

# VALIDITY OF SELF REPORTS OF ILLEGAL ACTIVITIES AND ARRESTS BY DRUG TREATMENT CLIENTS

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## I. Introduction

The Treatment Outcome Prospective Study (TOPS) is sponsored by the National Institute of Drug Abuse (NIDA) with the cooperation of the National Institute of Justice (NIJ). This long-term, large-scale longitudinal study provides information on the natural history of drug abusers seeking treatment in Federally funded drug abuse treatment programs. TOPS is designed to track a multi-year census of persons identified as eligible for treatment at selected drug treatment programs and the Treatment Alternatives to Street Crime (TASC) programs. These clients are interviewed at the time they contact the programs, periodically while in treatment, and then at specified intervals after their termination from treatment. One of the primary goals of the study is to look at the impact of drug treatment on criminal behavior. However, the way criminal behavior is measured can have important effects on the results and interpretations of a study (Drug Use and Crime, 1976).

Arrest records and/or self-reports have been used in studies of criminal activity. Wyner (1976), Bridges (1979), and Fox and Tracy (1981) have concluded that respondents systematically underreport arrests. However, an extensive review of the literature by Marquis (1981) reported that most completely designed validation studies including respondents who did not have criminal records found that arrests were overreported by individuals. Self-reports of criminal activities often greatly exceed reports of arrests (Inciardi & Chambers, 1972; Plair & Jackson, 1973). Although there are numerous difficulties with self-reports of criminal activities, the literature suggests they can be used to estimate the nature and extent of criminal activity (Elliott & Voss, 1974; Williams & Gold, 1972).

This paper summarizes an attempt to determine the validity and utility of self-reports of arrests and illegal activities of over 3500 clients in drug treatment programs participating in the TOPS study in 1979. Interviewers obtained oral reports on arrests covering different time periods for 19 Uniform Crime Report (UCR) offense categories. A self-administered questionnaire was also used to obtain reports on illegal activities in 11 UCR offense categories. Our attempt to validate the reports of arrests and illegal activity included examination of (1) data quality, (2) correspondence with records, (3) internal consistency, and (4) interviewer perceptions of accuracy.

## II. Data Collection Methodology

TOPS data are collected during interviews with clients at intake into treatment, quarterly during treatment and after treatment. During the intake interview clients are asked to report whether they have ever been arrested for 19

categories of criminal offenses and, if they reported ever being arrested, how often they were arrested in total and for the 12 months and three months preceding treatment intake. In the intreatment interviews respondents were asked about arrests and illegal activities during each three month period in treatment.

Respondents are also asked to report about illegal activities. Estimates are sought for the numbers of commissions for 11 different kinds of illegal behavior for the time periods "ever," in the past year and in the three months before program contact. Respondents were given a questionnaire, read instructions for completing it, and provided an example of a properly completed form. After completion of the questionnaire the respondent sealed it in an envelope addressed to the research center. It was expected that respondents would be more willing to provide complete and accurate information on the extent of their illegal activities if they felt their responses would not be available to the interviewer and/or the individuals associated with the treatment program. It should be noted that the survey methodology did not assure total anonymity as the respondent was assigned an interview number.

As indicated, data were gathered for 19 arrest categories and 11 illegal activities categories. In general the arrest and illegal activity categories correspond. For example, robbery arrest is specified as "bank, mugging, armed robbery, or purse snatching with force;" in the illegal activity schedule, robbery is defined as "taking something from someone using a weapon or force including bank robberies, muggings, hold-ups, stick-ups, or knocking someone down while stealing a purse." In the case of one offense category the illegal activity schedule gathers information broader than the arrest data. Respondents are asked how many arrests they have had for the sale or manufacture of narcotics; respondents are asked how many times they have sold or manufactured illegal drugs.

## III. Results and Discussion

### Data Quality

In table 1, the extent of nonresponse to a question about the number of involvements in illegal activities and arrests in the year prior to treatment is summarized for comparable offense categories. The total nonresponse, including all types of missing data, is less than 5 percent for all arrest categories and between 12.6 and 20.5 percent for illegal activity items. Because of the confidential, self-administered nature of the illegal acts questionnaire, high rates of missing data were anticipated. However, compared to the self-reports of arrests to interviewers, the missing data for illegal acts include substantially more cases of refusals and don't know responses. Refusals generally involved an unwillingness

to complete the entire illegal activity form rather than refusals to specific questions. The "don't know" responses were most common for frequently committed offenses that would be difficult to recall or count such as individual acts of drug sales, gambling, and thefts.

Nonresponse was considerably lower in the first intreatment interview (not included in table 1) which asked about the first three months a respondent spent in treatment. Nonresponse for each arrest category was less than 2.6 percent. For illegal activities the highest nonresponse was 4.8 percent for illegal drug sales. This figure includes less than 2 percent of the respondents who refused to complete any part of the illegal activity form. Although nonresponse was lower in the intreatment interview, clients also reported less involvement in illegal activities than was reported in the pretreatment period.

#### Interviewer Perception of Respondent Accuracy

After the interview was completed, interviewers were asked to record their impression of the accuracy of responses to the illegal involvement items. In table 2 the results of the impressions are presented by age and sex of the respondents. Interviewers felt over half the respondents at intake (55.1 percent) reported with high or very high accuracy. In the intreatment interview almost four of five clients (78.2 percent) were perceived to report with high or very high accuracy. About one of every ten respondents in both intake and intreatment interviews was viewed as responding with low or very low accuracy. The perceptions do vary by age and sex of the respondent, but no clear pattern of sex or age variation in perceived reporting accuracy is apparent.

We also examined the interviewer's perceptions of accuracy of illegal activity reports by the clients' self-reported primary drug problems (see table 3). Over 20 percent of clients admitting a primary alcohol problem were viewed as low accuracy respondents. About one of every six tranquilizer, barbiturate, sedative, and other drug abusers was perceived to be responding with low accuracy. Clients with primary problems with marihuana (60.8 percent), heroin (58.5 percent), and cocaine (56.3 percent) were seen as high accuracy respondents.

We also looked at how the interviewer perceptions of accuracy corresponded to reports of arrests and illegal activity. Respondents who were viewed as more accurate did not report arrests for thefts much more frequently than low accuracy respondents (9.2 percent versus 8.0 percent). More high accuracy respondents (54.6 percent) than low accuracy respondents (43.6 percent) did acknowledge receiving money from illegal sources. High accuracy respondents (16.9 percent) also reported more involvement in thefts than low accuracy respondents (12.4 percent). Although the discrepancies in reporting between high and low accuracy groups are not large, the differences suggest that the analyses of relationships between illegal activity and other variables should be examined separately for low and high accuracy respondents to assess the potential effects of bias.

#### Internal Consistency

Two internal checks were conducted on the self-reports of illegal activities: the comparison of self-reported arrests with self-reported involvement in criminal activity and the comparison of self-reports of involvement in illegal activity with self-reports of obtaining income from illegal or possibly illegal sources.

In general the data obtained indicated that respondents were willing to report criminal activity beyond that identified through arrest (see table 1). For example, over twice as many clients reported committing robberies as reported being arrested for robbery and almost eight times as many clients reported involvement in drug sales as reported being arrested for selling. The number of acts reported also greatly outnumbered reported arrests. In addition we also looked at the failure to report illegal activity among clients who did report arrests. Three-quarters of the clients who had been arrested for any offense also reported involvement in illegal activities. The remaining 25 percent who were arrested did not report involvement in any of the 11 UCR offense categories. This discrepancy appeared to be due to arrests for minor charges that were not covered in the illegal activity self-reports.

Of the clients who reported none of the 11 illegal activities, 28.7 percent did report receiving at least some income from illegal sources. Among clients who reported illegal activities, 60.7 percent reported obtaining some income from illegal sources. The apparent discrepancy in reports indicates two problems in assessing illegal activity. The first involves the construct one attempts to measure. We only asked about 11 specific illegal acts. There were many other types of illegal activity that could have resulted in illegal income. In addition, some people have been confused by the meaning of the illegal activity and illegal income constructs. The second problem suggests a need for interviewer clarification and consistency checks. However, the illegal activity and income questions were placed in separate sections of the interview and interviewers could not probe or clarify discrepancies because of the confidential nature of the illegal activity questionnaire. By developing a set of probes to clarify the nature and source of illegal income, the agreement between reports of illegal income and illegal activity may have been greater.

#### Empirical Validity of Arrest Data

In order to validate the information on arrests, the self-reported arrests were checked against official records. Because of the time needed to obtain arrest records for the 1979 admission cohort to provide more timely information of the validity of arrest reports, we randomly selected one hundred names of clients from over 400 clients who participated in the TOPS Pretest in 1978 and submitted these names in a list including a number of other names to the FBI in an effort to obtain the rap sheets for those clients. Sixty-five matched rap sheets were received. Rap sheets were received for three individuals who did not appear to be

the TOPS clients. An additional three interview schedules were not usable because of missing data. We assumed that we did not receive rap sheets for the remaining 29 clients because these clients had no FBI record.

Responses to the questions about arrest in TOPS interviews are subject to the usual problems of survey research such as memory inaccuracy and respondent distortion. Official records of arrest are also subject to error; these records are neither fully accurate nor complete histories of arrest. However, the comparison of surveyed and officially recorded arrest data will permit some assessment of the validity of the TOPS survey data. Table 4 displays the extent of agreement between these two data sources. Comparisons are made for four offense categories and for two time periods in an attempt to control for the differential effects that can be expected on these two dimensions. Rather than comparing specific offense categories like robbery or illegal sale of narcotics, offenses have been combined and given generic labels.

Table 4 displays the percentages of TOPS respondents in the pretest validation study who report arrests that correspond to the FBI arrest records. Columns one and two indicate the percentages of sample respondents who, according to FBI records, "ever" or in the year before TOPS intake were arrested for four categories of offenses. Columns three and four estimate the percentage of respondents for whom there is an exact correspondence between the number of arrests on FBI records and the self-reports of numbers of arrests. Columns five and six indicate the percentages of respondents who self-report fewer arrests than appear on the FBI records or who report no arrests when the records indicate one or more. The last two columns of table 4 show percentages of respondents who report more arrests than their FBI records indicate.

Earlier in this section we suggested there are three sources of error in the arrest data: memory inaccuracy, respondent distortion, and FBI recording errors. The data reported in table 4, especially for income generating property and drug related offenses, suggest that memory inaccuracy and FBI recording errors are the major sources of error. This interpretation is supported in two ways. The memory explanation is suggested because of the magnitude of the correspondence between records and self-reports is highest in the recent past (Column 4) and much lower in the distant past (Column 3). Underreporting for ever being arrested for income generating property and drug related offenses is much higher in the ever time frame (Column 5) than in the last year (Column 6). It also seems reasonable to interpret the significant overreporting percentages (Columns 7 and 8) as an indication that FBI records are incomplete rather than to suggest that clients' memories are faulty or that they purposely exaggerate.

Table 5 provides bias estimates based on the FBI record/ self-reported arrest comparison. Using a methodology developed by Marquis (1981), we have estimated the magnitude and direction of error in the self-reports. The

bias score is a near estimate of the difference between survey and record responses for an offense category; its sign indicates whether the average error is in the direction of under (-) or over (+) reporting. Table 5 shows that the preponderant direction of bias is toward overreporting. For six of the eight offense category/reporting period cells, survey respondents report being arrested more frequently for the offenses in question than is indicated by FBI records. In the case of the ever arrested categories for attacks against persons and income generating property offenses, the record data show more arrests than respondents reported. We suspect that faulty memory plays a part here but also believe that respondents are covering up past arrests for these offenses. These two offense categories are serious ones by societal standards and respondents may thus feel more threatened or dishonored by reporting their past involvement in such activities. It may also be likely, however, that these two serious offense categories are more completely enumerated in the FBI data than are the two less serious pimping-prostitution and drug related offense categories. If this latter point is true, then the comparative difference between the first two and second two offense categories may be overstated by the bias scores.

The magnitude of the bias scores confirms what was suggested by table 4. For the period one year before treatment, especially for attacks against persons and pimping-prostitution, one can feel confident that on the average, self-reported estimates are very close to estimates from official records. Error is more substantial for the income generating property offenses and drug related offenses. Self-reported estimates are higher than estimates derived from official records for these two offense categories; and if our interpretation is accurate, the disparity is largely explained by the incompleteness of official records.

#### IV. Summary

In this paper the validity of the TOPS data on criminal behavior has been addressed by examination of nonresponse patterns, by examination of interviewer assessments of response accuracy, by the comparison of the internal consistency of survey responses, and by the comparison of self-reports of arrest with official records of arrest. In general it did appear that drug treatment clients could give fairly accurate reports of arrests and illegal activities in the year prior to treatment. There were, however, many discrepancies, some major, that need to be explored further including the accuracy of recall over one year, the definition and specification of illegal activities, and the characteristics of persons giving inaccurate reports. The analysis indicates that there is sufficient error in the data, including some evidence of systematic error, that caution needs to be exercised in the use of the data for analysis and inference in the assessment of the effects of drug treatment programs on criminal behavior. At the same time it is also clear that the survey methodology employed during the TOPS research has

resulted in data on illegal activity that are more complete and accurate than is available through official sources. Further analyses and validations of self-report data from intake,

intreatment and followup interviews to determine the utility of self-reports of criminal activity for the evaluation of treatment impacts on criminality.

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Table 1. Percentages of Non-Response Among Self-Reports of Numbers of Arrests and Illegal Activity in the Year Preceding Treatment

	Percent of Respondents Reporting No Offenses	Percent of Respondents Reporting of Offenses	Non-Response Categories			Percent of Respondents with Any Non-Response
			(Refused)	(Don't Know)	(Other Non-Response)	
<u>Illegal Activity</u>						
Sale of Illegal Drugs	58.5%	21.0%	(6.3)%	(5.8)%	(8.4)%	20.5%
Pimping, Prostitution	79.9	5.7	(6.0)	(1.3)	(7.1)	14.4
Gambling	72.2	11.9	(5.9)	(1.9)	(8.1)	15.9
Stolen Property	71.7	13.6	(6.0)	(1.4)	(7.3)	13.7
Forgery, Embezzlement	78.7	8.3	(5.9)	(0.4)	(6.7)	13.0
Auto Theft	83.0	4.3	(5.9)	(0.3)	(6.5)	12.7
Theft/Larceny	62.7	21.4	(6.1)	(2.0)	(7.8)	15.9
Burglary	74.4	12.4	(6.0)	(0.5)	(6.7)	13.2
Robbery	79.7	7.5	(5.9)	(0.4)	(6.5)	12.8
<u>Arrests</u>						
Sale of Narcotics	93.1	2.5	(0.4)	(0.1)	(3.9)	4.4
Pimping, Prostitution	93.9	1.5	(0.4)	(0.1)	(4.1)	4.6
Gambling	94.5	0.9	(0.4)	(0.1)	(4.0)	4.5
Stolen Property	92.2	3.3	(0.4)	(0.1)	(4.0)	4.5
Forgery, Embezzlement	91.0	4.7	(0.4)	(0.1)	(3.8)	4.3
Auto Theft	93.0	2.2	(0.4)	(0.1)	(4.3)	4.8
Theft/Larceny	86.7	8.8	(0.4)	(0.1)	(4.0)	4.5
Burglary	88.0	7.6	(0.4)	(0.1)	(3.9)	4.4
Robbery	92.2	3.2	(0.4)	(0.1)	(4.1)	4.6

Table 2. Interviewer Perception of Accuracy of Self-Reports of Illegal Involvement by Sex and Age of Respondent

	Accuracy					n
	Very Low	Low	Medium	High	Very High	
<u>Intake</u>						
<u>Male</u>						
< 21	1.9%	11.7%	35.4%	37.6%	13.4%	n = 359
21-30	2.8	9.7	37.1	33.3	17.1	n = 1382
> 30	3.2	11.5	30.9	33.1	21.3	n = 816
<u>Female</u>						
< 21	0.7	7.8	25.5	50.4	15.6	n = 141
21-30	0.5	8.8	29.4	42.8	18.5	n = 616
> 30	<u>2.7</u>	<u>8.2</u>	<u>17.9</u>	<u>46.2</u>	<u>25.0</u>	<u>n = 184</u>
Total	2.3	10.0	32.6	36.9	18.3	n = 3498
<u>Intreatment</u>						
<u>Male</u>						
< 21	0.0	2.4	15.9	55.5	26.2	n = 126
21-30	0.4	9.8	10.6	49.0	30.2	n = 500
> 30	0.7	16.8	9.5	47.0	26.0	n = 304
<u>Female</u>						
< 21	0.0	8.7	15.2	65.2	10.9	n = 46
21-30	0.9	9.4	9.8	49.6	30.3	n = 234
> 30	<u>0.0</u>	<u>11.4</u>	<u>5.7</u>	<u>44.3</u>	<u>38.6</u>	<u>n = 70</u>
Total	0.5	10.7	10.6	49.6	28.6	n = 1280

Table 3. Interviewer Perception of Accuracy of Self-Reports of Illegal Involvement by Type of Respondent Primary Drug Problem

Primary Drug Problem	Accuracy					n
	Very Low	Low	Medium	High	Very High	
Alcohol	4.7%	17.4%	39.5%	28.4%	10.0%	n = 190
Marihuana	2.1	7.4	29.7	39.3	21.5	n = 252
Heroin	1.4	10.1	30.0	35.1	23.4	n = 1488
Other Opiates	2.8	9.7	38.2	38.5	10.8	n = 493
Cocaine	1.5	9.6	32.6	39.3	17.0	n = 135
Tranquilizers, Barbiturates, Sedatives	1.8	13.3	26.5	42.2	16.2	n = 166
Amphetamines	2.1	6.9	37.2	40.0	13.8	n = 145
Other Drugs (Inhalants, Hallucinogens, Major Tranquilizers)	4.4	10.8	30.6	40.1	13.1	n = 137
No Primary Drug Problem	<u>4.0</u>	<u>7.2</u>	<u>33.9</u>	<u>39.2</u>	<u>15.7</u>	<u>n = 446</u>
Total	2.3	10.0	32.6	36.8	18.3	n = 3452

Table 4. Comparison of FBI Recorded Arrests with Self-Reported Arrests for the TOPS Pretest

	Percent Arrested (FBI Records)		Percent Correspondence Between Records and Self-Reports		Percent Underreports (Survey Sum Minus Record Sum = Negative Sum)		Percent Overreports (Survey Sum Minus Record Sum = Positive Sum)	
	Ever (1)	Last Year (2)	Ever (3)	Last Year (4)	Ever (5)	Last Year (6)	Ever (7)	Last Year (8)
Attacks Against Persons <sup>a/</sup>	29.8% (28)	4.3% (4)	72.3% (68)	95.7% (90)	10.6% (10)	2.1% (2)	17.0% (16)	2.1% (2)
Income Generating Property Offenses <sup>b/</sup>	59.1 (55)	19.4 (18)	34.4 (32)	77.4 (72)	32.3 (30)	7.5 (7)	33.3 (31)	16.1 (15)
Pimping/Prostitution	11.7 (11)	2.1 (2)	84.0 (79)	96.8 (91)	3.2 (3)	1.1 (1)	12.8 (12)	2.1 (2)
Drug Related Offenses <sup>c/</sup>	52.1 (49)	8.5 (8)	53.2 (50)	87.2 (82)	20.2 (19)	0.0	26.6 (25)	12.8 (12)

<sup>a/</sup> attacks against the person include homicide, manslaughter, aggravated assault, forcible rape and kidnapping.

<sup>b/</sup> income generating property offenses include forgery, fraud, embezzlement, buying, receiving or processing stolen property, robbery, burglary, and larceny

<sup>c/</sup> drug related offenses include use or possession of marihuana, use or possession of narcotics, and sale or manufacture of narcotics.

Table 5. Item Bias Scores\* from Comparison of Records and Survey Responses

	Ever	Last Year
Attacks Against Persons	-.362	.021
Income Generating Property Offenses	-.161	.226
Pimping/prostitution	.256	.011
Drug Related Offenses	.330	.160

\* Based on Marquis (1981), pp. 12-24.