DCJ 715 Brief 6: Improving the validity and reliability of international crime databases

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Abstract

This paper reviews the reliability and validity problems with international crime and criminal justice statistics. Various criminal databases such as the United Nations Office of Drugs and Crime (UNODC), United Nations criminal justice systems (UN-CTS), the statistical office of European communities (Eurostat), the United Nations Children Fund (UNICEF), and Interpol all contributed to revealing methods for improving the reliability and validity of international statistical data reporting. These included offering funding, training, and technical assistance to developing countries. They promoted data collection in a personalized and contextual framework for non-compliance countries. Provided rapid reporting and feedback on crimes to all countries. They also enabled standardized terminology and crime categories for reporting purposes and created trust with the public by improving relationships with the news media.

*Keywords*: crime, data, databases

Transnational crime databases are critical for identifying trends and revealing new crimes. While useful for researchers, these data are pragmatically necessary for police organizations to plan and allocate resources. Additionally, concerning organized crime, the routes, victims, collaboration with other TOCs, or even community leaders can become visible via examination of the data. Unfortunately, as all researchers know, the rule of garbage in/garbage out or GIGO applies here as in all other datasets (*International statistics on crime and justice*, 2010).

Due to several factors, the data collection and quality often suffer, causing validity and reliability errors. This brief focuses on improving the quality of the data. Specifically, methodologies for updating data and addressing other countries' challenges in maintaining their crime data will be reviewed.

Before suggesting methods to improve the quality of the criminal databases, it is essential to discuss the shortcomings of the data in their current state. A contributor to the incompleteness of data has to do with some countries' inconsistency in maintaining their databases. Due to issues related to how data is collected and reported, some countries will skip a year and then submit data that has been combined over a couple of years. While most participating countries offer data annually, the intermittent submissions impact data quality (*International statistics on crime and justice*, 2010).

Another challenge to the data quality is the time delay between the crime data collection and reporting. This issue relates to how different crimes move through the judicial system. Depending on many factors, such as the nature of the crime, how the crime was classified, perception of the seriousness of the crime, and politics, the time delay may vary significantly. Additionally, some countries will provide partial answers or leave specific data metrics blank (*International statistics on crime and justice*, 2010).

Other issues that arise from the efforts to collect and report on criminal data are the different ways that crimes are classified. For example, something considered a crime in one country might not be a crime in another country. In many countries, the penal code for who a victim of rape can be is limited to the female gender. What happens if a male is raped? This crime will not be reported as rape if it is even said to the database (*International statistics on crime and justice*, 2010).

The United Nations Office of Drugs and Crime (UNODC) has implemented initiatives to address data quality reporting to improve reliability and validity. To address some countries' reporting delays, the UNODC has offered training and assistance. The UNODC has also explained that collecting crime data benefits their crime-fighting efforts. Personalizing the data collection by finding trends, outbreaks and even solving crimes has positively impacted compliance. Some countries have increased their efforts at the quality and timely reporting. Countries that desire to report the data but do not have the needed skill can find help from the UNODC. These efforts have greatly assisted data quality and timely reporting (*International statistics on crime and justice*, 2010).

Another solution for addressing the time delay crime reporting issues by the UNODC is to rapidly report data on individual countries' websites as it is made available. The reporting did improve; however, the quality may have suffered because the data was raw and unvalidated. The UNODC claims this problem can be addressed by providing strong comments and documentation (*International statistics on crime and justice*, 2010).

Further quality issues can be addressed by combining datasets with those taken from other database sources. For example, the United Nations survey of crime trends and operations of criminal justice systems (UN-CTS) can be combined with several different databases to provide a complete picture of crime with a high degree of validity. The statistical office of European communities (Eurostat) and the United Nations children's fund (UNICEF) have a significant amount of valuable data that can significantly increase validity when combined with the UN-CTS. Another database that offers firm support for data collection for crime is the international police organization (Interpol). For a more accurate picture of international crimes, researchers will use all of these databases and a few others to improve the data reporting quality (*International statistics on crime and justice*, 2010).

Increasing the standardized collection of metrics further improves the quality of the data sets. UN CTS and Eurostat are an example of standardized metrics and definitions. The media data collected in these data sets dramatically enhances the reliability of the data. Other databases often used along with the criminal databases are the World Health Organization (WHO) and the American health organization (PA HO), which provide numerous health metrics on homicide. When combined with the criminal databases, these data sets improve the data quality regarding homicide and other crimes (*International statistics on crime and justice*, 2010).

One of the most complex problems to tackle regarding data reporting and data quality is how to handle developing countries' reporting deficiencies. Countries without the resources to collect, analyze, or interpret reported data struggle with compliance. All three requirements for developing criminal justice statistical databases are lacking for these countries. For crime databases to be established, there are three requirements. First, the data collection methods and tools must be available and contextualized for the location. Secondly, personnel with sufficient technical skills must be available for collecting and interpreting the data. Thirdly, the government must be motivated to collect and analyze crime data. There is insufficient assistance for all three requirements to be met for developing countries (*International statistics on crime and justice*, 2010).

Additionally, the problem of standard definitions across countries for similar crimes must be addressed. UNODC and UNECE are working together to create a crime classification system used internationally to develop standard reports. Furthermore, the goal of creating uniform metrics for statistical analysis is also being pursued. These will significantly enhance data quality (*International statistics on crime and justice*, 2010).

In the United States, the tracking of far-right tourist actions has become an objective of researchers. The Department of Homeland Security and the National Consortium administers the database for these types of crimes to study terrorism and responses to terrorism (Start). The database is known as the extremist crime database (ECDB). It contains the data on far-right extremists in the United States. Unfortunately, the information is limited between the years 1990 and 2008. All of the data in this database was collected via open-source materials. Researchers scoured various documents and websites by cross-referencing information between many sources. The researchers were able to create a database that has high reliability. However, another limitation of this database is currently constrained to the United States. The ECD be is an excellent example of how motivated researchers can compile a relevant database with sufficient validity and high reliability. Other nations can follow this model to have an international ECDB (Gruenewald & Pridemore, 2012).

For a criminal database to be reported reliable and valid in developing countries, specific issues must be addressed. One of the issues is creating a crime victim survey that is internationally uniform. The international crime victim survey is specifically designed to record crimes not listed in police reports. Due to distrust in police reporting and fear of retribution by the authorities, many crimes go unreported in developing countries where the lower social-economic spectrum's concerns, problems, and victimization are low priority. In these countries, the poor have limited legal recourse. Unfortunately, women and children make up the bulk of this group. The international crime victim survey (ICVS)attempts to record the crimes committed against this group. A few of the main concerns of the ICVS are to provide crime surveys and research tools that can be used internationally, searching through the data to evaluate perceptions of crime and fear of crime. Additionally, the ICVS attempts to improve the reliability and validity of criminal databases by promoting and sharing data collection methodology and uniform definitions between countries. This tool has become indispensable for researchers and policymakers (Shaw et al., 2003).

When studying criminal databases, it would be remiss to leave out Interpol's quantitative cross-national crime database. Interpol has collected data by member nations from 1950 to the present. It is, in fact, the oldest criminal database. Some of the issues with validity and reliability stem from the problem of the data being voluntarily reported by the police organizations. Interpol attempts to address facts by providing guidelines for inputting the data.

Furthermore, data quality controls are not provided by Interpol. Interestingly, this database is not available to the public. Only police departments can access Interpol data. This is due to incorrect assumptions and misuse of data by the general public (Stamatel, 2008).

Interpol collects data from a hundred and 16 countries; however, there is a significant inconsistency and reporting from year to year. Of course, this causes some bias and impacts the validity of the data. An improvement in reporting has been noticed since electronic availability was implemented. This is lightly improved quality control. Unfortunately, this issue has not been corrected, and therefore Interpol does not allow researchers access to the data (Stamatel, 2008).

Another area that needs to be addressed regarding criminal database reliability is the media's role in impacting crime and police efforts perceptions. The press sometimes misrepresents the facts of a crime, thereby affecting public and political pressure on police reporting. The antidote to this problem appears to be in educating the general population about the biases of the news media and the need for validity through the authorities. The news media should be held to account and encouraged to promote the facts of the case. This information has often damaged public perception to the point of pressuring political outcome that was not conducive to justice (Maguire & McVie, 2017).

In conclusion, the following suggestions can make reliability and validity improvements to the international crime and criminal justice statistics. Offer funding, training, and technical assistance to developing countries. Promote data collection benefits to non-compliance countries. Personal the reporting results for individual countries. Rapid reporting crime data to countries' crime websites. Use cross-reference data sets from different police and human rights databases. Promote standardized crime terms and categories. Create collaboration and trust with the public and media for truth reporting.

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