



Bureau of Justice Statistics Bulletin

Measuring Crime

We have all grown accustomed to seeing reports about crime rates in the newspapers and on television. But where do these statistics come from? Most probably they are a count of the number of crimes reported to local law enforcement agencies and sent to the Uniform Crime Reports (UCR) program. The UCR program has been developing national statistics on crime from local police records since 1930. These statistics are published annually in Crime in the United States and receive much attention in the media because of the concern each of us has about crime and its effect on our lives.

You may have also seen articles that present statistics on victims of crime and discuss victimization rates for the United States. These statistics come not from police agencies but directly from the victims themselves and provide another way of looking at crime and its consequences. Since 1973, victimization data have been collected from households across the Nation through the National Crime Survey (NCS). Both programs, the UCR operated by the FBI and the NCS operated by the Bureau of Justice Statistics, are located within the Department of Justice.

Using two programs to measure crime is not redundant. The National Crime Survey was developed in response to the growing recognition that police statistics, for all their importance, have inherent limitations. The most obvious is that police cannot report crimes that do not come to their attention. Crime victims, however, can describe what happened to them, whether they have reported the crime to the police or not. On the other hand, obtaining separate crime statistics for the thousands of local communities across the country through a victimization survey is impractical because it would require almost a complete census costing billions. This kind of geographical detail is available through the Uniform Crime Reports. Thus, the National Crime Survey and the Uniform Crime Reports both supplement and complement each other in ways that enhance our understanding of crime.

Crimes measured

Seven crimes were originally designated, on the basis of their seriousness and

With this issue, the Bureau of Justice Statistics begins a monthly publication series of issues and facts in crime and justice statistics aimed at decision-makers. Although Bureau of Justice Statistics Bulletins will deal with a variety of topics, the intent of the series is to make available objective information, in nontechnical language, about the state of the Nation with respect to its problems of crime and the administration of justice. The Bureau welcomes comment on the Bulletins, particularly suggestions for topics to be treated. All inquiries should be sent to the Director, Bureau of Justice Statistics, Washington, D.C. 20531.

Harry A. Scarr
Director

frequency, to compose the Uniform Crime Reports Crime Index.¹ They are murder and nonnegligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft. Arson was added to the Crime Index by congressional mandate in 1978. These crimes are known as the index offenses but are often called Part I crimes because at one time they were reported to the FBI in the first part of a two-part reporting form.² The Crime Index is a single number obtained by adding together all the incidents of each of these crimes. Its year-to-year fluctuations have been used to measure trends in the volume of crime.

If more than one index offense occurs during a single incident, only the most serious is reported in the UCR program and included in the Crime Index total. The seriousness of index offenses is shown by the order in which they are listed above. For example, if a man breaks into a house,

¹Uniform Crime Reporting Handbook, Federal Bureau of Investigation, U.S. Department of Justice, p.2.

²Although the terms "Part I" and "Crime Index" are often used interchangeably, they are not identical: Part I crimes include negligent manslaughter; the Crime Index does not. Part II crimes are, in general, less serious crimes for which only arrest data are reported.

encounters a woman whom he rapes and robs at gunpoint, and then steals her car to make his getaway, he has committed the index offenses of burglary, forcible rape, robbery, and motor vehicle theft. Only the highest ranking offense, the rape, is reported to the UCR program and included in the Crime Index total. Arson is the only index offense for which this rule does not apply; that is, an arson is always reported even if other index offenses occur during the same incident. Similarly, the National Crime Survey classifies each incident by the most serious offense that occurred, using a seriousness ranking corresponding to that for UCR index offenses. Information on other offenses that occurred at the same time, however, is collected in the NCS and presented in some reports.

Six crimes are measured in the National Crime Survey: rape, robbery, assault, household burglary, personal and household larceny, and motor vehicle theft.³ The similarity between these crimes and the UCR Index crimes is intentional and is even closer than may first appear. Of the two crimes totally missing from the National Crime Survey, murder cannot be measured through surveys of victims because obviously the victim is dead, and arson cannot be measured well through such surveys because the presumed victim (the property owner) may in fact be the perpetrator, particularly if collection of insurance is the motive for the crime. Professional expertise is often needed to determine that a suspicious fire is indeed arson and therefore a crime, another factor complicating its measurement. Both UCR and NCS count as crimes all attempts as well as successfully completed crimes. The NCS collects these separately so that totals are available for both actual offenses and attempted offenses, whereas the UCR does not.

Rape (NCS) and forcible rape (UCR) are defined in the same manner in both series. Both involve force or the threat of force. The term "forcible" in the UCR is used in contrast to "statutory" rape where sexual union is consensual but the female is under the legal age of consent. Neither NCS nor

³From 1973 through 1976 robberies and burglaries of business establishments were also measured in the National Crime Survey.

NCT # 75710

UCR include statutory rape in reporting offenses. The NCS definition of rape does not specify the sex of the victim; the UCR definition requires that the victim be female.

Robbery involves theft directly from a person by force or threat of force. Because the National Crime Survey is limited to household members, robbery of banks and commercial establishments is not included in the NCS count, whereas such robberies are included in the UCR. Both the National Crime Survey and the Uniform Crime Reports divide robbery into armed robbery and strong-arm robbery.

Assault (NCS) is divided into simple and aggravated with the latter corresponding to the UCR index offense aggravated assault. Aggravated assault is a physical attack with a weapon or one that results in serious bodily injury. Simple assault occurs when a physical attack produces minor injury or when injury is only threatened.

Household burglary (NCS) and burglary (UCR) both involve unlawful entry—with or without force—usually, but not necessarily, to commit a theft. The UCR definition is broader because it includes burglaries that occur in business establishments, public buildings, and other nonresidential structures. People often confuse burglary, larceny, and robbery. Household burglary (NCS) always requires unlawful entry. If an item is taken from your household by someone with the right to be there (for example, a repairman or a babysitter), the crime would be classified as a household larceny. If a person unlawfully enters your home while you are away, your home has been burglarized. However, if you return home before the offender leaves and there is a personal confrontation, the crime is defined as robbery.

Personal and household larceny (NCS) and larceny-theft (UCR) both cover the taking of property without force. They both include pocket picking and purse snatching. The UCR definition is broader because it covers shoplifting and other thefts from business or public buildings. In both the National Crime Survey and the Uniform Crime Reports a pocket picking or a purse snatching is defined as a robbery if force is used to overcome victim resistance. The distinction between personal larceny and household larceny is based upon where the item was stolen—whether it was taken from a person without force (personal larceny) or from a home (household larceny). For example, if you put your briefcase down on the bus and someone takes it, a personal larceny has occurred. If you leave it on your front porch and it is taken, the crime is classified as household larceny.

Motor vehicle theft is the stealing or unlawful use of a motor vehicle. The UCR counts theft of motor vehicles owned by businesses or other organizations, but the NCS counts only those owned by private individuals. The National Crime Survey includes under "motor vehicle" any motorized vehicle allowed on public roads and highways, including automobiles, trucks, buses, and motorcycles. The UCR definition is broader, including snowmobiles and golf

cars. Neither program includes airplanes or motorboats. In both NCS and UCR something taken from the inside or outside of a motor vehicle—including the motor—is a larceny.

These definitions of NCS and UCR crimes, while accurate, are not the formal, technically detailed definitions used in their respective programs. Those definitions are longer and more complicated to ensure the proper classifications of even the most ambiguous cases. Nonetheless, the close correspondence of NCS and UCR crimes means that each type of crime can be studied from two distinctly different vantage points—that of the victim and that of the law enforcement agency.

Learning about crime from victims

The survey

Information about criminal victimization is collected through the National Crime Survey conducted by the Bureau of Justice Statistics.⁴ During each 6-month period, surveyors interview nearly 132,000 members of 60,000 households throughout the United States. In each household all persons over 13 years old are interviewed directly, and information on 12- and 13-year-olds is obtained from an older household member.

The victimization survey not only provides information about the crimes defined earlier, but also data about the characteristics of the victim, the crime itself, and in some cases offenders. It includes demographic characteristics of the victim such as age, race, sex, educational level, and income. Information on the characteristics of the crime includes where and when it occurred, the extent of injury and economic loss suffered by the victim, the relationship between the victim and the person committing the crime, the characteristics of the person committing the crime as perceived by the victim, and whether or not someone reported the crime to the police.

The survey also asks why crimes were not reported to the police. Recently, to develop a better understanding of why some people report crimes to the police and others don't, questions have been added to the survey asking why crimes were reported.

Although the NCS does not provide data on the specific cities and counties where crimes occur, data are available on the characteristics of urban victims, suburban victims, and rural victims; victims living inside and outside Standard Metropolitan Statistical Areas (SMSAs); and are potentially available for victims in each of the four major geographic regions.⁵

An advantage of the survey is the possibility of periodically adding questions

⁴The Bureau of Justice Statistics, like many other Federal agencies, e.g. the Public Health Service and the Bureau of Labor Statistics, contracts with the U.S. Bureau of the Census to collect and compile the survey data.

⁵An SMSA, generally, is made up of a core city or cities with a combined population of 50,000 or more inhabitants and the surrounding county or counties that share certain metropolitan characteristics. The four major geographic regions are: Northeast (Maine, New Hampshire, Vermont,

for both victims and nonvictims when policymakers need information on particular topics related to crime and the administration of justice.

The information from the survey produces an extensive series of statistical tables and charts and provides a wealth of data about criminal victimization in the United States. For example, one table will show the number of persons 65 years and older who were robbed; another table, the frequency with which rape victims used different types of self-protective measures; and still another, the percentage of crimes committed by strangers, acquaintances, and relatives. The tables and charts provide the basis for a number of statistical publications of the Bureau of Justice Statistics. The data are also processed on computer data tapes, which are available to research scientists who wish to analyze them in more detail.

The full utility of these data has not yet been realized, because the techniques involved in their collection and analysis have been developed so recently. To date, these data have been used to estimate the costs of victim compensation programs to determine whether such programs are economically feasible to determine the kinds of special programs needed for elderly victims of crimes (since victimization rates for this group are low, although fear of crime is quite high among the elderly), and to analyze the circumstances connected with rape in order to better inform women about this crime.

It is expected that as these and similar survey findings become better known, they will advance our knowledge and understanding about who the victims of crime are, in order to define the national crime problem more accurately. Eventually, we will be able to answer the question: what proportion of the population bears what proportion of the burden of crime?

The questionnaire

Each person interviewed in the survey is asked a series of screening questions. These questions, worded in everyday, nontechnical language, allow the interviewer to determine if the person has been a victim of a crime measured by the survey during the past 6-month period. It is necessary to ask a series of questions, because each specific question may trigger the memory of an event the person had forgotten.

Before victimization surveys were begun, many people thought that becoming a victim of crime would be so memorable that every member of the family would know about the event and the victim would have no difficulty recalling it. However, careful analysis of data collected from victims has

Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania), North Central (Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas), South (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas), and West (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, Hawaii).

demonstrated that this assumption is not always true. When all members of a household are interviewed, more incidents of crime are reported than if only one member is asked to report about everyone in the family. Screening questions are carefully designed to remind people about forgotten events, since more carefully worded questions produce more reports of crime.

Any person who answers yes to one or more screening questions is asked a detailed series of questions about the characteristics of each of the crime incidents reported. From answers to these questions, it is possible to classify the event into a crime category and to develop detailed information about the characteristics of criminal victimization in the United States.

The sample

The NCS uses a data collection method called sampling, where parts of a group are randomly selected to represent that group. The households chosen for the NCS sample are scientifically selected by the same mathematical principles applied in selecting the sample used by the Bureau of Labor Statistics to determine unemployment rates. Each household in the United States—whether urban or rural, whether living in a detached single-family house or an efficiency apartment, whether consisting of a family or of unrelated individuals—has a chance to be selected for the survey. If you have not been selected and have never known anyone selected, it helps to remember that only 60,000 households out of the more than approximately 80 million households in the United States represents rather long odds.

Each household chosen stays in the NCS sample for 3 years, in contrast to most public opinion polls, which interview each person only once. Interviews are conducted in each home once every 6 months. This 6-month period was chosen on the basis of research in which several different time intervals were tested. Shorter intervals proved to be too costly. Longer intervals (called reference periods) reduce survey costs, but if the interval is too long, people forget events that have happened to them.

Interviews are conducted during the first 10 days of each month with the households to be interviewed that month (one-sixth of all the households in the total sample is interviewed each month). After staying in the sample for a 3-year period, each household is replaced with a new one. This process is an ongoing one; that is, some households are always coming into the sample while others are leaving.⁶

Because the NCS is a sample survey, the accuracy of the data depend on the quality of the sample chosen and the reliability of the information given by respondents. It is important in any sample survey to try to obtain answers from all of the persons who

⁶In addition, if the household members living at an address in the sample move during the 3-year period that the address is included in the sample, the new occupants at that address enter the sample. No attempt is made to follow occupants who move to new addresses.

are included in the sample. This avoids systematic biases in the data that would occur if people who refused, or were unable to answer questions, were different in some special way from people who did answer the questions (e.g. more often victimized). The interviewers conducting the survey consistently are able to interview a very high proportion (usually 95 percent or more) of the sample. This rate of success is higher than that usually obtained in many commercial surveys.

To assure continuously high-quality data, quality control procedures are carried out at all stages of data collection and processing. Interviewers are carefully supervised through field offices. Supervisors and senior interviewers re-interview some individuals each month to determine whether the same information is given the second time and to check both the accuracy of the original interviewer and the reliability of the questionnaire. When the questionnaires are processed, the answers are checked for logical consistency, and any inconsistencies in the answers are verified and reconciled.

Samples are used to estimate facts about the population as a whole. The larger the sample is, the more precisely these facts can be estimated. Because crime is a relatively rare event, a large sample must be surveyed to estimate the facts about crime accurately. For this reason, the NCS has an unusually large sample: 132,000 people in 60,000 households.⁷ Thus we can make estimates of crime precise enough to be of use to decisionmakers, and we can tell with great precision which of the changes in victimization rates are statistically significant and which are not. In this way we can scientifically separate more reliable from less reliable differences.

Learning about crime from the police

Compiling the data

The Uniform Crime Reports program has been gathering information from law enforcement agencies throughout the Nation for more than 50 years. The International Association of Chiefs of Police (IACP) developed and initiated this voluntary national data collection effort in 1930.⁸ To provide nationwide uniformity in the reporting of data, standardized definitions have been adopted for all offenses. Such standardization is necessary to overcome the variations in definitions of criminal offenses in different sections of the country.

Uniform classifications of crimes as well as uniform procedures of reporting are used by each of the 15,000 participating local law enforcement agencies. Agencies compile and submit their crime data through their State UCR program to the national UCR (or directly to the national UCR in the five States that currently do not have State-

⁷By comparison, most public opinion polls interview a sample of 1,500 to 2,000 persons.

⁸The Uniform Crime Reports Committee of the IACP has served in an advisory capacity to the UCR since its inception; the Uniform Crime Reporting Committee of the National Sheriffs' Association has served in the same capacity since 1966.

level UCR programs). Although the participation of law enforcement agencies is voluntary, the national UCR program currently covers 98 percent of the U.S. population.

Law enforcement agencies report each month the number of Crime Index offenses that become known to them. The count is taken from records of all complaints of crime received from victims, from officers who discovered the offenses, or from other sources. Whenever complaints of crime are determined through investigation to be unfounded or false, they are eliminated from the actual count.

Each month law enforcement agencies also report the total number of index crimes cleared. Crimes are cleared in two ways: (1) by arrest, when at least one person is arrested, charged, and turned over to the court for prosecution; or (2) by exceptional means, when some element beyond police control precludes the physical arrest of an offender, such as the suicide or murder of the offender prior to arrest or the victim's unwillingness to press charges.

A crime that is cleared by the police is considered solved for police purposes whether or not the person arrested is indicted, tried, or found guilty. For any index crime, the number of clearances expressed as a percentage of the total number known to the police is the clearance rate for that crime.

Arrest data, which include the age, sex, race, and ethnic origin of persons arrested, as well as the crime for which they are arrested, are also reported monthly for both Part I and Part II offenses, by crime category. Part II offenses, while excluding traffic violations, include all crimes except those classified as Part I. Only arrest data are available for Part II offenses. Data on law enforcement officers assaulted or killed are also collected on a monthly basis.

Because the Uniform Crime Reporting Program is not based on a sample, the data are not subject to sampling error, but they are subject to error to the extent that there are inaccuracies in the administrative records upon which they are based. For this reason, and because the UCR program depends entirely on the accuracy of records compiled by local agencies, great effort is made to assure that the data are accurate. Each incoming report is examined not only for arithmetical accuracy but also, as a possible indication of error, for patterns differing from those of similar agencies. In addition to reviewing individual reports, periodic trends for each reporting agency are prepared and evaluated. Crime levels for each reporting law enforcement unit are analyzed five times a year. If there is a significant increase or decrease, a special inquiry is made to the contributing agency. When it is found that changes in crime reporting procedures are in part responsible for the difference in the level of crime, the figures for specific crime categories (or, if necessary, totals) are excluded from published trend tabulations.

Although communities that do not submit crime reports to the UCR Program represent a very small proportion of the

total population (about 2 percent), the UCR conducts an ongoing effort to increase reporting jurisdictions.

Geographic data

UCR statistics are reported for local geographical areas, since the local law enforcement agency is the basic reporting unit. In compiling data by geographical region, the UCR Program follows as closely as possible the definitions used by the Bureau of the Census for geographical entities. Data are included on SMSA's and "other cities" (which are identified in UCR statistics as those outside SMSA's, most of which are incorporated). For crime reporting purposes, rural areas are made up of the unincorporated portions of counties outside urban places and SMSA's. To prevent duplicate reporting of a single crime, sheriffs, county police, and State police report on crimes committed within the limits of the counties but outside cities, while local police report only on crimes committed within city limits.

The rich geographic detail of the UCR data makes it possible to compare crime rates among cities of similar sizes, to study urban-rural differences in crime rates in different States and sections of the country, or to determine the geographic dispersion of crime. It provides research scientists with the opportunity to look at crime in the context of other social and economic statistics available at the State or county level.

Analyzing crime

Crime statistics from the National Crime Survey and from the Uniform Crime Reports provide indispensable information for policymakers, research scientists, and practitioners. They present current trends in crimes of violence and theft. They tell us who commits the crimes (more precisely, who is arrested), who is the victim of crime, and where crime occurs. They tell us which

crimes police know about, which crimes they don't know about, and why.

Frequently, the information from both the National Crime Survey and the Uniform Crime Reports is presented in the form of rates. Crime rates are a useful way of telling us whether crime is growing faster, slower, or at the same pace as the population. NCS rates are generally expressed as the number of crimes for every 1,000 people (for personal crimes) and the number of crimes for every 1,000 households (for household crimes). Rates can be constructed both for specific crimes and for specific groups in the general population. For example, the rates for robbery victimizations of 15- to 19-year-olds can be compared with the rate of robbery victimizations of 20- to 24-year-olds, or burglary rates for white households can be compared to burglary rates for black households. The UCR Crime Index rates are usually presented as the number of crimes per 100,000 people. The UCR regularly publishes rates for each index crime as well as for the Crime Index total. It is important to remember that an increase in the Crime Index total can result from any increase in any of the crimes in the index, ranging from murder to minor theft.

The analysis of crime can take many forms, from simply measuring differences among groups or over time to testing hypotheses or developing theories about

Bureau of Justice Statistics Bulletins are prepared and written by the staff of the Bureau. The idea was originated by Carol B. Kalish, who maintains editorial oversight. Marilyn Marbrook, head of the Bureau publications unit, administers the publication of the Bulletins. Although several staff members made substantial contributions to this edition of the Bulletin, Patsy Klaus is the principal author.

crime. Data from the National Crime Survey have been used extensively in the simpler forms of analysis, but the realization of their full potential by the application of more complex analytic techniques is just beginning. Careful analysis of data from the National Crime Survey in conjunction with data from the Uniform Crime Reports is also producing promising results. Whatever the analytic techniques used, it is clear that the government's progress in measuring crime can only increase our ability to understand crime, which is the first step in controlling it.

Further reading

The concepts, definitions, and methodology presented in this bulletin have been intentionally simplified and abbreviated. The reader who would like more information may find these publications helpful. The more technical presentations of the National Crime Survey and the Uniform Crime Reports are asterisked.

An Introduction to the National Crime Survey. SD-VAD-4-1977. U.S. Department of Justice, 1977.

Crime in the United States, 1979. Federal Bureau of Investigation, 1980.

Criminal Victimization in the United States, 1978. NCJ-66480. Bureau of Justice Statistics, December 1980.

Criminal Victimization in the United States: A Description of Trends from 1973 to 1978. NCJ-66716. Bureau of Justice Statistics, December 1980.

*Surveying Crime. Panel for the Evaluation of Crime Surveys, National Academy of Sciences. Washington, D.C. 1976.

Relationship Between Reported Crime Rates and Victimization Survey Results—An Empirical and Analytical Study. By J.E. Eck and L.J. Riccio. NCJ-67146. *Journal of Criminal Justice*, V 7, N 4 (Winter 1979).

*Uniform Crime Reporting Handbook. Federal Bureau of Investigation, 1980.

U.S. Department of Justice
Bureau of Justice Statistics

Official Business
Penalty for Private Use \$300

Postage and Fees Paid
U.S. Department of Justice
Jus 436

FIRST CLASS



Washington, D.C. 20531

Bulletin
February 1981

END