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Homeless and non-homeless arrestees:

Distinctions in prevalence and in sociodemographic,

drug use, and arrest characteristics across DUF sites

Final Report of Findings under Grant #97-IJ-CX-0045

from the National Institute of Justice

to

The Public Health Institute

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Executive Summary

A series of analyses was performed on five quarters of DUF data from 23 metropolitan areas nationwide. These DUF data are among the first to include housing choices that reflect two states of homelessness, living in shelters or living on the streets. The focus of the analyses was on whether being homeless or not affects being arrested. It was hypothesized that homeless persons are arrested more frequently for less serious crimes than housed persons and are more likely to be involved with drugs but not receiving drug treatment.

First, the proportion of arrestees in the DUF sample who reported being homeless was determined, after dividing the data between adults and minors, males and females. The rates of arrestees who were coded as homeless ranged from 6.2 per cent for adult males to 2.4 per cent for juvenile males. The rates for females were 5.0 per cent for adults and 4.1 per cent for juveniles. The rate for non-whites was lower than for whites, 4.8 per cent versus 6.4 per cent. The rates of homeless arrestees were much higher than the rates of homelessness for the communities where arrestees lived. The average rate of homelessness across communities was .14 per cent, based on 1990 census data, versus 5.4 per cent for arrestees. Even the highest estimates of homelessness nationwide, reported from research studies, fall well below the levels of homelessness among arrestees. In fact, all sites reported arresting a higher per cent of homeless persons than double the highest estimated community homeless rate.

After distinguishing three subgroups of adult arrestees and three subgroups of juvenile arrestees on sociodemographic, arrest status, drug use, and drug history variables, tests of difference on four variables were performed between homeless and housed arrestees. Across all subgroups but one for both adults and juveniles, on only one variable did homeless persons differ

from housed. Consistently across subgroups homeless persons were less likely to be charged with violent crimes than were housed persons. Only one other difference emerged for one subgroup of juveniles, having an arrest in the previous 12 months. There were no differences between groups on the number of charges and the severity of the charges, which ranged from status offenses to misdemeanors to felonies.

A second grouping approach was applied to further explore differences between being homeless when arrested or being housed. Arrestees were grouped by site, then a cluster analysis was performed on the 23 sites using four variables, region of the country, population, type of political jurisdiction, and per cent arrestees who were homeless. Five clusters were identified. Large Eastern seaboard cities were distinguished from large Midwestern and Western cities, smaller Southern cities, smaller counties nationwide, and larger counties in the Midwest and West. A larger per cent of arrestees in the Eastern cities, Midwestern cities, and large counties tended to be homeless persons. A two-way analysis of variance was performed on the same four variables, along with extent of drug involvement. The results comparing homeless versus housed persons were similar to those for the subgroups based on characteristics of arrestees. Homeless persons were charged with fewer violent crimes and were more likely to have been arrested in the previous 12 months. In addition, homeless persons were more likely to be involved with drugs and alcohol. The differences among groupings of sites also were of interest. Small Southern cities and smaller counties arrested people for more charges and more serious charges. The three groups of sites arresting relatively more homeless persons tended to charge persons with a larger number of violent crimes. Since homeless persons tended to be charged with fewer violent crimes, even in these jurisdictions, it is intriguing that the arresting of relatively more homeless persons coincides with higher numbers of violent crimes being charged.

Finally, the percentages of homeless arrestees reporting either previous or current

participation in drug treatment were compared with the percentages of housed persons so reporting. Proportionately more homeless persons reported previous participation in drug treatment, which was consistent with their higher levels of drug involvement. However, levels of current participation in treatment did not differ between the two groups. Overall, there was some support for recommending changes in how problems of homelessness are addressed in our cities. More consistent referrals need to be made to drug treatment, and law enforcement staff and the public need to become more aware that homeless persons do not appear to be the more violent offenders. The much higher arrest rates of homeless as opposed to housed persons in the sites suggests the need for alternative approaches to maintaining order and promoting justice in our communities.

Homeless and non-homeless arrestees:

Distinctions in prevalence and in sociodemographic, drug use, and arrest characteristics across DUF sites

This report summarizes the results developed in connection with an award from the National Institute of Justice to the Public Health Institute, Berkeley, CA for the project titled "Homeless and non-homeless arrestees: Distinctions in prevalence and in sociodemographic, drug use, and arrest characteristics across DUF sites." The objectives of this project were: (1) calculate at each site the proportion of adult male, adult female, and adolescent arrestees who are homeless; (2) compare the proportion of homeless persons arrested with the proportion of homeless people in the same geographic region to identify sites tending to arrest relatively more homeless persons, (3) determine whether homeless and housed arrestees differ in seriousness and number of crimes and in involvement with drugs, and (4) explore other distinctions between homeless and housed arrestees.

The project was undertaken to yield findings helpful to the handling of homeless persons by police and other agencies: (a) to discern whether homeless persons tend to be arrested for less serious crimes than non-homeless persons, (b) to determine whether homeless persons experience more frequent arrests than non-homeless persons, and (c) to assess whether homeless persons are more likely to be involved with drugs but not receiving drug treatment. Differences found between homeless and non-homeless arrestees may be interpreted in terms of possible criminal justice and community agency policy changes that might rationalize the allocation of criminal justice resources while improving conditions for homeless individuals and the broader community.

THE PROBLEM

Societal concern with homelessness, crime, and drug abuse has increased dramatically in the past decade. Accompanying this concern have been increased fear of street people and the enactment of local ordinances to prohibit camping, sleeping in parks, loitering, aggressive panhandling, and other activities commonly attributed to homeless persons. Merchants and residents press local officials to solve the homeless problem or at least hide its manifestations (see, for example, Cities pull, 1995; New Orleans, 1995; Plotkin and Narr, 1993; and Melekian, 1990). One approach -- often the default -- involves turning to the local police.

While law enforcement's role may be, as Herman Goldstein stated in the preface to the Police Executive Research Forum's (hereinafter, PERF) The Police Response to the Homeless: A Status Report, to "maintain order, reduce fear, protect individual rights, and care for the needs of those who cannot care for themselves" (Goldstein, 1993:iii), these objectives are often incompatible with one another. Not surprisingly, the police typically find themselves held responsible for problems caused by the homeless, but with inadequate tools and resources to address these problems. Nearly 70 per cent of 495 police officials agreed with the statement posed by PERF that "The street people in my jurisdiction are viewed predominantly as a police problem" (Plotkin & Narr, 1993:16).

Police discretion with regard to homelessness, as evidenced by arrest patterns, reflects law enforcement culture but also public attitudes toward homelessness and the availability of shelter, emergency housing, hospital and treatment resources. In many jurisdictions the police have few options for dealing with homelessness beyond either strict or lenient enforcement of local ordinances.

The law enforcement response to homelessness takes place in a context of tremendous public fear of crime in general and illegal drug use in particular. Together, these have

contributed to a massive increase in jail populations. While in 1983 local jails housed 224,000 inmates, by 1994 the figure had jumped to 490,000. The number of jail inmates per 100,000 U.S. residents increased from 96 to 188 in the same period, with a disproportionate share of the increase attributable to drug law violations (Perkins, Stephan, & Beck, 1995). Unknown is the proportion of arrestees who are homeless or under the influence of drugs or alcohol when they are detained. These factors complicate correctional concerns about the health and safety of all detainees and thereby place additional demands on correctional personnel (Purdy, 1995).

While many law enforcement agency officials perceive that homeless persons present minor problems (Plotkin & Narr, 1993), the literature also conveys an image of increased violence among homeless persons (Melekian, 1990). Increased loss of housing, disproportionate reliance on law enforcement, and the apparent growth of the homeless population may be associated with increased drug use, other self-destructive behavior, and greater inter-personal violence.

Resources permitting, jurisdictions may address homelessness directly by increasing the stock of subsidized housing or supply of emergency shelter beds. Other alternatives to jail-as-housing include: collaboration between mental health, alcohol, drug, and shelter programs (Dennis & Steadman, 1991; Finn & Sullivan, 1988), the hiring of street workers, and the siting of intervention programs within the municipal court (e.g. Milwaukee's Community Support Program, McDonald & Teitelbaum, 1994).

Just as jail sentences are seen as inappropriate responses to persons with mental illness who have committed petty offenses (Dennis & Steadman, 1991), arrest and detention may be inappropriate tactics for handling homeless persons who have engaged in minor offenses. Homeless persons arrested for minor offenses who evidence serious drug use may be better served through programs like HUD's Shelter Plus Care and Supportive Housing programs that

integrate treatment services with permanent housing (Fosburg et al., 1997). Those with minor drug problems require even less in the way of support. Thus, the availability of treatment-based approaches would seem to offer the justice system political space to allocate its resources most rationally (Chaiken & Johnson, 1988). However, more research is needed on the degree of criminality and substance abuse among homeless arrestees to permit jurisdictions to develop policies that incorporate such a public health perspective.

Most jurisdictions have little understanding of the impact of homelessness on arrest, incarceration, and recidivism rates. Instead, they typically develop policies based on impressionistic reports and anecdotes. To outline optimal policy options requires better data and understanding than most justice and social policy makers have currently. An appropriate starting point is with the existing data set of arrest information represented by DUF which has, to date, not been exploited for its potential to assist in the assessment of policies toward homeless persons.

Toward this objective, we first review the literature relating to treatment of homeless persons by arresting agencies. Next, we summarize the nature of the DUF data that were analyzed. Third, we present analyses and results in three targeted areas: (1) rates of homeless persons being arrested, (2) rates of homeless persons in the community compared with rates of homeless persons being arrested, and (3) differences in arrest status and drug use between housed and homeless arrestees. Finally, we summarize the findings relative to the research literature and take note of policy implications.

THE LITERATURE

While a growing literature on homelessness exists in the United States, including

substantial information on drug use by homeless persons, there is relatively little material that directly addresses law enforcement and correctional practices in handling homeless individuals who use drugs and come to the attention of local police agencies.

Drug use/abuse among homeless persons. There are no systematic, national, probability studies of drug use among homeless persons. The information provided by smaller studies has limited generalizability and comparability. But together these studies suggest that the homeless population is a high-need, multi-problem population on which considerable resources are spent to limited effect.

Many homeless individuals suffer from alcohol problems, drug abuse, and mental illness, both acutely and for long periods of time. Five years ago, the prevalence of alcohol problems was found to range from 45-57 per cent, while it appeared that drug use and mental disorders occurred respectively in 10-20 per cent and 28-56 per cent of homeless adults (Fischer, 1991). A more recent probability sample of homeless adults in Alameda County, California (1991-92) showed the prevalence of current drug disorder to be 31 per cent, alcohol problems 38 per cent, and major mental disorders 18 per cent (Speiglman and Robertson, 1995).

Homelessness, crime, and arrest. The literature of the past decade shows high rates of criminal activity and recidivism among homeless populations (Fisher et al, 1986). A survey of the literature between 1980 and 1990 disclosed that between one-fifth and two-thirds of homeless persons reported being arrested at least once since becoming an adult (Fischer et al., 1993), a rate far higher than that of the general population. Many arrests result from relatively petty, victimless offenses, and some result directly from the condition of being homeless (e.g. entering vacant buildings) (Fischer et al., 1993; Fischer, 1988; Gunn, 1974; Lindelius & Salum, 1976; Robertson, 1986; Rossi, 1989; Rossi et al., 1987; Snow et al., 1989). It is reported that some homeless individuals and chronic substance abusers arrange arrest as a survival strategy (Fischer,

1992a) while others may be arrested for inadvertent or uncontrolled behavior.

While homelessness may increase the risk of criminality, more often it appears to multiply the risk of arrest. Arrest has been strongly associated with the duration and harsh circumstances of homelessness (Fischer et al., 1993; Snow, 1989; Gelberg et al., 1988). Reports suggest that homeless persons who also display mental illness and drug or alcohol problems are particularly vulnerable to arrest (Farr, Koegel, & Burnham, 1986; Fischer, 1992b; Kalinich & Senese, 1987). In fact, offenders with multiple signs of mental illness are placed in custody while their non-mentally ill counterparts are more likely diverted to other alternatives (Kalinich and Senese, 1987).

Contrary to the predominant theme in the published literature, there are also reports of more serious criminality within the homeless community. Melekian (1990), for example, notes that between 1985 and 1990, in Santa Monica, California, the proportion of burglary, robbery, aggravated assault, and rape felony arrests attributed to homeless persons shot up 100 per cent.

Drug use among arrestees. DUF data have shown that drug use among arrestees is high. The 1993 sample of adult males arrested in the 23 DUF sites showed that the per cent positive for any drug ranged from 54 per cent in Omaha and San Jose to 81 per cent in Chicago. Among the 20 sites reporting data on female arrestees, the per cent testing positive for any drug ranged from 42 per cent in San Antonio to 83 per cent in Manhattan (U.S. Dept. of Justice, 1994). These rates exceed the national adult rates of self-reported drug use by a factor of ten (U.S. Dept. of Health and Human Services, 1991, 1993).

THE DUF DATA SET

Data analyzed to address each objective were obtained from the DUF data set (U.S. Dept. of Justice, National Institute of Justice, 1995) and 1990 U.S. Census Bureau data. The Drug Use

Forecasting (DUF) survey is the prominent national survey of drug use among recent arrestees and provides basic information about trends in drug use and about relationships between drug use and crime. In mid-1995, the DUF program made it possible to analyze homelessness by adding a question to its survey instruments concerning where arrestees had spent the month previous to arrest.

DUF data are collected quarterly in booking facilities in 23 sites throughout the U.S. Anonymous self-report and urinalysis information (approximately 90 per cent and 80 per cent response rates respectively) are collected from selected samples of booked arrestees at each site. While the validity of DUF findings about drug use patterns is limited to a subset of the arrestee population, the findings are useful to describe national trends and to inform policy decisions.

Sampling is done under a standardized protocol whereby interviewers recruit voluntary participants for 14 consecutive evenings every quarter (Reardon, 1993). In 20 sites female arrestees are recruited until approximately 100 have been enrolled per site per quarter. In all 23 sites each quarter, data are collected from approximately 225 male arrestees, and in 12 and 10 sites data are collected, respectively, on 100 male and on smaller numbers of female juveniles. To ensure serious, non-drug-related offenses a prominent place in the sample, a non-random and non-probability selection process guides local personnel. In 22 sites those arrested on driving under the influence are eliminated from eligibility, as are certain other offenders. The San Jose site, for example, excludes adult males whose most serious offense is a vehicle code charge other than auto theft, males charged only with public drunkenness, and most males whose most serious charge is drug possession or sales. In each site the number of males booked only with a drug charge who are recruited for the study is limited to 20 per cent of the total. Editing of survey instruments takes place locally. Coding, data entry, and file preparation are centrally done by a firm under contract to NIJ.

The following quote summarizes the approach taken to produce the DUF data set:

The study was a nonexperimental investigation of drug use among arrestees. DUF staff interviewed arrestees and then asked them to provide urine samples for urinalysis. The data were collected at 24 sites in the United States. [Data on site #21 do not appear in the data set used for these analyses.] Booking facilities where DUF data are collected are used by law enforcement agencies working within geographical boundaries. The DUF samples are drawn from these facilities and thus are limited to the types of arrestees brought to these facilities. In 10 sites (Atlanta, Chicago, Cleveland, Denver, Detroit, Houston, Omaha, Philadelphia, St. Louis, and Washington, DC), the catchment area is the entire city. In 10 additional sites (Dallas, Ft. Lauderdale, Indianapolis, Miami, New Orleans, New York City [Manhattan], Phoenix, Portland, San Antonio, and San Jose), the DUF catchment area is the entire county, parish, or borough. The catchment area for Los Angeles includes part of the city and part of the county, and in Birmingham and San Diego, the catchment area includes the entire city and part of the county. These sites were not selected to be representative of any broader population. The following procedures were adopted by DUF staff: (a) Male arrestees were selected by charge according to the following priority order: (1) nondrug felony charges, (2) nondrug misdemeanor charges, (3) drug felony charges, and (4) drug misdemeanor charges. However, males arrested on the following minor charges were excluded from the sample: vagrancy, loitering, or traffic violations (e.g., including driving while intoxicated). All female arrestees, regardless of charge, were selected for inclusion in the DUF sample because of the smaller number of female arrestees. (b) Those individuals arrested on new charges who also had outstanding warrants were selected only on the basis of the new charge's position in the priority list. The outstanding warrants were not considered. (c) A ceiling of 20 per cent was set on the proportion of interviews that could be obtained from males arrested for drug offenses. To remain within the limit, this proportion was calculated each evening. Not all sites maintained the 20 per cent limit on drug charges. (d) Urine specimens were obtained at the conclusion of the interview under the observation of the security officer.

Data for this study were gathered from voluntary and anonymous interviews with male and female arrestees and from urine specimens provided at the time of arrest. Information regarding charge, age, race, and birth year was obtained from arrest records" (U.S. Dept. of Justice, National Institute of Justice, 1993).

The DUF data set we analyzed contained 39,704 records covering five successive quarters from the fourth quarter of 1995 through the fourth quarter of 1996. Male and female adults numbered 33,893; adolescents numbered 5,811. Given the strictures applied to the selection of respondents, it is clear that the extent of homelessness among DUF respondents may not be equivalent to the extent of homelessness among all arrestees. This correspondence must be

assumed before drawing inferences about homelessness in the population of interest.

The 1990 Census data were assembled by metropolitan statistical area or county for each site. Appendix 1 of this report contains the data extracted from Census Bureau files via the Internet. Specifically, population figures were extracted for gender, racial categories, and housing situation categories from Report P40 covering Group Quarters residential arrangements.

DATA PREPARATION

Prior to performing the analyses, several key variables were constructed using variables from the DUF data set. The variable defining homelessness was determined by the response to question #5: "In the past month, what kind of place did you live in?" For this study homelessness was coded yes if the answer to #5 was "No fixed residence; on the street" (option 7) or "Emergency or short-term shelter" (option 3). Four age groups were formed: under 21, 21-35, 36-59, and over 59. For juveniles, the under-21 group was further divided into under 11, 11-13, 14-16, and 17-20. Marital status was converted to an ordered variable ranging from "single, never married" to "formerly married" and "currently married". Race was recoded to reflect white versus non-white. Education was recoded into 5 levels of advancement from minimal schooling, finished primary school, GED or finished high school, finished 2 years of college, to 4 years or more of college. An ordered income source variable was created with six levels: Employed full time, employed part time, receiving other income but not employed, receiving welfare, receiving illegal income, and reporting no income at all. Amounts of legal and illegal monthly income were categorized: 0 thru $100, $101 thru $650, $651 thru $1300, $1301 thru $2500, and $2501 thru $99998. The total number of charges calculated was limited to the maximum of three reported in the DUF data set. The degree of seriousness of each charge was coded from status to misdemeanor to felony as 1 or 2 or 3, and the overall severity of the charges was calculated as

the sum of these codes across charges. The degree of violence of the charges lodged was estimated by summing the number of violent offenses, with violent being defined by the DUF reporting form charge number. Degree of involvement with drugs was estimated by finding the mean of eight binary variables: being under the influence of alcohol, cocaine, or marijuana at the time of arrest, testing positive for cocaine, marijuana, opiates, or some other drug, and injecting a drug within the past year. Some missing value problems were addressed by replacing codes for missing data with system missing or zero. For example, missing values for last injected and emergency room visit within the past 12 months were replaced with zero if ever injected and ever in an emergency room were coded as "no". Similarly, if the person was arrested and reported not being under the influence of alcohol or a drug, then missing values for all the "under the influence" variables were replaced with "no's". Seven drugs were grouped into one category, otherdrg, for purposes of coding the results of drug tests performed on urine samples. The seven drugs were PCP, Valium, Darvon, Methadone, methaqualone, barbiturates, and amphetamines. The test results for marijuana, cocaine, and opiates were preserved as separate variables. For detailed information on the coding of variables for the following analyses see Appendix 2.

Rates of homelessness were calculated from the 1990 Census data by combining counts for streets and shelters, then dividing by the total population. A rate for each metropolitan area was entered in a separate file. Rates of arrests of persons reporting a homeless living status were then compared with these Census data by site.

RATES OF ARRESTED HOMELESS PERSONS

The first project objective was to identify rates at which DUF sites reported homeless residential status for arrestees. Table 1 summarizes by site the per cent of each sample that reported either being on the streets or residing in a shelter, versus housed, which included jailed,

residential treatment, and other residential statuses.

Table 1 - Homeless Versus Housed Persons in the DUF Data Set

SITE #	SITE	TOTAL	HOUSED	HOMELESS	PER CENT HOMELESS
1	NEW YORK	1797	1588	209	11.6%
2	WASHINGTON, DC	1918	1825	93	4.8%
3	PORTLAND	2360	2126	234	9.9%
4	SAN DIEGO	1970	1852	118	6.0%
5	INDIANAPOLIS	2512	2429	83	3.3%
6	HOUSTON	1469	1420	49	3.3%
7	FT. LAUDERDALE	1597	1518	79	4.9%
8	DETROIT	958	915	43	4.5%
9	NEW ORLEANS	1720	1665	55	3.2%
10	PHOENIX	2440	2302	138	5.7%
11	CHICAGO	1083	1049	34	3.1%
12	LOS ANGELES	2930	2777	153	5.2%
13	DALLAS	1683	1636	47	2.8%
14	BIRMINGHAM	1585	1549	36	2.3%
15	OMAHA	1264	1206	58	4.6%
16	PHILADELPHIA	1075	1021	54	5.0%
17	MIAMI	1124	1046	78	6.9%
18	CLEVELAND	1652	1602	50	3.0%
19	SAN ANTONIO	2100	2020	80	3.8%
20	ST. LOUIS	1351	1304	47	3.5%
22	SAN JOSE	1956	1861	95	4.9%
23	DENVER	1918	1742	176	9.2%
24	ATLANTA	1242	1111	131	10.5%
	Totals/average	39704	37564	2140	5.4%

The per cent homeless across sites, 5.4, applies to males and females, adults and minors, or 39,704 arrested persons. Four sites with over 9 per cent homeless were New York, Atlanta, Portland, and Denver. The two sites with under 3 per cent homeless were Dallas and Birmingham. Using the estimate of 2.5 percentage points as the population standard deviation, sites can be identified that are 1.645 or more deviations from the mean, which approximates 5

percent of the distribution in each tail for a normal distribution. Three sites were at the high end of the distribution, New York, Atlanta, and Portland. No sites fell into the bottom tail.

Also of interest was the per cent homeless by gender and race. Table 2 provides this summary. Due to some missing data, the totals are somewhat less than 39,704. Among the four groups, fewer juvenile boys reported being homeless. Proportionally more whites than non-whites reported being homeless. Three Chi-square tests were performed on the rates of homeless persons for adult males versus females, juvenile males versus females, and whites versus non-whites. All three tests were significant at $p<.01$, indicating that the differences in rates of homelessness are interpretable.

Table 2 - DUF Homelessness, by Gender and Race

	TOTAL	HOMELESS	PER CENT HOMELESS
MALE (Adult)	23005	1521	6.2%
FEMALE (Adult)	8898	469	5.0%
BOYS (Juvenile)	4935	119	2.4%
GIRLS (Juvenile)	726	31	4.1%
Totals/Average	37564	2140	5.7%
WHITE	9812	673	6.4%
NON-WHITE	27487	1451	4.8%
Totals/Average	37299	2124	5.7%

HOMELESSNESS IN THE COMMUNITY VERSUS IN THE ARRESTED SAMPLE

The second objective was to compare the percentage of those in the DUF sample who

were homeless with the percentage of persons who were homeless in the same community. Because the two sources of data are not identical, the sizes and composition of the two populations may differ at each site. For example, the census data were obtained about the Los Angeles metropolitan area, a wider area than sampled for the DUF data from Los Angeles. The population from which persons were arrested included parts of the city of Los Angeles and parts of the county of Los Angeles, while the metropolitan area includes portions of Orange County and most of Los Angeles County. Hence, for Los Angeles the census data over-estimate the size of the population from which persons were arrested. Census over-estimates may include outlying communities in the county or larger metropolitan areas that are more well-off economically than the core urban area from which DUF arrestees were sampled. Consequently, in those settings Census rates of homelessness are expected to be lower than arrest rates of homeless persons. By coding the census data as either an over- or under-estimate, relative to the DUF sample data, then adding this information as a predictor variable to the regression analysis, some of the discrepancies between the census and DUF reporting area populations can be adjusted for.

The percentages of homeless persons are presented by site in Table 3, along with an indication of whether the population data are more likely an over- or under-estimate of the population on which the DUF sample is based. Clearly, rates of homelessness among arrestees were considerably higher than among the general population; the overall rates were .0538 among arrestees, a rate 38 times higher than the rate of .0014 among the general population. Since there is some disagreement over what the rates of homelessness in communities are, the following range for point prevalence is noted for comparison purposes. Link et al. (1994) note that estimates of homelessness throughout the U.S. on any given night range from 600,000 to 3 million. Thus, the range of the per cent homeless nationwide is .24 to 1.12, two to ten times the

ratios derived from the Census. Even if the high end of this range were doubled to account for differences between the urban areas sampled for DUF data and the wide mix of areas nationwide, the rate would still remain less than half the overall rate of homelessness among DUF arrestees. In fact, all sites reported arresting a higher per cent of homeless persons than double the highest estimated community homeless rate.

A multiple regression equation was set up to test whether the inaccuracy of the sample frames helped predict rates of homeless arrested persons. The results of the test indicated that the use of census data for noncontiguous areas, relative to the areas from which DUF arrestees were drawn, does not bias or predict rates of homelessness among those in the DUF data set.

Table 3 - Rates of Homelessness among Arrested Persons and Community Residents

SITE #	CENSUS ESTIMATE	SITE	HOMELESS IN COMMUNITY	HOMELESS AMONG ARRESTEES	ACTUAL TO PREDICTED
1	OVER	NEW YORK	0.26%	11.6%	1.52
2	OVER	WASHINGTON, DC	0.20%	4.8%	0.71
3		PORTLAND	0.14%	9.9%	1.78
4		SAN DIEGO	0.38%	6.0%	0.67
5	UNDER	INDIANAPOLIS	0.05%	3.3%	0.85
6	OVER	HOUSTON	0.06%	3.3%	0.68
7		FT. LAUDERDALE	0.08%	4.9%	1.05
8	OVER	DETROIT	0.05%	4.5%	0.95
9	UNDER	NEW ORLEANS	0.09%	3.2%	0.72
10	UNDER	PHOENIX	0.16%	5.7%	1.04
11	OVER	CHICAGO	0.10%	3.1%	0.58
12	OVER	LOS ANGELES	0.10%	5.2%	0.96
13		DALLAS	0.08%	2.8%	0.59
14		BIRMINGHAM	0.11%	2.3%	0.44
15	OVER	OMAHA	0.07%	4.6%	0.92
16	OVER	PHILADELPHIA	0.13%	5.0%	0.86
17		MIAMI	0.08%	6.9%	1.47
18	OVER	CLEVELAND	0.03%	3.0%	0.68
19		SAN ANTONIO	0.06%	3.8%	0.86
20	UNDER	ST. LOUIS	0.05%	3.5%	0.90
22	OVER	SAN JOSE	0.11%	4.9%	0.87
23	OVER	DENVER	0.10%	9.2%	1.69
24		ATLANTA	0.10%	10.5%	2.11
		Average	0.14%	5.4%	

Using the regression equation's estimates of arrested homeless persons, based on the two predictors of rates of homelessness in the community and nature of mismatch of populations, the estimates correlate .44 with the actual DUF data on homelessness. Only the community homelessness rate contributed significantly to predicting the percentage homeless when arrested, $F=4.62$, $p=.04$. With only 14 per cent of the variance accounted for, other predictors of rates of arrested homeless persons are needed to more fully explain rates of homeless who are arrested.

The mismatch of population figures between the available census data and the size of the communities where persons in the DUF data set were arrested did not correlate significantly with the per cent of arrested who were homeless. Therefore, having mismatched population and DUF reporting area data was either of little consequence or was not well handled by creating this predictor variable. By comparing the actual rate of homeless persons arrested with the rate estimated by the regression equation, it is possible to distinguish which sites arrested relatively more homeless persons compared with other sites. A high ratio of actual to predicted rates indicates that more homeless individuals were arrested for that site than would be predicted using data from all sites. The sites that arrested more homeless persons, that is, had a high ratio of actual rate to predicted rate, were Atlanta, Portland, and Denver, each of which was in the upper 5 percent of the distribution of ratios. No sites had ratios small enough to be in the lower 5 percent; however, those sites that arrested fewer homeless persons relative to rates of homelessness in the community were Birmingham, Chicago, and Dallas.

DIFFERENCES BETWEEN HOMELESS AND HOUSED ARRESTEES

In order to address several of the key concerns relating to the treatment of homeless persons by arresting agencies, the DUF data were divided between minors and adults. Juvenile males were not separated from juvenile females, because the numbers of homeless persons among minors were too small to support taking this step. Because adult males were sampled differently from females, a check was made of whether too many females were included who were charged with DUI, vagrancy, or loitering, thus constituting a different group regarding the sampling process. Only DUI charges were included in the DUF data we received, so the check was performed using only this charge. The rates of DUI differed between males and females in the DUF data. The total number of persons charged with DUI as the primary charge was almost

the same, 203 females versus 206 males, but the rates were quite different, 2.2 per cent for females and .84 per cent for males. Given that both rates were small and that there was a sizable number of male DUI cases in the sample, we decided not to sample adult males and females separately, but to include sex as a predictor in the cluster analyses.

Next, separate cluster analyses were performed to highlight differences between subgroups using the variables listed in Table 4 below. Because the DUF file contained far too many cases to perform Ward's clustering method (Marija J. Norusis/SPSS, 1993), which is recommended by Milligan and Cooper (1987) as well as Blashfield (1976) for recovering clusters of people, a random sample was drawn for each of the two age groups, adults and minors. While setting up the two groups using the sex variable, it was noticed that a sizable number of arrestees were misclassified as to age within the sex variable. Before proceeding, a new sex variable was created to properly assign all arrestees to each sex and age group. The resulting groups, 2,650 adults and 2,425 minors with complete data, were analyzed separately employing Ward's method. For both age groups optimal partitions of three clusters were selected for further analysis, because the loss function reflected a sizable increase going from three to two clusters. The means on 27 variables for the adults and 26 variables for minors were supplied to the SPSS K-Means clustering program for each of the three clusters. These variables are listed in Table 4 below. This program refines the estimates of the cluster centers and assigns the remainder of the cases in the DUF data set to a cluster. Table 5 reflects the breakdown by cluster for both groups, with brief descriptions of which variables tended to distinguish the subgroups.

Table 4 - Definition of Variables Included in the Cluster Analyses

Variable	Agegroup	Description
Sex	Both	DUF variable
Agegroup	Both	Categories formed separately for adults and minors
Ethnicity	Both	Distinguished white from non-white
Education	Both	Converted GED and highest grade into 5 categories
Marital Status	Adults	Three ordered categories from single to married
Source of Income	Both	Six ordered categories of desirability of income source from full employment to zero income, including part-time, welfare, and illegal
Level of legal income	Both	Legal monthly recoded income into 5 categories
Level of illegal income	Both	Illegal monthly income recoded into 5 categories
ER visit for drugs	Both	DUF variable for prior 12 months, recoding missing to zero based on answers to the ever visited ER question
Arrested last 12 months	Both	DUF variable
Served time in jail	Both	DUF variable for last 12 months
Ever injected drugs	Both	DUF variable
Injected drugs in last 12 months	Both	DUF variable, recoding missing values to no when never injected drugs
Arrested with a warrant	Both	DUF variable
Picked up for probation violation	Both	DUF variable
Number of violent crimes charged with	Both	Violent offenses selected from DUF variable for charges, maximum of 3
Number of crimes charged with	Both	DUF variable for number of charges up to 3
Overall severity of crimes charged with	Both	Combined nature of offense, whether status, misdemeanor, or felony, with number of charges to compute total score of 1-9, 1 meaning status offense and only one charge, 9 meaning 3 felonies
Under the influence of alcohol at time of arrest	Both	DUF variable, recoding missing values to zero when person reported not being under the influence of alcohol or other drugs

Under the influence of marijuana at time of arrest	Both	DUF variable, recoding missing values to zero when person reported not being under the influence of alcohol or other drugs
Under the influence of cocaine at time of arrest	Both	DUF variable after recoding missing values to zero when person reported not being under the influence of alcohol or other drugs
Not under the influence of any drug at time of arrest	Both	DUF variable
Did not need any drugs or alcohol at time of arrest	Both	DUF variable
Urine test results for marijuana	Both	DUF variable
Urine test results for opiates	Both	DUF variable
Urine test results for cocaine	Both	DUF variable
Urine test results for all other drugs	Both	DUF variable

Table 5 - Three-Cluster Solutions for Adults and Minors

CLUSTER	DESCRIPTION	N	%
Adults			
1	Unrelated to clusters 2 and 3; tended to include higher educated males working full- or part-time with less prior criminal involvement, and not needing substances nor under the influence of substances when arrested	18,736	57.5
2	Earning illegal income, proportionally more females involved	11,155	34.3
3	Injecting drugs, opiates in urine	2,652	8.2
Minors			
1	Unrelated to clusters 2 and 3; more likely to be employed and earning legal income with lower likelihood of prior arrests	4,599	64.2
2	Charged with more crimes of a more severe nature, some being violent, but not earning illegal income	822	11.5
3	Earning illegal income	1,740	24.3

The similarities between adult offenders and juvenile offenders are more striking than the differences, based on the two cluster analyses. Over 50% of both groups tend not to be very criminally involved, either in making an illegal income or in committing more crimes at the time of their arrest. In fact, the relative sizes of the clusters within agegroup are similar across analyses. After examining group differences on some of the other variables, further similarities emerged between the largest cluster of adults and the largest cluster of juveniles. These two groups are more likely to be employed and earning a legal income, as well as not having as much prior criminal involvement. Both adults and juveniles have a subgroup that earns more illegal income. About one-third of adults belong to the high illegal income group, while one-fourth of juveniles belong to a group similarly characterized. The smallest groups differ though, between

adults and juveniles. Eight per cent of adults fall into the injecting drugs cluster, while 11 per cent of juveniles are found in a cluster defined by committing more crimes of a more severe nature.

The purpose of forming subgroups was to avoid missing important differences in the treatment of homeless persons by arresting agencies. Significance tests were planned within cluster to determine whether homeless persons differed from housed persons on four variables: number of charges, severity of the charges, number of violent charges, and whether a prior arrest occurred in the previous 12 months. A power analysis was performed to select the optimal number of subjects for a t-test of independent samples. The results indicated that to detect an effect size difference of .3, just slightly larger than Cohen's (1977) definition of a small effect, with power of .9 and alpha equal to .05, equal-sized samples of 234 persons should be drawn for each cell of the design from the DUF data set, that is, by cluster, separately for adults and juveniles, and whether homeless or not. However, the number of homeless juveniles was too small to draw random samples of 234 homeless persons from each cluster. Instead, all homeless juveniles in each cluster were included along with twice the number of housed juveniles. The significances of the test results were adjusted for the differences in sample size. If across the nation police detain homeless persons in response to community pressures for orderly streets, or for other reasons than because of committing serious crimes, significant differences between homeless versus housed persons should appear on the four variables.

Table 6 indicates that some differences exist on the four variables, but not for all subgroups and more so for adults than for juveniles. In particular, across five of the six clusters, homeless persons are significantly less likely to be arrested for violent offenses, since the p-values in the table are less than .05.

Table 6 - Arrest Pattern Difference t-tests between Homeless and Housed Persons

Adults	Cluster Description	Prior Arrests	Charges	Severity	Violence
1	Unrelated to clusters 2 and 3; tended to include higher educated males working full or part time with less prior criminal involvement, not needing drugs nor under the influence when arrested	N.S.	N.S.	N.S.	.04[b]
2	Earning illegal income, proportionally more females involved	.00[a]	N.S.	N.S.	.00[b]
3	Injecting drugs, opiates in urine	N.S.	N.S.	N.S.	.02[b]
Minors					
1	Unrelated to clusters 2 and 3; more likely to be employed and earning legal income with lower likelihood of prior arrests	N.S.	N.S.	N.S.	.02[b]
2	Charged with more crimes of a more severe nature, some being violent, but not earning much illegal income	N.S.	N.S.	N.S.	N.S.
3	Earning illegal income	N.S.	N.S.	N.S.	.02[b]

[a]Homeless greater than housed.　　[b]Housed greater than homeless.

In all of the subgroups for both adults and juveniles except one, homeless arrestees were significantly less likely to be charged for a for violent offense than housed arrestees. The second cluster for minors, which was characterized by committing more severe or violent crimes, did not reflect any differences between homeless and housed persons. It seems less likely for a difference to exist between homeless and housed in this cluster, given that -- by its definition -- cluster members tend to commit more severe and more violent crimes.

A second significant finding was that among adults who earn illegal income homeless arrestees were more likely to have been arrested within the past 12 months than housed arrestees. With a greater likelihood of being arrested within that time frame, it follows, the average homeless person is arrested more frequently than the average housed person. This finding may relate to either of the following hypotheses that have appeared in the literature: (a) police may round up homeless persons to clear the streets, due to pressure from merchants or other sectors of the community, and (b) homeless persons themselves, from time to time, may bring on arrests to get "three hots and a cot."

The tendency for police to more frequently arrest homeless persons was not characteristic of the other subgroups besides adults who earn illegal income. Since the size of this subgroup is just one-third of all adult offenders, this finding may have limited generality. The remaining non-significant findings indicate that, in relation to the other variables, homeless persons are not being treated differently from housed persons by the arresting agencies in major cities throughout the country.

Since only one arrest status variable distinguished homeless from housed arrestees, sites were compared on just this one variable, number of violent crimes charged. In the table that follows, the number of violent crimes was collapsed into two categories, one or more versus none.

Table 7 - Prevalence of Violent Crimes among Homeless Versus Housed Arrestees

Site#	Site	Total	Number Housed	% Arrested for Violent Crimes	Number Homeless	% Arrested for Violent Crimes
1	NEW YORK	1797	1588	26.8%	209	17.7%
2	WASHINGTON, DC	1918	1825	42.6%	93	21.5%
3	PORTLAND	2360	2126	26.5%	234	16.7%
4	SAN DIEGO	1970	1852	31.0%	118	20.3%
5	INDIANAPOLIS	2512	2429	25.4%	83	18.1%
6	HOUSTON	1469	1420	29.1%	49	14.3%
7	FT. LAUDERDALE	1597	1518	23.6%	79	10.1%
8	DETROIT	958	915	46.8%	43	20.9%
9	NEW ORLEANS	1720	1665	36.0%	55	20.0%
10	PHOENIX	2440	2302	21.2%	138	6.5%
11	CHICAGO	1083	1049	33.7%	34	23.5%
12	LOS ANGELES	2930	2777	39.2%	153	21.6%
13	DALLAS	1683	1636	26.2%	47	12.8%
14	BIRMINGHAM	1585	1549	22.3%	36	8.3%
15	OMAHA	1264	1206	24.9%	58	17.2%
16	PHILADELPHIA	1075	1021	28.5%	54	22.2%
17	MIAMI	1124	1046	43.4%	78	25.6%
18	CLEVELAND	1652	1602	36.6%	50	20.0%
19	SAN ANTONIO	2100	2020	22.6%	80	25.0%
20	ST. LOUIS	1351	1304	27.4%	47	19.1%
22	SAN JOSE	1956	1861	34.9%	95	18.9%
23	DENVER	1918	1742	31.2%	176	18.2%
24	ATLANTA	1242	1111	29.9%	131	13.7%
	Totals	37907	35976	31.8%	2140	17.6%

The per cent of homeless persons across sites charged with violent crimes ranged from 6.5 to 25.6. The sites with higher percentages of homeless persons being charged with one or more violent crimes were Miami, San Antonio, and Chicago, all with over 23%. The per cent of housed persons charged with violent crimes ranged across sites from 21.2 to 46.8. The sites with over 40 per cent of housed persons being charged with violent crimes were Detroit, Miami, and Washington, DC. The difference in percentages of persons charged with violent crimes between homeless persons and housed was examined with a t-test. The group means were significantly different, $p < .01$. Notably, across sites all but one site, San Antonio, arrested relatively fewer

homeless persons for violent crimes than housed persons. These findings contradict the hypothesis that homeless arrestees are more likely to be charged with a violent crime than housed arrestees.

Another analysis was performed to examine site and regional differences in relation to treatment of homeless persons by law enforcement agencies. First, the 23 sites were grouped according to the following four variables: whether the reporting entity was a city or a county jurisdiction, where the city or county was located, the log of the population, and the per cent of homeless persons among arrestees. Five clusters emerged from applying Ward's method to the 23 sites using these four variables. A discriminant function analysis summarized the differences between clusters as: (1) smaller Southern cities with fewer homeless persons arrested, (2) Western and Mid-western cities with more homeless persons arrested, (3) large Eastern cities or city-counties with more homeless persons arrested, (4) smaller Southern and Western counties with fewer homeless persons arrested, and (5) smaller counties, outside the Eastern region, with more homeless persons arrested. These groupings reflect differences in rates of homeless persons being arrested and regional differences, as well as composition of the communities. The first three clusters tend to exclude sizable suburban areas, since they are not counties or are city-counties in densely urban areas. The Southern cities are distinct because they have lower rates of arrested homeless persons. Cluster three, the large Eastern cities, are the most urban. The last two clusters include more county, and likely suburban, areas, but differ in rates of homeless arrestees. Clusters one, four, and five include jurisdictions with smaller populations.

Using these five groupings of sites, a two-way ANOVA was run on random samples of 58 persons for each cell, homeless or not by site grouping, making the total sample 580. The smallest cell size prior to the random sampling from the DUF data set was 264 homeless persons in group four; the largest was 11,241 housed in group two. The dependent measures were

assessments of arrest status and drug involvement: number of charges, severity of the charges, number of violent crimes charged, existence of a prior arrest in the previous 12 months, and the summary variable reflecting degree of involvement with drugs, including urine test results. The ANOVA table below indicates which effects were significant.

Table 8 - Homelessness by Type of Site on Arrest Status and Drug Involvement

Prior Arrests	df	F	p
Homeless (H)	1	4.3	.022*
Site Group (S)	4	2.2	.062
H x S	4	1.7	.142
Number of Charges			
Homeless (H)	1	0.6	.803
Site Group (S)	4	9.8	.000**
H x S	4	1.1	.380
Severity of Crimes			
Homeless (H)	1	0.6	.439
Site Group (S)	4	8.8	.000**
H x S	4	0.5	.720
Violent Crimes Charged			
Homeless (H)	1	7.1	.008**
Site Group (S)	4	3.7	.006**
H x S	4	0.6	.646
Involvement with Drugs			
Homeless (H)	1	16.9	.000**
Site Group (S)	4	0.9	.448
H x S	4	1.9	.115

**p<.01; *p<.05.

The pattern of significant F-test results for homelessness was consistent with the pattern for the t-tests reported in Table 6. Arrested homeless persons are more likely to have been arrested in the prior 12 months and to have been charged with fewer violent crimes. Also, the test on involvement with drugs indicates that homeless persons are more prone to testing positive for drugs or reporting drug as well as alcohol use.

The differences among groups of sites occurred for three of the four arrest status variables. The pattern of differences was fairly consistent. Groups 1 and 5 tended to reflect more charges and severity of charges across all detainees. Groups 2, 3, and 4 tended to have fewer charges and less severity. Size of jurisdiction seemed to make the most difference. Small southern cities and smaller counties around the country appeared to be arresting people for more charges and more serious charges. More importantly, they were, by definition, arresting people less often for minor offenses. The exception was the smaller counties in the South and West in group 4. Their tendency was to arrest persons for less serious problems, in line with law enforcement practices among the larger cities in the East, Mid-west and West. The pattern of differences for violence differed from that for charges and severity of charges. Groups 2, 3, and 5 reflected arrests for more violent offenses. Interestingly, these three groups of sites had higher rates of homeless persons detained. Since homeless persons tend to be charged with fewer violent crimes, this finding implies that homeless and housed persons at these sites are charged with more violent crimes than homeless and housed persons at other sites. None of the other grouping variables related strongly to this difference, implying that it is necessary to investigate differences in levels of violent crime further. There were no significant differences in level of drug involvement across site groups nor any interaction between homelessness and site group.

The final question posed concerned whether homeless arrestees are in need of, but not receiving, treatment for substance use problems. Since the previous results indicate that

relatively more homeless persons are involved with drugs and/or alcohol, and they are more likely to be arrested but for fewer violent crimes, it is key that their involvement in the drug treatment system be understood by the criminal justice system. The DUF data set contains indicator variables for whether an arrestee received drug or alcohol treatment for a particular drug any time before being arrested, and whether s/he is currently receiving treatment for a particular drug. Summary variables were created for received prior treatment and currently receiving treatment by adding the responses across types of drugs, then converting the summary variable to a yes versus no response. Due to the size of the data set, a preliminary power analysis was performed to determine how many arrestees to sample from the DUF data for this analysis. Given the low frequency of homeless persons among arrestees, the two types of error were set to .001 for alpha and .05 for beta. For an independent Chi-square test with one d.f., a small effect size of W=.1 was selected, using Cohen's (1977) terminology. The recommended sample size was 2436; this number of arrestees was randomly selected for adults and juveniles separately. The Chi-square test results are presented in Table 9.

Table 9 - Receipt of Drug Treatment, Homeless versus Housed

Drug TX Previously	Homeless	Housed	X^2	Significance
Adults (N=2344)	42.6%	23.0%	30.12	.000*
Juveniles (N=2136)	30.6%	9.6%	28.86	.000*
Drug TX Currently				
Adults (N=2344)	2.7%	5.7%	2.43	.119
Juveniles (N=2136)	4.8%	3.3%	0.63	.427

*p < .001.

There was no significant difference between homeless arrestees and housed arrestees regarding current involvement in a drug treatment program as reported at the time DUF data were collected. These results gain meaning in the context of other important findings. First, as noted in Table 9, relatively more adult homeless arrestees are involved with drugs. Presumably, they are more likely to be in need of treatment services. While 18 per cent of the DUF sample was in need of or using drugs or alcohol or charged with a substance use offense at the time of arrest, only about 4 per cent of arrestees reported current treatment. Second, consistent with their greater involvement in substance use, larger percentages of homeless arrestees reported having received treatment prior to their arrest. Third, since homeless adults are more likely to have experienced recent arrests (noted in Tables 6 and 8), as a group they have provided criminal justice officials with more opportunities to make referrals to treatment. Thus, despite the apparent need for treatment and greater opportunities to have been referred, compared to adult housed arrestees, homeless arrestees are less often participating in treatment. Either they are not being referred to treatment while in custody or at the time of release, or they are not following through on treatment referrals provided.

SUMMARY OF FINDINGS AND POLICY IMPLICATIONS

The purpose of this study was to determine whether there was any support in the DUF data set for the hypothesis that arresting agencies across the nation treat homeless persons differently from housed persons as to the frequency of arrest and types of charges lodged. Three questions were pursued using DUF data from five quarters in 1995-96. One, are homeless persons arrested more often than housed persons? Two, are homeless persons charged with less severe crimes? Three, are homeless persons more involved with drugs than housed persons and

not obtaining treatment when needed? We found, for all persons in the DUF data set, adults and juveniles, males and females, that homeless arrestees were more likely to have been arrested in the prior 12 months than housed arrestees, but currently charged with the same severity of crimes. Though more likely to be using drugs and alcohol than housed persons, they were no more likely to be receiving drug treatment when arrested. Finally, homeless persons were less often charged with violent crimes.

Expecting subgroup differences, two schemes for grouping arrested persons were applied. One scheme assigned arrested persons to clusters based on their similarity to each other. Adults and juveniles were analyzed separately. Three clusters were defined for adults and three for juveniles, or six clusters in all. The results differed somewhat from the overall results. In only one cluster of adults did homeless persons experience more arrests in the prior 12 months, the one involving proportionally more females and persons who earn illegal income. One cluster of juveniles did not demonstrate lower arrest rates for homeless persons when charged with one or more violent crimes. However, this cluster was characterized by the variable representing violent crimes. Thus, persons in this cluster were grouped together because they tended to commit more violent crimes.

The other scheme compared arrested persons by groupings of the reporting sites. Five groups of sites were defined. Smaller Southern cities with fewer homeless persons being arrested differed from larger Western and Midwestern cities with more homeless arrests, from large Eastern cities with more homeless arrests, from smaller Southern and Western county jurisdictions with fewer homeless arrests, and from smaller counties not in the East with more homeless arrests. Arrestees in Southern cities and smaller counties not in the East tended to have been charged with more, and more severe, offenses across all arrestees. The other three clusters tended to lodge fewer charges and less severe charges. The number of violent charges differed

across groups, also. Clusters with more homeless arrestees had higher rates of violent charges per arrestee. However, the homeless arrestees were not being charged with violent crimes as often as the housed arrestees. Apparently, for cities where there are more homeless persons, there are more violent crimes being recorded, but violent crimes do not appear to be attributed to homeless as much as to housed individuals.

Five noteworthy findings deserve attention. First, there is evidence that arrests of homeless persons are undertaken for reasons that differ from arrests of housed persons. Second, homeless persons earning an illegal income are more likely to have been arrested in the prior 12 months than are housed persons earning an illegal income. Third, overall, homeless persons who have been arrested are less likely to be charged with commission of violent crimes. Fourth, homeless arrestees are more likely to be involved with drugs at the time of arrest. Fifth, the involvement of homeless arrestees in drug treatment resembles that of housed persons, despite the former group's higher rates of drug use when arrested.

It is evident that a sizable difference separates the rates of homeless persons being arrested versus rates of homelessness in the community. Our findings indicate that those homeless persons who are arrested are charged by the arresting officer with less violent offenses when compared to other arrestees. At the pre-arrest, detention, and post-release stages, homeless persons appear more likely to need alcohol or drug treatment than do housed arrestees. However, they do not report higher rates of treatment.

In light of the fact that half of the police agencies responding to the PERF survey indicated that their department had no training program in place that addressed homeless persons (Plotkin & Narr, 1993), our findings suggest, first, that training programs are in order. Additionally, inter-agency referral agreements, multi-agency planning programs,

special screening and evaluation procedures, in-custody treatment programs, and the existence of quality supported housing and shelter programs may provide alternatives to arrest for addressing the problems of homeless persons -- both those who do not and those who do abuse alcohol and other drugs. Minimally, staff of programs providing housing and substance abuse services should be brought into the planning process and be provided resources commensurate to the challenge. Figure 1 suggests alternate models for handling homeless persons by level of criminality and drug use.

While the analyses reported here help us situate the dilemmas of homelessness, drug use, and arrest, this project should be supplemented by additional studies. Research on community and police decision-making regarding the disposition of homeless individuals, studies of prosecutorial and judicial decision-making subsequent to arrest, and studies of arrestees' access to and use of community services, in particular, alcohol and drug treatment services, ought to be commissioned. These studies should employ a variety of techniques, including ethnographic studies of police and homeless persons' decision-making. Additional work might involve key informant studies of the central substance abuse service providers and housing and criminal justice personnel. More detailed surveys of homeless arrestees' relationships with treatment, criminal justice, and other systems also would be in order.

Figure 1. Models for Handling Homeless Persons, by Level of Criminality and Drug Use

		Criminality	
		Serious	Minor
Drug use	Serious	In-custody drug services	Special treatment and housing programs designed to meet the problems of drug-abusing homeless persons.
	Minor	Standard correctional program	Avoid arrest; refer to housing and minimal support services.

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Appendix 1 - 1990 Census Bureau Data for Gender and Race

MSACMSA	GEO-COMP	STUB.GEO	Populatn	Male	Female	White	Black	Natv_AM	Asian	Otherace
520	0	Atlanta, GA MSA	2833511	1378144	1455367	2021586	735477	6176	49965	20307
1000	0	Birmingham, AL MSA	907810	429292	478518	655153	245260	2050	4440	907
1602	0	Chicago--Gary--Lake County, IL--IN--WI CMSA	8065633	3915428	4150205	5777437	1544551	16513	255621	471511
1692	0	Cleveland--Akron--Lorain, OH CMSA	2759823	1315792	1444031	2261736	441111	5568	27667	23741
1922	0	Dallas--Fort Worth, TX CMSA	3885415	1916846	1968569	2927112	554282	19932	95825	288264
2082	0	Denver--Boulder, CO CMSA	1848319	910301	938018	1602173	96538	13606	42279	93723
2162	0	Detroit--Ann Arbor, MI CMSA	4665236	2247854	2417382	3571191	973918	19331	67886	32910
3362	0	Houston--Galveston--Brazoria, TX CMSA	3711043	1848060	1862983	2510389	664227	11834	130225	394368
3480	0	Indianapolis, IN MSA	1249822	600385	649437	1061822	171545	2695	10001	3759
4472	0	Los Angeles--Anaheim--Riverside, CA CMSA	14531529	7264947	7266582	9403652	1226477	87502	1339990	2473908
4992	0	Miami--Fort Lauderdale, FL CMSA	3192582	1526502	1666080	2442811	591784	5796	41272	110919
5560	0	New Orleans, LA MSA	1238816	588534	650282	770363	430894	3838	20976	12745
5602	0	New York--Northern New Jersey--Long Island, NY--NJ--CT CMSA	18087251	8633455	9453796	12715178	3291819	40295	866394	1173565
5920	0	Omaha, NE--IA MSA	618262	299890	318372	550845	51036	3175	6890	6316
6162	0	Philadelphia--Wilmington--Trenton, PA--NJ--DE--MD CMSA	5899345	2829888	3069457	4542242	1100059	12283	121762	122999
6200	0	Phoenix, AZ MSA	2122101	1044235	1077866	1801570	74295	38309	35208	172719
6442	0	Portland--Vancouver, OR--WA CMSA	1477895	723532	754363	1352366	40958	14536	50837	19198
7040	0	St. Louis, MO--IL MSA	2444099	1168394	1275705	1986599	422234	5726	22808	6732
7240	0	San Antonio, TX MSA	1302099	633037	669062	979319	88709	4673	16020	213378
7320	0	San Diego, CA MSA	2498016	1272299	1225717	1875517	157495	21509	198675	244820
7362	0	San Francisco--Oakland--San Jose, CA CMSA	6253311	3109605	3143706	4341175	535477	40804	928026	407829
8840	0	Washington, DC--MD--VA MSA	3923574	1909661	2013913	2580207	1042210	12115	201502	87540
6	85	Santa Clara County	1497577	758605	738972	1035029	55365	9130	261574	136479
48	113	Dallas County	1852810	911421	941389	1243151	369883	9578	51144	179054
12	11	Broward County	1255488	600590	654898	1027465	193360	2907	16499	15257
12	25	Dade County	1937094	925912	1011182	1415346	398424	2889	24773	95662

Appendix 1 (Cont.) - 1990 Census Bureau Data for Group Quarters Housing

STUB.GEO	Populatn	Prison	Nurshome	Menthosp	Juvniles	Othr_ins	College	Military	Shelters	Streets	Othr_nin
Atlanta, GA MSA	2833511	13379	9555	914	966	1072	14048	603	2832	35	2454
Birmingham, AL MSA	907810	3711	5439	0	802	985	4159	0	890	151	1121
Chicago--Gary--Lake County, IL--IN--WI CMSA	8065633	12357	50202	2954	3120	6364	29932	13669	7151	1184	14912
Cleveland--Akron--Lorain, OH CMSA	2759823	3721	19789	1522	1423	663	18080	11	859	29	4828
Dallas--Fort Worth, TX CMSA	3885415	13203	20182	1111	1263	1684	14243	1523	2439	220	3965
Denver--Boulder, CO CMSA	1848319	4841	9141	386	1163	578	9110	2140	1914	26	2033
Detroit--Ann Arbor, MI CMSA	4665236	10066	24093	2903	2172	1701	18202	171	2367	64	8763
Houston--Galveston--Brazoria, TX CMSA	3711043	20275	10785	549	381	2213	9071	77	2132	46	4524
Indianapolis, IN MSA	1249822	3657	10728	692	744	785	3858	295	610	56	1517
Los Angeles--Anaheim--Riverside, CA CMSA	14531529	61028	69514	5334	9747	12188	40504	23922	11947	3126	36998
Miami--Fort Lauderdale, FL CMSA	3192582	13810	13969	1398	293	2208	6235	1171	1931	528	6603
New Orleans, LA MSA	1238816	5309	6464	406	384	125	5171	2522	1023	97	1433
NY--No N Jersey--Long Is, NY--NJ--CTCMSA	18087251	54272	109056	13176	6971	19943	87512	8701	37983	9204	48687
Omaha, NE--IA MSA	618262	1514	4996	397	869	113	2483	1104	427	0	820
Philadelphia--Wilmington--Trenton, PA--NJ--DE--MD CMSA	5899345	29396	42241	4092	4130	6954	50202	9974	6671	863	16122
Phoenix, AZ MSA	2122101	7738	9044	847	1233	512	5411	1311	2719	720	3188
Portland--Vancouver, OR--WA CMSA	1477895	3447	8849	658	637	478	4952	3	1961	160	4150
St. Louis, MO--IL MSA	2444099	5029	20817	1019	1154	2358	7373	559	1178	0	4673
San Antonio, TX MSA	1302099	3488	6397	685	301	1113	4393	8211	762	60	5441
San Diego, CA MSA	2498016	10401	11830	411	782	446	9387	57675	3574	5867	7691
San Francisco--Oakland--San Jose, CA CMSA	6253311	31046	30511	2534	2025	6349	34170	17101	11214	1793	21849
Washington, DC--MD--VA MSA	3923574	15764	19728	1999	799	1881	29208	14555	7562	157	6827
Santa Clara County	1497577	4657	6654	237	671	1195	12885	1010	1545	116	4244
Dallas County	1852810	7125	8966	224	491	316	4307	822	1297	195	1597
Broward County	1255488	4227	5994	879	91	430	584	65	675	319	2568
Dade County	1937094	9583	7975	519	202	1778	5651	1106	1256	209	4035

Appendix 2 - SPSS Coding to Convert DUF Variables to Variables Analyzed

```
compute case_id=case_id + 1.
leave case_id.
recode birthyr (78 thru 98=1) (73 thru 77=2) (63 thru 72=3)
   (53 thru 62=4) (39 thru 52=5) (0 thru 38=6) (99=-99) into agegroup.
do if (agegroup eq -99 and age ne 99).
   recode age (1 thru 20=1) (21 thru 25=2) (26 thru 35=3) (36 thru 45=4)
    (46 thru 59=5) (60 thru hi=6) into agegroup.
end if.
recode agegroup (-99=sysmis).
compute newsex=sex.
if (sex eq 3 and agegroup gt 1) newsex=1.
if (sex eq 4 and agegroup gt 1) newsex=2.
if (sex eq 1 and agegroup eq 1) newsex=3.
if (sex eq 2 and agegroup eq 1) newsex=4.
execute.
select if (newsex lt 3).
*missing values agegroup (99).
recode livesin (3,7=1) (else=0) into homeless.
if (intyr eq 95) qrtyear=954.
do if (intyr eq 96).
   do if (quarter eq 1).
   compute qrtyear=961.
   else if (quarter eq 2).
   compute qrtyear=962.
   else if (quarter eq 3).
   compute qrtyear=963.
   else if (quarter eq 4).
   compute qrtyear=964.
end if.
end if.
value labels homeless 0 'in residence'
   1 'homeless'
```

```
/agegroup 1 '20 or less' 2 '21-25' 3 '26-35' 4 '36-45' 5 '46-59'
   6 '60 and over'.
recode ms (1=1) (2=3) (3,4,5=2) (77=77) (99=99) into marstat.
recode race (1,3 thru 6=2) (2=1) (99=99) into ethnic.
*recode higrade (0 thru 8=1) (9 thru 11=2) (12=3) (13,14=4)
   (15 thru 30=5) (99=99) into edlevel.
recode employ (1=1) (2=2) (3,4=3) (5,6,7=5) (0=4) (8=6) (99=sysmis)
   into incsourc.
recode legal (0 thru 100=0) (101 thru 650=1) (651 thru 1300=2)
   (1301 thru 2500=3) (2501 thru 99998=4) (999999999=sysmis) into
   legalinc.
recode illegal (0 thru 100=0) (101 thru 650=1) (651 thru 1300=2)
   (1301 thru 2500=3) (2501 thru 99998=4) (999999999=sysmis) into
   illeginc .
compute violenc1=0.
compute violenc2=0.
compute violenc3=0.
if (charge lt 2) violenc1=1.
if (charge2 lt 2) violenc2=1.
if (charge3 lt 2) violenc3=1.
recode charge charge2 charge3 (1 thru 6=1) (7 thru 99=0).
recode misfel misfel2 misfel3 (3=1) (1=2) (2=3) (else=0).
compute violence=sum(violenc1,violenc2,violenc3).
compute charges=sum(charge,charge2,charge3).
compute crimsvry=sum(misfel,misfel2,misfel3).
*compute study_id=study_id + 1.
*leave study_id.
recode higrade (0 thru 7=0) (8 thru 11=1) (12,13=2)
   (14,15=3) (16 thru 76=4) (77 THRU 99=99) into edlevel.
if (hsged eq 2 and edlevel lt 2) edlevel=2.
IF (EVINJECT EQ 0) LASTINJ=0.
IF (EMROOM EQ 0) EMROOM12=0.
DO IF (UNDERNO EQ 0) .
   COMPUTE UNDERALC=0.
```

```
  COMPUTE UNDERCOC=0.
  COMPUTE UNDERMJ=0.
END IF.
compute otherdrg=sum(pcp,val,dar,meth,mq,barb,aemit).
if (otherdrg gt 1) otherdrg=1.
recode lastinj (0=0) (4=1) (3=2) (2=3) (1=4).
recode lastinj (0,1=0) (2,3,4=1) into injrecn.
compute druginvl=mean(coc,mj50,op,otherdrg,underalc,undercoc,undermj,injrecn).
missing values mjtrmt,coctrmt,crktrmt,hertrmt,pcptrmt,amphtrmt,barbtrmt,
   ludetrmt,methtrmt,crytrmt,valtrmt,lsdtrmt,inhtrmt,alctrmt,
   mjpast,cocpast,crkpast,herpast,pcppast,amphpast,barbpast,
   ludepast,methpast,crypast,valpast,lsdpast,inhpast,alcpast (77,99).
compute intxnow=sum(mjtrmt,coctrmt,crktrmt,hertrmt,pcptrmt,amphtrmt,barbtrmt,
   ludetrmt,methtrmt,crytrmt,valtrmt,lsdtrmt,inhtrmt,alctrmt).
if (intxnow gt 1) intxnow=1.
compute intxpast=sum(mjpast,cocpast,crkpast,herpast,pcppast,amphpast,barbpast,
   ludepast,methpast,crypast,valpast,lsdpast,inhpast,alcpast).
if (intxpast gt 1) intxpast=1.
recode  intxnow intxpast (77 thru 99=sysmis).
VALUE LABELS MARSTAT
  1 'Single' 2 'Separated, Divorced' 3 'Married'
 /EDLEVEL
  0 'Minimal school' 1 'Finished primary' 2 'GED or High School'
  3 'Finish 2 yrs. college' 4 '4 yrs. or more college'
 /ETHNIC
  1 'White' 2 'Other race'
 /INCSOURC
  1 'Employed FT' 2 'Employed PT' 3 'Other income' 4 'Welfare'
  5 'Illegal income' 6 'No income'
 /intxnow intxpast
  0 'No' 1 'Yes'
 /violence
  1 '1 violent charge' 2 '2 violent charges' 3 '3 violent charges'
 /charges
```

```
   1 '1 charge' 2 '2 charges' 3 '3 charges'
   /crimsvry
   1 '1 status charge' 9 '3 felony charges'
   /otherdrg
   0 'NEG' 1 'POS'
   /lastinj 0 'Never injected' 1 'Inject > 1 yr.' 2 'Inject 6-12 mos ago'
   3 'Inject 1-6 mos. ago' 4 'Inject past month'
   /legalinc illeginc
   0 ' 0 thru $100' 1 '$101 thru $650' 2 '$651 thru $1300'
   3 '$1301 thru $2500' 4 '$2501 thru $99998'.
*MISSING VALUES homeless birthyr agegroup sex
   ethnic edlevel marstat numpeopl  incsourc
   legalinc emroom12 arstbook servtime evinject warrant
   probaton violence charges crimsvry  underalc
   undercoc undermj needno underno lastinj mj50 op coc otherdrg
   (77 THRU 99).
recode qrtyear homeless  sex
   ethnic edlevel marstat numpeopl  incsourc
    legalinc illeginc emroom12 arstbook servtime evinject warrant
   probaton violence charges crimsvry  underalc intxnow intxpast
   undercoc undermj needno underno lastinj mj50 op coc otherdrg
   (77 thru 99=sysmis).
EXECUTE.
```

Authors' Biographical Notes

Richard Speiglman, D.Crim., Senior Research Scientist at The Public Health Institute, received a BA (sociology) from the University of Chicago, did graduate work in sociology at UC San Diego and Berkeley, and finished with a D.Crim. from Berkeley and a post-doc at the Alcohol Research Group. He served as the Analyst for the Bureau of Alcohol Services, Santa Clara County, before directing projects at several Bay Area research institutes. His studies have focused on public drunkenness policy; alcohol problems, treatment, and homelessness; the handling of recidivist drinking drivers; outcomes of participants in the Shelter Plus Care program; the effects of the elimination of SSI benefits for alcoholics and addicts; and health, mental health, substance abuse, and related needs of TANF participants.

Rex S. Green, PHD, CQE, ART, is a Senior Research Scientist for the Public Health Institute in Berkeley, CA. He also consults on the improvement of health service delivery systems. He received his Ph.D. in psychology from the University of Southern California and utilizes his psychometric training to research the psychometric performance of rating tools. He is a California Quality Award examiner and has developed a checklist assessment for assembling data about quality improvement activities within an organization. Current research projects emphasize producing feedback for policy makers about what happens to welfare recipients during welfare reform and what changes juvenile delinquents undergo to return to the mainstream.

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