucasian	47	63	110
African American	0	0	0
Asian	0	0	0
Hispanic	2	4	7
Native American	0	0	1
Other	0	0	0
<u>Gender</u>			
Male	43	55	93
Female	6	12	25
<u>Age</u>			
18 – 25	8	10	12
26 – 32	13	19	31
33 – 40	10	13	29
41 – 50	14	20	31
51+	4	5	15
PTD=Program to Date			

<u>Other ATC Program Components</u>			
<u>Discharges from Program:</u>			
	Month	YTD	PTD
Re-offended	1	2	4
Voluntary	0	2	7
Team Decision	0	2	4
<u>Incentives:</u>	1	16	43
<u>Sanctions:</u>	6	64	194
<u>Positive Tests:</u>			
PBT's	0	6	19
UA's	1	23	42
Dilutions	0	5	15
Refusals	0	3	4
<u>Community Service:</u>	0	10	44
<u>Program Donations:</u>	0	1	4

<u>Alcohol Treatment Court Graduate Stats</u>			
	Month	YTD	PTD
Graduations	2	12	54
Jail Days Saved	280	1741	8159
Self-help Groups	333	1764	6014
PBTs	245	1277	3781
Positives	0	3	7
Drug Tests	1	35	63
Positives	0	9	9
Face to Face Contacts	66	375	1405
Court Sessions	50	299	899
Average Length of Stay	597 days	536 days	437 days
Post-Grad Support Group	_____	_____	_____
Post-Grads in Alumni Program as mentors	_____	_____	_____

<u>Graduates & Discharge Demographics</u>						
Ethnicity	<u>Graduates</u>			<u>Discharges</u>		
	MO	YTD	PTD	MO	YTD	PTD
Caucasian	2	11	50	1	5	13
African American	0	0	0	0	0	0
Asian	0	0	0	0	0	0
Hispanic	0	1	3	0	1	2
Native American	0	0	1	0	0	0
Other	0	0	0	0	0	0
<u>Gender</u>						
Male	2	8	40	1	4	10
Female	0	4	14	0	2	5
<u>Age</u>						
18 – 25	0	2	5	0	0	0
26 – 32	0	2	10	1	3	7
33 – 40	0	2	12	0	2	6
41 – 50	1	5	16	0	1	2
51+	1	1	11	0	0	0