WRITTEN TESTIMONY TO THE U.S. SENTENCING COMMISSION ON FEDERAL COCAINE/CRACK SENTENCING PRACTICES.

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ORAL REMARKS

Thank you for this opportunity to present some important findings about crack and cocaine powder usage and their distribution.   More details about the samples and findings are provided in the written paper.

My oral presentation will focus mainly upon changing trends of crack and cocaine powder usage among arrestees in Manhattan—based upon data derived from analysis of the Arrestee Drug Abuse Monitoring Program (ADAM).

The central changes occurred since 1980. Important cohort shifts have occurred, especially among African-American males arrested for a wide range of crimes.

In the early 1980s, cocaine powder, free basing, and especially crack (after 1985) became the preferred drug of abuse among youthful (and older) African-American males involved with illicit drugs. (Johnson et al. 1990).

This crack epidemic "peaked" between 1987-1989 in NYC when about 70% of all NYC arrestees were detected as cocaine positive by urinalysis for use of either powder or crack cocaine (Johnson, Golub, Dunlap 2006a).

This occurred as legislation focused on crack resulted in the Anti-Drug Abuse Act of 1986 which imposed the 100 to 1 sentencing disparity between crack and cocaine for a 5 year mandatory minimum sentence.

Figure 1 shows the trends in urinalysis ("detected cocaine/crack user") and self-reports of the use of crack and cocaine powder among Manhattan arrestees.
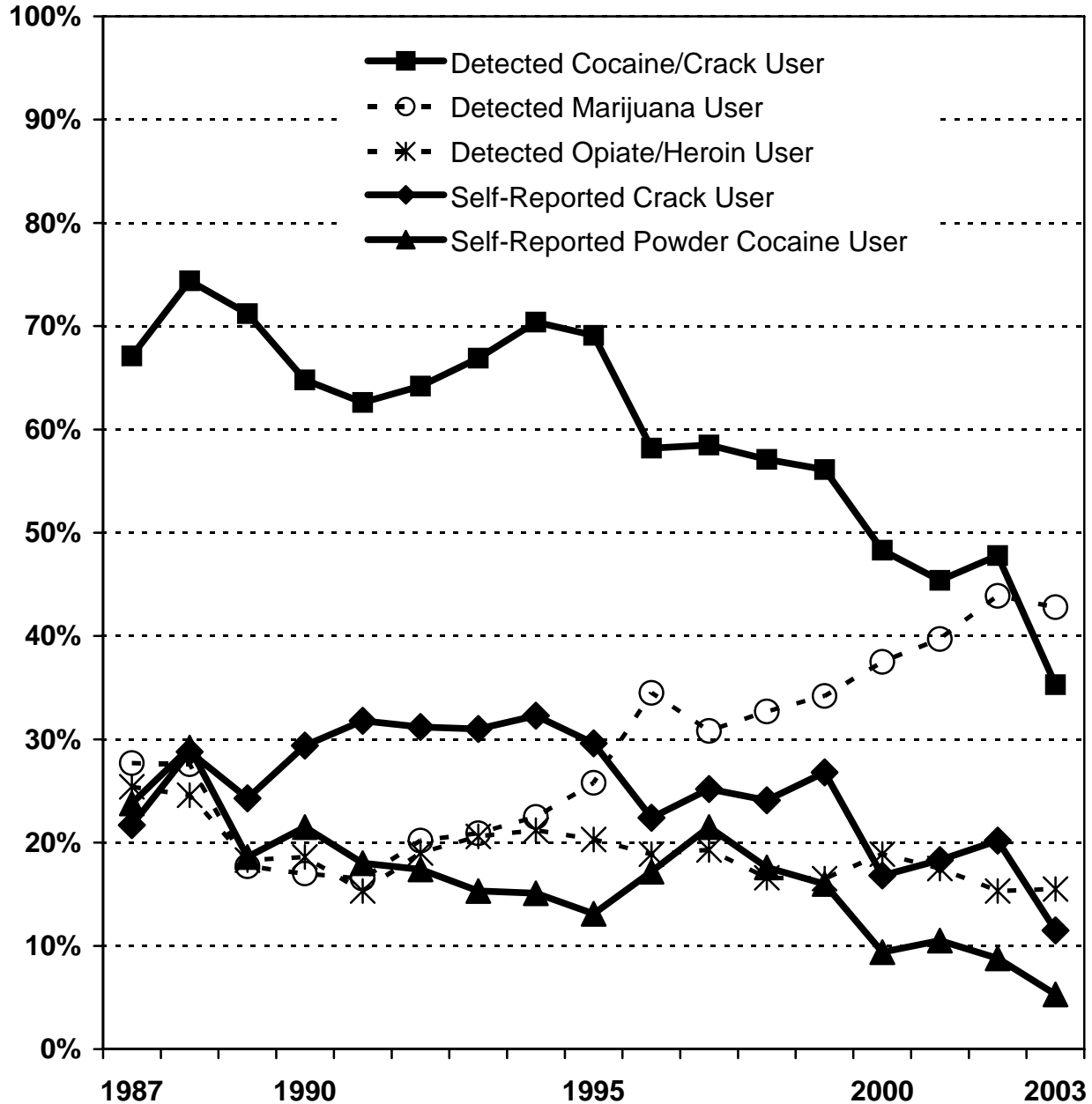
Figure 1. Variation over Time in Detected Cocaine/Crack Use and Self-Reports of Past 72-Hour Use of Crack and Powder Cocaine among ADAM-Manhattan Arrestees 1987-2003

There has been a substantial decline in detected cocaine/crack use (from about two-thirds in 1987-1995 to about two-fifths in 2000-2003). The overall rates of self-reported use were naturally lower due to non-disclosure. Even so, the declines in self-reports of past-72-hour use of crack and cocaine powder over time mirrored the decline in overall detected use.

Subsequent analyses indicate that these changes are primarily the result of the changing mix of birth cohorts among ethnic groups among NYC arrestees. These differences are birth cohort related; actual age at interview is not important. Details are provided in written testimony.

Among each cohort born 1945-69 (what we call the heroin injection and crack generations), detected cocaine/crack use peaked near 80% or above in 1994 or 1995. The rate declined moderately to between 60-70% through 2002.

By 2000-2003, these cohorts (ages 35 and older in 2003) comprised a diminishing proportion of the arrestee pool in New York City.

The rate of detected cocaine/crack use and self-reported crack use among subsequent cohorts was much lower. The 1970-74 cohort peaked at 50% in 1995. The 1975-79 cohort peaked at 30% in 2002. The 1980+ cohorts peaked at 20% in 2002.

These proportions did not show a steady decline after 1995, rather they fluctuated from year to year (see Table 2 in written comments).

Marijuana, especially in the form of blunts (wrapped in a cigar shell), has become the primary drug of misuse/abuse among African-American and Hispanic males (and females) (Johnson, Golub, Dunlap 2006a).

Ethnic Variation in Crack/Cocaine Use in New York City

Black arrestees were more likely (66%) to be detected as recent cocaine/crack users than their white counterparts (54%).

Higher proportions of Black arrestees (31%) self-reported crack use than their white (22%) or Hispanic (19%) counterparts (Table 1 below).

White arrestees (23%) were more likely to self-report cocaine powder use than Hispanic (17%) and Black (15%) arrestees.

Moreover, important ethnic variation among different birth cohorts is evident (See figures 2-4 in written testimony).

> Among BLACK arrestees born 1945-69, the rate of detected cocaine/crack use remained high (72-83%) 1987 through 2003. The rate of use was much lower (38%) among the 1970+ cohort in 1987-1990 and has declined to 21% by 2000-03. Further, many younger Black males in NYC report avoiding crack and cocaine use—preferring blunts (marijuana) instead.

> Among HISPANIC arrestees born 1945-69, the rate of detected cocaine/crack was high in 1987-90 (70-72%) and declined to as low as 52% by 2000-03. The rate of use was much lower (37%) among the 1970+ cohort in 1987-1990 and declined to 28% by 2000-03.

> Among WHITE arrestees born 1955-69, the rate of detected cocaine/crack was high in 1987-99 (63-70%) and then dropped to 53% in 2000-03. The rate of crack/cocaine use among white arrestees was much lower (38-41%) among the cohort born after 1970—but still higher than among their same age Black and Hispanic counterparts.

Limited harms associated with crack use in all generations.

With the exception of crack distribution (see below), crack users from all ethnicities and generations appear to limit their criminal activities so as to bring about limited harm to others. Only a small minority of crack users in NYC carries guns or use weapons in the 2000s, engage in aggravated assault on others, or otherwise harm ordinary passersby. In short, violence is relatively rare among current crack/cocaine users. (Johnson, Golub, Dunlap 2006; Johnson, Dunlap, Tourigny 2000).

Apparently as they have grown older than 35, the heroin and crack generations (born 1945-69) (Golub and Johnson 1994ab) appear to be relatively successful at avoiding arrest (their numbers among arrestees are declining)—even though they continue to be most likely to be detected as crack/cocaine users (over 50%). An analysis of their criminal arrest charges has not been completed as yet.

Even among the younger generation (born after 1970), their detected crack/cocaine use seems to be relatively unrelated to various forms of violence or harms to ordinary passersby.

Crack and cocaine sales and distribution

Probably the primary (and more serious) offense involves the retail sale and/or low-level distribution roles of crack and sometimes cocaine powder.

Of special note, the retail sales of cocaine powder appears to occur mainly in private settings, and mainly involve the more conventional (with legal jobs/incomes, and household) consumers of cocaine powder, and who typically avoid crack use and markets. (Davis et al 2003, 2004).

Most low level drug distributors and sellers added crack to their product line in the 1990s, and crack sales became a very common offense. Good information is not available about the quantities they possessed or sold (Johnson et al 1994).

Especially among the older generations (born 1945-69) of crack consumers, retail sales and low-level support roles appear common, especially among women (Davis et al 2005). Mostly such distribution supports own crack consumption.

Among the younger generation (born after 1970) that prefers and mainly uses marijuana as blunts, patterns of distribution are mixed. Many blunt users will not engage in crack/cocaine sales. Yet, an important minority of blunt users is recruited into roles that support street-level sales of crack (retail seller, lookout, holder) where the probability of arrest is significant. Earnings from crack sales work may be spent to purchase marijuana for use as blunts (rather than self-use of crack). (Johnson, Golub, Dunlap 2006; Johnson, Dunlap, Tourigny 2000).

Most crack sellers or distributors live at poverty levels or below. Very few are able to establish households and maintain a working class standard of living—without also receive income transfers or "living off" someone else (usually a parent or sexual partner). (Davis et al 2004).

Any "deterrence effect" of the 100 to 1 ratio in federal sentencing guidelines is nearly impossible to document. Crack sellers/distributors rarely mention awareness of it, nor do they report changing their business activities due to its existence.

Arrest patterns

The average crack distributor likely does not know with precision how much he possesses, but often believes it to be under 5 grams.   Repeat purchases of "bundles" of vials or bags (each valued at $10) containing crack, may exceed 5 grams, however.

Although the number of persons arrested for crack possession and sales in NYC has diminished somewhat during the 1990s and 2000s, many persons are arrested for felony controlled substance possession (about 60,000 annually) and sale (about 20,000 annually) in NYC in 2001-03. (Johnson et al 2006c: 30).   Note: the number and proportions arrested for crack or cocaine powder is not available to the public, although crack arrests probably constitute a majority of controlled substance sale arrests.

Yet, very few NYC arrestees face "federal indictment and prosecution" and so face possible mandatory minimum sentences.

Rather, the vast majority of NYC arrestees are prosecuted and sentenced under NY State penal law where cocaine powder and crack are treated equal to powder cocaine, and a mandatory minimum sentence is not required.

Persons arrested for crack possession and sale are frequently required to plead guilty to a felony charge, but are then referred to various alternative to incarceration programs (e.g. residential treatment programs, bootcamps, drug courts, probation, etc.), so that probably only about half of crack arrestees in NYC actually serve a sentence in prison. [Little is known about the outcomes of cocaine powder cases.]

Crack to cocaine powder ratio—some empirical data.

Among the NYC arrestees, 26% self-report crack use in the past 72 hours while 17% self-report cocaine powder use (Table 1 below).   This suggests a 1.5 to 1 ratio (e.g. 26%/17%) in self-reported use. (Note: a sizable proportion report both crack and cocaine powder in the 72 hour window.)

Recent studies have documented that almost 90% of ADAM arrestees whose urine specimens tested positive for cocaine, also had detectable metabolites for crack.[1] Among arrestees, this suggests that a "disparity" ratio would be 9 for crack vs. 1 for cocaine powder.

Both a 2 to 1 or 10 to 1 ratio in sentencing guidelines would be more appropriate given this empirical data than the current 100 to 1.

Crack and cocaine powder in other cities

A previously published article (Golub and Johnson 1997) documents substantial variation in cocaine use among arrestees at several ADAM sites (Golub et al 2005ab). While the youthful generation (ages 18-20) was less likely to be detected as cocaine positive than all arrestees in most ADAM sites, important differences in trend lines and variability in cocaine use was evident at every site.

Note that this analysis is now very dated (a decade old), 8 additional years of ADAM data (1997-2003) are available, and differentiation by (self-reported) crack and cocaine powder use is possible. Modest funding could provide more detailed analysis of crack and cocaine powder use patterns and trends in approximately 15 major cities nationwide. Additional analysis of the ADAM data set would be able to address many questions about crack and cocaine use. This data set is especially relevant to the sentencing commission since an arrest for crack or cocaine powder at the local level is a major way that many cases enter (or subsequently get transferred) to the federal system.

A recent but unpublished doctoral thesis (Sevigny 2006) analyzed data from the inmate survey of those incarcerated in federal prisons in 1997. The impact of the 100 to 1 cocaine to crack ratio is documented in many different ways. One of the most important findings is that if the sentencing practices were set the same for crack (at 500 grams) as for cocaine powder:

> "blacks account for 60% of the crack and powder cocaine offenders combined, but would benefit from 90% of the averted prison years. To put this in perspective, the estimated number of black prison years averted were crack and powder cocaine sentenced equally represents more than 4000 individual five-year sentences, compared to approximately 150 for whites and 300 for Hispanics." (Sevigny 2006: 138).

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[1] When cocaine freebase is heated/burned, this pyrolasis of crack creates additional byproducts that are both inhaled with the crack dose and are detectable in urine samples. These metabolites--anhydroecgonine methyl ester (AEME) andecgonidine (ECD)—were detected in 88% of cocaine positive specimens. The overall prevalence of detected crack use (28%) occurred among a sample of 1,666 males and 661 females from 6 ADAM sites (Denver, Houston, Los Angeles, New Orleans, Phoenix, Portland) in 1998. African-Americans were about twice (35%) as likely as whites (18%) [with Hispanics (25%) intermediate] to be positive for crack metabolites. (Riley et al 2001). Crack metabolites were detected in 92% of sweat patches worn by street recruited samples in New York (Liberty et al 2003).

EXTENDED INFORMATION SUPPORTING VERBAL REMARKS

Andrew Golub and Bruce D. Johnson
National Development and Research Institutes

Notes in support of Testimony to the Sentencing Commission
November 8, 2006

METHODOLOGY OF ARRESTEE DRUG ABUSE MONITORING (ADAM)

The authors have employed analysis of data from the ADAM-Manhattan data for many publications (several citations are given below). The ADAM data collected 1987-2003 was rapidly analyzed to examine cocaine powder and crack use among arrestees, particularly those born since 1955.[2] This section briefly describes the ADAM program, discusses issues associated with combining the data across survey years, describes calculations and analytic procedures used in this study and presents the demographic characteristics of the sample.

Starting in 2000, the ADAM public-use data files include post-sampling stratification weights for adult male arrestees to account for differential probability of sampling associated with time of arrest and booking facility (Hunt & Rhodes 2001). For this analysis, we used logistic regression to control for variation in non-participation in each year since 2000 (separately by gender) associated with age, race/ethnicity and arrest charge; for example, the sample weights for older males arrestees in 2000 were increased to account for their higher rate of non-participation. Sample weights were further adjusted so that female arrestees accounted for 20% in each year except 2002 and 2003 in which years there were less than 50 females interviewed accounting for 4% of all arrestees.
Starting in 2000, ADAM asked separate questions about race and ethnicity. For this analysis, black-Hispanics were coded as black. White-Hispanics and other Hispanics were coded as Hispanic.

Table 1
Variation in Detected Cocaine/Crack Use among ADAM-Manhattan Arrestees 1987-2003
by Birth Cohort and Race/Ethnicity

| Birth Cohort	Detected Cocaine/Crack Use (Urinalysis)	Percent Crack (self-report of past-72-hour use)	Powder Cocaine (self-report of past-72-hour use)
Pre-1945	52.0	20.1	17.6
1945-54	73.0	31.4	24.3
1955-59	76.8	34.4	21.9
1960-64	74.5	33.2	18.6
1965-69	66.9	29.1	16.9
1970-74	41.3	14.0	10.2
1975-79	21.3	5.6	6.0
1980+	13.0	2.4	2.3
Race/Ethnicity			
Black	66.6	31.1	15.3
Hispanic	54.0	18.7	17.3
White	56.3	21.7	22.6
Other	31.6	10.3	10.5
Total	60.9	25.8	16.8

Detected cocaine/crack use was most common among heroin injection (born 1945-54) and crack generations (born 1955-69) and not among the more recent marijuana/blunts generation (born 1970 and later).

Members of the crack generation (born 1955-69) were much more likely to self-report past 72-hour use of crack than powder cocaine. Among those reporting use of either drug, powder cocaine use was more common among the heroin injection and marijuana/blunts generation than among the crack generation.

Black arrestees were more likely to be detected as recent cocaine/crack users than their white counterparts. Black arrestees that reported use of crack or powder cocaine were more likely to report crack use than their white counterparts.

Hispanic arrestees were LESS likely to be detected as recent cocaine/crack users than their white counterparts. Hispanic arrestees that reported use of crack or powder cocaine were more likely to report crack use than their white counterparts but much less likely than their black counterparts.
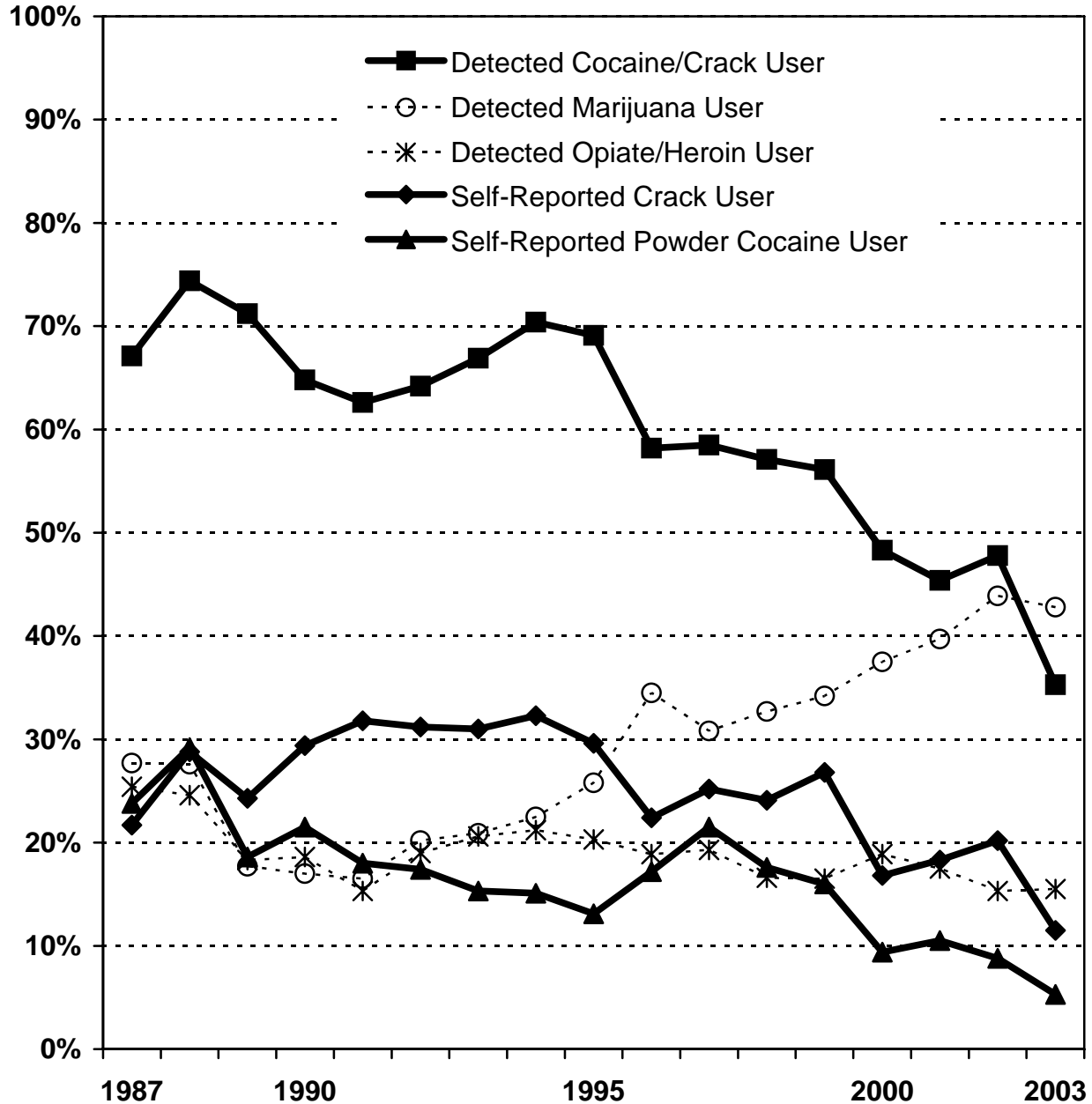
Figure 1. Variation over Time in Detected Cocaine/Crack Use and Self-Reports of Past 72-Hour Use of Crack and Powder Cocaine among ADAM-Manhattan Arrestees 1987-2003

There has been a substantial decline in detected cocaine/crack use as well as self-reports of past-72-hour use of crack and cocaine powder over time. However, subsequent tables indicate that this change is primarily the result of the changing mix of birth cohorts (the later marijuana/blunt generation comprising more of the arrest population) and not due to a decline in crack use among the members of older birth cohorts still sustaining arrests into the late 1990s and early 2000s.

Table 2
Variation in Detected Cocaine/Crack Use among ADAM-Manhattan Arrestees
by Birth Cohort over Time (age-period-cohort analysis)

Birth Cohort	**Percent Detected as Recent Cocaine/Crack Users by Interview Year**																	Total
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
1945-54	--	76.8	74.2	77.4	68.6	72.3	72.3	82.4	78.9	68.7	68.6	76.8	76.5	67.0	--	--	--	73.0
1955-59	--	81.4	81.1	75.9	77.5	77.8	81.6	82.7	83.8	73.2	72.2	75.7	67.8	65.7	--	75.3	--	76.8
1960-64	76.5	81.9	74.9	76.9	73.1	77.8	75.3	78.5	80.3	70.4	72.1	73.2	73.2	66.1	63.0	72.5	--	74.5
1965-69	66.1	72.8	73.8	61.5	62.5	66.1	69.4	79.9	71.9	63.4	62.2	68.1	58.8	70.6	63.6	65.7	--	66.9
1970-74	--	--	44.0	29.7	35.5	30.7	41.4	44.9	50.0	37.6	42.3	42.4	43.5	45.2	--	45.4	--	41.3
1975-79			--	--	--	--	--	--	18.4	23.0	22.7	25.7	27.3	19.7	11.9	29.6	16.4	21.2
1980+								--	--	--	--	--	--	7.5	10.2	19.8	12.7	13.1
Total	67.5	74.3	71.2	64.8	62.2	64.1	66.9	70.4	69.1	58.2	58.5	57.1	56.0	48.3	45.4	47.7	35.3	60.9

Birth Cohort	**Percent Self-Reported Past 72-Hour Crack Use by Interview Year**																	Total
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
1945-54	--	24.4	25.0	34.0	33.9	38.5	35.0	38.2	29.5	31.5	33.1	32.6	40.7	23.0	--	--	--	31.4
1955-59	--	30.9	28.5	33.5	42.4	39.3	39.6	38.5	34.8	26.2	37.5	39.3	32.3	30.5	--	38.6	--	34.5
1960-64	27.6	34.7	29.5	37.4	39.1	41.9	36.7	35.4	38.7	26.3	30.2	28.2	32.5	28.1	29.7	26.4	--	33.3
1965-69	26.3	31.8	23.4	30.2	31.4	31.6	33.1	39.2	29.5	28.0	25.3	28.7	29.1	23.7	27.1	36.7	--	29.2
1970-74	--	--	9.2	10.1	15.6	8.3	12.9	19.5	18.9	12.3	13.2	17.4	22.8	9.1	--	19.4	--	14.0
1975-79			--	--	--	--	--	--	9.8	3.4	5.9	8.3	8.2	5.0	2.1	8.5	4.1	5.6
1980+								--	--	--	--	--	--	1.4	1.6	4.1	1.8	2.3
Total	21.9	28.7	24.3	29.4	31.6	31.3	31.0	32.3	29.6	22.4	25.2	24.1	26.9	16.8	18.3	20.1	11.5	25.8

-- Entries based on fewer than 100 cases were repressed. There were no years in which the pre-1945 cohort met this minimum level.

Among each cohort born 1945-69 (heroin injection and crack generations), detected cocaine/crack use peaked near 80% or above in 1994 or 1995. The rate declined moderately to between 60-70% through 2002. By 2003, these cohorts comprised a much smaller proportion of the arrest population.

The rate of detected cocaine/crack use among subsequent cohorts was much lower. The 1970-74 cohort peaked at 50% in 1995. The 1975-79 cohort peaked at 30% in 2002. The 1980+ cohorts peaked at 20% in 2002. These rates did not show a steady decline after 1995, rather they fluctuated from year to year.

Self-reported crack use followed a similar pattern, albeit at lower percentages.

Entries in Figures 2a through 4b based on fewer than 100 cases were repressed.

Among BLACK arrestees born 1945-69, the rate of detected cocaine/crack use remained high (72-83%) 1987 through 2003. The rate of use was much lower (38%) among the 1970+ cohort in 1987-1990 and declined to 21% by 2000-03.

Among HISPANIC arrestees born 1945-69, the rate of detected cocaine/crack was high in 1987-90 (70-72%) and declined to as low as 52% by 2000-03. The rate of use was much lower (37%) among the 1970+ cohort in 1987-1990 and declined to 28% by 2000-03.

Among WHITE arrestees born 1955-69, the rate of detected cocaine/crack was high in 1987-99 (63-70%) and then dropped to 53% in 2000-03. The rate of use was much lower (38-41%) among the 1970+ cohort.

ENDNOTE

[2] The ADAM program was terminated at the end of 2003 due to lack of funding.   This analysis of crack and cocaine powder closely parallels a published analysis of trends in heroin use and injection among ADAM arrestees in NYC (Golub and Johnson 2005; Johnson and Golub 2002). See that article for additional details about the ADAM methodology and limitations (also Golub and Johnson 2002). Cocaine metabolites can be detected in urine specimens for only about 3 days following ingestion (Riley et al. 2001). Only about half of arrestees whose urine is positive for cocaine (or heroin) self-report the use of either crack or cocaine powder (Golub et al 2003, 2005ab).
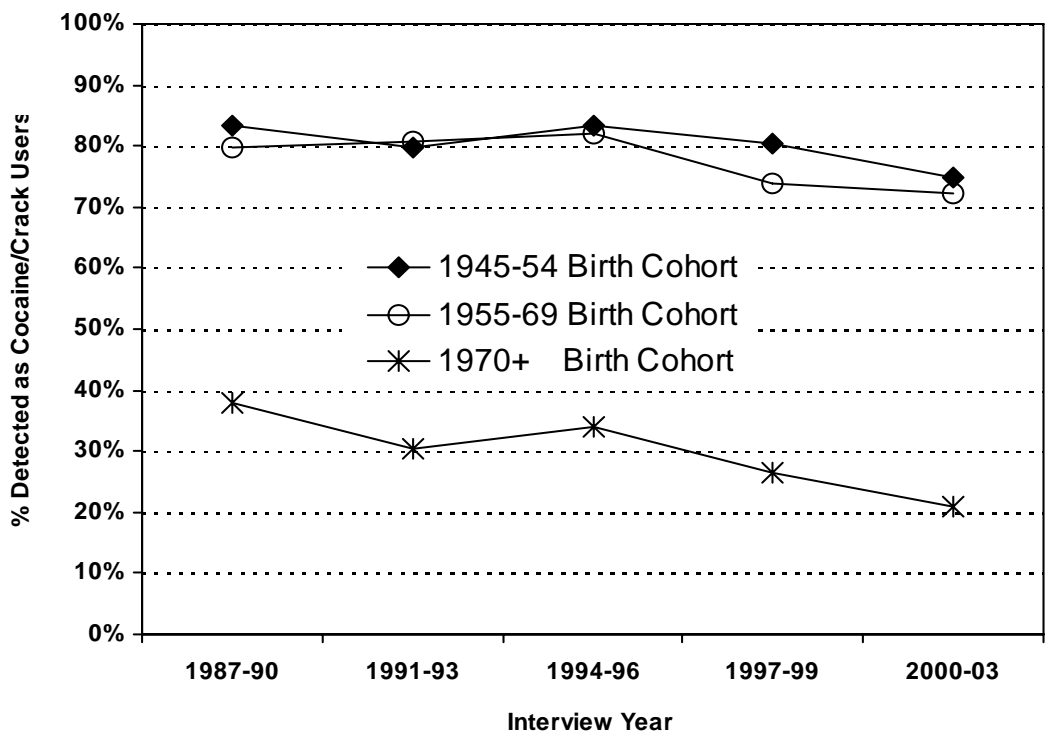
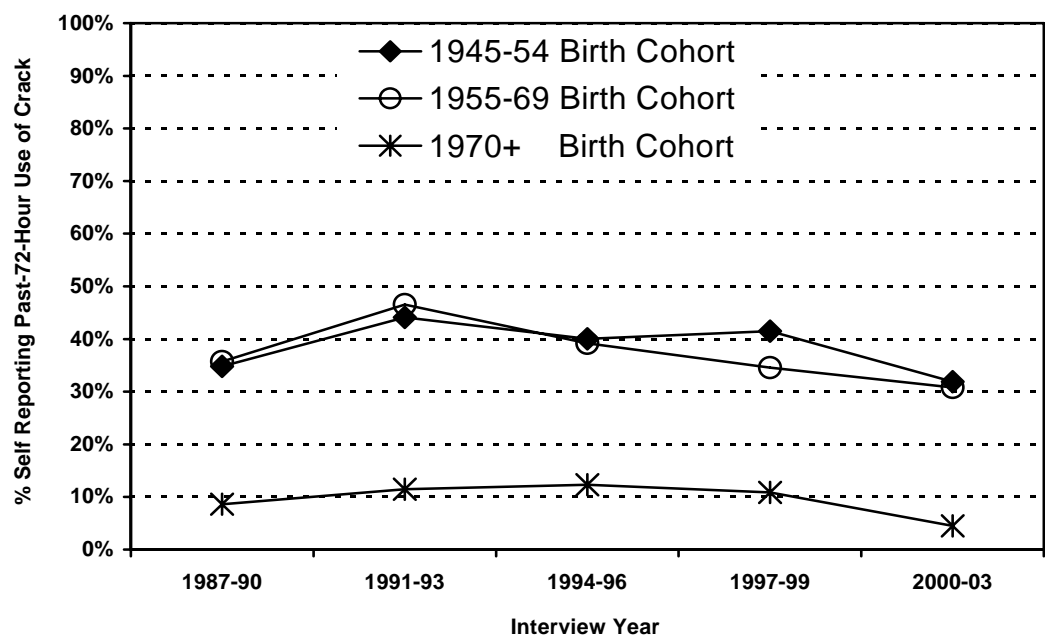**Figure 2a. Prevalence of Detected Cocaine/Crack Use among BLACK Arrestees, ADAM-Manhattan 1987-2003**

Figure 2b. Prevalence of Self-Reported Past-72-Hour Crack Use among BLACK Arrestees, ADAM-Manhattan 1987-2003
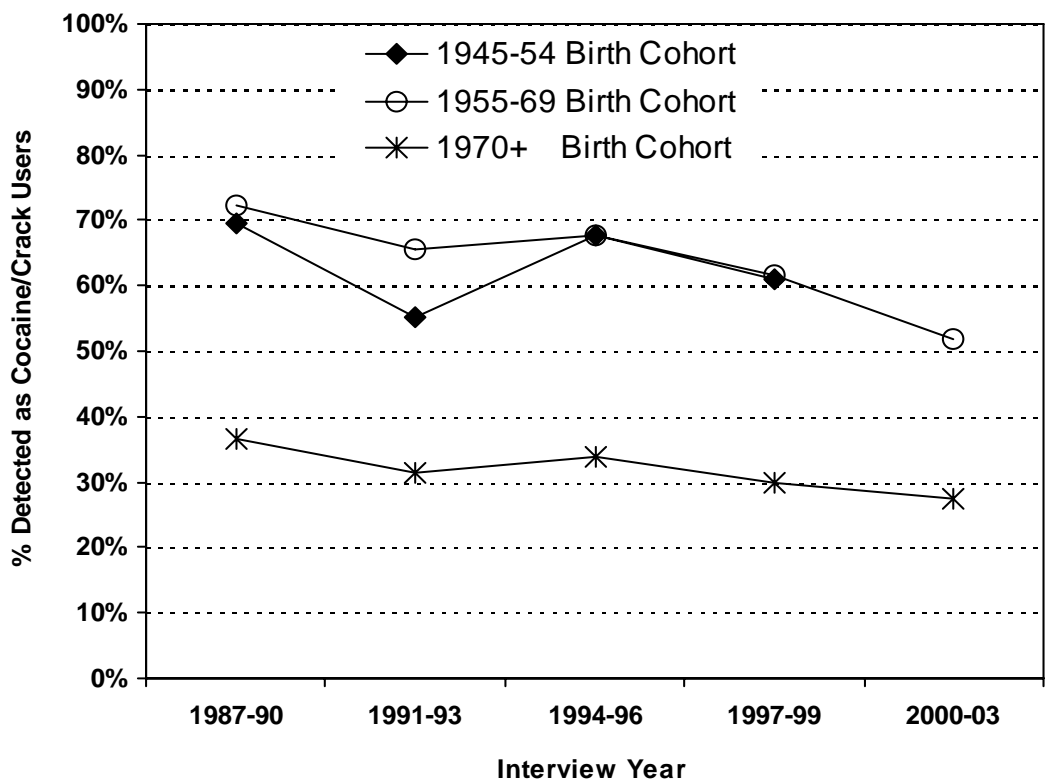
Figure 3a. Prevalence of Detected Cocaine/Crack Use among HISPANIC Arrestees, ADAM-Manhattan 1987-2003
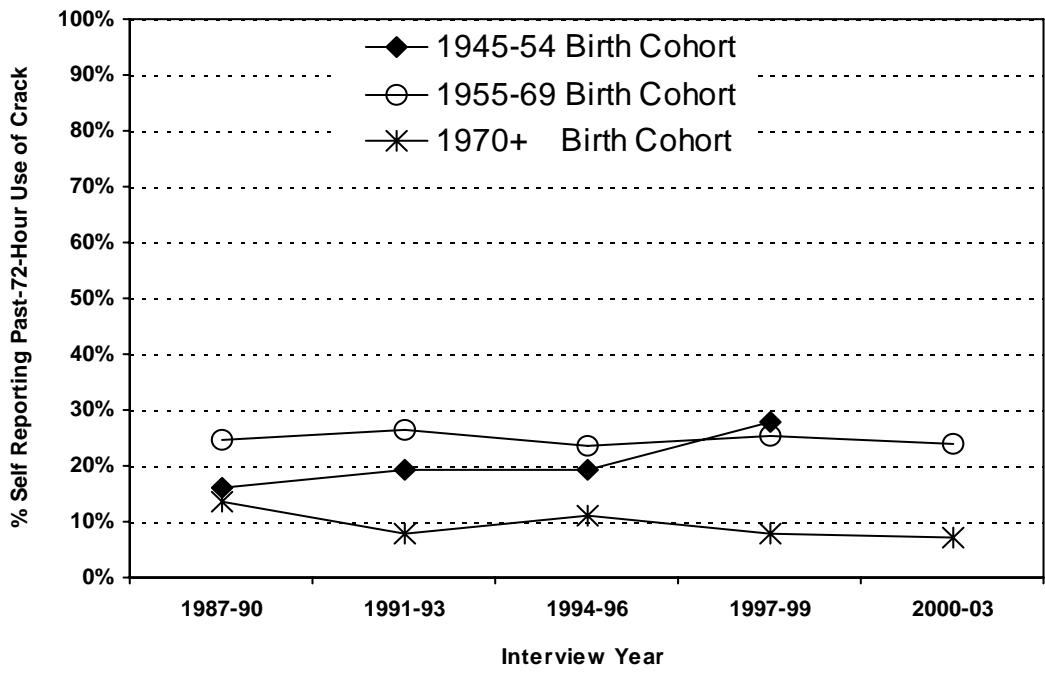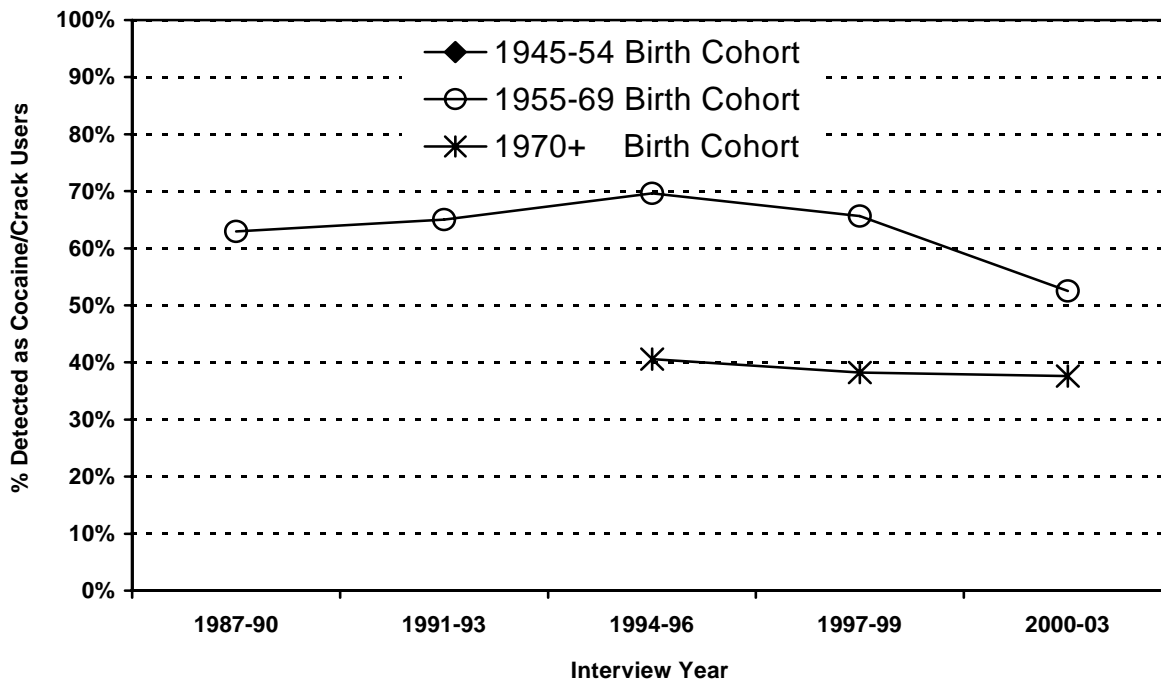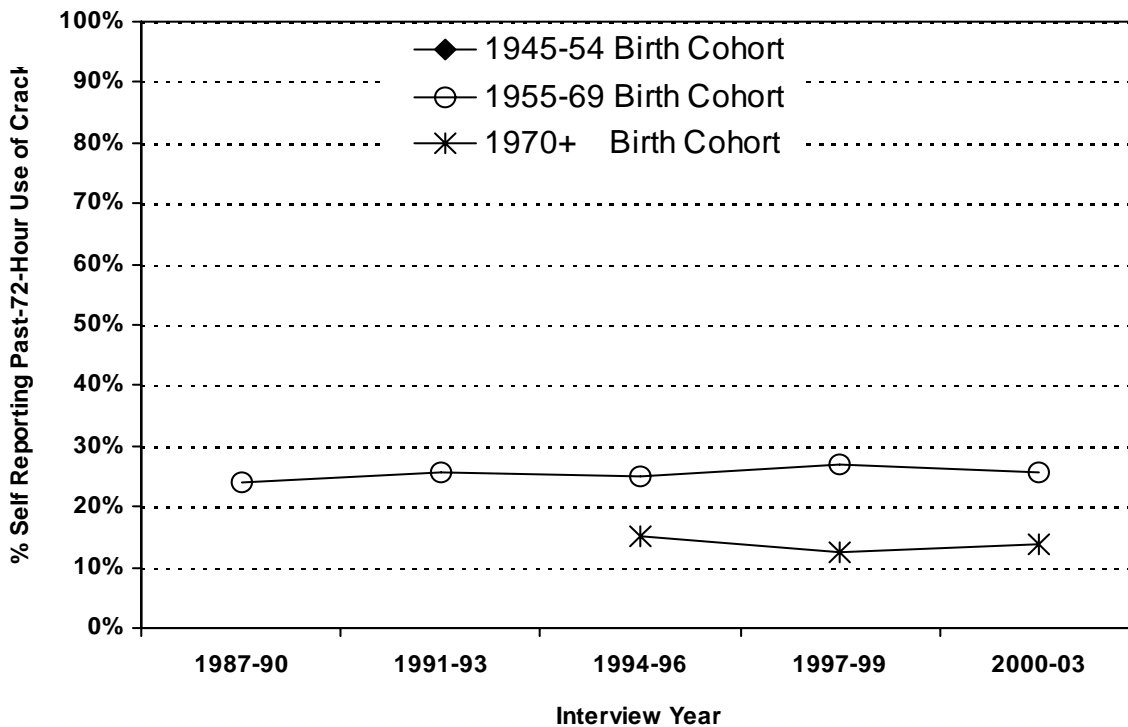

Figure 3b. Prevalence of Self-Reported Past-72-Hour Crack Use among HISPANIC Arrestees, ADAM-Manhattan 1987-2003

Figure 4a. Prevalence of Detected Cocaine/Crack Use among WHITE Arrestees, ADAM-Manhattan 1987-2003

Figure 4b. Prevalence of Self-Reported Past-72-Hour Crack Use among WHITE Arrestees, ADAM-Manhattan 1987-2003

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