

IMPLEMENTATION OF THE NATIONAL INCIDENT- BASED REPORTING SYSTEM IN IOWA

IOWA DEPARTMENT OF HUMAN RIGHTS
DIVISION OF CRIMINAL & JUVENILE JUSTICE PLANNING
AND STATISTICAL ANALYSIS CENTER

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BACKGROUND

Since 1975, the Iowa Department of Public Safety (DPS) has been responsible for the administration of the Uniform Crime Reporting (UCR) Program of the Federal Bureau of Investigation in Iowa. “From 1975 through 1990, data [were] collected through a “summary “ system in which each local law enforcement agency submitted monthly reporting forms statistically summarizing reported crime and arrest information for the jurisdiction for the month. For most of those years, every reporting agency in Iowa reported in every month, and nearly every required form was submitted.”¹

“In 1991, in response to changing federal requirements and a need for more extensive data, the Iowa Uniform Crime Reporting System was transformed into the Iowa Incident-Based Crime Reporting (IBR) System, based on the National Incident-Based Crime Reporting System, developed jointly by the Federal Bureau of Investigation (FBI) and the Bureau of Justice Statistics of the U.S. Department of Justice. Starting January 1, 1991, data have been collected on each incident of reported crime. The collection of domestic abuse information, formerly separate in Iowa, was incorporated into the IBR System.

Iowa crime reporting since 1991 has been based on the IBR system. While early on the new system experienced a significant drop in the participation rate of local Iowa law enforcement agencies, the number of agencies participating has increased in each year since 1991, and now exceeds 80 per cent. Some drop-off from the participation in the summary-based system was to be expected, given the greater demands placed on the reporting agencies by the new system.”²

DPS utilizes three different methodologies to calculate the completeness of the Incident Based Uniform Crime Report (IBUCR). One is based on the percentage of the state’s population that resides within the fully reporting jurisdictions, another is the percentage of available months in which complete data are received from reporting agencies, and the third involves converting IBUCR data back to summary UCR data, and comparing the reported levels with those reported during the final three years of the summary based system. Averaging the results of the three different methodologies, the 1991 completeness level was an average of 58.4% of the 1990 level. In 1992, the average completeness level increased to 64.7%, in 1993 to 73.7%, and in 1994 it remained at that level. From 1994 to 2000, the average completeness rate tended to vary, but experienced an overall increase to 79.4% during the period.

¹ Preface to Iowa Uniform Crime Reports, Iowa Department of Public Safety, Des Moines, Iowa, as published on their Web Site, <http://www.state.ia.us/government/dps/crime/stats/index.htm>, page 1.

² Ibid.

It must be noted that in the discussions that follow, we will be discussing what is in actuality the Iowa Incident Based Uniform Crime Report (IBUCR). It must also be noted that IBUCR data and NIBRS data are somewhat different in that IBUCR data contains all of the data required by NIBRS, plus additional data regarding domestic violence cases. Since IBUCR contains all of the NIBRS variables, and to avoid possible confusion, we will refer to the IBUCR data as NIBRS data, with the understanding that additional data are also available within the data set. It should also be noted that participation in the actual NIBRS program as administered by the FBI is purely voluntary. However, there appears to be language in Iowa law that makes the reporting of IBUCR data by Iowa law enforcement agencies to DPS mandatory. That language indicates that “If it comes to the attention of a sheriff, police department, or other law enforcement agency that a public offense or delinquent act has been committed in its jurisdiction, the law enforcement agency shall report information concerning the public offense or delinquent act to the department [Public Safety] on a form to be furnished by the department not more than thirty-five days from the time the public offense or delinquent act first comes to the attention of the law enforcement agency.”³

A brief statement regarding the collection of NIBRS data by DPS may also be appropriate in order to better understand some of the discussions and findings that follow. It would appear that DPS has put forth a great deal of effort to develop different methods for submitting NIBRS data that would correspond with the varying levels of technical capability among the various law enforcement agencies. For those agencies that have computer capability, DPS will accept NIBRS data through batch submissions. DPS has established an ongoing program whereby commercial software vendors can have their NIBRS collection and reporting software certified by DPS as meeting a certain low error level, and thus be acceptable for submitting data. DPS will also accept NIBRS data through the Iowa On-line Warrants and Articles (IOWA) system. This is a message switching system that is somewhat comparable to the National Law Enforcement Teletype System (NLETS). All 99 County Sheriff’s Offices and many medium and large sized police departments currently utilize the IOWA system. Finally, for those small law enforcement agencies without computer capability or without sufficient resources to purchase certified software, DPS will accept paper reports that are in the proper format, and enter the NIBRS data into the database for the agency. As an alternative, these small agencies may also report the data to the county sheriff who would in turn report the data to DPS along with their own data.

RESEARCH PLAN, GOAL AND OBJECTIVES

This research was conducted pursuant to a subgrant award from the Justice Research and Statistics Association to the Iowa Department of Human Rights,

³ Section 692.15(1), Iowa Code, 2001.

Division of Criminal and Juvenile Justice Planning and Statistical Analysis Center (CJJP). Under the subgrant, CJJP was to analyze the implementation processes of incident-based reporting in one or more local law enforcement agencies. To achieve this goal, the first step appeared to be the identification of those agencies that were considered to be fully reporting NIBRS data by DPS. The identification of those agencies would, simultaneously, identify those agencies that were not considered to be fully reporting NIBRS data. It appeared that the identification of under-reporting agencies presented a unique opportunity that could provide low cost, but valuable, up-to-date information as to why these agencies were not fully reporting NIBRS data. Further, it was hypothesized that once the impediments to full reporting were ascertained and quantified, courses of action might be identified that would overcome the impediments and increase reporting beyond the 80 percent level DPS has most recently reported.

Based on the requirements of the subgrant, and the expansion of the research design as described above, the following objectives for the research were formulated:

- Consult with the Iowa Department of Public Safety (DPS) to determine which local law enforcement agencies within the state were considered to be fully reporting NIBRS data and which agencies are not.
- Consult with DPS to determine the acceptable method(s) by which NIBRS data can be reported to DPS.
- Develop one or more data collection instruments through which the impediments to the full reporting of NIBRS data to DPS can be identified and quantified, and utilize the instrument(s) to collect data from agencies as not fully reporting NIBRS data. After collection, enter the data into a computerized database to facilitate analyses.
- Develop one or more data collection instruments through the use of which data can be obtained from the agencies deemed by DPS to be fully reporting NIBRS data. The data would include the manner and frequency in which the agency currently submits the data, the satisfaction with the agency with the current submission method, the identification of impediments to fully reporting NIBRS data and how they were overcome, and other data of interest. After collection, enter the data into a computerized database to facilitate analyses.
- After analyses are conducted on the data obtained from agencies classified as under-reporting NIBRS data, report the identified and quantified impediments to fully reporting to DPS for possible corrective action.

- After analyses are conducted on the data obtained from agencies classified as fully reporting, select certain agencies for further study based on their responses. For those agencies selected, conduct further study to obtain more detailed information concerning their conversion from UCR to NIBRS data reporting, impediments encountered and how they were overcome, and the specific uses made by the agency of the NIBRS data.
- Prepare a report detailing the research goals and objectives, methodology and findings for distribution to the Justice Research and Statistics Association for posting on their web site, and to other interested parties.

METHODOLOGY

At the onset of this project, CJJP staff met with DPS staff members responsible for collection and analyses of NIBRS data. They provided an overview of the history of crime data collection in Iowa, the process for collecting these data under the former summary-based system, the planning for and conversion to NIBRS, and the current methodology of data collection for NIBRS. DPS also provided a listing of those law enforcement agencies that it considered to be fully reporting NIBRS data as well as those agencies that were considered to be under-reporting or not reporting.

After conferring with DPS, project staff developed two questionnaires to be sent to the law enforcement agencies within the state. One questionnaire was developed for those agencies that were deemed by DPS not to be fully reporting NIBRS data. The focus of this questionnaire was to establish the level of the agency's knowledge of certain aspects of the NIBRS reporting system, and to ascertain the reason(s) that the agency was not fully reporting NIBRS data to DPS. For those agencies that were considered to be fully reporting NIBRS data, a second questionnaire was developed which focused on the method(s) of NIBRS data compilation and submission, satisfaction with those methods, the willingness to assist other agencies that might be in need of specific assistance in NIBRS reporting and the willingness of the agency to assist project staff by submitting to an interview regarding their conversion to NIBRS and their use of NIBRS data. Copies of the questionnaires are included in the appendix.

CJJP then began analyses of the agencies that were not deemed to be fully reporting NIBRS data in order to determine what commonalities, if any, they shared. The list provided by DPS included 29 County Sheriffs' Offices and 24 Police Departments, or a total of 53 agencies that were not fully reporting NIBRS data. These agencies represented 29% of the county sheriffs' offices and 18% of the police departments in the state.

One commonality that did appear to be shared was the relatively small size of the population of the non-fully reporting jurisdictions. Of the 24 police departments considered as not fully reporting, 22, or 91.6%, had a population under of 10,000 in the jurisdiction. Similarly, of the 29 sheriff's offices considered as not fully reporting, 19, or 65.5%, had a population of fewer than 10,000 in the jurisdiction. Thus over three quarters (77.4%) of those agencies considered as not fully reporting had a population of less than 10,000 within their respective jurisdictions. Based on these analyses, it was decided to target law enforcement agencies in smaller to medium sized jurisdictions for further study, if possible. It should also be noted that in these jurisdictions with small populations, resources are often highly limited and agency staff could be considered small. In one or more Iowa counties, the sworn staff in the sheriff's office may be as small as the sheriff and two or three deputies. This lack of resources may negatively affect the ability of an agency to collect and report NIBRS data.

After the questionnaires were returned, CJJP entered the responses into a database to facilitate further analyses. Forty-nine responses were received from agencies that could be considered not fully reporting. Analyses of the data indicated that in one case, the jurisdiction indicated that it no longer had a police department as the reason for not reporting. That agency was excluded from further analyses.

While a more complete set of analyses will be presented later in the findings section of this report, two apparent facts are noteworthy at this point. In 10, or 20.4%, of the cases, the agency indicated that it either had recently started full reporting, or would become fully reporting before the end of the current year. Further, 20, or 40.8% of the non-fully reporting agencies indicated that they needed some form of assistance such as training, documentation, etc. This information was furnished to DPS in order for them to evaluate what type of assistance was needed, what type of assistance DPS could provide, and to arrange with the agency for providing that assistance. (It should be noted that DPS was provided copies of all questionnaires from agencies that were considered as not fully reporting.)

The data obtained from the questionnaires submitted by the agencies that were considered as fully reporting were processed in a similar manner, with the exception of providing copies to DPS. The data were entered into a database, of which several analyses were made. The results of those analyses will be presented later in the findings section of the report, however the result of one analysis is noteworthy at this point. As part of the questionnaire, CJJP asked if the agency would be willing to provide additional research information during either an on-site visit or telephone interview. Of those agencies submitting completed questionnaires, 64, or 35.6% indicated that they were willing to assist by providing additional information. That list of agencies was reviewed on a number of variables, including jurisdiction size and method of reporting. A final list of prospective agencies for additional data gathering was compiled. These

agencies were sent a request for preliminary information regarding conversion obstacles and current uses of NIBRS data, and the identity of an individual who could be contacted at the agency to arrange an interview. Of those requests that were mailed, 11 agencies responded positively, and the final selection was made from those agencies.

FINDINGS

Impediments to Full NIBRS Reporting

As part of this research, an attempt was made to identify and quantify the reasons for agencies not fully reporting NIBRS data. The questionnaire circulated to those agencies deemed as not fully reporting sought information in two specific areas, those being what might be termed NIBRS system awareness and technical capability. The issues comprising the awareness area included awareness of reporting requirements, awareness of available reporting methods, etc. The technical capability area centered on specific technical issues such as lack of computer software/hardware, lack of personnel trained in NIBRS data input, lack of NIBRS documentation, etc.

Table 1 indicates the agency responses on questions that might be considered components of the agency's awareness of the NIBRS system and DPS support. The exact questions posed are contained in the sample questionnaire contained in the Appendix.

Table 1: Agency Knowledge of NIBRS System

Awareness Area	Number & % Aware	Number & % Not Aware	Number & % Not Answering
Reporting Requirements of Iowa Code	28 (58.3%)	12 (25.0%)	8 (16.7%)
Submit Data by Computer Batch File	29 (60.4%)	16 (33.3%)	3 (6.3%)
Submit Data through IOWA System	23 (47.9%)	22 (45.8%)	3 (6.3%)
Submit Data by Paper Reports (Limited)	27 (56.3%)	18 (37.4%)	3 (6.3%)
DPS Training in NIBRS Data	27 (56.3%)	18 (37.4%)	3 (6.3%)
Available Certified Commercial Software	30 (62.5%)	15 (31.2%)	3 (6.3%)
DPS "800" NIBRS Assistance Telephone	27 (56.3%)	17 (35.4%)	4 (8.3%)

Based on the data portrayed in Table 1, it might be concluded that slightly more than one-half of the agencies not fully reporting NIBRS data indicated an awareness of certain aspects of the NIBRS system.

The questionnaire also produced data on technical impediments to full reporting by the same agencies. Those reported impediments are displayed in Table 2. It

should be noted that agencies were able to report multiple impediments, thus the total impediments reported exceeded the number of agencies responding, 48.

Table 2: Reported Technical Impediments to Full IBUCR Reporting

Technical Impediment Reported	Number & % of Agencies Reporting
Lack of Computer System	5 (10.4%)
Lack of Appropriate and/or Compatible Software	18 (37.5%)
Lack of Appropriate and/or Compatible Hardware	7 (14.6%)
Lack of Personnel to Enter Data or Complete Forms	15 (31.3%)
Lack of Personnel Trained in "IBUCR" Data Entry Procedures	26 (54.2%)
Lack of "IBUCR" Manuals and/or Coding Documents	9 (18.8%)
Lack of Computer Programming Personnel	9 (18.8%)
Lack of DPS Assistance	1 (2.8%)
Other	0 (0.0%)

Based on the data in Table 2, the three most often reported impediments to full reporting were the lack of trained data entry personnel, the lack of appropriate software and the lack of personnel to perform data entry/form completion. These findings were reported to DPS during the course of the study in hopes of facilitating any needed training on a timely basis.

Compilation of NIBRS Data

The compilation and reporting of NIBRS data in Iowa is based upon three documents: the Iowa Incident Report, the Iowa Arrest Report and the Iowa Supplemental Report. These reports, shown in the appendix with their completion/coding instructions, were designed by DPS to capture all of the required NIBRS data when properly completed. It should be noted that the use of these specific reports by law enforcement agencies is not required, although many agencies have adopted them with only minor modifications such as adding the agency's name to the heading. Rather, these reports were intended to serve as examples of reports that contained the minimum variables required for proper NIBRS reporting, as well as containing many of the values needed for the proper completion of the variables that appear on the reports. Some agencies have designed their own forms that contain all the NIBRS variables in a different sequence, format or layout.

It appears that those agencies fully reporting NIBRS data compile data for the reports for system data entry in one of two primary manners. In some agencies, the field officers complete the report to the best of their ability, utilizing only the codes that are listed on the actual report being used or provided separately to the officers. In systems such as this, support personnel, such as an office staff, utilizing additional code tables not provided to the field personnel, accomplish the

final coding of the report. In many instances, the person(s) performing the final coding of the variables also performs the actual data entry. In the second type of system, the field officer is provided all of the applicable code tables and is responsible for fully coding the entire report, and submitting it for system data entry.

Data Entry Into the NIBRS System

After the agency reports are completed, including NIBRS coding, they, and their data, should be ready for entry into the NIBRS system. Iowa may be unique in that it provides a number of ways for agencies to submit NIBRS data to DPS while still maintaining a high level of data accuracy.

It is believed that most local law enforcement agencies in Iowa have some form of computer capability. While the question was not directly posed in the questionnaires, of the fully reporting agencies, most indicated that they utilized some type of computer system in compiling and reporting NIBRS data, and of the non-fully reporting agencies, only approximately 10% (5), reported the lack of a computer system.

For those agencies with computer capability, DPS will accept NIBRS data in a batch file. These files can be compiled in one of two ways. Some of the larger agencies as well as some agencies with relatively substantial resources have had computer software custom written for their agencies that will act as a complete law enforcement software package, including NIBRS data compilation and creation of batch files for submission to DPS. It should be noted that DPS will test the accuracy of the data such software produces before accepting those data for inclusion in NIBRS.

For those agencies which might be smaller or lack the resources to have custom written software, pre-developed, commercial software is available that will perform the NIBRS data compilation and reporting functions. Before such software can be certified for NIBRS reporting, it must first be tested by DPS to insure a low error level in the reported data as part of the on-going data quality program. Currently, DPS has certified the software of seven vendors as meeting the data quality standards developed by DPS for NIBRS data. Two additional vendors have software available, but those programs have not yet met the data quality standards, and thus are not certified for use in the NIBRS system.

Other agencies, while having some form of computer system, may lack the resources necessary to obtain any form of certified NIBRS software, may have outdated NIBRS software, or may lack personnel trained in the operation of the computer system and/or software. DPS has developed a NIBRS reporting capability for such agencies. A substantial number of law enforcement agencies have in-house access to the Iowa Online Warrants and Articles (IOWA) system,

including all county sheriffs, most large law enforcement agencies and many medium sized law enforcement agencies. The IOWA system is not a computer system per se, but rather is a switching system that routes data between primarily local law enforcement agencies and various criminal justice system databases and data terminals at the national, state and local levels such as the National Crime Information Center (NCIC), driver's license files, criminal history files, NIBRS files, etc. As part of the IOWA System, there is a series of data input screens through which an agency can input their NIBRS data directly to the NIBRS system. DPS estimates that an individual who is knowledgeable and experienced in NIBRS data entry can input the data from a typical incident report via the IOWA system in approximately one minute.

Finally, for those agencies whose level of resources preclude obtaining NIBRS software, and who do not have in-house access to the IOWA System, another alternative method is available for submitting NIBRS data. Those agencies can submit copies of the encoded paper reports to another agency for inclusion in the NIBRS system. In most cases, this would involve submitting the reports to the sheriff of the county, who would input and submit the NIBRS data on behalf of the local agency. In some cases, this might not be possible due to limitations of the software program utilized to process NIBRS data by the sheriff's office, or the lack of personnel to accomplish the data input. In such cases, the local agency can submit coded paper reports directly to DPS, which will input the data into the system. Copies of the report forms are shown in the appendix.

In addition to having developed the various input systems, DPS does conduct training sessions for personnel inputting NIBRS data, and maintains a toll-free number through which agencies can address questions and discuss data and procedural issues with the NIBRS program staff.

Agency Experiences In Converting To NIBRS

CJJP staff reviewed the preliminary information submitted by 11 agencies that appeared to have positive responses in terms of overcoming obstacles to full reporting, and indicating use of the NIBRS data for one or more purposes. One aspect of the transition from UCR to NIBRS appeared to be fairly common, that being that many of the personnel involved in the initial transition over 10 years ago were no longer with the agency. In those cases, the interviews were conducted with the individual within the agency who had the largest bases of knowledge concerning NIBRS reporting.

It should be noted that CJJP inquiries were concentrated on law enforcement agencies with relatively small jurisdictional populations because of the preponderance of such agencies within the state, and as was previously indicated, the majority of non-fully reporting agencies had relatively small populations within their respective jurisdictions. Another reason for the

concentration was a similarity in the primary problem encountered by the larger agencies, and the manner in which it was overcome. Many larger agencies already had computer-based information systems in place when the transition from UCR to NIBRS took place. The primary obstacle to full NIBRS reporting was the inability of the software that was being utilized to capture and report the new, expanded list of NIBRS variables. This obstacle was usually overcome in one of two ways. In some instances, as was the case with the largest police department in the state, in-house staff developed new software that met the NIBRS reporting requirements. In other instances, the agency either purchased available NIBRS compatible software, or contracted for the development of such software with an outside vendor. It could be concluded that the most common method for overcoming the software obstacle by large agencies was the dedication of resources for either the development or purchase of NIBRS compatible software.

Altoona, Iowa – Jurisdiction Population 10,345

The Altoona Police Department indicates that their conversion from UCR to NIBRS data collection and reporting took place at approximately the same time as the statewide conversion. The conversion required an extensive revamping of the department's record keeping in that all new data collection instruments (incident and arrest report forms) and new computer programs were required to capture and store the data. Reportedly, there were no unexpected major problems with the conversion, only anticipated problems such as designing forms to capture the required NIBRS data, the training of department personnel in the proper completion and coding of the forms, etc.

The department utilizes the IOWA system to report NIBRS data to DPS, and began reporting in that manner as soon as that reporting option was available. After the reports are completed in the field, they are reviewed by the office staff to insure that the coding is correct, and are then input into the IOWA system. The agency indicates that the data are used to produce statistical reports for both internal and external use as well as for seeking law enforcement grants. The perceived weakness with this system was the amount of time required to review the data for correctness and the amount of time required to input the data.

Atlantic, Iowa – Jurisdiction Population 7,257

The Atlantic Police Department indicates that their conversion to NIBRS took place as the result of a merger with the Cass County Sheriff's Office as related to the dispatch and certain record keeping functions. At the time of the merger, the sheriff's office was utilizing an approved commercial software program to compile and submit NIBRS data to DPS. The conversion involved the police department personnel learning to enter the NIBRS data for their agency into the computer system and database utilized by the sheriff's office, which apparently

was accomplished without encountering any major obstacle. After the data are entered into the system, the sheriff's office then submits the NIBRS data to DPS for both agencies, which are the only two law enforcement agencies within the county. This agency indicates that the NIBRS data are used primarily for reports to the City Council and, in some instances, in grant applications. The agency representative indicated that the greatest shortcoming for the system was an apparent limited ability to query the database.

Keokuk, Iowa – Jurisdiction Population 11,427

After the conversion from UCR to NIBRS, the Keokuk Police Department indicates that it did not initially submit any crime data to DPS. In 1995, the department began a search for computer software that would serve as a computer aided dispatch system, an interface with NCIC and would compile and report NIBRS data. During approximately the same time frame, the department was contacted by DPS concerning their lack of reporting NIBRS data. To serve as an interim measure, a second IOWA system terminal was installed within the department to serve primarily as a NIBRS data input point. After the selection of a certified software vendor, there appeared to be few unexpected problems to overcome. The vendor customized the program to provide complete compatibility with the NIBRS reporting requirements set by DPS and the reports completed by the officers in the field. After a training period, the new computer system went on-line on January 1, 1996.

In this department, the field officers simply provide a hand written narrative of the events to data entry clerks, who perform all coding and data entry. The NIBRS data are transmitted to DPS by batch file each month, with the computer system generating the file. The department reports that most months the data error rate is very low, and many months there are no errors at all.

The department indicates that this particular software package has a substantial number of standard reports pre-programmed. Non-standard reports can be generated by means of an on-line query. Requests for non-standard reports are few because of the substantial number of standard reports. Many members of the department use data generated through the NIBRS system. Investigators use the data as an investigative tool. The data are also used to generate statistical information that is used to evaluate department performance, and to provide information for city policy makers. The data are also used in applying for grant funding.

Oskaloosa, Iowa – Jurisdiction Population 10,938

The Oskaloosa Police Department indicated it had converted to NIBRS at approximately the same time as the statewide transition in 1991, with initial reports being submitted on paper. Prior to 1994, the department purchased a software package from a vendor, and began capturing and reporting IBUCR data

electronically. The department reported that the only major unanticipated problem was with the development of the software in that initially it did not meet the DPS data requirements. The vendor upgraded the program, and from that time forward, the data could be submitted to DPS without further problems.

The department indicates that the data are input by office staff members. The data are used to compile monthly and yearly reports for city policy makers, members of the press, and for interested citizens regarding the number of arrests made, the charges filed, and other similar data. The NIBRS data, supplemented by other data, are used within the department to create officer performance and activity profiles which departmental supervisors utilize. The NIBRS data are also shared with other local law enforcement agencies in the area upon request, and are utilized in the preparation of grant applications.

Harrison County, Iowa – Jurisdiction Population 12,572

The Harrison County Sheriff's Office indicates few, if any problems were encountered during the change from UCR to NIBRS. Utilizing variations of the Iowa Incident and Arrest Reports completed by the field officers, this agency's office staff enters the NIBRS data into a database developed in-house, utilizing commercial, off-the-shelf software. Utilizing the same reports, the data are also entered into the IOWA System for reporting to DPS by the office staff.

The agency indicates that the database provides useful information regarding arrests, locations, criminal activity and the people involved with criminal investigations and/or arrests.

Pella, Iowa – Jurisdiction Population 9,832

The Pella Police Department indicates that they have been reporting IBUCR data for several years, initially utilizing paper reports. The decision was made to automate the NIBRS data collection and reporting processes, and a software package was selected. Initially, there were problems with the software package performing as it should. A combination of working with the software vendor and in-house software development resolved all of the issues over a period of time. As with most agencies, the final coding and data input are performed by office staff.

This agency indicates that it utilizes the IBUCR data in a number of ways. The data aid in budget preparation, and have been used as a basis for a requested increase in the number of personnel. The data are also utilized as a general comparison with other cities of similar size, and to provide department performance data for city policy makers. The department also indicates that they are currently working on including some of the IBUCR data on the Internet web site that the city hosts.

Norwalk, Iowa – Jurisdiction Population 6,884

The Norwalk Police Department reports that until early 1998, it attempted to report NIBRS data of DPS through the use of a batch file generated by software package purchased from a commercial vendor. A problem arose in that DPS was not able to successfully read the data that were submitted. The vendor suggested that the data be sent to the vendor who would then clean the data prior to submission to DPS. This process failed to produce data that were usable by DPS. The department then abandoned its attempts to report via batch file, and began entering the NIBRS data via the IOWA System. Since the switch to the IOWA System, no problems have been encountered.

The department indicates that the NIBRS data are utilized in a wide variety of statistical reports that are disseminated internally and externally, and that the data have been used as support in grant applications.

CONCLUSIONS

It would appear that the conversion from UCR to NIBRS reporting in 1991 increased demands on the local law enforcement agencies in that it required the capture and reporting of data on a highly expanded list of variables. This expanded list of variables caused the revision, and to some degree, the standardization of incident and arrest reporting forms within the state. For those agencies utilizing computers to capture and report crime data, the change in reporting formats required either extensive revisions to existing software, or the creation or procurement of entirely new software.

Given the demands of NIBRS reporting, it appears that DPS has attempted to make NIBRS data capture and reporting as easy as possible for the law enforcement agencies within the state through the development of incident and arrest reporting formats that contain all of the required NIBRS data variables as well as most of the NIBRS coding. Further, DPS has adopted three different methods of receiving NIBRS data from law enforcement agencies while still providing for a high level of data quality. Agencies may report via computer batch files, direct data entry via a statewide “teletype” system or by the submission of paper reports. Small municipal agencies may also report by submitting the data to the county sheriff, who would then report the data to DPS. These three methods of direct reporting and one method of indirect reporting should provide all agencies within the state with the capability of reporting NIBRS data.

As of the publication of the most recent Iowa Incident Based Uniform Crime Report in 2000, law enforcement agencies providing service to approximately 80% of Iowa’s population fully reported NIBRS data to DPS. Fifty-three agencies providing service to approximately 18% of Iowa’s population did not. These

agencies were comprised of 29 sheriffs' offices and 24 police departments. More than three-quarters of these agencies served populations of less than 10,000, where resources may be limited. Of those agencies responding to a questionnaire, over half reported that one impediment to full reporting was a lack of personnel trained in NIBRS coding and data entry. More than six of ten agencies indicated reporting impediments of either the lack of computer system, appropriate software, appropriate hardware, or some combination thereof. Approximately one-third of the agencies indicated that a lack of personnel was a factor in their not fully reporting NIBRS data.

All law enforcement agencies that are fully reporting NIBRS data encountered some similar problems during their initial transition, many of which were mitigated by DPS. The first problem was the capture and reporting of additional data on a new set of variables. DPS helped to solve this problem by designing new reporting forms that contained all of the variables necessary for full NIBRS reporting, as well as many of the NIBRS reporting codes to simplify data entry. A related problem was the training of agency personnel in the use and proper completion of the new reports. DPS assisted in this process by conducting training sessions for agency personnel who could then in turn train the personnel within their agencies.

Three additional issues appeared to be common to all fully reporting agencies, those being additional data coding, data quality control, and data entry. It appears that most agencies assign these tasks to office staff who review the reports submitted by field personnel, provide additional coding and corrections as necessary, and "input " the data into the NIBRS reporting medium selected by the agency.

The next common problem encountered by the agencies was the selection of a method of reporting NIBRS data to DPS. Depending upon the reporting method selected, a number of other common problems were encountered. For those agencies opting to report via computer batch files, the creation or purchase of appropriate software was a common problem. The in-house creation of software required a substantial expenditure of resources for the design, writing and testing of the software. For those agencies opting to purchase software, a number of commercial vendors offered software packages designed to collect and report NIBRS data, and based on information provided by certain surveyed agencies, one or more of these programs did not initially interface properly with the DPS computer. This required the expenditure of additional resources to either work with the vendor until the problems were corrected and/or supplement the vendor's software with additional software. The solution to this type of incompatible software problem has been largely overcome by DPS setting interface standards and minimum NIBRS reporting accuracy requirements for NIBRS software packages before they are certified for use in the state.

There were other problems noted that were associated with the use of some commercially developed software packages. While the software would collect and report NIBRS data to DPS, some agencies indicated that a lack of pre-programmed reports and/or an apparent inability to extensively query the database was a major weakness of the software. Another problem that is thought to exist is the upgrading of the software that is normally done by vendors, and the cost normally associated with upgrading software that is usually borne by the end user. It appeared that only through the expenditure of sometimes-scarce resources could these types of problems be overcome.

For those agencies opting to report NIBRS data via direct entry utilizing the IOWA System, there appeared to be two fairly common problems. The first was the lack of available reports utilizing NIBRS data, and the inability to directly query the database via the IOWA System. In at least one agency, this obstacle was overcome by what might be termed dual entry. The agency procured a commercial, off-the-shelf software package, from which it developed its own database. The NIBRS data were then entered into the agency's in-house database, which could be queried locally. The NIBRS data were then re-entered in the IOWA System for reporting to DPS, thus actually entering the data into two different databases. However, many agencies inputting NIBRS data via the IOWA System contact DPS when they need data and/or reports. DPS indicates that upon request, they will query the database and respond to data request from law enforcement agencies. They also indicate that they fulfill a substantial number of such requests during the course of a year.

The second fairly common problem was the time required to input the NIBRS data via this medium. For individuals who were not experienced in NIBRS data entry, DPS estimates that the entry of one report could take from two to five minutes, or possibly more. This time would be in addition to the time required to review the report for accuracy and add/correct coding. It should be noted that the IOWA System is the primary tool for accessing law enforcement data, e.g. driver's license data, license data, wanted person data, etc., for almost all law enforcement agencies. There were indications that law enforcement administrators were reluctant to have the system "tied up" with data entry at the expense of requiring field officers to wait for operational computerized information. This problem apparently has been largely overcome by the individuals inputting the NIBRS data gaining experience (DPS indicates that an experienced individual can input the NIBRS data from one average report in approximately one minute, or less) and/or having the NIBRS data input at times when operational activities are lower, such as the midnight shift.

Agencies indicated a wide range of uses for NIBRS and supplemented NIBRS data. It appears that the reported uses could be divided into two primary areas, administrative and operational. Administrative uses included providing data and information to city and county policy makers and other individuals, creating and maintaining a profile of officer activity, budgeting and providing supportive data

and information when applying for law enforcement grants. Operational uses included creating and maintaining offender databases, stolen article databases, tracking of crime occurrences by type of crime, location, time of occurrence, etc., comparison of data with surrounding agencies to detect crime patterns and the mapping of crime occurrences. One agency even indicated that it was working to post certain NIBRS data on the city's web site. Given the number of variables for which data are collected, and the ability to query some of the software programs, it would appear that the data could produce a very substantial number of reports that would meet most operational and administrative needs of the agency.

It appears that the conversion from UCR to NIBRS reporting did involve a number of problems, some of which were apparently mitigated by the planning and implementation of the new system by DPS; others that were overcome by the individual agencies. It also appears that many agencies believe the conversion was well worth the effort as they now have a great deal of additional data available to them that meets their administrative and operational needs.