

DRAFT

**THE DRUG USE FORECASTING PROGRAM:
AN EXAMINATION OF DRUG TRENDS
AMONG ADULT BOOKED ARRESTEES
(1987-1995)**

Prepared for:

Executive Office of the President
Office of National Drug Control Policy
750 17th Street, N.W., Fifth Floor
Washington, DC 20503

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Washington, DC 20005

■ Task 94I/B ■ August 1997 ■

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EXECUTIVE SUMMARY

This executive summary accompanies a more detailed report that presents information collected by the Drug Use Forecasting (DUF) program over a 9-year period and discusses its implications for drug policy and research. The following sections outline the background, development, and purpose of the DUF program, discuss the DUF methodology and sample selection, its limitations, provide an overview of drug use trends for the years 1987 through 1995, and the future potential of DUF.

BACKGROUND AND INTRODUCTION

The information gathered by DUF provides perhaps the most comprehensive and compelling findings nationally of the level of drug use among arrestees. Starting in 1987, the Drug Use Forecasting (DUF) program, cofunded by the National Institute of Justice (NIJ) and the Bureau of Justice Assistance (BJA), gathers information in 24 urban sites from booked arrestees on their current and past use of drugs.¹ By collecting urine samples and interviewing arrestees on a quarterly basis, DUF has become a tool for tracking drug use trends among this difficult-to-study population.

All of the sites participating in DUF are major urban areas, located in the four regions of the country—Northeast, Midwest, South, and West. As of 1995, adult male data is collected in 23 urban areas and adult female data is collected in 21 urban areas.²

Complementing the results from urine tests, the interviews conducted with DUF participants inform about past and recent drug use, demographic background, drug and alcohol treatment history, and AIDS risk behaviors.

¹ It is important to note that the subjects involved in the DUF program are booked arrestees, i.e., not every one that has been arrested. This report will use the term "arrestees" when referring to the study population.

² The original 12 DUF sites were Chicago, IL; Detroit, MI; Fort Lauderdale, FL; Houston, TX; Indianapolis, IN; Manhattan, NY; Los Angeles, CA; New Orleans, LA; Phoenix, AZ; Portland, OR; San Diego, CA; and Washington, DC. In 1991 the following cities were added: Atlanta, GA; Birmingham, AL; Cleveland, OH; Dallas, TX; Denver, CO; Kansas City, MO; Miami, FL; Omaha, NE; Philadelphia, PA; St. Louis, MO; San Antonio, TX; and San Jose, CA. No data on females are collected in Chicago, Miami, and Omaha. Data on juveniles are collected at the following 12 DUF sites: Birmingham, Cleveland, Denver, Indianapolis, Los Angeles, Phoenix, Portland, St. Louis, San Antonio, San Diego, San Jose, and Washington, DC.

DUF is unique among national studies on drug use in several important respects. DUF provides:

- Objective measures through the use of urine samples;
- Quick and timely information on a quarterly basis to identify recent trend changes in 24 U.S. urban locations; and
- Information on a population among which illicit drug use, especially the use of harder drugs such as cocaine and heroin, are more common than among the general population.

While DUF was not designed to be nationally representative of the arrestee population, its findings have been used to identify drug use patterns throughout the US. For example, in 1995 a spread of methamphetamine drug use across the DUF sites located in the southwestern part of the country was identified (NIJ, 1996). Initial findings from some Midwestern cities indicate that this problem may be spreading eastwards.

At the present, plans are underway to expand the DUF program to a total of 75 sites. This proposed expansion, known as the annual Arrestee Drug Abuse Monitoring (ADAM) Program, will make DUF/ADAM a more representative sample of the criminal population in the U.S. (Riley, 1997).

DUF METHODOLOGY AND SAMPLE SELECTION

Once every 3 months, for about 14 consecutive days, staff at each site interview and obtain urine samples from individuals who have been arrested within the previous 48 hours. The arrestees participate voluntarily and remain anonymous.

Because the environment in which DUF has to operate places constraints on the selection process, the DUF sample is not a random sample. Instead the DUF sampling strategy is site-specific. All female arrestees are eligible to be included in the DUF sample. By contrast, the large numbers of male arrestees require that a selection is made. Male arrestees arrested for vagrancy, loitering, and traffic violations are excluded. Other arrestees are selected by type of charge in the following priority order:

(1) Nondrug felony charges, (2) nondrug misdemeanor charges, (3) drug felony charges, (4) drug misdemeanor charges, and (5) warrants for any charge. It is also specified that only 20 percent of males arrested and charged with drug offenses should be interviewed (Chaiken and Chaiken, 1993).

On an average, 90 percent of those recruited agreed to participate and 80 percent of these adults provided an urine sample. The total DUF sample from 1987–1995 included 213,898 adults consisting of 156,159 males (73 percent) and 57,739 females (27 percent).

LIMITATIONS OF THE DUF DATA SET

The DUF program has been criticized for not being representative of the arrestee population and for providing information that has only limited value for national estimates of drug use or for comparative purposes. These limitations exist because DUF was originally developed to reflect the situation and needs of each individual site.

The DUF program nevertheless represents a valuable source of information on arrestees' drug use not just for the individual sites participating but also nationally. Chaiken and Chaiken (1993) reviewed DUF procedures and findings showing that:

- There are few differences between arrestees that did and did not participate in DUF;
- Except in a few sites, no changes in booking or sampling procedures occurred that were significant enough to prohibit within-site comparison over time;
- For most sites, the unweighted DUF drug use statistics are reasonable estimates of drug use among all arrestees for serious offenses; and
- Estimates based on the DUF samples did not differ substantially from estimates based on weighted data.

In another study Baumer (1994) concluded that the population and arrest characteristics of DUF cities closely resemble those of the 58 largest cities (i.e., cities with populations of 250,000 or greater), suggesting that DUF sites are representative of large U.S. cities.

These studies show that the DUF data provide reasonable estimates for drug use trends among arrestees, especially when they are analyzed in connection with other data sources (i.e., UCR and census data):

DUF RESULTS FOR ADULT ARRESTEES 1987-1995

While the DUF program may require further adjustment to increase its usefulness and its comparability, especially on the national level, these findings encourage an assessment of the DUF data over time and across sites. The analyses presented in the following sections are based on aggregates from all sites for the years 1987 through 1995.

The following sections present (1) an overview of the characteristics of the 1987-1995 DUF sample, (2) national aggregates of the 1987-1995 data set, and (3) a comparison of site specific aggregates.

Characteristics of the 1987-1995 DUF Sample

Between 1987 and 1995, DUF collected data on a total of 213,898 arrestees of whom about 27 percent were female.

The DUF sample showed the following characteristics:

- The majority of the sample was black (56.1 percent male; 51.8 percent female);
- White male arrestees accounted for 24.5 percent of the male sample;
- White female arrestees accounted for 33.7 percent of the female sample;

- Eighteen percent of the male and 12.9 percent of the female DUF sample was Hispanic;
- On average, the female DUF sample (m = 29.82 years) was only slightly older than the male sample (m = 29.45 years);
- More than half of the male (55.4 percent) and female (58.4 percent) DUF arrestees had a high school degree or GED; and
- Most male arrestees were employed full time (39.6 percent) while most female arrestees were on welfare (25.7 percent) or with no income (14.7 percent). Illicit income (e.g., dealing and prostitution) was reported by 3 percent of the male arrestees and by 10.4 percent of the female arrestees.

DUF Arrestees Testing Positive for Drug Use

Overall the DUF data show that:

- Approximately two-thirds of the adult male and female arrestees tested positive for drugs;
- The percentage of male arrestees testing positive increased from 59 percent in 1990 to 65 percent in 1993. Since then the percentage remained at 65 percent;
- The largest increase in positive drug tests for adult males was among those under 21. The percentage rose from 45 percent in 1990 to 64 percent in 1995;
- Different from their adult male counterparts, adult female arrestees under 21, those between 21 and 25, and those between 26 and 30 reported a decrease in the percentage of positive drug tests;

- If 1990 is used as the baseline year for interpreting data for adult male and female arrestees, there are only few trend differences between the two genders. The main difference is among those under 21 where drug use among young males increased while it decreased among young female arrestees; and
- Approximately one third of the adult males and females tested positive for two drugs or more. Trend changes in multiple drug use generally followed the trends outlined for any drug use.

Arrestee Drug Use by Race/Ethnicity

Between 1990 and 1995, increasing drug use was reported for adult male arrestees of all races. Only adult Hispanic males who tested positive for drug use showed a decline in 1995 (59 percent in 1994 to 56 percent in 1995).

DUF data also indicate:

- A decrease in the percent of both black (74 percent to 67 percent) and Hispanic (58 percent to 50 percent) adult female arrestees testing positive for drugs from 1988 to 1995;
- The percent of white adult females who tested positive decreased between 1988 and 1991 (from 70 percent to 61 percent), rose to 69 percent in 1993, and declined again to 66 percent in 1995; and
- Among adult male arrestees, Hispanics had the highest rate of testing positive for multiple drugs, while whites had the highest rates of multiple drug use among adult female arrestees.

Arrestees Testing Positive by Type of Drug

Among adult male arrestees included in the DUF sample:

- Cocaine was the most frequent drug detected (1990, 41 percent; 1991, 44 percent; 1995, 39 percent);
- Marijuana was the drug with the greatest percentage increase detected (1990, 21 percent; 1995, 33 percent);
- Positive tests for opiates decreased slightly (1 percent) between 1990 and 1995; and
- Positive tests for methamphetamines increased from 2 percent to 6 percent between 1991 and 1994 and decreased in 1995 by 1 percent.

Among female arrestees:

- The most frequent positive drug test was for cocaine (52 percent in 1988; 47 percent in 1990; 52 percent in 1992; 45 percent in 1995);
- The percentage testing positive for marijuana decreased from 1988 through 1991 (25 percent to 12 percent), increased up to 17 percent in 1993 and remained at that level through 1995;
- Positive tests for opiates decreased between 1988 and 1995 (from 17 percent to 9 percent); and
- Positive tests for methamphetamines rose from 0 percent in 1990 to 8 percent in 1994 and decreased to 7 percent in 1995.

Drug Use Among Arrestees by Charge

Not surprisingly, the DUF data indicate that adult male and female arrestees charged with a drug offense showed the highest percentage testing positive for drugs across all years:

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- Positive tests for male arrestees with drug charges rose from 77 percent in 1990 to 82 percent in 1995;
- Positive tests for female arrestees charged with a drug offense decreased from 1988 (80 percent) to 1991 (74 percent) but increased in 1992 and have remained relatively stable since then (80 percent);
- The second highest percentage of positive drug tests for males was among those charged with a property offense, while among female arrestees, it was for those with miscellaneous charges; and
- From 1990 through 1995, there was a slight decrease in the percent of females testing positive for drugs arrested on charges of violent, property, and miscellaneous crimes. Among males testing positive for drugs, there was a decrease for those arrested for violent and miscellaneous crimes.

Drug Use Among Arrestees and Academic Achievement

Aggregate site data showed the following relationships between adult arrestees with positive drug tests and educational status:

- Those who earned their GED had the highest percentage of positive drug tests;
- Those who were in a GED program at the time of their arrest showed the largest increase in positive drug tests (1990, 30 percent; 1995, 58 percent) but always represented the lowest percentage testing positive; and
- Increases in the percentage testing positive for drugs were found for those who had either earned their GED or were high school dropouts.

There was only a slight decrease among females who had a high school degree, a GED or who had dropped out of school and who tested positive for drugs between 1989 and 1995. Adult female arrestees who were enrolled in a GED program at the time of arrest had the lowest percent of positive drug tests.

Comparison of 1987–1995 DUF Data Trends in Different Sites

While the comparability of DUF data on a national level is limited, site-specific aggregates can be used for analyses across jurisdictions. These comparisons reveal the following:

- The percentage of drug users among the DUF populations varies considerably. In some sites the median percentage of positive tests among male arrestees never reaches more than 62 percent (e.g., Dallas, Kansas City, Omaha, and San Antonio), while the median percentage in other locations is more than 70 percent (e.g., Chicago, New York, Philadelphia, and San Diego).
- The direction of drug use trends in individual sites considerably varies over time. Some sites experienced a steady increase in the percentage of drug abusing arrestees, others an almost steady decline. While drug use among the male DUF population remained relatively stable in some sites others experienced dramatic increases in positive drug tests among male arrestees.
- The percentage of specific types of drugs used in DUF sites varies considerably overall and over time. Cocaine is the predominant drug male arrestees test positive for in most sites, but not in all. Opiate use is relatively high³ in only 7 sites;⁴ in most other sites, it reaches between 3 and 6 percent.
- West coast sites recently reported increasing percentages of methamphetamine users. In San Diego, CA, for example, methamphetamine has become the number one drug adult male and female arrestees tested positive for since 1994 and 1993, respectively.

³ At least 15 percent and above among the male and female population in almost all years.

⁴ Chicago, IL; Los Angeles, CA; Manhattan, NY; Portland, OR; San Antonio, TX; San Diego, CA; and Washington, DC.

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- The distribution of positive tests for specific drugs in locations where methamphetamine use is high indicate a shift from using other hard drugs.

The commonalities among DUF sites are as follows:

- Among all sites across and all years, male arrestees generally show considerably higher percentages of positive drug tests for marijuana than their female counterparts;
- Female arrestees have higher percentages of cocaine use than males;
- Female arrestees show, on average, a higher percentage of drug users across all years than male arrestees; and
- At most sites, cocaine is the main drug male and female arrestees test positive for.

SUMMARY AND CONCLUSIONS

As a program, DUF offers a rich data base for local programming and planning, and it provides several advantages to researchers and decisionmakers on a national level. These include the following:

- It provides an objective measure of individual drug use;
- It gathers data on a subpopulation of drug users that is difficult to reach, but responsible for a significant portion of the costs related to drug abuse; and
- It represents an existing research "infrastructure" to contain the cost of other research projects and to provide timely information.

The aggregate data indicate the following:

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- Drug use among male and female arrestees, especially use of hard drugs, remained high throughout the past decade;
- Cocaine is the main drug arrestees test for positive;
- Cocaine use among female arrestees is in many cases higher than among male arrestees; and
- In those locations where significant methamphetamine use among arrestees was reported, the data indicate that different types of hard drugs may be interchangeable.

Today, DUF presents a valuable, still largely untapped data source. Further research could, for example, be performed to:

- Compare data within sites that collect data on the county and city level;
- Compare data on a regional basis;
- Compare data within sites that have a catchment area that covers only part of their respective cities; and
- Conduct more extensive analyses by combining DUF data with other data sources.

As the DUF program continues to increase the type and number of booking facilities reporting, and the DUF catchment areas, it will increase its value as a national and local analytical tool. The planned expansion of DUF into ADAM will launch new programs that help to chart the progress of new and existing policies intended to address the nation's drug problems.

The Drug Use Forecasting Program: An Examination of Drug Trends Among Adult Booked Arrestees (1987-1995)

Substance abuse and drug-related crime and violence continue to affect the lives of countless Americans in urban, suburban, and rural areas. Drug use and criminal behavior are closely linked as evidenced by over 50 years of research on drug users and criminals. Drug-dependent offenders are specifically responsible for an extraordinary proportion of crime (Chaiken, 1986; Johnson et al., 1985) and heavy drug use accelerates criminal behavior among drug-involved offenders (Speckart and Anglin 1986; Collins et al., 1985).

In order to develop adequate anti-drug and anti-crime policy responses, solid information regarding the relationships among drugs and crime is needed. The Drug Use Forecasting (DUF) program, cofunded by the National Institute of Justice (NIJ) and the Bureau of Justice Assistance (BJA), is an important source for estimating the number of drug users involved in the criminal justice system, for determining the resources required to process them, and for planning the services needed, especially drug treatment. Started in 1987, DUF gathers information in 24 urban sites from booked arrestees on their current and past use of drugs.¹

This report provides an overview of the information collected by the DUF program over a 9-year period and discusses its potential for drug policy, programming, and research. The following sections outline the background, development, and purpose of the DUF program; present the DUF methodology and sample selection procedure, as well as its limitations; provide an overview of drug trends for the years 1987 through 1995; and discuss future DUF research.

BACKGROUND AND INTRODUCTION

The information gathered by DUF provides perhaps the most comprehensive and compelling findings nationally of the level of drug use among arrestees. By collecting urine samples and

¹ It is important to note that the subjects involved in the DUF program are booked arrestees, i.e., not every one that has been arrested. This report will use the term "arrestees" when referring to the study population (i.e., booked arrestees).

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interviewing arrestees in more than 24 urban sites on a quarterly basis, DUF has become a consistent tool for tracking drug use trends among this difficult-to-study population.

DUF estimates indicate that hard core drug users, many of whom come into contact with the criminal justice system at one time or another, account for the largest share of drugs consumed in the United States (ONDCP, 1997). As such, hard core drug users are the main contributor to the underground economy of the illicit drug market and account for a significant proportion of societal costs associated with drug use. The 1997 ONDCP Strategy Report recognizes that the best way to reduce the overall demand for illicit drugs is to reduce the number of chronic, hard-core drug users. This can only occur if communities, courts, and corrections facilities develop effective responses, especially treatment programs, for those that need them.

Since the DUF program is based on interviews and drug tests of persons arrested and brought to booking facilities, test findings provide an objective measure for levels of drug use among this specific population. This information indicates what drugs are used in specific jurisdictions and allows for tracking changes in drug use patterns among this population over time. It is important to note that drug abusing arrestees represent only a subsection of all drug users. Nevertheless, these data inform the criminal justice system about the number of drug users entering the system, their drug use patterns, and any changes that will impact resource needs.

A short synopsis of the data available from the 1995 annual DUF report provides insight into the broad and important implications of the DUF data for programming, research, and policy. Although important differences exist among the populations included at the individual sites by age, gender, and other arrestee characteristics, the following selected summary results are instructive of drug use among this population over time (NIJ, 1996):

- Cocaine use among adult male arrestees has declined over time;
- Marijuana use among adult male arrestees has increased over time;

- At every site, a majority of adult male arrestees tested positive for at least one drug;
- Twenty of the 24 sites reported increased use of marijuana among the youngest male arrestees;
- Ten percent of male arrestees and 14 percent of female arrestees stated that they were in need of drugs or alcohol at the time of their arrest; and
- Thirty-one percent of both male and female arrestees reported that they were under the influence of drugs or alcohol at the time of their arrest.

The Development of DUF

In the early 1980s, NIJ undertook a comprehensive review of then current research on drug abuse and crime and observed a large discrepancy between arrestees' self-reported drug use and their drug test results (Toborg and Kirby, 1986). Overall, it was found that arrestees significantly underreported their drug use (Wish, 1987). This finding, along with the need to investigate the relation between drugs and crime, led NIJ to launch the DUF program. An outgrowth of similar but more limited studies conducted in Manhattan and Washington, DC, the DUF program has become well established and documented.

When DUF began in 1987, 12 original sites were selected for participation: Chicago, Illinois; Detroit, Michigan; Fort Lauderdale, Florida; Houston, Texas; Indianapolis, Indiana; Los Angeles, California; Manhattan, New York; New Orleans, Louisiana; Phoenix, Arizona; Portland, Oregon; San Diego, California; and Washington, D.C. By 1991, 12 additional urban sites were participating in the DUF program: Atlanta, Georgia; Birmingham, Alabama; Cleveland, Ohio; Dallas, Texas; Denver, Colorado; Kansas City, Missouri; Miami, Florida; Omaha, Nebraska; Philadelphia, Pennsylvania; St. Louis, Missouri; San Antonio, Texas; and San Jose, California. Data on adult male arrestees are

The Drug Use Forecasting Program: An Examination of Drug Trends Among Adult Booked Arrestees (1987-1995)

collected at all sites; data on female adult arrestees are gathered at all sites except Chicago, Miami, and Omaha.

All of the sites participating in DUF are major urban areas, and all but Fort Lauderdale have populations of 250,00 or more (see Appendix A for a list of current DUF sites, their catchment areas, and total DUF sample sizes). The inclusion of Fort Lauderdale and other relatively smaller sites (e.g., Birmingham and Omaha) has helped to provide information that is applicable to a broader range of the country's metropolitan areas.

The focus on cities located in the four regions of the country—Northeast, Midwest, South, and West—is one of the strengths of the DUF program. With trend data for a particular site, drug use patterns can be tracked for that specific location. With information from sites located in one of the four geographic regions, drug use patterns can be compared and changes in particular trends discovered. Finally, the combined information from all DUF sites provides insight into drug use trends among arrestees throughout the United States. As outlined in the following section, the multiyear data collected by DUF serve a number of important purposes.

The Multiple Purposes of DUF

The primary purpose of DUF has been to monitor illegal drug use among booked arrestees in major American cities. DUF data provide criminal justice agencies and policymakers at the 24 sites with information about current and past drug trends among arrestees. DUF data provide these officials with information about the effectiveness of their local drug policies and practices and provide a solid basis for resource allocation decisions. For example, data collected in several sites that focus especially on identifying drug treatment needs enabled program administrators to provide needed treatment alternatives (BJA, 1991). Further, when DUF findings in New Orleans indicated a serious PCP problem among young arrestees, the city responded by launching a drug prevention program (Foti, 1993).

² Juvenile data are collected at the following 12 DUF sites: Birmingham, Cleveland, Denver, Indianapolis, Los Angeles, Phoenix, Portland, St. Louis, San Antonio, San Diego, San Jose, and Washington, D.C.

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Researchers have used DUF to provide additional insight into the link between drugs and crime (e.g., Baumer, 1994; Valdez, Kaplan, Curtis, and Yin, 1995), the patterns and prevalence of drug use (e.g., Harrison, 1995; Mieczkowski, 1996), the reliability and validity of self-reported drug use (e.g., McElrath, Dunham, and Cromwell, 1995; Stephens and Feucht, 1993), and the characteristics of booked arrestees who are at risk for AIDS (Decker and Rosenfeld, 1992).

Current research efforts gather basic information regarding arrestees' substance abuse treatment history and their current need for treatment. Analyses of these data help treatment providers identify gaps in needed treatment services, modify treatment protocols, and anticipate and report changes in substance abuse patterns.

NIJ, in conjunction with the Office of National Drug Control Policy, supplemented the DUF to examine drug markets and drug procurement. The instrument is being used in six cities and focuses on recent users' participation in cocaine, crack and heroin markets, the structure of drug markets, and patterns of drug purchases and use. Another project examines the relationships between different measures of heroin and cocaine abuse, using DUF, DAWN-Emergency room, DAWN-Medical examiners, and police arrest data on drug trafficking and possession. It is expected that the combination of these data sets will help to forecast, explain, and respond effectively to the drug crisis in communities across the Nation. The DUF data are also used to monitor the crack epidemic and to estimate the relationship between price and demand for cocaine and heroin.

Even though DUF was not designed to be nationally representative of the arrestee population, its findings have been used to identify drug use patterns throughout the United States. For example, the 1995 annual DUF report identified a spread of methamphetamine drug use across the DUF sites located in the southwestern part of the country (NIJ, 1996). Initial findings from some Midwestern cities indicate that this problem may be spreading eastward. Information such as this helps jurisdictions to identify and be prepared for emerging drug trends.

DUF Today and Tomorrow

Today the DUF program provides valuable multiyear data on drug use among booked arrestees. Complementing the results from urine tests, the interviews conducted with DUF participants capture information about past and recent drug use, demographic characteristics, drug and alcohol treatment history, and AIDS risk behaviors. This two-staged methodology expands the usefulness of the DUF program to the criminal justice community and policy makers.

DUF is unique among national studies on drug use in several important respects. Previous studies had uncovered a high degree of underreporting of drug use in arrestee populations (Harrison, 1990). Urine testing is a more accurate measure of recent drug use than the self-report data. Also, by providing information on a quarterly basis, DUF data represent a unique opportunity to quickly identify recent trend changes. The only other database that provides information on drug problems of individuals handled by the criminal justice system, the Survey of State and Prison Inmates conducted by the Bureau of Justice Statistics, is conducted only every 4 years and captures a smaller sample of this high-volume drug use population.

Another advantage of DUF is its focus on booked arrestees, a population that is not included in other drug use databases such as the National Household Survey of Drug Use and Monitoring the Future. While the household and student surveys provide valuable estimates of drug use trends among the general population, they fail to provide information on the population involved with the criminal justice system where illicit drug use, especially the use of harder drugs such as cocaine and heroin, is more common.

Over the years, the DUF program has undergone some changes, extending its uses from building an information base for local criminal justice systems and for individual research projects to becoming a source for local, regional, and national drug trend indicators. In its development, the program has benefited from input by NIJ officials, DUF site directors, researchers, and the DUF program review panel. Their combined expertise and efforts have led to suggestions about how findings can be used more effectively by both national and local officials and how the DUF program can be refined.

It is also important to note that DUF data are not only accessible to those located at the program site but are published and disseminated nationally both quarterly and annually by NIJ. Recent changes have been made to shorten the time required to record and analyze quarterly site data and to make public use data sets available. As a result of these changes, decisionmakers will have more timely information about drug trends that enables them to better plan for and respond to changes.

Currently, plans are underway to expand the DUF program to a total of 75 sites. This proposed expansion will be known as the annual Arrestee Drug Abuse Monitoring (ADAM) Program. While the focus in selecting new sites will still be on urban areas, the geographic representativeness of the sites will be increased. Strong emphasis also will be placed on increasing the validity and usefulness of the samples selected within the sites. The program will, for example, include an outreach component for which sites will collect more detailed information on specific population subsamples defined by each site (e.g., suburban, rural, and African American) (Riley, 1997).

DUF METHODOLOGY AND SAMPLE SELECTION

The DUF data collection effort is based on a combination of obtaining urine samples and interviews from booked arrestees in the participating sites. Once every 3 months, for about 14 consecutive days, trained local staff at each site interview and obtain urine samples from individuals who have been arrested within the previous 48 hours and are held at a designated booking facility. DUF participants are tested and interviewed within 48 hours of arrest to maximize the probability that their urine contains adequate levels of detectable drug metabolites. Some sites have utilized an even more stringent requirement, requiring that an arrestee be tested within 24 hours or less after arrest (Chaiken and Chaiken, 1993). The arrestees participate voluntarily and remain anonymous.

Specific procedures have been developed for all the data collection tasks to ensure a high level of uniformity among the sites as well as rigorous quality control. The following sections provide a short overview of the DUF sample selection and data collection methodology.

DUF Sample Selection

The DUF sample is not a random sample. It was determined early on in the development of the DUF program that selecting random samples would not be feasible in the environment in which DUF would have to operate. Based on studies examining the appropriateness of different sample sizes, the size of the DUF sample for male arrestees was set at 200 (Chaiken and Chaiken, 1993). In most sites, 225 males are now interviewed each quarter. For female arrestees, the goal is to interview at least 100.

The DUF sampling strategy is site specific, and participants are not statistically representative of all arrestees. Because few female arrestees are available for interviews at most booking centers, DUF procedures permit that any female arrestee is interviewed, independent of her arrest charge. By contrast, in many sites, more than sufficient numbers of male arrestees are available, and interviewers must choose which arrestees to include in the sample. Guidance provided by NIJ to DUF sites outlines that the selection is to be done by the DUF project coordinator based on information from arrest or booking slips. Males arrested for vagrancy, loitering, and traffic violations are to be excluded from the DUF sample. Other arrestees should be selected by type of charge in the following priority order: (1) nondrug felony charges, (2) nondrug misdemeanor charges, (3) drug felony charges, (4) drug misdemeanor charges, and (5) warrants for any charge. It is also specified that only 20 percent of males arrested and charged with drug offenses should be interviewed (Chaiken and Chaiken, 1993).

On average, 90 percent of those recruited agree to participate in the DUF program, and 80 percent of these adults provided a urine sample. The total sample of booked arrestees included in the DUF program from 1987 through 1995 included 213,898 adults consisting of 156,159 males (73 percent) and 57,739 females (27 percent).

The DUF Interview

After participants are selected by the DUF project coordinator, trained staff obtain the urine sample and conduct the interviews. In several sites, Auto DUF, a computerized interviewing procedure, has been implemented. This laptop-based process is designed to detect response errors and inconsistencies, prepare reports, organize responses, and link the data obtained.

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The DUF interview collects information on the arrestees' drug use behavior (i.e., current and past drug use, past and present drug treatment, age at first drug use, level of drug use, perception of drug dependence, knowledge of new drugs on the street, and history of injecting drugs and sharing needles), arrest information (i.e., most serious charge and hours since their arrest), and demographic characteristics (i.e., date of birth, sex, race/ethnicity, marital status, employment, living situation, and academic achievement) (see Appendix B for a list of the national and site-specific variables collected).

The DUF interview guide has been revised twice; once between 1988 and 1989 and again in mid 1995. Both revisions were intended to increase the usefulness of the DUF data and provide for more uniformity in the data collection. The early changes (i.e., 1988–1989) to the DUF interview were designed to collect more specific information on employment, drug treatment, and frequency of drug use. The most recent revision to the DUF interview (conducted in mid 1995) added questions to indicate where the arrestee currently lives and the location of the arrest. This information helps to identify the DUF catchment area and to apply geographically defined law enforcement data for a more rigorous, comparative analysis. Also added was information on the arrest history and whether the arrestee was ever hospitalized for an episode related to drugs. This permits the estimation of recidivism, the level of harmfulness of the drug abuse, and the arrestees' need for support.

Finally, in the early 1990s, an ice and heroin addendum was added to the interview. The purpose of these additional questions was to gain a better understanding of the availability of these drugs, the typical method of use (e.g., snorting or injecting), how the drugs were packaged, and whether these drugs were consumed in combination with any other drug. These additional questions were included in the 1995 interview revision. Despite the various changes the DUF interview has undergone, the key variables in the data set remained the same over the entire data collection period, allowing for trend analysis for almost a full decade.

Urine Specimen and Urinalysis

Immediately following the interview, study subjects are asked to provide a urine specimen. Urine samples are submitted to a central testing laboratory to minimize any specimen test biases.³ Lab specimens are analyzed using the enzyme-multiplied immunoassay test (EMIT) for 10 drugs: cocaine, opiates, marijuana, PCP, methadone, benzodiazepines, methaqualone, propoxyphene, barbiturates, and amphetamines. The sensitivity of EMIT for detecting use of various drugs has been reported to be as high as 0.95 (Stephens and Feucht, 1993). Nevertheless, if a specimen tests positive for amphetamines, gas chromatography is performed to eliminate the possibility of a false positive.

THE LIMITATIONS OF THE DUF DATA SET

The DUF program has been criticized for collecting data from a sample that is not representative of the arrestee population and for providing information that has only limited value for national estimation of drug use and crime. These limitations exist because the DUF data collection and analysis methods, while carefully designed and tested, were originally developed to reflect the situation and needs of each individual site. As a result, the arrestee population actually included in the DUF program varies from site to site and is not necessarily representative of the arrestee population at that specific location and not representative of the arrestee population nationally. In addition to variations in sample selection, the size of the sample population varies considerably among different sites and within sites over time. Atlanta, for example, collected information on 1,134 arrestees in 1990, but only 745 in 1995. From 1991 to 1995 Phoenix included 5,067 arrestees, while Miami included only 4,402 during the same time period. Differences in these sample sizes become important when comparisons among sites are undertaken.

The following is a summary of the main limitations of the DUF data:

Only *booked* arrestees charged with certain offenses are included in the DUF sample;

³ For a period of time, Phoenix and Portland had drug testing done at a local lab (NLI, 1991).

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- Some booked arrestees at some sites are released quickly and not interviewed;
- In some sites, only arrestees from a specific booking facility are included;
- The catchment area from which arrestees are drawn can vary over time, depending on which booking facility participates in the program;
- Types of arrestees selected for DUF differ from site to site; and
- The validity of urine samples and interviews obtained in a booking or detention facility at a time when arrestees are generally at a very emotional stage.

Despite these limitations, the DUF program is a valuable source of information on arrestees' drug use for the individual participating sites and for national policy, programming, and research purposes. A recent study (Chaiken and Chaiken, 1993) analyzed DUF data in relation to UCR arrest data and showed the following:

- Contrary to the concerns of some, there are few discernible differences between those arrestees that did and did not participate in the DUF program;
- Except in a few sites, no changes in booking or sampling procedures occurred that were significant enough to prohibit within-site comparisons over time;
- For most sites, the unweighted DUF drug use statistics are reasonable estimates of drug use among all arrestees with serious offenses within the catchment area; and
- Using weighted DUF samples, the study showed that selected estimates in each site did not differ substantially from the unweighted estimates. However, in some cases, the overall trends in each site were different.

With regard to the national representativeness of the DUF data, Baumer (1994) concluded that the population and arrest characteristics of DUF cities closely resemble those of the 58 largest cities (i.e., cities with populations of 250,000 or greater), suggesting that the sites participating in DUF are at least representative of large U.S. cities.

Overall the studies undertaken and the experiences of the DUF sites show that, if the sites adhere to the data collection protocols established, the DUF data provide reasonably reliable estimates of drug use trends among arrestees, especially when the data are analyzed in connection with other available data sources (i.e., jurisdiction-specific UCR and census data) and, when appropriate, weights for sampling changes.

DUF RESULTS FOR ADULT ARRESTEES, 1987-1995

Given the limitations of the DUF data, analyses were conducted to examine trends in drug use among booked arrestees. The analyses are based on aggregates from all sites for the years 1987 through 1995. The information used includes only the results from the urine tests in combination with basic demographic information for the arrestees. Findings for male and female arrestees are presented separately. Data for juvenile arrestees were excluded from this analysis.

The following sections present (1) an overview of the characteristics of the 1987-1995 DUF sample, (2) national aggregates of the 1987-1995 data set, and (3) a comparison of site-specific aggregates.

Characteristics of the 1987-1995 DUF Sample

Between 1987 and 1995, DUF collected data on a total of 213,898 arrestees, 27 percent of whom were female (see Appendix A). The majority of the DUF arrestees were black (56.1 percent male; 51.8 percent female); white male arrestees accounted for 24.5 percent of the male sample and white female arrestees for 33.7 percent of the female sample. Eighteen percent of the male and 12.9 percent of the female DUF samples were Hispanic (Table 1).

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Table 1
1987-95 DUF Sample by Race/Ethnicity

Race/Ethnicity	Male	Female
Black	56.1	51.8
White	24.5	33.7
Hispanic	18.0	12.9
Other	1.5	1.5

On average, the female DUF sample was older than the male sample. The percentage of males under 21 was considerably higher (17.8) than that of females in this age group (10.9). The percentages of each age group included in the total DUF sample are presented in Table 2.

Table 2.
1987-95 DUF Sample by Age

Age	Male	Female
Under 21	17.8	10.9
21 to 25	22.4	23.0
26 to 30	19.9	24.3
31 to 35	17.0	20.1
36 to 40	11.1	11.8
41 to 45	6.0	5.7
46 and over	5.8	4.1

The majority of the male (55.4 percent) and female (58.4 percent) DUF arrestees had a high school degree or GED. Nevertheless, the percentage of DUF arrestees who had neither a high school degree nor a GED represents a large group (41.4 for males and 40.2 for females).

As shown in Table 3, the percentage of adult male arrestees receiving income from employment is considerably higher than the percentage of adult female arrestees. Nearly 4 out of 10 adult male arrestees included in the DUF sample were employed full time (39.6 percent), compared with 2 out of 10 among adult female arrestees. Illicit income (e.g., dealing and prostitution) was reported by 3 percent of the male arrestees and by 10.4 percent of the female arrestees.

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**Tabla 3.
1987-95 DUF Sample by Source of Income**

Source of Income	Male	Female
Full-time employment	39.6	21.9
Part-time employment	14.4	8.9
Other legal employment	4.2	4.7
Welfare	8.1	25.7
No income	14.4	14.7
Prostitution	0.3	8.2
Dealing	2.7	2.2
Other	13.5	11.2

National Aggregates of the 1987-1995 DUF Data

To provide a general overview of drug use trends among adult booked arrestees, the data from all participating sites for all years were aggregated and analyzed. The following sections present summary statistics for adult male and female arrestees (1) testing positive for drugs, (2) testing positive by race/ethnicity, (3) testing positive by type of drug, and (4) testing positive by level of academic achievement. Median percents (and site ranges) are reported for each indicator.

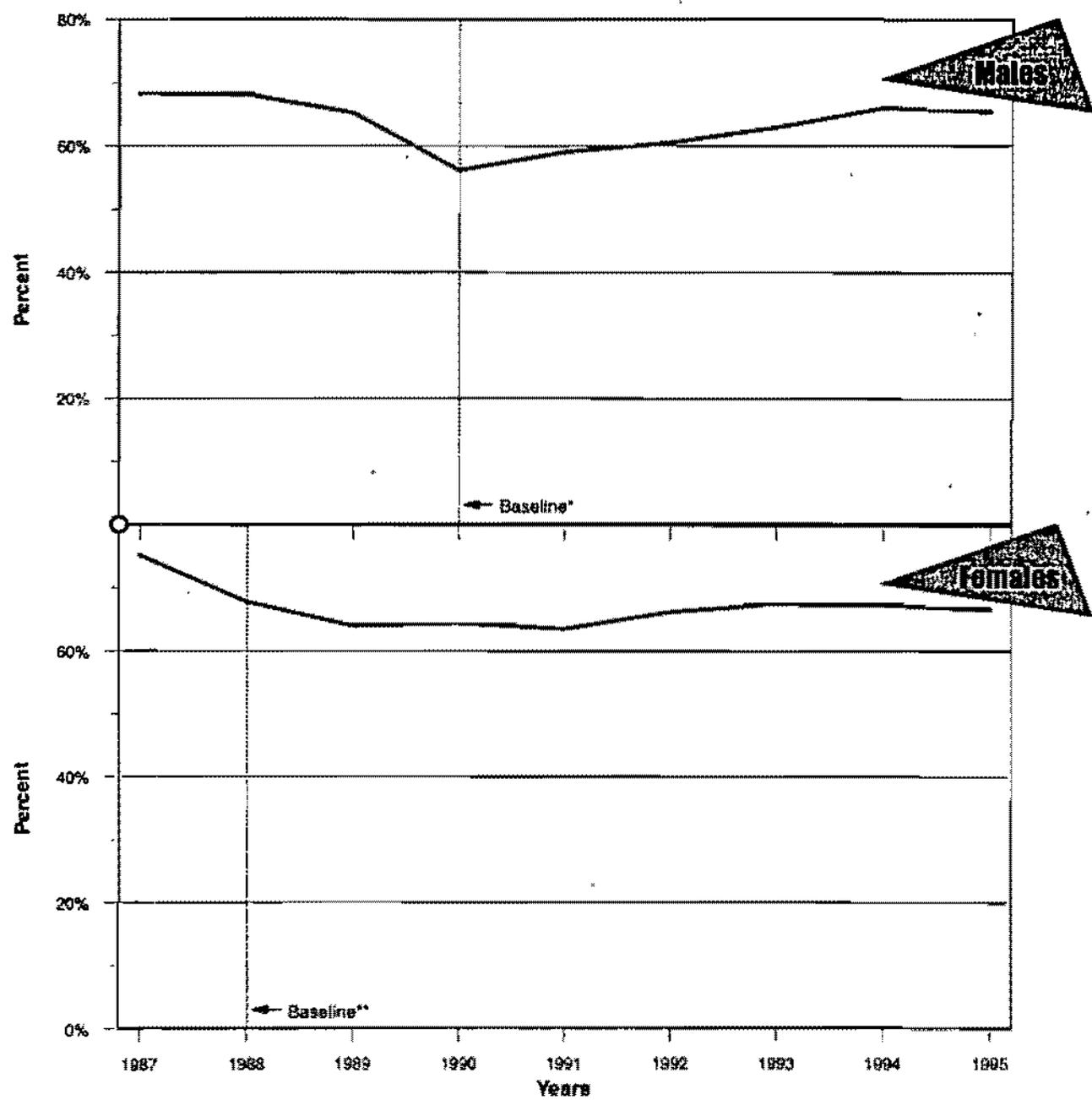
DUF Arrestees Testing Positive for Drug Use

Overall, the DUF data show that between one-half and two-thirds of the adult male and female arrestees tested positive for drugs from 1987 through 1995. For analyzing data for male arrestees, 1990 was selected as the baseline year for comparison because the above described priority charge system for selecting DUF arrestees was not fully implemented at all sites before 1990. Using 1990 as the baseline year, the median percentage of male arrestees testing positive for drugs increased from 56 in 1990 (San Antonio, 52; San Diego, 82) to 68 in 1994 (San Antonio, 52; New York, 82). The median percentage of adult male arrestees that tested positive for drugs was 65 in 1995 (San Antonio, 51; New York, 84) Exhibit 1.

The aggregate data also show that the largest increase in the percentage of male arrestees testing positive for drug use was among the age group under 21. In 1990, 45 percent of this age group tested

Exhibit 1

Percent of Arrestees Who Tested Positive for Drugs by Gender: 1987-1995



* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were

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positive and by 1995 that number had increased to 64 percent. However, the groups that typically tested the highest for drug use in any given year were adult males ages 31 to 35 and 36 to 40 (see Exhibit 2).

As explained above, the priority charge system for selecting DUF participants does not apply to female arrestees. Accordingly, DUF data for all years available can be compared. However, since the number of female arrestees included in the DUF sample in 1987 was very small, 1988 is selected as the baseline year for comparison.

The analysis shows that in 1988, 68 percent of all female adult arrestees tested positive for drugs (Indianapolis, 52 percent; Detroit, 81 percent). This median percentage declined to a low of 63 in 1991 but rose to 67 in 1993 and remained at this level through 1995 (San Antonio, 42; New York, 85).
Exhibit 1.

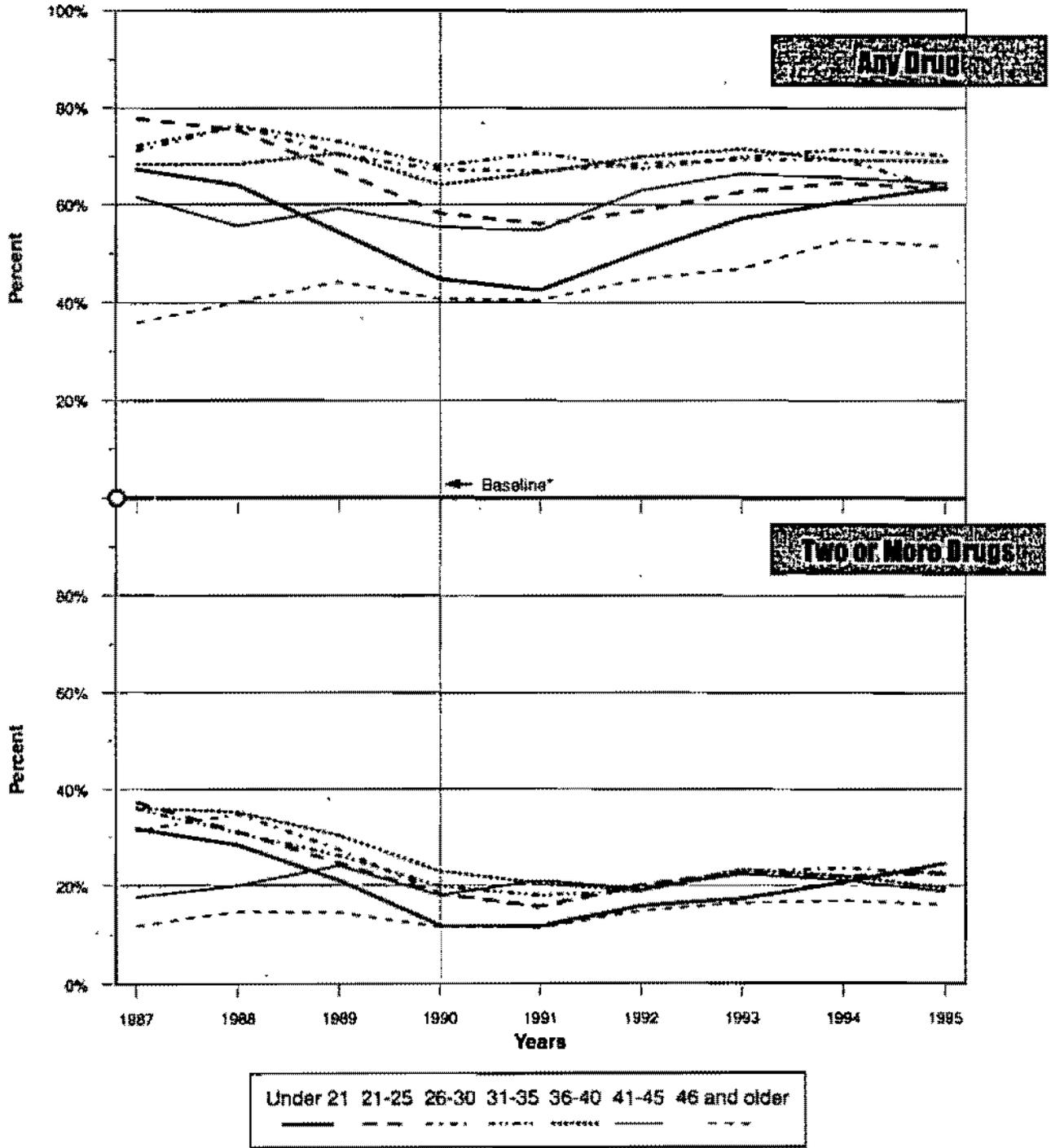
Different from their male counterparts, adult female arrestees under 21 and those between ages 21 and 25 reported a decrease in the percentage testing positive for drug use (20 and 17 percentage points, respectively). Female arrestees ages 26 to 30 also showed a decline in the percentage testing positive (from 82 in 1988 to 68 in 1995) (Exhibit 3).

If the same baseline year (1990) used for male arrestees is applied to interpreting data for female arrestees, the trend differences between the two genders become less dramatic. Similar to male arrestees, female arrestees of all age groups, except those under 21, show increasing drug use between 1991 and 1994 and a decline in 1995. The main difference between the genders remains, however, among those under 21 where drug use among young males increased while it decreased among young female arrestees (Exhibit 3).

The data also show that between 10 and 30 percent of the adult males and females who tested positive were using two or more drugs. Trend changes in multiple drug use generally followed the trends outlined for any drug use (Exhibits 2 and 3).

Exhibit 2

Percent of Male Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Age Group: 1987-1995

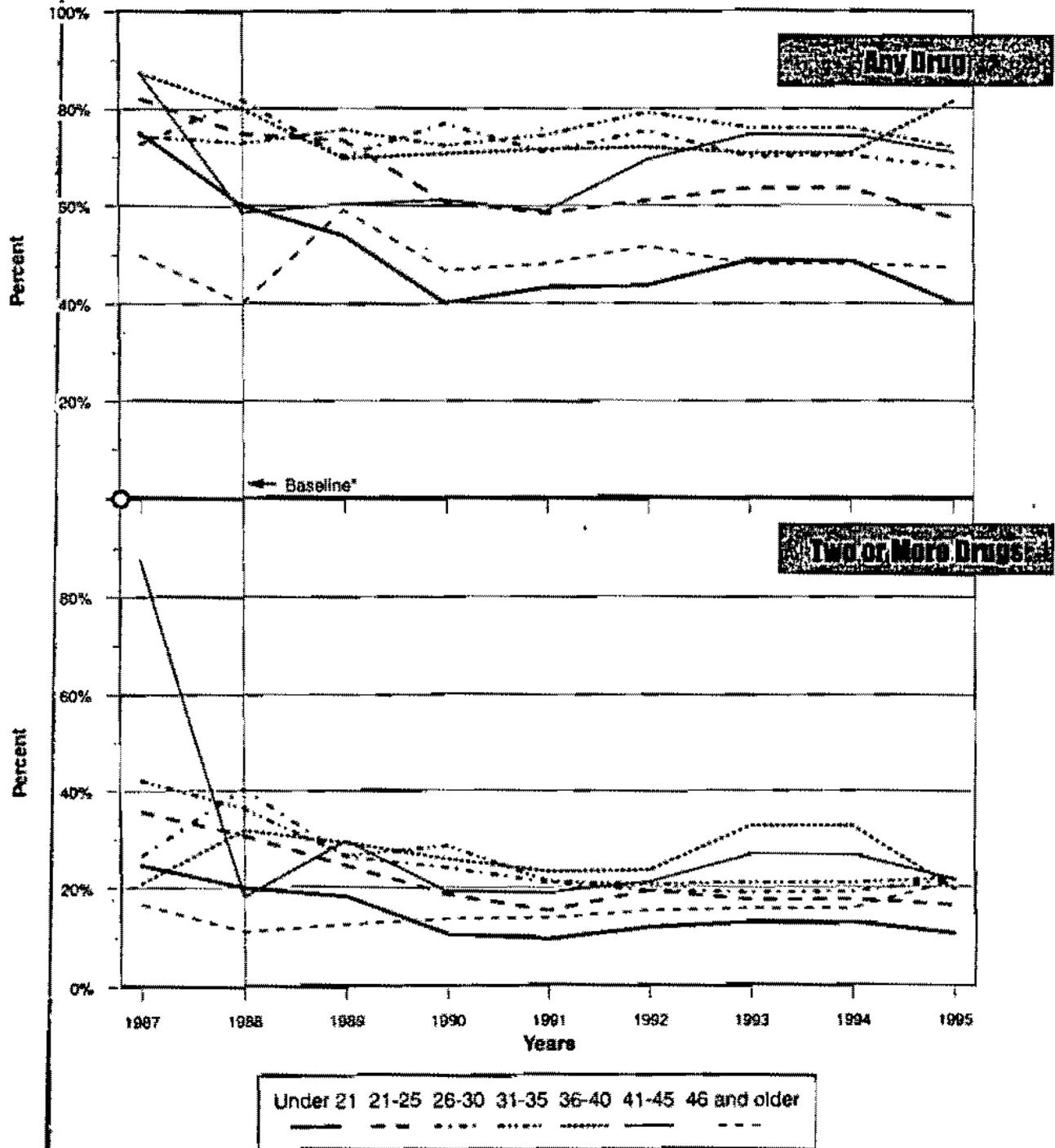


* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were aggregated.

Exhibit 3

Percent of Female Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Age Group: 1987-1995



* A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were aggregated.

Arrestee Drug Use by Race/Ethnicity

Between 1990 and 1995, generally increasing drug use was reported for male arrestees of all races (Exhibit 4). Only adult black males who tested positive for drug use showed a decline in 1995 (71 percent in 1994 to 69 percent in 1995).

DUF data also indicate a decreasing trend in the median percentage of both black and Hispanic female arrestees who tested positive for drug use from 1988 through 1995 (Exhibit 5). The median percentage of black female arrestees testing positive declined from 76 to 67. The median percentage of Hispanic female arrestees testing positive declined from 59 to 52. The median percentage of white adult females who tested positive for drugs also decreased between 1988 and 1995 (from 75 to 63).

Arrestees Testing Positive by Type of Drug

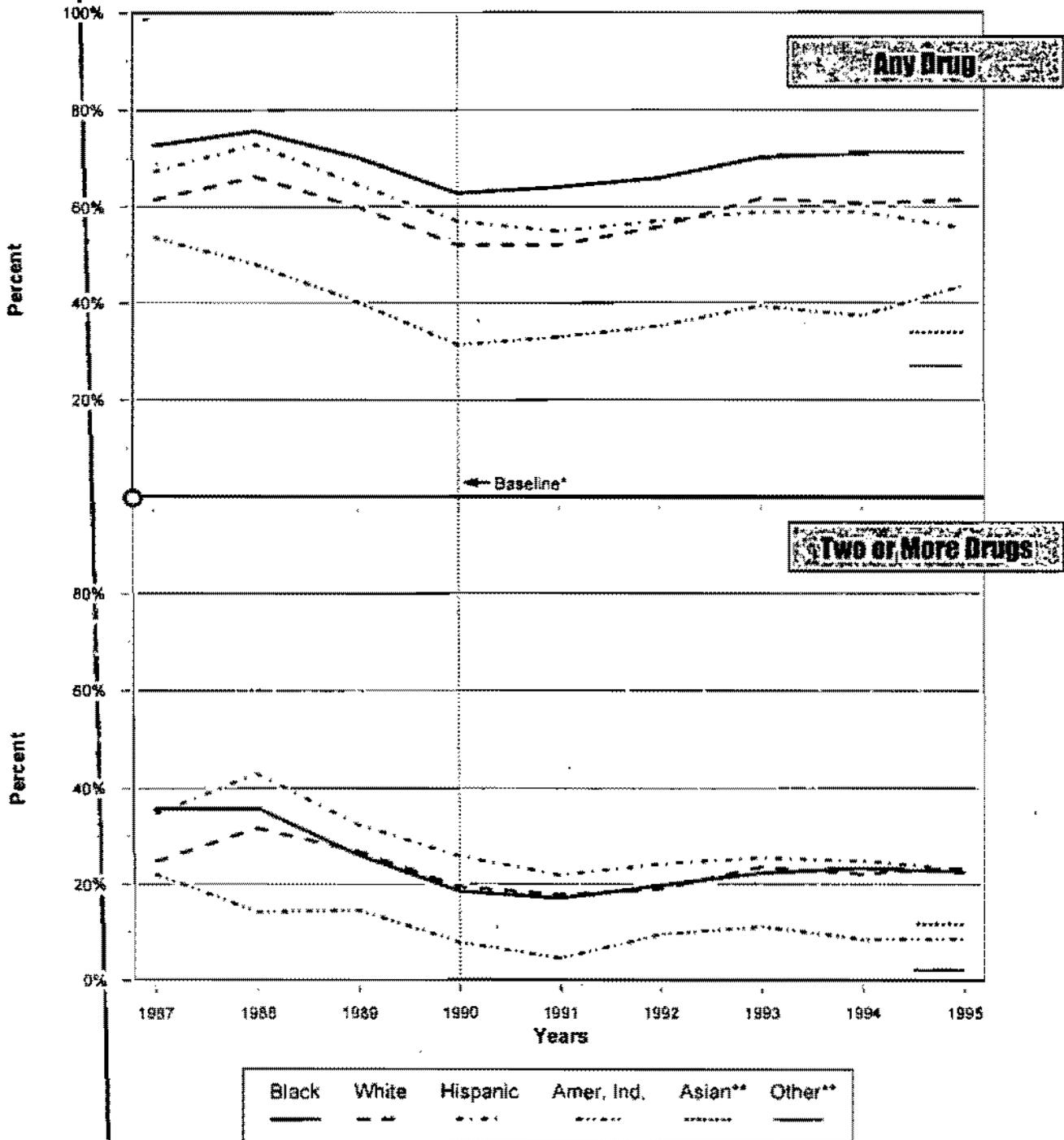
Among all adult male arrestees included in the DUF sample, cocaine was the most frequently detected drug. From 1990 to 1991, the percentage of male arrestees testing positive for cocaine increased from 41 to 44 but decreased to 39 in 1995. At the same time, the drug with the greatest percentage increase detected among male arrestees was marijuana. In 1990, 21 percent of the male arrestees tested positive for marijuana. By 1995 this had increased to 33 percent. The percentage of male arrestees who tested positive for opiates at arrest decreased slightly (1 percent) between 1990 and 1995. On the other hand, the percentage of male arrestees who had used methamphetamines before the arrest increased from 2 to 6 between 1991 and 1994. In 1995 their methamphetamine use decreased slightly by 1 percent (Exhibit 6).

The most frequent positive drug test for adult female arrestees, as with their male counterparts, was for cocaine. The percentage of females testing positive for cocaine decreased from 52 in 1988 to 47 in 1990. This number increased to 52 percent in 1992 but declined again to 45 percent in 1995 (Exhibit 6).

Trend analyses for adult female booked arrestees indicated that, unlike male arrestees, the percentage testing positive for marijuana use decreased 14 percentage points from 1988 through 1991

Exhibit 4

Percent of Male Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Race/Ethnicity: 1987-1995

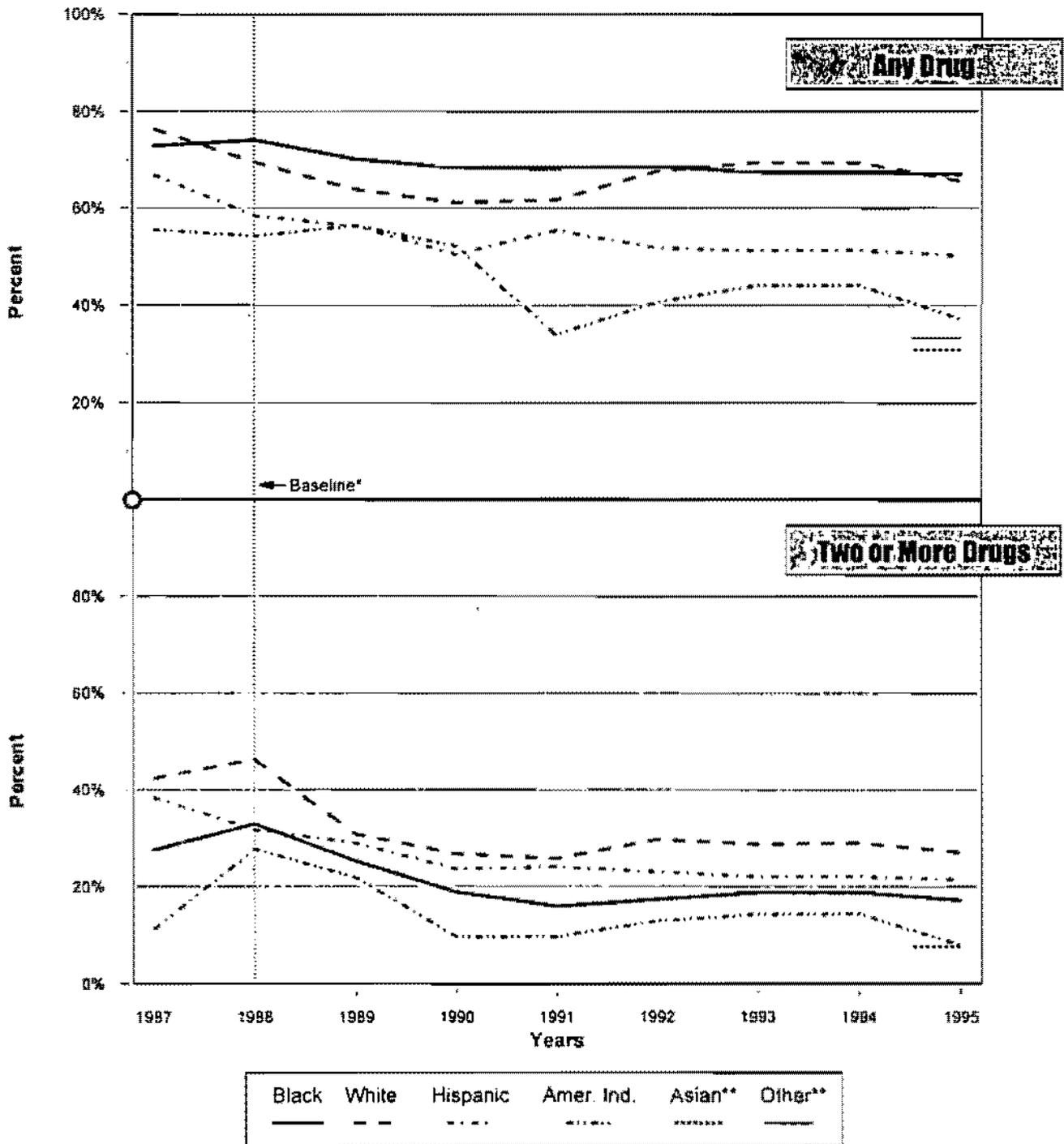


* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** In these trend analyses, data across all DUF sites were aggregated. Aggregated data are not available for the race/ethnicity groups "Asian" and "Other" prior to 1995.

Exhibit 5

Percent of Female Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Race/Ethnicity: 1987-1995

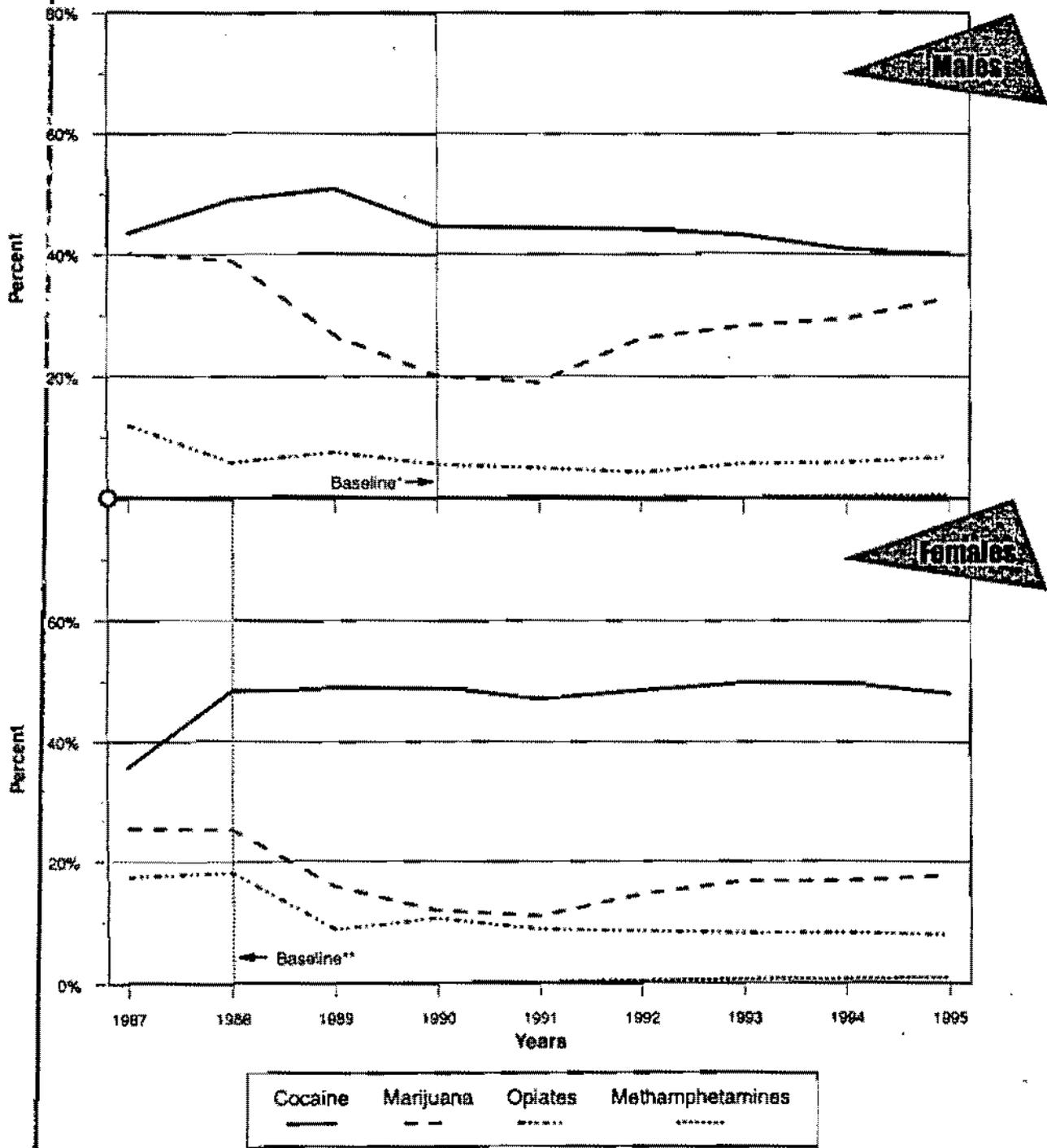


* A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

** In these trend analyses, data across all DUF sites were aggregated. Aggregated data are not available for the race/ethnicity groups "Asian" and "Other" prior to 1995.

Exhibit 6

Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates, and Methamphetamines by Gender: 1987-1995



* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were aggregated.

(from 25 to 11, respectively). Between 1993 and 1995, it increased to 18 percent. The percentage of female arrestees who tested positive for opiates decreased 10 percentage points between 1988 and 1995 (from 18 to 8, respectively), a much smaller decrease than that for male arrestees. The median percentage of positive tests for methamphetamines rose to 1 percent among female arrestees in 1995 and less than 1 percent for male arrestees (Exhibit 6).

Drug Use Among Arrestees by Charge

Not surprisingly, the DUF data indicate that adult male and female arrestees charged with a drug offense showed the highest percentage testing positive for drugs across all years. The median percentage of adult male arrestees with drug charges testing positive rose from 76 in 1990 to 83 in 1995 (Exhibit 7). The percentage of female arrestees charged with a drug offense showed a gradual decrease in positive drug tests from 78 in 1988 to 71 in 1991, followed by an increase starting in 1992 that rose to 81 percent in 1995 (Exhibit 8).

The second highest percentage of positive drug tests for adult males reported between 1990 and 1995 was among those charged with a property offense (ranging from 60 in 1990 to 64 in 1995) (Exhibit 7). From 1988 through 1995, female arrestees who had a miscellaneous charge showed the second highest percentage testing positive for drugs.

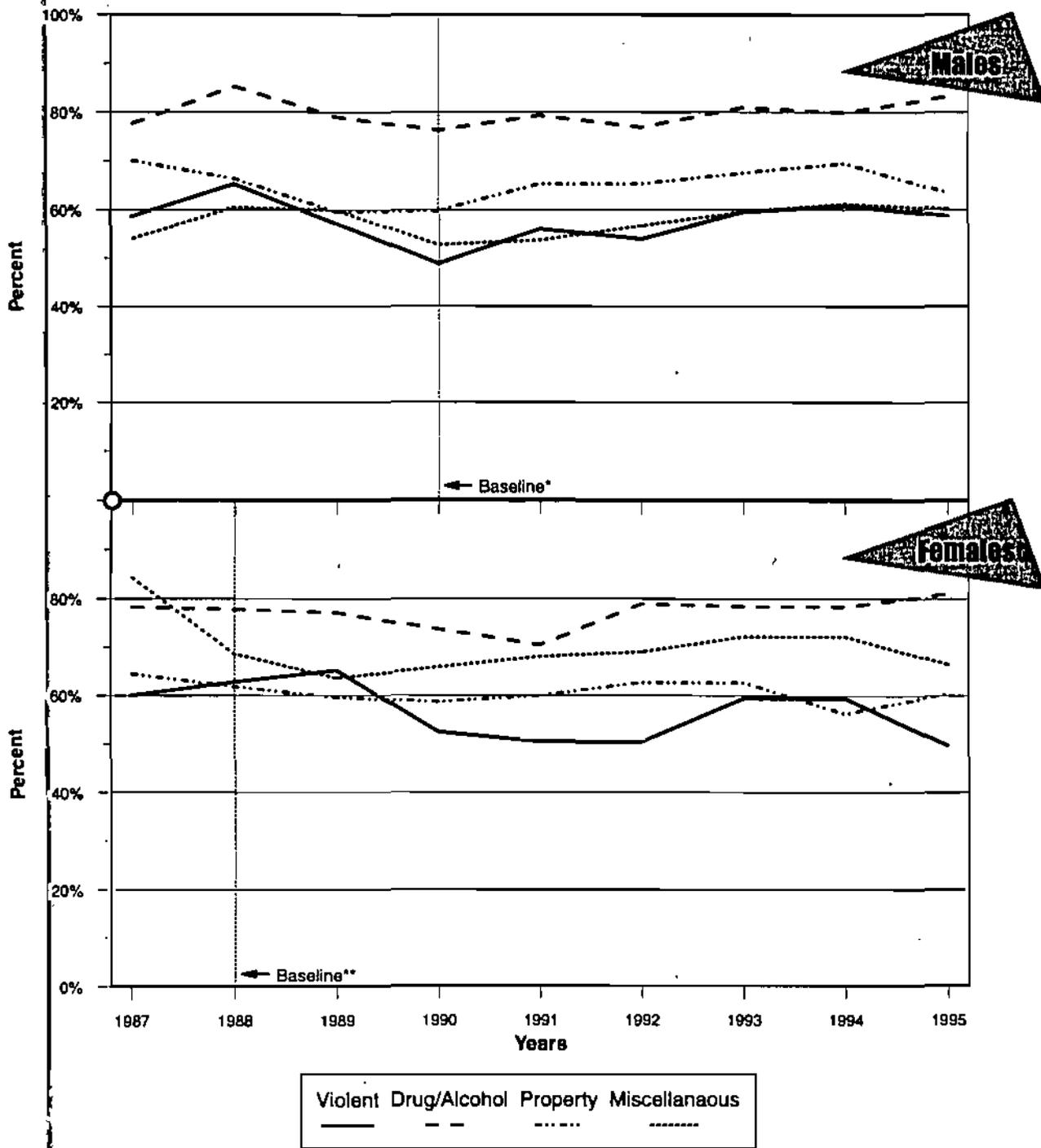
From 1990 through 1995, there was a slight decrease in the percentage of female arrestees who tested positive for drugs for three of the four charge types (i.e., violent, property, and miscellaneous) and for two of the charge types (violence and misdemeanor) for males (Exhibit 7).

Drug Use Among Arrestees and Academic Achievement

Aggregate site analyses indicate that adult male arrestees who earned their GED had the highest percentage testing positive for drugs compared to other education groups in the DUF sample (i.e., those who had earned their high school diploma, those in a GED program, and those who were high school dropouts).

Exhibit 7

Percent of Arrestees Who Tested Positive for Drugs by Type of Charge: 1987-95



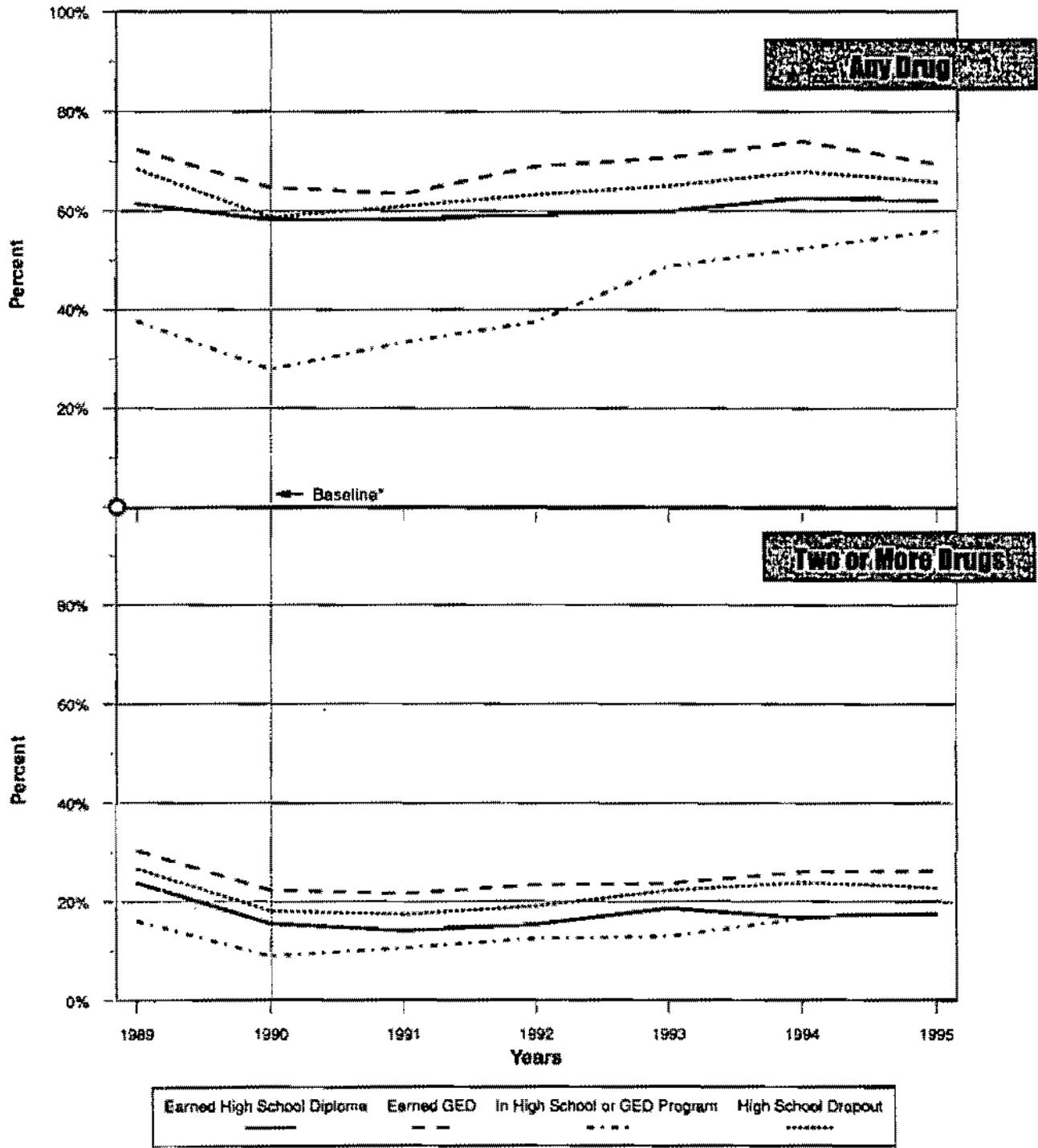
* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were aggregated.

Exhibit 8

Percent of Male Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Academic Achievement: 1989-1995



* The vertical line indicates when the priority charge system for selecting the DUF sample was fully implemented. Prior to this time, DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

NOTE: In these trend analyses, data across all DUF sites were

Trend analyses further show that while male arrestees who were in a high school or GED program at the time of their arrest showed the largest increase in positive drug tests (28 percent positive in 1990 and 56 percent in 1995), they always represented the lowest percentage testing positive for drug use. Because this group represents only a small portion of the entire sample, the simple aggregates presented here should be interpreted with caution. The median percentage of adult males who had either earned their GED or who were high school dropouts and tested positive for drug use gradually increased to 1994. By 1995, the median percentage of both groups testing positive for drug use decreased. Finally, in comparison with males having other levels of academic achievement, those who had earned their GED always included larger proportions testing positive for drug use (ranging from 65 percent in 1990 to 74 percent in 1994) (Exhibit 8).

In general, there was only a slight decrease in testing positive for drug use among females who had a high school degree or a GED or who had dropped out of school between 1989 and 1995 (Exhibit 9). Adult female arrestees who were enrolled in high school or a GED program at the time of arrest had the lowest percent testing positive for drug use.⁴

Comparison of 1987–1995 DUF Data Trends in Different Sites

As already outlined, the comparability of DUF data across sites is limited as a result of site-specific differences in the arrestee population selected. Site-specific DUF data provide an overview of drug use trends of arrestee population in specific locations and also paint a picture of how different the drug problem presents itself in various jurisdictions. Exhibits 10 through 33 in Appendix E present the aggregated data for each DUF site in alphabetical order. Using this information, the following sections summarize the differences and commonalities among all DUF sites.

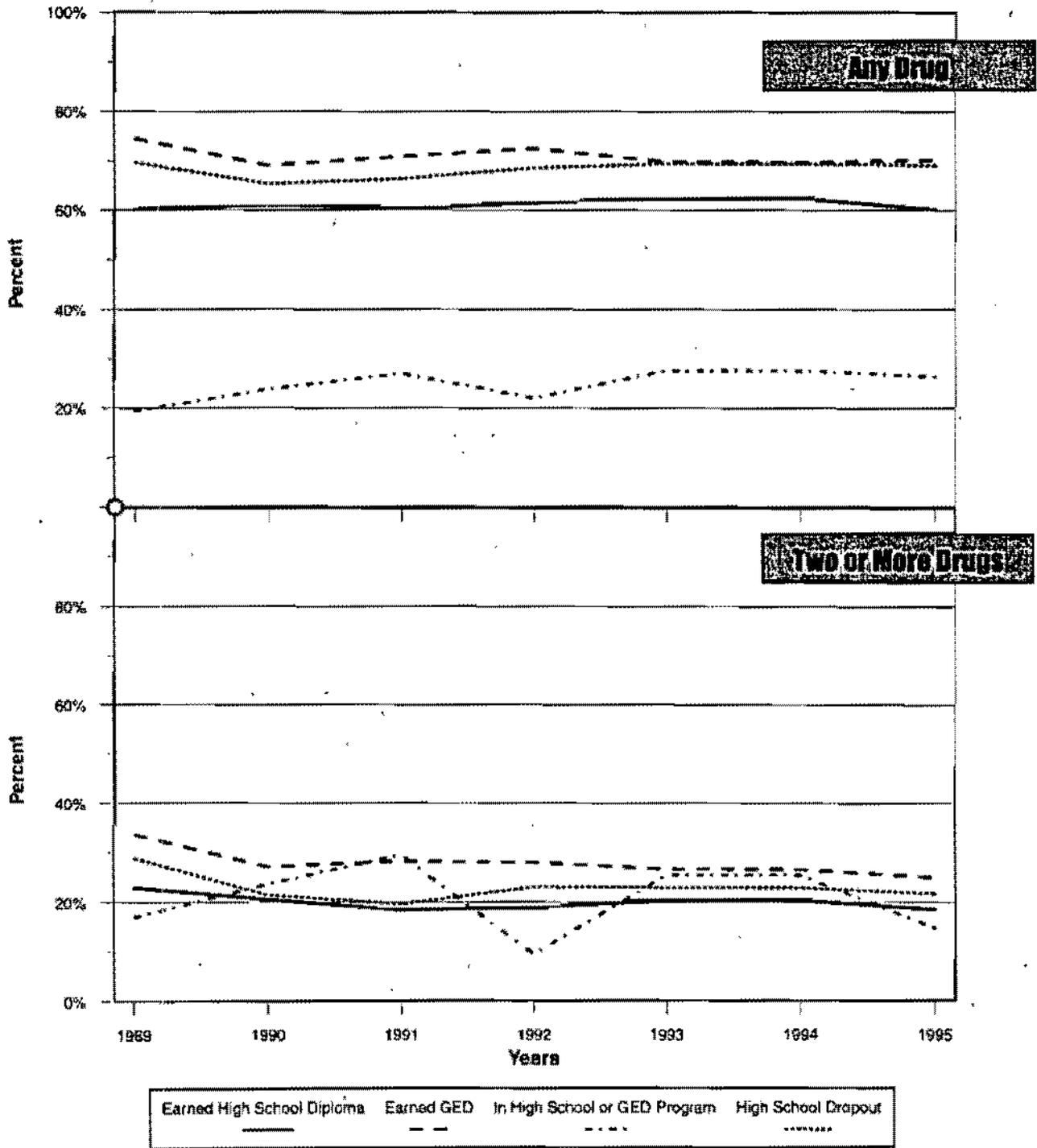
Differences Between DUF Sites

In comparing drug use trends among sites, the percentage of drug users varies considerably. In some locations (i.e., Omaha and Kansas City), the percentage of drug users among male arrestees never

⁴ Considering the low number in this group, the results should be viewed with caution. There may also be other factors that influence this outcome (e.g., age).

Exhibit 9

Percent of Female Adults Who Tested Positive for Drugs and Who Tested Positive for Two or More Drugs by Academic Achievement: 1989-1995



NOTE: In these trend analyses, data across all DUF sites were aggregated.

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reaches more than 60. In others (i.e., Chicago, New York, Philadelphia, and San Diego), the median percentage exceeds 70, never dropping below 67 (Appendix D).

Additionally, the direction of drug use trends in individual sites over time varies considerably. Using 1990 as the baseline year, some locations (e.g., Denver) show a steady increase in the percentage of drug abusing arrestees. In other places (e.g., Houston and Miami), an almost steady decline in the percentage of male drug users is observed. On the other hand, in locations such as San Antonio, drug use among the male DUF population remained relatively stable, while other cities (e.g., Indianapolis and Omaha) experienced dramatic increases in positive drug tests among male arrestees (Appendix D).

Furthermore, the percentage of specific types of drugs used in DUF sites varies considerably overall and over time. For example, cocaine is the predominant drug male arrestees test positive for in most sites. Opiate use is relatively high (i.e., at least 15 percent and above among the male and female populations in almost all years) in seven sites (e.g., Chicago, Los Angeles, Manhattan, Portland, San Antonio, San Diego, and Washington, D.C.). In most other sites the percentage of opiate users lies between 3 and 6.

Of special interest recently has been the regional development and assumed spread of methamphetamine use among DUF arrestees. West coast sites reported increasing percentages of methamphetamine users. In this regard, the most extreme development has been observed in San Diego where methamphetamine has become the number one drug that male and female arrestees tested positive for in 1993 and 1994. The percentage of female methamphetamine users in San Diego reached 50 in 1993 and 1994. In 1995 this number declined but was still 40 percent. At the same time, even East Coast sites that traditionally report high rates of drug abuse among arrestees (i.e., Manhattan and Washington, D.C.) do not report any or only marginal methamphetamine use among DUF arrestees.

These results support the assumption that drug trends are regional. A closer look at the distribution of positive drug tests for specific drugs in those locations where methamphetamine constitutes a significant percentage among arrestees (e.g., Los Angeles, Phoenix, Portland, San Diego, and San Jose) seems to indicate that the increase in methamphetamine use did not significantly increase

the total percentage of arrestees testing positive. Rather, a shift from using other drugs such as cocaine and opiates to methamphetamines seems to have occurred.

Commonalties Among DUF Sites

One trend that is universal among all sites across all years is that male arrestees often show considerably higher percentages of positive drug tests for marijuana than their female counterparts. Female arrestees, on the other hand, have higher percentages of cocaine use than males. Exceptions are Birmingham, Houston, New Orleans, and San Jose, and for a few years only Dallas, Philadelphia, Phoenix, San Diego, and St. Louis, where a higher percentage of males than females tested positive for cocaine.

Another similarity across all sites is that there is a higher percentage of female arrestees than male arrestees. In all but 7 of the 22 sites that test female arrestees, the percentage of positive drug tests was higher for female arrestees than for males (Appendix D).

A striking observation for all sites is the predominant and high use of cocaine among male and female arrestees (Appendix E). With very few exceptions (i.e., Omaha, Phoenix, San Antonio, San Diego, and San Jose—sites that report relatively high methamphetamine use), DUF sites reported almost every year at least 40 percent of male and female arrestees testing positive for cocaine. This indicates that cocaine abuse is the number one drug problem presented by arrestees.

SUMMARY AND CONCLUSIONS

As a program, DUF offers several advantages to researchers and decisionmakers on a national level. First, because DUF is the only source of individual drug testing data collected over time for multiple locations, it provides objective measures of individual drug use. Second, DUF gathers data on a subpopulation of drug users that is difficult to reach. This is especially important when one considers that this group is responsible for a significant portion of the costs related to drug abuse and the need to develop responses that are effective in dealing with this population. Third, the DUF data collection represents an existing research “infrastructure” (i.e., the DUF sites and their staff, the NIJ project staff,

and the DUF review board) that has the potential to reduce the cost of other criminal justice research projects and to shorten the time lag between data collection, analyses, and reporting to national and local audiences.

The usefulness of DUF to State and local decisionmakers has been demonstrated by the fact that a number of States have duplicated DUF collection efforts in other sites with State funds to increase their information base (NIJ, 1993).

Other studies have shown that a careful analysis of DUF data in connection with other databases provides a useful tool for estimating drug use trends among the arrestee population in specific locations, regions, and throughout the United States. It is important to note that aggregated DUF data show a trend similar to that of the drug-related emergency room episodes reported by DAWN. Both data sets show a drop in drug use from 1988 to 1990 but a steady increase since then (SAMHSA, 1995).

Despite the differences and limited comparability of DUF data on a national level, there are a number of conclusions one can draw from assessing the individual site results: (1) drug use among male and female arrestees, especially use of hard drugs, remained high throughout the past decade; (2) cocaine use among female arrestees remains high, in many cases higher than among male arrestees; and (3) in those locations where significant methamphetamine use among arrestees was reported, the data indicate that different types of hard drugs may be interchangeable.

If DUF data can be combined with other data sources (e.g., demographic and arrestee data from the individual catchment areas), better estimates for drug use trends in a specific location can be developed. If these data are combined with more detailed information on the sample selection at each site, the DUF data should provide a reliable, solid basis for local, regional, and even national trend analysis. The results from the urine tests alone provide an objective measure for drug use and crime trends. The additional information gained from the interviews provide valuable information about trafficking and use patterns and arrestees' background and treatment needs.

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Today DUF presents a valuable, still largely untapped data source. Further research could, for example, be performed on those sites that collect data on the county and city level (e.g., Phoenix and Maricopa County). Differential analyses of those adults booked in the central city and those adults booked in the neighboring county may support, for example, urban and suburban comparisons in drug trends over time and assist in resource allocation decisions.

More research could be conducted on a regional basis. As was done in the July-September 1989 DUF report (NIJ, 1990), sites can be divided into Northeast, Midwest, South, and West regions. Further, updated analyses of these groupings may shed some insight to regional drug use trends among the arrestee population. Such geographic concentration of data may help to explain changes over time in usage patterns of different drugs and how they move from one part of the country to another.

For the two sites that have a catchment area that covers only part of their respective cities (i.e., Los Angeles and New York/Manhattan), it may be useful to examine more closely how similar or different these DUF catchment areas are from other sites and from the rest of the city. In conducting such a study, researchers could utilize existing crime (e.g., UCR data) and poverty (e.g., Census data) indicators. Researchers (e.g., Baumer, 1994; Chaiken and Chaiken, 1993) have demonstrated the feasibility and benefits of this method.

As the DUF program continues to more clearly specify the specific selection criteria and the type and number of booking facilities reporting and to further define the DUF catchment areas, it will increase its value as a national and local analytical tool. DUF already serves as an important resource to many criminal justice and drug research programs. The planned expansion of DUF into ADAM will help launch new programs that can chart the progress of new and existing policies that address the Nation's drug problems.

**The Drug Use Forecasting Program: An Examination of Drug Trends Among
Adult Booked Arrestees (1987-1995)**

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APPENDIXES

APPENDIX A

CURRENT DUF SITES, CATCHMENT AREAS, AND TOTAL SAMPLE SIZES

Appendix A

Current DUF Sites, Catchment Areas, and Total Sample Size (1987-1995)

DUF Site	Catchment Area	Male	Female	Total
Atlanta	Entire city	4,775	2,221	6,996
Birmingham	Entire city and part of county	5,526	2,293	7,819
Chicago	Entire city	6,950	105 ¹	7,055
Cleveland	Entire city	5,731	1,846	7,577
Dallas	Entire county	7,655	3,210	10,865
Denver	Entire city	5,614	2,416	8,030
Detroit	Entire city	5,692	1,571	7,263
Ft. Lauderdale	Entire county	6,152	2,629	8,781
Houston	Entire city	7,106	2,867	9,973
Indianapolis	Entire county	6,307	2,435	8,742
Kansas City	Entire city	3,682	1,590	5,272
Los Angeles	Part of city and part of county	9,170	4,493	13,663
New York/Manhattan	Entire borough of Manhattan	7,804	2,846	10,650
Miami	Entire county	4,402	—	4,402
New Orleans	Entire parish	8,030	2,943	10,973
Omaha	Entire city	5,075	352	5,427
Philadelphia	Entire city	8,254	3,239	11,493
Phoenix	Entire county	8,016	4,253	12,269
Portland	Entire county	7,463	3,048	10,511
St. Louis	Entire city	6,595	2,590	9,185
San Antonio	Entire county	6,028	2,718	8,746
San Diego	Entire city and part of county	7,472	2,872	10,344
San Jose	Entire county	6,285	2,727	9,012
Washington, DC	Entire city	6,375	2,475	8,850
Totals		156,159	57,739	213,898

¹ The sites of Chicago, Miami, and Omaha either collected adult female data for a limited time (i.e., a year or less) or not at all (i.e., Miami). Therefore, these sites are considered non-adult female DUF locations.

APPENDIX B

OVERVIEW OF NATIONAL DUF AND SITE-SPECIFIC VARIABLES

Appendix B

Overview of National DUF Variables for Adults¹

Background Characteristics of Interviewer and Information About the Interview

- Initials of interviewer, their date of birth, their race/ethnicity, their marital status
- Date of interview
- Language the interview was conducted in
- DUF site

Background Characteristics of Adult Booked Arrestee

- Age, sex, race/ethnicity, and marital status
- Academic achievement, employment, and income
- Location of residence and living situation at residence

Charge and Arrest Information

- Most serious charge, type of charge, hours from arrest
- Charged with a warrant or on probation
- Precinct of arrest and location of arrest (zip code)
- Previous arrest history (e.g., the number of times booked in the past 12 months)

Drug Information

- Present and past drug use (self-report)
- Age first tried drug(s)²
- Drug use in the past 30 days? Use in the past 3 days?
- Number of days using drugs in the last 30 days
- Knowledge of any new drugs?
- Drug Treatment History (self-report)
- Dependent in last 12 months?
- Now receiving or in the past have you received drug treatment? For which drugs?
- Do you need drug treatment now? Which drugs?
- Drug Injection (self-report)
- Do you inject drugs? Which ones? Last time injected?
- Drugs and the accused crime
- At the time of arrest did you need drugs?
- At the time of arrest were you under the influence of drugs?
- Drugs and ER incidents (self-report)
- Ever in the ER for a drug incident? In the past 12 months?
- Drug test results: Name and number of drugs in their system (EMIT results)

¹ This overview presents variables from the current DUF interview that was revised in the middle of 1995.

² Drug questions focused on the following 15 drugs: alcohol, tobacco, marijuana, crack, powder cocaine, opiates (heroin, black tar, dilaudid, morphine), PCP/angel dust, amphetamines/speed, downers/barbiturates, quaaludes/ludes, street methadone, crystal meth., valium or other tranquilizers, LSD/acid, and inhalants.

APPENDIX D

**PERCENT OF MALE ADULT ARRESTEES TESTING
POSITIVE FOR DRUGS BY SITE AND YEAR**

Appendix D
Median Percent of Adult Arrestees Testing Positive
for Drugs by Site and Year

Male										
DUF Site	1987	1988	1989	1990	1991	1992	1993	1994	1995	Median
Atlanta				62.1	63.0	69.0	72.5	69.4	74.1	68.6
Birmingham		72.2	64.2	63.5	63.2	64.0	67.7	69.2	68.2	66.1
Chicago	72.8	79.8	73.9	73.3	74.2	69.0	80.8	78.9	79.4	76.2
Cleveland		68.4	66.3	54.8	55.9	64.1	64.1	66.0	65.4	62.4
Dallas		65.9	64.7	55.9	55.9	59.4	61.5	57.2	60.3	59.9
Denver				47.7	50.5	60.5	64.4	67.0	66.6	59.3
Detroit	65.9	67.9	62.8	51.3	55.2	57.6	62.9	65.5	67.2	60.4
Ft. Lauderdale	65.0	62.2	66.2	59.9	60.7	64.4	61.3	58.4	58.0	61.1
Houston	64.0	65.0	65.2	64.2	64.7	59.5	59.2	47.7	57.9	60.4
Indianapolis		53.9	56.2	46.4	44.8	51.7	60.5	69.3	64.3	56.3
Kansas City		53.9	60.0	45.1	52.6	60.3				54.5
Los Angeles	69.0	75.2	69.5	65.6	61.5	66.9	66.1	66.4	62.1	66.4
Manhattan/ NY	80.5	82.9	78.7	75.9	72.9	76.6	78.3	82.0	83.8	78.8
Miami		75.3	70.2		67.7	68.2	69.6	66.3	56.9	66.2
New Orleans	70.9	70.3	69.1	61.0	58.7	60.5	61.7	63.1	66.4	64.1
Omaha		56.5		30.1	36.4	48.5	53.8	59.3	54.5	48.0
Philadelphia		80.7	81.3	75.7	73.7	77.8	76.4	76.0	76.1	77.0
Phoenix	54.6	62.8	57.7	53.5	42.2	46.8	62.4	64.7	62.8	56.2
Portland	70.5	74.3	63.6	62.4	60.6	60.1	62.6	65.1	65.4	64.6
San Antonio		62.6	52.6	50.8	49.3	53.8	55.3	51.7	50.8	52.4
San Diego	67.5	81.6	81.8	78.2	75.1	76.7	78.4	79.1	72.7	77.4
San Jose			62.3	55.0	58.1	49.7	54.4	55.1	51.8	54.6
St. Louis		55.7	63.9	53.5	59.0	63.6	67.9	73.6	76.7	64.8
Washington, DC			66.7	56.2	59.1	59.6	60.4	64.0	64.2	61.4
Median	68.2	68.1	65.2	59.9	59.0	60.5	62.9	66.0	65.4	61.9

* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample for which less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** The years 1990 through 1995 were used in reporting range data.

Appendix D (continued)

Female										
DUF Site	1987*	1988	1989	1990	1991	1992	1993	1994	1994	Average
Atlanta				71.2	69.9	65.4	72.4	72.4	68.2	69.5
Birmingham		65.4	55.9	66.6	61.5	59.4	63.1	63.1	57.4	61.3
Chicago		76.2								76.2
Cleveland				73.2	79.3	74.0	81.6	81.6	70.9	76.9
Dallas		64.7	47.6	60.6	55.9	66.2	63.4	63.1	58.5	59.8
Denver				55.1	53.6	60.6	67.6	67.5	66.6	61.8
Detroit		81.3		74.2	67.9	72.3	61.8	61.8	77.5	71.9
Ft. Lauderdale			62.9	66.3	63.6	61.5	62.4	62.5	60.2	62.8
Houston			58.1	58.6	59.4	53.8	47.6	47.7	49.7	53.3
Indianapolis		52.2	44.7	39.3	54.0	49.8	69.4	69.4	71.2	57.5
Kansas City		70.2	74.4	64.3	63.5	72.8				69.1
Los Angeles	79.5	76.0	78.3	71.4	74.6	71.6	71.8	72.0	67.7	73.0
Manhattan/ NY	83.3	80.1	75.5	70.8	76.8	84.6	89.6	89.6	84.6	81.5
Miami										
New Orleans	45.7	55.0	63.9	59.8	50.4	51.8	31.9	32.2	50.8	49.0
Omaha							58.4	58.4	55.6	57.4
Philadelphia		79.4	81.9	75.6	75.0	77.8	75.5	75.3	76.5	76.9
Phoenix	69.4	60.5	69.6	58.2	61.3	63.4	66.8	66.8	63.0	63.7
Portland	71.0	79.3	70.2	61.3	68.2	73.1	73.8	73.8	68.1	71.1
San Antonio		50.9	48.0	41.8	45.3	44.5	39.0	38.9	41.7	42.8
San Diego	86.8	78.3	77.0	75.2	73.1	72.4	75.6	75.6	73.3	75.1
San Jose			59.0	57.2	51.8	56.5	60.9	60.9	49.3	56.4
St. Louis		44.4	62.1	56.1	53.9	70.0	75.5	75.5	69.6	65.9
Washington, DC			82.9	73.1	74.6	71.5	67.4	67.3	64.8	71.7
Median	75.3	67.8	63.9	64.3	63.5	66.2	67.4	67.3	66.6	65.9

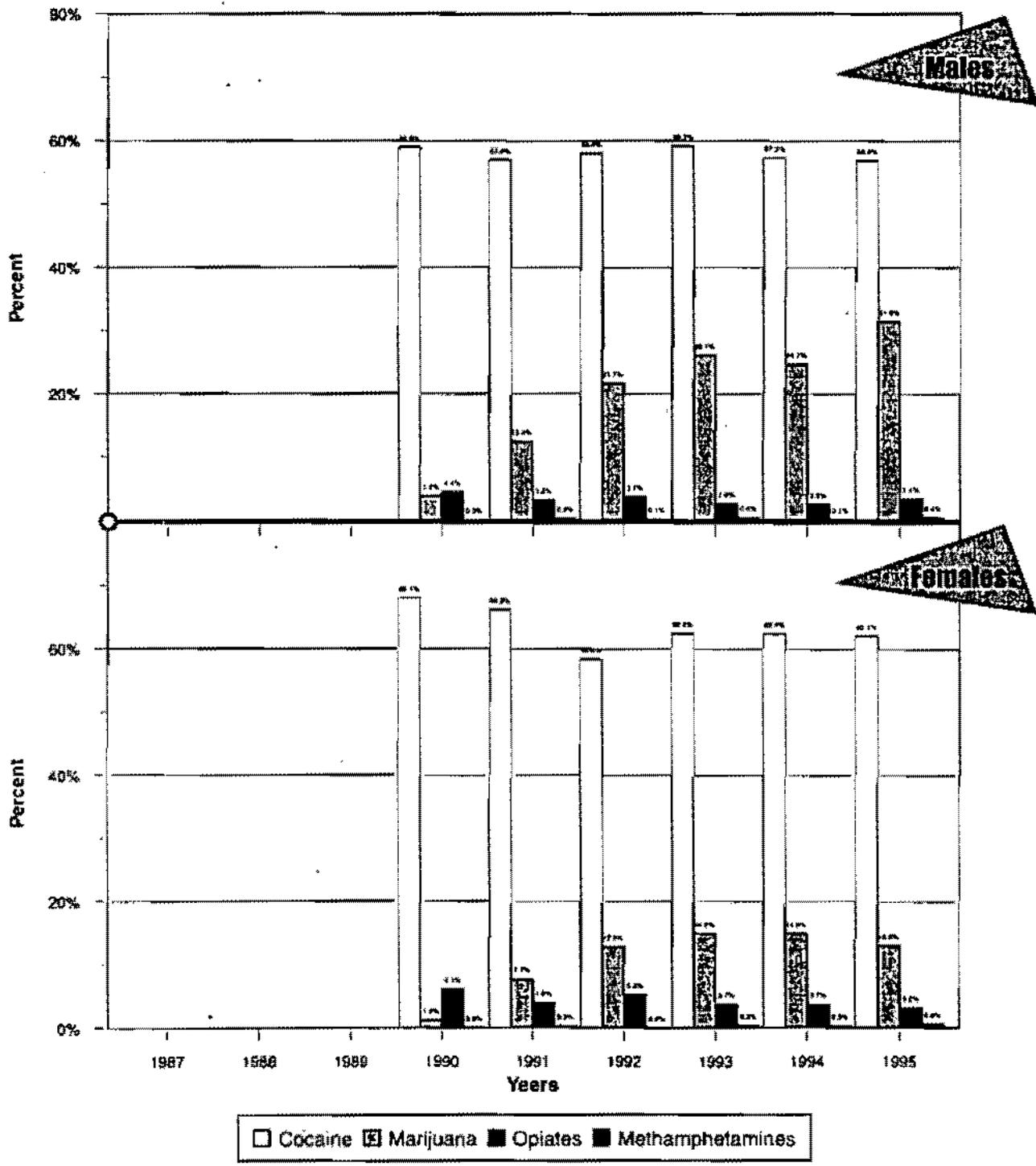
* A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

APPENDIX E

SITE-SPECIFIC RESULTS, 1987-1995

Exhibit 10

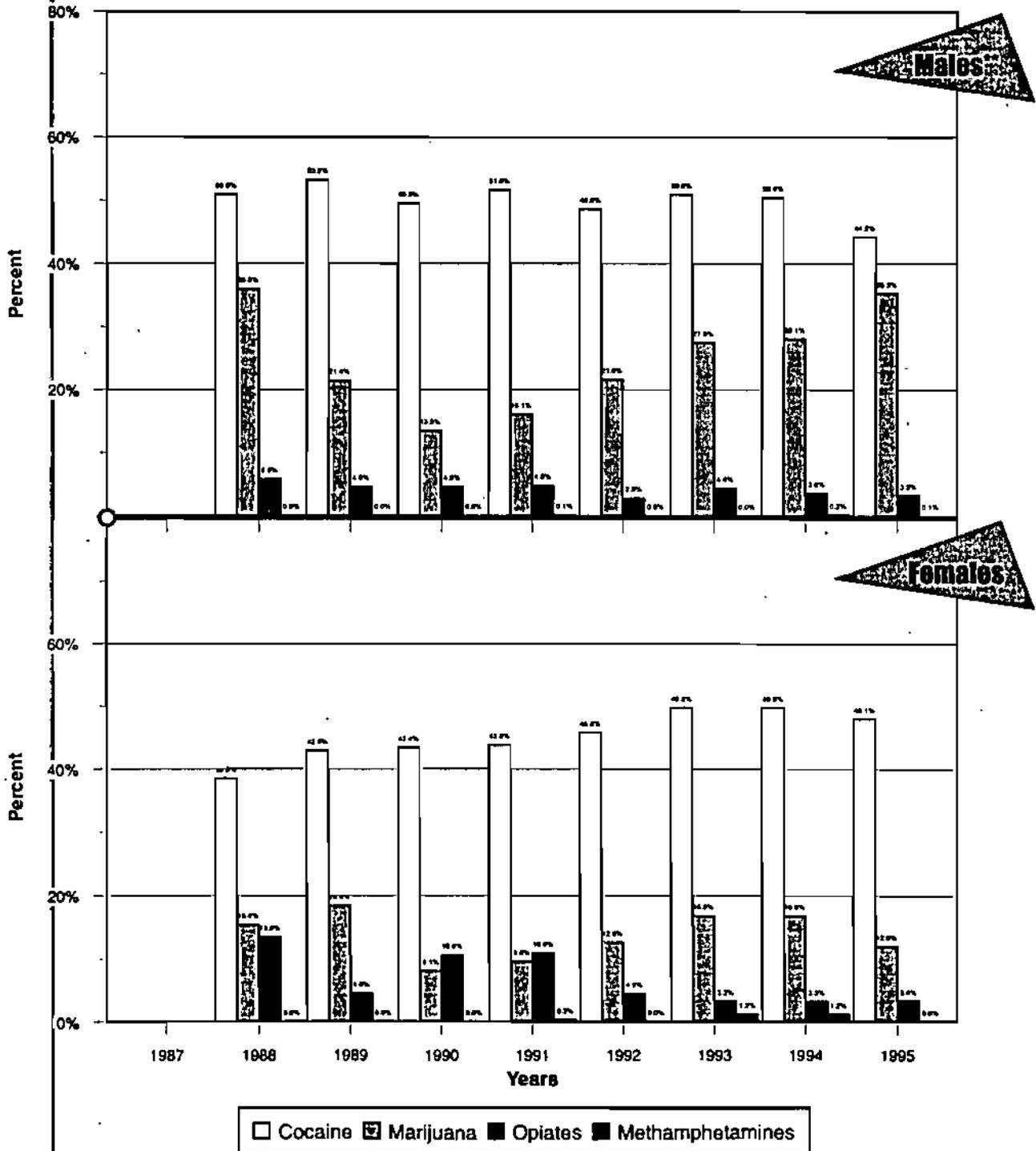
ATLANTA: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1990*-95



* Prior to 1990, this site was not participating in DUF.

Exhibit 11

BIRMINGHAM: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988*-95

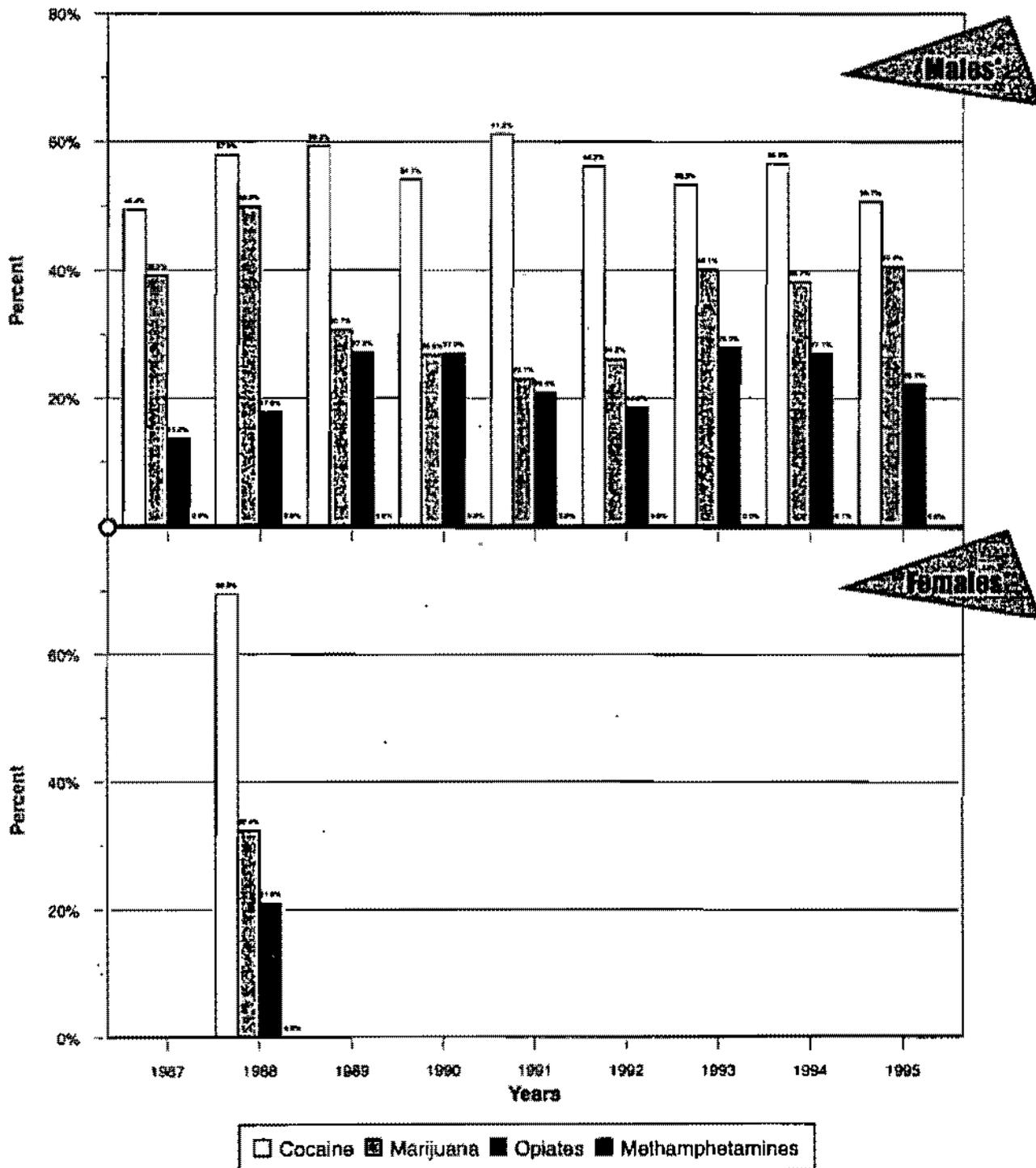


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 12

CHICAGO: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

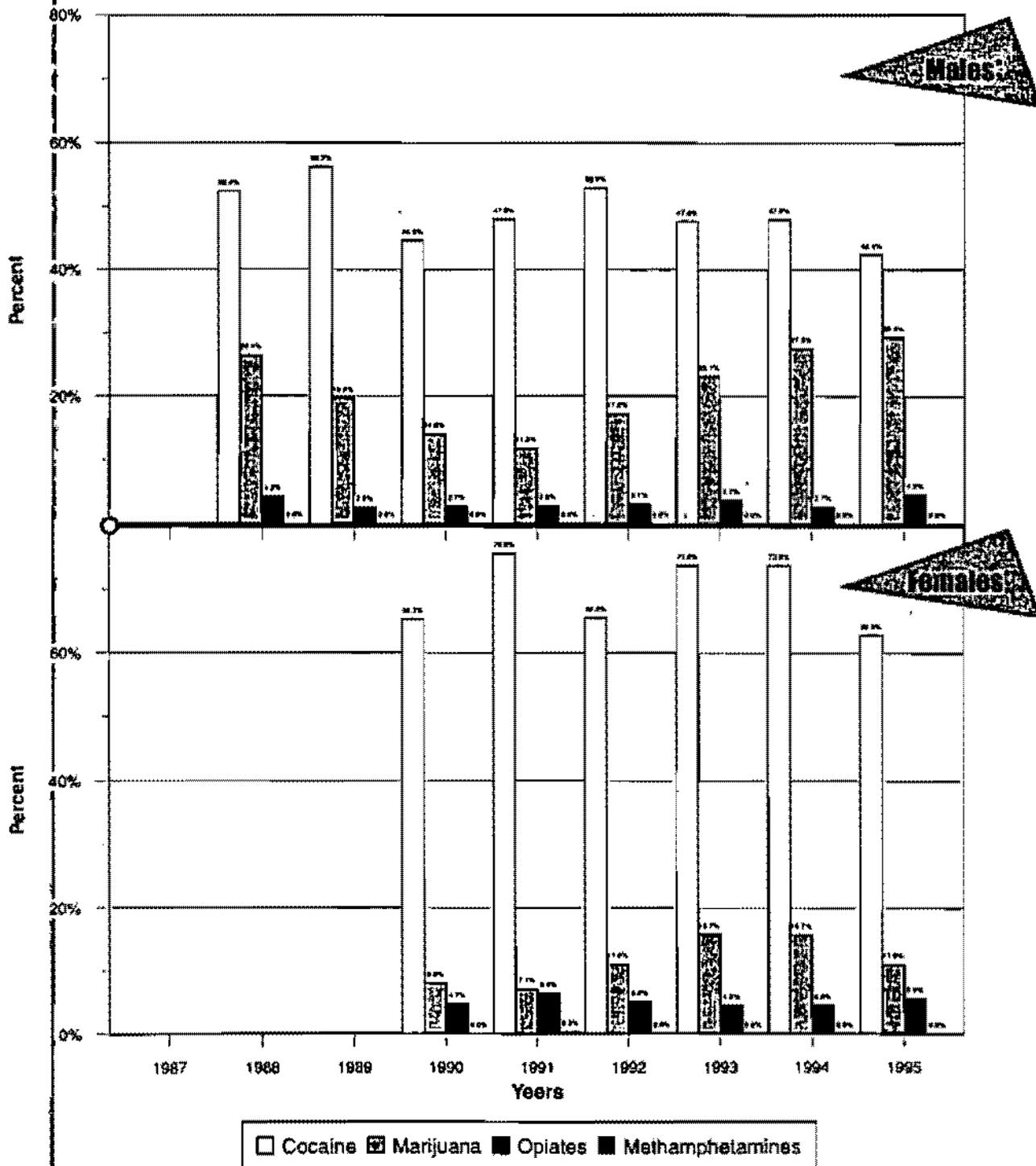


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** Adult female data were collected only in 1988.

Exhibit 13

CLEVELAND: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988-95

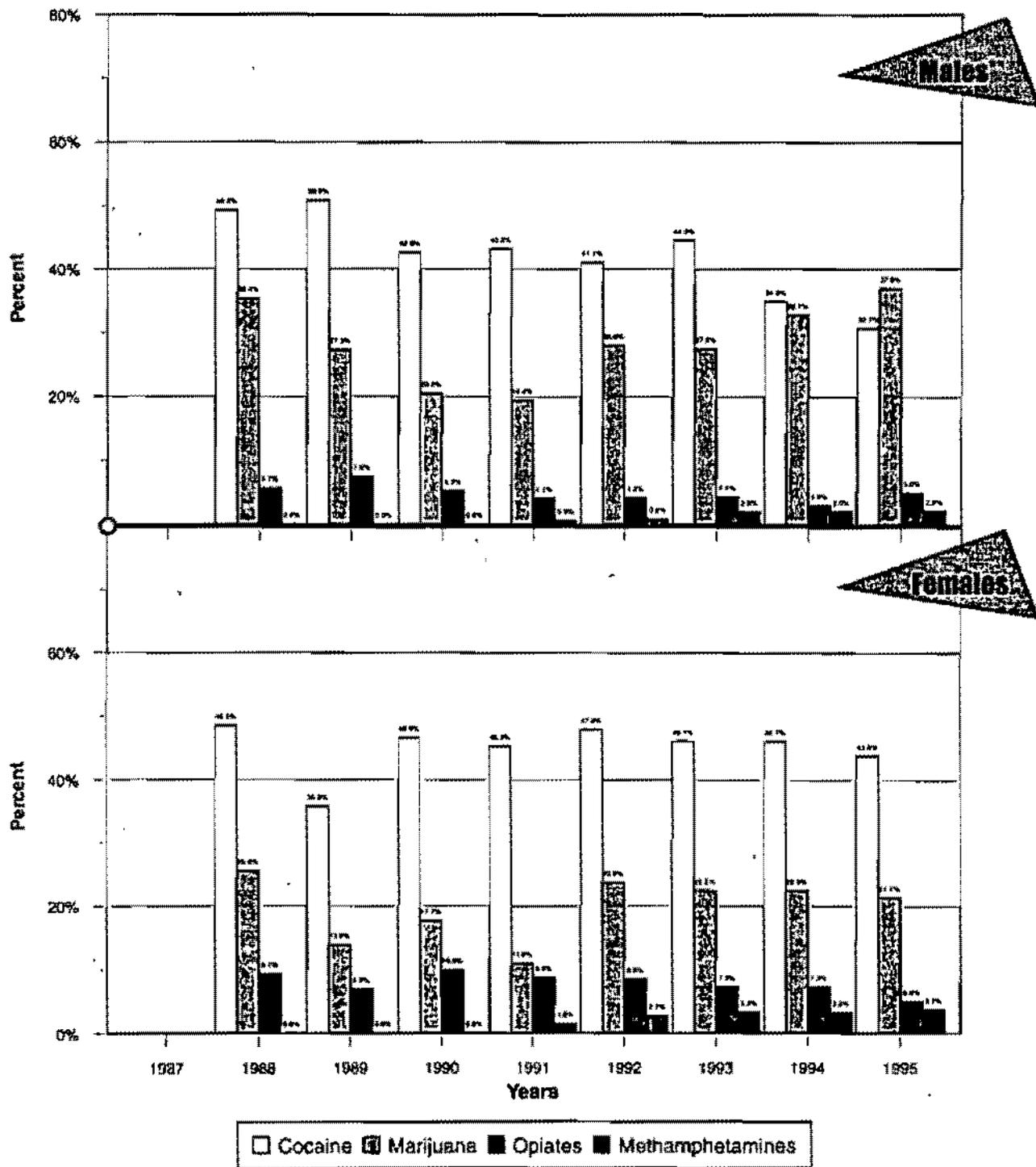


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** Adult female data were not collected prior to 1990.

Exhibit 14

DALLAS: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988*-95

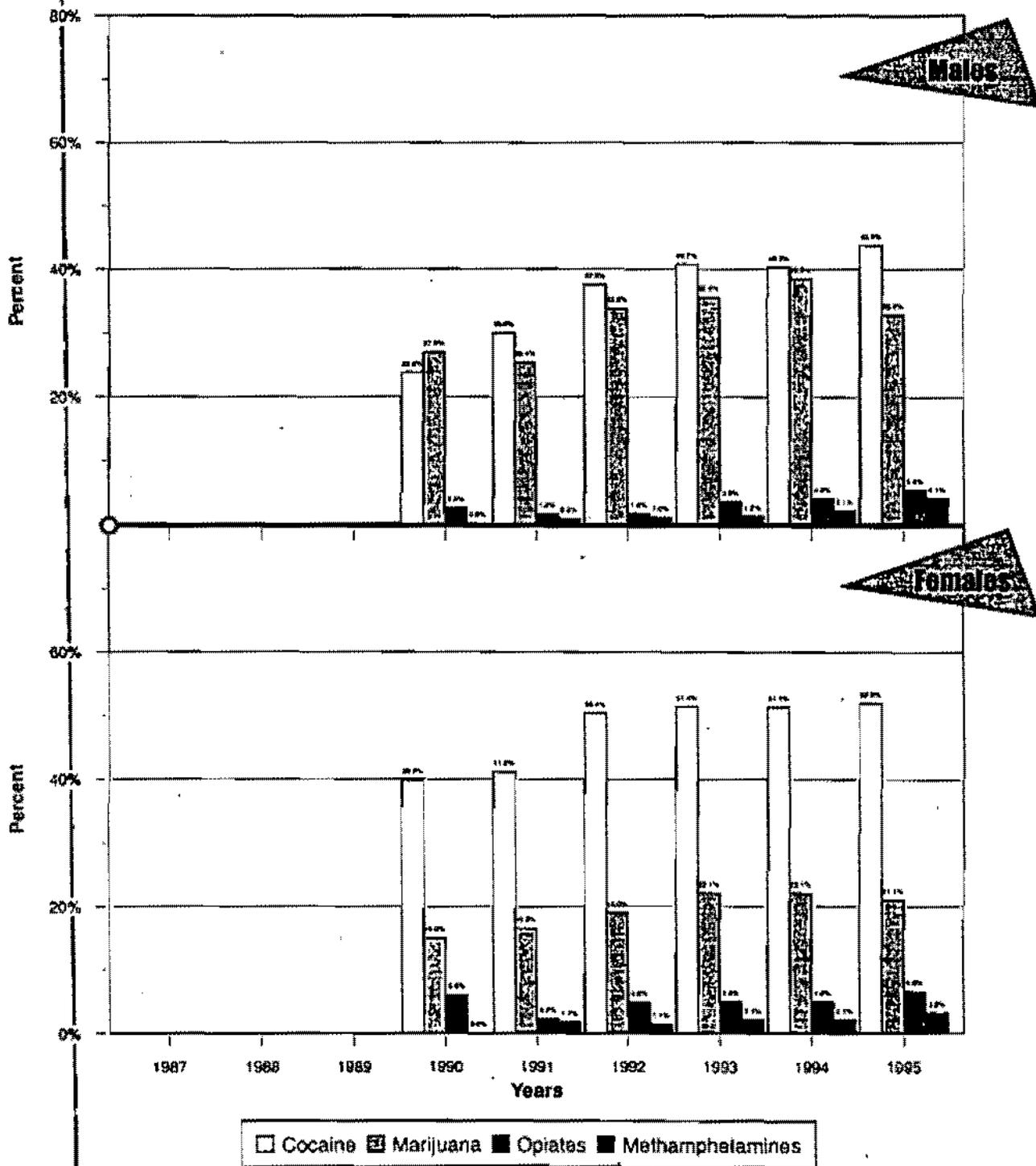


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 15

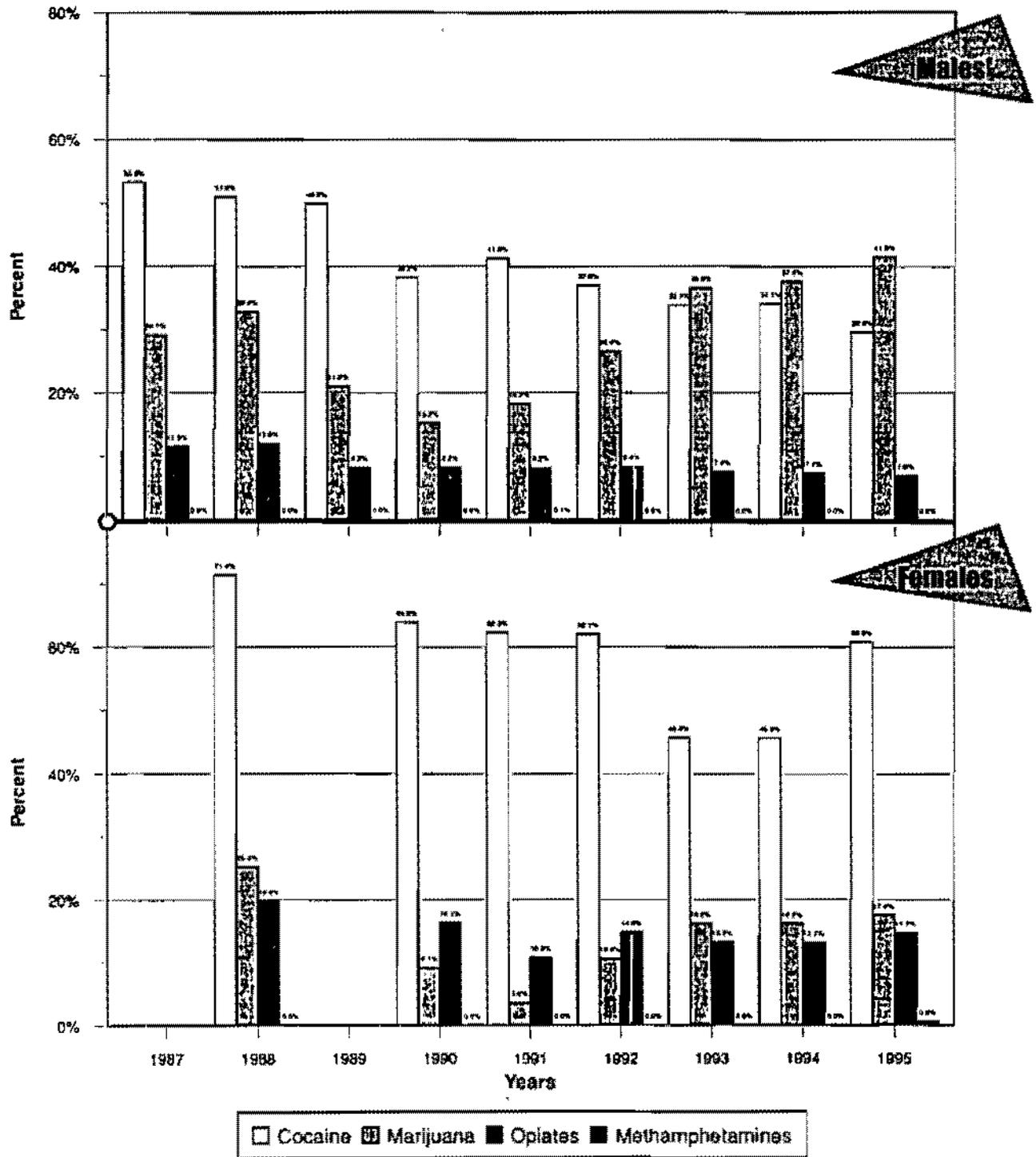
DENVER: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1990*-95



* Prior to 1990, this site was not participating in DUF.

Exhibit 16

DETROIT: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

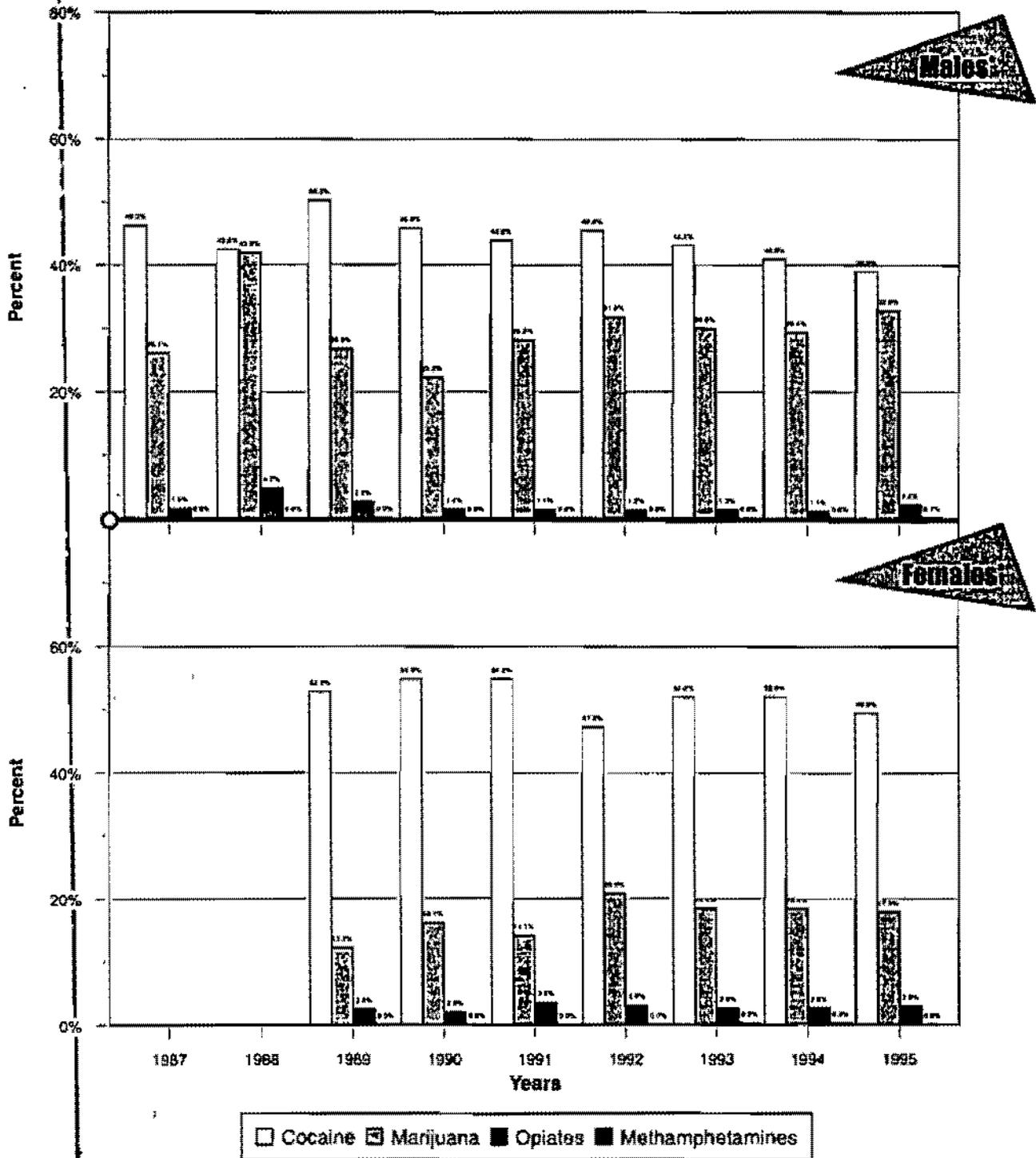


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** Adult female data collection began in 1988. Adult female det

Exhibit 17

FORT LAUDERDALE: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

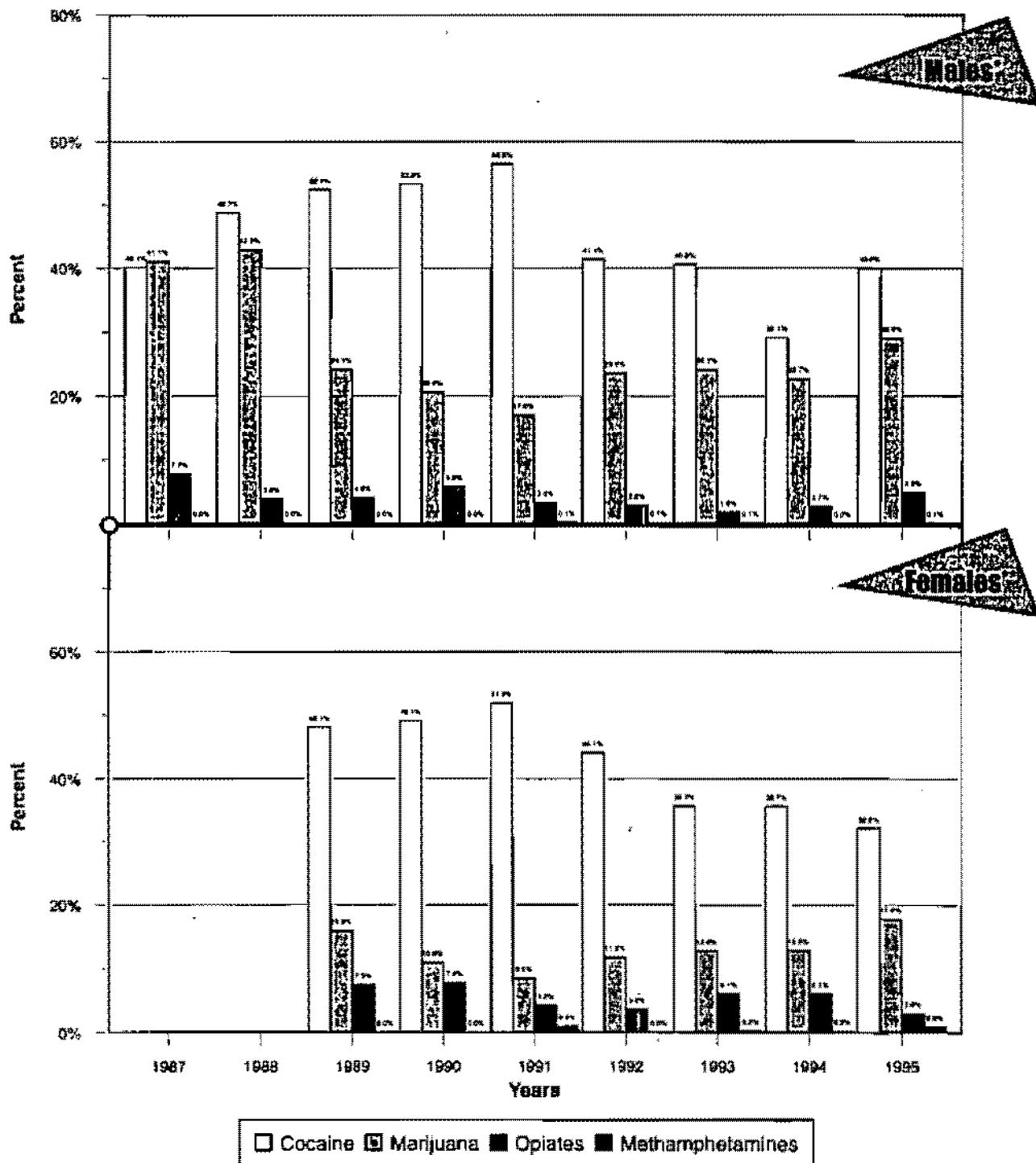


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** Adult female data were not collected prior to 1989.

Exhibit 18

HOUSTON: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

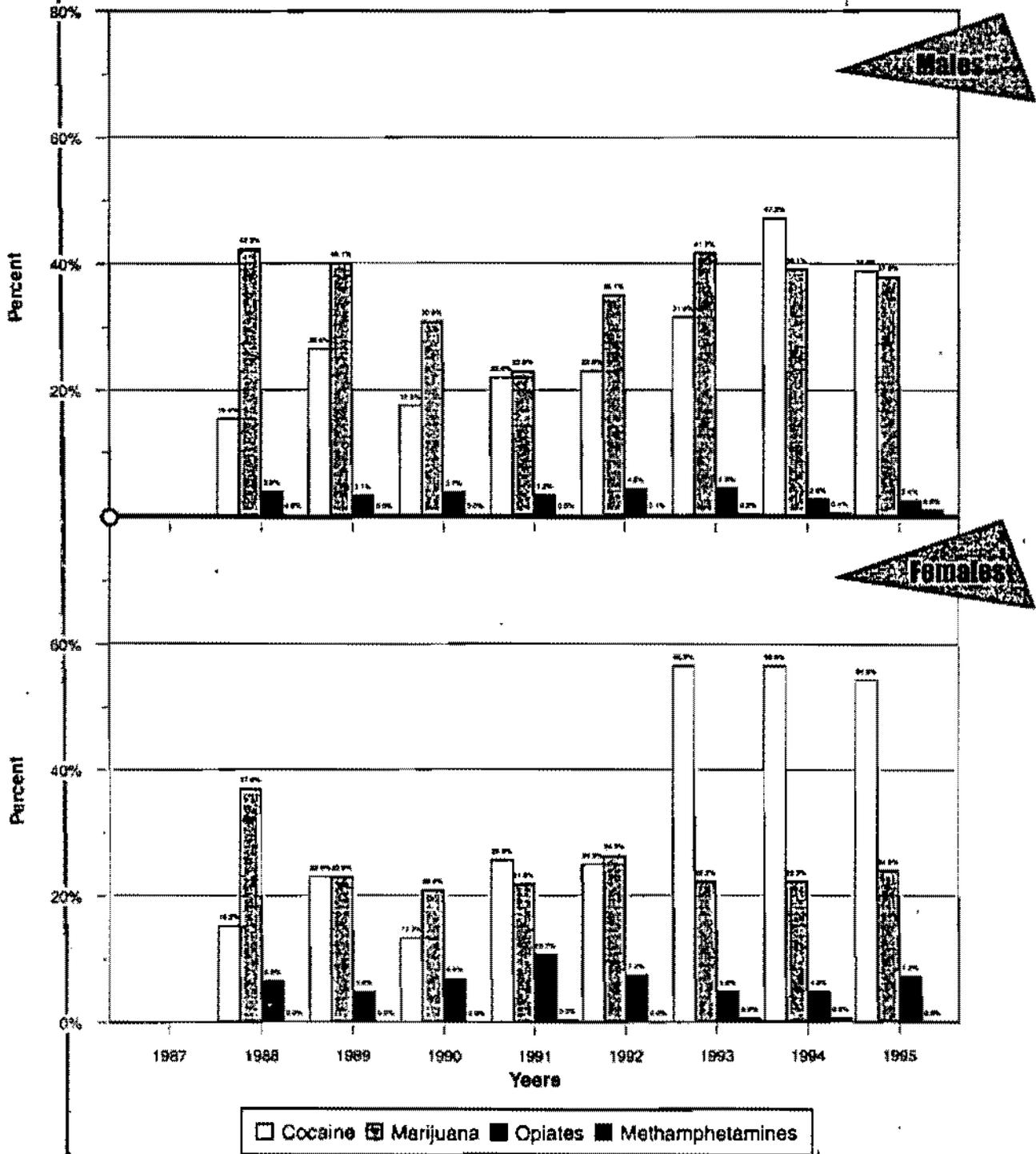


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** Adult female data collection began in 1989.

Exhibit 19

INDIANAPOLIS: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988*-95

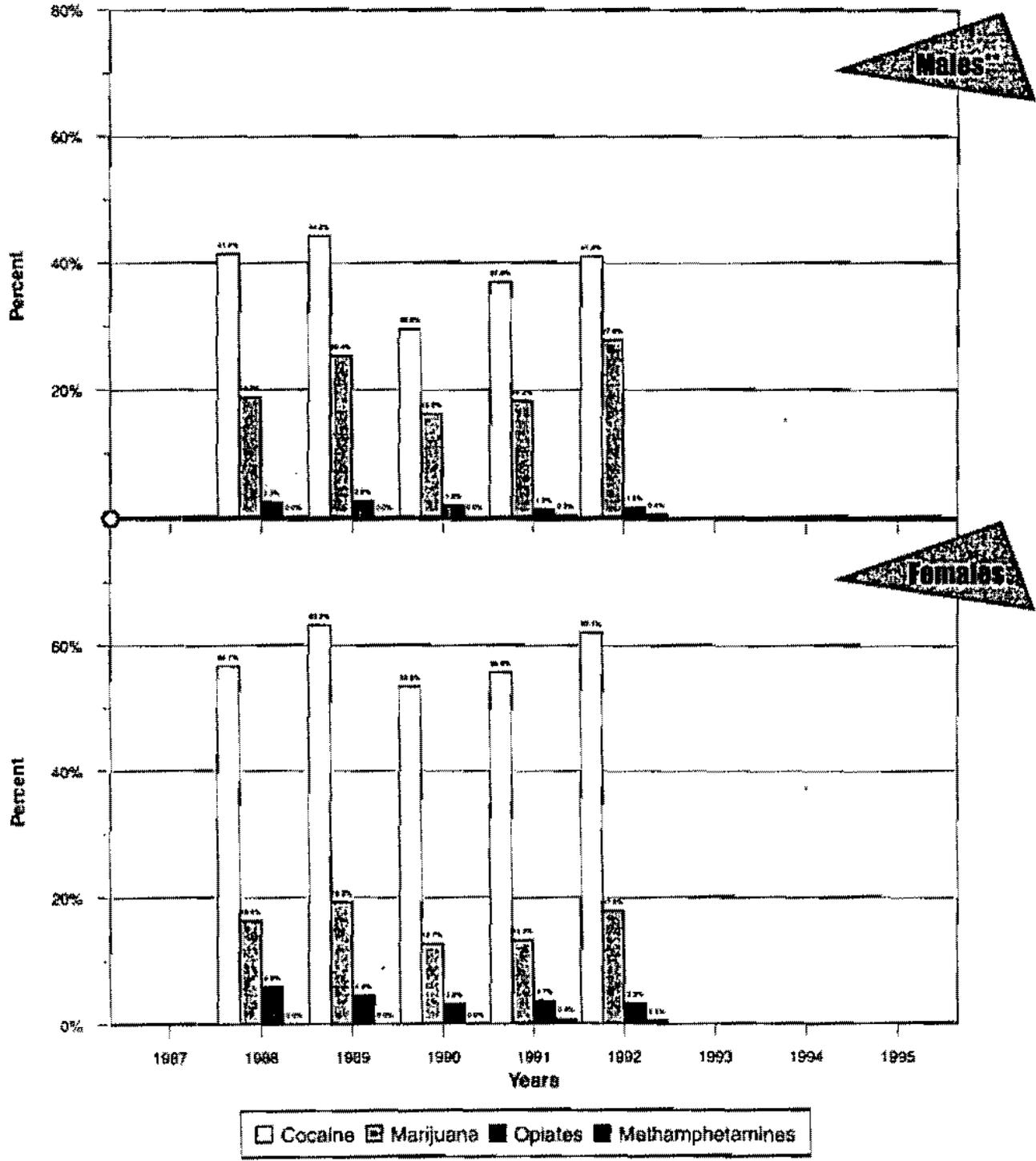


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 20

KANSAS CITY: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988-92*

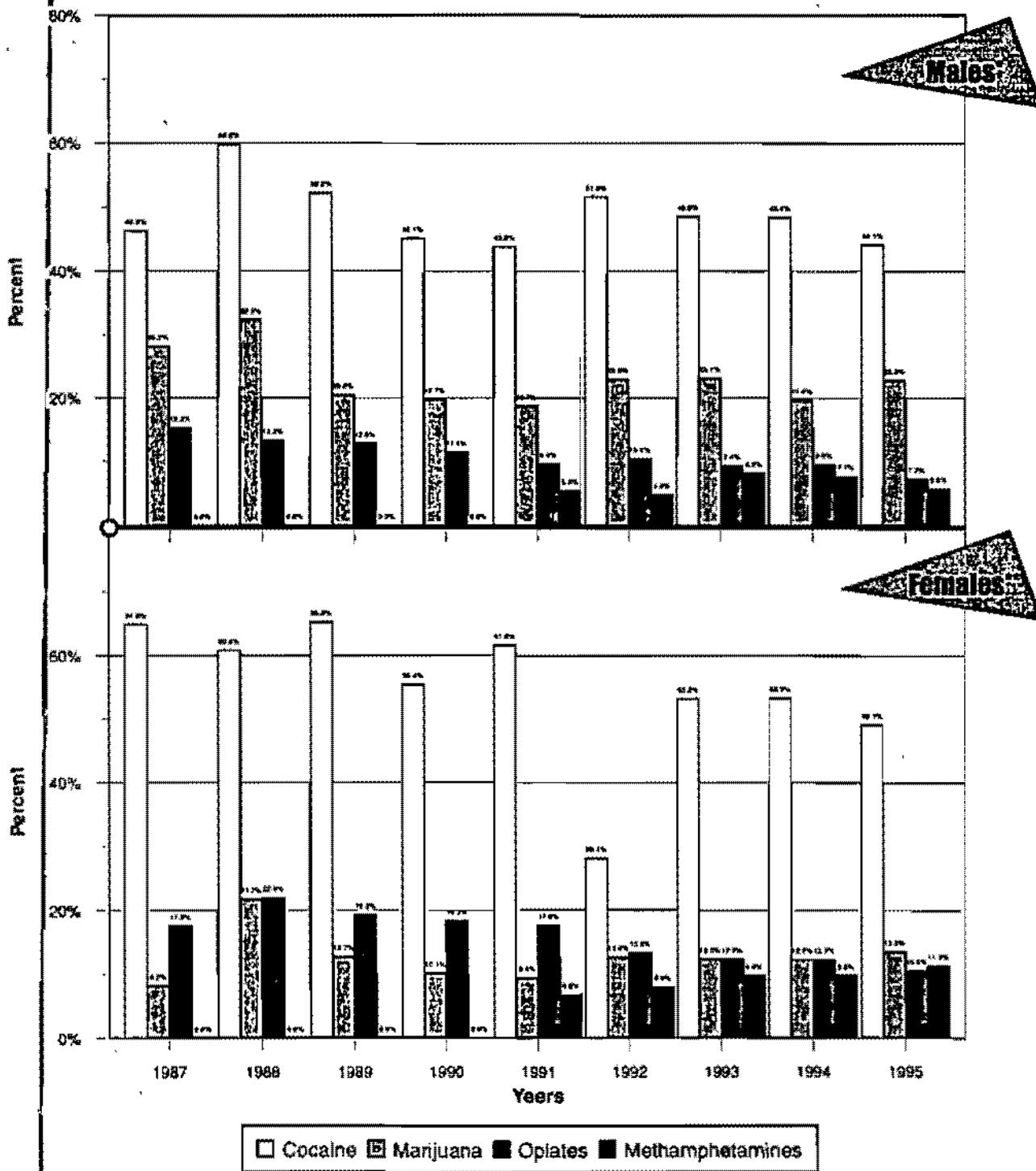


* This site began participation in DUF in 1988 and stopped after 1992.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 21

LOS ANGELES: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

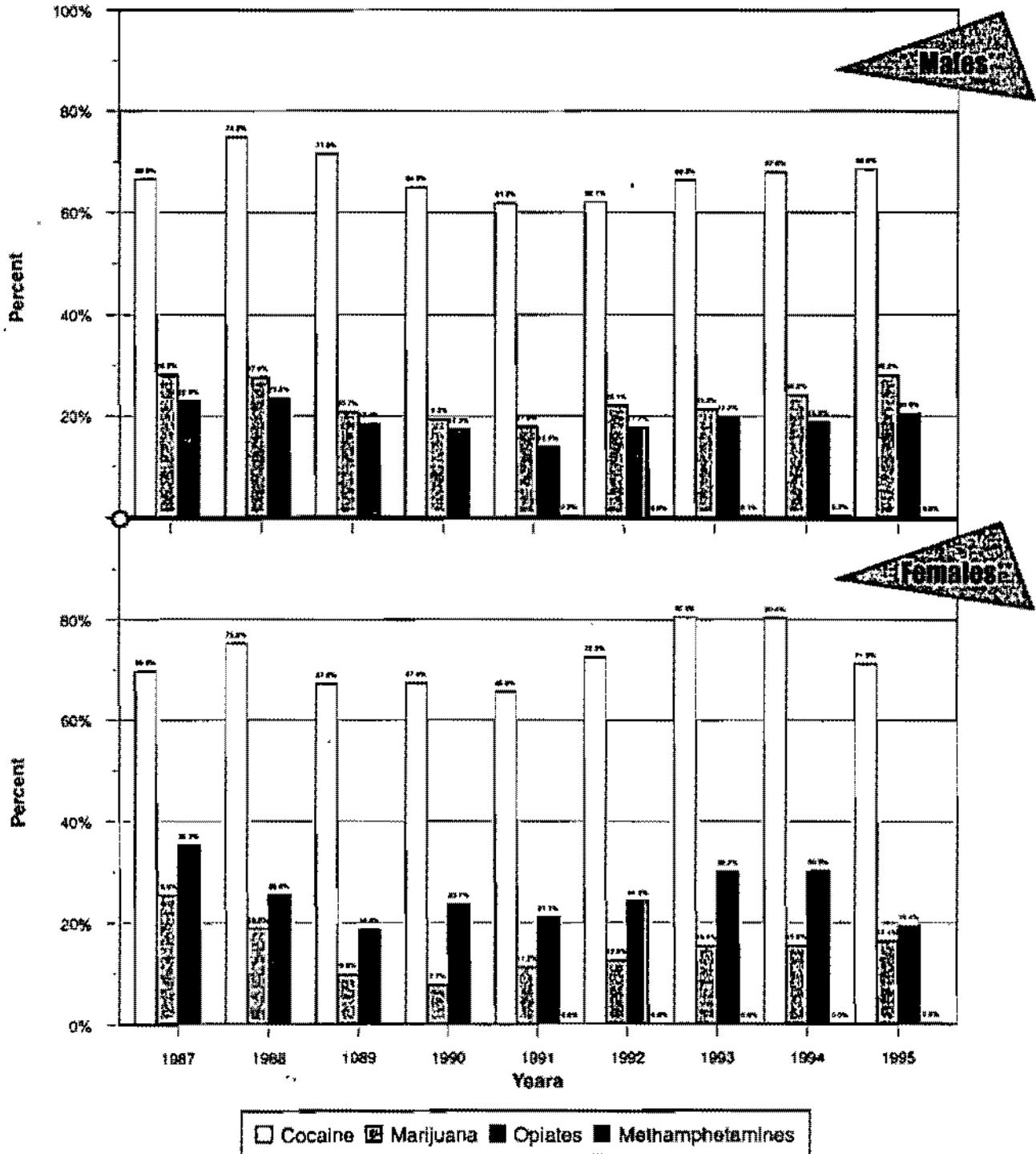


Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 22

MANHATTAN, NEW YORK: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

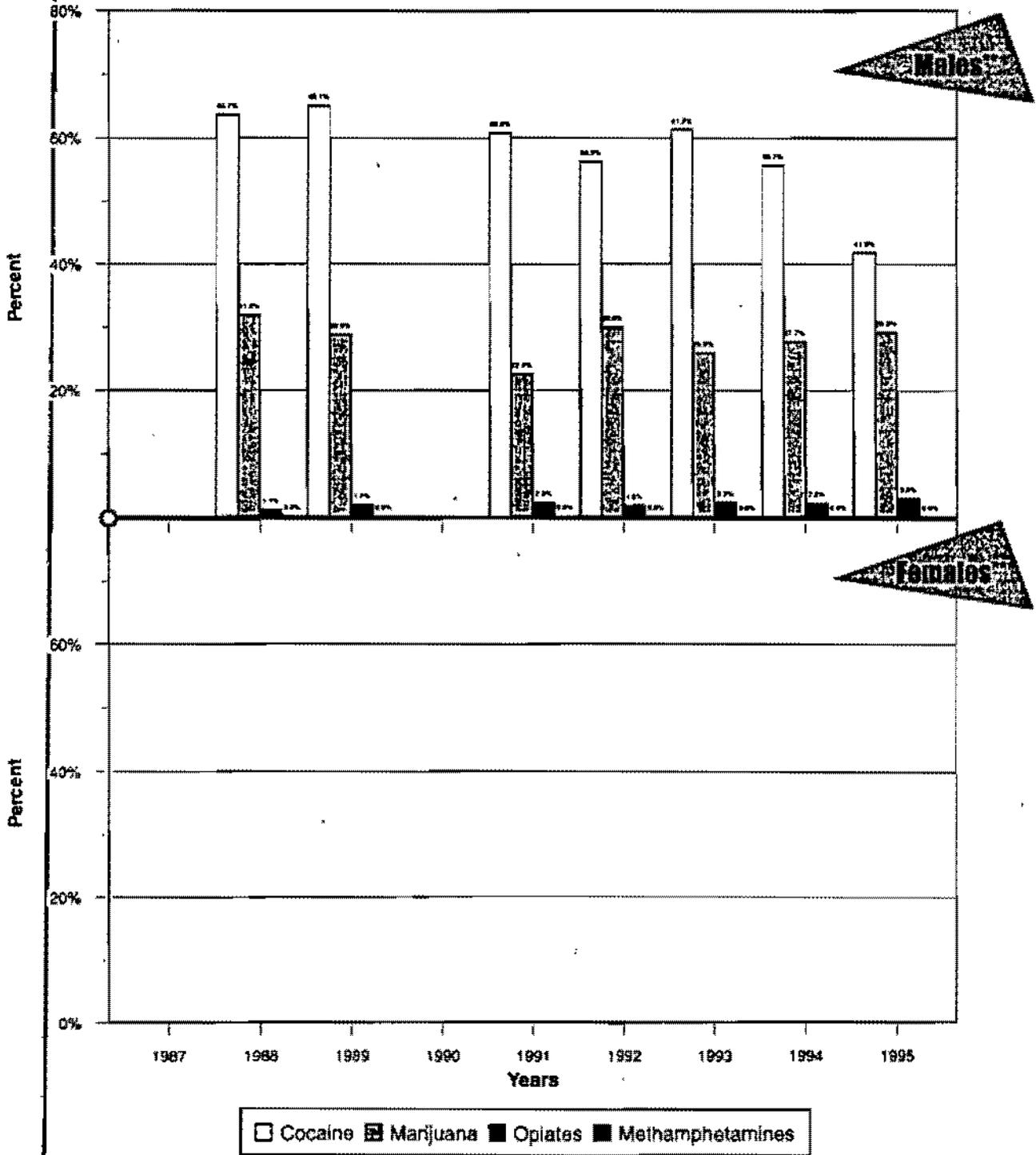


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 23

MIAMI: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamins by Gender: 1988-89 and 1990-95*

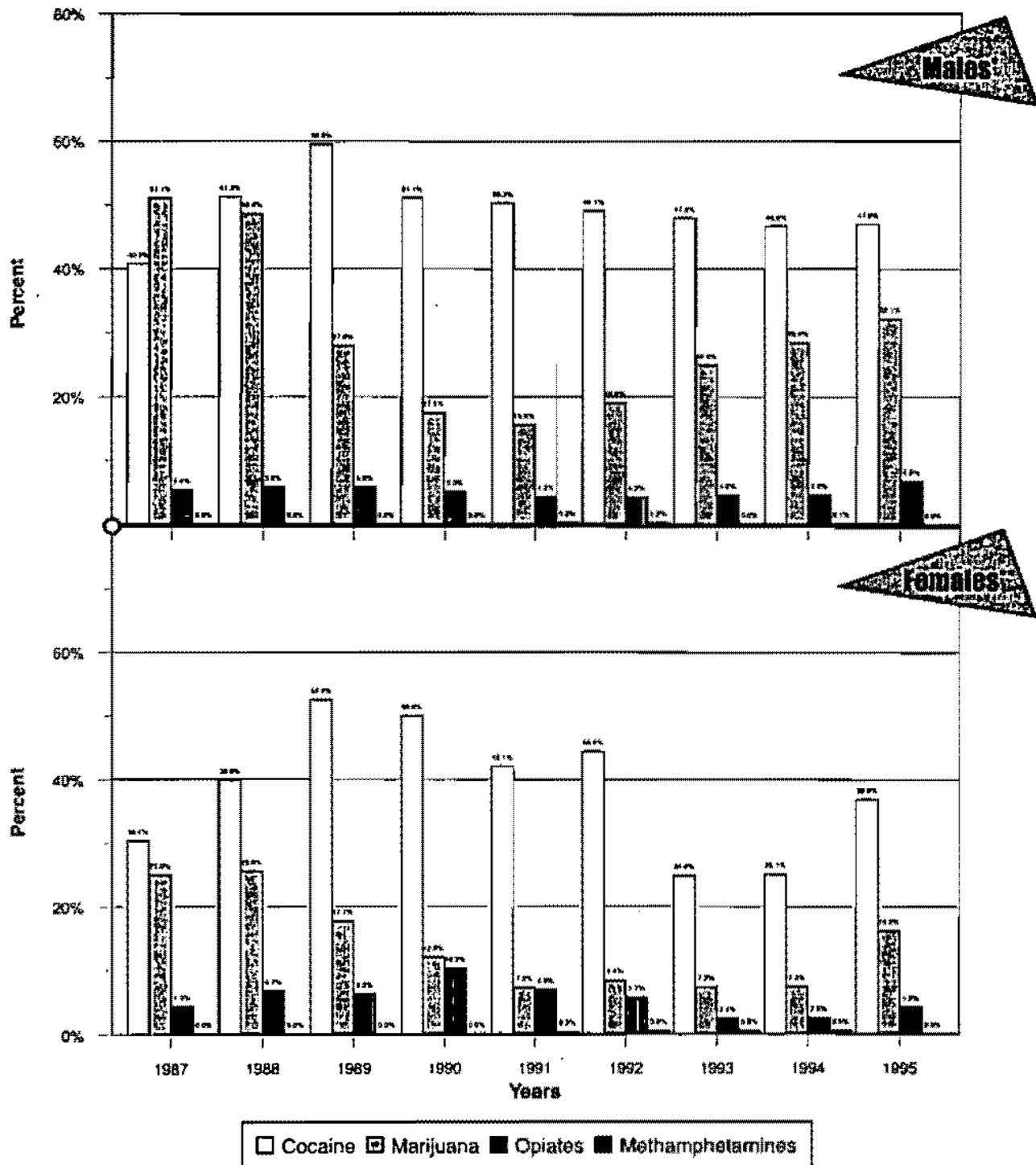


* Adult male data collection began in 1988 for adult males. Adult male data were not collected in 1990.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 24

NEW ORLEANS: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

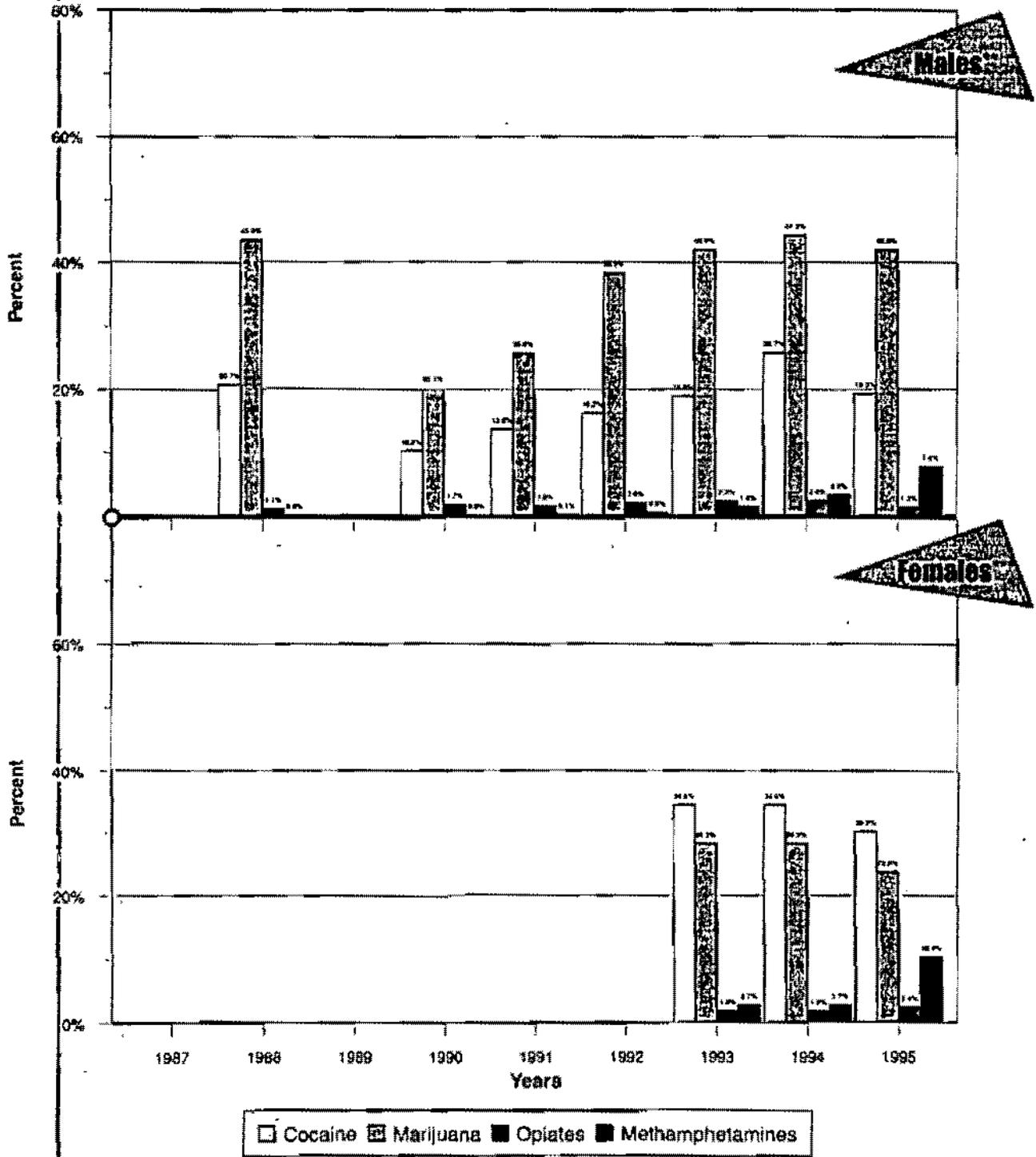


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 25

OMAHA: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988 and 1990-95*



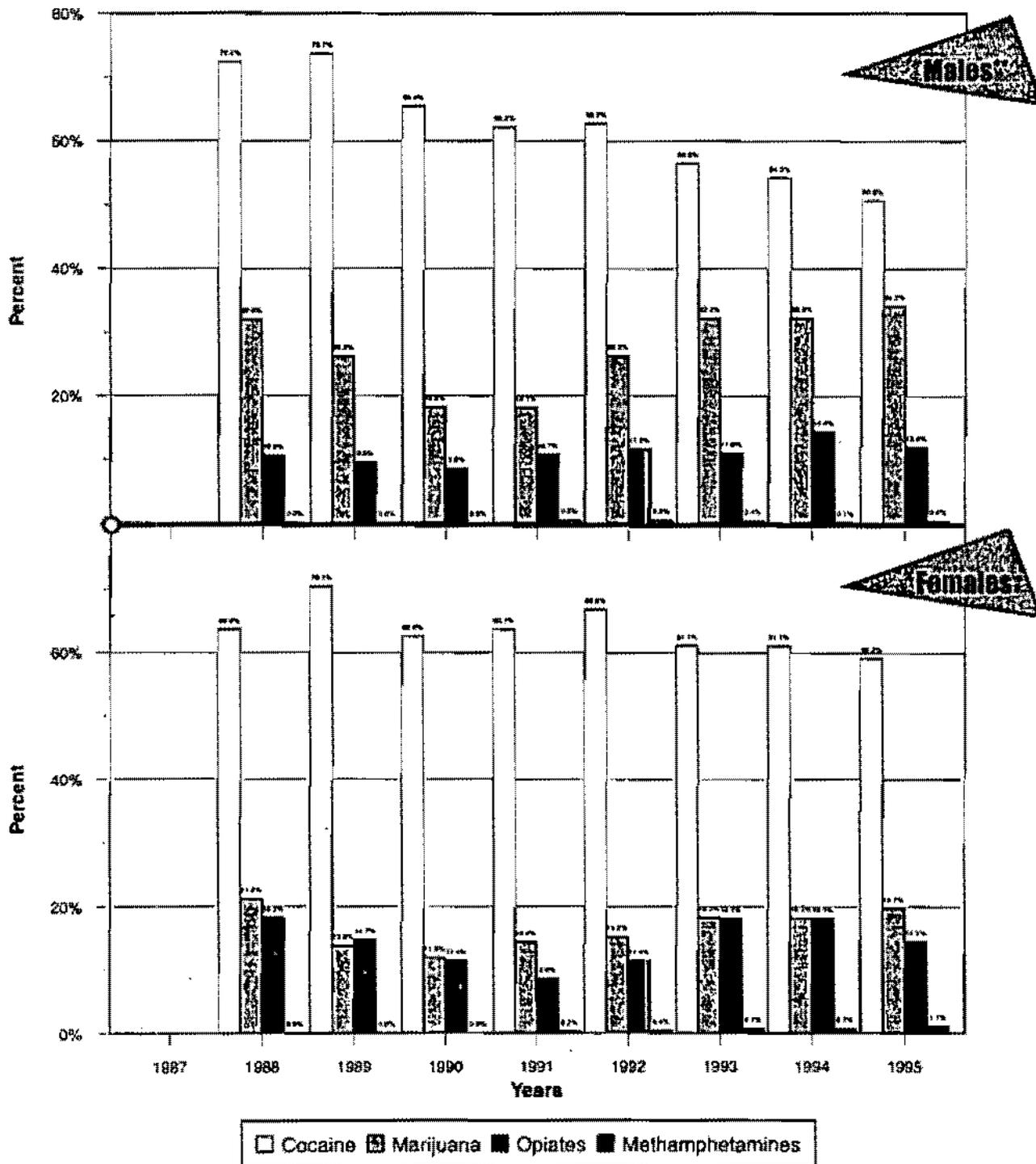
* Adult male data collection began in 1988 for adult males. Adult male data were not collected in 1989.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1989 are considered the baseline.

** Female adult data collection began in 1993.

Exhibit 26

PHILADELPHIA: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988*-95

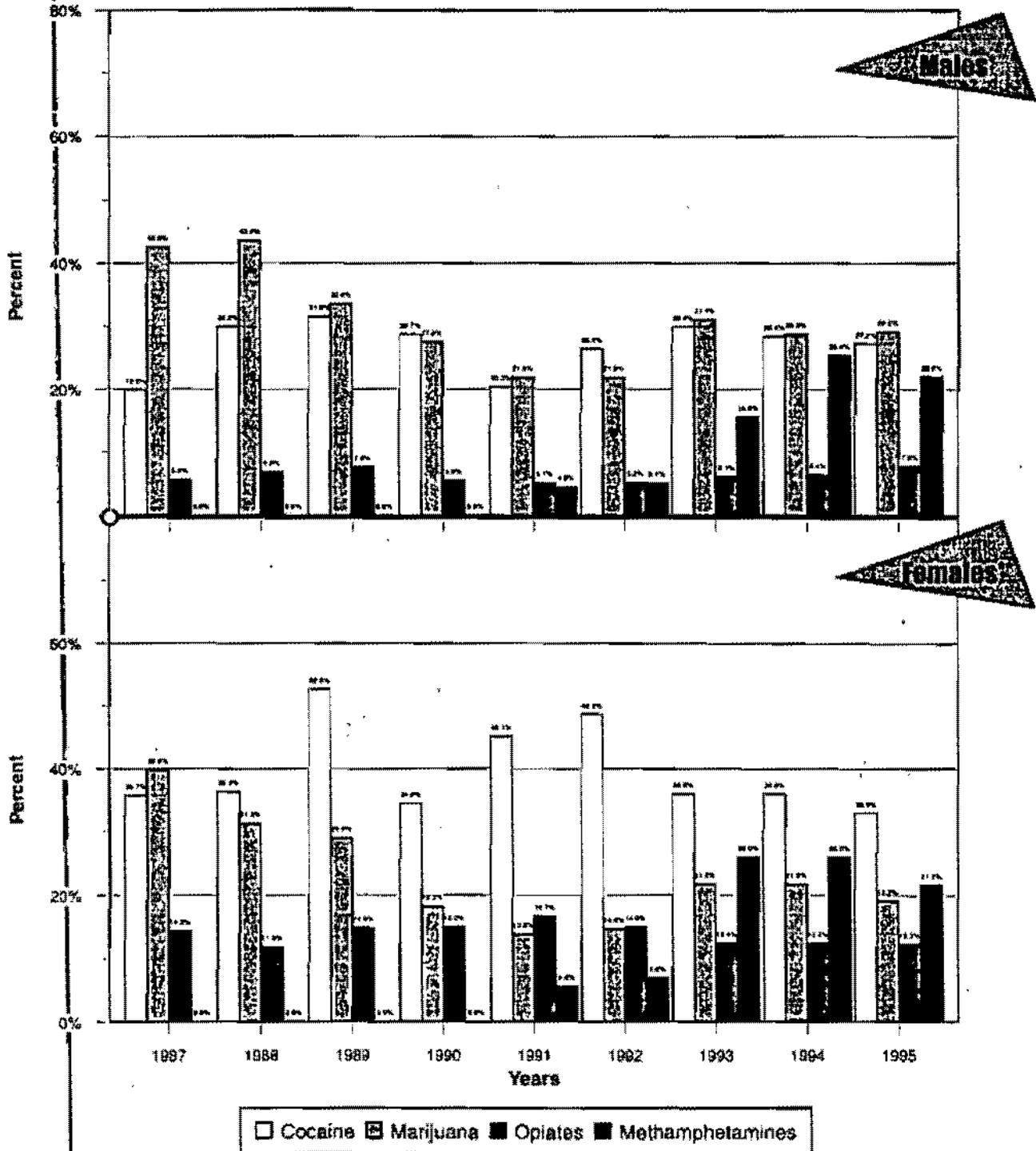


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 27

PHOENIX: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

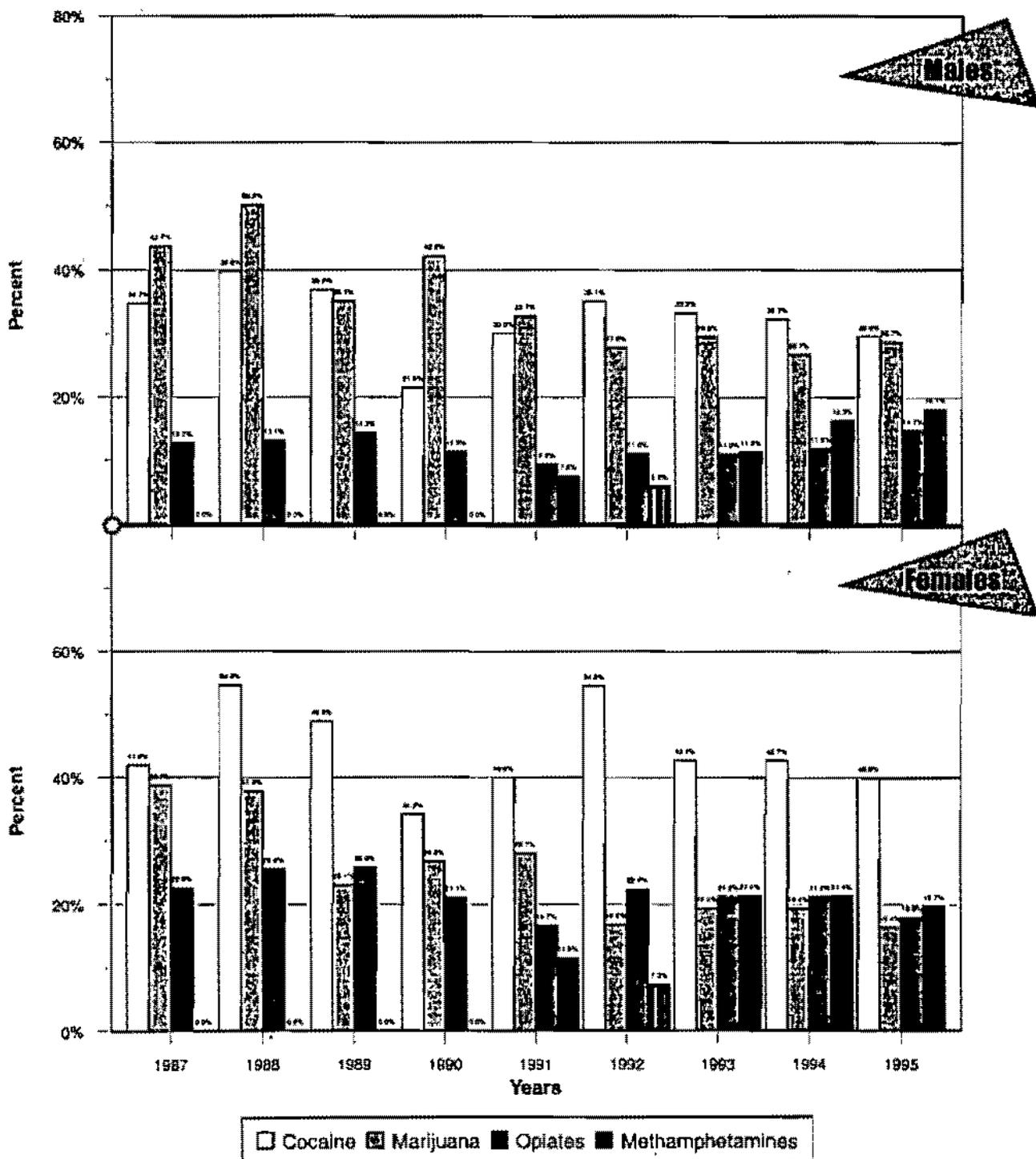


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 28

PORTLAND: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

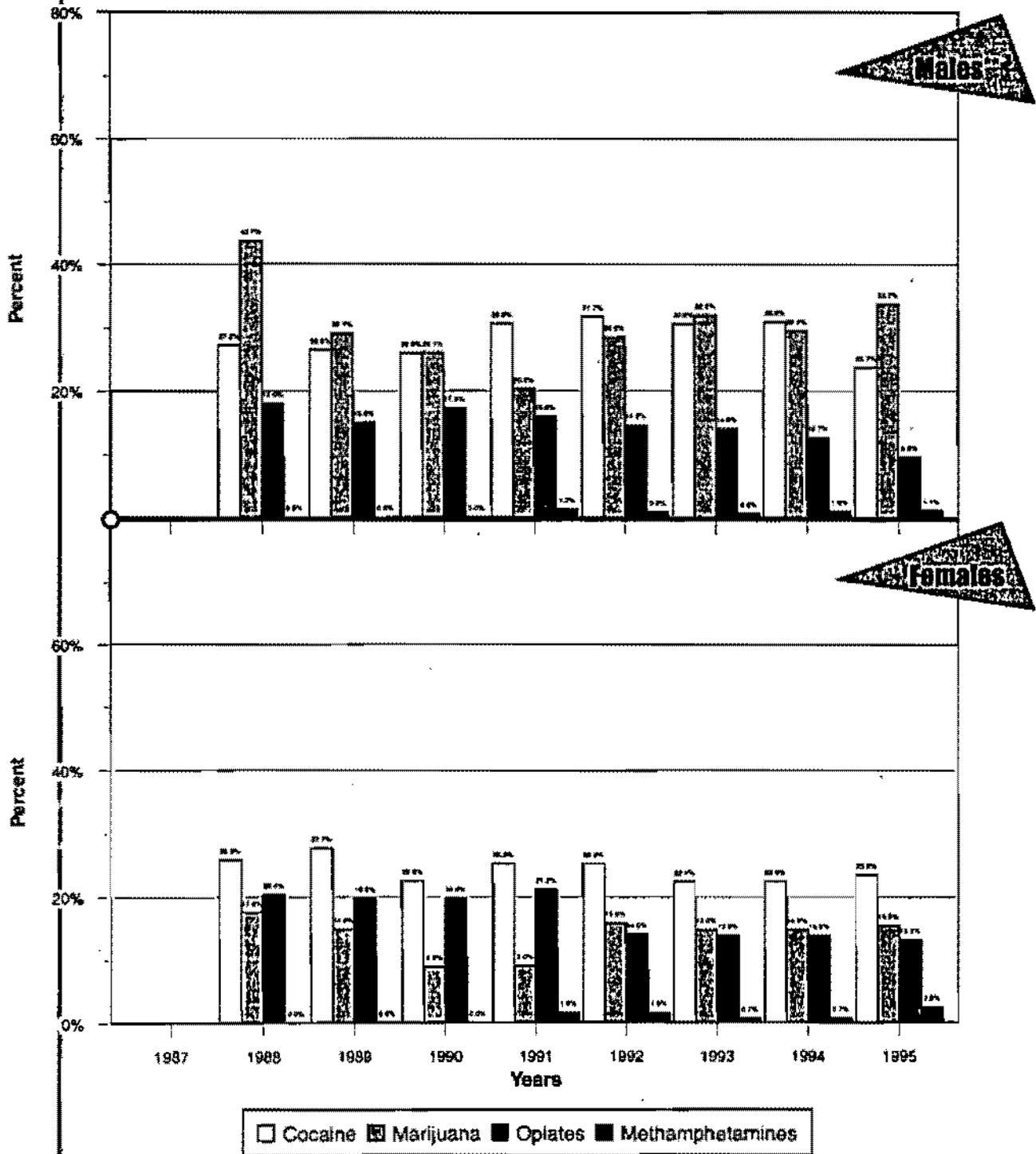


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 29

SAN ANTONIO: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987*-95

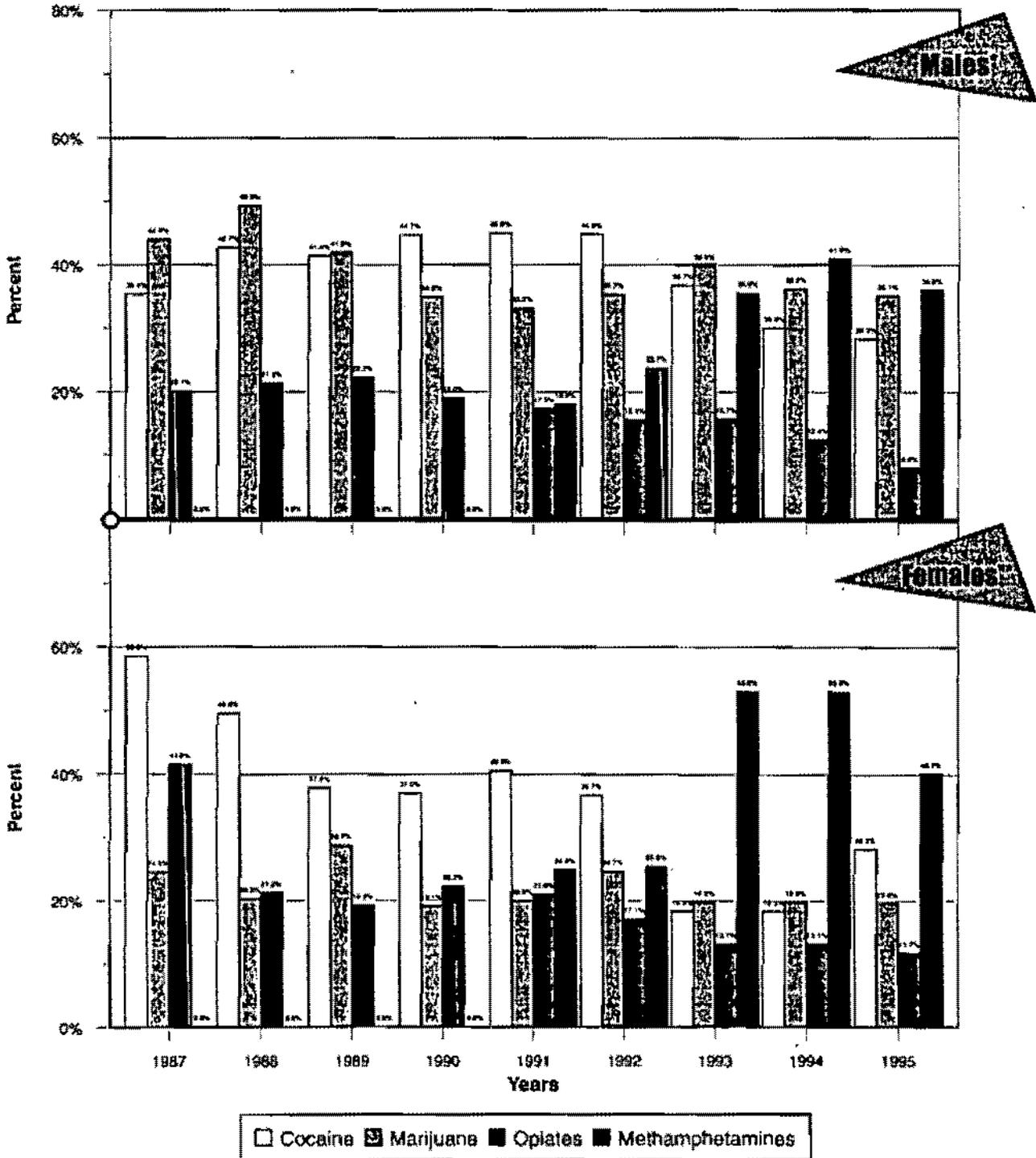


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult/male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 30

SAN DIEGO: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1987-95

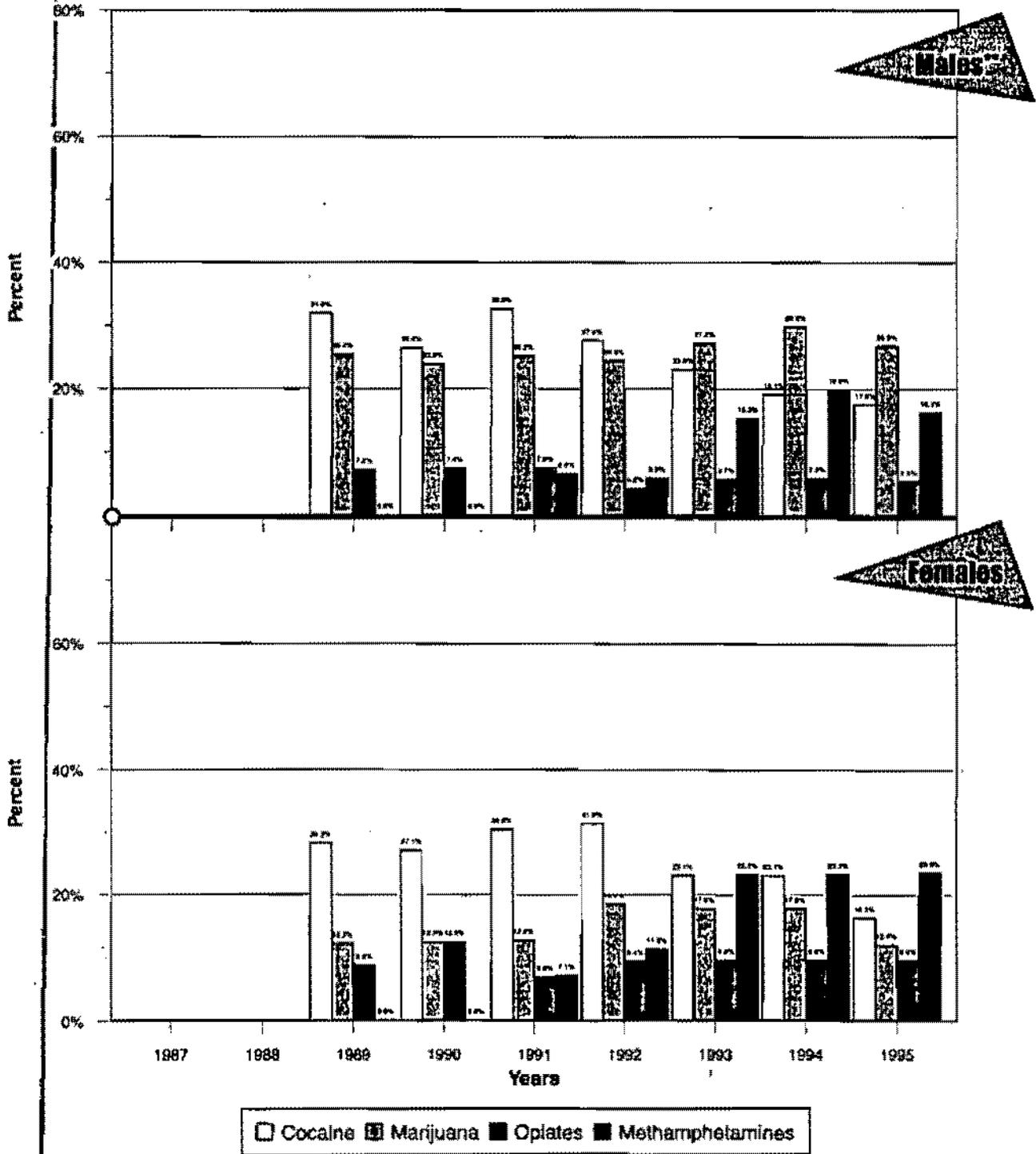


* Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

** A small number of adult females participated in 1987, so the data for 1987 should be viewed cautiously. Therefore, the data for 1988 are considered the baseline.

Exhibit 31

SAN JOSE: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1989*-95

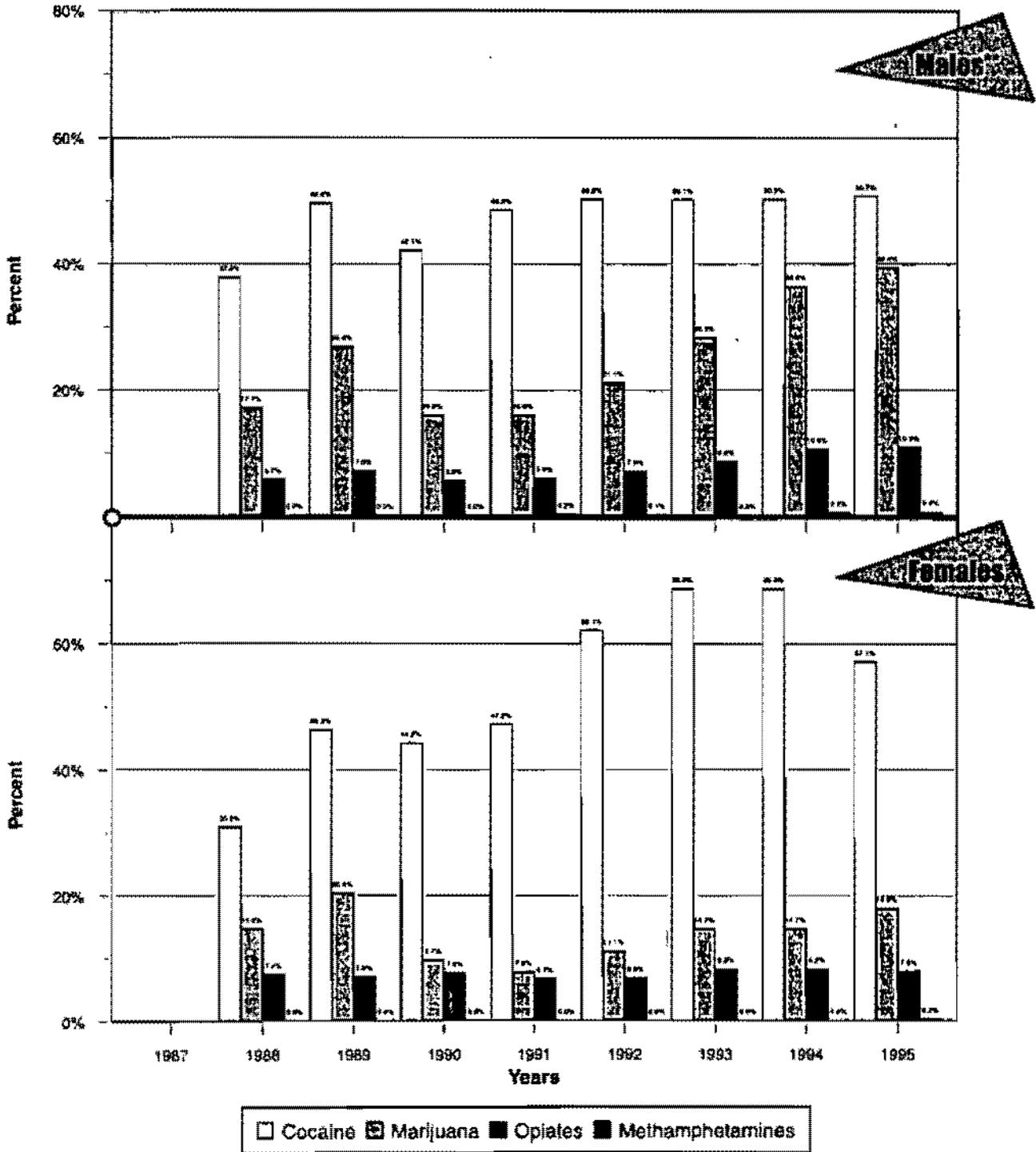


Prior to 1989, this site was not participating in DUF.

Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 32

ST. LOUIS: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1988*-95

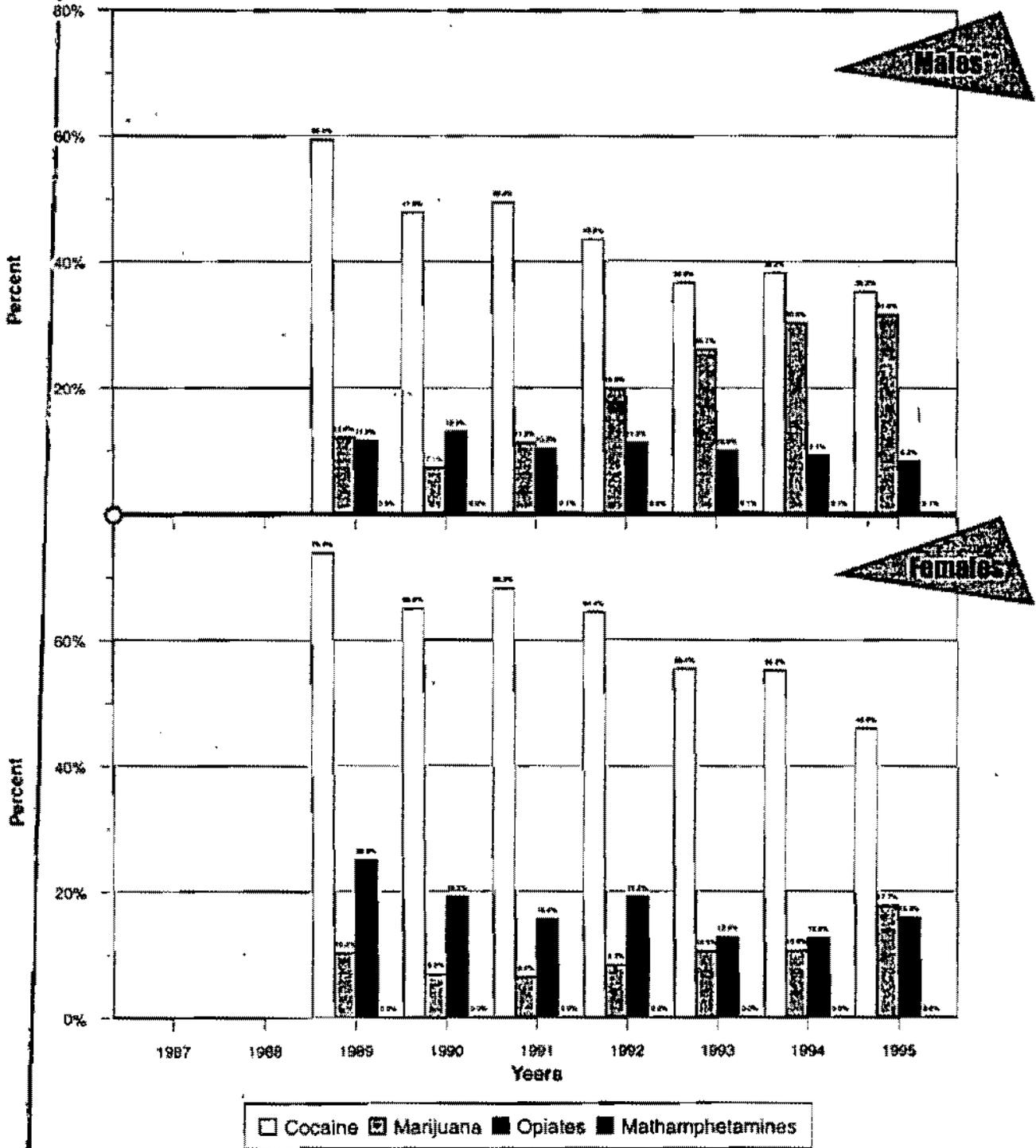


* Prior to 1988, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

Exhibit 33

WASHINGTON, D.C.: Percent of Arrestees Who Tested Positive for Cocaine, Marijuana, Opiates and Methamphetamines by Gender: 1989*-95



* Prior to 1989, this site was not participating in DUF.

** Prior to 1990, the priority charge system for selecting the DUF sample was not fully implemented and DUF sites were not required to have an adult male sample where less than 20% had a drug charge. Therefore, the data for 1990 are considered the baseline.

DRAFT REPORT

**YOUTHFUL OFFENDERS: THEORY AND
PRACTICE OF ADOLESCENT DRUG
TRAFFICKING**

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EXECUTIVE SUMMARY

The 1997 National Drug Control Strategy¹ focuses on youth and identifies motivation of America's youth to reject illegal drugs and substance abuse as its number one goal. To assist in providing a foundation for effective prevention and education efforts, CSR, Incorporated, conducted a series of focus and discussion groups with youth from the Washington-Baltimore metropolitan area who were/are involved in drug trafficking. The purpose of this investigation was to better understand both how and why youth become engaged in selling drugs.

Arrest reports and research studies that include data on youth drug dealing show that (1) the numbers of youth selling a variety of illicit drugs or participating in activities that facilitate the sale of these drugs are increasing; (2) youth are becoming involved at increasingly younger ages; and (3) the introduction of crack-cocaine into local urban drug markets appears to have influenced the increase in adolescent drug trafficking. However, a review of recent literature on youth and drugs² found little systematic research conducted specifically on adolescent drug trafficking. This lack of research is a result of the relative recency of widespread participation by adolescents in selling drugs.

Focus and discussion group participants described their family backgrounds, their school experiences, their introduction into drug use and drug selling, and their perspectives on preventing youth from getting involved with drugs. Highlights from their responses include the following:

- Youth in the focus groups all had a history of using and selling drugs. However, there was no single social, economic, or family characteristic that described those most heavily involved in using or selling drugs. Youth who came from what appeared to be the most disadvantaged family circumstances (i.e., very little social, economical, or emotional support) were not the most heavily involved in drug dealing nor were those who came from the best family circumstances the least involved in drug dealing;

- While the literature suggests an association between low school attachment and drug dealing,² a number of focus group participants described themselves as having been good students and getting good grades in high school. Some described how being a good student was a good cover because as long as they received good grades, their parents were less suspicious of them being involved with drugs;
- The association between family history of alcohol and drug problems and youth drug selling found in the literature³ was echoed by many of the focus and discussion participants. In fact, most of the focus group participants reported that they were given their first substance by a family member;
- Drug use and drug selling were frequently described by focus and discussion group youth as ways of fitting in. The majority of focus group participants did not credit their initiation into drug dealing to the influence of people in their own age group or to peers pressuring them to sell drugs. For the most part, this group of young dealers suggested that they took the initiative to become dealers in order to emulate the activities of someone who was much older than they were at the time they started dealing;
- Parents of focus group participants apparently did not notice, acknowledge, or intervene in their adolescent's drug use or selling. Several youth mentioned selling drugs from their homes, purchasing expensive clothes and other items, and spending on lavish lifestyles, yet there was little mention of parents' interference with or acknowledgment of these behaviors among this sample of drug dealers;
- The literature reports a significant number of inner-city youth who are nondrug users that become involved in drug trafficking.⁴ However, most of the youth participating in the focus and discussion groups who were drug dealers were first drug users. They sold drugs either to ensure their own supply or because they knew from their own use the income potential of the drug business and wanted a part of it;

Executive Summary

- The focus group youth who reported that they had stopped selling drugs were those who were heavy users of multiple drugs. Many of these youth were motivated to quit either because of legal consequences or because they just got tired of being so "messed up." The focus group participants did not report they quit selling drugs because of any new insights or attitudes specifically about drug dealing;
- Overall, it would appear that local law enforcement activities alone are insufficient to deter adolescents who are heavily involved in drug activities (using or dealing). In most cases, drug dealing was curtailed when drug use was stopped through prosecution and/or treatment; and
- The unanimous response from the discussion group participants was that there is nothing that can be done to keep youth away from drugs or from trying drugs when the drugs are so readily available. Several youth made jokes about the ineffectiveness of the celebrity advertisements or the personal testimonies that appear on television. There was a mixed response to whether educational programs, such as those presented in schools, were effective or useful.

While attention to targeted prevention efforts has increased in recent years, additional research must be undertaken to deepen the understanding of (1) the risk factors for drug use and drug trafficking among youth and (2) the resiliency factors that might be supported through prevention and intervention efforts to mitigate risk and deter drug trafficking by adolescents. Research in this area can provide the foundation for targeted prevention and intervention efforts that will reduce the escalation of drug trafficking by America's youth.

YOUTHFUL OFFENDERS: THEORY AND PRACTICE OF ADOLESCENT DRUG TRAFFICKING

INTRODUCTION

Adolescent drug trafficking is a small but growing phenomenon among youth of all social and economic circumstances. To better understand both how and why youth become engaged in selling drugs, a series of focus groups and group interviews were conducted with drug-involved youth (ages 18–22) from the Washington-Baltimore metropolitan area. The data (including an extensive glossary and taxonomy of drug-related terms used by focus group participants) derived from these focus groups were compared and contrasted with findings from an extensive literature review to provide the Office of National Drug Control Policy (ONDCP) with new insights that might be used to help shape U.S. drug policy.

The emphasis of the focus groups and group interviews was to determine how the youth became involved in drug dealing and what, if anything, helped them to discontinue their involvement with drug-dealing. The youth were asked to describe (1) their family background and childhood experiences; (2) school experiences and relationships with their peers; (3) how they were first introduced to drug use; (4) how and when they began selling drugs; (5) their life as a drug dealer; (6) what, if anything, helped them discontinue their drug trafficking; and, (7) what they thought could be done to prevent other youth from getting involved with drugs. It should be noted that this sample of adolescent and young adult drug dealers represents primarily a drug-using population that also has engaged in drug dealing, often in order to support their drug use habits. It should be further noted that there is another important population of juveniles who participate in drug trafficking but who, for the most part, do not use illegal drugs.

LITERATURE REVIEW

An examination of the recent research on youth and drugs reveals a substantial body of literature describing the relationships between use of illegal drugs, other drug offenses, and delinquent behaviors, yet little systematic research has been conducted specifically on adolescent drug trafficking. This stems

from the fact that widespread participation by adolescents in the sale of drugs is a relatively recent phenomenon brought about, in part, by the widespread introduction of crack-cocaine into local urban drug markets. Arrest reports and research studies that do include data on youth drug dealing show that the numbers of youth who are selling a variety of illicit drugs or participating in activities that facilitate the sale of these drugs are increasing and that youth are becoming involved in drug trafficking at increasingly younger ages. There also is evidence that some of the increase in violence related to drug sales is the direct result of the more active participation of youth in the drug business.⁶

It is estimated that during the 1980s, about 10 percent of youth engaged in selling illegal drugs, which represents almost 10 times the number reported in the early 1970s.⁷ The risk for drug dealing is especially high among youth living in low-income, inner-city neighborhoods where recent studies have documented that between 26 and 45 percent of youth may be actively involved in the sale of drugs. Data collected from the Pittsburgh Youth Study, the Rochester Youth Development Study, and the Denver Youth Survey suggest that the percentages of inner-city youth involved in drug trafficking are 26, 37, and 45, respectively.⁸ Drug trafficking is increasingly the crime by which youth come to the juvenile justice system. A study of drug-involved youth in Miami revealed that the first crime committed by 67 percent of the youth interviewed was a drug sale or some other drug-related illegal activity.^{8,9} Nationwide in 1993, approximately 89,100 drug offense cases were disposed of by juvenile courts, which represents a 24 percent increase over the number of drug offense cases disposed of in 1989. For jurisdictions that made a distinction between drug trafficking and drug possession, trafficking was the more serious charge in slightly less than one-half of all drug cases in 1993.¹⁰

The literature suggests that, for most youth, selling drugs is just one of a wide variety of episodic delinquent behaviors and something that rarely lasts more than a few months or extends beyond a limited number of transactions conducted among acquaintances. These occasional young dealers do not have flagrantly delinquent lifestyles and rarely come to the attention of the authorities. Even frequent sellers who operate more in the open sell primarily to their peers and do not otherwise have seriously delinquent lifestyles. However, youth who are heavy users of multiple drugs often sell in the adult market for varying lengths of time as a means of supporting their drug habit.

Only a small proportion of young dealers (less than 2 percent of all adolescents) are heavily involved in drug sales and other forms of serious crime. According to both self-reports and official crime statistics, this group is responsible for committing more than 60 percent of all property and violent crimes committed by youth.¹¹ This group also is more likely than other young offenders to continue committing crimes when they reach adulthood.⁹

Characteristics of Youthful Drug Traffickers

The information currently available on juvenile drug traffickers is quite limited. Most studies are based on selected samples of urban drug users and dealers, and the few larger representative surveys that are available include only a few drug traffickers. Official statistics likewise include only limited demographic information that could be used to gain more insight on the drug-trafficking population. The lack of a clear profile for juvenile drug traffickers is also due to the fact that drug dealing by juveniles tends to be a fairly common occurrence conducted by a diverse youth population.

Nevertheless, evidence suggests that adolescent drug dealers have a profile similar to that of chronic offenders. That is, they are more likely to be nonwhite, from lower socioeconomic backgrounds, have lower IQs, spend fewer years in school, and have lower school achievement levels.¹² A number of data sources point to a disproportionately high number of African Americans involved in drug trafficking. Regarding drug trafficking (most of which was found to be small-scale), Gaines notes that among more sophisticated urban minority youth,

There isn't any better economic opportunity to be had [than local cocaine drug-selling cartels]....Meanwhile, suburban white kids are not so organized. They have failed to nurture such flourishing alternatives to blocked mobility. And so they look up to minority kids, city kids, for their superior economic organization on the street.¹³

Some of these data, however, may be skewed by the fact that most studies on adolescent drug trafficking focus on high-risk, urban areas or use readily available arrest data. Even though whites constitute the majority of drug users and probably a large proportion of drug sellers, minorities dominate

the exposed drug selling areas in the inner city, making them easier targets for arrest. Therefore, most data currently available present a demographic picture of adolescent drug dealers that may be more reflective of law enforcement activities than of the population involved in selling drugs.^{14,15}

With regard to gender distribution, arrest data indicate that males represent the largest group of adolescent drug traffickers. Although research on the general youth population suggests that young women are more likely to be involved in selling drugs than was previously believed, other data indicate that young women are not as involved in drug trafficking as they are in other criminal activities.^{16,17,18}

A variety of studies indicate that many adolescent drug dealers experience problems in school, and many do not complete their high school education.^{9,12,19} This corresponds with studies of incarcerated adult drug dealers which show that members of this population are less likely to have completed high school than are adults incarcerated for other crimes. Similarly, drug-dealing youth are more likely than non-drug-dealing youth to engage in a variety of delinquent behaviors; to be more involved in adult behaviors, such as early sexual activity; and to consume alcohol and tobacco more frequently. The data also suggest that the more involved youth are in drug trafficking, the more likely they are to be regular users of multiple drugs.^{20,21}

Difficulty in school and other problem behaviors, however, are not necessarily indications of the adolescent drug dealers' lack of scholastic ability or mental capacity. To some extent, the research suggests that youth who engage in drug dealing have an entrepreneurial nature and that those who are successful in the drug business are skillful and are high achievers. Descriptions of psychological and behavioral traits of entrepreneurial drug traffickers show that they are similar to their noncriminal entrepreneurial counterparts.¹⁷ Most adolescent drug dealers, however, do not have the skills necessary to succeed at drug dealing and either stop dealing or become so dependent on drugs that they quickly come to the attention of law enforcement authorities.

Extent of Adolescent Involvement in the Drug Market

Drug markets vary considerably with respect to level of organization, centralization, presence of social controls, and stability. General information about social distribution and volume of dealing,

however, reveals little about adolescent drug dealers, their clients, patterns of drug selling, or the social structure of drug sales by adolescents. The limited information available indicates that adolescent drug dealing generally is concentrated in marijuana sales and crack-cocaine distribution and that high-frequency drug sales are concentrated among a small proportion of young dealers.

Researchers have found a strong reciprocal relationship between drug use and drug sales. Since marijuana is quite accessible and relatively inexpensive, it has always attracted a large number of part-time sellers who work in a wide array of socioeconomic settings. Distribution of marijuana among youth most often is conducted by small-scale dealers for small profits, and selling takes place primarily in private locations where there is little risk of arrest or violent confrontation.

Although there are regional differences, the rate of cocaine use has increased among adolescents, even though cocaine use among adults has been on the decline.^{22,23} Given the strong relationship between cocaine use and selling, there are reasons to believe that cocaine dealing among youth also is on the rise. Cocaine is favored by adolescents who use multiple drugs, and first cocaine use frequently occurs before age 13. Youth who have been using drugs for some time and dealers of multiple drugs often tend to prefer cocaine, in some form, followed by marijuana. However, data on heroin use and sales suggest that youth involvement has been low. Heroin distribution generally is controlled by stable, organized crime groups, and selling is conducted by widely dispersed, small-scale street dealers; thus, heroin dealers generally are older than those selling other drugs. Current data, however, suggest that heroin consumption by adolescents is increasing, which may also affect their level of involvement in heroin selling.²³

The introduction of crack-cocaine into the drug market in the mid-1980s fundamentally altered the structure of drug-dealing networks from loose confederations of freelance sellers to vertically organized dealing groups and organizations. The expanded distribution system that developed with the introduction of crack-cocaine made it possible for youth to move up in the ranks of drug selling in a way that was not possible before. Drug dealers began using juveniles to serve as lookouts, couriers, and sellers because they could pay them less than they would have to pay an adult and because the juvenile justice system returned juveniles arrested for drugs crimes to the streets in a very short time. Drug

selling quickly came to dominate the activity of young criminals and continues to attract increasingly younger cohorts to its ranks.

In addition, the violence associated with drug trafficking is a phenomenon specifically related to the sale of crack-cocaine and is often directly related to the increased involvement of youth. The volume of cash generated by crack-cocaine sales and the competition for turf it engenders have led to an increase in the number of weapons involved; those weapons often are used by youth who have no experience with firearms and who have been desensitized to violence by the circumstances in which they live.^{6,24,25,26}

There also are indications that the hierarchical nature of crack-cocaine distribution encourages the use of violence to enforce discipline in the ranks. Crack-cocaine markets encourage and reward violence and attract violent individuals to serve as drug sellers. The increase in murder arrest rates between 1985 and 1992 for youth ages 15 to 24 is directly related to the increased participation of youth in crack-cocaine dealing.⁶

Risk Factors Associated with Adolescent Drug Trafficking

In addition to descriptive studies of adolescent involvement in the drug trade, the literature also highlights a variety of risk factors associated with adolescent drug involvement. Although the research is primarily focused on adolescent drug use and other delinquent behaviors, it provides some insight regarding which risk factors are likely to be associated with drug dealing. A chart of the individual risk factors highlighted by current research is located in Appendix A.²⁷ It is important to note that while some risk factors appear more frequently in the research than others, the frequency with which they appear reflects current research priorities, easier access to some sample populations, and the availability of specific background information more than it reflects their importance in adolescent drug dealing.

The risk factors associated with adolescent drug trafficking have been grouped into five broad categories: individual risk factors, family characteristics, ecological and neighborhood risk factors, economic risk factors, and other social risk factors. Individual risk factors include drug and alcohol use, delinquency, early involvement in adult behaviors, gun possession, low school attachment and

achievement, and an external locus of control. Family characteristics found to correlate with adolescent drug trafficking include family alcohol and drug use, low family attachment, lack of supervision, and low parental achievement.

Research dating back to the early 1920s supports the notion that neighborhood and community contexts increase the potential for specific youth outcomes, even though we are just beginning to understand what mechanisms are at work and how influences are transmitted. Current research underscores frequent exposure to drug activity, contact with adult drug traffickers, community acceptance of drugs, lack of opportunities for personal success, and lack of alternative activities as the neighborhood or community elements that put youth at risk for drug trafficking.

Economic risk factors include a weak labor market for low-skill jobs, the low wage potential of available jobs, and the presence of a strong drug market. Several social factors, including the youth's peer group, contact with drug-dealing adults, the perception of minimal legal deterrence, and a lack of other social activities also are acknowledged as significant risk factors for adolescent drug dealing.

It is important to note that none of the research establishes a causal relationship between adolescent drug trafficking and any of the risk factors identified. While some studies identified a sequential progression toward drug trafficking in relation to specific risk factors, most studies showed only associations. One of the strongest risk factors appears to be the individual's own drug use (including alcohol and tobacco). Studies indicate that a high proportion of drug traffickers report using a variety of drugs, and one of the primary reasons for getting involved in selling drugs is to increase access to the drugs they need for their own personal use.^{5,28,29,30,31} Furthermore, although research has shown that crack-cocaine has reversed the temporal sequencing of drug use and selling, with many young dealers initially avoiding the use of crack-cocaine, most youth who stay involved in the crack-cocaine trade eventually become drug users.¹³

What can be concluded from the existing literature is that the risk factors related to adolescent drug trafficking are many, but the interrelationships among them are not yet well understood. There are very few concrete answers to why some youth engage in drug trafficking while many other youth who

are exposed to the same environments and social relationships do not. What appears to be a vast amount of information about adolescent drug involvement lacks a focus on drug trafficking, thereby limiting our ability to develop a more precise risk profile of young drug dealers or to hypothesize about causal relationships.

METHODS

Adolescents "rarely begin drug use alone, and often do so as part of natural processes of experimentation and peer solidarity."³² Thus, the initiation into drug use is generally a social process involving distinctive actions, rituals, and beliefs. Such social processes can often be best understood through qualitative, in-person, and ethnographic research methods, such as focus groups, rather than quantitative data-driven survey methods. Delinquent youth are highly wary of adults and can generally only be reached by means of patient, face-to-face talking. This methodological consideration may be one reason why much criminological research, based as it often is on large surveys, has had little success uncovering the fundamental motivations and contexts of adolescent drug users.

Urban sociologists have long advocated qualitative, fieldwork-based studies of U.S. criminal or deviant populations. The National Institute on Drug Abuse (NIDA) has long been active in conducting sociological or ethnographic studies on drug abuse and was a primary sponsor of a book on the use of ethnographic methods for studying drug use and abuse in natural settings.³³ More recently, two NIDA Research Monographs^{34,35} have summarized the state-of-the-art of ethnographic drug abuse research methods. Thus, the primary methods used to address the research questions posed earlier are multiple focus groups and group interviews.

Overall, 15 individuals ages 17 to 31 living in the Washington, D.C., and Baltimore, Maryland, metropolitan areas who sold drugs during their teenage years participated in two formal focus groups that were conducted in April 1996 and May 1997. Each focus group was tape-recorded and the resulting tapes were transcribed for analysis. (See Appendix B for examples of questions used in the focus groups.) In addition, three discussion groups were conducted with drug-involved adolescents and young adults from Fairfax County, Virginia (five participants), Washington, D.C. (four participants), and Montgomery County, Maryland (three participants). Although none of these discussion groups was tape-

recorded, numerous notetakers were seated around the room during the discussions to record as much of the resulting conversation as possible. Since none of the four participants in the Washington, D.C., discussion group were willing to acknowledge ever having sold drugs, data from this group has been excluded from this report. A full description of focus group methodology is provided in Appendix C.

For the purposes of reporting, the focus groups and discussion groups have been differentiated as follows:

- Focus Group 1 (Baltimore, Maryland; April 2, 1996)
- Focus Group 2 (Washington, D.C.; May 6, 1997)
- Discussion Group 3 (Annandale, Virginia; January 29, 1997)
- Discussion Group 4 (Rockville, Maryland; February 13, 1997)

This identification system allows each focus group or discussion group participant (represented anonymously during the discussions and in all analysis cases by a letter, A-H) to have a unique identifier such as "C2" (i.e., participant C in Focus Group 2).

Focus Groups

Focus Group 1 was conducted on April 2, 1996, in an East Baltimore high school with seven African American males, ages 18 to 31 (average age 24 years). This focus group, which lasted almost 3 hours, was moderated by a respected African American community leader and researcher. The moderator recruited the focus group participants and assured them that their anonymity would be respected. Participants each received a cash honorarium for their participation.

Focus Group 2 was conducted on May 6, 1997, in a Northeast Washington, D.C., church with eight white participants (5 males and 3 females), ages 17 to 21 (average age 19 years). The group was moderated by a 40-year-old white male, who recruited all of the participants from an addict recovery program that he directed; he also is a recovering addict. Each participant of this focus group was given a cash honorarium.

Both groups were provided a free dinner of pizza and soft drinks. All participants came of their own volition and were guaranteed complete anonymity; no names were used or requested, either orally or in writing. Each participant was identified by a letter which was set on the table at his or her seat and the group was asked to refer to each other only by this letter. Both focus groups were tape-recorded by using a micro-cassette recorder with an omni-directional microphone to generate verbatim transcripts for later analysis.

Discussion Groups

The three discussion groups were conducted in early 1997. Although the sessions were not tape-recorded, each session had several notetakers who attempted to capture as much of the discussion as possible. All participants were paid \$20 in cash at the end of the sessions. As mentioned earlier, data from one of the discussion groups is not included in this report.

Discussion Group 3 included five Fairfax County, Virginia, residents (two black males and three white females), ages 17 to 21 (average age 19 years). It was held in a private room at a restaurant in Annandale, Virginia. The participants were served lunch while responding to questions posed by a CSR staff moderator. The discussion group lasted one-and-one-half hours. All five participants were brought to the restaurant by nonuniformed local law enforcement officials and picked up by these same officials at the close of the discussion. Only the participants and CSR staff were in the room during the discussion, with the exception of a single restaurant wait person. The three female participants were under Federal Court order, under the terms of their paroles, to relate their experiences, as a method of community service and prevention education.

Discussion Group 4 took place in a private room at the Rockville (Maryland) Police Headquarters with three Montgomery County, Maryland, residents (one Pakistani male and two white females), ages 18 to 20 (average age 19 years). Participants were offered the opportunity to order pizza and sodas, but they declined the meal in hopes of completing the discussion sooner. The youth were enlisted by and brought to the meeting by members of the Rockville Police Department. (It was unclear if the male participant was in police custody at the time of the meeting, but reference was made to his having been arrested earlier that day.) The two female participants were in treatment/rehabilitation programs as a

result of police intervention into their drug activities, and one of them mentioned the possibility of getting “credit” for her participation. The discussion lasted approximately 1 hour.

ANALYSIS

The following section discusses the methods used for analyzing the transcripts from the two focus groups and notes from the two discussion groups.

Focus Group Transcripts

Preparation and analysis of the focus group transcripts involved the following steps:

- *Step 1.*—Conducting preliminary analysis of the transcript to identify emergent themes;
- *Step 2.*—Reduction of the transcript by deleting irrelevant or off-topic text (resulting in transcripts of 61 and 42 pages, respectively, for Focus Groups 1 and 2);
- *Step 3.*—Regrouping of participants’ responses by corresponding questions (e.g., for Focus Group 1, all seven participants’ responses to Question 3 were rearranged to form a new sequence of text consisting of comparable responses made by A1, B1, C1, D1, E1, F1, and G1);
- *Step 4.*—Identification of a set of six overarching issues (i.e., Family Background; School and Self-Perception; Introduction to Drug Use; Introduction to Drug Selling; Life of the Drug Seller; and, Prevention—thoughts on how individuals “get clean” and how society at large may or may not be able to deal with youth drug problems) that correspond to transcript content and respond to ONDCP research needs;
- *Step 5.*—Identification of and inclusion in the analytic narratives of participants’ relevant direct (and often lengthy) quotations which support and form the foundation of this analysis;

- *Step 6.*—Utilizing the reduced transcripts and direct quotations to construct analytic narratives for each of the two focus groups' six issue areas.^{36,37,38,39}

Discussion Group Notes

Since most of the discussion group participants were enlisted by local law enforcement officials, and since several participants participated to fulfill their parole, CSR decided not to tape-record these discussions. Instead, several notetakers were seated around the room and were responsible for recording the discussion as fully as possible. While CSR recognizes that such notetaking represents, at best, an interpretation of what was actually said, this method was deemed necessary to ensure participant anonymity and an acceptable level of comfort. The notetakers were able to capture the essential flow of the discussion and to record the major thematic elements of the content.

CSR has endeavored, for each of the two discussion groups, to compare and collate the notes of the individual notetakers, to confirm (as a result of multiple similar renderings) the accuracy of interpretations, and thus to develop a set of thematic statements that summarize the contents of the discussion groups. These data were compared with and contrasted to both the research literature and the data from the focus groups, thus complementing and confirming or disconfirming findings from those other data sources.

Basic demographic information about the discussion group participants was obtained from the responses to the several questions asked during the course of the discussion. Examples of questions addressed in the focus and discussion groups are provided in Appendix B.

FINDINGS

The focus groups and discussion groups were centered around two basic issues: (1) what facilitated the youths' entry into drug dealing and (2) what, if anything, helped them get out of drug dealing. The data provided by the focus group and discussion group participants were analyzed and the following eight topics emerged as central organizing themes: (1) family background and early childhood experiences; (2) personal characteristics; (3) school experiences and peer group relationships; (4) introduction to drug use; (5) how and when the youth began their drug-selling careers; (6) their lives

as drug dealers; (7) what, if anything, helped them get out of drug dealing; and (8) effective prevention strategies. For each theme, a series of summary statements was developed that is illustrated by direct quotations and observations. The following sections present those statements, illustrative quotations, and observation data. It is important to note that the findings from the focus and discussion groups cannot be generalized to all drug trafficking youth, nor should any discrepancies between the research literature and those findings be misinterpreted to indicate new or emerging trends.

Family Background and Early Childhood Experiences

- *No single demographic profile emerges from this sample of adolescent and young adult drug dealers.*—Equal numbers of focus group and discussion group participants came from intact or stable family backgrounds or had experienced family disruption due to parents' separation, caretaker illnesses, or absentee parents. Several of the youth came from what appeared to be upper-middle-class family circumstances, several were from families living in poverty, and the remainder had family backgrounds that represented a spectrum of middle class situations. It was not always lack of financial or material resources that propelled youth into selling drugs.

The participants differed considerably regarding the number of siblings present in the household during their childhood, the types of neighborhoods in which they grew up, and the presence of factors often linked to personal success or achievement. Based on their comments, several youth appeared to lack specific career plans and goals while others were very focused on what they wanted to attain. In short, no particular family factors appear emerged to distinguish why these youth were drawn to drug dealing.

- *Degree of family attachment prior to becoming heavily involved in drugs did not emerge as a significant background variable.*—The participants' descriptions of their family lives revealed considerable diversity in the degree to which they felt their parents were supportive of them. Some of the discussion group participants mentioned having difficult home lives and made comments suggesting that they were not very attached to their parents ("*I was abused from like the age of 8 to 15...and its when the abuse started when I started like going*

crazy..." [C2]; "My father disappeared when he thought my mom was pregnant with me...I was like kicked out at least once a year since the first grade—foster homes, group homes, stuff like that." [A2]; "I've been through a lot of shit. My dad's not so understanding but he's been there for me. We've never gotten along, ever...he yells, I yell...he verbally abusive - always has been." [E2]; "All I really remember about her [mother] is her gettin' high most of the time; she was real abusive towards me and my brother...my little sister was born, things really got bad around the house..." [A1]). Others, however, described very positive family relationships ("I was happy as a lark, you know, a really happy kid. And, I was really spoiled then." [B2]; "I come from an intact home. I have really loving and supportive parents...I was really happy. I'm still happy." [D2]; "My parents was there; they'd give me anything I wanted..." [F1]) and expressed concern about how their activities were affecting their families ("I ended up moving to South Carolina with my grandmother...where I tried to make a change because I knew that I couldn't do that with my grandmother because of for one her being at her age and for two knowing that she couldn't really take the pressure..." [G1]). Several of the youth mentioned having had good relationships with their parents until they began using drugs, while others described more contentious relationships. Youth who came from what appeared to be the most disadvantaged family circumstances (i.e., very little social, economic, or emotional support) were not the most heavily involved in drug dealing nor were those who came from the best family circumstances the least involved in drug dealing.

Acceptance of illegal substances is often learned in the home.—Several focus group participants revealed that at least one parent had some type of substance abuse or addiction problem ("My mother was an IV drug user..." [A1]; "My dad was an alcoholic..." [F2]; "My mom...was one of those anxious housewives, who they prescribed Valium for..." [B2]; "My grandfather is an alcoholic. My grandmother's an alcoholic...and she threw liquor on us..." [E2]). This was confirmed by descriptions given by discussion group participants, one of whom described a father heavily involved in alcohol, another whose father was described as an "acid-head", and another who referred to her mother as a pill-popper. Other participants mentioned that drug use was prevalent among siblings and other extended family members,

(“...my mom’s family...they drink beer and fight and smoke weed and smoke cigarettes.” [E2]; “...first time I ever tripped was on peyote and I did that with my other brother...” [F2]; “...my little brother was an alcoholic.” [H2]; “...and I would say no to drugs and everything, because I could see what it had done to my mother and grandfather.” [A1]). This prevalence of heavy alcohol and/or drug use in the family provides a source of behavioral modeling as well as suggesting a sense of familiarity with drug-related activities.

- ***Drug-dealing youth do not necessarily come from families engaged in criminal activities.***—Some of the focus group and discussion group participants mentioned, directly or indirectly, that their parents were law-abiding, hard-working, or good citizens. Participants referred to family involvement in religious and/or church activities and access to loving grandparents and other “protective” factors. *(I come from an upper middle family...my parents’ both have really high paying jobs. They’re both professionals. I come from an intact home. I have really caring, supportive parents. I have no idea what happened to me...And I was really happy. I’m still happy. I had a happy childhood. My parents were really loving and caring and I lived near a lot of other family, who also played a good role in my life, tried to be there for me...“I grew up in church and I really, never ever did anything wrong except for doing drugs until I probably turned 18...” [D2]*
- ***Drug-related activities often occur within the oversight of the family but are not effectively challenged.***—Although lack of supervision has been shown to have an impact on youths’ delinquent behavior, this may not be the most effective way of describing the circumstances that allowed this sample of youth to engage in serious drug use and trafficking. Several youth mentioned selling drugs from their homes; purchasing expensive clothes and other items, including a new Lexus; spending on lavish lifestyles; and frequent heavy drug use, which should have signaled parents that their adolescents were using and selling illegal drugs. Yet, there was little-to-no mention of parents’ interference with or acknowledgment of these behaviors among this sample of drug dealers. In fact, several participants described how their parents and other family members were amused when they saw them intoxicated at family events, or how parents believed that the money to buy a new car came from a part-time job.

"I ain't want nobody know I was hustling. 'Cause nobody would ever guess. I ain't let nobody know. I had a spot right around the corner from my house and I was making loot. And she never, never knew...." [A1]; *"I was about - probably a seventh grader when I first sold a drug and it was pot. I'd buy it and sell it and I'd cut it with oregano if I felt like it...I never got into selling pot. I tried it for a little while...So that was basically a waste of time and I started to get into cocaine, which was my, you know, the drug that I've done the most, the drug that paid for my car, the drug that paid for my habit and the drug that paid for my limousines and fancy restaurants and all that good stuff. And I started doing that in eighth grade."* [B2] Parents' denial or lack of awareness of the warning signs for drug use and drug dealing may pose an even greater risk for drug behavior than lack of supervision.

Youth engage in drug use and drug dealing in spite of efforts by parents to overcome some of the known risk factors.—Focus group and discussion group participants shared examples of how their parents and grandparents tried to overcome disadvantages such as poor neighborhoods, difficult family situations, and bad schools to better ensure their children's safety and success (*"...but you had a mother that was doin' all she could to try to help me develop, so she took me out of public school, put me in parochial school..."* [B1]; *"...my grandmother came and got me and my little sister, and we stayed with her...who has such a big heart..."* [A1]; *"My mom's really loving...She's real understanding. She's helped me out through my whole life through a rack of shit."* [E2]). Yet, these positive efforts were not sufficient to overcome other influences in their lives such as peer group activity and easy access to drugs.

Personal Characteristics

Youth who are drawn into or attracted to drug dealing may be those who have risk-taking or thrill-seeking personalities.—Although the direction of the causal relationship or association is not clear, most of the focus group and discussion group participants related stories about a variety of reckless, high-spirited, and dangerous activities in which they had engaged, often directly related to their drug dealing (and frequently related to episodes of drug use). In addition, several focus group participants described how their curiosity about

drugs at an early age had them sneaking prescription drugs from their parents and grandparents just to experience the impact (*"You never knew if it was going to make you feel good or make you go to sleep, or whatever..."* [C2]), which provides some indication that those who become heavily involved with drugs may have a greater urge to experience the unknown and the forbidden.

- *Adolescent drug dealers view themselves as "outsiders," as not quite fitting in with their peers or family.*—Whether it resulted from being exceptionally bright or gifted, from being treated as learning disabled, or from being one of only a few ethnic minority students in a school, the majority of the focus group and discussion group participants felt that they were outsiders. *"...I've struggled with learning disabilities, like, all my life, you know, and I never really bought it. You know, I was on Ritalin and that really fucked me up...I felt like I wan't normal and they were telling me I had to do — do drugs, take drugs to be normal. You know, so that's where my drug addiction popped in."* [E2] Many of the youth also described themselves as being loners (*"...I got my own world. I'm not crazy, but...I'd rather be by myself..."* [E1]; *"I was always a loner when I was a kid...I really liked to read. I liked hanging out by myself..."* [C2]).

The feeling that they did not fit in with whatever group they were comparing themselves with often surfaced as they described why they became involved with drugs and drug dealing.

Drug use was frequently a way of fitting in, becoming part of a group, or a way for younger kids to fit in with an older crowd (*"Even though he was 10 years older than me...everything he did, I, I somewhat emulated him..."* [C1] and *"I was the only one I knew that was like my age doing drugs or drinking. I hung out with a much older crowd from my neighborhood — like all these 17 and 18 year olds...I was dealing when I was...probably 14..."* [C2]).

Focus group and discussion group participants mentioned race/ethnicity as a component of feeling like an outsider. In Focus Group 1, which was composed entirely of African American males, references were made to the burden of trying to make good in a white world (*"...where I was the only black kid...it was rough...[having] to deal with the color barrier of*

my skin and not understanding what the problems were and having things thrown at you...it made me bitter, it made me angry..." [B1]; "...it's the money...it's the respect; it's the acceptance. You want to be important; you want to also have some pride in yourself...a lot of our young, black sisters will not accept us as men unless we have something." [B1]; and "...you have one world over here that you want to be accepted by, but then you have to live in this world over here, and be a totally different person...it's hard to do that at 15, 14, 13 because if you don't have nothin', you got a mother that works—grandmother or whatever—and...it's not like Leave it to Beaver...in our community...when you get home, you might won't have nothing to eat." [D1]).

In the discussion groups the racial/ethnicity themes included the differential treatment of whites by the police during searches and arrests; the racial politics of drug busting; the pressure to use drugs to show that you can fit in when you are not part of the ethnic majority; the different cultural perspectives on drug use; and the suspicion of being involved in drugs or not, based on race/ethnicity or other appearance-related variables (e.g., clothing, tattoos, and hair style). Most of the ethnic minority youth mentioned their belief that their minority status represented an obstacle to either economic and social success.

- *Adolescent drug traffickers crave the social status that dealing bestows.*—Drug dealing also set these youth up as a focal point, so that other youth were drawn to them as a source of drugs, which gave the appearance of popularity or of having more friends ("*Dealing drugs was just something I did to help everyone out. I just wanted everyone to be happy.*" [C2]). Several focus group members stated that they especially enjoyed having the power of the sell over other drug users ("*...even though we treated them like shit, they were still there...because we had the drugs.*" [A2] and "*It's like a sense of power...you feel like God or something...*" [F2]).
- *Many adolescent drug dealers have an eagerness to work and to develop their own business skills—what might be considered entrepreneurial spirit.*—Almost all of the focus group and discussion group participants mentioned having had some type of paying job while they were

in high school (e.g., auto mechanic, fast-food clerk, cosmetics salesperson, receptionist, or clothing store clerk). Some of the youth started finding ways to make money quite early (“...I was goin’ to try to make my way, go find, eh, odd jobs...I had a whole bunch of jobs - delivered papers, I cut grass, pumped gas, washed windows...swept hair in the barbershops...” [A1]). Some of the youth continued with legal paying jobs while they were selling drugs, while others mentioned the desire for more income as the reason they moved on to a drug-selling career (“And, it was, like a big waste of time and I wasn’t really bringin’ in enough money...so I started doin’ little stuff for [drug dealer]...” [A1] and “[Legal work] jis’ didn’t cut the mustard. It was jis’ not, never enough money.” [B1]).

School and Peer Group Relationships

- *Youth who get involved in selling drugs are often both bright and capable.*—A large proportion of the focus group participants described themselves as having been good students and achieving good grades in high school (“I did really well in school...maintained an A average all my life.” [D2]; “...my thing was school...I was one of the smartest kids in the school...offered scholarships...” [D1]; “I was pretty good in school...always got decent grades.” [C2]; and “My grades have always been outstanding...I graduated school with honors, the top 15 percent of my class.” [F2]). Even those who did not consider school important or apply themselves gave evidence of ability (“...school wasn’t really nothin’ to me...I knew the work, I ain’t never go that much...I go around test times, I passed the test and—well, it was easy—I never worked.” [E1]).

Several of the discussion group participants also described how they had been good students until they became engaged in drug activities. Some described how being a good student was a good cover because as long as they got good grades, their parents were less suspicious of their being involved with drugs. “My grades have always been outstanding...I graduated school with honors, the top 15 percent of my class. And then I got to the University and I left home and that’s when things went downhill, because like, I didn’t have anybody to hide my shit from anymore, like, no focus.” [F2] “Once my father passed away, I just got wide open, just didn’t care...I made it to the twelfth grade middle year. That’s when my father

passed away, and I took two weeks out of school and then after two weeks I just said, bump school, I ain't gonna go back to school." [F1]

Peer group influence may be less of a risk factor for drug dealing than it is for drug use; adolescent drug dealers are not just following the crowd.—The majority of focus group participants did not credit their initiation into drug dealing to peer pressure or even to the influence of people in their own age group. For the most part, this group of young dealers suggested that they took the initiative to become dealers or were trying to emulate the activities of someone who was much older than they were at the time they started dealing ("*I was that little boy up the street that nobody suspected he was doing anything wrong...I started my own little enterprise. If you can do it, and you can make money, I can do it too...*" [B1]; "*I bought some cocaine from him [to sell]...even though he was 10 years older than me,... everything he did, I somewhat emulated.*" [C1]; "*...my girlfriend's older brother...he was sellin' drugs so I started out doin' little stuff for him...*" [A1]; "*...so the older guys...was like, OK shorty, what y'all want? Well look, I got \$50; lemme buy a ounce...and I would take it and roll all that J...and jis'sell all of 'em to the school.*" [D1]; "*I think I was about 15 when my [older] brother encouraged me to [sell drugs]...*" [A2].

Adolescent drug dealers are often independent dealers rather than gang members selling as part of their gang responsibility.—Several of the discussion group participants mentioned that police described them as gang members, but that they did not belong to any gang. These youth stated that they tended to "hang out" with members of their own ethnic group, but that they were not engaged in any group activity that could be labeled as gang activity. "*I was that little boy up the street that nobody suspected he was doing anything wrong, and he could sit there. Sitting on top of something...a little lunch bag or whatever, and nobody would pay any attention to me. I got into it. I got into it. I started my own little enterprise.*" [B1] "*I used to run drugs for my boyfriends when I was, um, probably a ninth grader, [maybe] 16. But the only time I was ever really selling my own drugs was once I got to college.*" [D2] Some youth felt that the police make false assumptions about any group associations when drugs are involved.

Introduction to Substance Use

- **First drug use often occurs in the family, usually as a result of a family member offering the drug.**—Most of the focus group participants were given their first substance by a family member (“I started to drink...when I was like, little; I drank like a whole beer and I be like on the floor...buzzed and riding in my Dad’s boat...I’ve gotten high with my mother and I actually — my dad smoked pot when I was 6 years old.” [B2]; “I’d be at my uncle’s house and he’d be like, here’s a beer man...” [E2]; “...when I was a baby they used to put brandy on my teeth so I would stop screaming.” [F2]; “Drinking and smoking reefer with my older cousins.” [A1]; “When I was 12, me and my cousin got one of those little shorty bottles of Cisco...and just walked around Miami...drinking all night long.” [G1]; “My brother introduced me to alcohol for the first time in like 4th or 5th grade.” [H2]).
- **Intoxicating and illegal substances are a significant part of youth’s everyday world.**—Focus group participants described frequent encounters with alcohol and drugs as part of their everyday life (“I’d go to a park, like family functions, and there would be mass amounts of alcohol...my uncles and their wives smoked weed...” [E2]; “...my friend’s house and, you can basically go anywhere in the house and find reefer...there’d be a candy dish sittin’ on the dining room table, full up wit’ reefer and they’d have all these kinds of pipes...” [F1]. One youth even mentioned how, after going through a D.A.R.E. (Drug Abuse Resistance Education) course, he told his mother that his uncle was smoking marijuana in the bathroom, but she denied it even though the smell was obvious around the house.
- **Some youth are introduced to drugs as a way of controlling their behavior; drug use becomes familiar as a way of dealing with personal problems.**—Several focus group participants described how either drugs or alcohol were used to calm them down as babies or bring their behavior under control at school (“I was put on Ritalin when I was real little...and that kind of got me high...” [H2]; “I was on Ritalin and that really fucked me up...I felt like I wasn’t normal and they were telling me I had to do drugs, take drugs to be normal.” [E2]; “I come from this really dysfunctional neighborhood...every single girl is thin and beautiful...and maybe 7th grade, and I was doing a lot of over-the-counter-speeds...we were just eating it all

the time." [D2]; "When I was a baby...they used to put brandy on my teeth...so I would stop screaming...when my teeth were coming in." [F2]).

How and When Youth Began Drug Dealing

- *Youth with heavy drug habits often turn to drug dealing to finance their own use.*—Most of this group of young drug dealers were first drug users, often starting with alcohol and marijuana, before they began selling drugs. They sold drugs either to ensure their own supply or because they knew from their own use the income potential of the drug business and wanted a part of it ("...by the time I was 18, I was just using way too much. If I had a full-time job I couldn't pay for it...I just did it so I could have enough drugs." [D2]; "...at first I didn't care about the money because...I was smoking my profit...I'd get paid in bud." [E2]; "My primary purpose for doing that was to get more drugs and to...you know, I wanted money, but like money for drugs." [G2]). Most of the participants had tried a variety of drugs by the time they began dealing drugs, and first drug use frequently was at an early age (i.e., age 12 to 13). Those drugs that focus group participants mentioned having sold are marijuana, cocaine, heroin, hashish, crystal methedrine, MDMA (Ecstasy), and psilocybin mushrooms.
- *Youth who become involved in dealing drugs before using them rarely avoid becoming users at a later date.*—At least two members of Focus Group 1 appeared to have participated in drug trafficking activities (e.g., as lookouts or runners) at very young ages and before starting their own drug use. Even so, they began using alcohol and drugs, usually marijuana, before age 20 and continued on to heavier drug use (i.e., "tripping acid and poppin' pills.")
- *Drug dealing is an alluring and lucrative business for youth who already envision themselves as "outsiders."*—Youth are drawn into drug dealing because it offers big rewards and some control over income at a time in their lives when these things are not otherwise available. Focus group and discussion group participants made frequent references to their need for money, whether it was to support themselves and become independent from their parents or to buy things they needed to fit in with their peer group ("I'm growing up around

people who had nice shoes and everybody was dressing in slick pants...I at least wanted to be able to blend in..." [B1]; "Before I had a job and my mom never gave me any money...as long as I had drugs it was like a safety kind of thing." [A2]; "...cocaine...paid for my habit and...paid for my limousines and fancy restaurants and all that good stuff." [B2]; "...I was basically selling LSD in large quantities so I could tour [with the Grateful Dead] so I would have food and money and what not." [F2]; "...I sold drugs to feed my addiction and to feed myself sometimes. When I was homeless, I'd have to sell drugs to like eat." [H2]).

The discussion group participants who acknowledged having sold drugs were almost evenly split between those who began their selling careers quite informally (i.e., started with an occasional sale to a friend or acquaintance) and those who consciously entered into drug dealing for its lucrative returns. The scope of their drug selling careers, however, was not totally dependent on what initial path they took into dealing but rather was dependent on other factors such as friendships, success or failure at dealing, and degree of drug use.

Life as a Drug Dealer

- **Heavy drug use among adolescents is associated with drug trafficking.**—As the focus group and discussion group participants described their drug-dealing careers, it became very clear that those who were engaged in the largest volume of drug transactions (multiple drugs for large profits) during their teenage years also were the heaviest users of a variety of drugs; their drug use and drug dealing were totally interrelated. Those youth with more limited personal usage (i.e., only marijuana or prescription drugs) were engaged in more limited selling (i.e., they sold only to a few friends or acquaintances). However, this strong interrelationship between drug use and dealing may change as the dealers get older and experience the consequences of their drug dealing. The older focus group participants, many of whom were in their late 20's had been convicted and served time, described a much more business-like approach to their drug dealing; their comments suggested that they were much less involved in drug use.
- **Drug trafficking represents a rational choice for youth who have some connections to the drug world.**—Whether they live in neighborhoods with widespread open drug marketing or

simply have friends who use marijuana on an occasional basis, teenagers today are knowledgeable about drugs and knowledgeable about where to obtain a variety of illegal substances. Most of the youth who admitted selling drugs related that they did so for the money—whether it was for an occasional extra \$50 to \$100 to spend on themselves or for several thousand dollars to bail a friend out of jail; the youth also acknowledged that selling was easy, i.e., they didn't have trouble either getting the drugs or finding a buyer. For some focus group members, drug dealing was the only way they could imagine making what they considered adequate income (*"You gotta pay for probation...I owe my lawyer money...I was saying...I don't wanna go out there an' hustle, all the way up to the day before I went to court...I want a job...but...I knew I wasn't gon' git no job...making no money to hit my lawyer up. And you gotta hit your lawyer to stay out on the streets."* [E1]; *"As a laborer...nonskilled...I couldn't make more than maybe \$5 to \$7.50 a hour. [As a drug dealer] I'm making \$5,000 a month...I could become a millionaire—wouldn't have been a problem..."* [B1]).

Selling drugs was more lucrative and, to some degree, more accessible than were other ways for youth to meet their need for cash. The youth who were engaged in heavy drug sales described how they began by selling marijuana but went on to harder drugs (primarily cocaine) because the money was better. Marijuana netted small profits and, in many cases, no profit because the dealer often used the whole supply before he or she could sell it. (*"...back when I was goin' to school, like a nickel bag was like 15 joints. So you could get a nickel and like...smoke some weed, git your money back, and that was jis like selling it on a large, small scale."* [D1]; *"So I stopped messing wit' weed cause I aint gon' let em make no money off weed."* [E1]; *"I was about, probably a 7th grader when I first sold a drug and it was pot. I'd buy it and sell it and cut it with oregano if I felt like it...that was basically a waste of time and I started to get into cocaine..."* [B2]; *"When I started dealing drugs I was just like a happy hippy...dealing drugs [pot] was just something I did to help everyone out. Once it got past pot it got really bad. I started dealing [Ecstasy] and...it was craziness...I'd walk out [of a club] with a lot of the cash."* [C2]; *"I was like 14 and...selling pot...kids knew that I could get it. And, this dude, he'd like...give me the herb and I'd sell it and he'd give*

me, like...a little money here and there...and then I started selling acid...coke and crystal...and I ended up making like money..." [E2]; "I remember selling people weed because I always had weed and people just knew I always had it...I just did that so I could get more...I got introduced to coke by my drug dealer...she told me we could get more drugs and that our dealer would pay us in drugs to sell them..." [G2].)

- **Youth who engage in either drug use or drug dealing find their outlook on life becomes very grim.**—The focus group and discussion group participants described how their lives changed after they started using and selling drugs ("...once I started like pulling in the mad loot, like I didn't care about anything, about anyone." [C2]; "You know, I'd fuck people over like that, screw with people's heads. I was a really, really mean person." [B2]; "...my dealer was a prostitute and was trying to get...us into like the whole thing...it's not that I don't think I would ever have done it. I would not have done that if it wasn't for using and selling to keep using." [G2]; "Violence isn't necessarily slamming somebody's head with a baseball bat; violence is being disrespectful to the ones that you love...or imposing yourself, mind manipulation...I did a lot of those things." [B1]; "When I left my house and got in my cor to go out and sell my drugs...I was true, crude, crudball downright money-oriented business man. [C1]).

Since drug use and drug dealing were so interrelated in the lives of these youth, it is difficult to separate the impact of the drug trafficking from the effects of being only users (e.g., fear or paranoia). The inability to separate the impact of one from the impact of the other also was noted by several of the participants ("I think both the dealing and the using impacted me like equally the same...thinking that all humans are scum, seeing what people do for drugs." [H2]; "I just looked in the mirror one day and I couldn't recognize myself and I was a shell of a person." [G2]).

- **Drug dealing subjects youth to a world of violence.**—Like most activities that involve large amounts of money, drug dealing generates violence. When asked how their lives changed as a result of their drug dealing, the focus group participants responded by relating a wide range

of violent events (*"The police are the easiest thing to deal with...another hustler, uh, stick-up boys will kill you. They will rape your mother, beat up your girlfriend, rape her too; shoot your children...those kind of people don't make a lot of noise when they come into your house."* [B1]; *"...some guys got kilt, shot in the head; guy's mothers got kilt; guys families got burned up...a lot of different things happened to really...it made me become real violent."* [D1]).

Several of the focus group participants mentioned the use of guns, either for their own protection (*"I carried a Glock around all the time. I had a switchblade on me all the time."*[C2];) or having been involved in situations where guns were used by others. Some of the stories they related involved seeing or hearing about a close friend who was shot and killed because of drug-related activity. While these episodes of violence were disturbing to the youth involved, these events did not ultimately discourage them from their own drug activities (*"...one day the guy who I was hustlin' for...got killed—right 'dere while I was with him...I knew about a half-a-kee that he had back in his house...That's when I went and found it, up there with my cousins and they showed me what to do wit' it. And that's how, and when I first started hustling."* [A1]; *"I've had to put myself in a lot of like close-to-dying situations from like...either buying or selling."* [H2]; *"...the vicious part about it was 'dat I watched a lotta' guys git kilt on my side...guys died in my hands; we kilt guys...and you know, it was like, it was a business."* [D1].)

Gun-related violence also was described in the discussion groups. One female participant described an incident in which a friend was shot in the face and could only be identified by the person who was with him at the time. She tried to escape the violence by moving out-of-state and stopping her drug selling; however, this only lasted a few weeks before the urge to be back with friends and drugs found her resuming her previous activities.

- **Young drug dealers create a world of violence.**—Youth involved in high-stakes drug trafficking treat their selling as a business and often resort to violence to both protect and increase their income and drug-selling turf (*"I'm standing behind this Uzi an', anything*

movin'—dog, cat, fish, I'm killing...and dats how it went..." [D1]; *"I was the only business in the area...if anyone else was selling coke, we were obligated to beat the hell out of 'em. So we put a gun in their face."* [B2]; *"I treated people like shit. I was supreme goddess, and if you didn't like pay homage to me, like you could fuck off...it got really violent."* [C2]; *"I'd sell somebody an ounce of coke and Mr. E would rob them [of it] and so we'd get it back...I'd do crazy shit all the time like...go rob houses, just, like for the hell of it...steal cars and give them away and take them to the chop shop"* [B2]; *"I was cruddy. I would do stuff like...give my cousin a package; send him out the back door...into the alley and have somebody else waitin' around the other way; stick him up, bring the package back to me; he'd come back and give me a sob story...and I act like I won't believe him and he still gotta' pay me...I made him do cruddy things to get my money back...he became my "Fuck Boy."* [A1]; *"Somebody robbed me once and I shot him in the foot with a .45 calibre automatic—semiautomatic."* [B2]).

What Helped Youth Get Out of Drug Trafficking

Although the focus group members were not asked to divulge whether or not they were still engaged in drug trafficking, the responses to a variety of questions provide some information about what might help youth get out of drug dealing. It is important to note that those who sell drugs primarily for the money appear less sanguine about quitting their selling careers than those who are selling drugs primarily to ensure their own supply.

- *Heavy-drug-using youth may be more likely to stop selling drugs because their drug use brings them to a crisis point.*—The youth who reported that they had stopped selling drugs were those who were heavy users of multiple drugs. Many of these youth quit either because they were stopped by law enforcement (*"I got busted."* [F2]; *"Four counts of assault and battery against police officers in a year and juvenile institutions"* [H2]; *"...getting locked up, evading the police...psych wards, Boys Village, institutions and jails, et cetera, et cetera."* [B2]) or because they just got tired of being so "messed up" (*"Losing everything, material, friendships, losing everything and not thinking that I had anything to live for"* [A2]; *"...because I was a shell of a person; a therapist and rehab got me clean..."* [D2]).

However, because drug use was the focal point of their feeling "out of control" or messed up, their cessation of drug selling was the natural result of being away from drugs, not because of any new insights or attitudes about drug dealing. What helped these youth the most was some form of treatment or rehabilitation program and the ability to return to supportive families. It is important to note that the youth who fell into this category were younger than the other focus group participants and were primarily middle-class white kids from the suburbs.

The other focus group participants, primarily African American males in their mid- to late-20s, described how problems with drugs (e.g., violence, loss of control, and incarceration) forced them to scale back their drug use or to quit using drugs altogether ("*Out of my incarceration...my counselor fought for me to git in boot camp...so I got 6 years...I only did 10 months on my 6...and boot camp kinda put me in the right direction.*" [F1]). Many of them provided few clues about the extent of their current drug selling, although some comments were made that suggested some drug trafficking was still taking place. There also was evidence that profits from past drug dealing were used to establish one of the participants in legitimate income-producing activities for his future ("*I have rental property to this day and some of those cabinets [taken from a drug user who couldn't pay] are in 'em.*" [B1]).

When a drug dealer is tired of using drugs or coping with the problems of using drugs, it is easier for him or her to envision a future without selling than it is for those who used drug dealing as a means of supporting an exciting lifestyle with large sums of money and power over others. For some youth, drug dealing is a business and one that has fewer obstacles for getting started from a disadvantaged position ("*Nobody was able to send me to college...It's about money. This isn't about anything else...if I could git a résumé together and show you all of what I have done...you'd say...this boy really is a cheap executive in a corporation. I have lawyers I've dealt with, trying to get things together, but I had to learn the hard way because nobody really wanted to help me. Even the lawyers took advantage...but I'm a business man..I just want to make money. It wasn't nothing more than that.*" [B1]).

- *When youth return to the same circumstances from which they came, they may again succumb to the same pressures to engage in both drug use and drug dealing.*—Focus group participants described how returning to their same neighborhoods after being released from incarceration did little to help them stay clean (“*Boot camp kinda put me in the right direction at first...but once I came home, was a different thing. They said, come home, go to school, get a job—I go to school, I git my GED...but they [friends] was pressuring me — violate — so I got back into the drug game again.*” [F1]; “*His cousin just got outta jail, like 3 months ago. And was on home monitor; and had a Lexus coup...Now how you gonna have a Lexus if you can't drive it? His mother doesn't know; his boys drive it and park it down the street from his house...he sits up in the house when she's at work and smokes all day...*” [G1].

Several other youth, both in the focus groups and the discussion groups, mentioned that they still have the desire to use drugs but know that it will just lead them down the same path again (“*I was just a horrible person and just because...I was in a car accident and I could have died of alcohol poisoning, plus the car accident. And I was still alive, you know, made me think that...there's a second chance.*” [E2]). They expressed a strong desire not to lose the ground they have gained in getting their lives back in order as the primary reason for not using or selling drugs. For these participants, however, it is not clear that enough time has passed to know whether they will be able to resist either drug use or drug dealing in the future.

- *Law enforcement plays a key role in the rehabilitation of adolescent drug dealers.*—Most of the focus group and discussion participants stated that they had had frequent encounters with the police while they were involved in various drug activities. The encounters with law enforcement were not always helpful, however; several of the discussion group participants described how police officers pocketed some of the drugs for their own use or smoked marijuana with them while promising in exchange to lower or not file charges against the youth. In other cases, the youth described the harassment provided by law enforcement as one of the biggest irritations and threats to their continued dealing. (“*Worrying about the*

cops looking at me strange, calling me by my first name when I don't even know 'em—stuff like that." [G1]). Overall, it would appear that local law enforcement activities alone are insufficient to deter adolescents who are heavily involved in drug activities (using or dealing). In most cases, drug dealing was curtailed when drug use was stopped, which occurred with Federal prosecution and/or treatment programs.

Violence is a key reason adolescents discontinue drug trafficking.—A frequent reason given for getting out of the business were not wanting to deal with the ongoing violence associated with drug dealing any longer and the need to stop using drugs because of the impact they have on physical safety ("*Using drugs made me violent...I have 6 years clean; never relapsed...And to this day...I have to be that way because the lifestyle I used to live. You know, the enemies never go away.*" [F1]).

Prevention

Successful prevention requires major social and economic change.—Youth discussed the social and economic circumstances that thwart prevention efforts. ("*I feel like circumstances that thrust me into it...I think 90 to 95 percent of anybody in American, in the world, been through everything I been through...woudda' probably did the same thing I did or something similar.*" [A1]; "...*it's the respect; it's the acceptance....The acceptance of Afro-American females to black males is that we're nothing...a lot of our young black sisters will not accept us as men unless we have something.*" [B1]; "...*there is such a thing as drug-dealing addiction where you git addicted to that lifestyle, that money, that adrenalin works from living that lifestyle, an' it's hard to get out.*" [C1]; "...*after you've experienced like dealing drugs—the quick money and the shit that comes along with it, the gold...it's hard not to make that an option.*" [E2]; "*I was educated more on the streets than I'll ever be educated in any type of institution...survival is what it's about...*" "*And a lot of times they just wanna' be heard, and a lotta' different programs and curriculums aren't geared for these kids because a lot of these kids...are developmentally messed up...slow learners.*" [D1]; "*The streets is teaching the individual not the parents; the parents' givin' up, the teachers givin' up, the court system is giving up...don't nobody cares about you no more....They need to start*

focusing on education. They gonna spend \$50 million on this new stadium...they need things in the school." [F1]).

- *Drug use and drug dealing are facts of life and nothing can be done to stop the inevitable.*—Some youth believe drug use and trafficking are a way of life. ("*...you know, I think drugs is going to be a problem in America and outside America forever. People have been using drugs and dealing drugs for thousands of years.*" [E2]; "*My parents told me that drugs were bad, and...people came in that were—had been in recovery...and gave drug talks to my school...I heard the horror stories...but I didn't believe that it could happen to me.*" [G2]; "*I grew up like in the Reagan era when 'just say no' was a poster...and I know...lots of addicts...who've heard that slogan. So I don't believe education is going to do it. The war on drugs...is more a war on the economical environment because like rich people aren't being warred upon...they don't get busted as often as the, you know, poorer people.*" [H2])
- *Prevention education holds some promise, but not how it is currently implemented.*—Others thought education held some promise but not the way it is currently being applied. Several youth made jokes about the ineffectiveness of the celebrity advertisements and the personal testimonies that appear on television. There was a mixed response to whether the educational programs such as those presented in schools were effective or useful ("*I don't remember hearing anything about how drugs were bad till I got like [inaudible] school and by that time I was already into it and was like, fuck that...maybe starting a program as early as elementary school...they understand good and bad...just break it down into like that and just progress that education as their education progresses.*" [F2]; "*I think education is a lot of what needs to be, one of the only things that can be fixed.*" [C2]). Other suggestions included ("*giving people things to do, keeping 'em busy, keep 'em out of using drugs*" [A2]; "*...but the vice president said it best, we need to deal with family values. Nobody wants to hear it...it starts from home. The other thing to do is to...legitimize narcotics...and deal with it as a health problem....The other thing is to rein on us all with some very harsh rules and regulations. Such as...get your butt in by dark...control the streets.*" [B1]; "*I really hope that drugs aren't legalized...They really need to get some psychologists...psychiatrists...some*

addicts and some program people, who know this stuff, instead of having these bullshit first ladies who did nothing anyway but marry a president..." (D2); "They need to like start making some programs for kids, youths—inner city kids, basically, because that's where a lot of the hard core drug dealing goes on. They need to...make sure these kids have jobs." (E2)). Mandatory jail time also was not seen as very effective ("...you get thrown in a place where there's a bunch of criminals and you're just a better criminal when you get out. It's totally like reinforcing bad stuff." (E2)).

SUMMARY AND CONCLUSIONS

The literature review and further investigation of adolescent drug trafficking through focus and discussion groups uncovered no clear demographic profile or risk factors that would describe the youth who become involved in selling drugs. The focus and discussion group participants in this study had diverse family and socioeconomic backgrounds, yet all had been involved in drug use and drug sales. Drug-selling youth in the focus groups included youth whose family backgrounds ranged from absentee parents to stable and intact families, from poverty to upper middle-class family backgrounds, from families described as emotionally supportive to families described as uncaring, and from families who were involved in drug use to families described as law-abiding, hard-working, and involved in religious and/or church activities. This finding points to the care that must be taken not to stereotype youth involved in drug sales.

CSR's literature review identified a lack of research on adolescent drug trafficking that would lead us to a clearer understanding of the reasons youth become involved in selling drugs. Most of the reviewed literature pertained to specific subpopulations (e.g., inner-city youth and/or drug using youth who were not necessarily involved in drug trafficking). Though many of the youth involved in drug sales also are abusers of multiple drugs and began selling to support their own drug use, other youth have become involved in drug sales as a "business venture," sometimes introduced to drug trafficking at a very young age when older drug dealers pay them to be "look outs" to warn of approaching law enforcement officers.

Whether or not the focus and discussion group youth had been using drugs when they first become involved in drug sales, they had all been drug abusers at some point during their drug trafficking. The youth participating in the focus groups reported heavy drug use and dealing that may have been facilitated by the lack of awareness and/or lack of intervention on the part of adults around them, especially parents. In some cases it may be that the stereotypes regarding youthful drug users/dealers shield them from identification and possible intervention. One of the focus group participants gave an example of this when he reported that being a good student served as a cover for his drug use and drug dealing (i.e., no one would suspect a good student of being drug-involved).

The literature review and focus and discussion group findings suggest that parents and other caring adults may miss opportunities for intervention in youth drug use and drug trafficking. This finding underscores the importance of the objective outlined in the National Drug Control Strategy to “educate parents or other care givers, teachers, coaches, clergy, health professionals, and business and community leaders to help youth reject illegal drugs and underage alcohol and tobacco use.”

The missed opportunities for intervention by adults may be the result of any number of factors including (1) a lack of awareness or attention to the youth; (2) a belief that the youth does not meet the stereotype of a drug user or dealer; (3) a lack of information on signs and symptoms of drug use and dealing; or (4) a lack of information on how to effectively intervene. Education efforts directed to parents and other adults involved with youth could lead to earlier intervention to deter continued drug use and/or drug trafficking among already involved youth.

Both the literature and the focus and discussion groups uncovered myriad responses to the questions of how and why youth become involved with drug trafficking but uncovered little evidence that would lead to an identification of causality that could serve as a foundation for prevention efforts. The diversity of responses emphasizes the complexity of the problem. There appear to be multiple risk factors involved and no single solution can be expected to halt the increase in the numbers of youth involved in drug sales. Additional research is vital to deepen an understanding of (1) the risk factors associated with drug trafficking among youth and (2) the resiliency factors that might be supported through prevention and intervention efforts to mitigate risk and deter drug trafficking by adolescents.

This research can provide the foundation for targeted prevention and intervention efforts that will reduce the escalation of drug trafficking by America's youth.

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APPENDIX A

RISK FACTORS ASSOCIATED WITH ADOLESCENT DRUG TRAFFICKING

APPENDIX A
RISK FACTORS ASSOCIATED WITH ADOLESCENT DRUG TRAFFICKING
Recent Research Findings

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Individual Risk Factors					
Drug use	Association	387	Minority 9th- and 10th-grade males	—	Brounstein et al., 1990
	Sequence	100	Medium-sized-city youth	12-20	Carpenter et al., 1988
	Sequence	305	Detained youth	10-18	Dembo et al., 1990
	Association	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	50 509	Inner-city youth Inner-city adults	18 and under Over 18	Fagan and Chin, 1990
	Association	91	Incarcerated youth	14.8 (mean)	Farrow and French, 1986
	Association	101	Gang members	26 (median)	Hagedorn, 1994
	Sequence	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottlienger, 1993
	Association	1,725	Youth	11-17	Johnson et al., 1991
	Association	455	African-American youth	9-15	Li et al., 1994b
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
	Association	5,794	High school youth	15-20	Smart, Adlaf, and Walsh, 1992
	Sequence	503	Urban males	13-15	van Kammen and Loeber, 1994
	Association	300	Gang members	14-40	Waldorf, 1993
Alcohol and tobacco use	Association	387	Minority 9th- and 10th-grade males	—	Brounstein et al., 1990
	Association	91	Incarcerated youth	14.8 (mean)	Farrow and French, 1986
	Sequence	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottlienger, 1993
	Sequence	1,725	Youth	11-17	Johnson et al., 1991
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
	Association	5,794	High school youth	15-20	Smart, Adlaf, and Walsh, 1992
	Association	300	Gang members	14-40	Waldorf, 1993

APPENDIX A. (continued)

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Delinquent behavior	Association	192	African-American youth	9-15	Black and Ricardo, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	100	Medium-sized-city youth	12-20	Carpenter et al., 1988
	Association	305	Detained youth	10-18	Dembo et al., 1990
	Association	305	Detainees	15 (mean)	Dembo et al., 1992
	Sequence	1,527	High-risk youth	7-15	Estbensen and Huizinga, 1993
	Association	151	Male gang members	13-20	Fagan, 1989
	Association	4,500	Inner-city youth	7-15	Huizinga, Loeber, and Thornberry, 1995
	Sequence	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottieger, 1993
	Association	1,725	Youth	11-17	Johnson et al., 1991
	Association	351	African-American youth	9-15	Li and Feigelman, 1994
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
	Association	188	Male drug dealers	18-40	Reuter, MacCoun, and Murphy, 1990
	Association	835	Incarcerated males	17 (mean)	Sheley, 1994
	Early participation in adult behaviors (e.g., sexual activity, marriage, parenting)	Association	12,686	Youth	14-21
Association		5,794	High school youth	15-20	Smart, Adlaf, and Walsh, 1992
Association		503	Urban males	13-15	van Kammen and Loeber, 1994
Association		192	African-American youth	9-15	Black and Ricardo, 1994
Thrill-seeking or risk-taking personality	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Association	300	Low-income youth	9-15	Li et al., 1994a
	Association	351	African-American youth	9-15	Li and Feigelman, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	305	Detained youth	10-18	Dembo et al., 1990
	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Association	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottieger, 1993
	Association	300	Low-income youth	9-15	Li et al., 1994a

APPENDIX A (continued)

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Gun possession and weapon carrying	Sequence	192	African-American youth	9-15	Black and Ricardo, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association		FBI Supplemental Homicide Reports	—	Blumstein, 1995
	Association	4,500	Inner-city youth	7-15	Huizinga, Loeber, and Thornberry, 1995
	Association	835	Incarcerated males	17 (mean)	Shaley, 1994
	Association	758	Male students	16 (mean)	Shaley, 1994
	Association	37	Students from crack-cocaine neighborhoods	—	Weisman, 1993
Low school attachment and low attendance	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Association	957	10th- through 12th-grade youth	—	Fagan, Piper, and Moore, 1986
	Association	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottieger, 1993
	Association	12,686	Youth	14-21	Jarjoura, 1993
	Association	351	African-American youth	9-15	Li and Feigelman, 1994
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
Poor school achievement	Association	192	African-American youth	9-15	Black and Ricardo, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Sequence	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	12,686	Youth	14-21	Jarjoura, 1993
	Association	73	Asian gang members	19.7 (mean)	Joe, 1994
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
Lack of self-control and external locus of control	Association	387	9th- and 10th-grade youth	—	Altschuler and Brounstein, 1991
	Association	298	Youth	9-20	Foglia, 1995
	Association	140	Incarcerated young adults	—	Haberfeld, 1992

APPENDIX A (continued)

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Family Characteristics					
Family alcohol and drug use	Association	192	African-American youth	9-15	Black and Ricardo, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	140	Incarcerated young adults	—	Haberfeld, 1992
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
Low family attachment	Association	192	African-American males	9-15	Black and Ricardo, 1994
	Association	140	Incarcerated young adults	—	Haberfeld, 1992
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
	Association	186	Male drug dealers	18-40	Reuter, MacCoun, and Murphy, 1990
Lack of supervision (e.g., single parent)	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Association	140	Incarcerated young adults	—	Haberfeld, 1992
	Association	300	Low-income youth	9-15	Li et al., 1994a
	Association	503	Urban males	13-15	van Kammen and Loeber, 1994
Parental educational level	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	802	Incarcerated drug traffickers	—	Pelfrey, 1992
	Association	503	Urban males	13-15	van Kammen and Loeber, 1994
Ecological and Neighborhood Risk Factors					
Frequent exposure to drug activities	Association	192	African-American youth	9-15	Black and Ricardo, 1994
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	64	High-risk youth	10-14	Feigelman, Stanton, and Ricardo, 1993
	Association	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottliager, 1993
	Association	455	Low-income youth	9-15	Li et al., 1994b
	Association	351	African-American youth	9-15	Li and Feigelman, 1994
	Association	37	Students from crack-cocaine neighborhoods	—	Weisman, 1993

APPENDIX A (continued)

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Contact with drug-trafficking adults	Sequence	50	Youth that live in public housing	22 and under	Dembo et al., 1993
	Association	64	High-risk youth	10-14	Feigelman, Stanton, and Ricardo, 1993
	Sequence	140	Incarcerated young adults	—	Haberfeld, 1992
Community acceptance of drugs	Association	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	140	Incarcerated young adults	—	Haberfeld, 1992
	Sequence	73	Asian gang members	19.6 (mean)	Joe, 1994
	Sequence	.38	Inner-city males	16-23	Sullivan, 1989
Few opportunities for personal success	Association	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	600	Primarily inner-city males	14-29	Whitehead, Peterson, and Kaljee, 1994
Lack of alternative activities	Association	33	Parents and community agency staff	—	Dembo et al., 1993
	Association	351	African-American youth	9-15	Li and Feigelman, 1994
Other Social Risk Factors					
Peer group influence	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Sequence	1,527	High-risk youth	7-15	Esbensen and Huizinga, 1993
	Association	151	Male gang members	13-20	Fagan, 1989
	Association	611	Delinquent youth	12-17	Inciardi, Horowitz, and Pottieger, 1993
	Association	455	African-American youth	9-15	Li et al., 1994b
	Sequence	351	African-American youth	9-15	Li and Feigelman, 1994
	Association	23	Female drug dealers	21-50	Mieczkowski, 1994
	Sequence	499	Sibling pairs	9-17	Rowe and Gulley, 1992
Low level of deterrence by legal system	Sequence	987	7th- and 8th-grade youth	—	Thornberry et al., 1993
	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	305	Detained youth	10-18	Dembo et al., 1990
	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993

APPENDIX A (continued)

Risk Factors	Risk Factor Link to Drug Dealing (association and sequence)	Sample Characteristics			Author(s) and Date
		Size	Characteristics	Ages	
Economic Risk Factors					
Weak labor market for low-skill jobs	Sequence	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	50	Inner-city youth	18 and under	Fagan and Chin, 1990
		509	Inner-city adults	Over 18	
	Sequence	101	Gang members	26 (median)	Hagedorn, 1994
	Association	73	Gang members	19.6 (mean)	Joe, 1994
	Association	65	Female gang members	14-32	Lauderback, Hansen, and Waldorf, 1992
Association	600	Primarily inner-city males	14-29	Whitehead, Peterson, and Kaljee, 1994	
Low wage potential of existing jobs	Association	387	9th- and 10th-grade youth	—	Brounstein et al., 1990
	Association	50	Youth that live in public housing	22 and under	Dembo et al., 1993
		33	Parents and agency staff		
	Sequence	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
Association	166	Male drug dealers	18-40	Reuter, MacCoun, and Murphy, 1990	
Strong drug market		99	Gang members	13-29	Decker and Van Winkle, 1994
	Sequence	1,003	Inner-city residents	19-26 (40%)	Fagan, 1992
	Association	50	Inner-city youth	18 and under	Fagan and Chin, 1990
		509	Inner-city adults	Over 18	
Association	741	Cocaine arrest incidents	—	Klein, Maxson, and Cunningham, 1991	

APPENDIX B

FOCUS AND DISCUSSION GROUP QUESTIONS

APPENDIX B: Focus and Discussion Group Questions

1. What was it like growing up for each of you? What or who were the big influences on you when you were a kid? What kind of family relations did you have? Were you raised by your parents? Grandparents? Did you have a generally happy home life? Did you move a lot? Did you do well in school?
2. I'm going to assume that each of you is now or was in the past a drug user. If this is not the case, please tell me so. Who was the person who first introduced you to alcohol or other drugs? Was this person older than you? Younger? Was he or she a family member? A neighbor? How did this person persuade you to try this drug? Did you feel pressured or coerced to use? What drugs did you first use regularly?
3. How old were you when you first sold illegal drugs? What was the drug? Why did you do it? What was the primary reason that you sold these drugs?
4. Once you moved beyond just *using* drugs and began *selling* them, how did your life change? How does selling drugs affect a person's life? Did you start treating people differently? Did violence become more common in your life? When you were selling, what did you feel compelled to do that you may not have done before you started selling drugs. How did selling or dealing change your life?
5. Now, the final question is: In the context of what you know about the "dealing" life, where do you go from here? We have deliberately not asked if anybody is still in the business. We are more concerned with where are you going from here. Furthermore, we would like to know what, if anything, can be done to prevent young people from getting into the drug-selling business? In your opinion, will this society ever be able to seriously reduce the drug business? If not, what not?

APPENDIX C
FOCUS GROUP METHOD

APPENDIX C: Focus Group Method

Focus groups are a method of collecting qualitative data gathered from a meeting of from 7 to 10 participants who are selected for a set of characteristics they have in common. The focus group is usually conducted in-person for a period of about 2 hours in a permissive environment conducive to a flow of ideas and opinions on a specific topic. The session is almost always tape-recorded (or sometimes videotaped) for later analysis. An advantage of focus groups is that, unlike one-on-one interviews, they generate free-flowing, synergistic group responses without the built-in constraints of the individual question-and-answer format.

As a research method, focus groups are extremely successful in eliciting a free flow of ideas and information in a non-threatening atmosphere. They are most successful when the group of people assembled believe they have a great deal in common with each other and, thus, feel comfortable sharing their thoughts, opinions, and ideas. The more homogenous the group is, the more group members will feel comfortable and the more useful the data will be.

Focus groups commonly have one of the four following purposes: (1) *exploratory*—to develop familiarity about a topic, test methodological techniques, understand context, or formulate hypotheses; (2) *pretest*—to test questionnaire items, assess product or advertising reactions, or try out ideas; (3) *triangulation*—as one of multiple methods used to enhance validity or to better understand quantitative findings; or (4) *phenomenological*—to understand social meanings (i.e., on another level beyond one-to-one interaction or to gain a more in-depth, complex understanding).

Focus groups are characterized by the following:

“The explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group” (Morgan, 1988, p. 12);

“... a focus group can be defined as a carefully planned discussion designed to obtain

perceptions on a defined area of interest in a permissive, nonthreatening environment” (Krueger, 1988, p. 18);

The goal “is to elicit perceptions, feelings, attitudes, and ideas of participants about a selected topic” (Vaughn et al. 1996, p. 5);

“The key to the effective of focus groups . . . is to identify the overall sense of the group relative to the idea being discussed, not to focus on the input of any individual” (Greenbaum 1993, p. 16).

Shedlin and Schreiber (1995) note that focus groups are contrived communication events rather than naturalistic observation or recorded spontaneous group discourse. However, like ethnography, focus groups are not static, formulaic technique but rather are constantly adapting to both the research objectives and the group participants. Focus groups are dynamic and process driven and, unlike other group interviews, attempt to maintain the interaction predominantly within the group rather than between the participating individuals and the interviewer or moderator. Furthermore, Krueger (1994) lists the following advantages of using focus groups as a method of data collection:

- Focus groups place people in natural, real-life situations as opposed to the controlled experimental situations typical of quantitative studies;
- The format of a focus group allows the moderator to probe, (i.e., it is a flexible format with ability to explore unanticipated issues);
- As a data collection method, focus groups have high face validity and present findings that usually are clear to lay audiences; and
- Frequently, focus groups are less expensive than other methods of gathering data.

For the purposes of this study, the focus groups were planned, implemented, and documented using the following guidelines:

Planning

- Prior to arrival onsite, through a local contact, recruit and arrange for a group discussion among teens known to have participated in drug trafficking.
 - Discuss the best way to identify and recruit candidates for the focus group with the local contact;
 - Obtain a list of likely participants and select the names of six to eight persons for each focus group.
 - Ask the local contact to call the participants regarding their involvement in the focus group;
 - Determine the best time for the focus group to meet; and
 - Send a letter to the participants describing the purpose of the meeting, the importance of their participation, the topic and format of the focus group, and matters pertaining to confidentiality.

Implementation

- Plan for the focus group to last approximately 2 hours.
- Schedule the meeting at a time that is convenient for the participants, and keep in mind their work schedules and other needs.

- Hold the focus group in a central site that is easily accessible to the participants. Check to see that the local contact has a suitable room, because participants will be more comfortable in familiar surroundings.
- Do not tell the participants the exact nature of the focus group; rather, inform them of the general nature of the focus group. We do not want them to prepare responses to questions.
- Prepare the focus group questions ahead of time and become thoroughly familiar with them in order to guide the discussion unobtrusively.
- Introduce the participants to each other and discuss the ground rules of the session (e.g., one at a time, speak freely, no right or wrong answers, and interested in and want each participant's opinions) and assure each person's confidentiality.
- Close the focus group, summarize the major points, and thank each participant for his or her time and opinions.

Documentation and Analysis

- Review and edit your notes on the focus group discussion form. If necessary, translate the proceedings into English.

The distinction between what constituted a focus group and a discussion group in this study follows from the methodological differences in how each group was conducted. The focus groups were conducted with greater methodological rigor—they were structured around a specific group of research questions; were moderated by a neutral member of the community; were audiotaped for transcription and analysis; and there was enough similarity between participants to ensure a similar world view. The three discussion groups also were structured around a specific group of research questions; however, they were not tape-recorded nor were they moderated by a person familiar to the participants. The discussion groups differed from the focus groups in several other important ways—each discussion group had fewer than the optimal number of participants; there was greater diversity among the participants, which acted

to repress free discussion among those reluctant to participate; an element of coercion influenced the recruitment of participants in that group participation was coordinated by law enforcement officials; the groups were moderated by CSR staff members; and the locations were selected for CSR's and law enforcement's convenience rather than any connectedness to the youth or community. These methodological differences limited what information was captured from the discussion groups and the analysis of the resulting data. ●

DRAFT

**CONNECTION BETWEEN CHILD
MALTREATMENT AND YOUTH DELINQUENCY
AND DRUG PETITIONS**

FINAL REPORT

Prepared for:

Executive Office of the President
Office of National Drug Control Policy
750 17th Street, N.W., Fifth Floor
Washington, DC 20503

Prepared by:

CSR, Incorporated
Suite 200
1400 Eye Street, N.W.
Washington, DC 20005

■ September 1997 ■

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EXECUTIVE SUMMARY

During the last several years, researchers have observed a disturbing trend in drug use by American youths: The use of illicit substances, especially marijuana, has increased among American adolescents (Johnston, 1996). Recent research also has shed light on another disturbing trend: In addition to the physical and psychological injury caused by childhood neglect, physical abuse, and sexual abuse, children who are maltreated are at an increased risk for adolescent and adult drug use and offending (Widom, 1993; National Institute of Justice, 1995). The purpose of this study was to provide scientific evidence about the relationship between childhood maltreatment, delinquency, and drug offending. While findings from the existing research are informative, they are inconclusive, due in part to methodological limitations. The present study seeks to remedy the methodological deficits of this research by examining longitudinal, "real life," official, juvenile records from the Washington, D.C., Superior Court. We found the following:

- There were important demographic differences between youths who had both delinquency and maltreatment petitions (MP) and a control group of youths who had delinquency petitions only, designated as nonmaltreatment petitioned (NMP) youths. Although both groups comprised primarily African Americans, males, and those living with only their mother at the time of their first contact with the court, the MP group of youths had a smaller proportion of African Americans and males and was younger than the NMP group of youths.
- Of the eight delinquency offenses identified from the juvenile court records, violent and property offense petitions were the most frequent type of offense petition type for the MP youths. The same was true for NMP youths, although a smaller proportion was observed for this group in the proportion of youths with violent petitions.
- When the proportion of youths with drug, order, and runaway offenses was examined for each group, NMP youths had slightly more drug petitions than MP youths. However, MP youths had twice as many youths with an order petition and five times as many with a runaway

petition.

- The following three types of maltreatment were identified from the juvenile court records of MP youths: neglect, physical abuse, and sexual abuse. Physical abuse and neglect were the most frequently occurring types of maltreatment. African Americans were the majority of youths for all maltreatment types. Males had the greatest proportion of neglect and physical abuse petitions, while females had the majority of sexual abuse petitions.
- MP youths with a physical abuse petition had slightly higher proportions of youths with drug, property, order, runaway, sex offense, and violent delinquency offense petitions.
- MP youths with a drug petition were on average younger than NMP youths at the time of their first contact with the court and their first delinquency petition. MP and NMP youths were approximately the same mean age at the time of first drug offense petition. The mean number of court contacts for MP youths was five contacts higher than for the NMP group. With the exception of property and violent offense petitions, MP and NMP youths had the same mean number of delinquency offense petitions.
- The following five court dispositions were identified from the data: dismissal/suspension, community treatment, Department of Human Services (DHS)/Protective Services, institutionalization, and probation. The disposition most likely to be received for either group was DHS/Protective Services. When data were analyzed on the relationship between disposition history we found that MP youths who had been institutionalized had the highest mean number of property offenses. Mean number of violent offenses was highest among those MP youths who had received a community treatment or institutionalization disposition.
- Multivariate models predicting a drug offense petition on youth juvenile court record revealed that for MP youths, gender (being male) is the best predictor of a drug offense petition when race and living arrangement are held constant.

- For MP youths, having a property, sex offense, or weapon offense petition also is predictive of having a drug offense petition.
- Maltreated youths who have a petition for neglect are less likely to have a drug offense petition when other offense types are held constant.
- For MP youths, all disposition types, except probation and institutionalization, are positively and significantly related to having a drug offense petition.

These findings are vitally important and directly impact the goals and objectives of the Office of National Drug Control Policy (ONDCP). If, as the extant research suggests, childhood maltreatment is a substantial risk factor for drug use and offending, policies and programs can be formulated that (1) educate parents, caregivers, teachers, clergy, health professionals, and community leaders (*Goal 1: Objective 1*); (2) guide principles upon which prevention programs are based in order to increase program effectiveness and address the ever changing needs of youths as new drug challenges emerge (*Goal 1: Objective 9*); and, (3) integrate findings from scientific research into prevention programs, especially those targeting youths (*Goal 1: Objective 10*).

Research on the relationship between childhood maltreatment, delinquency, and drug offending is attracting increased attention from policymakers and researchers concerned with recent trends in juvenile delinquency and drug use. The fact that childhood maltreatment may be a risk factor for adolescent and adult drug use and offending has direct policy and programmatic implications for the goals and objectives of ONDCP. To better address this important issue and help guide future research, CSR, Incorporated, offers the following recommendations:

- Focus future research on populations of youths whose individual, family, socioeconomic, or community background put them at risk for maltreatment and/or delinquency.
- Examine gender differences more closely. Gender is an important, though frequently overlooked, variable. The relationship between maltreatment and delinquency for females

should be examined thoroughly. If females respond differently to experiences of maltreatment, they may need delinquency and drug use prevention strategies and programs tailored to their specific needs and perceptions.

- Fund more longitudinal studies that use official court data from several regions of the United States. These data would help to determine the long-term effects of maltreatment on delinquency and criminal offending and would permit more sophisticated analyses.
- Identify protective factors for children who are at risk for offending but have not offended. These protective factors might be individual-, family-, socioeconomic-, or community-related.

CONNECTION BETWEEN CHILD MALTREATMENT AND YOUTH DELINQUENCY AND DRUG PETITIONS

Child abuse and neglect is a serious problem in the United States. The number of children who are emotionally, sexually, or physically abused or neglected has reached record proportions. In 1995, more than 1 million children were victims of abuse or neglect (National Clearinghouse on Child Abuse and Neglect Information, 1997). Findings from the Third National Incidence Study of Child Abuse and Neglect, a nationally representative survey of social service professionals, indicate that the number of children abused or neglected in the United States increased by 67 percent between 1986 and 1996 (Sedlak and Broadhurst, 1996). In addition to the increased incidence of abuse and neglect, more maltreated children are being seriously injured and killed (National Committee for the Prevention of Child Abuse, 1996). A national survey conducted in 1995 by the National Committee for the Prevention of Child Abuse found that child abuse and neglect fatalities have increased by 39 percent since 1985.

1. OVERVIEW OF THE LITERATURE

The consequences of childhood maltreatment extend beyond the immediate physical and psychological injury it causes victimized children. Childhood maltreatment also plays a role in delinquency and adult criminality. For example, research has found that abused and/or neglected children are at an increased risk for adolescent and adult drug use and offending (Widom, 1993; National Institute of Justice, 1995). Childhood maltreatment has also been cited as a risk-factor for adolescent and adult violent crime offending (Widom, 1992; Maxfield and Widom, 1996).

Recent trends in youth involvement in drugs and crime highlight the importance of research on the connection between maltreatment and offending. Although the level of overall drug use among juveniles has declined since the 1970s, there has been a recent upsurge in juvenile drug use, drug case processing, and drug-related delinquency. Data from the 1996 Monitoring the Future Survey indicate that junior high school age children have increased their consumption of illicit drugs by 150 percent during the last 5 years (Johnston, 1996). Drug-related offending also is predictably bringing young people into more frequent contact with the criminal justice system. In 1994, approximately 120,000

delinquency cases involving drug violations were processed in juvenile courts in the United States. These cases represented a 35-percent increase over the prior year and an 82-percent increase from 1991 (Butts, 1997).

What is the role of drug use in juvenile delinquency? This question cannot be addressed adequately with the research available to date. In fact, the best estimate of the role drugs play in juvenile delinquency is derived from surveys. A 1987 survey of institutionalized youths found that approximately one-quarter were under the influence of drugs and alcohol at the time they committed the offense for which they were incarcerated (Bureau of Justice Statistics, 1987). More recent research has yielded similar findings. Drug Use Forecasting (DUF) data from 1993 indicate that across 12 DUF test sites the average proportion of positive drug tests among male juvenile detainees was 33 percent (Snyder and Sickmund, 1995).

There are several explanations for the hypothesized relationship between childhood maltreatment and later delinquency and drug offending, including (1) maltreated children may sustain physical injury to the brain, affecting emotional, social, and intellectual development; (2) severely abused or neglected children may develop coping strategies, such as internalization of negative feelings about themselves and others, that make the children more easily influenced by delinquent peers; (3) abuse or neglect may lower a child's self-esteem and affect social skills that encourage negative or antisocial peer relationships; and (4) child maltreatment may trigger changes in family living arrangements (i.e., the child may be placed in foster care) that may encourage problem behavior in adolescence (Widom, 1993, 1994).

When maltreatment leads to delinquency, drug use may serve psychological, emotional, or social needs in several ways. Drugs provide a means of emotional or psychological escape from an abusive environment. Drug use also may provide a form of "self-medication" against the emotional and psychological pain of abuse. Drugs may be viewed as a way to "lubricate" social interaction, loosening inhibitions and offering a means to improving self-esteem and social interaction in relation to peers. Lastly, maltreated youths may perceive drug use as a means to reduce social isolation and feelings of loneliness (Scerbo and Kolko, 1995; Widom, 1993).

It is important to keep in mind that not every drug-involved or delinquent youth has been maltreated, nor will all maltreated children offend as juveniles or adults. The value of risk-factor focused research that examines the nexus between childhood maltreatment and delinquency is that it identifies those factors that increase the *probability* that youths will enter into delinquency and adult criminal careers. The findings of maltreatment-delinquency research are thus vitally important. If it is true that maltreated children and youths are at increased risk for future offending, policies and programs can be formulated that prevent problem behaviors before they develop into life-long patterns that reduce individual and family quality of life and increase contact with the criminal justice system.

Unfortunately, although the findings of extant research on the relationship between maltreatment and delinquency are informative, they are inconclusive, due in part to methodological limitations. Critics of this research point to its overreliance on cross-sectional data and data collected from clinical samples of youths in drug treatment (as opposed to longitudinal data and data collected via field experiments). These studies also typically collect retrospective data of individual self-reported drug use and delinquency and are thus limited to what respondents recall and what they are willing to disclose freely to an interviewer.

2. CASE PROCESSING IN WASHINGTON, D.C., SUPERIOR COURT

This section of the report is intended to familiarize the reader with special terminology and provide a brief overview of the process by which maltreatment and delinquency cases are filed and adjudicated by the Washington, D.C., Superior Court.

2.1 Maltreatment

When children are suspected of being maltreated, reports can come from multiple sources. School officials, neighbors, or physicians may report their suspicions to social service agencies or directly to the police. Once police receive a complaint, this information is forwarded to the Metropolitan Police Department's (MPD's) Youth Division. The Youth Division then is responsible for taking this complaint to the Office of Corporation Counsel.

The Office of Corporation counsel then decides, based on the evidence and information available to them, whether the case will be referred (i.e., petitioned) to the Washington, D.C., Superior Court. Cases referred to the court are set for trial. When there is evidence that maltreatment has occurred, case disposition (i.e., sentencing) options include commitment to the Washington, D.C., Department of Human Services or third-party protective supervision. Each of these dispositions are subject to subsequent review and oversight by the court. Revocation or termination of the terms of a disposition is possible at review hearings.

2.2 Delinquency

Delinquent juveniles come to the attention of criminal justice authorities in several ways. Juveniles may be arrested at the scene of a crime or identified by witnesses. Suspected delinquent offending also may be reported by school officials, neighbors, or individuals from social service agencies. Reports received by the MPD are referred to its Youth Division, which is then responsible for taking cases to the Superior Court for initial intake (National Council on Crime and Delinquency, 1996).

At initial intake, Superior Court staff conduct interviews with the child and his or her parents in order to gather information about pending charges, past delinquent behavior, and home environment. From this information Superior Court officials decide whether to release the child to the custody of his or her parents or detain the child pending further screening.

Screening information is reviewed by a probation officer responsible for deciding whether the case will be petitioned to the Office of Corporation Counsel. If the case is petitioned to the Office of Corporation Counsel, the Assistant Corporation Counsel reviews the screening information and conducts her or her own investigation. Cases are either *papered* or *no-papered*. No-papered cases are closed and receive no further action from the court. Papered cases are scheduled for an initial court hearing. If in the initial court hearing the judge finds there is probable cause that the juvenile committed the charged offense, the case is set for trial.

3. OBJECTIVES, SCOPE, AND METHODS

The principal objective of this study was to analyze the relationship between childhood maltreatment, delinquency, and drug offending. The data for this analysis were supplied by the Washington, D.C., Superior Court. The data set contains 32,358 individual juvenile records of the Superior Court. These individual juvenile records chronicle approximately 154,000 separate abuse, neglect, and/or delinquency petitions (similar to a criminal complaint) from 1959 to 1996.

The present study seeks to remedy the deficits in the extant literature on the relationship between child maltreatment and delinquency and drug offending by examining longitudinal, "real life," official juvenile court records to answer the following questions:

- *Is race, sex, or household living arrangement associated with having a maltreatment, drug, or other delinquency petition on a youth's court record? Are minority children more likely than nonminority children to be neglected? Are females less likely than males to be physically abused?*
- *Does having a maltreatment petition increase the likelihood that a child will have drug or other delinquency petitions on his or her court record? Compared with youths without a maltreatment petition, are those with a maltreatment petition more or less likely to have drug offense petitions?*
- *Does the type of maltreatment petition (physical abuse, sexual abuse, or neglect) predict drug and other delinquency petitions? Is there support for the cycle of violence theory? Are physical abuse petitions associated more with drug offense petitions than neglect petitions? Are youths with maltreatment petitions more or less likely than those without maltreatment petitions to have violent offense petitions?*
- *What are the pathways to juvenile drug offending? Among youths with drug offense petitions, comparing those with and without maltreatment petitions, are there differences in delinquency careers (i.e., differences of age at initiation, chronicity, and specialization)?*

- *Do juvenile court interventions affect future offending?* Compared with youths without a maltreatment petition, does having a disposition history of placement outside the home increase or decrease the likelihood that youths will (re)offend?

The variables available in the data set that were used in this analysis include the following:

- Year of birth;
- Race of juvenile;
- Sex of juvenile;
- Household living arrangement (recorded at the first court contact only);
- Number of recorded contacts with the Superior Court;
- Year, type, and number of maltreatment and delinquency petitions; and
- Number and type of dispositions (sentences).

Only youths with one or more delinquency petitions were included in this analysis. In order to address the research questions involving contrasts two, groups were compared. The first group consists of all youths with at least one maltreatment petition ($N = 1,696$). The second group consists of youths with no maltreatment petitions ($N = 30,662$). Analysis of the data included descriptive statistics, bivariate analysis, and multivariate modeling.

4. LIMITATIONS TO THE PROPOSED STUDY

Before discussing study findings, several limitations should be acknowledged. This study was limited to cases processed by one court, in one jurisdiction. If juveniles in this sample were maltreated or arrested in another jurisdiction or processed by another court in Washington, D.C., those data were not included in the analysis. Compounding these limitations are the unique demographics of Washington, D.C., with its significant nonwhite population (74 percent). Arguably, other criminogenic factors that correlate with race, such as income and community instability, affect the data and study findings. Data on these and other factors were not available for analysis.

The incidents of maltreatment discussed in this study should be understood as unadjudicated (and thus unsubstantiated) cases of neglect, physical abuse, and sexual abuse. In other words, these are criminal complaints of maltreatment made to the Washington, D.C., Superior Court. For the large majority of these cases final court disposition data were not available. The same is true for delinquency incidents; these data can be thought of as arrests of juveniles that led to the filing of formal criminal complaints in the Washington, D.C., Superior Court.

Lastly, one of the major strengths of the data set—its size—also is somewhat of a liability. One artifact of large data set analyses is that statistical tests (e.g., chi-square and *f*-tests) more readily yield statistically significant findings. That is, differences in observed characteristics of the study sample may have occurred by chance alone and may not represent actual differences found in the population from which the sample was drawn, even when the statistical test indicates otherwise. To address this, a lower, more conservative significance level ($p < .01$ instead of $p < .05$) was used in all statistical tests. Furthermore, each analysis was reviewed for statistical as well as practical significance.

5. FINDINGS

Results of the data analysis are presented under the following five major categories:

(1) demographic characteristics of maltreatment petitioned (MP) and nonmaltreatment petitioned (NMP) youths, (2) delinquency petitions among MP and NMP youths, (3) type of maltreatment petition and type of delinquency petition(s) among MP youths, (4) delinquency careers among MP and NMP youths with drug petitions, and (5) court disposition history and delinquency careers among MP and NMP youths.

5.1 Demographic Characteristics of Maltreatment and Nonmaltreatment Petitioned Youths

Only a small percentage of youths in this sample had both maltreatment and delinquency petitions. NMP youths constituted 95 percent ($N = 30,662$) of the entire sample; MP youths constituted the remaining 5 percent ($N = 1,696$) of the sample (see Exhibit 1). In order to better understand the youths in this sample, petitioned youths were examined according to their race, sex, year of birth, and living arrangement.

Exhibit 1. Maltreatment and Nonmaltreatment Petitioned Youths: Frequency Percent (Number)

Maltreatment Petition	No Maltreatment Petition	Total Sample
5 (1,696)	95 (30,662)	100 (32,358)

Maltreatment petitions include those for neglect, physical abuse, and sexual abuse.

5.1.1 Race

African Americans composed 92 percent of the entire sample of youths; whites (5 percent), Hispanics (less than 1 percent), and other races (2 percent) composed the remaining 8 percent of the sample (see Exhibit 2). Not surprisingly, among MP youths (those with both maltreatment and delinquency petitions) African Americans predominate (97 percent). The same was true for NMP youths (those with a record of delinquency petitions, but none for maltreatment), with African Americans the majority (92 percent), but less so in comparison to the MP group.

Exhibit 2. Maltreatment and Nonmaltreatment Petitioned Youths: Race Percent (Number)

Race of Juvenile	Maltreatment Petition	No Maltreatment Petition	Entire Sample
African American	97 (1,398)	92 (22,873)	92 (24,271)
White	1 (17)	6 (1,371)	5 (1,388)
Other	2 (25)	2 (587)	2 (612)
Hispanic	<1 (1)	<1 (33)	<1 (34)
Total	100 (1,441)	100 (24,864)	100 (26,305)

chi square = 54.934
 df = 3
 p < .001

5.1.2 Sex

Males were 81 percent and females 19 percent of the entire sample of youths (see Exhibit 3). There was a greater representation of females in the sample of MP youths (37 percent) than among NMP youths (18 percent). Because females are less involved in delinquency than males, the difference in sex distribution might operate to lower levels of delinquency among MP youths.

Exhibit 3. Maltreatment and Nonmaltreatment Petitioned Youths: Sex
Percent (Number)

Sex of Juvenile	Maltreatment Petition	No Maltreatment Petition	Entire Sample
Female	37 (619)	18 (5,656)	19 (6,275)
Male	63 (1,076)	82 (24,992)	81 (26,068)
Total	100 (1,695)	100 (30,648)	100 (32,343)

chi square = 335.182
df = 1
p < .001

5.1.3 Year Born

Data on year of birth was collected during the first contact youths had with the Superior Court. Unfortunately, data on age at the time of each subsequent contact with the court was not included in the data set. As might be expected, the sample of MP youths were younger than their NMP counterparts. Nearly one-half (41 percent) of all MP youths were born between 1977 and 1996, while less than a quarter (23 percent) of NMP youths were born between these years (see Exhibit 4). Consequently, 77 percent of the NMP sample have aged beyond the years of peak criminal offending and, more importantly, the jurisdiction of the Washington, D.C., juvenile court. Only 59 percent of the MP sample have done so. In other words, a larger proportion of the MP group than the NMP group are at risk for delinquency offending just by virtue of age (41 percent among the MP group versus 23 percent among the NMP group). Therefore, the data capture a more comprehensive picture of the delinquency careers of the older, NMP group than they do of MP youths.

Exhibit 4. Maltreatment and Nonmaltreatment Petitioned Youths: Year Born
Percent (Number)

Year Born	Maltreatment Petition	Cumulative Percentage	No Maltreatment Petition	Cumulative Percentage	Entire Sample
1989 to 1996	<1 (6)	<1	1 (141)	1	1 (147)
1983 to 1988	3 (45)	3	1 (259)	2	1 (304)
1977 to 1982	38 (646)	41	21 (6440)	23	22 (7086)
1971 to 1976	29 (490)	70	29 (8936)	52	29 (9426)
1965 to 1970	23 (387)	93	26 (8089)	78	26 (8476)
1959 to 1964	7 (121)	100	22 (6769)	100	21 (6890)

chi square = 447.121
df = 6
p < .001

Categories represent year of birth, not age at which petition(s) were filed with the court.

5.1.4 **Living Arrangement**

Data on living arrangement also was only collected at the time of the first contact with the court. Although it is true that living arrangements can change over time, for the purposes of our analysis, we treated this variable as if it were static. MP and NMP youths reported living with mother only most frequently (62 percent for each group). The next most frequent living arrangement for MP youths was other (27 percent), encompassing adoption placement, foster care, group care, alone, relatives, and other arrangements (see Exhibit 5). NMP youths reported living with other (17 percent) and two parents (16 percent) as their next most frequent living arrangements.

Exhibit 5. Maltreatment and Nonmaltreatment Petitioned Youths: Living Arrangement
Percent (Number)

Living Arrangement	Maltreatment Petition	No Maltreatment Petition	Entire Sample
Mother only	62 (424)	62 (6,223)	62 (6,647)
Father only	4 (27)	5 (528)	5 (555)
Two parents	7 (46)	16 (1,555)	15 (1,601)
Other	27 (187)	17 (1,675)	17 (1,862)
Total	100 (684)	100 (9,981)	100 (10,665)

chi square = 76.528

df = 3

p < .001

As reported at the time of the first court contact. Other category includes adoption placement, foster care, group care, alone, other, and relatives.

We found large differences between MP and NMP youths who reported living with two parents and those living in other arrangements. More than twice the percentage of NMP youths reported living with two parents (16 percent) as did MP youths (7 percent). In addition, almost two times the percentage of MP youths reported other as their living arrangement (27 percent) as did NMP youths (17 percent). These findings are consistent with what the literature says about the effect of single-mother households, child supervision, economic disadvantage, and delinquency. While these data say little about causality, there is some indication that living outside of a parental home, with the exception of the mother only living arrangements, increases the risk of delinquency for MP youths.

5.2 Delinquency Petitions Among Maltreatment and Nonmaltreatment Petitioned Youths

Eight delinquency offense types were identified from the court records of MP and NMP youths, including the following: drug, order, property, runaway, sex offenses, violent, weapon, and other offenses (see Exhibit 6). Violent (53 percent) and property (52 percent) offenses were the most frequent delinquency petition type for MP youths. The same was true for the NMP group; however, MP youths had a greater proportion of violent delinquency petitions (38 percent for violent offenses and 51 percent for property). Slightly more NMP youths had drug offense petitions (29 percent) than did MP youths (22 percent). Twice as many MP youths had order petitions (24 percent) as did NMP youths (12 percent). Although both the MP and NMP groups had small proportions of youths with runaway offense petitions, five times as many MP youths (5 percent) had these petitions as did NMP youths (1 percent).

**Exhibit 6. Maltreatment and Nonmaltreatment Petitioned Youths: Type of Delinquency Petition
Percent (Number)**

At Least One Petition	Maltreatment Petition	No Maltreatment Petition	Total
Drug	22 (375)	29 (8,903)	29 (9,278)
Order	24 (403)	12 (3,611)	12 (4,014)
Other	18 (296)	18 (5,387)	18 (5,683)
Property	52 (882)	51 (15,740)	51 (16,622)
Runaway	5 (86)	1 (278)	1 (364)
Sex offense	5 (89)	4 (1,090)	4 (1,179)
Violent	53 (892)	38 (11,712)	39 (12,604)
Weapon	10 (168)	10 (3,066)	10 (3,234)

Proportions represent within-group (maltreated or nonmaltreated) percentages and will not add to 100 percent due to multiple outcome possibilities.

Drug petitions include sale or possession of controlled substances. Order petitions include youth status offenses, excluding runaways; disorderly conduct; gambling; and nuisance offenses. Other petitions include obstruction of mails, conspiracy, bribery, obstruction of justice, cruelty to animals, and fraud. Property petitions include burglary, purse snatching, arson, car theft, larceny, destruction of property, unauthorized use of vehicle, and receiving stolen goods. Runaway petitions include runaway and habitual runaway offenses. Sex offense petitions include rape, sodomy, indecent behavior, and prostitution. Violent petitions include simple and aggravated assault, robbery, armed assault, murder, manslaughter, and carjacking. Weapon petitions include possessing or carrying a weapon.

5.2.1 Race

Consistent with the statistics discussed above on the racial distribution of the MP and NMP groups, African Americans were overwhelmingly represented under each offense petition type (see Exhibit 7). Looking at just African Americans, the data indicate that for every offense type, MP youths

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had a higher proportion of petitions. Percentage-point differences between African American MP and NMP youths ranged from as little as 1 for violent offense petitions to 14 for other offense petitions. Drug offense petitions among African American MP and NMP groups were 98 percent and 95 percent, respectively.

Exhibit 7. Maltreatment and Nonmaltreatment Petitioned Youths: Type of Delinquency Petition by Race
Percent (Number)

At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Drug (n = 8,503)		
African American	98 (308)	95 (7,825)
White	<1 (3)	3 (243)
Other	<1 (3)	1 (116)
Hispanic	—	<1 (5)
Total	100 (314)	100 (8,189)
Order (n = 2,985)		
African American	96 (332)	94 (2,476)
White	<1 (3)	2 (65)
Other	<1 (9)	4 (96)
Hispanic	<1 (1)	<1 (3)
Total	100 (345)	100 (2,640)
Other (n = 4,747)		
African American	98 (268)	84 (3,754)
White	1 (3)	13 (585)
Other	1 (3)	3 (130)
Hispanic	—	<1 (4)
Total	100 (274)	100 (4,473)
Property (n = 13,134)		
African American	98 (735)	95 (11,764)
White	1 (7)	3 (351)
Other	1 (8)	2 (254)
Hispanic	—	<1 (15)
Total	100 (750)	100 (12,384)
Runaway (n = 371)		
African American	89 (76)	82 (234)
White	2 (2)	3 (8)
Other	7 (6)	4 (11)
Hispanic	1 (1)	12 (33)
Total	100 (85)	100 (286)

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At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Sex Offense (n = 854)		
African American	99 (68)	92 (720)
White	—	7 (53)
Other	1 (1)	2 (12)
Hispanic	—	—
Total	100 (69)	100 (785)
Violent (n = 9,970)		
African American	98 (761)	97 (8,898)
White	1 (5)	2 (175)
Other	1 (8)	1 (113)
Hispanic	—	<1 (10)
Total	100 (774)	100 (9,196)
Weapon (n = 3,034)		
African American	99 (152)	96 (2,760)
White	1 (1)	3 (78)
Other	1 (1)	1 (42)
Hispanic	—	—
Total	100 (154)	100 (2,880)

When white MP and NMP youths were examined in this same way, we found the exact opposite pattern. White NMP youths consistently had higher proportions of each offense petition type than did white MP youths. Percentage differences for whites ranged from 1 for runaway and violent offense petitions to 12 for other offense petitions. The proportions of youths with drug petitions was higher among NMP youths than MP youths (3 percent and less than 1 percent, respectively).

With the exception of runaway offense petitions among Hispanic youths (NMP Hispanic youths had 12 percent of the runaway petitions, compared with 1 percent for MP Hispanic youths), percentage differences between MP and NMP other and Hispanic youths were not large.

5.2.2 Sex

Examination of sex differences in the proportion of MP and NMP youths with delinquency petitions revealed that females had a smaller proportion of offense petitions across most delinquency

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offense categories. This is consistent with what we see in the criminological literature. Three offense categories, however, yielded findings contrary to the expectation that males offend at a greater rate than females. First, MP and NMP females had 70 percent and 67 percent, respectively, of runaway petitions. This is consistent with the research literature that finds that girls are more likely than boys to run away. Less expected, however, were the findings for order and violent offenses for MP females. In the order offense category, MP females had slightly more than one-half of all petitions (51 percent), NMP females had only 31 percent of these petitions (see Exhibit 8). For the violent offense category, MP females had approximately a one-third of all petitions (34 percent), twice as many as NMP females (17 percent). In addition, MP females were more likely than NMP females to have a delinquency petition for drug, other, property, and weapon offense types.

**Exhibit 8. Maltreatment and Nonmaltreatment Petitioned Youths: Type of Delinquency Petition by Sex
Percent (Number)**

At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Drug (n = 9,272)		
Female	13 (50)	7 (589)
Male	67 (324)	93 (8,309)
Total	100 (374)	100 (8,898)
Order (n = 4,012)		
Female	51 (207)	31 (1,124)
Male	49 (196)	69 (2,485)
Total	100 (403)	100 (3,609)
Other (n = 5,678)		
Female	26 (78)	24 (1,298)
Male	74 (218)	76 (4,084)
Total	100 (296)	100 (5,382)
Property (n = 16,615)		
Female	21 (181)	10 (1,638)
Male	79 (701)	90 (14,095)
Total	100 (882)	100 (15,733)
Runaway (n = 364)		
Female	70 (60)	67 (187)
Male	30 (26)	33 (91)
Total	100 (86)	100 (278)

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At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Sex Offense (n = 1,178)		
Female	16 (14)	19 (203)
Male	84 (75)	81 (886)
Total	100 (89)	100 (1,089)
Violent (n = 12,598)		
Female	34 (299)	17 (1,983)
Male	66 (593)	83 (9,723)
Total	100 (892)	100 (11,706)
Weapon (n = 3,229)		
Female	9 (15)	5 (160)
Male	91 (153)	95 (2,901)
Total	100 (168)	100 (3,061)
Violent (n = 12,598)		
Female	34 (299)	17 (1,983)
Male	66 (593)	83 (9,723)
Total	100 (892)	100 (11,706)
Weapon (n = 32,299)		
Female	9 (15)	5 (160)
Male	91 (153)	95 (2,901)
Total	100 (168)	100 (3,061)

Males showed a different pattern. For all but one offense category, MP males had a lower proportion of youths with delinquency offense petitions than did NMP males. (A larger proportion of MP males than NMP males had sex offense petitions.) Percentage point differences between MP and NMP males ranged from 2 for other offense petitions to 20 for order offense petitions.

5.2.3 Living Arrangement

Across all offense types, a mother only living arrangement was predominant among both MP and NMP youths. For youths with a drug offense petition on their court record, 57 percent of MP and 62 percent of NMP youths reported living with only their mother at the time of their first court contact (see Exhibit 9). In the MP group, the proportion of youths who reported living with their mother only ranged from a low of 52 percent (in the sex offense category) to a high of 68 percent (in the runaway offense category). For the NMP youths, the range was 60 percent (in the sex offense category) to 69 percent (in

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the order offense category). With the exception of runaway petitions, a larger proportion of NMP youths reported living with only their mother for all offense petition types.

**Exhibit 9. Maltreatment and Nonmaltreatment Petitioned Youths:
Type of Delinquency Petition by Living Arrangement
Percent (Number)**

At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Drug (n = 4,825)		
Mother Only	57 (82)	62 (2,922)
Father Only	3 (4)	5 (238)
Two Parents	6 (9)	14 (677)
Other	34 (49)	18 (844)
Total	100 (144)	100 (4,681)
Order (n = 1,207)		
Mother Only	64 (101)	69 (720)
Father Only	2 (3)	4 (40)
Two Parents	6 (10)	10 (110)
Other	28 (44)	17 (179)
Total	100 (158)	100 (1,049)
Other (n = 1,781)		
Mother Only	62 (85)	63 (1,041)
Father Only	6 (8)	6 (100)
Two Parents	6 (8)	13 (208)
Other	26 (36)	18 (295)
Total	100 (137)	100 (1,644)
Property (n = 5,345)		
Mother Only	58 (190)	63 (3,179)
Father Only	3 (11)	5 (274)
Two Parents	7 (23)	15 (755)
Other	31 (102)	16 (811)
Total	100 (326)	100 (5,019)
Drug (n = 154)		
Mother Only	68 (30)	67 (74)
Father Only	7 (3)	4 (4)
Two Parents	11 (5)	10 (11)
Other	14 (6)	19 (21)
Total	100 (44)	100 (110)

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At Least One Petition	Maltreatment Petition	No Maltreatment Petition
Sex Offense (n = 338)		
Mother Only	52 (17)	60 (182)
Father Only	3 (1)	7 (20)
Two Parents	12 (4)	17 (51)
Other	33 (11)	20 (52)
Total	100 (33)	100 (305)
Violent (n = 4,227)		
Mother Only	62 (225)	65 (2,517)
Father Only	4 (14)	5 (192)
Two Parents	6 (23)	14 (522)
Other	27 (99)	16 (635)
Total	100 (361)	100 (3,866)
Weapon (n = 1,778)		
Mother Only	53 (45)	63 (1,075)
Father Only	6 (5)	5 (78)
Two Parents	5 (4)	13 (222)
Other	36 (31)	19 (318)
Total	100 (85)	100 (1,693)

In every offense petition category, with the exception of runaway petitions, MP youths reported other living arrangement in higher proportions (second only to mother only as the living arrangement) than did NMP youths. Percentage point differences ranged from 8 to 17. More NMP than MP youths reported living with their father only (with the exception of other, runaway, and weapon offense petition types). Two-parent living arrangements also were greater among NMP youths (percentage point differences in all offense petition categories ranged from 1 to 8). Once again, however, runaway offense petitions were the exception, with MP youths reported living with two parents in 11 percent of the cases (10 percent for NMP youths).

5.3 Type of Maltreatment Petition and Type of Delinquency Petition(s)

The literature on the relationship between delinquency and child maltreatment suggests that the frequency and type of delinquency offending may be related to what specific type(s) of maltreatment a child experienced. We defined three areas of maltreatment in our sample of youths with both

maltreatment and delinquency petitions: neglect, physical abuse, and sexual abuse (see Exhibit 10). Physical abuse (60 percent) and neglect (58 percent) were the most frequently occurring maltreatment petition types. Sexual abuse was the least frequent type of maltreatment petition (3 percent).

**Exhibit 10. Type of Maltreatment Petition: Frequency
Percent (Number)**

Type of Maltreatment	Frequency
Neglect	58 (986)
Physical Abuse	60 (1,028)
Sexual Abuse	3 (47)

Categories are not mutually exclusive. An individual can have more than one type of maltreatment petition. Proportions represent the percentage of those maltreated ($N = 1,696$).

5.3.1 Race, Sex, and Living Arrangement

African Americans composed the majority of youths with neglect (97 percent), physical abuse (97 percent), and sexual abuse (98 percent) petitions (see Exhibit 11). Males were a majority of the youths with neglect (61 percent) and physical abuse (65 percent) petitions. Females, however, were the majority of youths with sexual abuse petitions (60 percent) (see Exhibit 12). Mother only living arrangements predominated among all maltreatment petition types; youths with physical abuse petitions were the highest proportion who reported living with their mother only (68 percent), followed closely by those with a sexual abuse petition (67 percent). Other was the next frequently reported living arrangement (neglect, 30 percent; sexual abuse, 24 percent; and, physical abuse, 17 percent) (see Exhibit 13).

**Exhibit 11. Type of Maltreatment Petition: Race
Percent (Number)**

Race of Juvenile	Neglect ^a	Physical Abuse ^a	Sexual Abuse ^b
African American	97 (926)	97 (768)	98 (45)
White	1 (9)	1 (11)	0
Other	2 (22)	1 (11)	2 (1)
Hispanic	<1 (1)	0	0
Total (type of maltreatment)	100 (958)	100 (790)	100 (46)

The total for all three types of maltreatment (2,060) was greater than the number of individual incidents (1,696) because individuals can have multiple maltreatment petitions.

^a $p < .001$

^b not significant

Exhibit 12. Type of Maltreatment Petition: Sex
Percent (Number)

Sex of Juvenile	Neglect ^a	Physical Abuse ^a	Sexual Abuse ^a
Female	39 (381)	35 (362)	60 (28)
Male	61 (604)	65 (666)	40 (19)
Total (type of maltreatment)	100 (985)	100 (1,028)	100 (47)

The total for all three types of maltreatment (2,060) was greater than the number of individual incidents (1,696) because individuals can have multiple maltreatment petitions.

^a p < .001

Exhibit 13. Type of Maltreatment Petition: Living Arrangement
Percent (Number)

Living Arrangement	Neglect ^a	MP No Neglect	Physical Abuse ^b	MP No Physical Abuse	Sexual Abuse ^c	MP No Sexual Abuse
Mother only	61 (335)	68 (89)	68 (215)	57 (209)	67 (14)	62 (410)
Father only	4 (20)	5 (7)	5 (16)	3 (11)	5 (1)	4 (26)
Two parents	5 (30)	12 (16)	10 (30)	4 (16)	5 (1)	7 (45)
Other	30 (168)	15 (19)	17 (54)	36 (133)	24 (5)	28 (182)

^a p < .001

^b p < .05

Other category includes adoption placement, foster care, group care, alone, other, and relatives.

The total for all three types of maltreatment (2,060) was greater than the number of individual incidents (1,696) because individuals can have multiple maltreatment petitions.

5.3.2 Type of Delinquency Petitions

An analysis was made of the proportion of each maltreatment group with each of the eight delinquency offense type petitions (see Exhibit 14). The physical abuse category had a slightly higher proportion of individuals with six of the eight offense petition types. Youths with a neglect petition were more likely to have a runaway petition (15 percent) than those with a physical abuse petition (37 percent) or a sexual abuse petition (4 percent).

Exhibit 14. Type of Maltreatment Petition: Type of Delinquency Petition
Percent (Number)

At Least One Petition	Neglect	Physical Abuse	Sexual Abuse	Total*
Drug petition	44 (195)	55 (242)	3 (7)	100 (444)
Order petition	47 (233)	50 (245)	3 (14)	100 (492)
Other petition	50 (178)	50 (178)	1 (3)	100 (359)
Property petition	46 (482)	53 (557)	2 (19)	100 (1,058)
Runaway petition	58 (67)	37 (43)	4 (5)	100 (115)
Sex offense petition	49 (49)	51 (52)	—	100 (101)
Violent petition	48 (518)	50 (543)	2 (27)	100 (1,088)
Weapon petition	50 (107)	50 (106)	<1 (1)	100 (214)

* Total may be greater than 100 percent due to rounding.

5.4 Delinquency Careers Among Maltreatment and Nonmaltreatment Petitioned Youths

Three aspects of juvenile delinquency careers were analyzed for MP and NMP youths with drug offense petitions. These variables included initiation (age at first court contact, maltreatment petition, delinquency petition, and drug petition); chronicity (mean number of contacts with the court); and specialization (mean number of specific offense type petitions). The relationship of demographic characteristics to these indices also were analyzed.

Looking at the entire sample (see Exhibit 15), MP youths with drug petitions were, on average, younger at the time of their first contact with the court (9 years old versus 16 years old) and first delinquency petition. MP and NMP youths were approximately the same mean age at the time of their first drug offense petition. MP youths had five more contacts with the court on average than did NMP youths (11 contacts versus 6 contacts). This is accounted for (but not totally) by maltreatment petition contacts with the court. The average number of maltreatment contacts was two. With the exception of property (an average of two petitions for MP youths and 1 petition for NMP youths) and violent offense petition (an average of two petitions for MP youths and one petition NMP youths), MP youths had the same mean number of offense petitions as did NMP youths.

Exhibit 15. Maltreatment and Nonmaltreatment Petitioned Youths with Drug Petitions¹: Court Contact History (Initiation, Chronicity, and Specialization)

	Maltreatment Petition	No Maltreatment Petition
INITIATION		
<i>Mean age at first:</i>		
Court contact	9	16
Maltreatment petition	9	—
Delinquency petition	14	15
Drug offense petition	16	16
CHRONICITY		
Mean number of contacts	11	6
SPECIALIZATION		
<i>Mean number of:</i>		
Drug petitions	3	3
Order petitions	<1	<1
Property petitions	2	1
Other petitions	<1	<1
Runaway petitions	<1	<1
Sex offense petitions	<1	<1
Violent petitions	2	1
Weapons petitions	1	<1
<i>N</i>	375	8,903

¹ Individual had at least one drug petition.

When this analysis is disaggregated by race we see several stark differences among and between MP and NMP youths with drug petitions (see Exhibit 16). MP African American youths were, on average, 3 to 4 years younger than other MP youths and 6 to 7 years younger than NMP youths at the time of their first contact with the court. MP African American youths also were 3 to 4 years younger on average than other MP youths at the time of their first maltreatment petition. The mean age at first delinquency petition was younger for African American youths than for MP and NMP youths overall. African Americans were 1 to 2 years younger on average than MP youths and 1 to 3 years younger than NMP youths.

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Exhibit 16. Maltreatment and Nonmaltreatment Petitioned Youths with Drug Petitions¹: Court Contact History (Initiation, Chronicity, and Specialization) by Race

	Maltreatment Petition				No Maltreatment Petition			
	1	2	3	4	1	2	3	4
INITIATION								
<i>Mean age at first:</i>								
Court contact	10	13	14	—	16	17	16	17
Maltreatment petition	10	13	14	—	—	—	—	—
Delinquency petition	14	16	15	—	15	17	16	17
Drug offense petition	16	16	17	—	16	17	16	17
CHRONICITY								
Mean number of contacts	12	2	8	—	6	2	3	2
SPECIALIZATION								
<i>Mean number of:</i>								
Drug petitions	3	1	1	—	3	2	2	2
Order petitions	<1	0	1	—	<1	<1	<1	0
Property petitions	3	0	2	—	1	<1	1	0
Other petitions	<1	0	<1	—	<1	<1	<1	<1
Runaway petitions	<1	0	0	—	<1	<1	0	0
Sex offense petitions	<1	0	0	—	<1	<1	<1	0
Violent petitions	2	0	1	—	1	<1	0	0
Weapons petitions	1	0	0	—	1	<1	0	0
N	308	3	3	0	7,825	243	116	5

1 = African American, 2 = White, 3 = Other, 4 = Hispanic

¹ Individual had at least one drug petition.

African American MP youths also had a greater number of contacts with the court than did MP and NMP youths overall. The mean number of court contacts for MP African American youths was 12.4 to 10 contacts higher than other MP and NMP youths. For the mean number of specific offense petitions, there were less stark differences between MP and NMP youths by race. Non-African American NMP youths had slightly more drug offense petitions than their MP counterparts. African American youths had the highest mean number of drug offense petitions among MP and NMP groups (three petitions). African American youths also had the highest mean number of property and violent petitions among MP and NMP youths (three and two, respectively).

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When sex differences are analyzed we observe only small within-group and between-group differences (see Exhibit 17). Male and female MP youths were approximately the same mean age at first maltreatment. Male and female MP and NMP youths also were approximately the same mean age at first delinquency and at drug offense petition contact. There were, however, significant differences between MP and NMP youths in average age at first court contact. Female MP youths were, on average, 6 years younger than NMP females at first contact with the court; male MP youths were 7 years younger NMP males.

Exhibit 17. Maltreatment and Nonmaltreatment Partitioned Youths with Drug Petitions¹: Court Contact History (Initiation, Chronicity, and Specialization) by Sex

	Maltreatment Petition		No Maltreatment Petition	
	Female	Male	Female	Male
INITIATION				
<i>Mean age at first:</i>				
Court contact	10	9	16	16
Maltreatment petition	10	9	—	—
Delinquency petition	15	14	16	15
Drug offense petition	16	16	17	16
CHRONICITY				
Mean number of contacts	6	11	3	6
SPECIALIZATION				
<i>Mean number of:</i>				
Drug petitions	2	3	2	3
Order petitions	<1	<1	<1	<1
Property petitions	<1	3	<1	1
Other petitions	<1	<1	<1	<1
Runaway petitions	<1	<1	<1	<1
Sex offense petitions	<1	<1	<1	<1
Violent petitions	1	2	<1	1
Weapons petitions	<1	1	<1	1
<i>N</i>	50	324	589	8,309

¹ Individual had at least one drug petition.

Female and male MP youths had a higher mean number of contacts with the court overall than did NMP youths. This difference was greater for males (11 versus 6) than females (6 versus 3). The mean number of contacts with the court for specific offense petition showed little or no differences

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among and between both gender and maltreatment groups. MP males, however, had a slightly higher mean number of property and violent offense petitions.

MP youths, regardless of the type of living arrangement, were, on average, younger than NMP youths at the time of first court contact, delinquency petition, and drug offense petition (with the exception of MP youths who reported living with their father only) (see Exhibits 18 and 19). MP youths also had greater mean number of overall court contacts than did NMP youths, regardless of living arrangement. MP youths who reported a father only or other living arrangement had the highest mean number of contacts (15). MP youths living with two parents had the highest mean number of drug petitions (4) both within and between maltreatment petition groups. Regardless of living arrangement MP youths had a higher mean number of petitions for property offenses; MP youths who reported living with their father only had the highest mean number of property offense petitions (7). MP youths who reported living with their mother only or other had a slightly higher mean number of violent petitions (4) than did MP or NMP youths reporting different living arrangements.

Exhibit 18. Maltreatment and Nonmaltreatment Petitioned Youths with Drug Petitions¹: Court Contact History (Initiation, Chronicity, and Specialization) by Living Arrangement, Maltreatment Petitioned Youths

	Mother Only	Father Only	Two Parents	Other
INITIATION				
<i>Mean age at first:</i>				
Court contact	12	13	13	12
Maltreatment petition	12	13	13	12
Delinquency petition	14	15	15	14
Drug offense petition	15	17	15	16
CHRONICITY				
Mean number of contacts	11	15	12	15
SPECIALIZATION				
<i>Mean number of:</i>				
Drug petitions	3	2	4	4
Order petitions	<1	0	<1	<1
Property petitions	2	7	3	3
Other petitions	1	1	1	1
Runaway petitions	<1	0	0	0
Sex offense petitions	<1	1	<1	<1

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	Mother Only	Father Only	Two Parents	Other
Violent petitions	2	1	1	2
Weapons petitions	1	0	1	1
<i>N</i>	82	4	9	49

¹ Individual had at least one drug petition.

**Exhibit 19. Maltreatment and Nonmaltreatment Petition Youths with Drug Petitions¹:
Court Contact History (Initiation, Chronicity, and Specialization) by Living Arrangement,
Nonmaltreatment Petitioned Youths**

	Mother Only	Father Only	Two Parents	Other
INITIATION				
<i>Mean age at first:</i>				
Court contact	17	16	19	17
Maltreatment petition	—	—	—	—
Delinquency petition	15	16	16	16
Drug offense petition	16	16	16	16
CHRONICITY				
Mean number of contacts	6	5	5	6
SPECIALIZATION				
<i>Mean number of:</i>				
Drug petitions	3	3	3	3
Order petitions	<1	<1	<1	<1
Property petitions	1	1	1	1
Other petitions	<1	<1	<1	<1
Runaway petitions	<1	<1	<1	<1
Sex offense petitions	<1	<1	<1	<1
Violent petitions	1	1	1	1
Weapons petitions	1	1	1	1
<i>N</i>	2,922	238	677	844

¹ Individual had at least one drug petition.

5.5 Court Disposition History and Delinquency Careers Among Maltreatment and Nonmaltreatment Petitioned Youths

Five court dispositions were identified from the data on MP and NMP youths, including dismissal or suspensions, community treatment, Department of Human Services (DHS)/Protective Services, institutionalization, and probation. Overall, disposition data was available for only 49 percent of MP

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youths and 16 percent of NMP youths. From these data, analyses were made of the relationship between court dispositions history and delinquency offending among MP and NMP youths.

The disposition most likely to be received for either group was DHS/Protective Services; 35 percent of MP youths with at least one court disposition received this disposition, while 13 percent of NMP youths did. The next most frequent disposition type was dismissals and suspensions. More MP youths received a dismissal or suspension (20 percent) than did NMP youths (5 percent). The proportion of all other disposition types was roughly the same for MP and NMP groups (see Exhibit 20).

**Exhibit 20. Maltreatment and Nonmaltreatment Petitioned Youths: Disposition Frequencies
(Youths With One or More of Each Disposition Type)
Percent (Number)**

	Dismissal/ Suspension	Community Treatment	DHS/Protective Services	Institutionalization	Probation
Total	1,847	107	4,639	7	85
MP	20**	1**	35**	< 1***	< 1
NMP	5	< 1	13	0	< 1

** p < .001

*** p < .01

Number of maltreated juveniles who ever had a court disposition of any kind was 791 (47 percent). Number of maltreated juveniles who never had a court disposition was 905 (53 percent).

Number of nonmaltreated juveniles who ever had a court disposition of any kind was 4,983 (16 percent). Number of nonmaltreated juveniles who never had a court disposition was 25,679 (84 percent).

Data also were analyzed on the relationship between disposition type and the mean number of delinquency offense petitions. Overall, the most common type of offense petition for both groups of youths was property offense petitions (see Exhibit 21). A higher mean number of petitions was observed for this offense category regardless of the youth's disposition history. This same pattern, with slightly lower means, was observed for violent offense petitions. MP youths who had been institutionalized had the highest mean number of property offenses petitions (5). MP youths who had been sentenced to community treatment or institutionalized had the highest mean number of violent offense petitions. We would expect that those youths with the most serious offense petition records would also have a more serious disposition history. Except for MP youths with a history of institutionalization, MP youths had a lower or comparable mean number of delinquency petitions as did NMP youths, no matter what their disposition history was.

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**Exhibit 21. Maltreatment and Nonmaltreatment Petitioned Youths:
Disposition History by Mean Number of Delinquency Petitions
Percent (Number)**

Mean Number of Petitions	Dismissed/ Suspended	Community Treatment	DHS/Protective Services	Institutionalized*	Probation
Drug					
MP	1	1	1	0	1
NMP	2	1	2	2	4
Order					
MP	<1	1	<1	2	1
NMP	<1	<1	<1	0	<1
Other					
MP	<1	1	<1	2	1
NMP	<1	1	<1	1	<1
Property					
MP	3	2	3	5	1
NMP	4	2	4	1	4
Runaway					
MP	<1	<1	<1	0	0
NMP	<1	<1	<1	0	0
Sex Offense					
MP	<1	<1	<1	0	0
NMP	<1	<1	<1	0	<1
Violent					
MP	2	3	2	3	1
NMP	2	2	2	1	1
Weapon					
MP	<1	1	<1	0	0
NMP	1	2	1	3	1
Mean Number of Delinquencies					
MP	7	8	7	11	4*
NMP	10	8	9	7*	11

* Based on less than 10 cases.

5.6 Models Predicting Drug Offense Petitions Among Youth

Four multivariate logistic regression models were used to examine the relative strength of demographics (race, sex, and living arrangement), delinquency offense petitions (property, order, runaway, sex offense, violent, weapon, and other), type of maltreatment (neglect, physical and sexual

abuse), and court disposition history (community treatment, dismissal/suspension, DHS/Protective Services, institutionalization, and probation) in predicting the presence of a drug offense petition on MP and NMP youths court records. Exhibits 22 to 25 describe these models and the odds ratio associated with each explanatory variable in the equation.

5.6.1 **Demographic Variables**

For the MP group of youths, only gender significantly predicted a drug offense petition (see Exhibit 22). After controlling for race and living arrangement, males were at a greater risk for having a delinquency petition. For the MP group, males were 7.43 times more likely than females to have a drug offense petition. Race (African American) and living arrangement (parental household) both were inversely related to having a drug offense petition and did not significantly increase the risk of having a drug offense petition when compared to non-African Americans and those who did not live in a parental home.

Exhibit 22. Multivariate Modeling of Drug Offense Petitions: Demographic Variables

Predictors	Slope Coefficient	Standard Error	Odds Ratio
Maltreatment Petitioned Group (N = 682)			
Race (African American)	-.124	.540	.883
Sex (Male)	2.010 ***	.280	7.429
Living Arrangement (Parental)	-.346	.213	.708
Nonmaltreatment Petitioned Group (N = 9,900)			
Race (African American)	.848 ***	.099	2.340
Sex (Male)	1.780 ***	.079	5.930
Living Arrangement (Parental)	-.223 ***	.056	.800

*** p < .001

When this model was applied to the group of NMP youths, the slopes for race (African American), gender (male), and living arrangement (parental household) were all significant. African Americans, males, and those not living in a parental home were at a significantly greater risk for having a drug offense petition than those without these characteristics. The coefficients for race and gender were both positive and the odds ratios for these variables indicated that males were 5.93 times more

likely than females to have a drug offense petition and that African Americans were 2.34 times more likely than non-African Americans to have a drug petition. Living in a parental household, however, was inversely related to having a drug offense petition; this group was less likely to have a drug offense petition than those not living in a parental household (odds ratio = .800).

5.6.2 Delinquency Offense Petitions

Dichotomous measures of seven delinquency offense petitions (excluding drug offense petitions) were used to predict a drug offense petition (see Exhibit 23). Models for the MP and NMP groups were estimated separately. MP youths with property offense petitions were 1.34 times more likely than those with no property offense petitions to have a drug petition; MP youths with sex offense petitions were 1.72 times more likely than those with no sex offense petitions to have a drug petition; and MP youths with weapon offense petitions were 2.75 times more likely than those with no weapon offense petitions to have a drug petition.

Exhibit 23. Multivariate Modeling of Drug Offense Petitions: Delinquency Offense Petitions

Predictors	Slope Coefficient	Standard Error	Odds Ratio
Maltreatment Petitioned Group (N = 1,696)			
<i>At least one:</i>			
Order Petition	-.073	.147	.930
Other Petition	.151	.153	1.160
Property Petition	.296 *	.122	1.340
Sex Offense Petition	.539 *	.238	1.720
Violent Petition	-.111	.121	.895
Runaway Petition	-1.410 **	.471	.2440
Weapon Petition	1.010 ***	.173	2.750
Nonmaltreatment Petitioned Group (N = 30,662)			
<i>At least one:</i>			
Order Petition	-.171 ***	.042	.843
Other Petition	-.412 ***	.036	.662
Property Petition	-.547 ***	.026	.579
Sex Offense Petition	-.702 ***	.081	.496
Violent Petition	-.433 ***	.027	.649
Runaway Petition	-1.100 ***	.182	.332
Weapon Petition	.833 ***	.040	2.300

* p < .05
 ** p < .01
 *** p < .001

For NMP youths, the coefficients for all seven delinquency petition types were significant. However, having only a weapon offense petition increased the risk of having a drug offense petition. NMP youths with a weapon offense petition were 2.30 times more likely than those without a weapon offense petition to have a drug offense petition.

5.6.3 Type of Maltreatment

Among youths with a petition for maltreatment on their court record, each type of maltreatment petition was negatively related to having a drug offense petition (see Exhibit 24). Maltreated youths with a petition for neglect, physical abuse, or sex abuse on their court record were less likely than those without such petitions to have a drug offense petition. Only one type of maltreatment petition (neglect) had a coefficient that was significant, controlling for the other types of maltreatment, and only at the .05 level. Those who experienced only neglect were at significantly less risk of having a drug offense petition.

Exhibit 24. Multivariate Modeling of Drug Offense Petitions: Type of Maltreatment

Predictors	Slope Coefficient	Standard Error	Odds Ratio
Maltreatment Petitioned Group (N = 1,696)			
Neglect Petition	-.337*	.162	.714
Physical Abuse Petition	-.040	.169	.961
Sexual Abuse Petition	-.435	.419	.647

*p < .05

5.6.4 Disposition History

Having a court disposition history that includes community treatment, DHS/Protective Services, or a dismissal significantly increased the risk of having a drug offense petition for MP and NMP youths (see Exhibit 25). For the MP group, the largest odds ratio in the model was for community treatment. MP youths with a community treatment disposition were 2.79 times more likely than those without a community treatment disposition to have a drug offense petition.

Exhibit 25. Multivariate Modeling of Drug Offense Petitions: Disposition History

Predictors	Slope Coefficient	Standard Error	Odds Ratio
Maltreatment Petitioned Group (N = 791)			
<i>At least one:</i>			
Community Treatment	1.030 *	.504	2.790
DHS/Protective Services	.814 ***	.235	2.260
Dismissal/Suspension	.429 *	.192	1.550
Institutionalization	-4.310	9.110	.013
Probation	1.150	1.020	3.150
Nonmaltreatment Petitioned Group (N = 4,983)			
<i>At least one:</i>			
Community Treatment	.692**	.234	2.000
DHS/Protective Services	1.090***	.103	2.980
Dismissal/Suspension	.316***	.084	1.370
Institutionalization	1.160	.926	3.190
Probation	.775 **	.246	2.170

* p < .05
 ** p < .01
 *** p < .001

For NMP youths the DHS/Protective Services disposition variable yielded the largest odds ratio. NMP youths with a DHS/Protective Services disposition were 2.98 times more likely than those without a DHS/Protective Services disposition to have a drug offense petition.

6. CONCLUSIONS AND RECOMMENDATIONS

The Office of National Drug Control Policy (ONDCP) is concerned with national trends that indicate that American youths have increased their consumption of illicit substances. In order to address this trend, ONDCP has mandated that the primary goal of its 1997 National Drug Control Strategy should be to prevent drug use among American youths by educating them about the harmful consequences. In line with this goal, one of the major objectives of ONDCP's strategy is to develop scientific research-based information that can be applied to policy and programs targeting at-risk youths.

The goal of this study was to add to the store of scientific knowledge on the relationship between childhood maltreatment, delinquency, and drug offending. Although findings from extant research are

informative, they are inconclusive, due in part to methodological limitations. The present study sought to remedy the methodological deficits of this research by examining longitudinal, "real life," official, juvenile records from the Washington, D.C., Superior Court to answer the following questions:

- *Is race, sex, or household living arrangement associated with having maltreatment, drug, or other delinquency petitions?*
- *Does having a maltreatment petition increase the likelihood that a child will have drug or other delinquency petitions?*
- *Does the type of maltreatment petition (physical abuse, sexual abuse, or neglect) predict drug and other delinquency petitions?*
- *What are the pathways to juvenile drug offending?*
- *Do juvenile court interventions affect future offending?*

The data for this analysis were supplied by the Washington, D.C., Superior Court and contain 32,358 individual juvenile records. These individual juvenile records chronicle approximately 154,000 separate maltreatment and delinquency petitions (similar to a criminal complaint) from 1959 to 1996. Two groups were compared for analysis. The first group consisted of all youths with maltreatment and delinquency petitions (MP group, $N = 1,696$); the second group consisted of youths with delinquency petitions only (NMP group, $N = 30,662$). This study was limited to cases processed by one court, in one jurisdiction. If juveniles in this sample were maltreated or arrested in another jurisdiction or processed by another court in Washington, D.C., those data were not included in the analysis.

There were important differences between the MP and NMP groups with regard to race, sex, year of birth, and living arrangement characteristics. Both groups were composed primarily of African American males living with only their mother at the time of their first court contact. The MP group, however, had a smaller proportion of African Americans and males, and was younger than the NMP

group of youths. In addition, although equal proportions of MP and NMP youths were living with only their mother at the time of their first contact with the court, MP youths were nearly two times more likely than NMP youths to report living in a nonparental home and more than two times less likely than NMP youths to report living with two parents. These differences undoubtedly exert an important effect on maltreatment and delinquency involvement because characteristics such as race, gender, age, and living arrangement correlate with individual, family, socioeconomic, and community risk-factors.

Eight delinquency offense petition types were identified from the court records of MP and NMP youths, including the following: drug, order, property, runaway, sex offense, violent, weapon, and other offenses. Violent and property offenses were the most frequent petition type for MP youths. The same was true for the NMP group; however, MP youths had a greater proportion of violent delinquency petitions. Slightly more NMP youths had drug offense petitions than did MP youths. Twice as many MP youths had order petitions as did NMP youths. Although both the MP and NMP youths had small proportions of youths with runaway offense petitions, five times as many MP youths had these petitions as did NMP youths. When these data were disaggregated by race, sex, and living arrangement, further differences were observed between MP and NMP youths.

We identified the following three types of maltreatment in our sample of youths with both maltreatment and delinquency petitions: neglect, physical abuse, and sexual abuse. Physical abuse and neglect were the most frequently occurring maltreatment petition types, sexual abuse the least frequent. African Americans composed the majority of youths with petitions for all maltreatment types. Males were a majority of the youths with neglect and physical abuse petitions. Female youths, however, were a majority of those with sexual abuse petitions. Mother only living arrangement predominated among all maltreatment petition types and was highest for those with physical abuse petitions. When an analysis was made of the proportion of each maltreatment type group with each of the eight delinquency petition types, those with physical abuse petitions had slightly higher proportions of youths with each of the eight offense petition types (with the exception of other and weapon offense petitions, for which the proportions were linked with the neglect petition group).

Three aspects of juvenile delinquency careers were examined for MP and NMP youths with drug offense petitions, including (1) initiation (age at first court, maltreatment, delinquency, and drug court contact); (2) chronicity (mean number of overall contacts with the court); and, (3) specialization (mean number of specific offense type petitions). MP youths with drug petitions were, on average, younger at the time of their first contact with the court and first delinquency petition. MP and NMP youths were approximately the same age at the time of their first drug offense petition. MP youths had a mean number of contacts five times higher than that of NMP youths. With the exception of property and violent offense petitions, MP youths had the same mean number of offense petitions as did NMP youths. Again, differences were observed in these variables when controls for race, sex, and living arrangement were added to the analysis.

Five court dispositions were identified from the data, including dismissal/suspension, community treatment, DHS/Protective Services, institutionalization, and probation. The disposition most likely to be received for the MP and NMP groups was DHS/Protective Services; however, a larger proportion of MP youths than NMP youths received this disposition. The next most frequent disposition type was dismissals/suspensions, and once again a larger proportion of MP youths than NMP youths received this sentence. The proportion of each group receiving each of the other dispositions was roughly equal. When data were analyzed for the relationship between disposition history and the mean number of delinquency offense petitions, we found that MP youths who had been institutionalized had the highest mean number of property offense petitions. MP youths who had been sentenced to community treatment or institutionalized had the highest mean number of violent offense petitions.

Logistic regression analysis models were estimated to determine which of the variables analyzed in this study best predicted a drug offense petition on juvenile court records. Four models, covering demographic, offense petition type, delinquency type, and disposition history variables, were estimated separately for the MP and NMP groups. The results of this analysis showed that when demographic variables were modeled, gender (MP youths) and gender and race (NMP youths) were related to drug offense petitions.

Delinquency offense petition was not a strong predictor of having a drug offense petition for the NMP group, with the exception of weapon offense petitions. For MP youths, property and sex offense petitions predicted having a drug offense petition.

All maltreatment type petitions were negatively related to having a drug offense petition. A petition for neglect, however, was a significant (negative) risk-factor for having a drug offense petition, controlling for the other maltreatment types.

Lastly, for both MP and NMP youths, a court disposition history that included community treatment, DHS/Protective Services, or a dismissal/suspension disposition all positively and significantly predicted having a drug offense petition.

The extant research in this area has provided informative, though inconclusive, evidence that childhood maltreatment—neglect, physical abuse, and sexual abuse—are risk factors for adolescent and adult drug use and criminal offending. Through the use of longitudinal, “real life,” official court petition records, we were able to add to the research in this area. Overall, this analysis has found preliminary evidence that demographic variables—such as race, gender, living arrangement (non parental)—that correlate with maltreatment qualify the hypothesis that maltreatment is a risk factor for delinquency and drug offending. More research is needed to further understand the complex relationship between these variables.

7. RECOMMENDATIONS

The results presented in this report do not provide unequivocal answers to the questions presented in the Objectives, Scope, and Methods section. However, the results do suggest general themes that have important policy and program implications. To better address the connection between maltreatment and drug use and help guide future research, CSR offers the following recommendations:

- Focus future research on populations of youths whose individual, family, socioeconomic, or community background put them at risk for maltreatment and/or delinquency.

- Examine gender differences more closely. Gender is an important, though frequently overlooked, variable. The relationship between maltreatment and delinquency for females should be examined thoroughly. If females respond differently to experiences of maltreatment and they may need delinquency and drug use prevention strategies and programs tailored to their specific needs and perceptions.
- Fund more longitudinal studies that use official court data from several regions of the United States. These data would help to determine the long-term effects of maltreatment on delinquency and criminal offending and would permit more sophisticated analyses.
- Identify protective factors for children who are at risk for offending but have not offended. These protective factors might be individual-, family-, socioeconomic-, or community-related.

This research holds considerable promise for understanding the role of maltreatment in the development of delinquency and drug-related offending among American youths. The findings from this research can be used in designing educational campaigns, prevention programs targeting at-risk youths, and future scientific research on this issue. However, much work remains to be done to build a stronger foundation of scientific knowledge that can firmly support long-term efforts to assist at-risk youths and their families in doing all they can to avoid the dangers of drug use.

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