

THE UCR PROGRAM: DEVELOPMENT OF A STANDARDIZED AUDIT ¹

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I. INTRODUCTION

The need for amassing a reliable fund of criminal statistics for use in law enforcement administration, operation and management has never been greater. In order to deploy manpower and allocate resources to combat crime effectively, the nature and scope of the nation's crime problem must be known. The national Uniform Crime Reporting (UCR) Program was established to achieve this goal.² The Program is currently used to determine:

- the extent, fluctuation, distribution and nature of serious crime in the United States through presentation of data on seven Crime Index offenses
- the total volume of serious crime known to police
- the activity and strength of law enforcement agencies through arrest counts and police employee data³

The idea for systematic crime reporting is not new. At the 1871 convention of police officials held in St. Louis, a resolution was adopted which declared that the newly-founded National Police Association "procure and digest statistics for the use of police departments."⁴ Over half a century passed, however, before significant action was taken to achieve this goal.

In 1927-1928 Commissioner William P. Rutledge of Detroit chaired the International Association of Chiefs of Police Committee on Uniform Crime Records and, with financial assistance from the Rockefeller Foundation, appointed an Advisory Committee and Technical Staff to develop a system for the collection of crime statistics. Results of these efforts included basic definitions of the nature of the data base (a count of offenses known to police and of crimes cleared by arrest or by exception) and a definition of Part I offenses (those classes of serious crimes which are brought to the attention of the police as a matter of routine). In addition, methodology for collecting these data as well as proposals for the design of basic report forms were decided by the Technical Staff.

Based on the program and suggestions developed by IACP's Committee on Uniform Crime Records, Congress authorized the Federal Bureau of Investigation to collect and compile national crime statistics. In September of 1930, the national Uniform Crime Reporting Program was begun.

Selection of the FBI as the national clearinghouse for the monthly statistical submission was a natural one since this agency was already operating a nationwide identification service in which thousands of local law enforcement agencies were participating. In addition, the network of

Special Agents already in close contact with local law enforcement agencies and staff would be of value to offer personal assistance to local officials in preparing reports and revising records systems.⁵

The FBI has consistently emphasized the need to enlarge the crime reporting area to include urban communities, sheriff's offices and state police organizations. In the early years, however, the program was hampered by a lack of widespread participation: in January 1930, for example, the monthly report included only reports of "offenses known" in 400 cities. By 1938, however, 4,283 agencies were contributing crime reports. In 1973, the program had expanded to include 11,000 reporting jurisdictions which accounted for 93% of the total national population.⁶

Insuring quality control over these statistical submissions has been a matter of concern to those who manage the program and to those who utilize or are affected by its reports. As early as 1930-1931 field work conducted by various organizations⁷ revealed that the quality of the UCR submission was directly related to the quality of the reporting agency's records system and that in addition, the establishment of uniform reporting standards for scoring and classifying Part I data was of immediate importance. It was readily apparent that law enforcement agencies must first record and maintain certain data in order to generate reliable information for the UCR Program. Recognizing this fact, the Committee on Uniform Crime Records designed record forms based on the experience and need of law enforcement organizations, and also compiled detailed explanations as to the manner in which these records might be maintained to insure the compilation of accurate statistical reports.

High reporting standards have consistently been encouraged by the IACP Committee on Uniform Crime Records, which continues to serve in an advisory capacity to the FBI in the administration of the UCR Program. Likewise, the National Sheriff's Association in 1966, established a Committee on Uniform Crime Records to serve in an advisory role to its membership and to encourage full NSA participation in the UCR Program.

Realizing the importance of a good records system the FBI developed, in 1955, a Manual of Police Records designed to assist in the improvement of the law enforcement agency's basic records procedures. To insure adherence to national UCR definitions and guidelines, the FBI provides copies of its Uniform Crime Reporting Handbook which outlines procedures for scoring, classifying and clearing Part I offense data. In addition, the FBI offers, upon request, in-service training in national UCR procedures to agency personnel responsible for the compilation of UCR data.

Recently the FBI has actively assisted individual states in the development of statewide

programs designed to collect UCR statistics that are compatible with the national system. As a result of this activity more law enforcement agencies are participating in the UCR Program and the completeness and quality of the information submitted have improved as well.

Recognizing that the quality of the monthly statistical submission depends on a wide range of variables including:

- accuracy of the agency's reporting procedures
- organization of the agency's incident reporting system
- internal and external pressures to reduce crime
- human and mechanical error in report compilation
- the level of experience and training of personnel responsible for the aggregation and submission of UCR data

the IACP, in cooperation with the FBI and through a grant funded by the Law Enforcement Assistance Administration (LEAA), is designing a system of audits for the purpose of confirming the validity of UCR reporting practices.

II. IDENTIFICATION OF AREAS OF UCR ERROR POTENTIAL

The first logical step in conducting an audit of the UCR statistics (which are simply a byproduct of the overall incident reporting system) is a thorough examination of the reporting practices and procedures which produce these data.

For purposes of analysis the law enforcement agency's incident reporting system may be divided into three distinct phases:

Data Capture -- a three-stage process in which crime event data become known to police through report or discovery; the police make some disposition of the information received; and the police record or fail to record this information or describe the action taken;

Data Review and Verification -- a verification process intended to insure full and accurate reporting and recording of the crime event data previously entered in the incident reporting system;

Data Aggregation -- a mechanical process which includes extraction of UCR data from police records, compilation of these data, preparation of the appropriate UCR forms and forwarding all data to the respective state collection agency or Federal Bureau of Investigation.

Within each phase several areas of error potential have been identified as being particularly vulnerable to the loss or distortion of UCR data.

A fundamental prerequisite for an efficient incident reporting system is the early capture (both by telephone tape recording and in written format) of all complaint data. The possibility exists that the most subtle and deliberate manipulation of crime event data takes place in the field during the on-view discovery of a crime and at the telephone input mode. Since the vast majority of all complaints becomes known to police through these two modes of entry and since events lost during this phase are least likely to be discovered through routine supervision or periodic inspection, proper control to insure data retention at this stage cannot be over-emphasized.

The accurate recording of all crime event data known to police agencies is the ultimate aim of the data capture phase. If an adequate determination is to be made regarding the accuracy and completeness of an agency's UCR statistics it is necessary to document the nature and disposition of all reports of alleged crimes and crime discoveries regardless of the nature of the police response to these events. Without an adequate record or source document, filed in some reasonable fashion to permit easy retrievability, the accuracy of the UCR submission cannot be verified.

Following the capture and documentation of offense and clearance data a process of review and/or verification is conducted in many agencies to insure the validity of the complaint information. This procedure is one of quality control and must be accomplished before the statistical data are extracted for submission to the UCR Program. If the raw data captured in Phase I of the incident reporting system are immediately translated into UCR statistics without benefit of operational controls, the quality of the agency's submission can only be suspect. It is also at this stage that errors in scoring and classifying UCR data occur. Additional attention must therefore be given to this aspect of the review process to insure that such procedural errors are minimal.

Once crime event data have been reviewed and verified as Part I offenses or clearances which should be included in the monthly UCR Return, it is the responsibility of the law enforcement agency to extract and compile these data for submission in the national program. Error potential in this phase stems not only from the manual and/or mechanical systems responsible for processing the data, but also from intentional omissions. This phase is particularly crucial to the integrity of the overall reporting system since, in contrast to the admittedly vulnerable data capture phase where one error probably loses only one data element, one error or miscalculation in the aggregation phase may result in the loss or distortion of large amounts of data, much of which is irretrievable.

Once the major areas of vulnerability which contribute to UCR data loss or distortion have been identified and corrected the agency will be in a position to implement (as part of an internal audit/inspection procedure) or request (as administered by an external agency or group) an audit to confirm the validity of its UCR reporting

practices.

III. UCR AUDIT TECHNIQUES

In order for a successful UCR audit to take place there must exist a taped record of all incoming complaints or calls for police service and a source document (e.g., complaint card, dispatch ticket, incident/offense report, blotter entry, log entry, activity sheet, etc.) which contains basic information describing the alleged offense and the complainant. In addition, these items must be filed in such a way as to permit retrievability. Finally, the agency must maintain a tally or register of Part I offenses and clearances (which are recorded according to specific offense number) to permit verification of the totals which are submitted on the UCR Return A. Without these basic tools there exists no identifiable documentation of the complaint and therefore a comprehensive audit of the UCR data is not possible.

It is recognized, however, that the incident reporting systems of all police agencies cannot be audited utilizing the same techniques. It is therefore recommended that a preliminary audit be conducted in order to identify the mechanical process, system, and capability of the agency to effectively capture, record, process, store and retrieve UCR data. Besides resolving the question of degree of auditability the preliminary audit will also be useful in gathering information essential to the planning and execution of the subsequent UCR audit. These corollary data include:

- quantification of complaint activity for the time period to be audited
- assessment of anticipated assistance and cooperation likely to be provided by agency personnel
- estimation of time and manpower requirements for implementation of the UCR audit

Once the degree of auditability has been determined the agency may choose to implement one of three proposed audit procedures. These include:

A. Standardized UCR Audit -- this audit requires that the agency capture, record and file data in some reasonable fashion to facilitate rapid retrieval.

Based on a system of forward and reverse cross-checks (see Table 1 below) five system points or stages are reviewed to assess the integrity of the system and its UCR output. These system stages are:

- Stage I -- Telephone Complaints (Tapes)
- Stage II -- Complaint Cards
- Stage III -- Offense/Incident Reports
- Stage IIIA -- Arrest Reports

Stage IV -- Data Aggregation (UCR Return A)

At Stages I - IIIA the audit is conducted by

- determining the time period to be audited
- determining the group size of all source documents and/or tapes to be audited
- determining the sample size⁸
- randomly selecting the sample units
- segregating the randomly selected sample units from the group
- reviewing all sample units for substantive errors
- cross-checking both forward and reverse⁹ in the system all erroneous or suspicious sample units
- calculating the percent of error for each stage being audited

An additional quality control procedure will also be performed at Stage III of the UCR audit. To verify the accuracy of apparently "valid" Part I offense reports, a 10% sub-sample¹⁰ of the original sample of offense reports will be tracked in reverse to the victim/complainant. Interviews will be conducted to determine the accuracy of the initial investigation and documentation.

Stage IV consists of a simple recapitulation or recounting of the data reported on the UCR Return A for the time period being audited.

The Standardized UCR audit provides a progressive, indepth, multi-facted approach in which each stage is first examined individually and then in relation to the next forward and/or reverse stage to insure accuracy and reporting continuity. This audit is by far the most comprehensive of the three and is the only technique capable of generating statements regarding the reliability of the entire UCR reporting system.

B. Provisional Audits -- these audits may be utilized by agencies which do not possess the mechanical, technical or procedural capabilities necessary for implementation of the Standardized UCR Audit. These limited audits, while based on the same random sampling techniques as the Standardized UCR Audit, are designed to verify the accuracy of only a segment of the agency's incident reporting system (i.e., the telephone tape stage, complaint card stage, offense report stage, or arrest report stage). The preliminary audit will have determined the agency's degree of auditability. If the agency cannot immediately undertake a Standardized Audit, it may, while continuing to improve its system in an effort to meet the UCR audit requirements, implement an audit of one or more stages of its incident reporting system. Although these audits fall short of the comprehensive techniques provided by the Standardized Audit, they nevertheless provide an

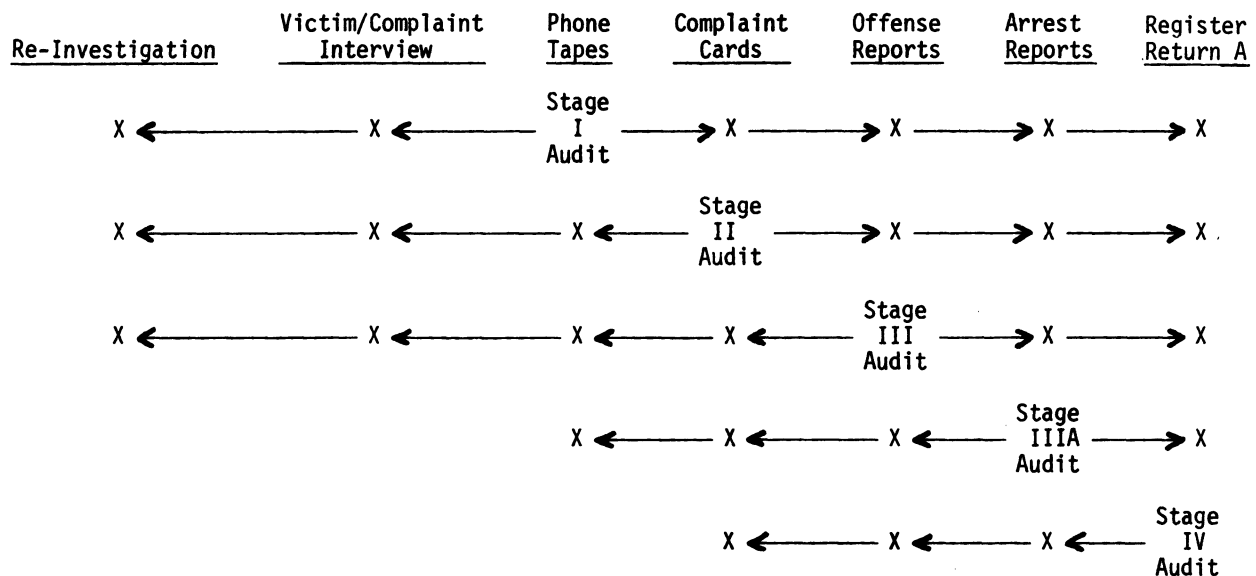


TABLE 1
STANDARDIZED UCR AUDIT
Forward and Reverse Tracking Potential at Each Audit Stage

opportunity to make some limited assessments regarding the accuracy and integrity of UCR data as well as promote improvement of the existing system.

C. Recapitulation Audit -- This audit procedure simply consists of validating the total number of Part I offenses and clearances which appear on the monthly Return A by recounting the source documents which produced these data and by comparing these findings with those claimed by the agency being audited. A recounting of this nature may be requested by those agencies which lack the technical or mechanical requirements of the Standardized UCR Audit, but which wish to validate their numerical submission. This procedure will identify arithmetic or transcribing errors, however, its narrow scope prevents any assessment of the integrity of Stages I-IIIA of the incident reporting system.

IV. AUDIT RESULTS

Once an agency has implemented the audit techniques described in the previous section, several judgments can be made concerning the adequacy of the incident reporting system and the reliability of its UCR data.

The Initial Audit May Only Serve to Discover Deficiencies Within the Reporting System

If the agency does not meet the four requirements necessary for the conduct of the Standardized UCR Audit a preliminary and/or provisional audit may constitute the only procedure which can be effec-

tively implemented. After the agency has attained certain procedural and technical capabilities which will minimize data loss the Standardized UCR Audit can then be conducted.

The Standardized UCR Audit May Demonstrate that the Incident Reporting System Seems to be Producing Reliable UCR Data

If the audit reveals that there is minimal data loss or distortion at each of the four stages of the system, then it can be concluded that the UCR data generated by that system are reasonably reliable and accurate for the time period being audited.

The Standardized UCR Audit May Provide the Agency With a Variety of Quality Control and Internal Management Techniques

By identifying areas of error potential within the incident reporting system the agency will be aware of the specific areas of vulnerability and be better equipped to implement remedial measures. Specific quality control features include:

- more efficient deployment of personnel
- implementation of an on-going internal audit/inspection program
- indication of need for in-service training for UCR personnel
- indication of need for more effective review and verification procedures

- determination of field unit response time
- determination of integrity of complaint reception personnel
- improvement of the records system

Conversely, the results of the provisional and recapitulation audits are much less conclusive or meaningful as compared to the results of the Standardized UCR Audit. An audit of only certain stages of the system for example, will provide no assessment concerning the amount of data loss which may occur at other unexamined input modes and points. Similarly, a recapitulation of the data submitted on the agency's Return A for a specified period of time will provide little insight into the reliability or integrity of the incident reporting system which produces these data.

The provisional or recapitulation audit procedures should not be confused with the Standardized UCR Audit. The latter represents the optimum method of audit which is designed to measure the accuracy and integrity of the overall system along with the UCR output.

V. SUMMARY AND CONCLUSIONS

Over a century ago far-sighted police administrators recognized the need for establishing a reliable fund of crime statistics. Acceptance and implementation of the proposed UCR audit procedures described in the preceding section may serve to achieve this goal by

- affording a definitive means of measuring the validity and accuracy of the UCR reporting process; and
- improving the records systems and UCR reporting components of individual law enforcement agencies.

The UCR Program is largely an untapped source of valuable data and should not be discarded simply because it may, as a whole, represent an inaccurate measure of the volume of crime known to police. The proposed UCR audit is viewed as a positive contribution in helping to clarify many of the misconceptions and problems associated with the program.

LIST OF NOTES

- 1 This paper represents a synopsis of work to date on the "Development of a Standardized System for Uniform Crime Report Audits" project funded by the Law Enforcement Assistance Administration Grant No. 74-55-99-3303.
- 2 The UCR Program was never intended to be a measure of all crime committed in the United States, but only of those offenses known to police. The Crime Index offenses (which include the seven Part I offenses of criminal homicide, forcible rape, aggravated assault, robbery, burglary, larceny/theft, and motor vehicle theft) were selected because of their

seriousness, frequency in occurrence and likelihood of being reported to police.

- 3 Federal Bureau of Investigation, Uniform Crime Report - 1973 (Washington, D.C.: U.S. Government Printing Office, 1973), p. 51.
- 4 Uniform Crime Reporting, A Complete Manual for Police (New York: J.J. Little, 1929), p. 1.
- 5 Ten Years of Uniform Crime Reporting 1930-1939 (Washington, D.C.: U.S. Department of Justice, 1939) p. 18.
- 6 Federal Bureau of Investigation, Uniform Crime Report - 1973, pp. 52-53.
- 7 For example, the Ohio Institute studied the records systems employed by local agencies in Ohio. Ten Years of Uniform Crime Reporting 1930-1939, p. 48.
- 8 Sample sizes were selected on the basis of the computation of the standard error for a number of possible sample sizes. Those selected were computed at the 95% confidence level.
- 9 Reverse cross-checks include re-investigation of the original complaint and conducting victim/complainant interviews. Forward checks are generally made with the documents found at the subsequent stage (e.g., complaint cards are compared forward to their companion incident/offense report).
- 10 This 10% sample will be drawn from the quantity of offense reports that remains after all erroneous or suspicious reports have been resolved through the system of forward and reverse cross-checks.