



DRUG USE FORECASTING IN ST. LOUIS A THREE YEAR REPORT

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Large scale projects require the efforts of many individuals. In the twelve quarters of Drug Use Forecasting interviewing in St. Louis, we have been fortunate to have the cooperation of many people. Several categories of individuals must be recognized in this context. We have been fortunate to receive cooperation from the St. Louis Metropolitan Police Department and the National Institute of Justice.

Colonel Robert Scheetz, Secretary to the Board of Police Commissioners and former Chief of Police approved the initial agreement to initiate DUF in St. Louis. Lt. Colonel Clarence Harmon, Chief of Police has been a strong supporter of the DUF program. Chief Harmon has sought ways to integrate the information learned through the DUF program into policy making and operational decisions. His support and use of the DUF data have been exemplary. We have had the support of three Commanders of Prisoner Processing during our three years of interviewing. Captain Robert Lewis, Captain Dennis Blackman and Captain David Dorn have all seen that we were able to successfully complete our mission. Officer Asenath McDaniel has served as the Administrative Assistant throughout the last two years of our interviewing. Her assistance in scheduling guards, ordering supplies and processing payroll has been an integral component of the success of this project. Lieutenant Don Ebner has maintained a consistent interest in the DUF project and its findings. His support for this project has been unequalled by anyone in the St. Louis Metropolitan Police Department. We have worked under a number of sergeants. Most have been supportive. However, Sergeant Huelsman and Sergeant Mueller stand out in their interest and commitment to our success. This program requires the cooperation of the civilian personnel of the Prisoner Processing Division. We have been fortunate to be able to employ a large number of these individuals as our security guards: We have received excellent cooperation from all of them. Joe Miklovic, Comptroller, has been able to expedite paperwork, fill out the correct forms, and guide us through the financial mazes. Without the help of these individuals at the St. Louis Metropolitan Police Department, our work could not have been completed.

The National Institute of Justice has funded this program. NIJ staff have provided exceptional support. Eric Wish served as the first DUF Project Director and provided much of the assistance necessary for DUF to obtain the necessary level of technical support to succeed. Joyce O'Neil, current DUF Director, has been an exceptional advocate and supporter of this site since data collection began. Dawn Kidd has helped us to address the technical financial requirements that often arise. Paul Cascarano has provided strong support for the program. Chips Stewart was Director of NIJ when DUF was initiated. His foresight was obviously essential to the success of this program. Current NIJ Director Charles DeWitt has insured that the DUF program will become a lasting feature of criminal justice.

The DUF program in St. Louis has been the beneficiary of outstanding interviewers. The interview is the point where the theory meets reality. Sue Tyrey-Jefferson, and Yolanda Gant have been of great assistance in this process. They have been stalwarts in the technical aspects of the DUF process. Mark Niemeyer, Bill Seibel, Vicki Wallisch, Carolyn Phillips, Judy Riehl, Troy Miles, Frank King, Tina Brown, Terri Silvus, Beverly Wirt, Alison Redfern, Sherman Davis, Arnold Peoples and Chris Miller have all served as interviewers. Our success has been largely dependent on them.

Finally, nearly four thousand arrestees agreed to be interviewed. This report is but a part of their story.

EXECUTIVE SUMMARY

DRUG USE FORECASTING IN ST. LOUIS A THREE YEAR REPORT

The link between drugs and crime is complex. In order to better understand this relationship, the National Institute of Justice initiated the Drug Use Forecasting program in 24 cities. This report presents the results of the first three years of participation for the city of St. Louis in this program. The DUF protocol calls for interviewing 100 adult females and 225 adult males each quarter. The interview requests a variety of information about the demographic characteristics of arrestees, their drug use, and behaviors which may put them at risk for HIV, the virus that causes AIDS. The interview concludes with arrestees providing a urine specimen to be screened for illegal drugs. All interviews are voluntary and conducted on a confidential basis. The St. Louis site obtains the participation of ninety percent of all those asked to be interviewed.

A comparison of the characteristics of the nearly 4,000 arrestees interviewed to date shows them to be very similar to arrestee characteristics in general. This makes the validity of these findings quite high. Slightly more than half of all arrestees tested positive for an illegal drug. This puts St. Louis near the middle of the cities participating in the DUF program. Cocaine is the drug of choice, 45% of all arrestees test positive for that drug. Smoking cocaine as "crack" is the preferred form of ingestion for cocaine, though significant numbers of arrestees report injecting cocaine. Marijuana, opiates (including heroin) and PCP account for the balance of drug use among arrestees. An examination of the pattern of drug use across the nine police districts showed that significant levels of drug use is evident in arrestees from each district. Male and female drug use levels are generally similar. Black arrestees have higher levels of drug use for most categories of drugs tested. Drug use tends to be higher among those in their twenties than those younger or older. In addition to drug charges, those arrested for property offenses and prostitution generally test positive at higher levels than those arrested for violent offenses. A subcategory of arrestees engage in a large number of behaviors which put them at risk for HIV; in particular large numbers of sex partners and sharing needles.

A number of policy recommendations are offered in response to these findings. These recommendations are directed at a variety of groups and individuals, and involve, among other things, treatment and education concerning drug abuse.

INTRODUCTION

Concern over drug use has grown during the last decade. The significance of the "drug problem" has attracted the attention of considerably more citizens than was the case in 1980. A good deal of the concern has been focused on the use of the drug "crack," a derivative of cocaine. The discovery of the process to convert cocaine into crack led to the availability of this powerful narcotic to broader groups in the population (U.S. News and World Report, August, 19, 1991, pp 44-53). Crack had powerful consequences for poor, inner city areas of America where large numbers of individuals began to use this powerful drug. The consequences of increased drug use were seen in several areas. Most prominent among these were: 1) a rapid increase in drug treatment needs, 2) a perceived increase in drug related property crime, and 3) an increase in drug-related violent crime.

The federal government has responded to this crisis in a variety of ways. The National Institute of Justice instituted the Drug Use Forecasting (DUF) Program in 1987 in an attempt to respond to the drug problem. The DUF program grew out of a pilot research project that was initiated in 1984 in New York city. The DUF Program was intended to address three primary goals; 1) document the level and nature of drug use among arrestees, 2) identify treatment needs among arrestee populations, and 3) forecast increases in drug use before they hit the general population. Arrestees were chosen as the focus for this program because they represent a population -- by definition -- of persons more likely to experiment than the general population. By the very nature of their decision to violate the law, arrestees can be assumed to be likely to try new substances before they reach the general population. As such, they would be the first to try new substances, and the last to give them up. For this reason, arrestees are a group whose drug use is worth monitoring to project the future drug use of the general population.

The DUF procedure has been well established, and the DUF data have taken their place along with other drug use indicators such as the Drug Abuse Warning Network

(DAWN), the Household Survey and the High School Survey (both conducted by the National Institute on Drug Abuse). Quarterly interviews of arrestees are conducted at central booking facilities in 24 large cities. Each interview includes a broad range of questions concerning drug use and concludes with the collection of a urine specimen. For 8 to 14 consecutive days, interviews are conducted with arrestees within the 48 hours of their arrest. All interviews are voluntary and confidential, and no identifying information is collected. This has led to very high rates of compliance. Overall, more than ninety percent of arrestees agree to be interviewed, and over ninety percent of those interviewed provide a urine specimen. Not every arrestee, however, is eligible for inclusion in the DUF sample. Male and female arrestees meet different criteria for inclusion in the DUF sample. Each quarter a minimum of 225 male and 100 female arrestee samples are collected. Only males charged with felonies and non-traffic misdemeanors are eligible for the DUF interview. In addition, no more than 20% of males charged with drug offenses (sales and possession) are eligible for inclusion in the quarterly interviewing. This decision was made because of the over-representation of arrestees charged with drug offenses. In addition, those charged with drug-related offenses are more likely to test positive for drugs, thus their inclusion in the sample does not provide much information above that which would be expected.

The DUF interview requests a good deal of information. The questionnaire elicits information about demographics (race, age sex, employment, education, training, income), sex practices (number of partners in the last year), drug use (drug type, age at first use, 30 day use, 72 hour use, and dependency), treatment issues (ever received treatment, current need for treatment, type of treatment) injection history (ever injected, number of injections, drugs injected) and HIV risk factors (needle sharing, recency of sharing needles, effect of AIDS on needle sharing). The urine samples are tested for sixteen drugs including: Benzodiazepines, Marijuana (THC testing level @ 100), Phencyclidine (PCP), Opiates (heroin and other opiates), Cocaine, Methadone, Barbiturates, Amphetamines, EMIT-Amphetamines,

Methamphetamine, Ephedrine, Pseudoephedrine, Phenylpropanolamine, Over The Counter Amphetamine, Methaqualone, and Propoxyphene.

In September, 1988, St. Louis became the 20th city to participate in the DUF program. Since that time, DUF has expanded to 24 cities. The first collection in St. Louis occurred in the first two weeks of October, 1988. Since then, interviewing has taken place in the first two weeks of every quarter (January, April, July, and October). Since that time, the St. Louis DUF program has been aided by the cooperation of the Commanders of the Prisoner Processing Division, including Robert Lewis, Captain Dennis Blackman and Captain David Dorn. In addition, Officer Asenath McDaniel of the Prisoner Processing Division has assisted in the scheduling of guards and ordering of supplies. The DUF program seeks to insure that 80% of arrestees agree to be interviewed, and that 90% of those interviewed provide a urine specimen. The St. Louis DUF site has exceeded each of these levels every quarter in which sampling has been conducted, averaging nearly 90% for agreed to interviews and over 90% agreed to provide a urine specimen. This success can be attributed to the cooperation received from the Captains, Sergeants, and Prisoner Processing Turnkeys over the last three years. In addition, the St. Louis DUF site has had a large number of outstanding interviewers.

NATIONAL COMPARISONS

Twenty three cities participated in the DUF program in 1990. The results of urinalysis for arrestees in these cities are presented in Table 1. These findings show that arrestees generally show positive results from urinalysis tests, or UA's. In 19 cities more than 50% of males and females tested positive for any drug. While seventy percent of arrestees in Philadelphia, San Diego, Manhattan and Detroit generally test positive, St. Louis is among the cities with far fewer positive urinalysis results, closer to fifty percent for both males and females. Indeed, arrestees in St. Louis show far lower levels of drug use than in most cities with 56% of males and 54% of females testing positive for any drug. In 12 of the 20 cities where both men and women

Any Drug Use by Male and Female Booked Arrestees*

City	% Positive Any Drug		% Positive by Age					% Positive by Race			
			15-20	21-25	26-30	31-35	36+	Black	White	Hispanic	Other
Atlanta	62	71	32	50	72	79	67	64	44	**	**
			**	69	78	87	66	68	85	**	**
Birmingham	64	67	43	68	70	74	62	65	58	**	**
			41	52	80	79	58	67	66	**	**
Chicago	73		55	80	82	80	74	73	63	78	**
Cleveland	55	73	38	52	70	62	57	58	42	35	**
			36	69	78	89	76	80	67	**	**
Dallas	58	60	40	60	61	69	51	60	52	43	**
			51	54	62	72	65	59	64	**	**
Denver	48	55	47	50	51	47	42	54	45	46	24
			39	61	62	56	47	67	48	44	**
Detroit	51	74	35	41	57	67	64	51	55	**	**
			51	80	78	73	76	74	74	**	**
Ft. Lauderdale	60	66	44	58	67	68	56	69	52	30	**
			56	68	71	67	61	71	63	**	**
Houston	64	59	45	65	73	75	66	71	51	54	**
			40	55	67	66	58	62	69	29	**
Indianapolis	46	39	39	51	51	50	40	51	41	**	**
			31	34	43	48	42	47	35	**	**
Kansas City	45	64	36	38	54	60	41	50	32	**	**
			46	69	84	66	39	67	58	**	**
Los Angeles	65	71	50	59	66	76	70	76	69	53	**
			36	68	81	79	76	76	78	56	**
Manhattan	78	71	52	76	85	83	81	79	75	72	**
			41	69	77	78	79	76	72	58	**
New Orleans	61	60	48	67	71	67	56	62	48	**	**
			35	56	68	70	60	61	54	**	**
Omaha	30		24	34	29	32	32	35	28	8	**
Philadelphia	76	76	65	74	86	84	69	78	66	77	**
			51	76	81	87	76	78	72	66	**
Phoenix ^a	54	58	45	58	56	60	47	67	51	50	31
			63	58	56	61	55	71	59	45	39
Portland ^b	62	61	61	63	67	68	55	63	65	52	36
			45	60	70	63	59	62	60	**	**
St. Louis	54	56	35	58	69	68	42	55	44	**	**
			35	60	72	57	43	57	53	**	**
San Antonio	51	41	45	53	57	58	46	61	53	47	**
			25	38	49	48	43	51	45	37	**
San Diego	78	75	62	76	86	86	79	82	78	78	**
			59	74	74	82	80	84	72	67	**
San Jose	55	57	54	52	58	66	50	62	55	56	33
			36	50	65	67	54	67	54	61	**
Washington, D.C.	56	73	28	56	68	70	61	57	51	**	**
			56	67	76	87	73	75	61	**	**

Source: National Institute of Justice/Drug Use Forecasting Program

* Positive by urinalysis, January through December 1990

** Less than 20 cases

^a Site does not test males for methaqualone, barbiturates, and propoxyphene; does not test females for methaqualone and barbiturates^b Site does not test for methadone, methaqualone, and propoxyphene

 Males
Females

are tested, women test positive at higher rates than men. St. Louis is consistent with the majority of cities, in that 56% of women and 54% of men test positive. The age distribution of positive UA's for St. Louis arrestees is generally consistent with that for other cities. One notable difference, however, is that in the lowest age category (15-20) St. Louis has the lowest male and female rate, taken together, of positive UA's of all cities included in DUF. The age graded results for St. Louis are consistent with those of other cities, as is the case for race. In general, blacks test positive for drugs at higher rates than other racial groups. These results show that St. Louis differs from the national picture in that lower levels of arrestees test positive than in other cities. Positive UA's among older arrestees are found at a higher rate than in other cities, and St. Louis results are consistent with the racial patterning of drug use across other cities.

ST. LOUIS DUF DATA VALIDITY

One of the crucial issues for the DUF program is its comparability with local arrest data. In the twelve quarters of St. Louis DUF collection, results were obtained from 3,865 adult arrestees who were held at the Prisoner Processing Unit, or holdover of the St. Louis Metropolitan Police Department. The size of this sample lends credence to the assumption that the DUF sample has accurately captured the characteristics of St. Louis arrestees. In order for DUF data to be of the greatest utility to policy makers, it must generally reflect the characteristics of arrestees. In order to assess this issue, we compared several characteristics of the St. Louis DUF sample and general arrestee characteristics. The four most salient include the gender, race, age, and offense characteristics of arrestees. The results of these are presented in Tables 2 and 3. In general, there is remarkable correspondence between the DUF sample and the characteristics of arrestees from 1989 drawn from the 1989-1990 St. Louis Metropolitan Police Department Annual Report.

TABLE 2
A COMPARISON OF THE DUF OFFENDER PROFILE AND ARRESTEE
DEMOGRAPHIC CHARACTERISTICS¹

	Gender			Age	
	DUF	SLPD Report		DUF	SLPD Report
Males	75%	80%	15-20	20%	23%
Females	25%	20%	21-25	25%	22%
			26-30	21%	19%
			31-35	16%	17%
			36+	17%	20%
	Race				
	DUF	SLPD Report			
Black	82%	74%			
White	18%	26%			

As observed above, unless the characteristics of the DUF sample generally correspond to those of the arrestee population, little confidence can be placed in the results of this study. A test of that issue is found above. In general, there is a very strong correspondence between the results of the DUF sampling procedure and the overall demographic pattern of arrestees. For the DUF sample, the gender variable is within five percent of the arrestee data, as males are under-represented by five percent in the DUF sample. The results for race are comparable, though the DUF sample over-represents blacks by 8%. Similar compatibility between the two data sources is found in the age grouping comparisons. The DUF sample modestly under-represents those in the youngest age category (15-20) and older age category (36 and over). The differences between DUF and arrestees is no greater than 3% for any age category, again lending credibility to the contention that DUF accurately represents the demographic characteristics of arrestees in St. Louis. The quarterly

¹Based on 1989 data from the 1989-1990 Saint Louis Metropolitan Police Department Annual report.

sampling strategy, coupled with the high response rate and over 3,800 respondents, suggests that the DUF results are representative of overall arrestee characteristics in St. Louis.

An additional concern about the compatibility of the DUF data focuses on the top charge of arrestees. In order to be representative, if there is variation in drug use across arrest categories, the DUF sample must be generally compatible with overall arrest patterns. We address this issue in Table 3. In this table, we present comparisons between the percent of the total DUF sample by charge and two measures of arrest by the St. Louis Metropolitan Police Department. Each of these measures is drawn from the 1989-1990 Annual Report, based on 1989 data. The first of these measures simply includes the percent of all arrests made in 1989 accounted for by each charge. The second measure adjusts those percentages so that only the charges in the DUF sampling protocol are included. Because DUF uses different sampling protocols for men and women, and because men represent the overwhelming majority of cases for both DUF and the general arrestee population, neither of these measures perfectly captures the charged characteristics of the DUF sample. Thus our interest is to determine whether, in general terms, the DUF sample represents the overall arrestee population.

The correspondence between the DUF sample and the police measures is remarkably strong. Many of the offense categories (12) are very small, with one percent or fewer of the total crimes included. Not surprisingly, the correspondence between the three measures in these instances is quite close. In the offense categories where more cases are found, congruence is not quite so close. The worst case is the category of assault, which comprises 20% of the total DUF sample, but 25% of the total arrestee and 34% of the total DUF adjusted arrestee population. All other offense categories are far closer across the three measures, with a difference of no more than two or three percentage points, except in the case of the category labelled "All Others." This must be considered a remarkable level of agreement, particularly in the case of drug charges. The reader of this report should recall that drug charges (whether they be for sales or possession) are artificially restricted by the DUF sampling strategy in St. Louis to no more than 20% of the total in any given quarter. Despite

this limitation, the three measures for drug cases are within a few percentage points of each other. Of particular significance in this set of comparisons is the size of the overall sample. Recall that data from 3,865 arrestees is included in this report. Thus, even an offense like homicide, which accounts for only 1% of the total, includes over 40 cases. The size of the sample lends further confidence in the compatibility of the DUF sample with arrest data from the city of St. Louis.

TABLE 3
A COMPARISON OF THE DUF OFFENDER PROFILE AND ARRESTEE
CHARACTERISTICS BY CHARGE²

	DUF	Charge SLPD Report	SLPD Adjusted
Arson	1%	*	*
Assault	20%	25%	34%
Bribery	*	*	*
Burglary	8%	5%	7%
Damage Destroy Property	6%	7%	6%
Disorderly Conduct	0	9%	0
Drug Poss, Sale	13%	12%	16%
Family Offenses	1%	1%	1%
Forgery	1%	1%	1%
Fraud	2%	1%	1%
Gambling	1%	1%	1%
Homicide	1%	1%	1%
Larceny/theft	13%	11%	15%
Liquor	*	*	*
Prostitution	4%	2%	3%
Robbery	5%	3%	4%
Sexual Asslt, Rape	1%	1%	1%
Sex Offenses	1%	1%	2%
Stolen Property	1%	1%	2%
Stolen Vehicle	1%	1%	2%
Weapons	6%	5%	6%
All Others	14%	13%	4%
* less than 1%			

DRUG USE TRENDS

We now turn our attention to trends in drug use in St. Louis during the three years in which DUF has been operational. This report covers the period October, 1988 until July, 1991, twelve quarters in all. During this period of time drug use trends, as measured by

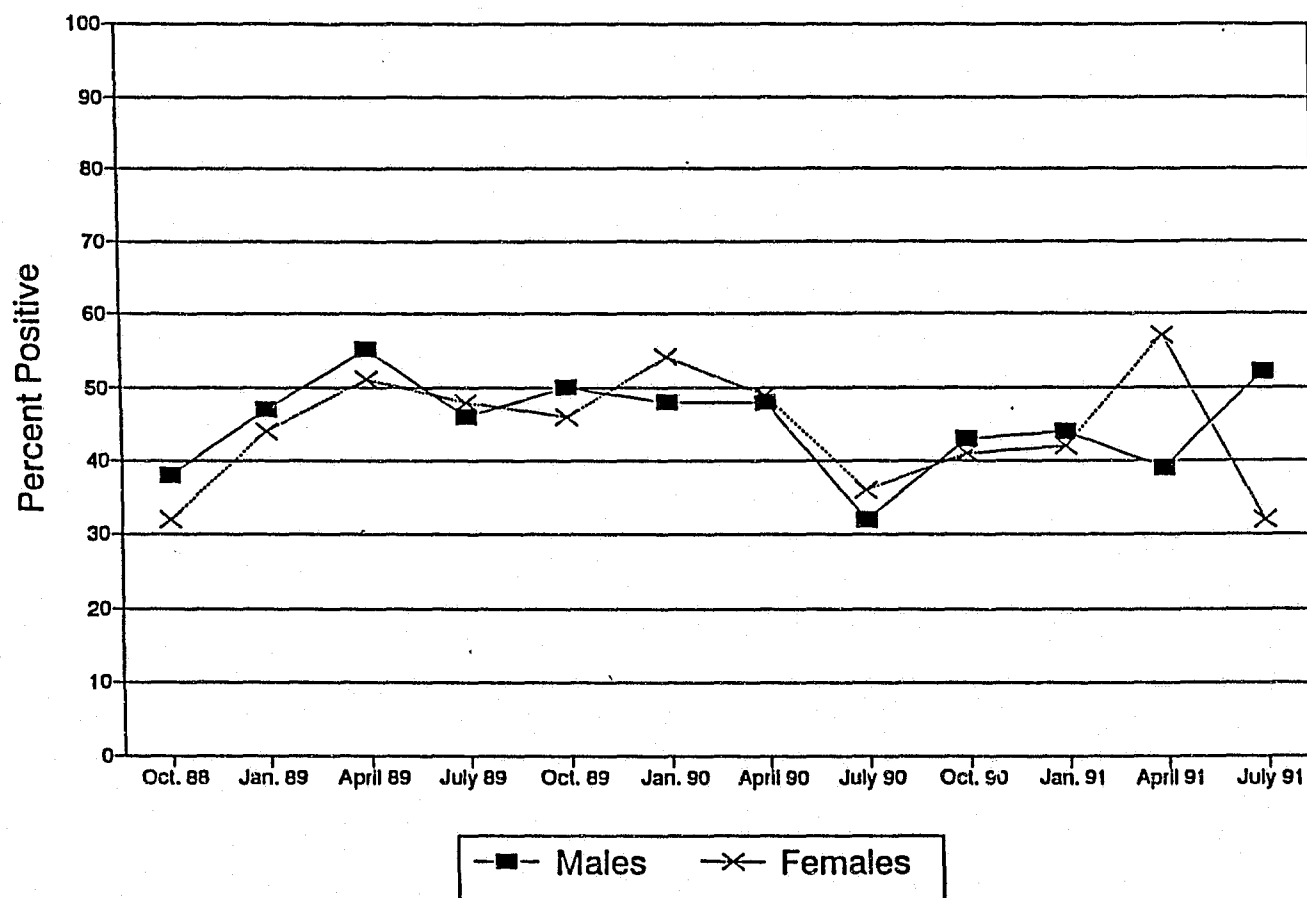
²Based on 1989 data from the 1989-1990 Saint Louis Metropolitan Police Department Annual report.

urinalysis of arrestee samples, has shown considerable variation. In Figures 1 through 8 to follow, we present the urinalysis results for the drugs where use exceeded five percent. The four drugs that account for the great majority of drug use in St. Louis are presented separately. Then four graphs which present overall use and multiple drug use are discussed. Throughout, we distinguish between levels of male and female use.

Figure 1 presents the trends in arrestee cocaine use during the past three years. Throughout the 12 quarters of testing in St. Louis, cocaine has remained the drug of choice for arrestees by a considerable margin. The urinalysis test does not distinguish between methods of ingestion, but self-report information gained through the DUF interviewing indicate that smoking "rock" or "crack" cocaine accounts for a majority of cocaine use. (Specific data on method of cocaine ingestion is presented in Table 10.) No clear trend in cocaine use is discernable over the testing period. The summer of 1988 is generally regarded as the time when a large influx of crack began to be available in St. Louis. Our testing began too late to measure levels of cocaine use prior to the introduction of crack here. However, the first three quarters exhibit a clear upward trend in cocaine use by both males and females. The next discernable pattern occurs with the leveling off of cocaine use by both men and women in July, 1989. For the year following that period, until July, 1990, cocaine use among arrestees remained steady. However, a precipitous drop in cocaine use was observed for both males and females in July, 1990. Positive urinalysis results for both men and women dropped approximately fifteen percent, from near fifty percent positive to just under thirty five percent positive. The final four quarters of testing produce no clear pattern or trend, as male and female results diverge for the first time, and significantly so in April and July, 1991. The results from October, 1991 (not shown here) increased dramatically for both men (58% positive) and women (52% positive). Summer cocaine use, in 1989 and 1990 for both men and women, and in 1991 for females, showed measurable declines. Aside from that, there appears to be little in the way of a secular trend in cocaine use by adult arrestees. The

evidence presented here indicates that cocaine use continues at high rates among arrestees. Enforcement, interdiction, and treatment have yet to significantly affect arrestee cocaine use.

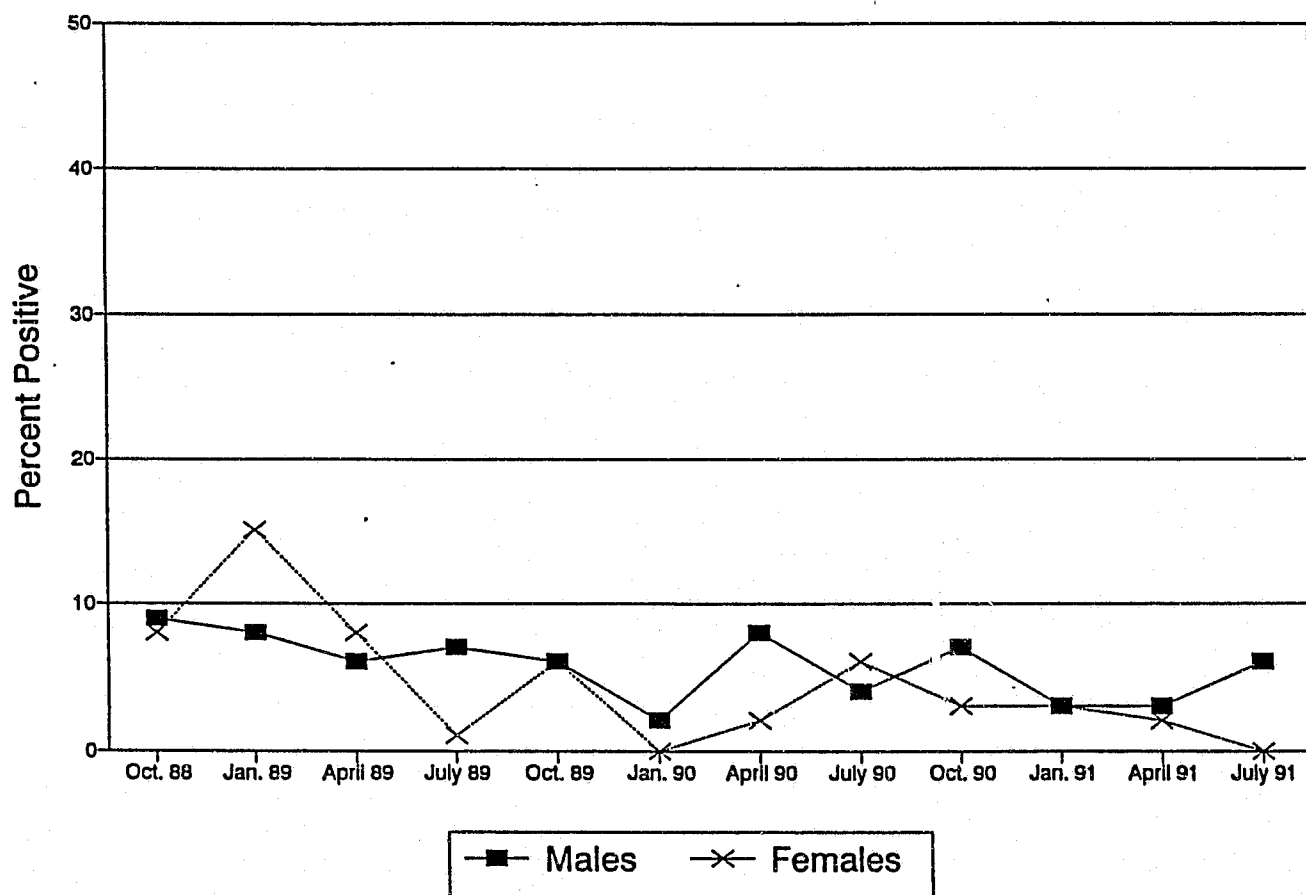
FIGURE 1
Cocaine



The results for Phencyclidine (PCP) use are presented in Figure 2. Prevalence levels are considerably lower than was the case for cocaine, with most quarters showing single digit use by both men and women. The pattern of PCP use appears to be much more stable for males than females. Most noticeable is the spike in female use in January, 1989, when fifteen percent of all females tested positive. Since that time, female PCP use has tracked male use much more closely, and generally been at lower levels. Indeed, in two quarters (January, 1990 and July, 1991) no women tested positive for PCP. Despite this, there appears

to be no seasonal variation in PCP use. PCP continues to be a drug of concern because of its rather steady levels of use, albeit levels considerably lower than those observed for cocaine.

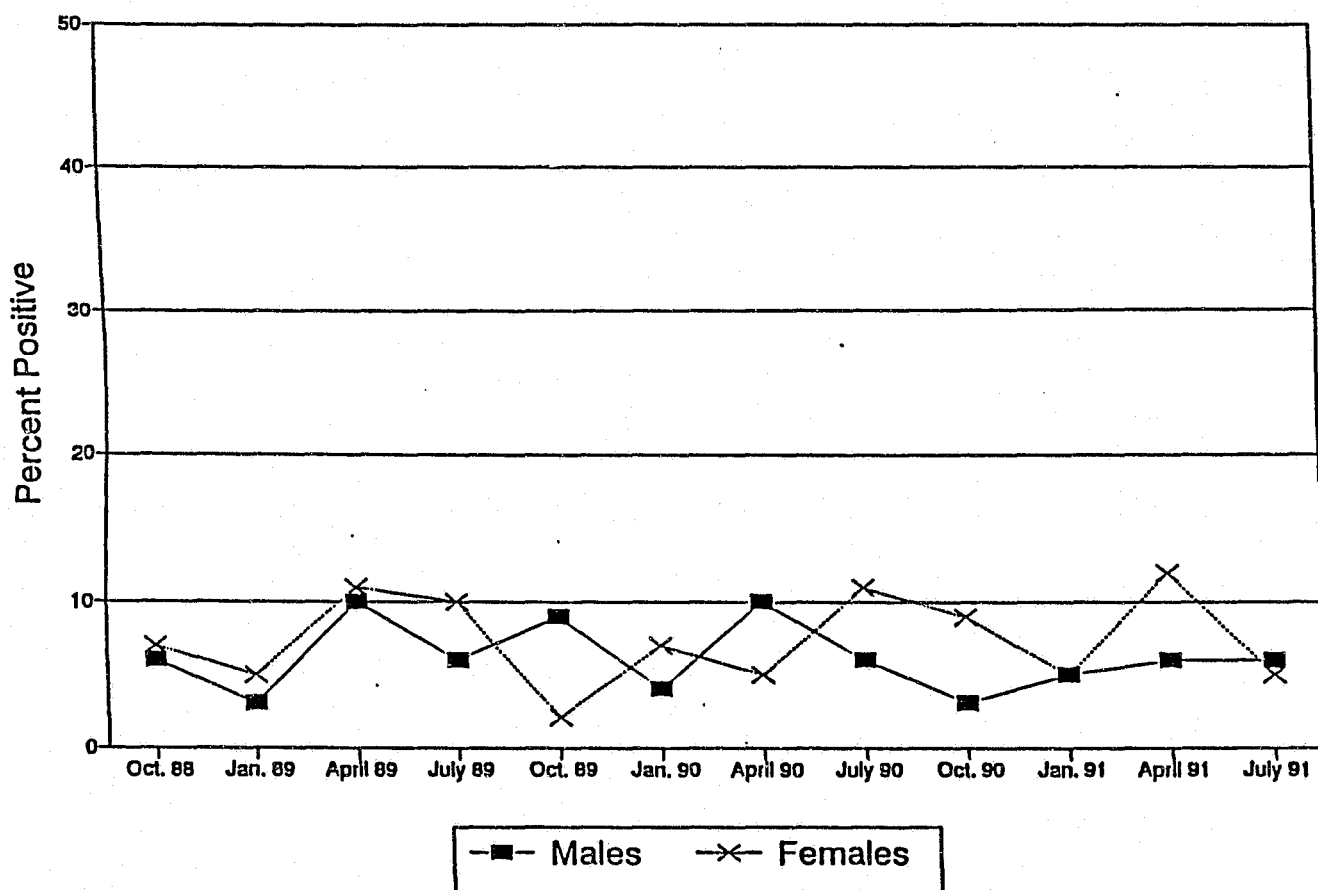
FIGURE 2
PCP



The DUF results for opiates (primarily heroin) are found in Figure 3. Like PCP, opiate use is significantly lower than that for cocaine. There appear to be no seasonal trends in opiate use, nor do there appear to be overall trends for the three year period. There is no pattern of use by gender either, since some quarters show modestly higher percentages of women than men using heroin, and others show the reverse. Because of its primary means of ingestion -- injection by needle -- heroin is a drug well worth watching. It may be an indicator of other community public health concerns, particularly risk for HIV infection among those who share needles, those who have intercourse with those who share needles, and the

customers of prostitutes (both male and female) who inject this drug. A recent seminar (December, 1991) presented by Felix Jiminez, Chief of the Heroin Division of the Drug Enforcement Administration suggested that heroin is currently very plentiful and cheap, and is of very high purity. The DEA suggests that heroin use may be on the increase soon because of the intersection of supply, purity and price. To date, no evidence of this is seen in the DUF data.

FIGURE 3
Opiates



The DUF results for marijuana use are presented in Figure 4. This graph contains, by far, the most interesting results. Several trends emerge, most noticeable among them is the general decline in use over the three years of DUF testing since October, 1988. Male and female urinalysis results generally track in a very consistent pattern, differing by only a few

percentage points in most instances. Most noticeable, of course, are the peaks and valleys in marijuana use. Peaks generally occur during April, and valleys are most commonly found in July or October. This suggests that there is a strong seasonal patterning to the availability of marijuana, with supplies most plentiful in the spring, and scarce in the late summer and fall. The decline in marijuana use observed in the July, 1991 testing period merits comment. For this quarter, both male and female use were at their lowest recorded levels. Results for October, 1991 (not shown here) remained low, with 8% of men and 4% of women testing positive. The results of this figure indicate that marijuana use by arrestees displays far less stable patterning, has a strong seasonal trend, and has generally declined over the three year DUF testing period.

FIGURE 4
Marijuana

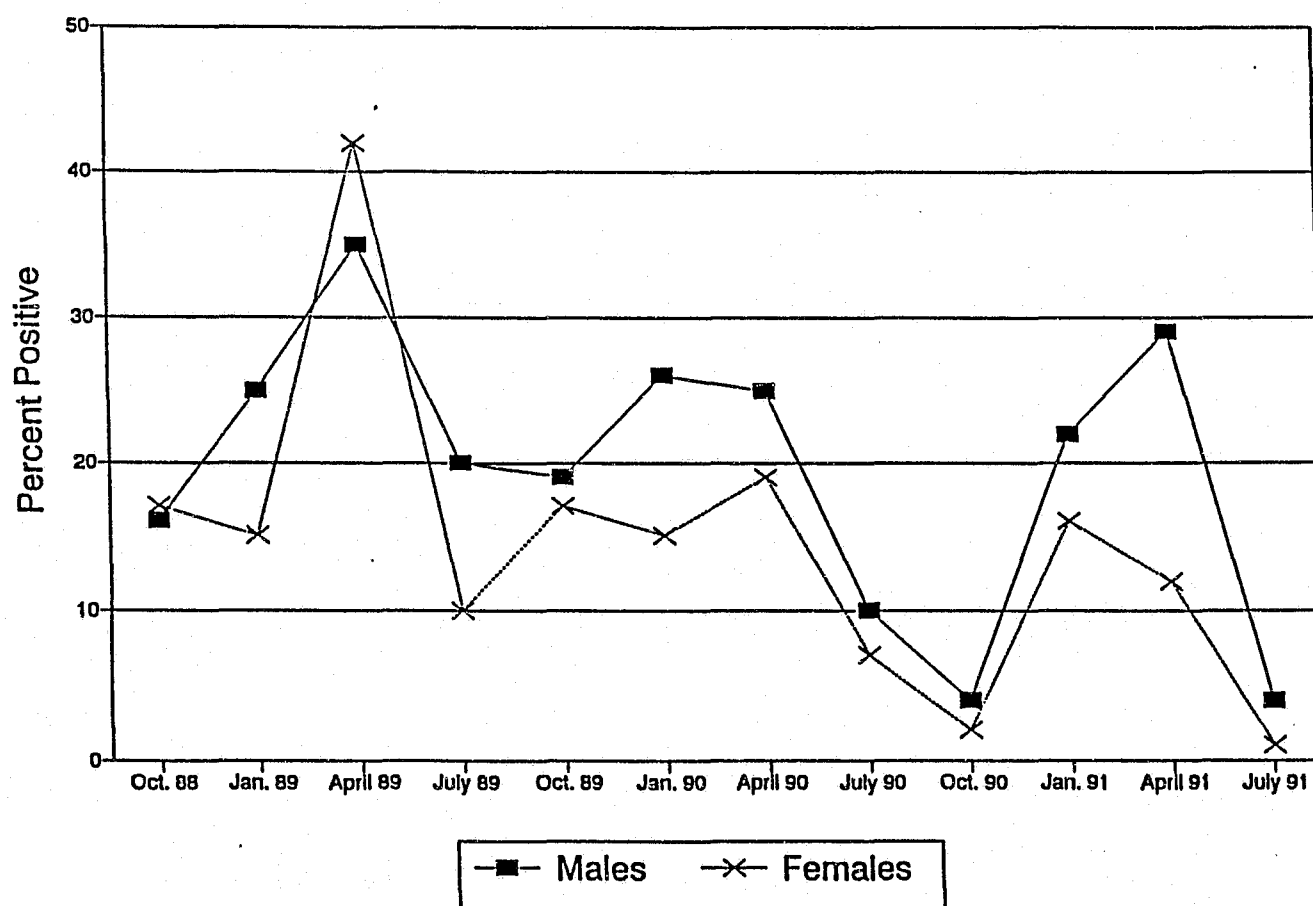


Figure 5 presents the trend in any drug use by arrestees included in the DUF protocol during the 3 year testing period. Use levels appear to be somewhat stable, with an

annual decline in summer use (the July testing period). Because of its high levels of use, cocaine "drives" the trend line for both men and women. October, 1991 data (not shown) for men indicated that 64 percent were positive for any drug, a record level, and 57 percent for women, the third highest level recorded for women, nearly a 30 percent increase over the preceding quarter, July 1991. Regardless of variations from the overall stable trends in drug use presented here, it is clear that arrestee drug use remains at high levels.

FIGURE 5
Any Drug Including Marijuana

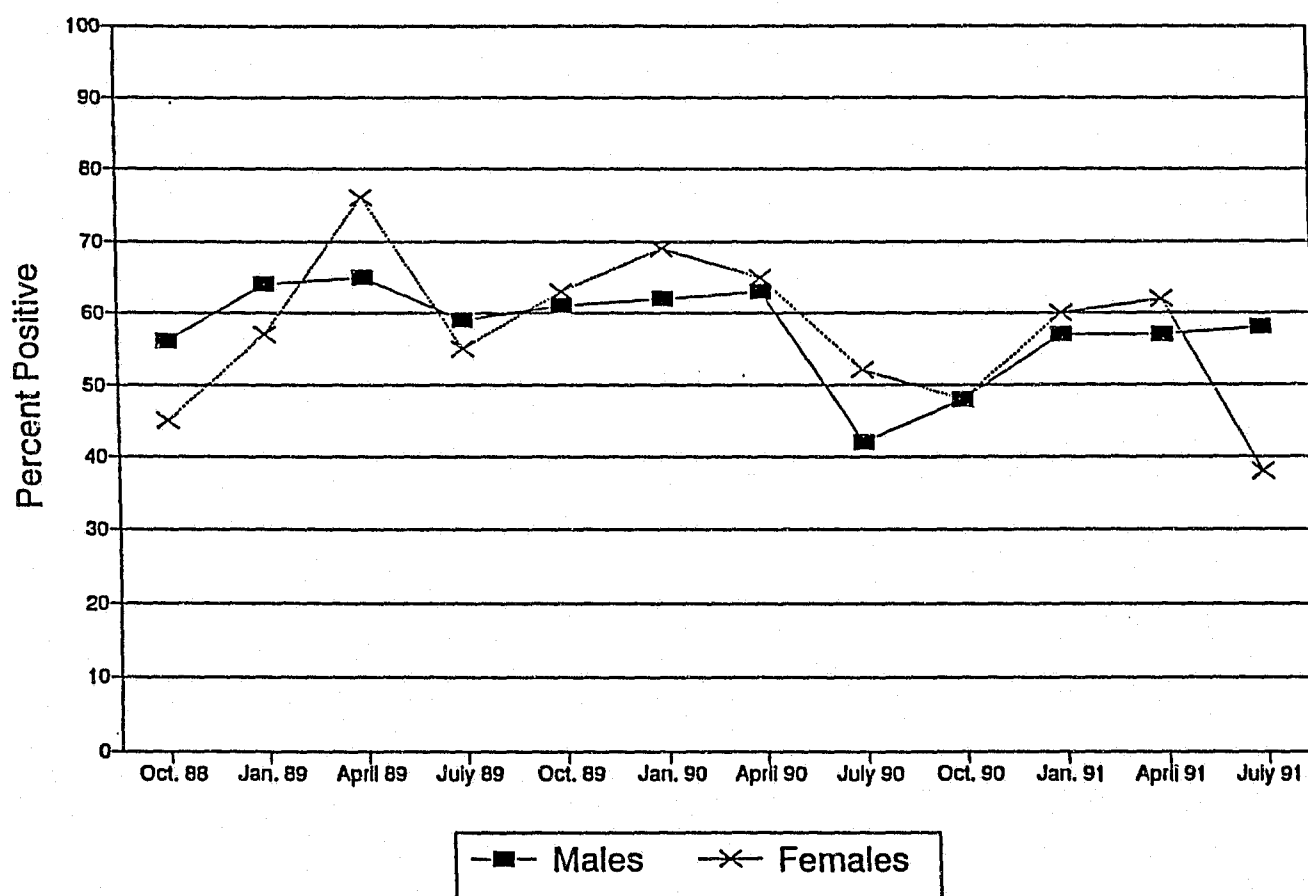
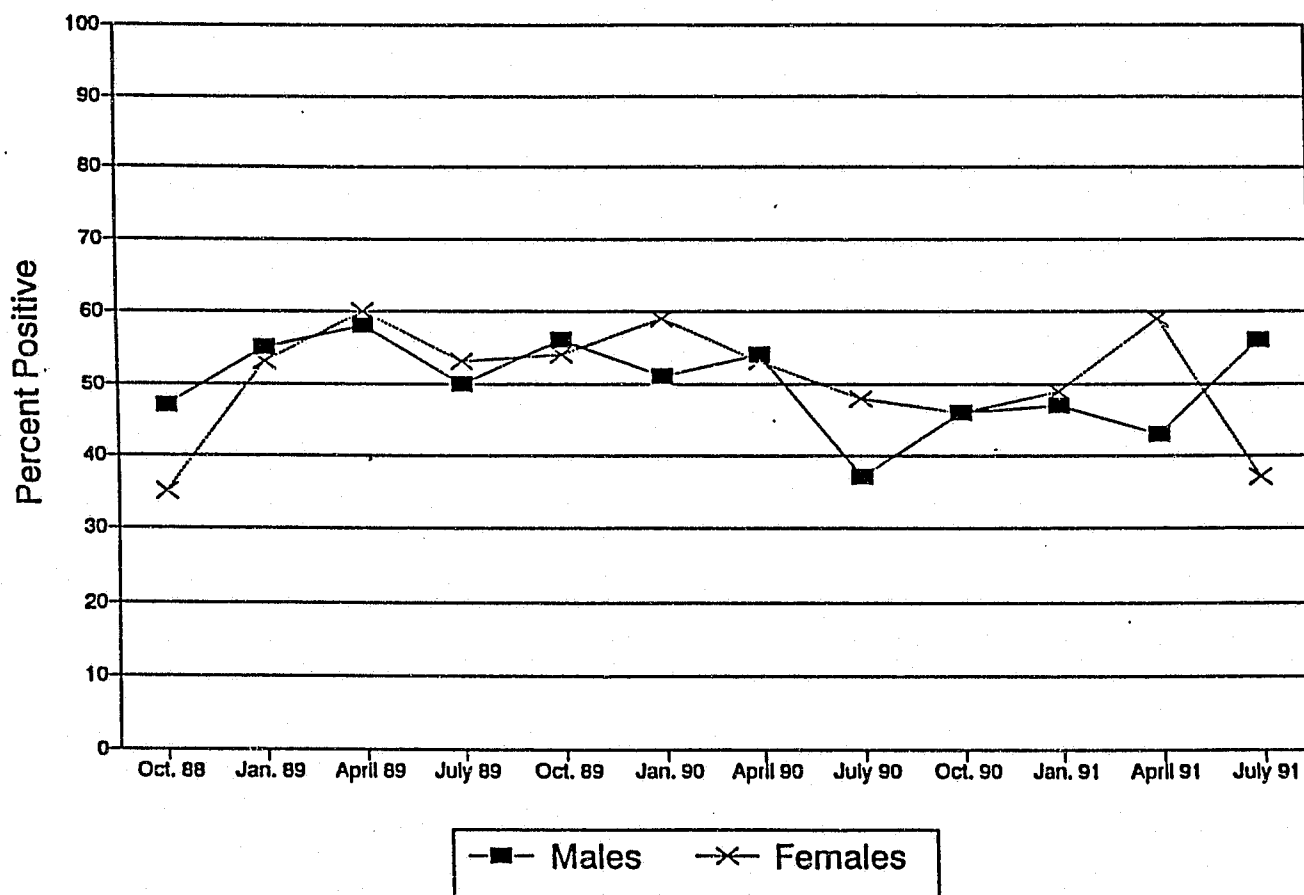


Figure 6 presents positive urinalysis results for any drug excluding marijuana. Because of the "volatility" of the trend on marijuana use, and its generally less serious consequences than other drugs, it makes sense to examine drug trends with marijuana removed. The pattern which emerges in Figure 6 has less variability than was the case for any

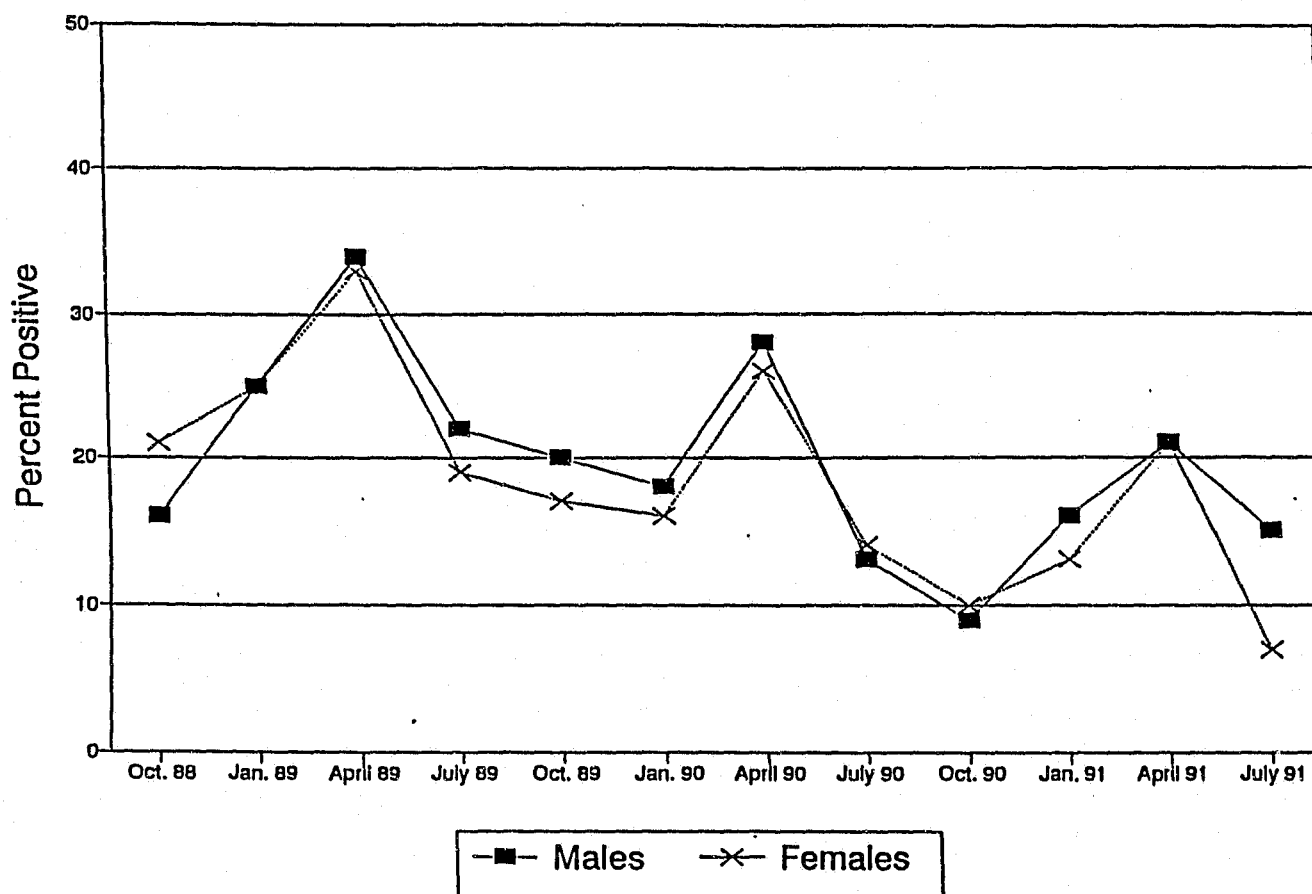
drug use presented in Figure 5. The early quarters showed a gradual increase in the percent positive, followed by several quarters of stability. The final two quarters show considerable variation, both over previous quarters as well as between male and female results.

FIGURE 6
Any Drug Excluding Marijuana



Because polydrug use represents more significant drug use, we examine two measures of the trends in multiple drug use. The use of multiple drugs is evidence of greater willingness to experiment, as well as presenting evidence of significant law enforcement and treatment problems. Figure 7 displays the results of those who tested positive for two or more drugs, including marijuana in the trend. Figure 8 presents the trend in polydrug use when marijuana is removed.

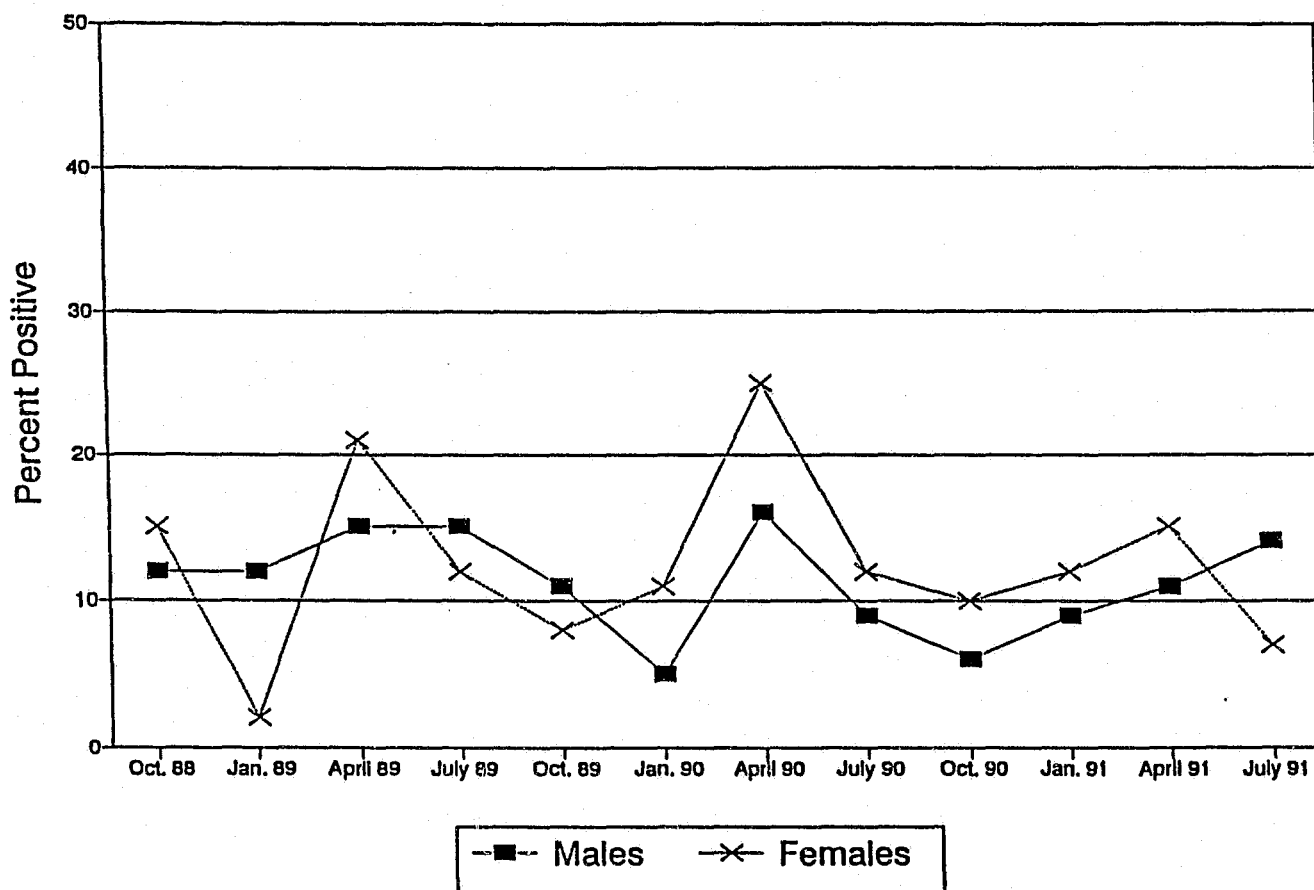
FIGURE 7
2+ Drugs Including Marijuana



Polydrug use including marijuana shows a general decline over the twelve quarter testing period, consistent with the trend for marijuana examined in Figure 4 above. Male and female multiple drug use tends to track together, indicating that there may be underlying correlates of multiple drug use that cut across gender. The overall decline in polydrug use found in Figure 7 is confirmed by the results presented in Figure 8. Because marijuana is most often a drug of choice by polydrug users, the levels of use for Figure 8 are much lower than for Figure 7 where marijuana is included. Those whose polydrug use excludes marijuana represent a more significant population than those whose multiple drug use includes marijuana. The increasing prevalence of speedballing, or "boy and girl" (mixing heroin and cocaine for injection) is one that should cause concern. Cocaine use is present in almost every case of polydrug use in Figure 8. The fact that roughly ten percent of the sample engages in multiple

drug use should serve to heighten awareness of risk for HIV and difficulties in designing effective treatment strategies for this high risk population.

FIGURE 8
2+ Drugs Excluding Marijuana



DRUG USE AND CHARACTERISTICS OF ARRESTEES

This section of the report presents several of the demographic characteristics of drug use in the DUF sample. We examine the distribution of arrestees who tested positive by drug for district, sex, race and age. These descriptions are intended to better locate the pattern of drug use by arrestees, and provide insights into the nature of drug use by different groups and within different parts of the city.

Districts

The distribution of drug use across police districts is presented in Table 4. For each of the nine police districts the percent of persons arrested in each district who tested positive is presented. We examine the four drugs of highest prevalence: cocaine, marijuana, opiates and PCP, as well as polydrug use, and present the percent of arrestees who did not test positive for any drugs included in the EMIT screen. The total number of arrestees included in the sample is presented in parentheses beneath the District heading. For example, we interviewed and obtained samples from 175 persons arrested in the first District. Twenty two percent of them tested positive for cocaine, eight percent for opiates and 39 percent for marijuana. By percentaging within a district, it is possible to compare the percent positive for any drug across districts.

There is considerable variation in positive UA's across the nine districts. In every district except for the second, a majority of arrestees tested positive for some drug. The implications of this for law enforcement, district personnel and personnel who work in the holdover should be discussed in a variety of forums. Though the second district had the lowest levels of overall drug use, it still had a considerable number of arrestees who tested positive for opiates. Similarly, the first District generally ranked among the lowest in levels of drug use, except for opiates. Eight percent of arrestees from the first District tested positive for opiates, among the highest of the nine districts. The eighth District had the highest percentage of arrestees test positive for cocaine, as well as one of the highest levels of PCP and opiate use. Polydrug levels were highest in the 5th District, where 34% of all arrestees tested positive for two or more drugs. Cocaine use was highest for those arrested in Districts 5, 7, and 8. In each of these districts, over 50% of arrestees tested positive for cocaine.

These findings suggest that drug use among arrestees is not concentrated in only one part of the city. Rather, persons arrested from every district in the city test positive for drugs at significant levels. To be sure, there are districts in which higher levels of drug use are observed. Those areas should continue to be targeted with programs designed to address the

high levels of drug use. However, strategies targeted only at these areas are likely to miss a significant part of the distribution of drug use across the city.

TABLE 4
ARRESTEE DRUG USE IN ST. LOUIS BY POLICE DISTRICT
PERCENT POSITIVE BY DRUG TYPE

	Cocaine	Opiates	Marijuana	PCP	2+	Zero
District						
District 1 (175)	38 22%	14 8%	69 39%	2 2%	43 25%	69 39%
District 2 (143)	30 21%	9 6%	36 25%	25 3%	16 11%	76 53%
District 3 (630)	247 39%	28 4%	62 26%	25 11%	122 19%	276 44%
District 4 (636)	264 42%	53 8%	99 16%	35 17%	111 17%	300 47%
District 5 (384)	202 53%	21 6%	77 20%	95 33%	89 34%	137 36%
District 6 (317)	149 47%	13 4%	48 15%	95 27%	54 17%	135 43%
District 7 (449)	231 51%	30 7%	79 18%	95 39%	112 25%	186 41%
District 8 (423)	240 57%	36 9%	64 15%	95 36%	89 21%	141 33%
District 9 (401)	198 49%	39 10%	62 16%	65 24%	91 23%	164 41%

Sex

The figures presented earlier to depict the trends in drug use by males and females generally showed correspondence in the choice of drug by males and females. This results is confirmed in Table 5, which presents the results of drug use by gender. Overall, 57% of men and 55% of women tested positive for any drug. The percentages for specific drugs are very close as well. The greatest divergence between the sexes in their pattern of drug use was for marijuana, where 20% of men and only 13% of women tested positive. It is interesting to

observe that more women (8%) test positive for opiates than men (6%) albeit by only a small margin. In general, however, there were few differences in drug use by gender.

TABLE 5
DRUG USE BY SEX

	Males	Females
Cocaine	1180 45%	385 44%
Opiates	152 6%	68 8%
Marijuana	521 20%	111 13%
Phencyclidine	145 5%	47 5%
Two or More Drugs	514 20%	154 17%
Zero Drugs	1121 43%	396 45%
Any Drug	57%	55%
Total Cases	2640	885

Race

In Table 6 we present the results of the distribution of drug use by race. As noted above, blacks and whites comprise over 98% of all arrestees included in the DUF sample in St. Louis. Unlike gender, there was considerable variation by race in drug use. Overall, blacks were more likely to test positive than whites, by 59% to 51%. Slightly over half of all black arrestees (51%) tested positive for cocaine, compared to only 19% of whites. This drug type displayed the largest disparity between the two racial groupings. Only one white arrestee of the nearly 700 who were tested showed positive for PCP, compared to 7% of all black arrestees. Blacks were also two times more likely to test positive for marijuana than were whites. For opiates, a higher percentage of whites (8%) tested positive than did blacks (6%). Interestingly, polydrug use among blacks and whites was found at essentially the same level --

20%. These findings suggest strong racial differences in drug use among arrestees. Black arrestees were more than twice as likely than their white counterparts to test positive for cocaine, twice as likely to test positive for marijuana, and comprised virtually all of the PCP users.

TABLE 6
DRUG USE BY RACE

	Blacks	Whites
Cocaine	1580 51%	129 19%
Opiates	194 6%	53 8%
Marijuana	478 15%	237 8%
Phencyclidine	212 7%	1 *%
Two or More Drugs	614 20%	135 20%
Any Drug	59%	51%
Zero Drugs	1280 41%	339 49%
Total Cases	3126	694

Age

We now examine the distribution of drug use across five age categories, 15-20, 21-25, 26-30, 31-35 and 36 and older. As presented earlier, the differences between the age categories of the DUF sample and all arrestees are very small. This lends credibility to the DUF protocol, as it is compatible with the overall arrestee pattern, and thus provides a more reliable picture of drug use by arrestees. The relationship between drug use and age is "bell shaped," that is, the lowest and highest age categories have the lowest levels of use, and the age categories in the middle tend to have the highest levels of use. This is true for each of the

drug types presented in Table 7, except marijuana, where the younger age categories showed the highest levels of use, and opiates where the reverse of this pattern was found.

The age category that tested positive for drugs at the lowest rate was the youngest group, those aged 15 to 20 years old. This runs counter to the commonly held public belief that it is primarily young people who are involved in drugs. In a report prepared for the St. Louis Juvenile Court³, the DUF results showed that fewer than 15% of youths held in detention tested positive for any drug. It is generally accepted that heavy drug use occurs in the early twenties, thus we see fewer people in the youngest age category test positive. Drug use was highest for those in the 26-30 year old age category. This pattern was most pronounced for cocaine, where 54% of those in the middle age category (26-30) tested positive and only 33% and 39% respectively for the youngest (15-20) and oldest (36 and over) age categories.

³Drug Use Among Detainees at the St. Louis Juvenile Court, October, 1990.

TABLE 7
DRUG USE BY AGE GROUP

Drug Type	Age Categories				
	15-20	21-25	26-30	31-35	36+
Cocaine	259 33%	513 47%	449 54%	315 50%	254 39%
Opiates	15 2%	37 4%	56 7%	57 9%	82 13%
Marijuana	165 21%	230 24%	157 19%	96 15%	63 10%
Phencyclidine	18 2%	80 8%	60 7%	38 6%	17 3%
Two Plus Drugs	112 14%	204 21%	170 21%	141 22%	127 20%
Any Drug	20%	25%	21%	16%	17%
Zero Drugs	441 56%	369 38%	257 31%	236 38%	338 52%
Total Cases	789	961	829	628	651

Charge

In Table 8 we present the relationship between offense types and the percent positive for several categories of drug use. Ten separate offense categories and one miscellaneous grouping are presented. The patterning of drug use seen in previous tables is evident across the different offense categories. That is, regardless of offense, cocaine remains the most commonly used drug, with lower levels for opiates, marijuana and PCP. Not surprisingly, those charged with drug sale or possession were most likely to test positive (75%). They were also the group most likely to test positive for two or more drugs. Arrestees charged with prostitution tested positive at similarly high levels. Seventy-three percent of all those charged with prostitution tested positive for any drug, 63% tested positive for cocaine, and 23% tested positive for two or more drugs. These are the highest levels for any non-drug offense. Because of the threat which prostitutes pose for transmission of HIV, their drug use is of particular concern.

Other offense categories test positive at high levels as well. In particular, property offenses such as property damage (63%), larceny (63%) and burglary (62%) and had the second and third highest rates of positive urinalyses. It is interesting to observe that property offenses generally had higher percentages of positive urinalyses than did the violent offenses. The link between drugs and crime type is generally not well understood. Many argue that drug addiction motivates a large proportion of all property crime, a proposition not challenged by these findings. On the other hand, a good deal is heard today about the link between drugs and violent crime, homicide in particular. Fifty-eight percent of the 41 homicide cases included in the DUF sample in St. Louis tested positive. Forty-seven percent of all homicide arrestees tested positive for cocaine. It is often observed that PCP is a drug that induces violent behavior. For the arrestees included in the DUF sample, 5% tested positive for PCP, a figure close to the average for all offenders.

Robbery and assault deserve special mention in this context. Robbery stands out as the violent offense for which arrestees are most likely to test positive. Indeed, 65% of all those arrested for robbery tested positive for some drug. Fifty five percent of all arrestees charged with robbery tested positive for cocaine, the highest percentage after drug charges. In addition, a higher percentage of robbery arrestees tested positive for PCP than for any other offense type. The offense of robbery appears, from these results, to be one of special interest for drug use. The drug test results for assault arrestees, however, more closely mirror those for property offenses, since they test positive at generally lower levels than those arrested for robbery or homicide. The "other" category of offenses includes those not specifically mentioned in the table. Many ordinance violations and traffic charges are included in this group. It is significant to note that nearly half of this group (47%) tested positive for any drug, and 14% of them tested positive for two or more drugs. This suggests that ordinance violators and those arrested for "minor" infractions are at higher risk for drug use than has been previously assumed. In an analysis of national DUF data, fully one third of over 500 arrestees charged with drunk driving (either DUI or DWI) tested positive for cocaine.

**TABLE 8
DRUG TYPE BY CHARGE**

Offense	Cocaine	Opiates	Drug Type Marijuana	PCP	2+	Zero
Assault (762)	37%	4%	21%	6%	18%	48%
Burglary (309)	47%	5%	20%	6%	19%	38%
Drug Sale (516)	66%	12%	23%	7%	31%	25%
Homicide (41)	47%	2%	22%	5%	17%	42%
Larceny (519)	52%	11%	15%	4%	21%	37%
Prob/Par Vio (74)	58%	9%	12%	8%	22%	36%
Prop Damage (222)	63%	9%	18%	6%	23%	27%
Prostitution (153)	63%	9%	18%	6%	23%	27%
Robbery (175)	55%	6%	16%	10%	22%	35%
Stolen Prop (78)	37%	4%	10%	1%	9%	51%
Sex Offs (215)	53%	7%	19%	5%	20%	34%
Weapons (219)	37%	7%	22%	6%	22%	48%
Other (1030)	34%	4%	15%	4%	14%	53%

Table 8a presents the drug positive results for a number of the more prominent city charges or ordinance violations that passed through the holdover during the process of DUF interviewing. The majority of those presented in this table are women (61%), since the DUF sampling strategy calls for selecting men only from the pool of misdemeanor and felony charges. Levels of drug use among these charges are generally lower on average, than those for felonies and misdemeanors. Those charged with public disturbance or peace disturbance also tested positive at high levels; 49% of all individuals charged with this tested positive for any drug, and 41% tested positive for cocaine. Despite generally lower levels of use, 28% of those arrested for non-DWI driving charges tested positive for cocaine, and 47% of that group tested positive for any drug. Ninety-seven percent of these individuals were females. Taken

together, these results suggest that drug use for "non-serious" crimes (eg. charges that are city charges or ordinance violations) is generally lower than for misdemeanors or felonies.

However, despite these general conclusions, peace disturbances and probation or parole violations stand out as exceptions to this trend. Those charged with driving offenses -- such as running a stop light or not wearing a seat belt -- tested positive for drugs at comparable levels to such felonies as assault or weapons charges. Clearly, drug use among traffic offenders is an issue that must receive high priority, not only from law enforcement, but from the circuit attorney as well as national policymakers such as the National Highway Traffic Safety Administration.

TABLE 8A
DRUG TYPE BY CITY CHARGE, ORDINANCE OR TRAFFIC VIOLATION

OFFENSE	Drug Type					
	Cocaine	Opiates	Marijuana	PCP	2+	Zero
Bench War	30%	2%	4%	4%	6%	66%
Obst Int Pol	28%	0	14%	0	05%	69%
Pub Dist	41%	4%	13%	5%	17%	51%
DWI	17%	8%	17%	0	8%	67%
Driving	28%	8%	14%	2%	13%	53%

In Table 9 the percent positive is presented. While the EMIT procedure employed by DUF tests for sixteen different substances, in St. Louis we have had arrestees test positive for only 10 of the possible drugs. In addition, positive UA's have been obtained for less than one percent of all arrestees for three drugs, methamphetamines, methylqualude and darvon.

Much talk emerged late in 1989 about the new drug ICE, a powerful form of methamphetamine. Local media, particularly television, got involved in the speculation about this drug. One television station indicated that methamphetamine was widely available in St. Louis. Our results indicate that such was not the case, as less than 1% of all arrestees tested positive for methamphetamines. Indeed, in a supplemental questionnaire to the regular DUF protocol, we learned that most arrestees had heard of ICE through television news stories.

It has been noted throughout this report that cocaine is the drug of choice among arrestees in St. Louis. For the first three years of DUF, 45% of arrestees tested positive for cocaine. The next highest drug was marijuana, as 18% of all arrestees tested positive for this drug. Six percent of the DUF sample tested positive for PCP and Opiates separately. The remaining drugs: valium, barbituates and amphetamines.

TABLE 9
OVERALL POSITIVE BY DRUG TYPE
Percent Positive

Drug Type	Percent Positive
Cocaine	45%
Marijuana	18%
Opiates	6%
Phencylidine	6%
Valium	4%
Barbituates	2%
Amphetamines	1%
Methamphetamines	*
Methylqualude	*
Darvon	*

* less than one percent positive.

Because of the high prevalence of cocaine use and concern about its effects, the DUF protocol examines in depth the reported method of ingestion of cocaine. A series of questions are asked to determine the preferred method for using cocaine. Only those who admit to using any drug are asked this series of questions, and as arrestees under-report their drug use, these responses represent a smaller group than the universe of all drug using arrestees. Thirty-nine percent of those who report using any drug claim not to have used cocaine in any form. However, the most popular method of use among those who report having used cocaine is smoking crack, a group comprising twenty-two percent of those who have used cocaine. Snorting cocaine is the method of use preferred by the second largest group, 14% of all arrestees. A number of respondents (7%) indicate that they smoke cocaine, but not as freebase or crack. These individuals generally smoke cocaine in a rolled cigarette, sometimes in combination with marijuana or PCP. Eight percent of the total report injecting cocaine, 5% injecting it alone, and 3% in combination with heroin. This pattern of injection

for cocaine, where it is injected at higher rates than for heroin, is one generally found across the 24 DUF cities. Cocaine is now a more popular drug for injection than heroin, a practice that carries with it a variety of risk factors.

TABLE 10
PREFERRED METHOD FOR USING COCAINE

Method of Use	Percent
Snort	14%
Freebase	4%
Smoke (Not Crack)	7%
Inject Cocaine only	5%
Inject with Heroin	3%
Smoke Crack	22%
Never Used Cocaine	39%
Used only Once	2%
No Response	3%

RISK BEHAVIORS FOR HIV

The last several years have seen growing concern over HIV, the virus that causes AIDS. The number of deaths annually attributable to AIDS now exceeds those due to homicide, suicide or auto accidents. Because arrestees are risk-takers and experimenters, they are a group at elevated risk for infection and for spreading the virus to others. This is true for a variety of offense and drug use types. Because of the high prevalence of drug use among arrestees in St. Louis, we examine the distribution of several risk factors across the arrestee population. It is important to underscore that we do not have a direct measure of HIV infection among the DUF sample, though a highly reliable and inexpensive test for HIV is now available. What we present in Table 11 below are various factors likely to put arrestees and those they share needles or sexual contact with at elevated risk for infection. Our analysis focuses primarily on the number of sex partners, and a series of questions related to injection and the effect of AIDS.

We first present the distribution of the number of sex partners in the past twelve months. The largest category of arrestees (34%) reported having sex with one person during the previous year. Seventeen percent reported that they had sex with two persons, and thirty-

one percent reported that they had sex with between 3 and 10 persons. Most troubling was the finding that 11% of all DUF arrestees reported having sex with 21 or more people in the past year. A significant fraction of this group was accounted for by persons (of both sexes) charged with prostitution or demonstrating on the street. However, segment of this high rate group was comprised of individuals who injected drugs. A supplemental questionnaire was added to the DUF format for the January and April, 1991 interviewing periods. Several questions were asked about safe sex, in particular condom use. While most arrestees knew responded that condom use was a safe sex practice, less than 20% of the sample reported using a condom regularly, and 48% indicated that they never used one. Perhaps more disturbingly, 23% of the sample indicated that they thought they had been exposed to AIDS at some time in their life. The consequences of this belief and these behaviors for the spread of HIV are quite profound, and are addressed more directly in the Policy Recommendations section of this report.

We now turn our attention to the issue of injection. Nineteen percent of the total sample reported ever using a needle to inject illegal drugs in their lifetime. Of the group that had ever injected, 50% of them had done so in the last six months. Thus, even though someone did not test positive, they still may be actively injecting drugs and the DUF interview did not capture them within 48 to 72 hours of an injection. Of those who had injected drugs, 73% indicated that they had injected 1,000 times or more in their life. Indeed, many of them could only estimate the number of lifetime injections, estimates that often exceeded 5,000.

Perhaps most disturbingly, 44% of those who ever injected indicated that they had shared their needles or "works". This is a significant percentage of persons who had ever reported sharing a needle, and it receives further discussion below. Nearly half (45%) of those who ever shared a needle report that they "used to share, but don't any more". In addition, 96% of those who ever shared reported doing so since 1986. The recency of sharing is an important factor in placing an individual or those they share needles with, or have sexual contact with, at risk for infection from HIV. These statistics do not paint an encouraging

picture for St. Louis, an area which has had generally lower levels of HIV positive individuals than other large urban areas. On a more encouraging note, 38% of those who ever injected report that AIDS has changed the way that they inject drugs. However, when asked whether AIDS has affected needle sharing, only 43% indicate that it has. Anecdotal evidence about these changes indicates that very few individuals report using bleach to clean their needles, but many report that they now share only with the same people all the time, or are careful in selecting individuals to share needles with. Neither of these methods are effective in reducing risk for HIV infection.

TABLE 11
RISK BEHAVIORS FOR HIV

Number of Sex Partners in Last Twelve Months

0	4%
1	34%
2	17%
3-10	31%
11-20	4%
21+	11%

Percent Who Ever Injected (Lifetime)

Yes	19%
NO	81%

Percent Who Have Injected in Last Six Months
(Includes only those who have Injected)

Injected in last 6 months	50%
Not Injected in last 6 months	50%

Number of Times Injected Drugs in Lifetime
(Includes only those who have Injected)

Once	4%
2-20	12%
21-100	6%
101-999	4%
More than 1,000	73%

Ever Shared Needles or Works
(Includes only those who have Injected)

No, never shared	56%
Yes, shared	44%

Behaviors related to sharing Needles or Works
(Includes only those who have Injected)

Used to Share, Don't any more	45%
Never Share	21%
Share some of the time	25%
Share most of the time	9%

Last Time Needle was Shared
(Includes only those who have Injected)

Before 1985	4%
1986 or After	96%

Drug Injected

Cocaine	12%
Heroin	10%

Has AIDS changed the way you inject drugs?
(Includes only those who have Injected)

No	8%
Yes	38%
Never Shared	53%

Has Aids Affected your Needle Sharing?
(Includes only those who have Injected)

No	46%
Yes	43%
Stopped Injecting	11%

DRUG DEPENDENCY AND TREATMENT ISSUES

A final issue examined in this report concerns drug dependency. In Table 11, we examine lifetime prevalence measures, age at first use, lifetime dependency and current dependency for six categories of substances, alcohol, marijuana, opiates, cocaine, crack and PCP. These data are based on arrestee self-reports: thus, we are able to include data on alcohol.

The overwhelming majority of the sample reported using alcohol (94%) and marijuana (83%). Self-reports for opiates (11%), cocaine (21%), crack (25%) and PCP (3%) are generally lower, though not inconsistent with the overall level of drug use reported in Table 10. For alcohol and marijuana, the average age at first use was 16. Cocaine, crack, PCP and opiates were generally used by older respondents, those in their early to mid twenties. It is interesting to observe that the average age of first use for crack was 26, reflecting the recency of the introduction of the drug in St. Louis.

The dependency measures reflect an interesting pattern. By far, the highest percentage, thirteen percent, of those who report ever being dependent indicate that alcohol was the substance which they were dependent on. The next highest percentage is found for crack, where 8% of the total DUF sample reported ever being dependent. This represents over 300 individuals from the DUF sample, and if we generalize from the DUF sample to the entire arrestee population, would indicate several thousand arrestees have been dependent on crack at some point in their lives. Five percent of the DUF sample reported being dependent on crack at the time of the interview. This group of nearly 200 individuals represents an important concern for the courts, jails and prisons, and treatment providers. In a study now underway, we are examining the size and characteristics of this population.

TABLE 12
LIFETIME DRUG USE, AGE AT FIRST USE AND DEPENDENCY

	Alcohol	Marijuana	Opiates	Cocaine	Crack	PCP
Ever Tried	94%	83%	11%	21%	25%	3%
Age at First Use	16	16	22	24	26	21
Ever Dependent	13%	5%	4%	2%	8%	1%
Dependent Now	8%	2%	1%	1%	5%	*

In Table 13, we present the results of the self-reported need for treatment. Ten percent of the total DUF sample indicated a need for some kind of drug treatment. The majority of those self-reporting such a need indicated that some form of cocaine treatment was their preference. Recall that it was observed earlier that arrestees generally underreport their drug use. It makes sense, then, for them to similarly underreport their treatment needs. The level of polydrug use reported here provides further evidence of the need for drug treatment within this population. Those who report such a need probably represent the "deep end" of the drug using arrestee population. The admission of a need for drug treatment on the part of ten percent of the sample is probably an indication of a much broader need on the part of arrestees.

TABLE 13
SELF REPORTED NEED FOR TREATMENT

Drug Treatment Needed for:	Number	Percent
Heroin	95	3%
Crack	99	3%
Cocaine	305	8%
Marijuana	64	2%
Any Drug	403	10%

POLICY RECOMMENDATIONS

Policy generally passes through three stages, formulation, implementation and evaluation. In this section of the report, we will offer policy recommendations as well as suggestions for their implementation. We recommend that whatever policy recommendations are implemented, careful evaluation of their effect be undertaken. A variety of groups have a role to play in responding to the findings of this report. The National Institute of Justice, the St. Louis Metropolitan Police Department, the Circuit Attorney's office, state and federal law enforcement, area drug treatment providers, the state, the city, AIDS response groups, and local jails all have a role to play in addressing the findings of the first three years of the DUF project in St. Louis.

In light of the findings presented above, we offer the following recommendations.

1. More efficient drug treatment referral for arrestees should be undertaken immediately. Many arrestees report a willingness to seek drug treatment at the time of the DUF interview. Steps should be taken to see that treatment referrals are made for arrestees.
2. More treatment services are needed for the arrestee population. The results of mandatory treatment with arrestees is unequivocal, it leads to reduced levels of crime and drug use. The city should consider implementing drug treatment information and services for the holdover, and insure that such services at the City Jail and Medium Security Institution are enhanced.
3. The need for treatment emerges as one of the strongest recommendations from this report. Neighborhoods must work to be sure that access is not blocked to these vital services.
4. Though law enforcement by itself is unlikely to significantly alter the prevalence of drug use in the city, it is imperative that the police continue to aggressively enforce laws against sale and possession of narcotic drugs. Strategies such as SCAT (Street Corner Apprehension Team) are clearly needed in response to the levels of drug use observed among arrestees.
5. A sizable fraction of the arrestees we interviewed engage in behaviors that place them at risk for HIV. Counseling and monitoring for HIV, particularly in the holdover, should be implemented. There is a role for the city health department to play in working with this group.
6. The presence of large numbers of arrestees who report sharing needles has profound implications for the spread of AIDS. The availability of clean needles and knowledge about cleaning needles are important elements in addressing the spread of AIDS within this group.
7. The value of drug testing among arrestees has been effectively demonstrated by the DUF project in St. Louis. Consideration should be given to expanding these efforts to other jurisdictions such as St. Louis County. In addition, consideration should be given to the inclusion of tests for pregnancy and HIV with samples currently being collected. Knowledge about the incidence of HIV among the arrestee population would be valuable. In addition, concern about low birth weights and related difficulties among drug using pregnant women make it imperative we learn more about their characteristics among the arrestee population.
8. A large number of the arrestees interviewed in the holdover will end up either at the City Jail or the Medium Security Institution. The prevalence of drug use among arrestees indicates a need for expanded drug treatment services at these facilities.
9. Drug treatment providers must specifically address the treatment needs of the arrestee population. It is ironic that the group with the greatest need, whose drug use poses significant threats to themselves and the person and property of others, are those least likely to be eligible for many treatment services. The St. Louis Metropolitan Police Department currently has a grant from the National Institute of Justice to more accurately determine the characteristics and size of this group.
10. The presence of high levels of drug use among ordinance violators, including traffic offenders, suggests that drug is widespread among a wide segment of the population. Discussion of the implications of this for the safety of vehicular traffic, police officers and citizens should be undertaken, perhaps under the auspices of the office of the Director of Public Safety for the City of St. Louis.

11. The local DUF staff should make their findings available on a timely basis to police, drug treatment providers and other groups. This report is a step in that direction.

12. Diversion to drug treatment, real drug treatment, is particularly important for first time offenders for a variety of charges. Mandatory drug treatment in residential or carefully monitored outpatient treatment should become presumptive for many first time offenders.

13. Drug use of the magnitude reported here is a challenge not only to law enforcement agencies, but to the entire community. There is a role to be played by a variety of groups. Our city, joined by the state and federal government as well as the public and private sector, must respond in creative and comprehensive ways to address the underlying causes of drug use of the magnitude reported here.