The Nation's Two Measures of Homicide

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The United States uses two national data collection systems to track detailed information on homicides: the Federal Bureau of Investigation’s Supplementary Homicide Reports and the Centers for Disease Control and Prevention’s Fatal Injury Reports. Both measures were developed as part of a federal effort to improve national statistical systems in the early twentieth century and have gone through a number of changes since then to improve their consistency and coverage. Each program provides valuable information on the nature, trends, and patterns of homicides in the United States. Although the two measures generally capture information on the same types of events, they are designed for distinct purposes and collect different types of information. In combination, however, they produce a fairly comprehensive understanding of homicide, the most serious form of violence.

Supplementary Homicide Reports

Federal Bureau of Investigation

Supplementary Homicide Reports (SHR) are part of the Uniform Crime Reporting (UCR) Program. UCR data provide important information on crime at the local, state, and national level for law enforcement, policymakers, researchers, and the public. Administered by the Federal Bureau of Investigation (FBI) since 1930, the UCR summary program provides data on the total number of crimes known to law enforcement agencies in the United States. In most states, reports from individual law enforcement agencies are compiled monthly by state-level agencies before being forwarded to the FBI.

The UCR provides aggregate annual counts of the number of homicides occurring in the United States. Beginning in the early 1960s, the FBI began to collect more detailed information on each homicide reported in the UCR aggregate count through the SHR form. The SHR data provide additional details about each homicide incident, including the jurisdiction, month, year, victim and offender demographic characteristics, weapon, the circumstances surrounding the incident (e.g., argument, robbery, gang-related), and the relationship between the victim and offender, if known. The detail provided on each incident permits the examination of specific types of homicides, characteristics surrounding the event, and victim-offender relationships.

The SHR form has two sections: one for all murders and nonnegligentmanslaughters (including justifiable homicides) and one for negligent manslaughters. Murder and nonnegligent manslaughter homicides include cases that are suspected to be murders, violence-related manslaughters, law enforcement-related killings, and homicides committed in self-defense. Negligent manslaughter homicides include cases that are determined to be unintentional killings of one person by another (excluding motor vehicle crashes).

National Vital Statistics System, Fatal Injury Reports

Centers for Disease Control and Prevention

Fatal Injury Reports are developed from the National Vital Statistics System (NVSS), which includes data derived from the registration of births and deaths at the state and local level. The modern system dates back to 1933 when uniform collection and national-level reporting of birth and death certificates began. One public health function of the system is to permit identification of and public response to preventable causes of death.

The NVSS is maintained by the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC). NVSS data are provided by vital registration systems operated in the various jurisdictions legally responsible for registering vital events—births, deaths, marriages, divorces, and fetal deaths. In the United States, legal authority for registering these events resides individually with the 50 states, 2 cities (Washington, D.C., and New York City), and 5 territories (Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands).

The NVSS mortality data are produced from standardized death certificates filed throughout the United States. The death certificate data that the NVSS compiles include decedent age, race, ethnicity, marital status, resident status, educational attainment, residence, cause of death, and the nature of the injuries sustained. The death certificate does not include any information on the suspected perpetrator of a homicide or the victim/offender relationship.

State laws require that a medical examiner or coroner investigate all homicides and other sudden unexpected deaths. In homicide cases, medical examiners and coroners also
Supplementary Homicide Reports (continued)

SHR data are collected on only those crimes occurring in the United States that come to the attention of law enforcement through citizen reports or observation. The SHR captures deaths by location of offense, and thus includes all homicides occurring in state and local law enforcement jurisdictions. Because the UCR program does not include federal law enforcement agencies, SHR data do not measure homicides occurring in federal prisons, on military bases, and on Indian reservations. The information provided on the SHR form reflects what agencies know based on their initial police investigation and does not reflect subsequent decisions made by prosecutors or courts.

Due to the voluntary nature of the FBI program, a number of law enforcement agencies either do not consistently submit SHR forms to the FBI or do not submit any at all. Historically, between 85% and 90% of all homicides reported in the UCR summary data also have a corresponding SHR form. Homicides reported through the SHR can, however, have missing information about various characteristics of the homicide because the data were not available at the time of submission or not reported by the agency. Approximately 1% of SHR cases are missing victim information, including the victim’s age, gender, and race, and approximately 30% of SHR cases have an unknown offender. The proportion of SHR cases that are missing information on the relationship between the victim and the offender has increased from 25% in 1976 to more than 40% since 2000. This is most likely due to the substantial decline in the percentage of homicides cleared since the 1960s, which has produced large numbers of cases with unknown offender information.

The FBI publishes data from the SHR in its annual Crime in the United States series. Preliminary data from the UCR are generally released 6 months after the reference year. SHR data are not included until after the UCR data are finalized, approximately 1 year after the end of the reference year. Online analysis with SHR data can be conducted through a web-based tool maintained by the Office of Juvenile Justice and Delinquency Prevention. Public use data are available from 1976 from the University of Michigan’s Inter-University Consortium for Political and Social Research (ICPSR), the FBI’s website, and the National Archive of Criminal Justice Data (NACJD).

National Vital Statistics System, Fatal Injury Reports (continued)

typically complete the medical part of the death certificate, including manner of death. Funeral directors complete the demographic and other portions through interviews with a member or friend of the family. The death certificates are submitted to state vital statistics offices and forwarded to the National Center for Health Statistics (NCHS). NCHS then classifies each death according to the International Classification of Diseases (ICD). Information on manner of death (e.g., homicide, suicide, unintentional) is combined with information on cause of death to classify deaths using ICD codes, including codes for deaths due to external causes of injury and poisoning.

Each year, a very small number of deaths remain without a manner of death or may be missing from the NVSS. It is believed that the NVSS covers 99% of the birth and death events in the United States. However, there are no published estimates on the coverage of the NVSS with regard to homicide specifically. Each jurisdiction maintains individual vital statistics files and sets its own criteria for closing those files. NCHS closes the national file after all states have submitted their records and all data are coded, classified, and standardized between states. The level of standardization and data review varies across states and may be dependent on state-level and annual variations in the number of deaths with the underlying cause coded as “other ill-defined and unspecified causes of mortality.” A small number of death certificates may not be included in the NVSS if they are filed after the NCHS file has closed. Some studies have examined the reliability of NVSS demographic data by comparing it to U.S. Census Bureau data and surveying funeral directors who are responsible for completing demographic information about the decedent. These studies have concluded that fatal injury reports may undercount American Indian and Alaska Native deaths by 20% to 30% and undercount Asian deaths by 11% to 13%. Race misclassification can be more likely depending on the population make up of the jurisdiction and the cause of death.

Data from the NVSS are typically reported according to the victim’s place of residence. Data on place of injury are available but not routinely reported in official statistics. Deaths of non-U.S. residents are also collected but typically not included in official statistics.

Fatal Injury Reports are published annually and are available for public use from the CDC website as part of the NVSS. Preliminary data are generally released approximately 2 years after the end of the reference year. The site provides online analysis tools and customized tables, as well as annual mortality files for download. Publicly available data files include state-level estimates of fatal injury report data. The CDC regularly publishes additional reports on mortality that include statistics not part of the regular annual reports. These may include special analyses by cause of death, age, and other demographic variables; geographic analyses; and trend analyses.
Comparing the SHR and the NVSS

There is considerable overlap in homicides reported to the SHR and the NVSS (see table). Coroners and medical examiners often work closely with law enforcement on homicide cases. Thus, there is generally agreement on the cause of death and victim information reported to the CDC and the FBI, because cases are investigated and documented through collaborative efforts and then reported through NVSS and SHR.

Both systems follow the same rules in applying homicide labels to incidents and victims; however, each system has different subcategories of homicide, which are well-defined and can be used to identify similar types of homicides in the two systems. For example, the FBI classifies homicides as intentional, justifiable, or negligent. Homicides reported through the NVSS are classified according to the ICD system into two general categories: homicide or legal intervention. Both intentional and negligent homicides are defined as “homicides” in the NVSS, which makes no judgment of criminal intent. The legal intervention deaths in NVSS generally align with the FBI definition of “justifiable homicide,” while the single NVSS category of “homicide” includes the SHR’s two categories of intentional and negligent homicide. Unlike the SHR, the NVSS homicide classification includes assault by the crashing of a motor vehicle, but this category generally accounts for less than 100 deaths per year.

Both systems have potential issues with data quality, which can affect the information’s accuracy and lead to misclassification of death incidents. Data quality may also be affected when records are not submitted in a timely manner or when the cause of death or other information is not updated as more accurate information becomes available.

The NVSS consistently shows a higher number and rate of homicides in the United States compared to the SHR, likely due to the differences in coverage and scope and the voluntary versus mandatory nature of the data collection as described above. Despite these differences, the two sources show similar trends for the rate of homicides over time at the national level (see figure). Greater discrepancies between the two sources exist at the state level. Most states report more homicides through the NVSS than the SHR, yet in some states the opposite is true. Furthermore, the state-level ratio of homicides reported in the NVSS versus the SHR varies over time. State-level variations in reporting may be due to missing data, where cases that fall within the scope of the SHR or NVSS are not reported to the appropriate system. Variations may also be due to true differences between the homicide victim’s state of residence, which would be reported to the NVSS, and the state where the homicide incident occurred, as reported to the SHR. These differences may be particularly apparent in

<table>
<thead>
<tr>
<th>NVSS</th>
<th>SHR</th>
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<tbody>
<tr>
<td>Purpose</td>
<td>Track all deaths</td>
</tr>
<tr>
<td>Reporting source</td>
<td>State vital registrars</td>
</tr>
<tr>
<td>Initial report</td>
<td>Death certificate</td>
</tr>
<tr>
<td>Reporting responsibility</td>
<td>Medical examiners and coroners</td>
</tr>
<tr>
<td>Homicide definition</td>
<td>Injuries inflicted by another person with intent to injure or kill by any means</td>
</tr>
<tr>
<td>Reporting is</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Data collection methods</td>
<td>Manner/cause of death determined by medical examiners/coroners; demographic information is recorded by funeral directors on death certificates</td>
</tr>
</tbody>
</table>

Homicide rates in the NVSS and SHR, 1981–2011

Rates

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<tr>
<td>NVSS</td>
<td>SHR</td>
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</table>

Note: SHR data include intentional homicides known to law enforcement and exclude justifiable homicides and nonnegligent manslaughter. NVSS data include all homicides committed by civilians (regardless of intent) and exclude homicides due to legal intervention. Both data sources exclude homicides resulting from operations of war and the terrorist attacks of September 11, 2001. Rates are calculated as the number of homicides per 100,000 U.S. residents. SHR rates are weighted to the annual number of homicide victims reported in the FBI’s Uniform Crime Reports.

state or jurisdiction-level rate calculations based on the resident population. Since the NVSS is based on the residence of the victim, it is considered the more applicable source for resident-based rate calculations, while the SHR is more applicable for jurisdiction-based crime rates.

Unique features of each measure should be considered when using these data. Publicly available SHR datasets provide victim demographic information at the agency level, while NVSS homicide victim demographic estimates are not publicly

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Comparing the SHR and the NVSS (continued)

The NVSS will produce more accurate homicide trends at the national level than the SHR, because the NVSS includes deaths that occur in federal jurisdictions and more complete state and local jurisdiction reporting. More complete information on homicide victim characteristics is available through the NVSS. In particular, the NVSS provides more complete information about victim Hispanic origin compared to the SHR and includes measures of victim marital status and educational attainment, which are not found in the SHR. Mass homicide events are included in the NVSS; however, only deaths specifically labeled as a foreign terrorist act by the FBI are identified as such in the NVSS data and can be linked together. To date, this includes only the events of September 11, 2001. The SHR also includes mass homicide events but excludes deaths that occurred on September 11, 2001.

Since the SHR collects information about the offender and incident, SHR data are better suited for understanding the circumstances surrounding homicide incidents, including events leading up to the homicide, characteristics of the offender, and the relationship between the victim and the offender. SHR data are also advantageous for examining certain subtypes of homicides, including police and child homicides. Research on specific types of homicides identified by victim-offender relationship, such as those involving intimate partners, are possible with SHR data, but not with the NVSS data. However, the SHR has high proportions of homicides for which the offender is unknown to law enforcement, particularly for certain victim subgroups. For example, among male victims, the victim-offender relationship is undetermined in about 50% of incidents. Researchers must determine whether the data are appropriate for use and use caution when drawing conclusions about homicide offenders.

The SHR is designed to capture homicides known to law enforcement by jurisdiction, so SHR data can be used for research on homicides based on where they occurred. The NVSS collects data on both where the death occurred and where the victim lived, although homicide rates are typically calculated using place-of-residence data.

A more comprehensive understanding of homicide in the United States can perhaps be achieved by combining the strengths of the two data collection systems.


Users may apply to the CDC to gain access to compressed datasets, which contain selected variables for the full mortality files at the county level.