

Washington County

Arrestee Drug and Alcohol Use Survey



Final Report

An empirical investigation into the prevalence and nature of drug and alcohol use among arrestees.

February 2008

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Final Report

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Washington County Arrestee Drug and Alcohol Use Survey

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Executive Summary

The goal of the Washington County Arrestee Drug and Alcohol Use Survey was to provide Washington County law enforcement officials with a reliable empirical assessment of the prevalence and dynamics surrounding illicit drug use among those arrested and booked into the Washington County Detention Center (WCDC).

Over a two-week period in September 2007 a team of researchers from the University of Arkansas interviewed a representative sample of adults booked into the WCDC. Using a protocol developed by the National Institute of Justice, the research team collected drug and alcohol use information from WCDC arrestees booked into the facility within 48 hours of their arrest. Data collection consisted of an interview focusing on arrestees' self-reported alcohol and drug use. In addition, information pertaining to arrestees' experiences with substance abuse treatment programs and mental health treatment (for issues other than alcohol or drug abuse) was gathered. At the conclusion of the survey participants were asked to provide the research team with an anonymous urine specimen, which was screened for four illicit drugs: Marijuana (THC); Cocaine; Opiates; and Methamphetamine.

Results of the study show that heavy drinking and illicit drug use are common - almost ubiquitous - experiences for WCDC arrestees. Eighty percent of WCDC arrestees have had 5 more drinks of alcohol on the same day on at least one occasion, and 78 percent have used an illicit drug at least once. Nearly two thirds of all arrestees have engaged in binge drinking within 12 months of arrest; more than half have used illegal drugs. Almost half of those booked into the WCDC tested positive for marijuana, one in five arrestees tested positive for methamphetamine, and one out of every 12 arrestees tested positive for cocaine.

What are the demographics of drug users? In general, the demographics of drug users reflect those of the arrestee population as a whole. The "typical" WCDC arrestee, as well as the "typical" WCDC arrestee who has experience with illicit drug use, is a single, white, non-Hispanic male between the ages of 18 and 34. Some important demographic differences do emerge when specific drugs are examined, however. Most notable were the dramatic gender differences in drug use behaviors within the 12 month period preceding arrest. On the one hand, male arrestees are significantly more likely to binge drink and use marijuana within a year of their arrest. On the other hand, female arrestees are much more likely than their male counterparts to use methamphetamine, crack cocaine, and powder cocaine.

At what age did arrestees begin drinking heavily? Using drugs? According to arrestees, there are two distinct age-of-onset patterns: one for binge drinking and marijuana use, and another for methamphetamine, cocaine, and heroin. For binge drinking and marijuana use, the age-of-onset is in the mid-teens (16 years and 15 years, respectively). In contrast, the use of more serious

drugs like methamphetamine, cocaine, and heroine typically began much later - in the early twenties.

To what extent do WCDC arrestees show signs of substance abuse or dependence? Overall, only a small minority of arrestees engage in behaviors that indicate a serious risk of substance abuse or dependence. However, binge drinking and/or illicit drug use within 12 months of arrest significantly increases the probability that an arrestee will display outward signs of alcohol and/or drug dependence. Only a minority of arrestees at-risk for alcohol or drug dependence have ever been admitted to an outpatient or inpatient treatment program.

For nearly all arrestees, there is a discernible substance abuse pathway leading to arrest. Among those arrestees who used alcohol and/or drugs in the 12 months prior to their arrest, the frequency of use increased dramatically in the 120 days immediately preceding booking.

What about the co-occurring problems of substance abuse and mental illness? A sizable number of arrestees - between 20 and 25 percent - have experienced some form of mental illness. Most have never been admitted to a psychiatric facility for the treatment of their illness, and most do not take any medication. Those arrestees who have been diagnosed with a mental illness are significantly more likely to drink heavily and use drugs. They are also much more likely to have been arrested previously and incarcerated in a correctional facility for at least 24 hours.

What is the relationship between drug use and criminal offending? Results show that most of the people booked into the WCDC, not just drug users, have extensive prior experiences with the criminal justice system. Over 80 percent of arrestees had at least one prior arrest, and more than 60 percent had spent 24 hours in a correctional facility on at least one occasion. And, while drug using arrestees do have slightly more extensive criminal histories than those who have never used, when it comes to the immediate offense or offenses for which an arrestee is jailed, drug use is not a robust predictor of the total number of charges filed, the type of charges filed (person offense versus property offense), or the seriousness of the charges filed (felony versus misdemeanor).

In sum, the data presented in this report make clear that both heavy drinking and illicit drug use are prevalent among WCDC arrestees. Therefore, they are both issues worthy of serious attention from Washington County law enforcement and other public health officials.

In the next section, a summary of key findings is presented.

Key Findings

Arrest and Charge Information

- The vast majority (in excess of 80%) of all arrestees booked into the WCDC are brought there by one of three agencies. These three agencies are: 1) Fayetteville Police Department (FPD); 2) Washington County Sheriff's Department (WCSD); and Springdale Police Department (SDPD). (Figure 1)
- Nearly half (47.8%) of all arrestees booked into WCDC are arrested between the hours of 9pm and 4am. (Figure 2)
- The typical offender booked into the WCDC is not a dangerous, predatory criminal (Figure 4). Consider:
 - Less than 10 percent of all WCDC arrestees are charged with a violent crime.
 - The majority of WCDC arrestees face only a single charge.
 - Most arrestees are booked into the WCDC for a single misdemeanor offense.
 - Less than one-third of all WCDC arrestees are charged with a felony.
- The single most common offense charged among WCDC arrestees is DUI/DWI (22.3%), followed by all types of property crime (12.4%), drug offenses (12.3%), order maintenance problems (10.3%), and violent crime (9.2%).
- Two administration of justice offenses - "failure to appear" and "failure to pay fines and costs" - constitute fully 20 percent of all charges filed against WCDC arrestees.

Arrestee Demographics

- The typical arrestee booked into the WCDC is an unmarried, non-Hispanic White male between the ages of 18 and 34. (Table 1a)
- Less than 2 percent of all arrestees booked into the WCDC on state and local charges are in the country without proper documentation.
- The formal education of most WCDC arrestees is limited to high school (42.5%) or less (15.2%). (Table 1b)
- A majority of WCDC arrestees are employed, either full-time (51.1%) or part-time (9.6%). Notably, however, fully a quarter of all arrestees are unemployed at the time of booking.
- The median household income for WCDC arrestees is between \$20,000 and \$30,000.

Overall Alcohol and Drug Use Patterns

- The experience of heavy drinking is so common as to be ubiquitous among WDCD arrestees. (Table 2)
 - More than 80 percent of all WDCD arrestees engaged in binge drinking (defined as 5 or more drinks of alcohol on the same day) at least once in their lifetime.
 - Nearly two-thirds (60.8%) of all arrestees report binge drinking within 12 months of their arrest.
 - More than 40 percent of WDCD arrestees engaged in binge drinking within 30 days of their arrest.
- Illicit drug use is nearly as common as binge drinking among arrestees.
 - More than three-quarters (78%) of all arrestees have used at least one illicit drug in their lifetime.
- Marijuana is, by far, the illicit drug arrestees are most likely to have used (75%).
- Drugs deemed “more serious” in terms of their physiological and sociological impacts are used much less frequently by arrestees than alcohol and marijuana. Among WDCD arrestees:
 - 43.9% have used methamphetamine at least once.
 - 39.3% have used powder cocaine at least once.
 - 32.2% have used crack cocaine at least once.
 - 9.9% have used heroin at least once.
 - 29.6% have used some other drug (including illicit prescription medications).
- Among WDCD arrestees, the onset of binge drinking and marijuana use occurred during high school (16 years old and 15 years old, respectively). Notably, among this population the age-of-onset for marijuana use preceded that for binge drinking.
- The age-of-onset for methamphetamine, cocaine, heroin, and other illicit drug use was well beyond the high school years for WDCD arrestees. Most began using these drugs in their early 20s.
- Among those arrestees who engaged in binge drinking and illicit drug use within 12 months of their arrest, the frequency of use increased dramatically in the 120 days preceding their arrest.
- Nearly half (46.7%) of WDCD arrestees tested positive for marijuana (THC) on the day of their arrest. (Table 3)
- More than a fifth (22.2%) of WDCD arrestees tested positive for methamphetamine on the day of their arrest.

- Less than 10 percent (7.4) of WCDC arrestees tested positive for cocaine (in any form) on the day of their arrest.
- Just over 1 percent of WCDC arrestees tested positive for opiates.
- The prevalence of marijuana use among WCDC arrestees is similar to that found in the region. (Figure 7)
- The rate of methamphetamine use among WCDC arrestees is similar to the rate of use among arrestees in Omaha, Nebraska, but significantly higher than the rates of use for arrestees in Tulsa, Oklahoma City, and Birmingham.
- The rate of arrestee cocaine use and heroin are significantly lower in Washington County, Arkansas than those in Birmingham, Oklahoma City, Omaha, and Tulsa.

Dependence and Abuse

- Overall, only a small minority of WCDC arrestees (approximately 13%) engage in behaviors indicative of serious substance abuse or dependence risk, for example: spending more time drinking/using drugs than intended; frequently thinking about drinking; neglecting responsibilities because of drinking/drug use; using alcohol and/or drugs to relieve feelings like sadness, anger, or boredom; and having people objecting to drinking and drug use. (Figure 8)
- Binge drinking and/or drug use within 12 months of arrest significantly increase the probability that an arrestee will be at-risk for alcohol and/or drug abuse or dependence. Among those who reported using drugs in the 12 months preceding their arrest:
 - 8.3 percent engaged in behaviors suggesting risk of drug abuse.
 - 63.7 percent engaged in behaviors suggesting risk of drug dependence.

Among those who reported binge drinking in the 12 months preceding their arrest:

 - 12.1 percent engaged in behaviors suggesting risk of alcohol abuse.
 - 58.3 percent engaged in behaviors suggesting risk of alcohol dependence.
- Arrestees who use cocaine or methamphetamine are much more likely than those who use marijuana or binge drink to be at-risk for both drug dependence and alcohol dependence.

Drug and Alcohol Treatment

- WDCD arrestees are more likely to have been admitted to an inpatient drug or alcohol treatment program than an outpatient program. (Figure 9)
 - Approximately 20 percent of WDCD arrestees have been admitted to an outpatient drug or alcohol treatment program, not including meetings like NA or AA.
 - Roughly a third of all arrestees have stayed at least overnight in an inpatient drug or alcohol treatment program.
- Arrestees who have used illicit drugs are significantly more likely than those who have never used illicit drugs to experience inpatient substance abuse treatment. Among drug users, those who have used marijuana are least likely to have been admitted to an inpatient drug or alcohol treatment program; heroin users are most likely to have been admitted to inpatient care.
- Arrestees at highest risk of drug dependence are not likely to have any experience with substance abuse treatment programs. (Figure 10)
 - Only one out of every three arrestees most at-risk for drug and/or alcohol dependence have been admitted to an inpatient treatment facility.
 - Even fewer - less than 20 percent - of arrestees at-risk of drug and/or alcohol dependence have been admitted to an outpatient program.
- Approximately 40 percent of arrestees at-risk for substance abuse (rather than dependence) have participated in an outpatient treatment program.

Mental Health Treatment

- One in four arrestees has experienced problems associated with mental illness. Three-quarters of these individuals have been diagnosed by a physician or psychologist.
- A minority of arrestees diagnosed with a mental illness are currently taking medication to treat it.
- Less than half of those diagnosed as having a mental illness have ever been admitted for an overnight stay in a psychiatric facility for treatment.
- Overall, 7 percent of WDCD arrestees have been admitted for an overnight stay in a mental hospital in their lifetime; 5 percent have been admitted for an overnight stay within a year of arrest.
- Arrestees who have used drugs are more likely than those who have never used drugs to be diagnosed with one or more mental illnesses. (Figure 11)

Criminal Justice Experiences

- A large majority of WDCDC arrestees have prior experiences with the criminal justice system.
 - More than 80 percent of arrestees have at least one prior arrest.
 - More than 60 percent of arrestees have spent at least 24 hours in a jail, prison, juvenile detention facility, or boot camp.
- Arrestee mental health is a significant predictor of prior criminal justice experiences. Those having experiences with mental health problems, those who have been diagnosed with mental health problems, and those who have been hospitalized for mental health issues are significantly more likely to have prior arrests and incarcerations (Figure 12).
- Illicit drug use is also a significant predictor of prior criminal justice experiences for WDCDC arrestees. Those who have used marijuana, cocaine, methamphetamine, or heroin are significantly more likely to have been arrested and incarcerated previously (Figure 13).
- Drug use, but not mental health, is associated with the type of offense for which an arrestee is booked into jail (Figure 14).
 - Arrestees who have never used illicit drugs are much more likely to be charged with a property crime than a violent crime.
 - Among drug users, marijuana and crack cocaine users are more likely to be charged with a property crime than a violent crime; powder cocaine and methamphetamine users are more likely to be charged with a violent offense.
- Illicit drug use is not related to the number of charges (misdemeanor or felony) filed against an arrestee.
- Drug use, or more specifically crack cocaine use, does influence the ratio of felonies to misdemeanors for those arrestees charged with two or more offenses. Crack users are the only group whose felony:misdemeanor ratio exceeds “1”. Those who have never used illicit drugs have the lowest felony:misdemeanor ratio.

The Demographics of Drug Use

- There is a clear probability of use for alcohol and drug use among WDCDC arrestees. For every age group except those ages 45-54, the probability of use is, in descending order: Alcohol >>> Marijuana >>> Methamphetamine >>> Powder cocaine >>> Crack cocaine >>> Heroin. (Figure 16)
- The probability of binge drinking and illicit drug use is cumulative with age; that is, the probability that an arrestee will report lifetime use increases with age.

- WCDC arrestees ages 45-54 have the highest binge drinking and illicit drug use rates.
- Whites are more likely than non-white minorities to report lifetime binge drinking and illicit drug use. However, when the time horizon is limited to the 12 months preceding arrest, these racial differences disappear. (Figure 17)
- With respect to lifetime binge drinking and drug use, there are no significant differences between male and female arrestees booked into the WCDC.
- There are dramatic gender differences in alcohol and drug use behaviors for the 12 month period preceding arrest. (Figure 18)
 - Male arrestees are significantly more likely to use marijuana and engage in binge drinking
 - Female arrestees are much more likely than their male counterparts to use methamphetamine and cocaine.
- Overall, formal education is a poor predictor of binge drinking and drug use behaviors.
- Neither current employment status nor total household income are related to the probability that a WCDC arrestee will binge drink or use illicit drugs.
- Two family characteristics - marital status and parenthood - appear to serve as “protective factors” against binge drinking and drug use. The exception to this pattern is for those arrestees who use methamphetamine. (Figure 20 and Figure 21).

Part I

Arrest, Charge, and Booking Information

Introduction

Law enforcement officials in Northwest Arkansas and elsewhere in the United States have, for decades, believed there to be a robust causal link between drug use and crime. Ask a police or correctional officer to identify the single most important factor in the commission of crime and they will likely tell you that arrests and subsequent incarcerations are the result, either directly or indirectly, of drug use.

A problem often arises for law enforcement officials, however, when they are asked to provide empirical evidence supporting such claims because reliable empirical data pertaining to the drugs-crime nexus are sparse, especially at the local level. Available drug use data are typically based on national samples that, while informative, often have little resemblance to the situation as it exists at the municipal and county levels. Moreover, even when data are collected at the local level, quite often the most that can be inferred is that the behaviors - drug use and crime, respectively - are mildly correlated. Rarely are available data detailed enough to develop an in-depth understanding of the causal relationship between the two.

The goal of the present study was to provide Washington County law enforcement officials with a reliable empirical assessment of the prevalence and dynamics surrounding illicit drug use among those arrested and booked into the WCDC.

Over the course of fourteen consecutive days in September 2007 a team of researchers from the Department of Sociology & Criminal Justice at the University of Arkansas interviewed a representative sample of adults booked into the Washington County Detention Center (WCDC)¹. Using a protocol developed by the National Institute of Justice, the Washington County Arrestee Drug and Alcohol Use Survey research team collected drug and alcohol use information from a randomly selected sample of adults booked into the WCDC within 48 hours of their arrest. Data collection consisted of an interview schedule focusing on arrestees' self-reported alcohol and drug use in the twelve months preceding the day of their arrest. In addition to asking respondents about their alcohol and drug use histories, interviewers asked arrestees about their recent experiences with drug or alcohol treatment

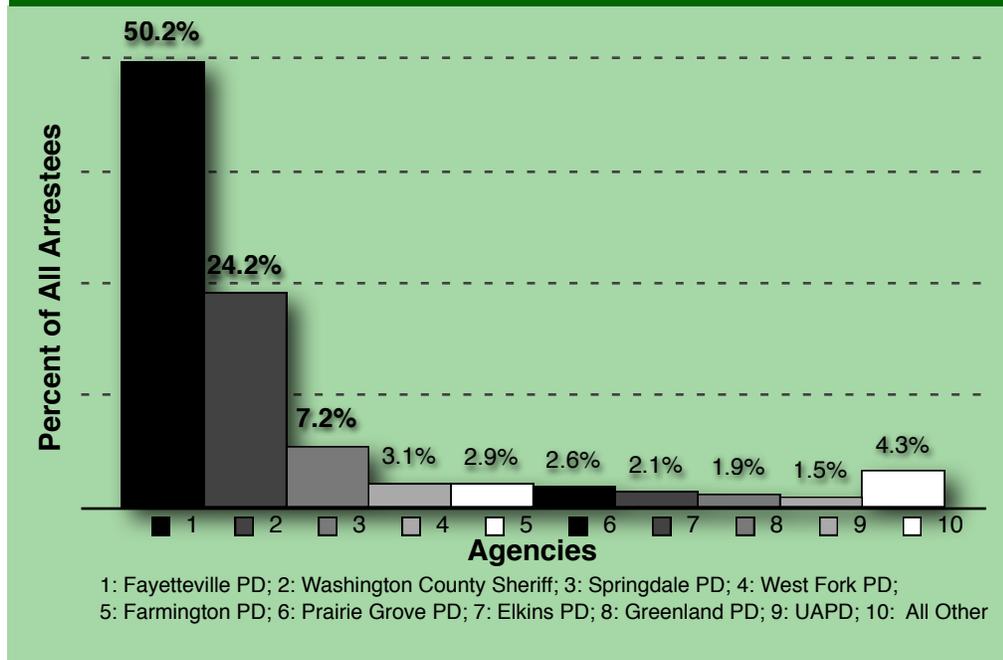
¹ The jail's local social control function can be broken into two parts: 1) *booking* and 2) *holding*. The booking function of the jail refers to the formal processing of those who have been arrested; the holding function refers to the custodial housing of persons either on a pre-trial or post-conviction basis (Klofas 1990). The focus of the present study was to collect detailed information on the alcohol and drug use behaviors of those who enter the WCDC, regardless of whether or not they were housed at the facility for any designated period of time. For a more detailed description of the study's methodology, please see the Appendix.

programs, as well as any mental health treatment (for issues other than alcohol or drug abuse) they may have received in the previous year. Basic demographic data were also collected. Finally, information about the arresting agency, grounds for and location of arrest was obtained from official booking documents.

At the conclusion of the survey participants were asked to provide the research team with a completely anonymous urine specimen, which was screened for four illicit drugs: Marijuana (THC); Cocaine; Opiates; and Methamphetamine.

Arrest and Charge Information

Figure 1. Distribution of Arrestees Booked into WCDC by Arresting Agency



Over the course of the 14-day study period 383 eligible arrestees (289 men and 94 women) were booked into the WCDC². Official charging documents and computerized booking records were accessed to collect detailed arrest information for each person booked into the facility. The following arrest data were obtained:

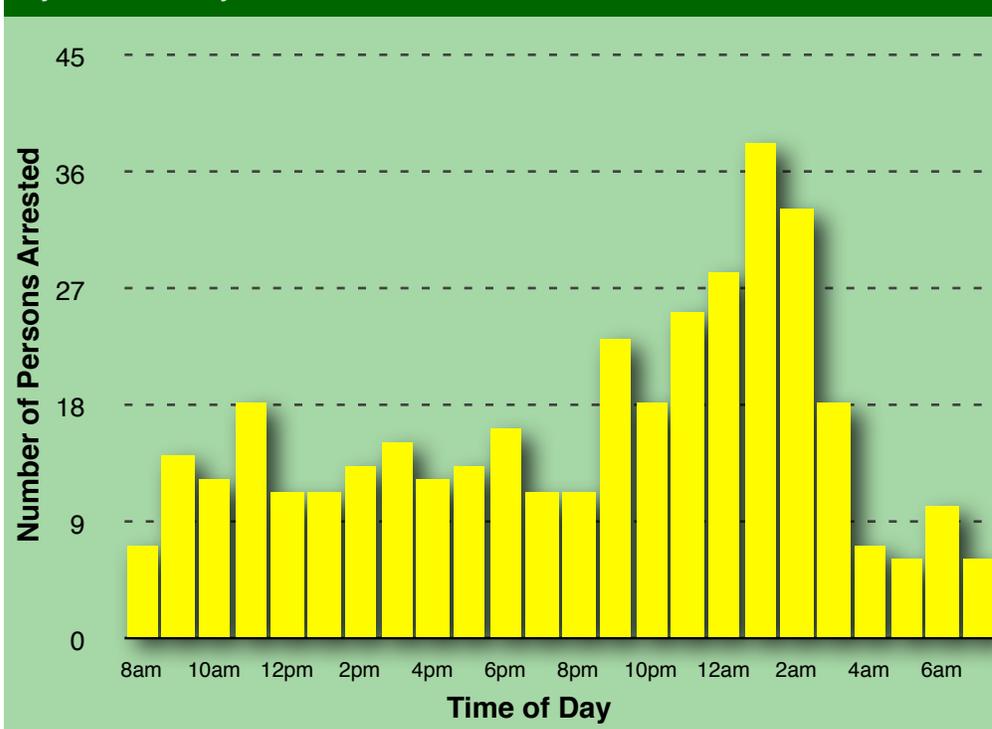
² Only those adults who were booked into the Washington County Detention Center on new local or state charges within 48 hours of their arrest were eligible for inclusion in the study. Minors under the age of 18 were not eligible. Persons booked into the facility by federal agents for exclusively federal offenses were excluded from the sampling procedure. Detainees who had been in custody for more than 48 hours were not eligible, as were inmates who were serving a sentence. Inmates transferred to the WCDC from another facility were also excluded.

- Arrest date/time;
- Arresting agency;
- Arrest location;
- Description of the 3 most serious offenses charged; and
- Booking date/time.

More than 80 percent all those booked into the WCDC were brought there by one of three agencies: the Fayetteville Police Department (FPD); the Washington County Sheriff’s Department (WCSD); or the Springdale Police Department (SDPD). By far, the largest share of WCDC arrestees - 50 percent of all arrestees - were remanded into WCDC custody by FPD. The WCSD was responsible for roughly a quarter of all bookings, and SDPD accounted for just over 7 percent of all bookings. (See Figure 1).

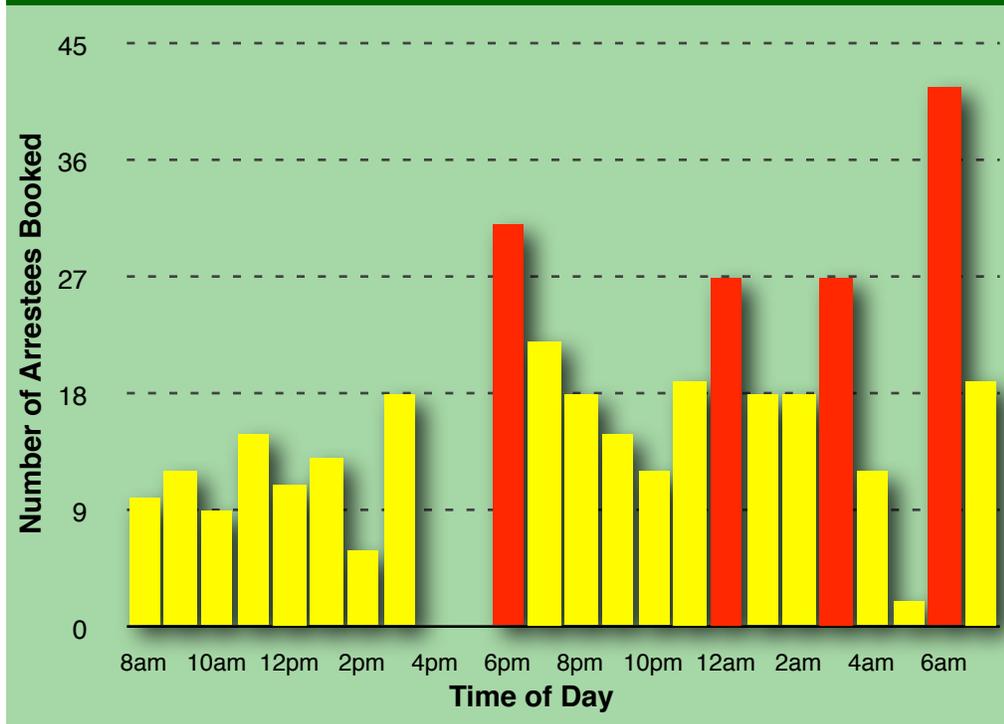
Nearly half of all arrestees booked into the WCDC (47.8%) were arrested in the seven-hour period between 9pm and 4am (See Figure 2.)

Figure 2. Number of Persons Arrested by Time of Day



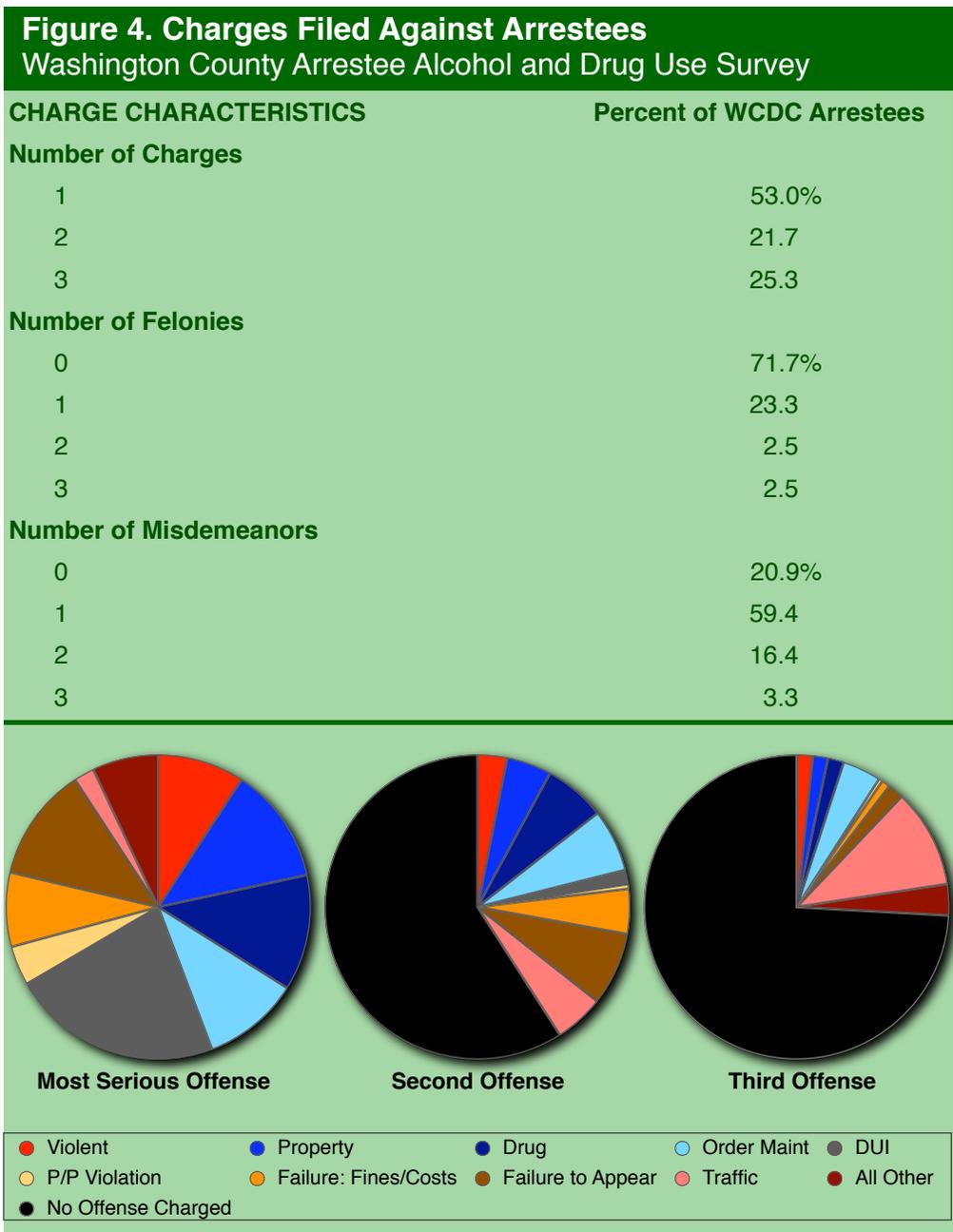
Notably, these arrest data did not correspond neatly with available information pertaining to *booking* times. Whereas the arrest data were relatively “smooth,” available booking data were much more erratic and uneven, with marked increases and decreases in booking activity throughout the day (See Figure 3).

Figure 3. Number of Persons Booked by Time of Day



In addition to arresting agency and arrest and booking times, detailed charge information was also collected for all eligible arrestees. The three “most serious” charges filed upon booking were recorded and coded for every person booked in the WCDC. Violent offenses or crimes against persons (e.g., assault) were considered more serious than property crimes (e.g., theft), drug and alcohol (e.g. drug possession), or other miscellaneous offenses (e.g. prostitution). In all instances, felonies were considered more serious than misdemeanors. Figure 4 presents data on the total number of charges, the total number of felonies, and the total number of misdemeanors filed against arrestees booked into the WCDC during the study period, as well as a breakdown by offense type for the top three offenses.

These data show that the typical offender entering the WCDC is not necessarily a dangerous criminal; rather, it is much more likely that they are a petty offender. A majority of arrestees booked into the WCDC face only one criminal charge. In addition, less than 30 percent of all arrestees enter the facility charged with a felony, and those who do are likely to have only one such charge filed against them. In contrast nearly 80 percent of arrestees entering the WCDC do so with one or more misdemeanors pending.



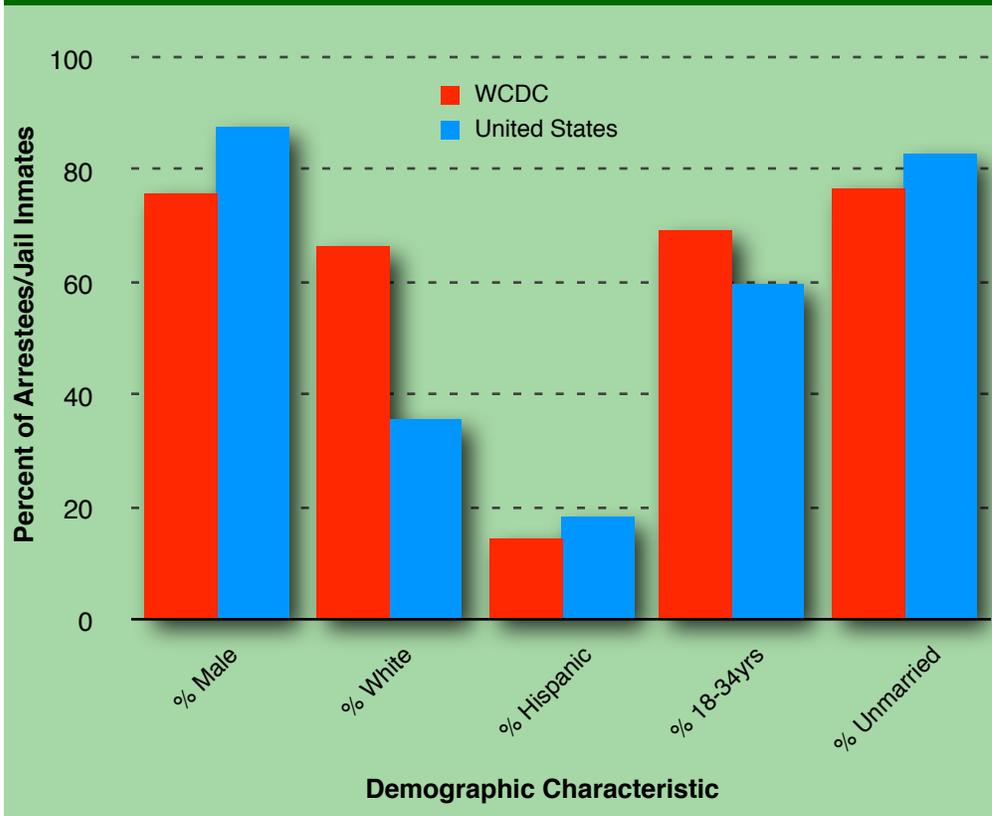
Looking at the most serious offenses charged to arrestees booked into the WCDC during the study period, the single most common offense is DUI/DWI (22.3%), followed by property crimes (12.4%), drug offenses (12.3%), order maintenance problems (10.3%) and then violent crimes (9.2%). Significantly, two administration of justice offenses (failure to appear; failure to pay fines and costs) constituted fully 20 percent of charges filed against WCDC arrestees. Among the second and third offenses charged, traffic violations and miscellaneous order maintenance offense predominate.

Part II³

Arrestee Demographics

³ The information presented in this section and the following sections of this report was obtained from face-to-face interviews with a representative sample of arrestees booked into the WCDC. In all, 151 of the 383 arrestees booked into the WCDC over the course of the 14-day study period were approached for an interview. The vast majority of those who were asked agreed to participate (n = 139; 92%).

**Figure 5. Demographic Comparison of Arrestees/Inmates
WCDC vs. United States**



So, who are WCDC arrestees?

With the exception of arrestees' racial background (WCDC arrestees are predominately White, whereas other jail populations are majority non-White), the demographic profile of WCDC arrestees closely parallels jail populations in other jurisdictions across the United States: The typical arrestee entering the WCDC is a non-Hispanic, single male between the ages of 18 and 34 (see Figure 5). In excess of 90 percent of all arrestees were born in the United States; another 1.5 percent are naturalized citizens. Less than 2 percent of all arrestees booked into the WCDC are in the country without proper documentation (see Table 1a).

A majority of persons arrested and booked into the WCDC have limited formal education (high school or less). Consequently, though most are employed on either a full-time (51.1%) or a part-time (9.6%) basis when arrested, many demonstrate little earning power. Nearly a quarter of all arrestees reside in households with than \$10,000 total earned income; the median household income was between \$20,000 and \$30,000 for 2006. One-quarter of all persons who enter the WCDC who are capable of working are

unemployed at the time of their arrest, and another 8 percent are unable to work because of a documented disability (see Table 1b).

Table 1a. Socio-Demographic Characteristics of Arrestees
Washington County Arrestee Alcohol and Drug Use Survey

SOCIO- DEMOGRAPHIC CHARACTERISTIC	Percent of WCDC Arrestees
Age	
18-24 yrs	37.7%
25-34 yrs	31.6
35-44 yrs	21.3
45-54 yrs	6.1
55+	2.5
Gender	
Male	75.8%
Female	24.2
Race/Ethnicity	
AM Indian/AK Native (Only)	5.8%
Asian (Only)	1.5
Black/AF American (Only)	11.8
Pacific Islander (Only)	0.8
White/Caucasian (Only)	66.4
All Other	5.8
Hispanic/Latino/a Background or Origin	14.5%
Current Legal Marital Status	
Single, never been married	56.6%
Divorced	16.8
Legally separated	1.9
Widowed	1.4
Married, including common law marriage	23.1
Citizenship and Immigration Status	
Born in U.S. or U.S. Territories	92.7%
Naturalized Citizen	1.5
Permanent Resident (Green Card)	3.0
Work or Other Visa	1.0
No Legal Documents	1.8

Given these stark economic realities, it is perhaps not surprising to find that nearly 10 percent of those who enter the WCDC do not have stable housing. In excess of 5 percent of all arrestees are homeless (reporting no fixed residential address, or living in a shelter) on the day of their arrest. Between 2 and 3 percent of arrestees just exited some form of institutional housing (hospital; jail; prison) when arrested. Another 1.4 percent are living in a residential hotel, rooming house, or group home.

Table 1b. Socio-Demographic Characteristics of Arrestees
Washington County Arrestee Alcohol and Drug Use Survey

SOCIO- DEMOGRAPHIC CHARACTERISTIC	Percent of WCDC Arrestees
Educational Attainment	
No Degree	15.2%
High School or GED	42.5
Vocational or Trade School	4.0
Some College/Associate’s Degree	28.0
Four-year College Degree or Higher	10.3
Current Work Status	
Full-time (35+ hrs/week)	51.1%
Part-time	9.6
Unemployed	25.3
Full-time Homemaker	0.8
In-school Only	3.3
Disabled for Work	8.0
Retired	0.6
All Other	1.0
Total Household Income, Past Year	
Less than \$10,000	23.5%
At least \$10,000, but less than \$20,000	11.1
At least \$20,000, but less than \$30,000	20.7
At least \$30,000, but less than \$40,000	15.0
At least \$40,000, but less than \$50,000	7.3
At least \$50,000, but less than \$60,000	5.1
At least \$60,000, but less than \$70,000	4.2
At least \$70,000, but less than \$80,000	1.6
At least \$80,000, but less than \$90,000	0.8
At least \$90,000, but less than \$100,000	2.7
\$100,000 or more	8.0

In addition to experiencing a lack of housing, WDCDC arrestees also demonstrate a high level of residential instability: Only 20.5 percent of all arrestees reported living in the same residence five years earlier.

Table 1c. Socio-Demographic Characteristics of Arrestees
Washington County Arrestee Alcohol and Drug Use Survey

SOCIO- DEMOGRAPHIC CHARACTERISTIC	Percent of WDCDC Arrestees
Housing Status	
House, mobile home, or apartment	90.8%
Residential hotel, rooming house, or group home	1.4
Hospital, treatment facility, or extended care facility	0.3
Jail, prison, or other correctional facility	2.3
Shelter	0.4
No fixed residence or homeless	4.8
Lived in Current Residence 5 Years Ago	20.5%
Parent or Legal Guardian (Yes)	39.8%
Number of Children Responsible For	23.5%
1	12.4
2	16.3
3 or more	11.1
Total Household Members	
Total Number of Residents Under 18yrs	
0	53.5%
1	12.2
2	22.1
3 or more	12.2
Total Number of Residents 18yrs or Over	
1	21.3%
2	46.7
3 or more	32.0

Part III

Alcohol & Drug Use

Prevalence of Alcohol & Drug Use

After completing the demographics section of the interview, arrestees were asked to respond to a series of “ever” questions pertaining to their personal alcohol and drug⁴ use histories:

- *Have you ever had 5 or more drinks of beer, wine, or alcohol, or any other type of alcohol on the same day?*
- *Have you ever used any marijuana or hashish?*
- *Have you ever used any crack or rock cocaine?*
- *Have you ever used any powder cocaine?*
- *Have you ever used any heroin?*
- *Have you ever used any methamphetamine?*
- *Not including alcohol and these five drugs, have you ever used any other drug, not counting drugs for which you had a prescription or over-the-counter drugs?*

Two follow-up questions were asked if respondents reported lifetime alcohol and/or drug use:

- *How old were you the first time you used [DRUG]?*
- *Did you use [DRUG] in the past 12 months?*

Finally, if a respondent indicated that they had consumed five or more drinks of alcohol on the same day, or has used any amount of an illicit drug in the preceding 12 months, they were then asked:

- *Regardless of how or when you got it, did you use [ALCOHOL/DRUG] in the past 30 days?*

The results, presented in Table 2 on the next page, show that heavy drinking⁵ is a common experience among WDCD arrestees. More than 80 percent reported consuming five or more drinks of alcohol on the same day at least once in their lifetime, nearly two-thirds reported doing so at least once in the year immediately preceding their arrest, and in excess of four of every ten arrestees admitted to heavy drinking within a month of being booked into the WDCD.

⁴ While there are efforts made to capture the illicit use of other drugs, the focus of this study is on four of the “NIDA-5” drugs identified by the National Institute on Drug Abuse as the most commonly used illicit drugs: marijuana; cocaine, methamphetamine, and opiates.

⁵ The standard of “5 or more drinks of alcohol on the same day” is the operational definition of “heavy drinking” used by the Substance Abuse and Mental Health Administration in its annual national household survey, the *National Survey on Drug Use and Health*.

Illicit drug use is also common. Seventy-eight percent of all arrestees report using *at least one* illicit drug in their lifetime. Marijuana is, by far, the drug used most frequently: fully 75 percent of arrestees booked into the WCDC report having used it. Moreover, half of all those booked into the facility used marijuana within one year of their arrest; one-third reported using marijuana within 30 days of their arrest. It is notable that among WCDC arrestees, the probability of marijuana use is nearly equal to the probability of binge drinking.

The use of drugs widely considered to be “more serious,” both in terms of their physiological effects and sociological impacts, was much less prevalent among WCDC arrestees. In terms of lifetime use, a higher proportion of arrestees have used methamphetamine (43.9%) than powder cocaine (39.3%), rock (“crack”) cocaine (32.2%), heroin (9.9%), and other illicit drugs (29.6%). This pattern also held for drug use within 30 days of arrest, though not for past 12-month use. Though clearly not the “drug of choice” for most WCDC arrestees, an arrestee is much more likely to report having used methamphetamine than cocaine, heroin, or other illicit drugs.

The use of other illicit drugs and the illicit use of prescription medications was also fairly common among arrestees.

The age of onset for marijuana actually preceded that for alcohol among WCDC arrestees. On average, arrestees first used marijuana during their first year of high school, when they were 15 years old. Binge drinking typically came one year later. Generally, arrestees began their use of methamphetamine, cocaine, heroin, and other illicit drugs after high school.

Table 2. Arrestee Self-reported Alcohol and Drug Use
Lifetime Use, Age of Onset, Past 12-month/30-day Use

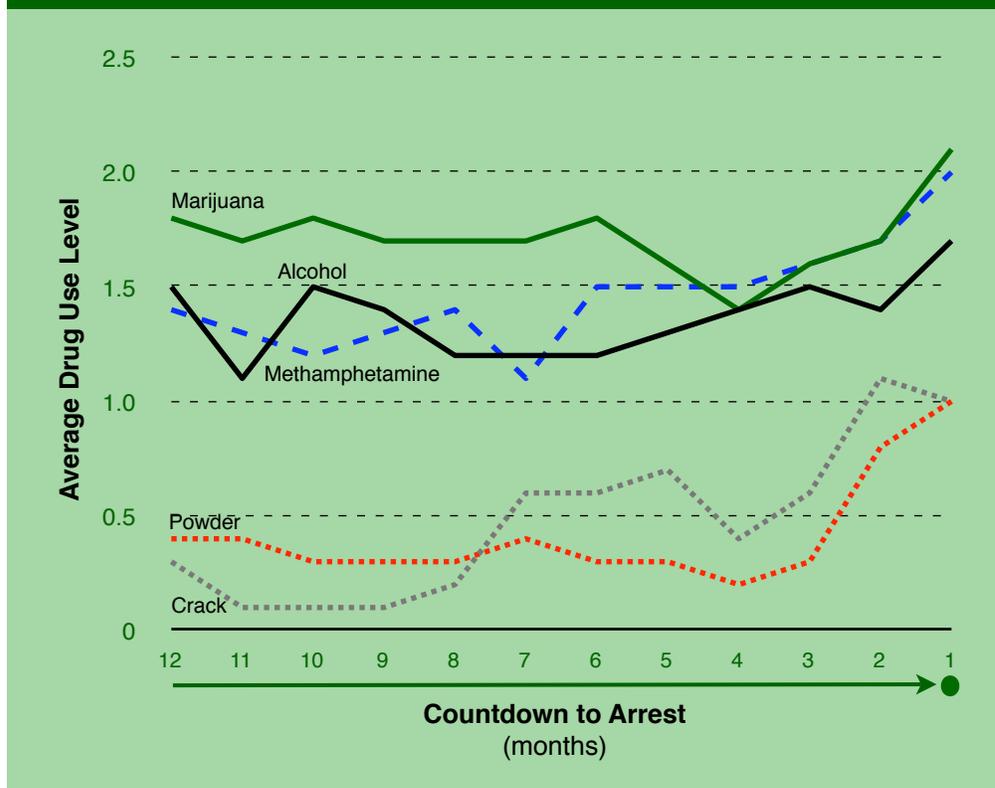
	EVER (% “Yes”)	Age of Onset (Average)	12 Months (% “Yes”)	30 Days (% “Yes”)
Alcohol	83.0	16.4 yrs	60.8	40.9
Marijuana or Hashish	75.0	15.2 yrs	50.6	38.8
Methamphetamine	43.9	20.1 yrs	27.2	20.0
Powder Cocaine	39.3	20.3 yrs	14.0	6.1
Crack/Rock Cocaine	32.2	23.3 yrs	32.2	2.1
Heroin	9.9	22.6 yrs	2.4	0.0
Other Illicit Drug	29.6	20.6 yrs	11.5	Not Asked

Arrestees who reported having five or more drinks on the same day or using an illicit drug in the past year were asked to provide their own best estimate of their level of use each month, beginning in October of 2006 and ending with their arrest in September 2007. The following Use Levels⁶ were used:

- **LEVEL 0:** No use that month.
- **LEVEL 1:** 1 day per week, or 1 - 7 days per month;
- **LEVEL 2:** 2-3 days per week, or 8-12 days per month;
- **LEVEL 3:** More than 3 days per week, or 13-30 days per month.

Figure 6 tracks the average Use Level for WCDC arrestees for the 12 months preceding arrest. These data reveal two particularly interesting empirical patterns. First, the frequency of use was highest for marijuana and methamphetamine, and lowest for powder and rock cocaine. Notably, the average level of use of these two drugs exceeded even that of alcohol. Second, with the exception of heroin, the frequency of arrestee drug use dramatically increased in the months immediately before their arrest.

Figure 6. Arrestees' Average Level of Illicit Drug Use
October 2006 ("Month 12") thru August 2007 (Month "2")



⁶ "Use" was operationalized as follows: ALCOHOL: five or more drinks on the same day; DRUGS: any use.

If an arrestee reported using marijuana, methamphetamine, or any form of cocaine within 30 days of their arrest, they were asked about the frequency of use in the previous 7 days as well as the final 3 days preceding their arrest and booking. The results for each of these questions are presented below.

Table 3. Arrestee Self-reported Alcohol and Drug Use
Lifetime Use, Past 12-month, 30-day, 7-day, 3-day Use

	7-day (% "Yes")	7-day (average)	3-day (% "Yes")	3-day (average)	U/A ^a (% Pos.)
Marijuana or Hashish	32.4	3.9	25.9	2.1	46.7
Methamphetamine	15.8	3.5	12.2	1.8	22.2
Powder Cocaine	2.2	1.0	1.4	1.0	7.4 ^b
Crack or Rock Cocaine	0.7	1.0	0.0	---	7.4 ^b
Heroin	---	---	---	---	1.3 ^c

NOTES:

- a. Urinalysis tests to detect drugs other than marijuana, methamphetamine, cocaine, and opiates not performed.
- b. Only one test performed to detect cocaine and cocaine metabolites. The particular form of cocaine used by an arrestee (i.e. powder vs. rock) is unknown.
- c. Assay tests for morphine, which is the major metabolic product of heroin and codeine, is excreted unmetabolized in urine. Because heroin and codeine both break down to morphine, a positive screen on the assay indicates only that the substance used might be heroin; use of other opiates cannot be ruled out.

Roughly one-third of arrestees booked into the WCDC reported using marijuana at least one day in the week leading up to their arrest. On average, marijuana users used at least once on four of those seven days. The percentage of arrestees who used methamphetamine within a week of arrest was markedly lower - 15.8 percent. However, those who did use methamphetamine did so as frequently as those who used marijuana. Very few arrestees reported using cocaine within a week of being booked into the facility. No one admitted to using heroin.

As expected, fewer arrestees used drugs within three days of arrest than seven. A quarter of all arrestees reported using marijuana within 3 days of arrest. Those who did use, on average, on two of those three days. Just over 10 percent of all arrestees stated they used methamphetamine within 3 days of their arrest. And, like marijuana users, those who used methamphetamine reported using on 2 out of those 3 days, on average.

At the conclusion of the survey interview, respondents were asked to provide a completely voluntary and anonymous urine specimen, which was tested for

drugs and drug metabolites.

The iCup™ test bottle was used for qualitative (i.e. “yes” or “no”) detection of the following drugs and their metabolites⁷: marijuana (THC); methamphetamine; cocaine; and opiates⁸. The sample bottle includes an integrated test card that utilizes monoclonal antibodies to selectively detect elevated levels of specific drugs and drug metabolites in urine. Positive results are given only when select drugs or drug metabolites are present in urine above the minimum concentrations recommended by Substance Abuse and Mental Health Services Administration (see Exhibit 1).

EXHIBIT 1. Drug Cut-Off Levels, Detection Periods, and Accuracy			
<i>iCup</i> Testing Bottle			
DRUG	CUT-OFF LEVEL	DETECTION PERIOD	ACCURACY
Marijuana (THC)	50 ng/ml	15-30 days	97%
Methamphetamine	1,000 ng/ml	3-5 days	99%
Cocaine	300 ng/ml	1-3 days	96%
Opiates	2,000 ng/ml	2-4 days	99%

NOTE: Detection ranges depend on the amount and frequency of drug use, metabolic rate, body mass, age, overall health, drug tolerance, and urine pH.

A total of 115 of the 139 arrestees who agreed to the interview also volunteered to provide a urine specimen (82% response rate). Urinalysis results are presented in the last column of Table 3. Nearly half (46.7%) of all WCDC arrestees tested positive for marijuana (THC), 22 percent produced a positive result for methamphetamine, 7 percent came up positive on the cocaine screen, and just over 1 percent tested positive for opiates.

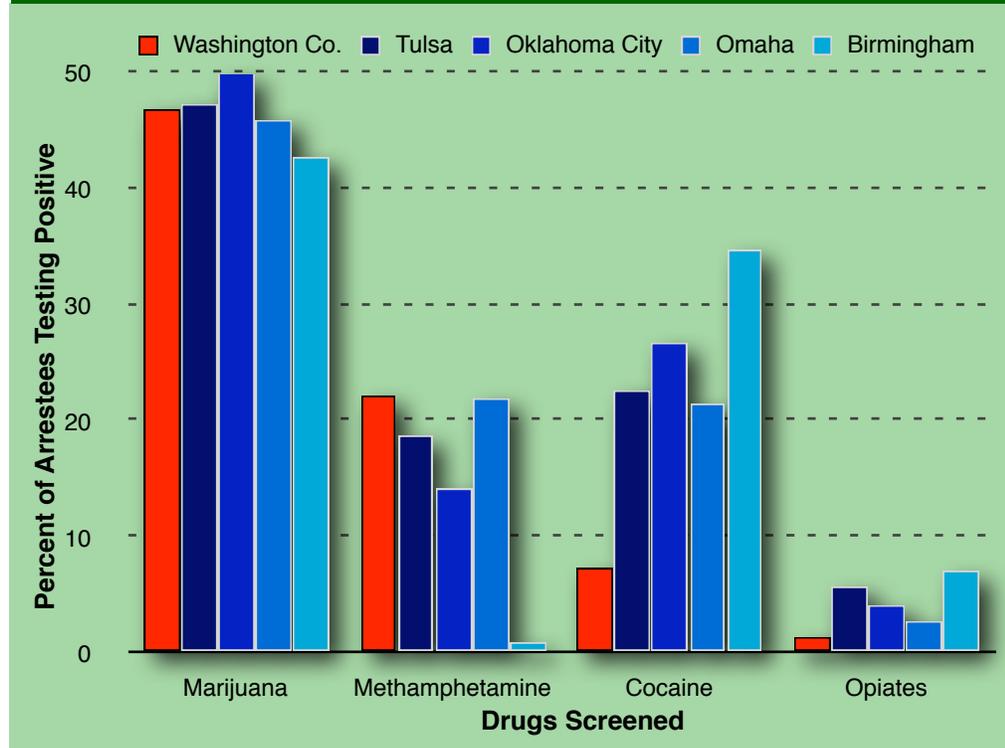
How does Washington County compare to other jurisdictions? Figure 7 presents the results for the *Washington County Arrestee Drug and Alcohol Use Survey* alongside results from four nearby *Arrestee Drug Abuse Monitoring* (ADAM) sites: Tulsa; Oklahoma City; Omaha; and Birmingham.

⁷ An immunoassay uses antibodies to detect the presence of drugs in urine. Each immunoassay is designed to detect one particular drug or drug class. In some cases, the assay detects the drug itself, while in other cases it detects metabolites of the drug. Each assay provides only a preliminary analytic test result. A more specific chemical method is required - but was not performed in this study - to confirm results. Assay results presented herein should therefore be interpreted with caution. More information about the particular assays used and the accuracy of the iCup test bottle can be found at: <http://www.tryi.com/index.php>.

⁸ The test card built into the iCup test bottle is a lateral flow chromatographic immunoassay for the detection of drugs and drug metabolites in urine at the following cut-off concentrations: Cocaine: 300ng/ml; Marijuana (THC): 50ng/ml; Methamphetamine: 1,000ng/ml; and Opiates (Morphine) 2,000ng/ml.

These data show the prevalence of marijuana use among WCDC arrestees to be on-par with other jurisdictions in the region. The rate of methamphetamine use, on the other hand, is noticeably higher in comparison than all of the other jurisdictions, except Omaha. Conversely, the percentage of arrestees testing positive for cocaine and opiates is significantly lower than in surrounding areas.

Figure 7. Regional Comparison of Positive Drug Screens
Percentage of Arrestees Testing Positive



Dependence & Abuse

In addition to measuring arrestee alcohol and drug use behaviors, efforts were also made to assess the extent to which those booked into the WCDC are at risk for the abuse and dependence on alcohol and drugs.

Because of research evidence suggesting “chronic users of drugs that cause psychological dependence behave in much the same way as individuals who are addicted to drugs that cause physiological dependence,” the specific measures used to detect substance abuse and dependence risk emphasize behavior rather than physiological markers, such as tolerance or withdrawal⁹.

To measure risk of substance abuse and dependence, arrestees who said

⁹ Crossland, Christine R. and Henry H. Brownstein. 2003.

they used alcohol or drugs in the 12 months prior to arrest were asked a series of 6 questions about their drinking and drugging (see Exhibit 2).

Exhibit 2.

Screening Arrestees for Alcohol/Drug Abuse and Dependence

The abuse and dependence screening questions used were developed from a subset of questions derived from the Substance Abuse Disorder Diagnostic Schedule, a clinical assessment tool based in turn on criteria for dependence in the American Psychiatric Association's DSM-IV. This series of questions makes it possible to estimate the number of arrestees who are likely to be **at-risk** for alcohol and/or drug abuse and dependence.

To measure risk of substance abuse and dependence, arrestees who said they used alcohol or drugs in the 12 months prior to their arrest were asked a series of 6 questions:

- *Have you spent more time drinking/using drugs than you intended?*
- *Have you neglected some of your usual responsibilities because of alcohol/drug use?*
- *Have you wanted to cut down on your drinking/drug use?*
- *During the past 12 months, has anyone objected to your use of alcohol/drugs?*
- *Have you frequently found yourself thinking about drinking/using drugs?*
- *Have you used alcohol/drugs to relieve feelings such as sadness, anger, or boredom?*

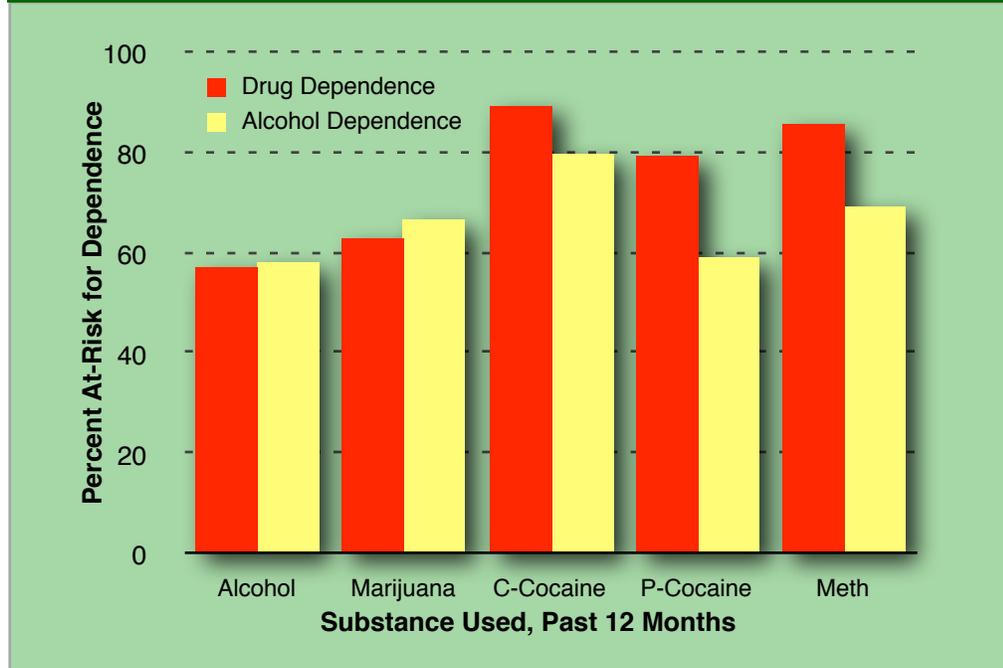
Arrestees who answered yes to only one or none of these six items were considered at no risk for either alcohol or drug abuse or dependence. A combination of any two affirmative responses indicated risk for **abuse**, as long as the two responses were *not thinking about drinking/using drugs* and *using alcohol/drugs to alleviate negative emotions*. A combination of three or more affirmative responses also indicated risk for **abuse**, provided that neither *thinking about drinking/using drugs* nor *using alcohol/drugs to alleviate negative emotions* was one of the three. If an arrestee answered "yes" to three or more questions, and at least one of them was *thinking about drinking/using drugs* or *using alcohol/drugs to alleviate negative emotions*, they were determined to be at risk of **dependence**. Finally, if both *thinking about drinking/using drugs* and *using alcohol/drugs to alleviate negative emotions* were the only two affirmative responses, the person was considered at risk for **dependence**.

*Excerpted from Crossland and Brownstein (2003).

How does binge drinking and/or illicit drug use impact an arrestee's risk of alcohol and/or drug abuse? Dependence? Overall, more than 12 percent of all WDCD arrestees are at-risk for drug and/or alcohol abuse or dependence.

Importantly, 58 percent of those who engaged in binge drinking within 12 months of their arrest engaged in behaviors that indicate a substantial risk of alcohol dependence another 12 percent engaged in conduct indicative of alcohol abuse. The corresponding figures for drug dependence and abuse are 63.7 percent and 8.3 percent, respectively. Figure 8 breaks out the risk of dependence for those arrestees who engage in binge drinking and/or illicit drug use within a year of their arrest.

Figure 8. Arrestees At Risk of Alcohol/Drug Dependence by Substance Used, Past 12 Months



Arrestees who had five or more drinks of alcohol on the same day within 12 months of arrest are as likely to be at-risk for drug dependence (57%) as alcoholism (58%). Marijuana users have a slightly greater risk of dependence than binge drinkers. Notably, however, marijuana users are as likely to be at-risk for alcohol dependence as they are to be at-risk of drug dependence (62 percent and 66 percent, respectively).

Cocaine and methamphetamine users do not demonstrate such an equality of dependence risk. Arrestees who use cocaine and/or methamphetamine are significantly more likely to be at-risk for drug dependence than alcoholism. Ninety percent of crack cocaine users and 85 percent of methamphetamine users demonstrate behavior patterns that indicate high risk for drug addiction. At 80 percent, the risk for powder cocaine users is better, though certainly not low.

To say that cocaine and methamphetamine users do not experience the

same risk for alcohol dependence as they are for drug dependence is not to imply that they have a “low” risk of alcohol dependence. Quite the contrary, in fact: both crack cocaine and methamphetamine users are more likely to show signs of alcohol dependence than those who engage in binge drinking, but not drug use.

In sum, these data suggest rather strongly that those arrestees who use powder cocaine, crack cocaine, or methamphetamine are not recreational users. Those who use these drugs tend to spend more time using drugs (and alcohol as well) than they intend to; frequently neglect at least some of their usual responsibilities because of their drug and alcohol use; find themselves frequently thinking about drinking and drugging; use alcohol and drugs to relieve feelings such as sadness, anger, and boredom; and have people object to their drinking and drug use.

Part IV

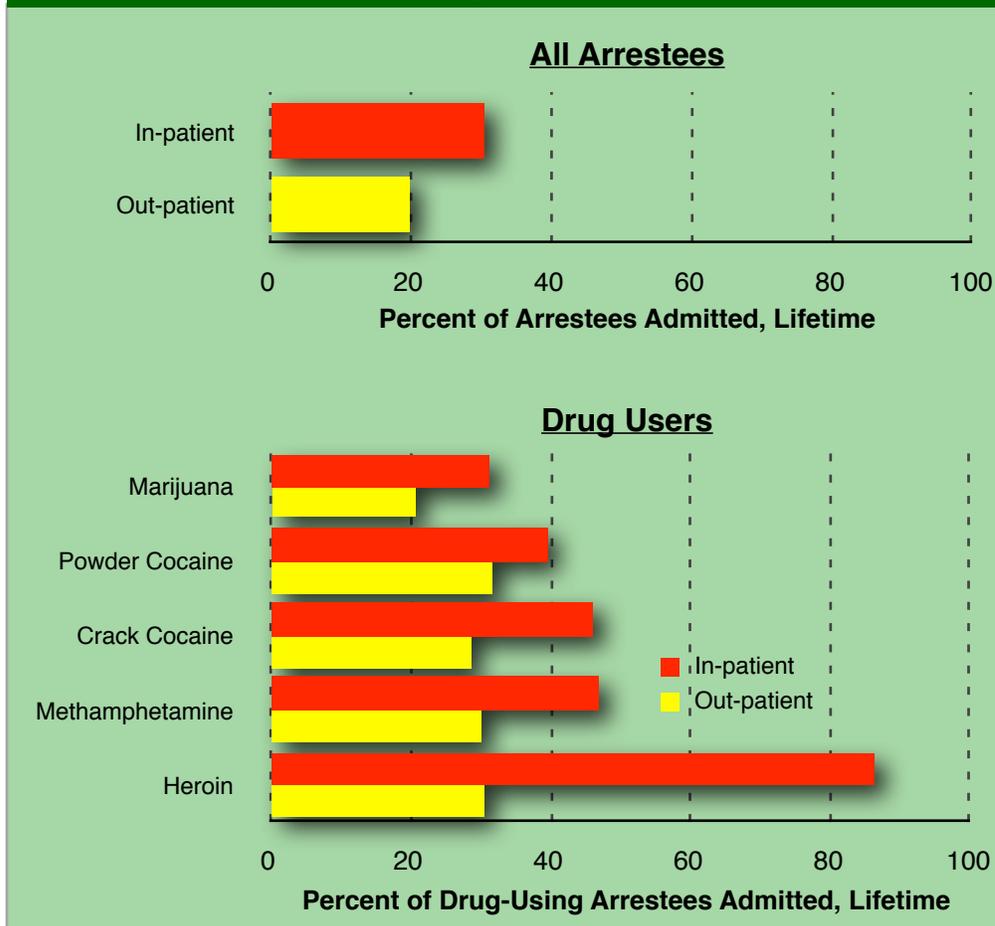
Drug and Alcohol Treatment
Mental Health Treatment
Criminal Justice Experiences

Drug and Alcohol Treatment

Considering the number of arrestees who actively use alcohol and/or drugs or who have used alcohol or drugs in the past, as well as the substantial risk of alcohol and/or drug dependence among arrestees, it is important to investigate the extent to which this group has accessed treatment for alcohol and/or drug addiction.

Figure 9 presents data on in-patient and out-patient treatment admissions among arrestees, in general, and among those who reported any lifetime drug use. About one-third of all arrestees have stayed at least overnight in an inpatient treatment program, and one-fifth report having been admitted to an outpatient drug or alcohol treatment program, not including meetings like Narcotics Anonymous or Alcoholics Anonymous. Notably, arrestees are significantly more likely to have experience with in-patient than out-patient treatment programs.

Figure 9. Participation in Alcohol/Drug Treatment Arrestees with Any Lifetime Drug Use



With the exception of marijuana users, arrestees who have used illicit drugs are more likely than those who have not to report previous experience with either type of substance abuse treatment program. With more than 80 percent responding in the affirmative, heroin users were the most likely to report attending an in-patient treatment program. About half of all methamphetamine and crack cocaine users reported experience with at least one in-patient program. Roughly 40 percent of arrestees who used powder cocaine said they had been admitted to an in-patient treatment facility. Finally one-third of marijuana users reported this experience.

Notably, the probability of attending an out-patient treatment program was the same for all classes of drug users except marijuana users, which were significantly less likely to be admitted to such a program.

Figure 10. Arrestee Admissions to In/Outpatient Programs by Dependence/Abuse Risk Category

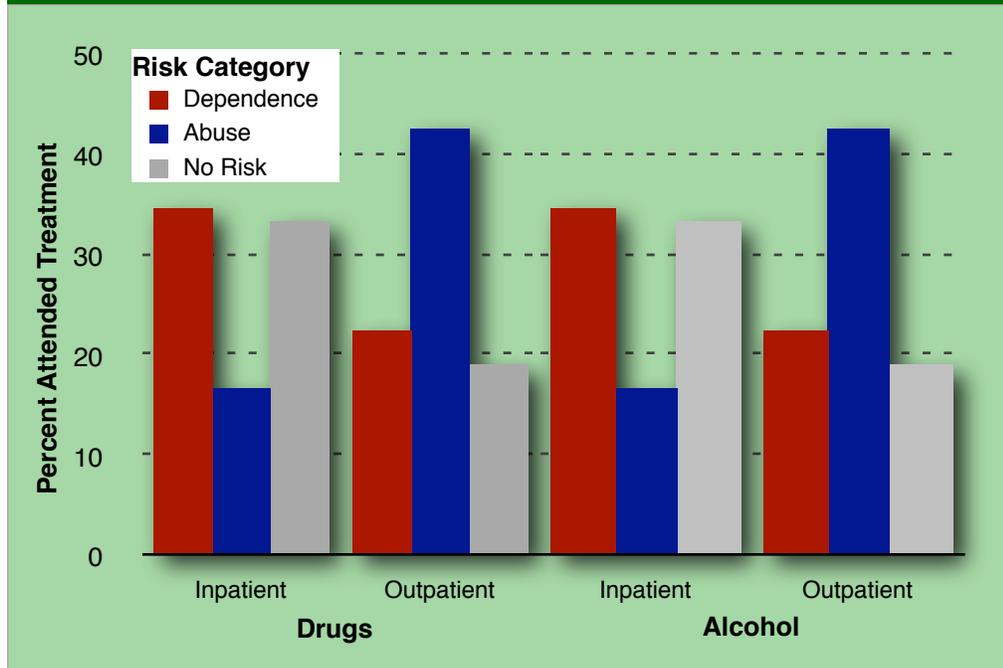


Figure 10 presents information about arrestee admissions to in-patient and out-patient substance treatment programs according to risk for abuse or dependence. The data show that arrestees at-risk for drug addiction and/or alcoholism are not likely to have any experience with substance treatment programs. In fact, arrestees who did not display any behavioral indications of drug/alcohol abuse or dependence were just as likely as those at-risk of dependence to report attending drug/alcohol treatment, regardless of whether it was an in-patient or out-patient program. Arrestees at-risk for drug/alcohol abuse are more likely to receive treatment, but only marginally so.

To the extent that arrestees at-risk for drug and/or alcohol dependence have experienced some form of substance abuse treatment, they are much more likely to have experience in an in-patient treatment facility than those merely at-risk for abuse. Conversely, arrestees who show signs of drug/alcohol abuse, but not dependence, are much more likely to report an admission to an out-patient treatment program.

Mental Health Treatment

For a number of reasons, the responsibility for dealing with the mentally ill often falls squarely on the shoulders of local jails. To assess the extent to which mental illness impacts the daily operations of the WCDC, and to better understand the relationship between drug/alcohol abuse and dependence, on the one hand, and mental illness on the other, four survey items were developed to measure the extent to which those with mental health problems are represented in the overall arrestee population. Every arrestee interviewed was asked each of the following questions:

- *Have you ever, in your life, had problems with mental illness?*
- *Have you ever been told by a doctor or psychologist that you have a mental illness?*
- *Are you currently taking medication for the treatment of mental illness?*
- *Have you ever stayed at least overnight for mental health treatment - not for drug or alcohol use - at a psychiatric unit of a hospital or other facility?*

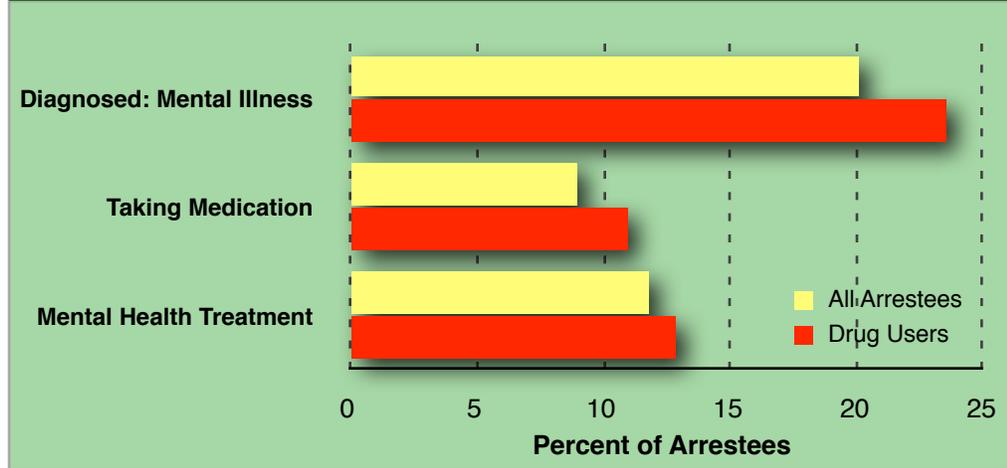
The questions were sequenced, beginning with respondents' *self-evaluation*, followed by a *diagnostic evaluation* by a mental health professional, and then questions regarding *psychiatric medication* and inpatient admission for *mental health treatment*.

A quarter of all arrestees self-report problems with mental illness, three-quarters of whom have been officially diagnosed. Thirty-seven percent of those who self-report a mental health problem, and 42 percent of those diagnosed by a physician or psychologist as having a mental illness, take medication to address it. Less than half (46%) of those diagnosed as having a mental illness have ever been admitted for an overnight stay in a psychiatric facility for treatment.

In all, 7 percent of WCDC arrestees have been admitted for at least an overnight stay; 5 percent of arrestees (71 percent of those who have ever been admitted) have been admitted for an overnight stay in a mental health facility in the past year.

How does drug and/or alcohol use impact the mental health of WCDC arrestees? Figure 11 presents data pertaining to this question.

Figure 11. Mental Health Experiences of Arrestees
Diagnosis, Medication, and Treatment

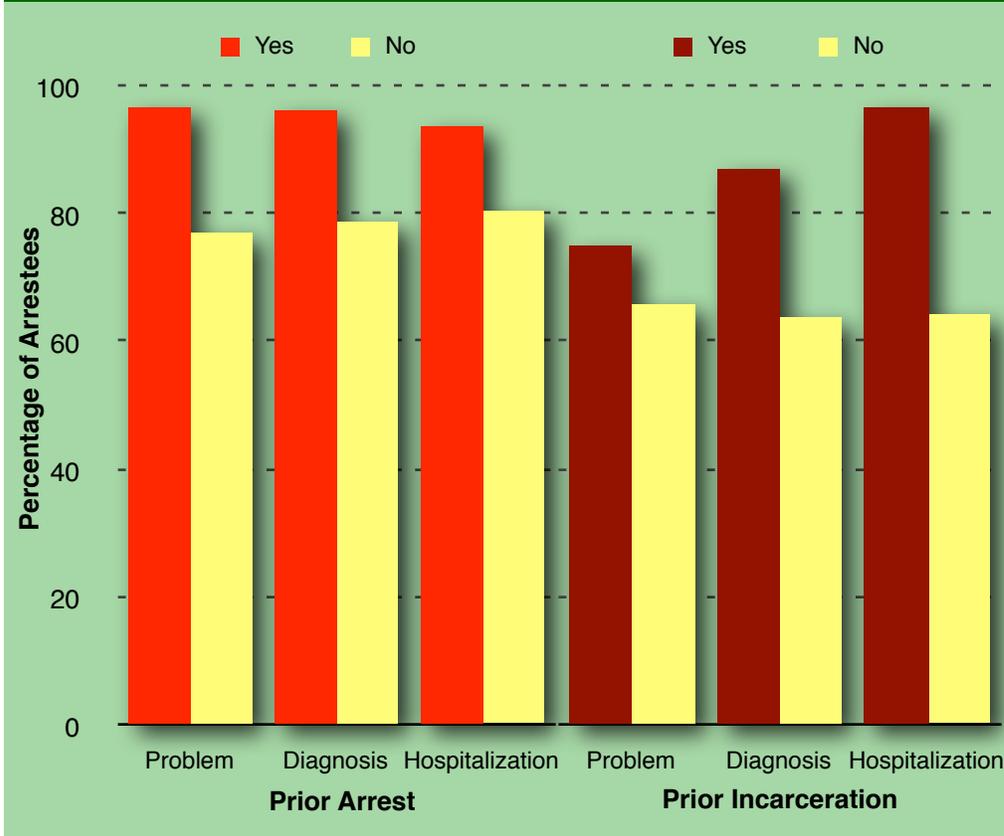


The first pair of bars, located at the top of the figure, show that arrestees who have used drugs are significantly more likely to be diagnosed as having a mental illness. Fortunately, as the second and third sets of bars demonstrate, drug users are also more likely to be taking psychotropic medication, and slightly more likely to have been hospitalized for their mental health problems.

Criminal Justice Experiences

Most arrestees booked into the WCDC are no strangers to the criminal justice system. In excess of 80 percent of all arrestees told interviewers they had been arrested at least once before. Among those who had been arrested, the median number of previous arrests was three. Nearly two-thirds (61.5%) of all WCDC arrestees reported spending at least 24 hours in a jail, prison, juvenile detention facility, or a boot camp previously. The median length-of-stay for those with a prior jail stay was 25 days. The longest prison term served by a respondent was 18 years.

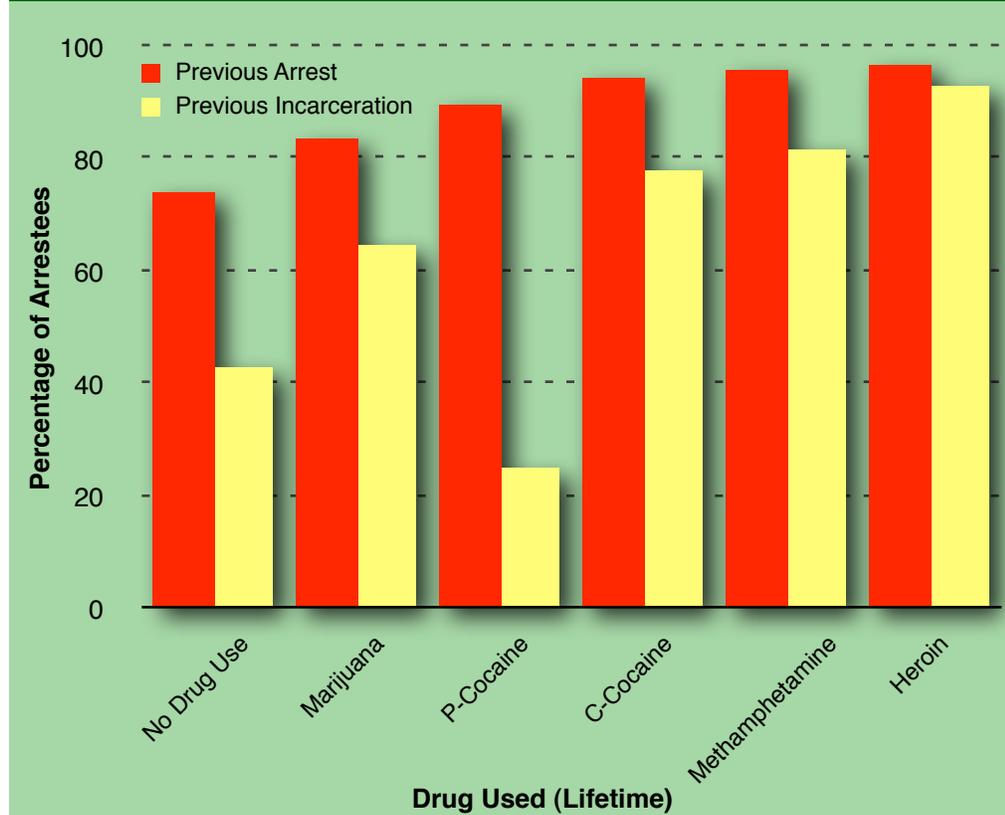
Figure 12. Prior Arrests and Incarcerations by Mental Health Treatment Experiences, Lifetime



Our data reveal that arrestees' mental health and drug use histories to be significant predictors of prior exposure to the criminal justice system, especially previous stays in jail and prison. Well over 90 percent of arrestees with mental health issues have been arrested at least once before. In contrast, "only" about 80 percent of arrestees with no known mental health problems have ever been arrested before. The difference between arrestees with known mental health problems and those without is even more

pronounced for previous incarceration history. In particular, arrestees who have been diagnosed by a mental health professional as having a mental illness, and those who have experienced a hospitalization for a mental illness, demonstrate a significantly higher rate of prior incarceration.

Figure 13. Prior Criminal Justice Experiences by Drug Use, Lifetime

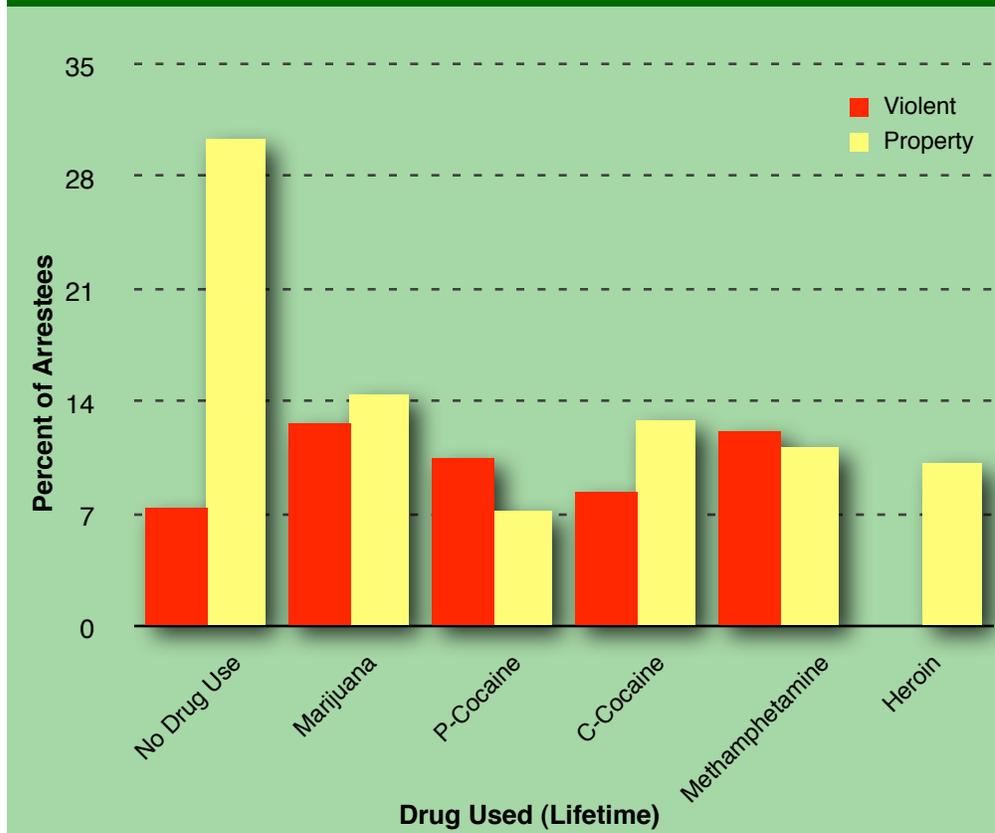


Illicit drug use is also a robust predictor of prior experiences with the criminal justice system. Although 74 percent of arrestees who have never used drugs report at least one prior arrest (not a low rate, to be sure), those who have used marijuana (83%), powder cocaine (89%), crack cocaine (94%), methamphetamine (95%), and heroin (96%) all have higher arrest rates. And, with the exception of powder cocaine, the trend is similar for prior incarcerations.

Drug use, but not mental health, is also related to the type of offense with which WCDJ arrestees are charged (see Figure 14). Drug users are more likely to be charged with a violent crime than those who have never used illicit substances. Among drug users, those who use marijuana are most likely to be apprehended for a property offense, followed by crack cocaine, methamphetamine, heroin, and powder cocaine users.

Users of marijuana and methamphetamine are equally likely to be charged with a violent offense, then come cocaine users. (Heroin users in the sample were not charged with any violent crimes.)

Figure 14. Prevalence of Violent and Property Offenses by Drug Use, Lifetime



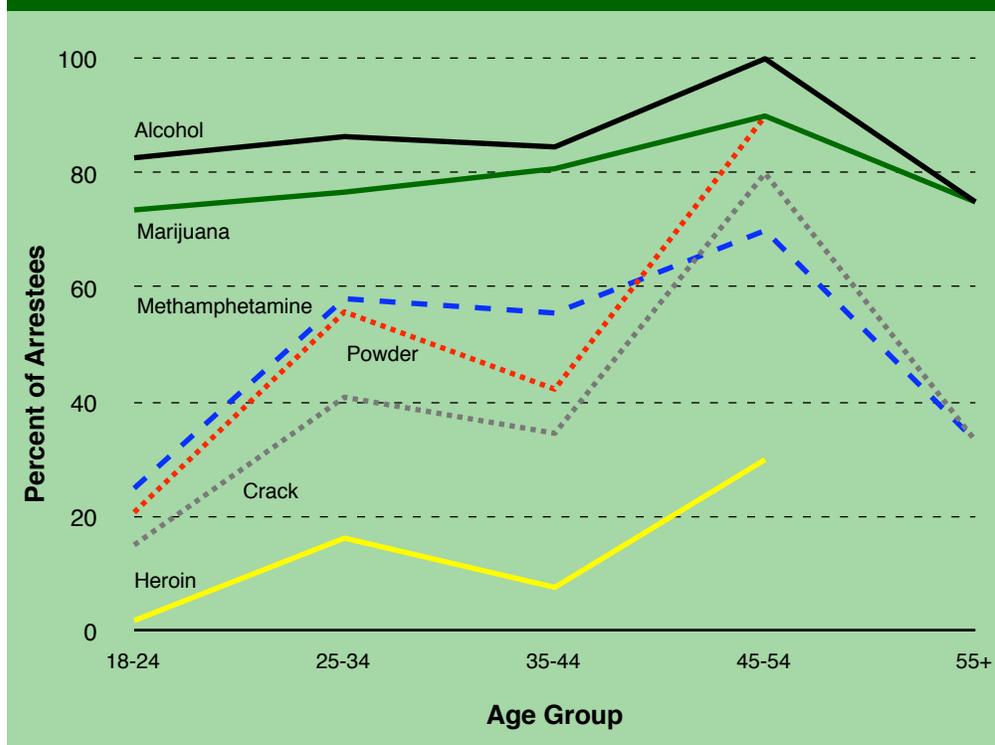
Drug use in and of itself does not influence the number of felony or misdemeanor charges filed against an arrestee. However, the type of drug used by an arrestee does impact the ratio of felonies to misdemeanors, and one drug in particular stands out: crack cocaine. Crack users are the only group of arrestees whose felony: misdemeanor ratio exceeds one. This means that crack cocaine users are more likely than those who use other drugs to be charged with more felonies than misdemeanors when more than one offense is filed against them. Put another way, crack cocaine users are, on balance, “more serious” offenders than marijuana, methamphetamine, heroin, and powder cocaine users. In contrast, arrestees who do not use illicit drugs have the lowest felony to misdemeanor ratio. Thus, this group of arrestees may be considered to be “less serious” offenders.

Part V

The Demographics of Drug Use

This section takes a detailed look at drug use patterns according to several social-demographic characteristics of arrestees, beginning with age. Figure 16 shows the percentage of arrestees who have had five or more drinks on the same day, or used any marijuana, methamphetamine, powder or rock cocaine, or heroin at least once in their lifetime.

Figure 15. Arrestee Lifetime Drug and Alcohol Use by Age Group

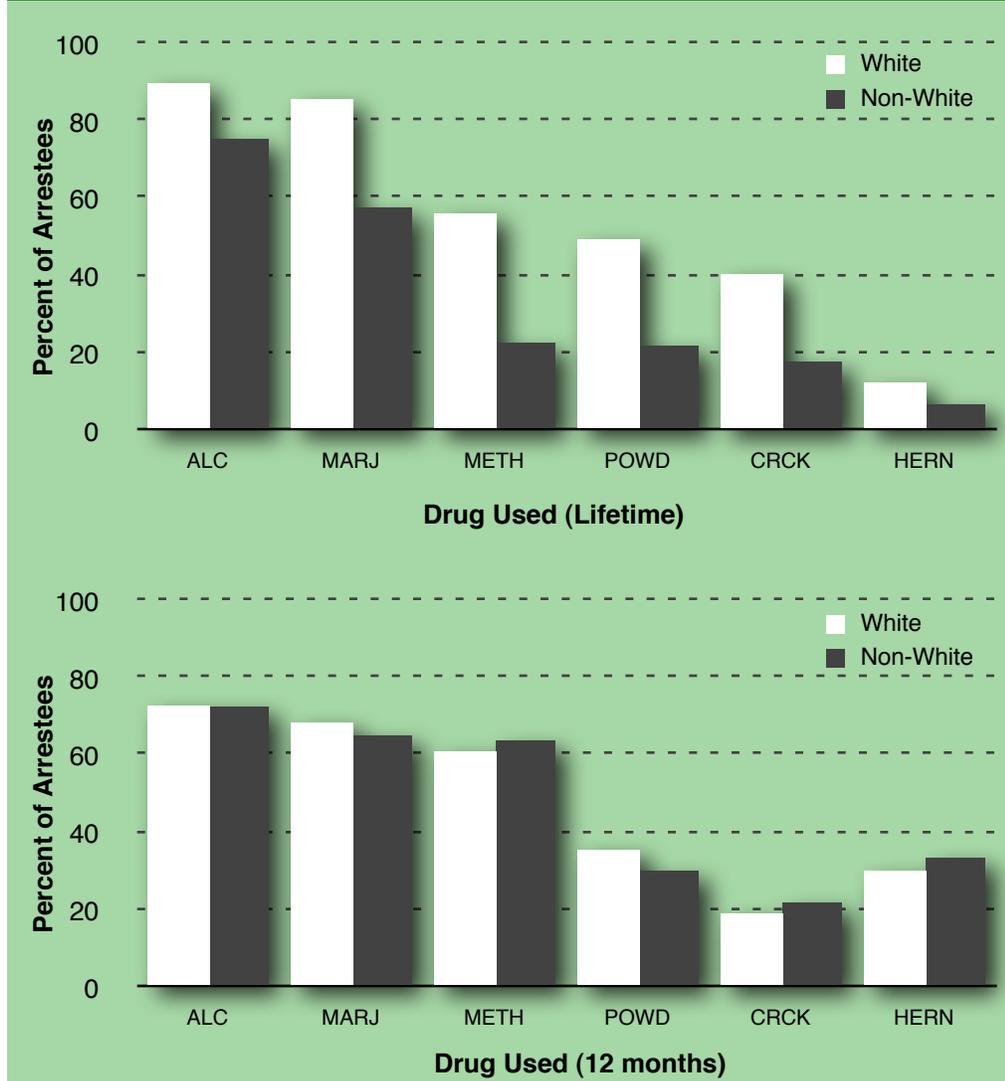


As was expected given the age-of-onset data presented previously in Table 2, alcohol and marijuana (which had the earliest age-of-onset) demonstrate the highest rates of lifetime use. More than 80 percent of arrestees between the ages of 18 and 24 have had five or more drinks on the same day on at least one occasion, and roughly 75 percent in that age group have used marijuana at least once. Also expected was the finding that prior use of other drugs is much less prevalent: methamphetamine: 25.0%; powder cocaine: 20.8%; crack cocaine: 15.1%; and heroin: 1.9%.

Besides illustrating differing rates of use across drugs, Figure 16 also demonstrates that the probability of binge drinking and using illegal drugs is cumulative with age. All else equal, a 45 year-old will be more likely to have used drugs than a 20 year-old because they will have experienced greater exposure drugs, the circumstances and stressors that give rise to alcohol and drug use, and more opportunities to use alcohol and other drugs.

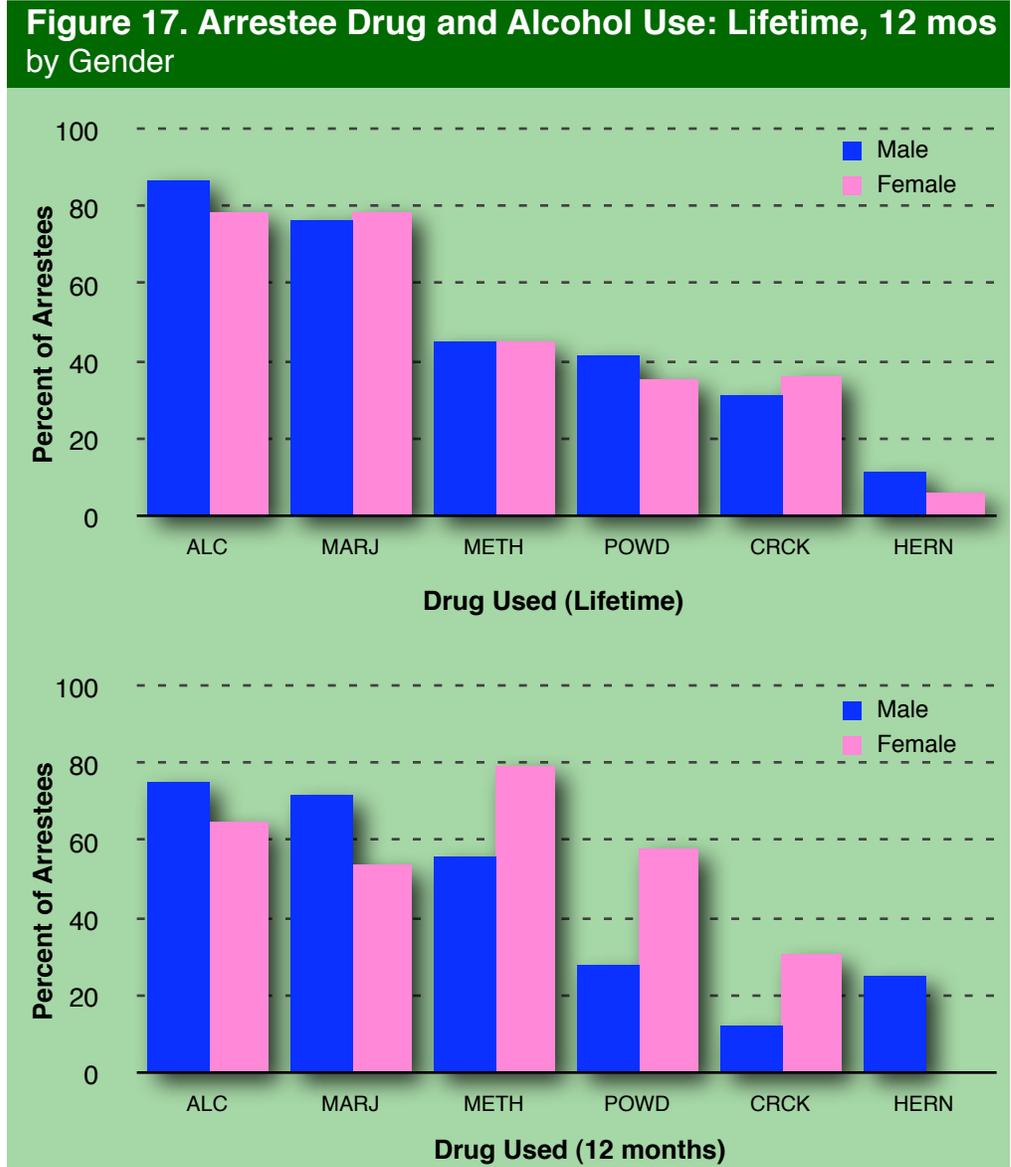
Figure 17 presents lifetime drug use data for WDCDC arrestees by race. For the purposes of presentation, the sample was split into two groups: Whites and non-Whites.

Figure 16. Arrestee Drug and Alcohol Use: Lifetime, 12 mos by Race



White arrestees booked into the WDCDC are more likely to have had five or more drinks of alcohol on the same day, and more likely to have used each of the five illegal drugs examined, at least once in their lifetime. However, these racial differences disappear once the probability of initial use are taken into account. As the bottom panel of Figure 17 shows, there are no racial differences in rates of substance use within 12 months of arrest among those who have engaged in binge drinking or used drugs at least once previously. Examination of data for 30-day alcohol and drug use produce similar use patterns.

The opposite pattern appears for arrestee gender. Whereas race is a significant factor in an arrestee’s initial decision to try drugs or binge drink (with Whites more likely than non-Whites to do both), gender is not influential in shaping an arrestee’s decision to experiment. However, dramatic differences appear when the time horizon of drug and alcohol use is limited to the 12 months preceding arrest.

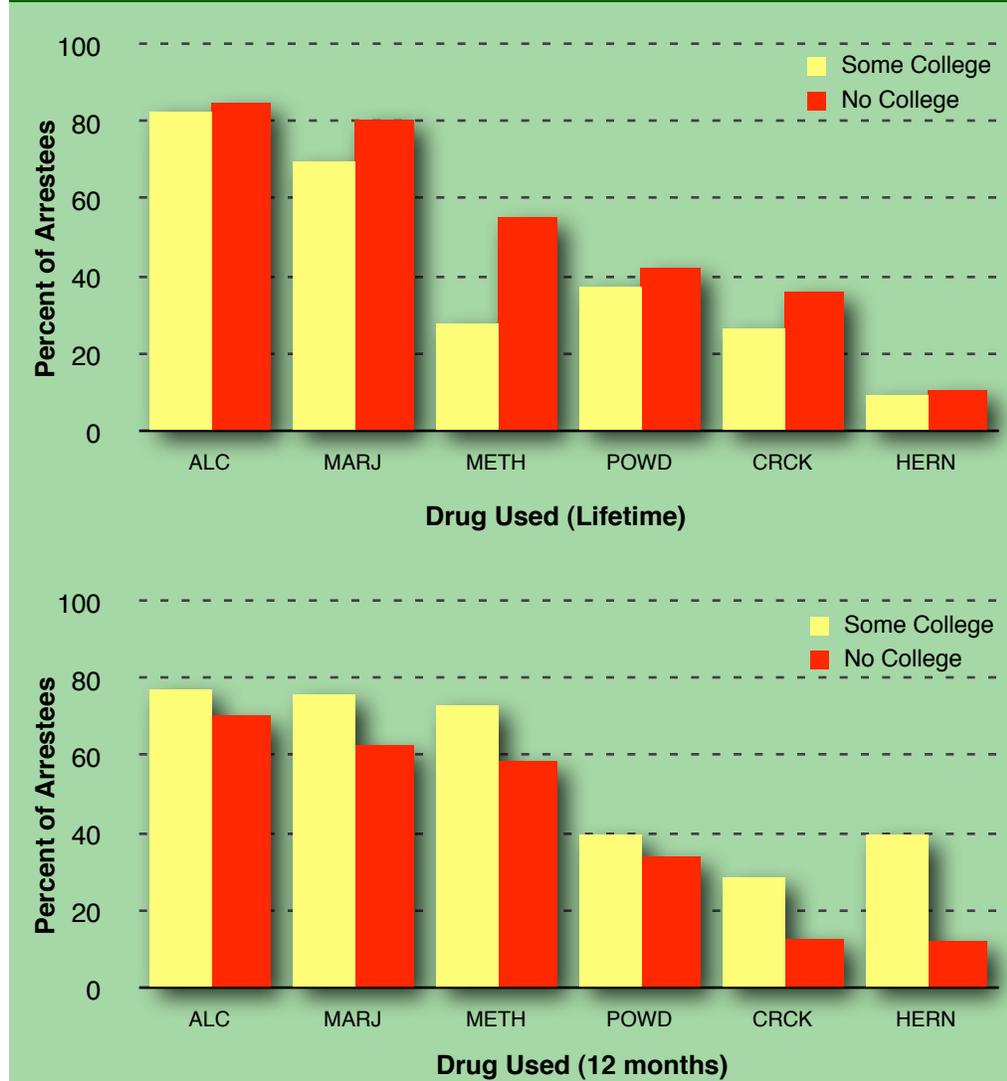


Male arrestees booked into the WCDC are significantly more likely to use marijuana within a year of their arrest. Men are also more likely to use heroin. (No women in the sample used heroin within a year of arrest). Fully 80 percent of women booked into the WCDC used methamphetamine, 58 percent used powder cocaine, and 30 percent used crack cocaine within 12

months of their arrest. The comparable figures for male arrestees were 56 percent, 27 percent, and 12 percent respectively.

Figure 19 presents the results for arrestees' educational attainment. In general, an arrestee's formal education is a poor predictor of alcohol and drug use. Statistically, the only significant difference between those who have at least some college education, and those without any college experience, is for lifetime methamphetamine use. Arrestees without any college education are significantly more likely to have tried methamphetamine at least once.

Figure 18. Arrestee Drug and Alcohol Use: Lifetime, 12 mos by Educational Attainment



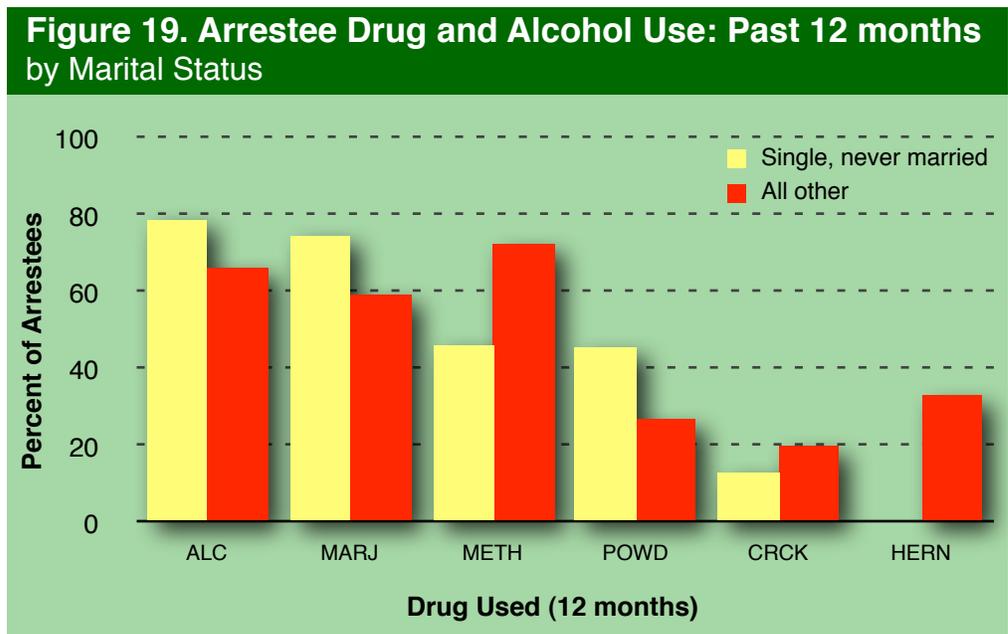
The two most notable findings are the overall trends depicted in the two panels of Figure 19. First, arrestees who have no college experience are consistently more likely to report binge drinking and drug use at least once

than those who have attended college, even if such attendance was only for a short period of time (though these observed differences, except for methamphetamine, are not statistically significant).

The second trend, depicted in the lower panel, reveals that formal education ceases to be a protective factor against binge drinking and drug use when such use is limited to the previous 12 months rather than an “ever.” That is, the trend in the upper panel is reversed such that those with at least some college education are consistently more likely to report binge drinking and drug use in the previous year (though the observed differences are not statistically significant).

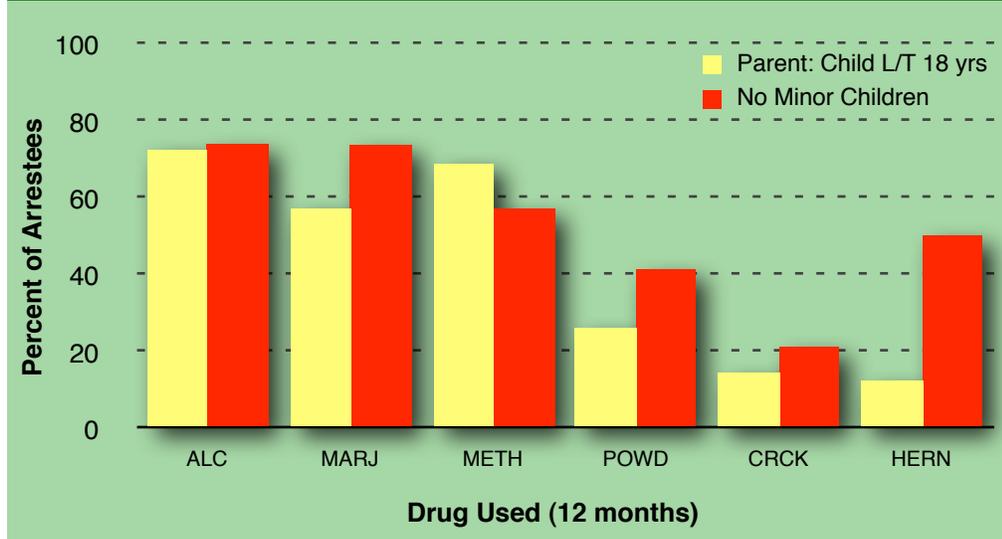
Neither an arrestee’s current employment status nor their total household income is related to the probability of binge drinking or drug use.

Two family characteristics are important factors influencing the probability of binge drinking and drug use among WCDC arrestees: marital status and parenthood. In general, marriage works as a protective factor against past 12-month binge drinking and drug use. Respondents who are married on the day of their arrest, or who have been married previously, are consistently less likely to report engaging in alcohol and drug use behaviors, with one notable exception. Methamphetamine users were more likely than users of other drugs to be married at the time of their arrest (or to have been married at one time). Among heroin users none were single, so a comparison could not be made.



A similar pattern emerges for parenthood. In general, being a parent reduces the probability that an arrestee will engage in risky alcohol and drug use behaviors. The data suggest that parenthood, like marriage, tends to minimize the probability of substance abuse among WCDC arrestees. But, also like marriage, the protective effect does not appear to apply to methamphetamine users who are more likely than not to be parents of one or more minor children.

Figure 20. Arrestee Drug and Alcohol Use: Past 12 months by Parenthood



Other household structure variables - for example, number of household members under 18 years of age; number of household members 18 years or older; the ratio of minors to adults in household; single-parenthood; and so forth - have no observable impact on the probability of binge drinking or drug use.

Appendices

Appendix A: Methodology

Sampling Design

The sampling frame for the study consisted of all adult arrestees booked into the Washington County Detention Center (WCDC) on local or state charges. Individuals booked into the detention facility by federal agents for exclusively federal offenses were not included. Non-criminal detentions were also excluded.

The sampling design was specifically directed toward the inclusion of both misdemeanants and felons in the sample. Frequently, studies taking place within the context of pretrial facilities (jails) systematically exclude misdemeanants because of the transient nature of this group of offenders, who are often released soon after being booked into a local jail. Felons, on the other hand, are much more likely to remain in jail for significantly longer because much more stringent conditions are released for them - higher bonds and third-party supervision, for example. Because they are much less likely to be granted a pre-trial release from jail, they are significantly more likely to be included in any sampling procedure.

To ensure that misdemeanants were adequately represented, arrestees were sampled according to the time they were booked into the WCDC. Each day was split into two distinct periods: a “stock” period and a “flow” period. The stock period represented the time of day when project staff was absent from the WCDC; the flow period was that period when project staff was on-site conducting interviews. In general, the flow period represents the time of day when bookings were at their highest level.

Having project staff on-site during peak intake time maximized the probability that misdemeanants would be selected and interviewed. If staff were on-site at a different time there would be relatively little chance of incorporating those arrestees brought to jail for less serious offenses into the sample.

The designated stock period for the study began at 12:00 am and ended at 3:59pm; the flow period began at 4:00pm and ended at 11:59pm (see Figure A1, next page).

Sampling Design

Arrestees booked into the facility during stock periods were selected into the sample using an interval sampling procedure. The sample interval, I , was determined by dividing the total number of arrestees booked into the facility, N , during the stock period by the desired sample size, S . The desired stock sample size for the study was 6.

Hence:

$$I = N/6$$

The first stock selection was made using a random start determined through the use of a random number table. The second selection was then made by counting down $N/6$ arrestees on the booking roster sheet.

Replacements were made by the selecting of the first arrestee following the initial selection. The same process was followed for selection of all stock arrestees, in the order they were booked into the jail.

Flow interviews were conducted continuously as arrestees are booked into the facility. During each flow period, the first eligible arrestee booked into the WCDC during the period was designated as the first flow selection. The next arrestee booked into the facility following the completed disposition of the first attempted flow interview represented the second flow respondent, and so forth.

Survey Administration Procedures

Two interviewers were present for each data collection shift – one designated as the stock interviewer, and the other designated as the flow interviewer. At the beginning of every data collection shift, the on-site supervisor received a computer print-out of all stock intakes, with the names of all persons booked into custody and the time of their booking. This booking roster served as the sampling frame for that shift's stock period. Using a random start, and then making selections based on a designated interval, the lead interviewer derived a list of arrestees to be approached for an interview – that day's stock sample.

The list of potential respondents was then given to the stock interviewer, who was located in the stock interviewing area. Stock interviewers gave the first name and last name of the first arrestee on the list to their assigned security guard, who then proceeded to the appropriate housing unit to escort the selected arrestee to the designated interview area. This process was

repeated until the stock interviewer met their daily interview quota, or until the stock roster was exhausted, whichever came first.

At the beginning of each data collection shift, the flow interviewer obtained an updated booking roster from the booking sergeant (or appointed representative). The flow interviewer began by approaching the first person booked into the facility during the flow period to ask if they would be willing to participate in the study. If the arrestee accepted the invitation, the interviewer escorted them to the designated interview room and initiated the interview. If the arrestee declined participation, the interviewer proceeded to the next name on the booking roster. Flow interviews were conducted for the entire flow period, regardless of the number of refusals. There was no quota for flow interviews.

At the conclusion of each interview, participants were asked to provide a voluntary urine sample. Those who chose to participate in this portion of the interview were escorted to a private restroom. The sample collection was not observed by any law enforcement or other criminal justice official, nor was it observed by the interviewer. At no time was any identifying information recorded on the sample bottle, the bottle packaging, or the garbage bag in which the bottle was disposed. At the conclusion of each shift all study garbage bags were removed from the facility and disposed in a secure off-site location.

Arrestees were informed multiple times that their participation in the study was completely voluntary. To protect the identities of respondents, anonymity and privacy were guaranteed. No personally identifying information that could be linked to an individual was collected from respondents, and all interviews took place in sequestered interview rooms set off from publicly accessible common areas. Research subjects were informed that they were welcome to: withdraw their participation at any time; avoid answering any questions; terminate the interview at any time; and refuse the urine specimen request.

All interviews were conducted within 48 hours of the time of arrest.

Appendix B: Sample Weights

Arrestee Demographic Characteristics

To enumerate the sampling frame basic demographic (age; race/ethnicity; gender) was recorded for every eligible¹⁰ arrestee booked into the Washington County Detention Center (WCDC). This information was provided by WCDC booking personnel from official charging documents and computerized booking records.

DEMOGRAPHIC CHARACTERISTIC	Eligible Arrestees Booked Into Facility (N = 383)	Eligible Arrestees Selected for Participation (n = 139)
Age		
18-24 yrs	36.0%	36.0%
25-34 yrs	35.0	34.5
35-44 yrs	16.2	19.4
45-54 yrs	8.6	7.2
55+	3.7	2.9
Gender		
Male	75.5%	76.3%
Female	24.5	23.7
Race/Ethnicity^b		
Asian	0.8%	1.4%
Black/AF American	10.7	13.8
Pacific Islander	0.5	0.7
White/Caucasian	75.7	76.1
Hispanic/Latino/a	10.7	8.0
AM Indian/AK Native	0.3	---
a. Unweighted data.		

Over the course of the 14-day study period 383 eligible arrestees (289 men and 94 women) were booked into the WCDC. Approximately four out of every ten (n = 151; 39.4%) of these eligibles was approached for an interview. The

¹⁰ Only those adults who were booked into the Washington County Detention Center on new local or state charges within 48 hours of their arrest were eligible for inclusion in the study. Minors under the age of 18 were not eligible. Persons booked into the facility by federal agents for exclusively federal offenses were excluded from the sampling procedure. Detainees who had been in custody for more than 48 hours were not eligible, as were inmates who were serving a sentence. Inmates transferred to the WCDC from another facility were also excluded.

vast majority of those approached for an interview agreed to participate (n = 139; 92%). Arrestees were most likely to be White, male, and between 18 and 34 years of age. The demographic profile of those arrestees who participated in the study was nearly identical (see Table B1).

Arrestee Charge Information

In addition to basic demographic information, detailed charge information was also collected for all eligible arrestees booked into the WCDC during the study period. As was done for arrestees' demographic information, official booking records were used to enumerate the three most serious offenses filed against each arrestee. Summary charge information for all arrestees booked into the WCDC, as well as the study subsample, is presented in Table B2.

Nearly every person booked into the WCDC had at least one criminal charge filed against them (the few who had no criminal charges filed against them were incarcerated primarily for traffic violations - for example, driving on a suspended or revoked license). About half of all arrestees were arrested for a single charge. Less than a third of all those arrested during the two-week study period were arrested for serious crimes, and nearly all of those who were were charged with only one felony. Conversely, more than three-quarters of all arrestees were charged with a misdemeanor.

Table B2 also shows that there were some observable differences between those arrestees who were interviewed and those who were not. In general, study participants were "more serious" offenders in that they had more charges filed against them than those who were not interviewed, and they were more likely to be charged with more serious offenses. However, study respondents were no more likely than those who were not interviewed to be charged with one or more misdemeanors.

To correct for these observed differences, post-sampling stratification weights were computed¹¹. The post-sample stratification weights were calculated using the two charge variables found to differ significantly among the sampled group of arrestees: the total number of charges filed, and the total number of felonies. These two variables were cross-tabulated for the entire sample and the study subsample. Weights were then calculated by dividing the population parameter for each cross-tab cell by the sample value for the same cell.

¹¹ Sample weighting is a statistical procedure used to correct for sampling bias, whereby each respondent is assigned a value that represents the number of cases of the underlying population they represent.

Table B2. Charge Characteristics Comparison		
Official Booking Data vs. Study Sample		
CHARGE CHARACTERISTICS	Eligible Arrestees Booked Into Facility (N = 383)	Eligible Arrestees^a Selected for Participation (n = 139)
Crime		
Criminal offense	98.8%	97.8%
Non-criminal offense	1.2	2.2
Number of Charges^b		
1	56.2%	47.5%
2	22.1	20.9
3	21.7	31.6
Number of Felonies^c		
0	71.7%	48.9%
1	23.3	30.2
2	2.5	15.1
3	2.5	5.8
Number of Misdemeanors		
0	20.9%	32.4%
1	59.4	48.9
2	16.4	13.7
3	3.3	5.0
a. Unweighted data.		
b. Between-group difference in the mean number of charges filed statistically significant ($p = .042$)		
c. Between-group difference in the mean number of felonies charged statistically significant ($p = .000$)		

the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million, and the number of people aged 75 and over has increased from 4.5 million to 6.5 million (Office for National Statistics 2000). The number of people aged 85 and over has increased from 1.5 million to 2.5 million in the same period.

There is a growing awareness of the need to address the needs of the elderly population. The Department of Health (2000) has published a strategy for the care of the elderly, which sets out a vision for the future of elderly care. The strategy is based on the following principles: (1) to ensure that elderly people are treated as individuals; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key objectives for the future of elderly care. These include: (1) to reduce the number of elderly people who are institutionalized; (2) to improve the quality of care for elderly people; (3) to ensure that elderly people are given the opportunity to live in their own homes; (4) to ensure that elderly people are given the opportunity to live in a community; (5) to ensure that elderly people are given the opportunity to live in a care home; and (6) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key actions for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key challenges for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key opportunities for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key risks for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key enablers for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.

The strategy also sets out a number of key outcomes for the future of elderly care. These include: (1) to improve the quality of care for elderly people; (2) to ensure that elderly people are given the opportunity to live in their own homes; (3) to ensure that elderly people are given the opportunity to live in a community; (4) to ensure that elderly people are given the opportunity to live in a care home; and (5) to ensure that elderly people are given the opportunity to live in a care home with dementia.