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Summary C.1

**DEVELOPING AND USING
A SERIOUS DRUG ABUSER SCALE
IN THE CRIMINAL JUSTICE SYSTEM**

EXECUTIVE SUMMARY

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Developing and Using a Serious Drug Abuser Scale -2-

Urban criminal courts, especially at arrest and arraignment, process arrestees and cases so rapidly that little or no time is allocated to determining the defendant's pattern of drug use or need for drug treatment. Urinalysis is rarely conducted at arrest because of several practical problems (such as handling body fluids, possible violation of privacy, inconvenience, timeliness of reports, and expense). Thus, few jurisdictions use urinalysis as a reliable screening tool, designed to assist the courts in determining which defendants are drug abusers or to help document levels of drug abuse among their arrest population.

The vast majority of arrestees in New York City (and in most other urban jurisdictions) are serious users and likely abusers of heroin, cocaine, or crack. Urine tests detect metabolites of cocaine or heroin in about 80 percent of booked arrestees in Manhattan, indicating use of these drugs within the past 48 to 72 hours. Detection of cocaine (by snorting, smoking or injecting) and/or opiates (mainly heroin) in the urine of booked arrestees is a strong indicator of their daily or near daily abuse of cocaine, crack, or heroin.¹ [Below, the term *cocaine-heroin abusers* or *detected cocaine-heroin use* refers to arrestees providing urine specimens which test positive for cocaine or opiates.] Furthermore, among detected arrestees who admitted their recent use of cocaine or heroin (64 percent of all detected arrestees), 80 percent report dependence and/or a need for drug treatment. Yet only a third of these report having previously been in drug treatment, and less than a tenth are in treatment at the time of arrest.¹ Moreover, these cocaine-heroin abusers typically have lengthy careers in both drug abuse and criminality.² This report strongly recommends that when a cocaine, crack, or heroin abuser is arrested, the criminal justice system take the opportunity to help that individual and to protect citizens from future crimes by intervening in the arrestee's drug abuse and criminal career.

If cocaine-heroin-abusing offenders can be accurately identified at arrest (the focus of this report), and *if* the courts strongly recommend drug treatment for abusers convicted of crimes, and *if* most such offenders participate in drug treatment for an appropriate period during their criminal justice supervision, then important reductions in the criminality of current and former cocaine-heroin abusers may occur. Our review of the literature, however, suggests these conditions are not occurring at present. This report provides two *quick-screening devices* as tools to support early intervention in the criminal justice process. These devices:

- . do not require actual urine tests, thus, avoid the costs and problems associated with such tests;

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- . can accurately identify individual arrestees most likely to be detected as cocaine, crack, or heroin abusers;
- . have been empirically derived and are valid and reliable; and
- . are easy to administer using standard information available at arrest.

This Research in Brief summarizes two major reports: a technical research report¹ that fully documents the methodology, underlying statistical models, and validity tests of the **Arrest Charge-Age Model** and the **Serious Drug Abuser Scale (SDAS)**; and a companion policy report² that provides extensive analysis of contextual and ethical considerations relevant to the criminal justice systems' potential use of these scales. After presenting the two models, this report briefly presents the technical foundation for these scales, and discusses the principles for their application in criminal justice practice.

The two instruments--Arrest Charge-Age Model and SDAS--can be used by criminal justice practitioners for assessing individual need for drug treatment--in a manner similar to pretrial release scales. Both instruments represent important improvements over current procedures (which rely primarily upon offender self-report of drug use or a judge's estimation of abuse). These models classify arrestees (primarily serious offenders in Manhattan) into five subgroups according to their likelihood of being detected as cocaine or heroin users: extremely high (90 percent & above), very high (80-89 percent), high (67-79 percent), intermediate (45-66 percent), and low (under 45 percent).

The Arrest Charge-Age Model of Cocaine-Heroin Abuse

Research with data from the Drug Use Forecasting program in Manhattan suggests that several independent variables are significant indicators of cocaine or heroin abuse; by far, the two most important are the most serious arrest charge and age. The **Arrest Charge-Age Model** (Table 1) provides a straight-forward tool to assist in preliminary decisions regarding how likely a current arrestee is to be a cocaine-heroin abuser. By locating a given offender's top arrest charge (rows) and age category (columns), the intersecting cell of Table 1 provides the probability that a booked arrestee is a cocaine-heroin abuser.

Example: Claude X is a 27-year-old, white male, arrested for a felony crack sale. At pretrial interview, Claude indicates drug sales are his primary income source and that he is separated from his wife. The appropriate cell in Table 1 (column "26-30" and row "drug sale") indicates that 85 percent of arrestees with Claude's age and top arrest charge

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are cocaine-heroin abusers. Thus, a "very high" likelihood exists that Claude is a cocaine-heroin abuser--his probability is among the top quartile of DUF-Manhattan arrestees.

(Table 1 about here.)

Such information could be used in limited ways during early case processing to support a tentative conclusion that an arrestee has a "high" or even "extremely high" likelihood of being a drug abuser and may be likely to need drug treatment. Additional information and assessments about the offender's drug use/abuse patterns could be obtained for future hearings and case processing.

The Serious Drug Abuser Scale (SDAS)

The Serious Drug Abuser Scale, based upon seven factors (top charge, age, primary income source, gender, ethnicity, misdemeanor-felony, and marital status), has greater accuracy and is able to classify more arrestees with a wider range of attributes into the categories of "extremely high" and "very high" likelihood of being cocaine-heroin abusers (see Table 2). A blank version of the Serious Drug Abuser Scale, with instructions and detailed definitions of various categories, is Appended. Table 2 shows the point assignment and scores on the Serious Drug Abuser Scale Score for Claude X.

Example: Claude's SDAS score of 21 has an associated base rate of 96 percent (Table 4). This indicates that among DUF-Manhattan arrestees from 1987-91 who scored 21, 96 percent were detected as cocaine-heroin users at arrest; they were among the very top 3.4 percent of all DUF-Manhattan arrestees. Thus, Claude X has an extremely high³ probability of being detected as a cocaine-heroin user and, by implication, being a cocaine-heroin abuser. Following guidelines recommended below, the prosecutor and judge might insist upon a drug treatment plan, regardless of other criminal justice sentences imposed on Claude.

[Table 2 about here.]

METHODS

These two quick-screening devices were developed from a secondary analysis of data obtained from over 5,000 subjects in the Drug Use Forecasting program in Manhattan (DUF-Manhattan) 1987-1991. The DUF-Manhattan program collects urine specimens and self-report responses to a short interview schedule on drug use history from booked arrestees. A systematic study⁴ of the Drug Use Forecasting program documents that samples of arrestees and urine test results appear to be robust and highly representative of all booked arrestees coming to the booking centers. These

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screening devices are based upon a careful scientific analysis of variation (by means of logistic regression) in the percent (or base rate) of arrestees detected as having recently used cocaine (by snorting, smoking or injecting) and/or opiates (mainly heroin) by the EMIT^R urine test.

These analyses¹ also document that:

- . Youthful arrestees (ages 15-20) had different, less established patterns of cocaine-heroin abuse than those 21 and older. Cocaine use has declined greatly among arrestees under age 21 since 1990,⁵ so the SDAS is designed for arrestees aged 21 years and older.
- . The specific types of drugs detected varied substantially by birth cohort.⁶
- . Variations in cocaine-heroin abuse across DUF interview years (1987-93) or quarter were not substantial (controlling for other factors) suggesting that a model calibrated with such data may be appropriate for current use by the criminal justice system in Manhattan. The SDAS, once implemented, should be revalidated at regular intervals, perhaps annually.
- . Subgroups of cocaine-heroin abusers, that is, those who were crack abusers or heroin injectors, could not be accurately identified.
- . A predictive validation showed that DUF-Manhattan SDAS scores developed for 1987-91 were able to accurately predict which arrestees were cocaine-heroin abusers among DUF-Manhattan arrestees interviewed in 1992 and the first quarter 1993 (see Table 3).¹
- . Other Northeast DUF cities (Philadelphia, Detroit, Chicago, Cleveland) on average had lower rates of detected cocaine-heroin abuse (68 percent compared to 75 percent in Manhattan), but were otherwise quite similar to Manhattan. The SDAS was found to accurately rank booked arrestees in these four cities¹ as to which were most likely to be cocaine-heroin abusers; however, further research would be needed before using these models outside of Manhattan.

[Table 3 about here.]

Ethical Issues in Using Scale Scores.

The following principles specify important scientific, legal, and ethical issues regarding the use of Arrest Charge-Age Model and SDAS scores for referring arrestees to drug treatment in criminal justice practice.

- . Serious Drug Abuser Scale scores are probabilities; they are not evidence of actual drug use nor the same as actual urine test results.
- . Scale scores suggesting a high probability of cocaine-heroin abuse should not be used to determine guilt or innocence for a specific crime--even for drug possession.
- . A high probability of cocaine-heroin abuse should not justify a more severe disposition of a crime.

Prior Research On Coercing Treatment

A review of the literature on drug treatment for offenders² suggests that many reasons exist

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for requiring drug treatment for persons likely to be detected as cocaine-heroin users at arrest.

- . Jail and prison sentences only interrupt--but do not decrease--drug abuse and criminality after release; cocaine-heroin abusers are very likely to return to near daily use of cocaine or heroin, and to criminality.
- . When cocaine-heroin abusers are enrolled in drug treatment, their crime rates and drug abuse patterns are much lower than when not in treatment.
- . Criminal justice coercion supports retention in drug treatment programs for cocaine-heroin abusers most likely to drop out; coerced offenders emerge from treatment programs with the same success rates demonstrated by those who enter treatment voluntarily.
- . Legally pressuring cocaine-heroin abusers into drug treatment is generally more cost-effective in reducing their long-term criminality and drug abuse patterns than standard criminal justice sanctions alone.

This discussion leads to the following policy conclusions:

- . Not requiring drug treatment for convicted offenders who are cocaine-heroin abusers is a common outcome, representing missed opportunities to interrupt drug abuse and criminal careers.
- . Additional assessments and procedures are necessary to identify those convicted offenders referred to treatment who are not actually drug abusers.
- . Drug treatment resources and slots for criminal justice-involved clients are currently scarce and must be allocated carefully.
- . More treatment slots need to be funded and specifically allocated for offenders.

POLICY OPTIONS

Several policy options regarding the use of the Arrest Charge-Age Model and the Serious Drug Abuser Scale are provided for consideration by New York City and State policy makers. These policy options provide general guidelines which cut across the functional responsibilities of and procedures followed by multiple criminal justice agencies. These options do not address many considerations central to the actual approval and implementation of these policies, including the likely costs, achieving consensus within and across criminal justice agencies, and training of personnel. The following policy options² are based on the overwhelming need for drug treatment and the potential of these screening devices to accurately identify cocaine-heroin abusers at arrest:

- . An arrestee's Serious Drug Abuser Scale Score and associated likelihood of being detected as a cocaine-heroin abuser could be provided to judges at arraignment. Those classified as likely cocaine-heroin abusers could be offered a voluntary urine test at pretrial interview to document that they are not current cocaine-heroin users.
- . For persons classified as likely cocaine-heroin abusers, personnel in several criminal justice agencies could include them in drug programs during detention AND attempt to persuade them to seek or accept drug treatment after case disposition.

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- . Decisions about requiring drug treatment for offenders with high SDAS scores should be considered separate from, but can be made in parallel with, decisions regarding legal and criminal justice determinations of guilt, sentence, or supervision.
- . Scores on the Serious Drug Abuser Scale could provide criminal justice personnel recommending alternative drug treatments with some indication of the type of drug treatment offenders need. For example, those with extremely high scores may need the most intensive, long-term treatment, like that provided in residential therapeutic communities.
- . If a defendant is found (or pleads) guilty and has a high SDAS score, the judge may provide a written recommendation for drug treatment (which may include: the type(s) of drug treatment, anticipated lengths of participation, criteria for successful completion, and how much a criminal justice sentence might be reduced if drug treatment is completed).
- . Criminal justice personnel supervising sentenced offenders with high SDAS scores can encourage clients to enter drug treatment programs following the written treatment plan as well as advocate for their clients to enter appropriate types of treatment.

Additional research is also needed to document whether these screening devices can further assist criminal justice practitioners.

- . Statistics could be accumulated showing the relationship between SDAS scores and written treatment plans provided by judges, as well as provide a basis for seeking funding and resources needed for additional drug treatment slots in criminal justice settings and/or community treatment programs.
- . Further research is also needed to document whether and how scores on the Serious Drug Abuser Scale might actually be used by specific criminal justice agencies during case processing or for offender supervision.
- . Further analyses of existing DUF data may estimate aggregate severity levels of cocaine or heroin abuse and need for drug treatment in jurisdictions that do not conduct urinalysis nor participate in the DUF program.

NOTES

- ¹ Golub, Andrew, Bruce D. Johnson, Mokerrom Hossain. 1993. A Serious Drug Abuser Scale Based on Manhattan Arrestees (1987-93). Final Report to the National Institute of Justice. New York: National Development and Research Institutes, Inc.
- ² Johnson, Bruce D., Andrew Golub, and Mokerrom Hossain. 1993a. Using a Serious Drug Abuser Scale in the Criminal Justice System. Final Report to the National Institute of Justice. New York: National Development and Research Institutes, Inc. (Contains extensive references to appropriate literatures and provides an extended commentary on all themes noted in this executive summary.)
- ³ Claude X shifted from "very high" on the Arrest Charge-Age Model to "extremely high" on the SDAS (from 85 percent to 96 percent likelihood of being detected as a cocaine-heroin abuser) by including the additional information on primary income source, marital status, ethnicity, and gender.
- ⁴ Chaiken, Jan M., Marcia R. Chaiken, with assistance of E. Robert Poulin. 1993. Understanding the Drug Use Forecasting (DUF) Sample of Adult Arrestees. Report to National Institute of Justice. Lincoln, MA: LINC.
- ⁵ Golub, Andrew, and Bruce D. Johnson. 1993. A Recent Decline in Cocaine Use Among Youthful Arrestees in Manhattan (1987-93). New York: National Development and Research Institutes, Inc. (under review).
- ⁶ Johnson, Bruce D., Andrew Golub, and Mokerrom Hossain. 1993b. Cohort Changes in Choice of Drugs Among Arrestees. Poster presentation at Committee for Problems of Drug Dependence, Toronto.

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Table 1. Likelihood of Being Cocaine-Heroin Abusers by Top Charge and by Age.
(Arrest Charge-Age Model for DUF-Manhattan, 1989-1991)

Most Serious Arrest Charge	Percent Detected as Cocaine-Heroin Abusers at Age:									TOTAL
	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61+	
Drug Possession	88	91	92	91	86	77	79	73	60	89
Drug Sale	81	85	87	85	78	66	70	62	46	83
Burglary	81	86	88	86	79	67	71	63	47	84
Larceny/Auto theft	76	81	84	82	73	63	66	58	42	81
Robbery	76	81	84	82	73	60	64	55	39	79
Violent Index	60	68	72	68	56	42	45	37	24	63
Other Income Generating	64	71	74	71	59	45	49	40	26	66
Other Serious Crimes	65	72	76	72	61	47	51	42	23	68
Other Crimes	65	71	75	72	60	46	50	41	27	68
Total	73	78	82	78	68	55	58	45	33	75

92 Extremely high (90 & over) percent are cocaine-heroin abusers.

84 Very high (80-89) percent are cocaine-heroin abusers.

79 High (69-79) percent are cocaine-heroin abusers.

66 Intermediate and low (66 and less) percent are cocaine-heroin abusers.

Distribution Of Percentages.

Predicted Percent* Cocaine-Heroin Abusers	Actual Percent Cocaine-Heroin Abusers	No. Cases	Percent in range	Cumulative Percent	Likelihood of Being Cocaine-Heroin Abusers
95-99	0	0	0.0	0.0	
90-94	90	225	6.8	6.8	Extremely high
85-89	85	570	17.2	24.0	
80-84	83	663	20.0	44.0	Very high
75-79	74	540	16.3	60.3	
70-74	70	535	16.1	76.4	High
67-69	70	198	6.0	82.4	
65-66	61	184	5.6	87.9	
60-65	56	234	7.1	95.0	
55-59	62**	55	1.7	96.7	Intermediate
50-54	43**	5	0.2	96.8	
45-49	49**	40	1.2	98.0	
40-44	42**	35	1.1	99.1	
35-39		12	9.4	99.4	
30-34	15**	0	0.0	99.4	Low
25-29	33**	13	0.4	99.8	
20-24		6	0.2	100.0	
Total		3315	100.0		

*Predicted percent from Arrest Charge and Age.

**Standard error greater than 5% apt to be unstable.

Table 2. Serious Drug Abuser Scale Scoring System: Example Claude X.

Attribute	Level	Points	Score
Arrest Charge	Drug Possession	6	<u>4</u>
	Drug Sales	4	
	Robbery	3	
	Burglary	4	
	@Larceny/Auto Theft	3	
	Violent Index	1	
	Other Income Generating	0	
	Other Serious Crime	1	
	Other	0	
Misdemeanor/Felony	Misdemeanor	1	<u>0</u>
	Felony	0	
	Citation	0	
Race/Ethnicity	Black	2	<u>0</u>
	White	0	
	Hispanic	1	
Gender	Male	2	<u>2</u>
	Female	0	
Age	21-25	6	<u>7</u>
	26-30	7	
	31-35	8	
	36-40	7	
	41-45	5	
	46-50	3	
	51-55	3	
	56-60	3	
	61+	0	
Primary Income Source	Legal Income	0	<u>6</u>
	Welfare	2	
	Unemployed	1	
	Prostitute	2	
	Drug Sales	6	
	Other Illegal	4	
Marital Status	Single	1	<u>2</u>
	Married	0	
	Sep/Wid/Div	2	

FINAL SCORE

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Score	0-8	9-11	12-14	15-17	18-27
Inference (likelihood of coc-op+)	Low (<45%)	Intermediate (~50%)	High (67-79%)	Very high (80-89%)	Extremely high (≥90%)

Table 3. Variation in Distribution of Scores on Serious Drug Abuser Scale Across Interview Years and Locations.

Serious Drug Abuser Scale Score		Cumulative Percent with Score by Year:					Four Cities ¹ 1989
		Manhattan					
		1989	1990	1991	1992	1993	
Extremely High (90-100%)	27						
	26					.3	
	25	.1		.2		.5	.1
	24	.2	.2	.7	.3	.5	.2
	23	.6	.5	1.3	2.4	2.6	.3
	22	1.3	1.1	2.3	4.2	3.4	.7
Very High (80-89%)	21	3.0	2.8	4.3	6.6	6.9	2.0
	20	6.3	4.3	7.4	10.6	9.8	5.0
	19	10.8	7.9	11.6	17.1	15.0	9.6
	18	16.2	12.8	18.1	23.1	26.1	16.1
	17	24.4	19.1	26.8	32.6	34.6	25.6
	16	34.3	31.2	36.3	40.8	43.5	37.1
High (67-79%)	15	48.3	46.0	48.6	52.1	53.8	50.6
	14	60.8	60.1	62.3	63.0	65.2	63.6
	13	73.3	72.6	75.0	75.2	74.4	74.0
Intermediate (45-66%)	12	84.1	82.9	85.1	85.0	83.1	84.6
	11	90.5	91.2	91.4	92.0	90.5	91.2
	10	94.8	95.3	94.8	96.1	95.5	95.6
Low (0-44%)	9	97.6	97.5	97.6	97.7	97.6	97.9
	8	98.8	98.9	99.0	99.0	98.9	99.1
	7	99.3	99.5	99.4	99.9	100.0	99.6
	6	99.8	99.9	99.8	100.0		99.8
	5	99.9	99.9	99.9			99.9
	4	99.9	100.0	100.0			100.0
	3	100.0					100.0
2							
1							
0							
Mean Scale Score (Standard Error)		14.4 (.1)	14.2 (.1)	14.6 (.1)	15.0 (.1)	15.0 (.2)	14.5 (.1)
Percent Detected as Cocaine-Opiate Users		76.4	74.1	71.1	75.1	76.2	68.3
Number of Subjects		1119	1045	1151	866	379	2758

¹Philadelphia, Chicago, Cleveland and Detroit.

Serious Drug Abuser Scale Scoring System

Attribute	Level	Points	Score
Arrest Charge	Drug Possession	6	
	Drug Sales	4	
	Robbery	3	
	Burglary	4	
	@Larceny/Auto Theft	3	
	Violent Index	1	
	Other Income Generating	0	
	Other Serious Crime	1	
	Other	0	
Misdemeanor/Felony	Misdemeanor	1	
	Felony	0	
	Citation	0	
Race/Ethnicity	Black	2	
	White	0	
	Hispanic	1	
Gender	Male	2	
	Female	0	
Age	21-25	6	
	26-30	7	
	31-35	8	
	36-40	7	
	41-45	5	
	46-50	3	
	51-55	3	
	56-60	3	
61+	0		
Primary Income Source	Legal Income	0	
	Welfare	2	
	Unemployed	1	
	Prostitute	2	
	Drug Sales	6	
	Other Illegal	4	
Marital Status	Single	1	
	Married	0	
	Sep/Wid/Div	2	

FINAL SCORE

Score	0-8	9-11	12-14	15-17	18-27
Inference (likelihood of coc-op+)	Low (<45%)	Intermediate (~50%)	High (67-79%)	Very high (80-89%)	Extremely high (≥90%)

INSTRUCTIONS FOR COMPUTING THE SERIOUS DRUG ABUSER SCALE

CALCULATING THE SERIOUS DRUG ABUSER SCALE SCORE

An arrestee's score on the Serious Drug Abuser Scale involves summing the *weights* for each of the seven factors used to categorize arrestees.

1. Identify the person's category for each of the seven factors based on available information. Explicit details for determining a person's level on each factor are described below.
2. Write the weight associated with each factor in the blank at the right side of the form.
3. Sum the weights for the seven factors and enter the sum in the box near the bottom of the form. This is a person's score on the Serious Drug Abuser Scale.
4. Determine the likelihood of detected cocaine-heroin use associated with this person's Scale Score using the conversion chart at the bottom of the page and compare with distributions in Table 4.

DEFINITIONS OF TERMS

Top Arrest Charge: This is the most serious charge entered at the time of arrest for the offense which led to the current criminal justice contact. Subjects recruited for the DUF-Manhattan program were interviewed at booking, shortly after arrest and before arraignment. Charges after judicial review or case dismissal are not used, nor are formal charges entered after plea bargaining or conviction charges (unless they are the same as the initial arrest charge).

"Drug possession" includes the possession of illicit drugs such as heroin, cocaine, crack, and marijuana, as well as possession of drug-using instruments (e.g. needles, syringes, crack stems).

"Drug sales" includes the sale, attempted sale, and helping with sales of illicit drugs such as heroin, cocaine, crack, and marijuana.

"Burglary" includes crimes of breaking and entering (and usually taking possessions) from residences and businesses without personal confrontation.

"Larceny/auto theft" includes thefts of \$300 or more and stealing a vehicle.

"Robbery" includes the taking of property from persons and businesses by means of violence or its threatened use; this category excludes the less serious personal offenses of pocketpicking/purse snatching.

"Violent Index" includes all forms of homicide, aggravated (but not simple) assault, and sexual assault (rape).

"Other Income Generating Crimes" include the offenses which typically produce income: thefts under \$300, fraud, forgery, shoplifting, pocketpicking/jostling, purse snatching, stolen property, burglary tools, and embezzlement.

"Other Serious Crimes" include offenses which do not produce income but are serious crimes against persons or property: arson, property destruction, extortion/threat, weapons possession, family offense, kidnap, manslaughter, resist arrest, disturb peace, trespass, sex offenses.

"Other Crimes" category includes prostitution, commercial sex, driving while intoxicated, bench warrant, parole/probation/ROR violation, bribery, fare beating, liquor law violation, obscenity, indecent exposure, influence of controlled substance, and data not obtained.

Age at arrest: This is the arrestee's age category at the time of arrest for the offense leading to the current criminal justice contact; do not use arrestee's age at the date of computing the score (unless it is the same). The base rates in Table 1 are for use only with adult arrestees. Percentages are not provided for persons younger than 21.

Primary income source: This factor measures the arrestee's self-reported primary source of income (both legal and illegal) just prior to the time of arrest. "Legal income" includes full and part-time work and odd jobs as major source of income. "Legal income" also includes a variety of other legitimate means of support such as being in school or maintaining a home. "Welfare" refers to AFDC, general assistance, food stamps, or SSI payments. "Unemployed" refers to having unemployment compensation or no paid employment, but no self-reports of illegal income. "Prostitution" refers to the sale of sex for money. "Drug sales" refers to self-reports that drug sales were a primary income source (and generally implies no or little income from jobs or transfer payments). "Other illegal" income refers mainly to income from nondrug crimes (e.g., robbery, burglary, or larceny). If the arrestee was not asked about possible illegal income, do not use this scale [use Table 1 instead].

Marital Status: This refers to arrestee's status at time of arrest. "Single" refers to persons who were never legally married, and were not in a common-law relationship at time of arrest. "Married" includes both those legally married and those living in a common-law relationship. "Separated, Divorced, Widowed" refers to persons who were previously married, but at time of arrest were not living with their spouse, had been legally divorced, or whose spouse had died.

Ethnicity: "Black" includes those of African-American decent and Carribean or African backgrounds. "Hispanic" includes Puerto Ricans and others from Spanish-speaking countries. "White" includes those primarily from European decent. "Other" includes those of Asian backgrounds, American Indians, and those missing data on ethnicity.

Gender: Whether the arrestee is male or female.

Misdemeanor-felony: This refers to whether the top arrest charge has a felony penal sanction of 12 months or more (a prison sentence possible), or has a lesser penalty (misdemeanor). A subsequent top charge, after reductions by the district attorney's office or plea negotiations, should not be used. [Many original felony charges are reduced to misdemeanors during arraignment or by plea bargaining.]

Table 4. Postdicted Distribution of Scores on Serious Drug Abuser Scale (DUF-Manhattan, 1989-91)

Serious Drug Abuser Scale Score		Actual Percent Detected	Predicted Based on Scale Score	Number of cases ^a	Percent of sample	Cumulative percent
Extremely High (≥90%)	27					
	26					
	25	100 ^b	99	3	.1	.1
	24	100 ^b	98	9	.3	.4
	23	100 ^b	98	15	.5	.8
	23	96	97	26	.8	1.6
	21	97	96	60	1.8	3.4
	20	92	95	87	2.6	6.0
	19	91	93	137	4.1	10.2
18	90	91	186	5.6	15.8	
Very High (80-89%)	17	89	89	258	7.8	23.6
	16	84	85	347	10.5	34.0
	15	82	81	453	13.7	47.7
High (67-79%)	14	75	76	444	13.4	61.1
	13	70	70	417	12.6	73.7
	12	58	64	344	10.4	84.0
Intermediate (45-66%)	11	66	57	232	7.0	91.0
	10	47	49	130	3.9	95.0
	9	42	42	86	2.6	97.6
Low (<45%)	8	44 ^b	35	45	1.4	98.9
	7	13 ^b	28	16	.5	99.4
	6	33 ^b	23	15	.5	99.8
	5	0 ^b	18	2	.1	99.9
	4	0 ^b	14	2	.1	100.0
	3	0 ^b	11	1	.0	100.0
	2					
	1					
0						

^aBased on the 3315 DUF-Manhattan arrestees from 1989-1991 whose records include all arrest and demographic information necessary to calculate a score.

^bToo few cases to accurately estimate the proportion detected as cocaine-opiate users. The standard error for other estimates ranges from 2 to 5 percent.