THE LAZAR INSTITUTE
McLean, Virginia

ASSESSMENT OF METHODS USED BY STATE AND LOCAL GOVERNMENTS TO ESTIMATE DRUG ABUSE LEVELS

SUMMARY

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Prepared for

National Institute of Justice
U.S. Department of Justice

This project was supported by Grant Number 87-IJ-CX-0043 awarded to The Lazar Institute by the National Institute of Justice, U.S. Department of Justice. Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official positions or policies of the U.S. Department of Justice.

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June 1990

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BACKGROUND AND PROBLEM STATEMENT

The importance to the criminal justice system of developing better State and local measures of the various categories of drug abuse cannot be overemphasized. Drug abusers often turn to crime in order to support the cost of their drug dependency; and, in general, evidence of close relationships between drugs and crime has solidified. For example, in 1988, over 53 percent of drug abusers entering treatment programs in Denver had been arrested at least once previously, while in Philadelphia, 82 percent of male arrestees tested positive for drug use. In the latter case, over 92 percent of the positive tests revealed use of cocaine. Statistics abound concerning the links of cocaine and heroin to crime.

Despite this, estimates of the incidence and prevalence of drug use at the State and local level are far from reliable because they are currently developed using methods and information sources that have numerous shortcomings. Improved assessment techniques would permit better targeting of treatment resources and therefore enable more of these abusers to be steered toward and successfully treated by drug abuse clinics. Thus, the social and financial costs that would otherwise result from their crimes and incarceration would be avoided, or at least greatly reduced. Similarly, more accurate assessment tools would facilitate expanded efforts to catch and prosecute suppliers and dealers, leading to decreases in the number of drug abusers clogging the criminal justice system and a resulting decrease in operations costs.

In addition to benefitting the criminal justice system, improvements in State and local assessments of the incidence and prevalence of various types of drug abuse would increase the effectiveness of drug treatment programs. Billions are spent each year on drug abuse treatment and

prevention services throughout the U.S., with decisions on allocation of these funds made mainly at the State level. In developing funding policies, States pursue two broad objectives: 1) accurate assessment of the problems of drug abuse in their jurisdictions, and 2) effective targeting of available funds towards solving these problems. Obviously, the second objective cannot be achieved unless the States successfully accomplish the first.

As a step toward improving drug abuse estimates developed by State and local governments, Lazar has conducted a survey research project and case studies with the following objectives:

- To learn how States and other jurisdictions currently measure the incidence and prevalence of drug abuse in their jurisdictions (what methodology or combination of methodologies are used) and how those measurements are used in planning and policy development.
- To document exemplary approaches used by selected States and thereby develop reference materials for jurisdictions wishing to improve their estimation capabilities.

SURVEY DESIGN

Lazar selected jurisdictions to participate in its survey based on the following criteria:

- comprehensive coverage of States;
- jurisdictions cited by experts as having exemplary estimation techniques;
- geographic diversity.

Use of these criteria resulted in development of a survey sample which included all 50 States and the District of Columbia as well as an additional 73 cities and 81 counties. In choosing cities and counties, Lazar first selected a set of jurisdictions of significant size which were located in States considered by experts to be assessing the extent

of their drug abuse problems in an exemplary fashion. In addition, other cities and counties within those States were selected, first on the basis of population and second on the basis of geographic diversity. For example, in New York State the most populous counties are located near New York City. Thus, in addition to those Counties surrounding New York City, others were included in the survey, such as Erie and Monroe Counties, which are located in other areas of the State.

Survey Questionnaire

The instrument designed for conducting the survey, entitled "Methods Used to Assess Local Drug Use," was divided into the following components.

Information Sources

Respondents were asked to identify, from a list of possible data sources, information either used to monitor drug use, or merely collected but not used for this purpose. Eighteen possible information sources were included, ranging from arrest data to results of school surveys.

Analysis Approaches

Respondents were asked to identify the ways in which the abovementioned information sources were used. Examples included accepting estimates developed by others and performing analysis using mathematical models.

Source Reliability and Extent of Use

Respondents were asked to rate each information source in terms of its reliability on a scale of 0 to 10, with 10 representing the highest possible degree of reliability.

Accuracy of Assessments

Respondents assessed the perceived accuracy of various types of drug use estimates (rated on a scale of 0 to 10, with 10 representing the highest level of accuracy). These included estimates of:

- The total amount of drug use in the jurisdiction;
- The number of new users in the last year; and
- Trends in drug use.

Respondents were also queried about the level of resources they devote to assessing drug use, technical assistance needs and the extent to which drug use assessments were utilized for policy development and budget allocation.

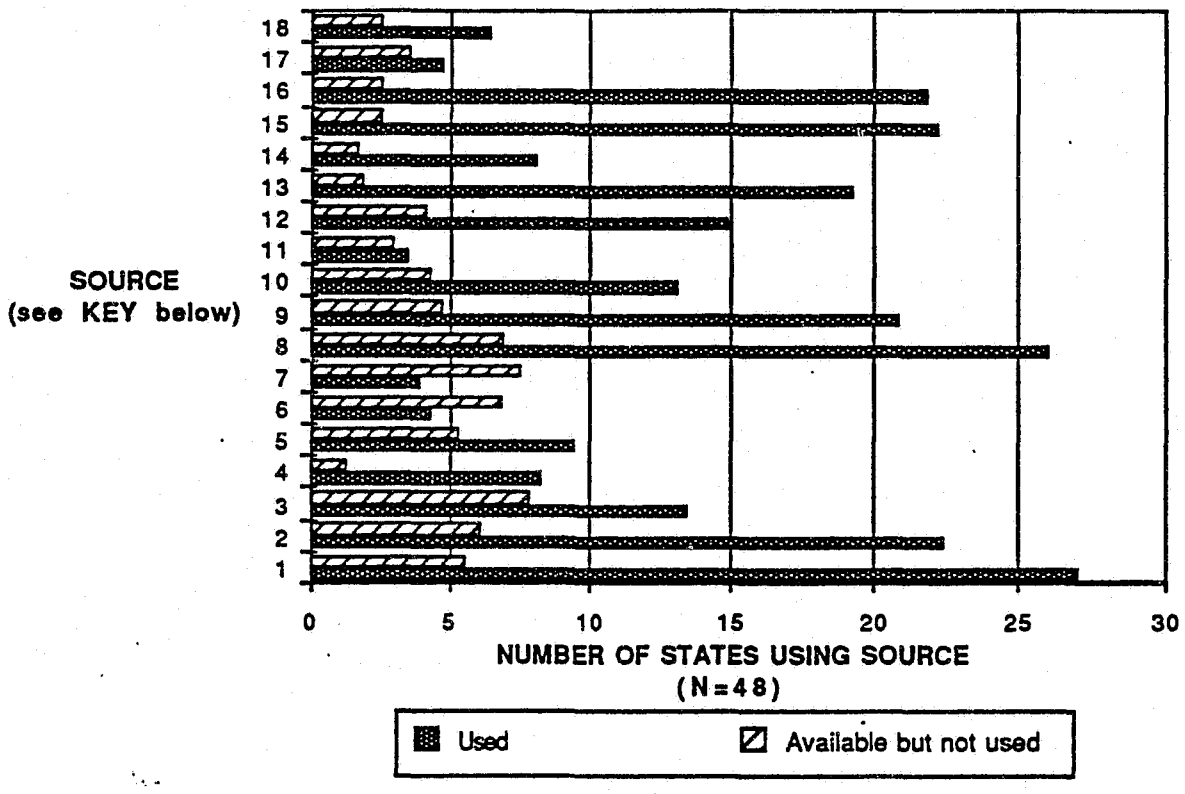
SUMMARY OF SURVEY RESULTS

Because of the high response rate to the survey, the results can be used with considerable confidence. There were only two non-respondent States (Idaho and Mississippi) while cities responded at a 68 percent rate and counties at a 56 percent rate.

Information Sources Employed

As can be seen in Figure 1, arrest data (for drug use or possession) and drug treatment program patient records were heavily used by States to estimate drug abuse levels. Other information sources used extensively by States included: arrests related to drug trafficking, drug-related deaths, national school surveys, State school surveys, and national household surveys. Information sources used least frequently were: incidence of Hepatitis B, school disciplinary actions, urine test results from drug abuse treatment systems and urine test results from criminal justice proceedings.

FIGURE 1
INFORMATION SOURCES USED BY STATES



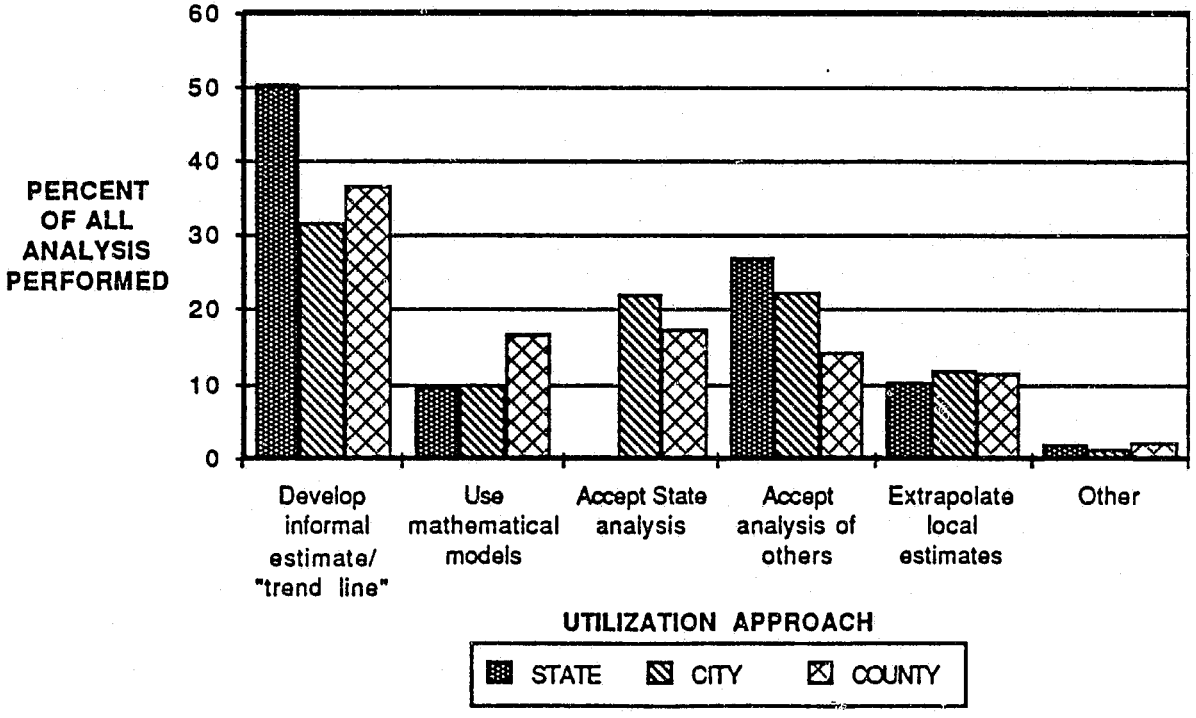
KEY:

18. Street informants/street research
17. School disciplinary actions
16. State school surveys
15. National school surveys
14. State household surveys
13. National household surveys
12. Federal reports from DAWN system (for DAWN cities)
11. Hepatitis B incidents
10. Drug-related emergency room incidents
9. Drug-related deaths
8. Drug treatment program patient records (e.g., CODAP)
7. Urine test results from drug abuse treatment system (e.g., clients)
6. Urine test results from criminal justice system (e.g., arrestees, parolees)
5. Drug price and/or purity
4. Drug-related traffic accidents
3. Court dispositions related to drug arrests (convictions, acquittals, dismissals, etc.)
2. Arrests related to drug trafficking
1. Arrests for drug use or possession

Analysis Approaches

As Figure 2 indicates, survey responses revealed that the development of informal estimates such as "trend lines" was by far the most likely approach to analyzing the data collected through the various information sources. Accepting the analysis performed by other entities such as the Federal government (but not State agencies) was the next most prevalent method used by the various types of jurisdictions.

FIGURE 2
APPROACH TO ANALYZING DATA



Over 50 percent of all data analysis performed by States fell under the "informal estimate" category, while the least likely approach for States to take was the use of mathematical or statistical models to analyze data in-house. Cities followed the same pattern as States with regard to the most and least frequently used method of analysis. Although counties also used informal estimates more frequently than any other analysis approach, they were least likely to derive estimates of local use from data collected at a national or regional level.

Source Reliability

Information sources viewed as most reliable included: Federal reports from the DAWN system, urine test results from the criminal justice system, State school surveys, and arrest data. The sources regarded as least reliable were street informants/street research, school disciplinary actions and Hepatitis B incident reports.

Accuracy of Assessments

Drug use assessments were deemed to be most accurate when used to estimate trends in drug use and the total amount of drug use in the jurisdiction. It is interesting to note that, in general, counties gave higher ratings to the accuracy of their own assessments of drug use than did either cities or States.

Officials representing most States and cities felt that their assessments of trends in cocaine and cannabis use were more accurate than those pertaining to use of other drug types. On the other hand, county officials viewed their assessments of trends in opiate and cocaine use as most accurate.

RATING STATE AND LOCAL APPROACHES

Lazar devised a system to rate the ability of State and local governments to estimate drug use levels within their jurisdiction. The rating system was developed with the following objectives:

- to illustrate the variance in levels of drug abuse assessment activity among various jurisdictions;
- to isolate those jurisdictions judging themselves least capable of assessing the incidence and prevalence of drug abuse in their communities; and
- to isolate those jurisdictions judging themselves most able to assess the incidence and prevalence of drug abuse in their communities.

The rating system evaluates a jurisdiction's ability to assess its levels of drug abuse. Two components of the survey were analyzed to develop the ratings:

- information sources (the number of sources employed was tabulated); and
- analytical approaches (both the number of approaches and their level of sophistication were taken into consideration).

These two criteria were equally weighted with a score derived for each. Once scores were available, States were ranked and then divided into three groups, so that of the 48 respondents, the 12 highest ranked States were given an A rating; the 24 next highest ranked States were given a B rating; and the lowest 12 were given a C. In addition, some borderline States were given a + rating, creating a group of B+ and C+ rated jurisdictions. The rating system derived for States was also applied to respondent cities and counties. The ratings of States as well as of large cities and counties that responded to Lazar's survey appear in Figure 3.

FIGURE 3
RATINGS OF SELF-EVALUATIONS OF LARGE JURISDICTIONS

STATES

Alabama	C
Alaska	B
Arizona	A
Arkansas	C
California	A
Colorado	A
Connecticut	B
Delaware	C
Florida	A
Georgia	B+
Hawaii	C+
Illinois	A
Indiana	C
Iowa	B
Kansas	B
Kentucky	A
Louisiana	C+
Maine	B+
Maryland	B
Massachusetts	A
Michigan	B
Minnesota	B+
Missouri	B
Montana	C
Nebraska	C
Nevada	B
New Hampshire	B
New Jersey	A
New Mexico	A
New York	A
North Carolina	B+
North Dakota	C
Ohio	B
Oklahoma	B+
Oregon	B+
Pennsylvania	B
Rhode Island	A
South Carolina	C+
South Dakota	B
Tennessee	B
Texas	B+
Utah	A
Vermont	B
Virginia	C
Washington	B+
West Virginia	B+
Wisconsin	B
Wyoming	C+

COUNTIES*

CA:	Fresno	B
CA:	Los Angeles	A
CA:	Orange	A
CA:	Riverside	C
CA:	Sacramento	C
CA:	San Diego	B+
CA:	Santa Clara	B
FL:	Hillsborough	B
FL:	Metro-Dade	A
FL:	Orange	C
FL:	Palm Beach	B
FL:	Pinellas	B
IL:	Cook	C
MD:	Baltimore	A
MD:	Montgomery	B+
MD:	Prince George's	A
MI:	Oakland	A
NY:	Erie	B
NY:	Monroe	B
NY:	Nassau	B+
NY:	Westchester	C

CITIES*

AZ:	Phoenix	C
CO:	Colorado Springs	C+
CO:	Denver	C
DC:	Washington	A
FL:	Jacksonville	B
FL:	Miami	A
FL:	Tampa	A
LA:	New Orleans	B
MD:	Baltimore	B+
NY:	Buffalo	A
NY:	New York	A
PA:	Philadelphia	B+

* Including only those counties and cities classified as among the 75 largest by the County and City Data Book, 1988 (Bureau of the Census, U.S. Department of Commerce).

CASE STUDIES

After completing collection and analysis of the data obtained through the survey instruments, Lazar chose 11 States and the District of Columbia for further study. Exemplary States included Arizona, California, Colorado, Florida, Illinois, Maryland, Minnesota, New Jersey, New York, Oregon, and Texas.

Highlights of Case Studies

- All but one case study site conduct surveys of student populations. Maryland is especially noteworthy in that it has conducted eight biennial surveys of student drug use. The school survey instruments from the case study sites, which could potentially serve as models for use in other States, vary widely in length and issues addressed. For instance, the surveys conducted by California and Minnesota are very detailed and frequent, while Arizona's is quite short and probably most adaptable for use by States with limited resources. Another example which could be followed by other States is New York's school survey. New York minimizes the costs of addressing a very large population by only administering the survey every five years.

- While Colorado conducts a face-to-face survey of its adult population, New York, New Jersey, Arizona and the District of Columbia conduct telephone household surveys. New York's survey, which was conducted most recently in 1986 by Louis Harris and Associates, Inc., had 6,364 respondents.

- Texas conducts surveys of both 1,027 adult male prison inmates and approximately 1,000 youth who have been placed in correctional facilities.

- Arrest data are used by all case study sites and are collected and stored both through computerized systems such as New Jersey's CCH (Computerized Criminal History) Lotus-based system, as well as manually through data collection forms. An example of the latter is Illinois' "MEG/Task Force Monthly State and Local Law Enforcement Assistance Act Report" which collects data from narcotics task forces and metropolitan enforcement groups (MEG).

- Treatment information is used by all the case study sites to assess the level of drug abuse in the jurisdiction. In most cases, treatment information is stored on a computerized system such as Oregon's Client Process Monitoring System (CPMS) or Maryland's Substance Abuse Management Information System (SAMIS). Other States, such as Arizona and New Jersey, have continued to use the Client Oriented Data Acquisition Process (CODAP) which was, until 1981, mandated by the National Institute on Drug Abuse.

- Most States rely on Federal DAWN (Drug Abuse Warning Network) data for information on drug-related emergency room incidents. New York, however, has established a Mini-DAWN system involving ten voluntarily participating hospitals. This system appears easily replicable, even in those States with minimal resources available for assessments.

- Many States rely on Federal Drug Use Forecasting (DUF) data for information on urine test results in the criminal justice system.

- California and New York also employ more sophisticated analysis approaches such as capture/recapture, upper and lower bound estimations, factor analysis, regression analysis and synthetic estimation to measure their drug-abusing, particularly heroin-abusing, populations.

- Resource allocation models, such as those used in California and Colorado, have obvious policy implications in that they could be used to divide scarce funds among a number of local jurisdictions based on those areas' potential for substance abuse. In reality, however, these models have only been used as planning tools.

- In general, assessments of drug-related data are used to substantiate budget requests and support new or modified legislative initiatives. The link between epidemiology studies and actual policy formulation appears to be strongest in New Jersey.

Overall Study Findings

Based on analysis of the data collected, Lazar's findings with regard to the principal questions addressed by the research effort are as follows.

- Overall, the jurisdictions studied are using elementary approaches to analyze available data on drug use. Sophisticated methodologies are rarely employed.

- In general, jurisdictions are making considerable use of particular information sources (e.g., arrests for drug use or possession) that they regard as most reliable.

- Officials in all three jurisdiction types exhibited significantly less than total confidence in the accuracy of their drug use assessments. In no category of jurisdictions did officials give their assessments what Lazar considered to be a "passing grade" (i.e., at least 7 on a scale of 10).

- Many jurisdictions are not devoting any resources to assessing drug use.

- Formal training is considered a more effective means of developing improved expertise in drug use assessment among State and local staff members than such other approaches as on-site technical

assistance, video instruction, computer software, and telephone instruction.

- State and local practitioners would welcome the provision of a methodology manual and a training course on assessing drug use.

- Drug use assessments are being used to some extent to develop policy for relevant programs in cities and counties, but their use for this purpose could be expanded considerably. Policy for drug testing programs, for example, is being formulated with relatively little consideration of drug use assessments, particularly in cities.

- Drug use assessments would have a greater influence on program policies if city and county officials had a higher degree of confidence in their accuracy.

Conclusions

Lazar has drawn the following conclusions from the above findings.

- Although State and local governments are in general collecting appropriate data that they view as reliable, they are not in most cases employing the analytical tools that would enable them to maximize the accuracy of their drug use assessments. Only a handful of State and local governments assessed by Lazar are comparable to the Federal government in terms of their ability to estimate levels of drug abuse in their jurisdictions.

- The limited and often nonexistent resources devoted to drug use assessments probably contribute to the actual and perceived lack of accuracy of such assessments, which in turn reduces their influence in policy formulation.

- The lack of a consensus at the Federal level on how to assess the incidence and prevalence of drug use and the paucity of Federal guidance have undoubtedly contributed to the absence of any standardized approach and the general inadequacy of efforts by State and local governments.

- If State and local governments are willing to alter their priorities and devote a small increase in staff resources to drug use assessment, the actual and perceived accuracy of such assessments could be significantly improved. This assumes that the Federal government will assist through development of a model approach and provision of a how-to manual and a staff training course. This in turn should increase the use and value of the assessments in developing policies for various drug-related programs.

Recommendations

In light of the significant and growing level of resources being devoted to drug-related programs by all levels of governments, prudent

public policy dictates that steps be taken to increase the cost-effectiveness of such programs. Lazar believes that one means of accomplishing this is to develop more accurate drug use assessments and to use these assessments in planning and implementing programs aimed at addressing drug abuse.

Toward that end, Lazar recommends that a program be developed by the Department of Justice in cooperation with the Department of Health and Human Services to provide technical assistance in drug abuse assessment to States, counties and cities. This assistance will be most effective if the Federal government first reaches agreement on the drug use assessment approaches that are most appropriate for use at State and local levels. The proposed program should, at a minimum, consist of developing a manual on such assessment techniques and the delivery of an accompanying training course, preferably to be offered in each of the 10 Federal regions. It is particularly important that this aid be available to the significant number of jurisdictions (roughly four out of five) whose ratings revealed a need to improve their assessment techniques. In this regard, consideration should be given to using the training facilities and administrative staff of the Federal Emergency Management Agency to establish a training program in drug abuse epidemiology for State and local officials. In addition, Lazar recommends that jurisdictions' abilities to accurately assess the incidence and prevalence of drug abuse continue to be monitored for the purpose of determining whether the problems identified in this study are being eliminated.