Crime Rates in India: A Trend Analysis

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Abstract
This study presents the trend analyses of police-recorded crime data in India. We demonstrate the long-term trends of serious violent and property crimes and examine whether the crime trend in India follows the global crime trend, especially the declining trend in the United States and West European countries. By examining the peaks, troughs, and turning points, this study examines the similarities and differences in long-term trends between different crime types. The data for our study are drawn from *Crime in India*, an annual publication by the National Crime Record Bureau of India. The results suggest that rates of murder, robbery, burglary, theft, and rioting follow declining trends, while rates of rape show an increasing trend between 1971 and 2011. The homicide trend is the only crime category following the global crime trend. While recognizing the universal and India-specific limitations of the police-recorded crime data, we want readers to consider the findings of the study with caution. We strongly recommend that India establish a national crime victimization survey and regularly participate in the International Crime Victimization Survey.

Keywords
India, crime rate, crime measurement, trend analysis, global crime trend

Introduction

The rates of violent and property crimes are steadily declining around the globe. Based on police-recorded and victimization survey crime data, both people and property are now experiencing lesser victimization than at almost any time since the 1970s (Bacon, 2013). However, the declining trend in police-recorded crimes is not uniform across regions or crime categories. For example, global decline in property crimes has been greater than the decline in violent crimes. In yet another instance, homicide rates in Southern Africa and Central and South America are much higher than the global average and have not shown a declining trend (United Nations [UN], Office on Drugs and Crime, 2014). Further, crimes such as burglary and motor vehicle theft have shown a sharp decrease

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as opposed to drug-related crimes, which have shown an increasing trend in recent years (UN, Office on Drugs and Crime, 2014). Nevertheless, the declining trend reported by the UN Survey of Crime Trends (UN-CTS) reports, as well as the International Crime Victims Surveys (ICVS), shows that the global decline in crime is real. Several National Crime Victimization Surveys (NCVS) of different countries (i.e., the United States, England and Wales, and the Netherlands) have also shown a continuous declining trend since the mid-1990s (Van Dijk, Tseloni, & Farrell, 2012). The declining trend, which began in the United States in the mid-1990s, has been followed by the industrial nations and then other developing countries (Van Dijk & Tseloni, 2012). The global decline in crime tells us that the decreasing trend is not just a U.S. phenomenon. In order to better understand this trend in cross-national setting, we must look beyond the United States and developed countries and also focus on developing countries, like India. Although our scope is not to delve into explaining the factors responsible for global crime drop, we cannot avoid this most obvious and curious question. We can spend much time debating the effects of legalization of abortion (Levitt, 2004) and reduction of lead in gasoline (Nevin, 2007) on crime drop, but we know that the historical drop in crime against all the predictions has occurred due to a multitude of factors. The development of police and security technology, effective use of computer and communication technology in criminal justice systems, a better trained and prepared police force, tough crime polices, situational crime prevention, demographic changes, and changes in the illicit drug market are some of the important factors supposedly responsible in lowering crime rates globally (Blumstein & Rosenfeld, 2008; Van Dijk et al., 2012). One way to understand the global crime trend is to review regional crime data and ascertain if crime trends in a particular region or a country are following the international crime trend with regard to different categories of serious violent and property crime. Consequently, we decided to study the crime trend in India.

Surprisingly, there is not a single long-term crime trend study in India. Recently, there has been an increase in media attention on crime that can be primarily attributed to the recent cases of rape and murder of young women in India, including the brutal rape and murder of a 23-year-old student in December 2012 in New Delhi. The media attention, coupled with a lack of long-term crime trend analyses, may impede the public understanding and correct directions of future crime policies.

Our study is the first effort of a systematic and serious attempt to analyze and present long-term crime trend in India. In the absence of crime trend analyses of the police-recorded crime data, especially when India does not have an alternative measure, we do not know much about the long-term crime trend in India. We also do not know whether the crime trends in India, with regard to different categories of crime, are similar to the international crime trend or trends reported by the North American and European countries. Long-term crime trend analysis in India, an emerging global player, is required to assess the existing crime policies and draw implications for the future crime policies to meet the demands of quickly changing demographic, economic, and social structures in India. The criminal justice infrastructure—law enforcement, prisons, courts, and legal institutions—needs to incorporate major changes and improvements to meet the challenges of crime and order maintenance. An analysis and explanation of long-term crime trend will provide important policy implications. Apart from this, a long-term crime trend analysis in India will also help to improve our understanding of the cross-national comparative crime trends. Before we began the trend analyses, we provided some discussion on global crime trend; official crime measurement in India; and the problems of reporting, recording, and dark figure of crime. Given the paucity of studies on crime trends in India, some discussion on measurement of crime and related issues is essential.

The Global Decline in Crime Rates

The historical crime drop that began in the United States after 1992 was followed by similar declines in other countries. Therefore, the current decline in violent and property crime is a global

phenomenon. The UN-CTS and the ICVS from a large number of countries show that total reported crime has dropped since 1995 and continues to do so (Van Dijk et al., 2012). The studies conducted by Van Dijk and his colleague, using the crime time series of ICVS, reported a sharp decline in property crimes, such as car theft, burglaries, and other theft, and a moderate decline in violent crimes in some West European countries and Australia/New Zealand (Van Dijk & Tseloni, 2012). The national victimization surveys in several West European and North American countries and in Australia/New Zealand also show a sharp declining trend in property crimes of theft and burglary starting at the beginning of the 1980s and downward trend in violent crime since the 1990s (Van Dijk et al., 2012). The police-recorded crime data show that property crimes and homicide began a declining trend in the mid-1990s in Western European countries. In contrast to the national victim survey reports, the official reports show an increasing trend in all other violent crimes until 2005. The global decline in homicide after 1995 is attributed to the declining drug and gang problems (Aebi & Linde, 2010). Van Dijk, Tseloni, and Farrell (2012) argue that in times when homicide goes down, the police tend to record more nonlethal violent crimes. Therefore, the increase of other violent crime against the declining trend of homicide between 1995 and 2005 was a result of increased police reporting and recording. The current drop in crime rates, reported by the victim surveys, as well as police statistics, is a global phenomenon and the United States is the leader (Van Dijk et al., 2012).

The United States experienced a sharp decline in police-recorded serious violent and property crimes after 1992. The highest crime rates (number of crime per 100,000 inhabitants) were recorded in the late 1980s and early 1990s, but crime rates started declining in the early 1990s and the declining trend still continues. The rate of total violent Part 1 crime, which includes murder, rape, robbery, and aggravated assault, started declining after 1991, and by 2012, decreased by 49%. The rate of total property Part 1 crime, which includes burglary, larceny theft, and motor vehicle theft, followed a similar trend with a recorded 31% decline between 1991 and 2012. The rates of victimization estimated by the NCVS for similar crime categories show even greater percentages of decline during the same time period (Ansari & He, 2015).

Zimring (2007) shows that Canada followed almost a similar crime trend of the United States, although Van Dijk et al. (2012) report that the decline in Canada began in 1995, 3 years after it began in the United States. Trends in the police-recorded crime rates and the estimated rates by the Crime Survey for England and Wales, earlier known as the British Crime Survey, are similar to the crime trends reported by the Uniform Crime Reports (UCR) and NCVS in the United States (Office for National Statistics, 2014), although the decline in England and Wales is less sharp than the decline in the United States. Some non-North-American and non-European counties that participated in the ICVS, such as Argentina and South Africa, also show a downward trend (Van Dijk & Tseloni, 20l2). However, there is a lag of about 4–5 years between the United States and other countries with regard to declining crime trend. While the U.S. crime rates started showing a declining trend after 1994–1995, the crime rates in Canada, Western European counties, and Australia/New Zealand experienced a peak around 2000 followed be a sharp decline (Van Dijk & Tseloni, 2012).

The explanation of global decline[1] in crime is a complex enterprise. Since the drop began in the United States, the initial studies providing explanation were primarily U.S. centric. However, some of the explanatory factors, such as the development in security technology and a better-trained and prepared police force, may be considered universally applicable in influencing the global crime drop. For instance, cross-national studies show evidence in support of the security hypothesis[2] (MacDonald, Golinelli, Stokes, & Bluthenthal, 2010; Tseloni et al., 2012; Van Dijk, 2007), but the limitation of the security hypothesis is that it is more suitable to provide explanation to drop in some crimes, such as car theft, burglary, and shoplifting, but it fails to provide explanation of the drop in other types of crime (Farrell, 2013).

Official Crime Statistics

The single source of national crime statistics in India is *Crime in India*, an annual report published by the National Crime Record Bureau (NCRB). Reporting of annual police-recorded crime data in India began in 1953 when the Intelligence Bureau of India published *Crime in India*. The Intelligence Bureau of India continued the collection and publication of police-recorded national crime data until 1986 when the newly created NCRB took over. Although the reporting began in 1953, *Crime in India, 1954* was the first systematic report, which collected and published the summary statistics, numbers, and rates per 100,000 people for India, states, and union territories for six violent and property crimes—murder, kidnapping, dacoity (robbery committed by a gang of five or more offenders), robbery, housebreaking (burglary), and theft—and other cognizable crimes[3] committed in violation of Indian Penal Code (IPC). The report also provided data on clearance and conviction of cases. The collection and reporting of crime data continued to steadily expand and improve. Several new crimes, such as rioting, criminal breach of trust, cheating, counterfeiting, and the offenses related to public servants and public well-being were added to the list. The *Crime in India* also began reporting the number of police officers killed and injured in the line of duty, juvenile delinquency, stolen property, and law enforcement employment. In addition, *Crime in India* not only began reporting summary data of the crimes committed under the special and local criminal laws but also started reporting city and district-level crime data.

Based on the recommendations of the National Police Commission, the government of India set up the NCRB in 1986 and the responsibility of collection of crime data and publication of *Crime in India* was transferred to the NCRB from the Intelligence Bureau in 1987. The NCRB has continuously expanded its data collection coverage, added new chapters and sections to its reports, and provided more classification and details of crime data. The *Crime in India 2013* reported the numbers and the rates of crime against persons, property, public order, women, children, and against Schedule Cast and Schedule Tribes (socioeconomically disadvantaged class in India). It also reported the numbers and the rates of economic crime, cybercrime, custodial crime, juvenile delinquency, crime in Railways, and human trafficking. In addition, it provided data on disposal of cases by the police and the courts, arrest, trial, law enforcement employment, expenditure, use of force including deadly force by the police, and complaint of human right violation against the police. The *Crime in India 2013*, in addition to national- and state-level crime data, provided data for 53 megacities (metropolitan cities with the population of 1,000,000 or more).

The NCRB does not have a dedicated unit to collect the data. Instead, it relies upon the State Crime Record Bureaus (SCRBs),[4] which function under the state police organizations, independent of the central government. The SCRBs collect data from different district and city administrative police units and send them to the NCRB. The crime measurement and reporting by the NCRB have a dual system of quality control. The SCRBs, after receiving data from district and city police units, do a regular screening to ensure that data are reported according to the NCRB format and that there are no missing data or apparent discrepancies. However, the actual quality control is done at the NCRB level. When the NCRB notices any extreme discrepancies or missing data, it asks the SCRBs to verify and make corrections. The NCRB, unlike the UCR program, makes no estimation for missing data. The NCRB, in case of missing data, sends repeated reminders to the SCRBs and ensures that the missing data are availed before the publication of *Crime in India*. In the past, this system resulted into delayed publication of *Crime in India*, but currently the NCRB and SCRBs together have developed the efficiency and *Crime in India* is published regularly.

The NCRB provides technical supports to the SCRBs, conducts training at national and regional levels, and organizes regular coordination meetings with the SCRBs to ensure the quality and timely reporting of crime data. The semidecentralized structure of law enforcement in India is helpful to the NCRB in achieving the efficiency of publishing regular annual reports without missing data. The

territorial police system in India is organized at the state level with district and city administrative units. The government of India has a few central police departments, which include investigating, intelligence, and paramilitary agencies. Consequently, the NCRB does not collect crime data from thousands of autonomous and independent law enforcement agencies, but it coordinates with only a few dozen SCRBs, which collect data from city and district units and send them to the NCRB. The seemingly semidecentralized police system in India is further centralized through the existence of a unique cadre of Indian Police Service officers who are recruited by the federal government and head all police departments and the NCRB. The camaraderie among the Indian Police Service officers helps the NCRB to collaborate and collect data from all the federal and state police departments.

The NCRB crime data are plagued with the universal limitations of the police-recorded crime statistics. The police crime data in India also have some specific limitations because of counting protocol adopted by the NCRB. Police-recorded crime data, including the NCRB data, are often summary data, and in absence of an alternative crime measurement system in India, the researchers, policy makers, and practitioners do not have access to the information pertaining to the details of incidents, offenders, and victims of crimes. It means this particular limitation is more detrimental for India, because India does not have a national victimization survey, and it also does not participate in the ICVS. Further, the reliability of police-recorded crime statistics is severely affected by reporting and recording. A large number of crimes are not reported to the police, but the police may also not record all the crimes reported. All the national victimization surveys and the ICVS show great discrepancies between police-recorded and victim-reported crimes (Van Dijk, 2007).

According to the estimate based on the ICVS data, approximately 40% of total conventional crimes are not reported to the police globally (Van Dijk, 2007). The rate of reporting also varies across regions. People living in developed countries in Europe, North America, and Australia/New Zealand report twice as much as people in developing countries. In the developing world, East European, Latin American, and Asian countries have the lowest reporting rates. As an Asian and developing country, India is not an exception.

The ICVS surveys also show that the police fail to record a large number of crimes reported to them (Van Dijk, 2007). The police are generally held accountable for crime situation and are always interested in keeping crime rates low and clearance rate high. Both can be achieved by low recording of crimes reported to them. Van Dijk (2007), based on these findings of the ICVS surveys, argues that there exists a systematic bias in police-recorded crime rates. Furthermore, Criminal Justice Systems across the world, especially in developing countries, have limitations, and the police, judiciary, and correction cannot process cases beyond a limit. The police, as gatekeepers of the criminal justice system, have a responsibility of maintaining caseload. The most efficient way to do so is to control the entry of cases at the recording level. The Indian Supreme Court observed that the police do not record over six million cognizable crimes reported to them annually (Lalita Kumari v. Govt. of U. P. and Ors, 2013), and empirical evidences (Chakraborty, 2003; Chockalingham, 2003; Mohan, 2008; Prasad, 2013; Singh, 1996) are similar to the findings of the ICVS. The NCRB crime data fail to include a large number of crimes not recorded by the police.

Due to varying degrees of reporting and recording of crimes across the world, and especially due to exceptionally low reporting and recording in developing countries (Van Dijk, 2007), the police-recorded crime data cannot be used for cross-national comparison and empirical studies. In view of such limitations, the use of police crime statistics for cross-national comparison is useful only when data are adjusted for reporting and recording. The problem is that most countries do not have a national victimization survey, and they also do not participate in the ICVS. The police-recorded crime data can also not be used for trend analyses, because the reporting and recording practices can be dramatically altered by the legislative, policy, and implementation changes, and by other factors, such as communication and surveillance technology and advances in record keeping and data management (Van Dijk, 2007). Moreover, the changes in the social and political environment in a

country greatly affect reporting and recording practices of certain crimes. For example, the police-recorded rape rate in India has shown a sharp increasing trend in recent years against the declining trend of all other violent and property crimes. There is no theoretical explanation of the exceptional and continuous increase in police-recorded rape rate, and it is speculated that the increase in rate is a result of significant changes in reporting and recording due to social, political, and legal activism with regard to crime against women in India (Chari, 2014; Iyer, Mani, Mishra, & Topalova, 2012). What is the solution? The only solution is to install an NCVS and/or participate in the ICVS. One of the promises of victimization survey is that it can lead to overcome the cross-national definitional, reporting, and recording differences and provide standardize measures to collect world crime statistics.

Another limitation is the counting protocol of the *Principal Offence Rule* that is also responsible for undercounting and inaccuracy of measurement. The NCRB counts only the most serious crime when multiple crimes are committed together. For example, a case of murder with rape is counted as only murder. This counting method may have significant effects on the numbers of all crimes except murder.

Crime Reporting and Recording

The NCRB crime data represent crimes recorded by the police, which chiefly include crimes reported to the police by victims and bystanders (Skogan, 1984) because the role of the police is primarily reactive. The reporting and recording of crime depend on how often victims report to the police and how readily the police record (Langan & Farrington, 1998). People do cost–benefit analysis before making a decision to report crime to the police (Skogan, 1984). Studies have found several determinants of crime reporting, which include seriousness, socioeconomic disadvantage, insurance, obligation and efficacy, attitude toward police, culpability of victims, fear of reprisal, demographics, relationship between victims and offenders, third-party reporting, and self-help (Chakraborty, 2003, Felson, Messner, Hoskin, & Deane, 2002; Goudriaan, Wittebrood, & Nieuwbeerta, 2006; Skogan, 1984).

Issues of reporting by victims and lack of record keeping by police plague the police-recorded crime statistics (Van Dijk, 2007). The problems of reporting and recording, perhaps the biggest impediment in using police-recorded crime statistics in cross-national crime trend comparison, are not equally distributed. Crime is more frequently reported and recorded in North America, West Europe, and Australia/New Zealand than in East European, African, Latin American, and Asian countries (Del Frate, 2003; Van Dijk, 2007). Evidence suggests that people in India often abstain from reporting crimes to the police, and the police use enormous discretion in recording crimes (Chakraborty, 2003; Verma, 2000).

Reporting of crimes to the police is problematic universally. The ICVS data show that globally only 40% of all committed crimes are reported to the police (Van Dijk, 2007). The reporting of crimes is especially low among the developing countries (Van Dijk, 2007). In absence of a national victimization survey in India, and its nonparticipation in the ICVS, there is no way to find out the exact percentage of crimes not reported to the police by the people. In view of the ICVS findings, we can assume that a large percentage of crimes are not reported to the police. The ICVS data analyses also tell us why people tend to abstain from reporting in developing countries. Understanding of offences and in-person reporting requirements, distances to police stations and poor transportation, poverty and lack of awareness, and attitude toward the police and criminal justice system are some of the reasons for poor reporting of crimes by the people (Van Dijk, 2007). People in India, because of extremely slow process of adjudication, do not have adequate trust in criminal justice system with regard to delivery of justice. The prime minister of India in his address at the joint conference of chief ministers and chief justices said that India has more than 30 million criminal cases pending

in the various courts and a large number of them are pending for over 5 years (Press Information Bureau, 2013).

The attitude toward the police, perhaps, plays the most critical role in people's decision to report crimes to the police. People are less likely to report crime to the police when there is a deficit of trust with regard to responsiveness and efficiency of the police (Black, 1970; Skogan, 1984). The ICVS surveys revealed that a large number of people in developing countries who did not report crime to the police said that they did not report because "the police would not do anything" (Van Dijk, 2007, p. 122). An equally large number of people, approximately 25% respondents, said that they feared or disliked the police (Van Dijk, 2007). According to Van Dijk (2007),

> in many developing countries, the police are generally disliked or feared by large segment of the public, and approaching them in case of victimization may not be perceived as the obvious step to gain access to justice. The police may also be seen as corrupt and/or biased against minority and women. In these countries, citizens try to avoid contact with law enforcement and instead turn to traditional justice. (p. 19)

As a developing country, India is likely to have similar issues with crime reporting. In 1992, the ICVS in Bombay city reported that respondents were significantly dissatisfied with the police with the way the police responded to crime and treated victims (Singh, 1996). Another victimization survey conducted in four cities in Tamil Nadu also reported the dissatisfaction of respondents with police performance (Chockalingham, 2003). Trust deficit in the police in India is caused by multiple factors and can be understood in historical, political, and professional contexts. However, the current practices of the police and the perception among people about the role of the police are the main determinants of the lack of trust in the police (Verma & Subramanian, 2013). The police are considered corrupt (Nalla & Madan, 2013), nonneutral, biased, and inefficient during the sectarian violence between the majority and the minority communities (Raghavan, 1986; Rai, 1999). The police are also brutal and frequently involved in custodial torture and cold-blooded killings, known as encounter killings, of suspects and innocent people (Noorani, 1987). From 2001 to 2010, the National Human Rights Commission (NHRC) of India recorded 14,231 deaths of those in police and judicial custody, and 99.99% of deaths in police custody were due to torture and occurred within the first 48 hr of detention (Asian Centre for Human Rights, 2011). The reports by several human right organizations including India's NHRC and empirical studies provide evidence that the police in India often use coercive means during interrogations of suspects to draw out confessions (Alison, Sarangi, & Wright, 2008; Epp, 2012). The above factors not only go against establishing a trust of the police among people but also make people fearful of the police.

Recording of crime by the police are also affected by the limitations of the resources with criminal justice system and the systematic bias in the police (Van Dijk, 2007). The ICVS data show that recording of crime by the police is negatively correlated with the economic condition of a country. Therefore, developing countries have significantly low level of crime recording by the police (Van Dijk, 2007). Empirical studies and the observations made by the courts suggest that the police in India do not adequately record crimes reported by the people (Chakraborty, 2003; Verma, 2000). For instance, in the recent case of Lalita Kumari versus Government of the state of Uttar Pradesh, the Supreme Court observed that over six million cognizable crimes, which is almost 50% of the total reported crimes, were not recorded by the police in year 2012 (Lalita Kumari v. Govt. of U. P. and Ors, 2013). Although the number is not based on a scientific estimation, it is indicative of a large number of missing serious crimes from the police record in India. It is also important to note that the six million cases do not include the cases not reported to the police or the cases not classified as cognizable. Apparently, these are the serious cases that were reported to the police, but the police refused to record them. The police are especially unwilling to record domestic violence cases in India, unless the cases are extremely serious (Chakraborty, 2003). A crime is recorded in India when

the police make a formal report of an incident of crime, known as the First Information Report (FIR). For several reasons discussed in an earlier section, the victims greatly avoid filling FIRs. It is a common belief among the police and the people that every incident report (FIR) must result into an arrest, which has also been one of the factors for nonrecording of crime in India. The Supreme Court of India in its recent judgment (Lalita Kumari v. Govt. of U. P. and Ors, 2013) reiterated the mandatory requirement of filing an incident report (FIR) in case of all reported cases of cognizable offenses, and also clarified that the filing of an incident report (FIR) should not automatically lead to an arrest of a suspect. However, the police have generally remained indifferent to the court directives.

The magnitude of nonrecording of crime by the police was revealed in an experiment, known as *Jalpaiguri Experiment*, conducted by a police chief of district Jalpaiguri of West Bengal (Mohan, 2008). The police chief on June 28, 2007, mandated that the police, without using their discretion, will record incident report (FIR) for every single cognizable crime reported to them by the people. Prior to the experiment, an average of 249 cognizable crime incidents (FIR) per month were recorded by the police, but after the experiment started the police recorded an average of 1,060 cognizable crime incidents (FIR) every month. The discrepancy between the numbers of pre- and post-experiment incident reports (FIR) reveals the misuse of discretion by the police and their unwillingness to record crimes reported to them by the people. The systematic bias in the police with regard to recording of crime and the limitations of the police and criminal justice system result into nonrecording of reported crimes. In turn, nonrecording negatively affects the reporting of crime.[5]

Victimization Surveys and the Dark Figure of Crime

The dark figure of crime, as defined by Biderman and Reiss (1967), is the number of crimes not known or recorded by the police. The difference between the unknown actual number of crimes and police-recorded crimes may be defined as the dark figure of crime. In the absence of an alternative crime measure in India, it becomes difficult to make an accurate estimate of the dark figure of crime, but given the problems with reporting and recording, we can safely assume that the dark figure of crime in India is rather significant. The argument can be substantiated through several victimization survey reports and a recent judgment in which the Supreme Court of India observed that the police did not record over six million cognizable crimes in 2012.

In 1992, the ICVS included Bombay (now known as Mumbai) in its survey in which 1,040 respondents age 16 and over were interviewed face to face. A comparison between the ICVS reported victimization rates and the official crime rates for certain categories of crime indicate a large gap between victims' reported and police-recorded crime figures. In 1992, the police in Bombay reported 1,219 robberies and 2,708 burglaries (see *Crime in India, 1992*). In other words, the police reported 0.12 robberies and 0.27 burglaries for every 1,000 people. For the same year, the ICVS reported 6 robberies and 13 burglaries for every 1,000 people. The victimization estimates by the ICVS were almost 50 times higher than the official crime rates. In 2003, a more systematic victimization survey was conducted in four Indian cities—Madurai, Coimbatore, Trichy, and Chennai (Chockalingham, 2003). The victimization survey conducted face-to-face interviews during which 4,030 respondents, age 16 and above, were asked about their victimization experiences in the past year. The crime categories included in the survey were vehicle thefts and related crimes, burglary, attempted burglary, robbery, theft, sexual offences, and assaults or threats. The estimated rates of crime victimization based on the reporting of respondents were much higher than the official crime rates. The survey found that large percentages of crimes are not reported to the police and the police-recorded crime is just a fraction of the total crime committed (Chockalingham, 2003). A recent survey on human development also revealed the magnitude of unrecorded crime in India (Prasad, 2013). India Human Development Survey of 2005 also included a question asking 41,554 respondents whether they were victims of certain crimes in the past 12 months. In 2004, the survey

estimated 1,134 burglaries and 4,028 thefts for per 100,000 people (Prasad, 2013). The rates of burglary and theft estimated by the survey were much higher than the police-recorded rates of burglary (8.23) and theft (24.30) for the year.

The problems of recalling and telescoping, difficulties in understanding the definition of crimes by the respondents, and sampling and nonsampling errors may question the validity and accuracy of the estimates by the three surveys, but large discrepancies between the police-recorded and victims reported crime rates certainly insinuate that the recorded crime is just a fraction of the actual crime. The three victim surveys, the results of the *Jalpaiguri Experiment*, and the recent observation made by the Supreme Court about nonrecording of a large number of crimes by the police provide compelling evidence to support our assertion that the dark figure of crime in India is large. While in the United States, the dark figure of crime traditionally includes crimes not reported to the police, in India, the dark figure includes not only unreported crimes but also a significant number of crimes reported but not recorded by the police.

Data

The crime data are drawn from the annual reports *Crime in India* published by the NCRB, a central warehouse of crime and law enforcement data in India. The annual population data are drawn from the Population Division of the UN. The rates are calculated as number of crimes per 100,000 people.

We have used six nonaggregated categories of crime—murder, rape, robbery, burglary, theft, and riot—in our trend analyses. The crime categories are primarily selected based on the availability of the data and the accuracy of measurement. The *Crime in India* has consistently reported on these crimes, and the time series data are available with no missing values. All the six crime categories used in the study are serious crimes and have cross-national definitional similarities.

The NCRB measures and publishes statistics on murder, rape, robbery, and burglary consistently without any changes from its beginning. However, the NCRB began separate reporting of motor vehicle theft in 1999, which was earlier included in a general category of theft. For this reason, a separate category of motor vehicle theft is not included in the study, and the cases of motor vehicle theft and theft are combined into one category of theft.

Robbery in India is defined similar to the definition of robbery in other countries, but if five or more suspects are involved in a robbery, then it is considered a serious form of robbery and defined as *dacoity*. For the purpose of this study, we have combined robbery and dacoity in a single category of robbery. The decision was taken because there is no substantial difference between the two with regard to their definitions. Another reason is that dacoity is only a fraction (about 15% in 2011) of total number of robbery and dacoity combined.

Rioting is considered to be a serious law enforcement challenge in India, although it is highly problematic with regard to reporting, recording, and measurement. Riot is an offense against public tranquility and peace committed by a group of people. According to section 146 of the IPC, "Whenever force or violence is used by an unlawful assembly, or by any member thereof, in prosecution of the common object of such assembly, every member of such assembly is guilty of the offence of rioting." An unlawful assembly is an assembly of five or more persons that is designated unlawful under the section 141 of the IPC. Therefore, a riot can be defined as an unlawful assembly that has begun to act in a tumultuous manner to the disturbance of the peace (Hamilton, 1895). Assault has been dropped because of definitional and measurement issues. The assault in India has several distinct legal categories including attempted murder, grievous hurt, simple hurt, sexual assault against women, assault against public servant, and so on. The NCRB began reporting attempted murder in 1988, sexual assault against women in 1992, and some sort of assault (hurt) cases in 1995 but still does not regularly report other cases of assault.
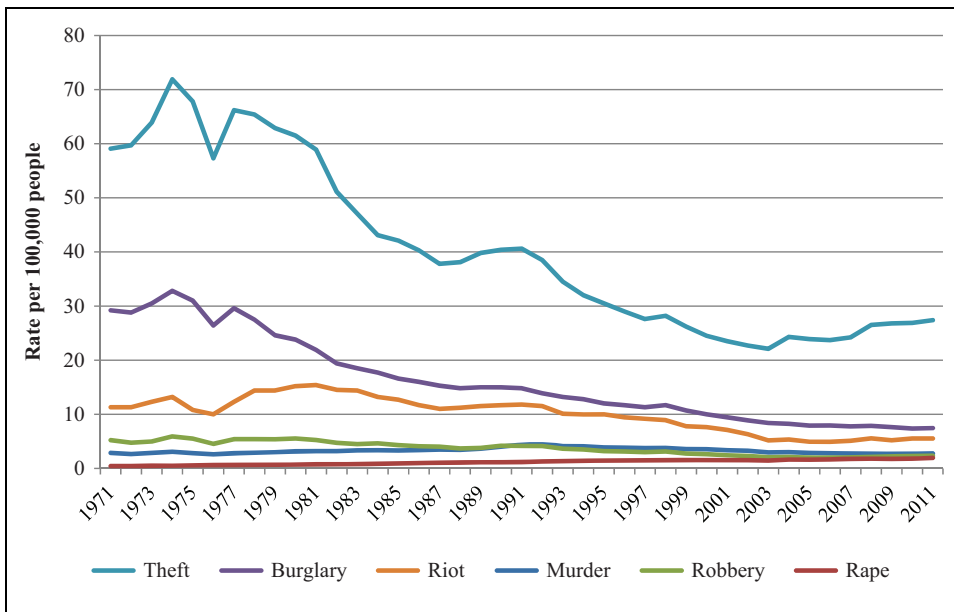
Figure 1. Murder, rape, robbery, burglary, riot, and theft rates, 1971–2011.

Findings

Trends in Crime Rates

The long-term trends clearly show that there is no consistency between the rates of murder and other crimes in India. The assumption that other crime categories, especially violent crimes, generally follow homicide trend is not true for India. Figure 1, in which the time series of murder, rape, robbery, burglary, theft, and riot rates from 1971 to 2011 are plotted, shows a declining trend for all the crimes except rape, although there seems to be an inconsistency between murder and other crime trends. The highest murder rate (4.40) in India was recorded in 1992, whereas the highest rates of robbery (5.92), burglary (32.80), and theft (71.90) were recorded in 1974, and the highest rate of rioting (15.4) was recorded in 1981. Rape is an exceptional crime since it has shown a continuous increasing trend and the highest rape rate (1.94) was recorded in 2011 during the study period. The crime trends in India do not seem to be following the trends in North America and Western Europe, with an exception of murder. Murder rate peaked in India in 1992, but the decline of robbery, burglary, and theft began after 1974. The rates of robbery, burglary, and theft saw a sharper decline after 1974 before they started stabilizing in the late 2000s.

Although we see that all the crime categories show a progressive declining trend over 40 years of study period, with the exception of rape, the varying scale of different crimes in terms of rates make it difficult to easily comprehend and compare the trends of the different crimes categories. In order to overcome this problem, we presented the indexed line graphs in which crime rates are indexed to 100 in 1971 and 1992. Figure 2, in which crime rates are indexed to 100 in 1971, shows that murder recorded almost no change in its rate during the 40 years of study period, although the trend of murder rate is curvilinear with its peak in 1992. On the other hand, recorded incidents of burglary declined sharply during the period. The recorded rates of robbery, theft, and riot also declined sharply but started showing upward trend after 2003. We did not include rape, because of the opposite trend.
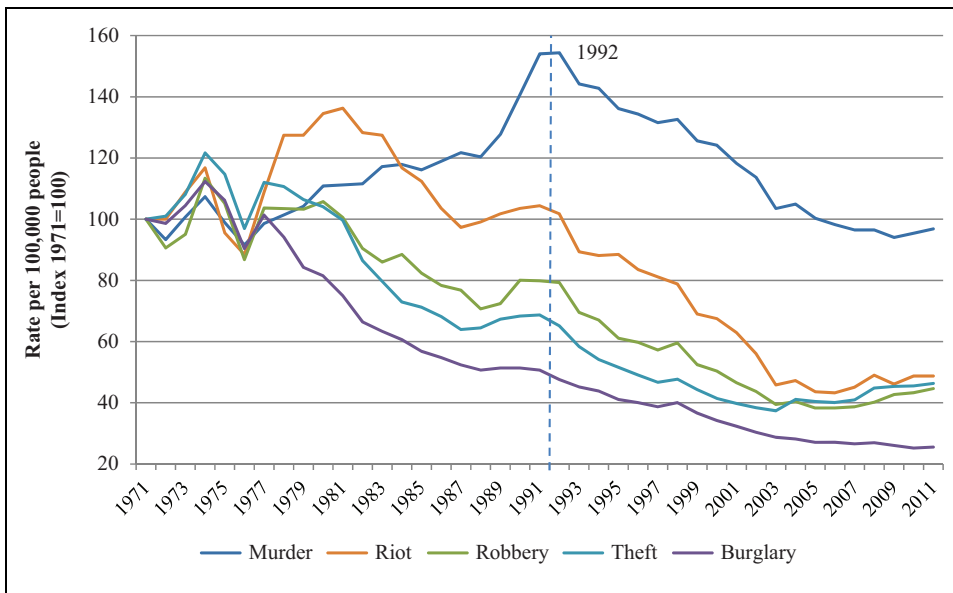
Figure 2. Murder, robbery, burglary, riot, and theft rates indexed to 100 in 1971.

We notice inconsistencies when crime trends in India are compared with the United States and other Western countries. While the murder trend in India follows the global trend, with its peak in 1992 before the beginning of the decline, other crimes—rape, robbery, burglary, and theft—did not follow the global trends. For example, these crimes started declining during the mid-1970s in India, which is inconsistent with the trends in the United States and other Western countries, where the decline of these crimes began in the early 1990s and around 2000, respectively. One unique discrepancy between India and Western countries is the trend in rape rates. The rape rate in India shows a continuous increasing trend, whereas it follows a declining trend in the United States and in other Western countries after the mid-to-late 1990s. As discussed earlier, the opposite direction of rape trend in India might be a result of increased reporting and recording rather than a real increase.

The further analyses reveal that despite discrepancies, the crime trends in India show some similarities with the crime trends in the North American and West European countries. Murder rate in India follows the global trend, but other crimes, such as robbery and theft, also show some correspondence with their trends in North American and West European counties. When we indexed the rates to 100 in 1971 and plotted them together, we see a small peak in the beginning of 1990s. The rates also either stabilized in the late 2000s or began a gradual upward trend, which is similar to the crime trends in North American and West European counties. We would specifically like to highlight the trend in burglary in India, which shows even stronger correspondence with the United States and West European trend in burglary. The rate of burglary in the United States started declining after 1980 and did not increase in the early 1990s. This has some similarities to burglary trend in India, which also does not show any increase during the 1990s. The rates of burglary in West European counties, although show an increase in the mid-1990s, recorded sharper decline that began in the 1980s. These similarities in burglary rate between India and Western countries may not have been caused by similar factors. The security hypothesis, according to which the decrease in rates of burglary and theft was caused by enhanced home and car security, may not be true for India. The electronic home security is nonexistent in India and the rate of burglary began declining in India even before it began declining in the United States or any other Western European countries.
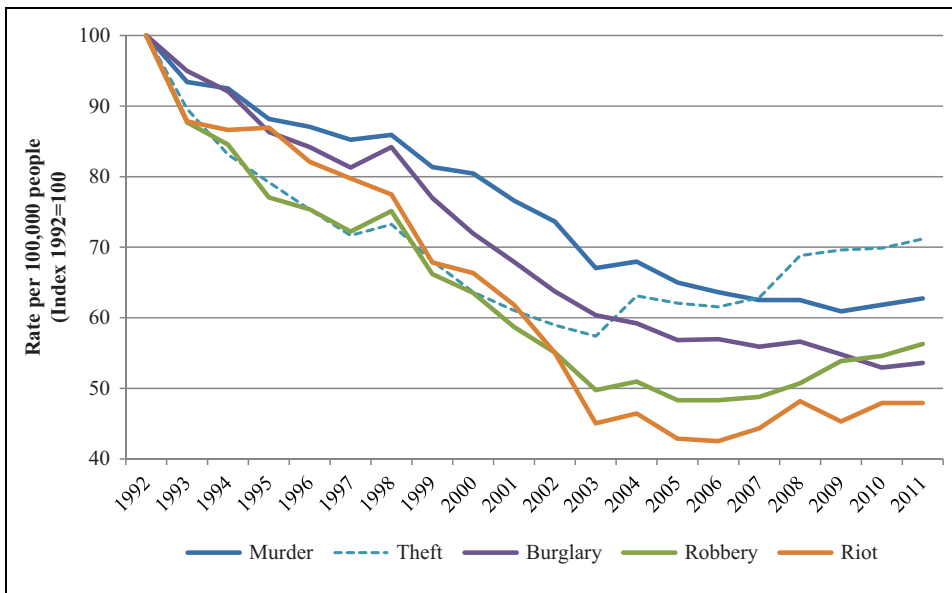
Figure 3. Murder, robbery, burglary, riot, and theft rates indexed to 100 in 1992.

In order to visualize and compare the trend between different crime series, we further indexed the rates to 100 in 1992 and plotted the series together (see Figure 3). This magnifies the difference of trends between different series. The trends of all the crime series tend to stabilize after 2003, although a few show a gradual increasing trend after the mid-2000s. The increasing trend is the most prominent in theft rate, which has shown a substantial increase after 2003. This is different than the trends of similar crimes in the United State and Western European countries. In the United States and Western European counties, the declining trend still continues.

Comparative Trends in Murder, Other Violent Crimes, and Property Crimes

The measurement of police-recorded homicide is the most accurately measured crime (Sellin, 1951; Wolfgang, 1961; Sherman & Langworthy, 1979), and the evidence suggests that police-recorded homicide data are more reliable than other categories of police-recorded crime (Van Dijk, 2007). Although homicide is measured more accurately than other crimes, it is far from perfect, especially in India. It is said "one cannot hide the body," but this may not always be the case. A large number of missing people in India might suggest that bodies can be hidden or disposed. Cremation practice of dead bodies by the majority population in India also makes the disposal of bodies easy. Although murder rate is exceptionally low in India, the rates of suicide and accidental deaths by unnatural causes are exceptionally high when compared with the global trends (NCRB, 2013). The World Health Organization estimated that 258,075 people committed suicide in India in 2012, which is one third of the total number of suicides in the world. In 2012, a reported 372,022 people were killed by unnatural causes (NCRB, 2013). Given the problems of recording of crimes by the police, it may not be surprising that a large number of homicides are recorded as suicide or accidental deaths. However, we assume that the official crime measurement program measures homicide more accurately, despite all the measurement issues. Therefore, we used homicide trend to compare the trends in other crime categories to assess their validity of measurement. We compared the trends in murder and violent crimes and then trends in murder and property crimes. We
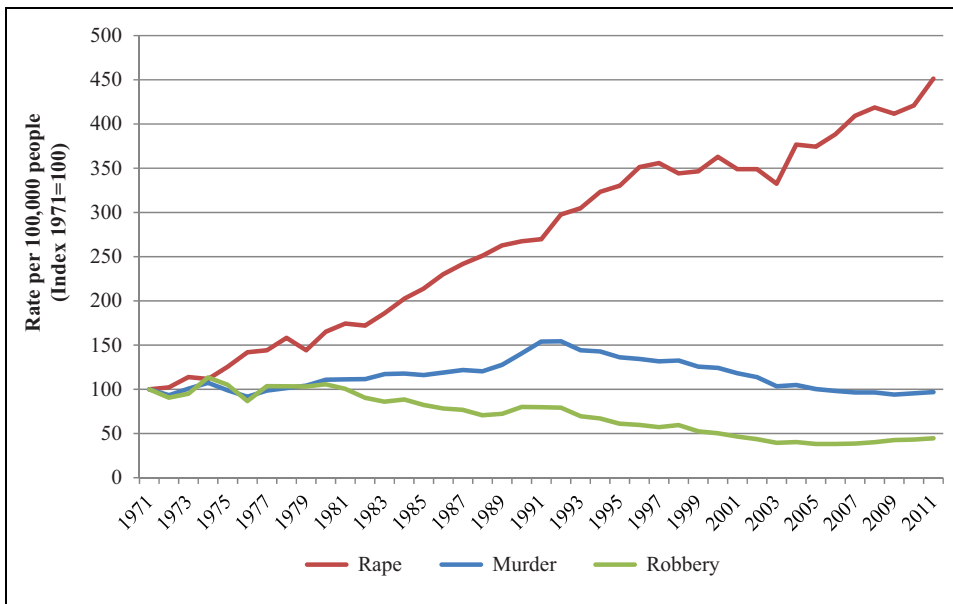
Figure 4. Murder, rape, and robbery rates indexed to 100 in 1971.

also compared the trends in robbery, burglary, and theft. To put the rates of all crimes on a comparable scale before plotting the series together, we indexed the rates to 100 in 1971.

Trends in Murder and Other Violent Crimes

If we look at the long-term trends in murder and robbery rates and their peaks, troughs, and turning points (see Figure 4), they correspond as they move together, but a more detailed look shows some discrepancies between the two. Murder and robbery series follow similar trends until 1979 and then diverge. The murder rate began increasing after 1979 and reached its peak in 1992 followed by a gradual decrease that continued until 2009. On the other hand, the robbery rate showed a continuous declining trend since its peaked in 1974. Both the series have shown a sharper declining trend after 1992 and have also been showing a slight increasing trend for the past few years. Overall, the rates of murder and robbery show correspondence during the study period except between 1979 and 1991 when they moved in opposite directions.

The most incomprehensible fact is a complete lack of correspondence between murder and rape rates. The rape rate showed a continuous increasing trend between 1971 and 2011, with the exception of a brief pause between 1998 and 2003 when it stabilized. Between 1971 and 2011, the murder rate declined 3%, while rape rate increased 351%. Murder and rape are likely to be affected by some similar factors or one may also be affecting the other. A different pathway of rape rate, and the discrepancy from other violent crimes, indicates that the recorded rate of rape is affected by certain unique factors. The sharp and continuous increasing trend may be the function of real increase in rape incidents and also increased reporting and recording of rape cases due to changing socioeconomic, cultural, and political conditions and the development of institutional mechanism, such as new laws, policies, and special law enforcement cells for women and children (Iyer et al., 2012). For instance, higher reporting of rapes in recent years may be result of decreasing social stigma against sexual violence against women and increasing confidence of victims in the police and criminal justice system (Chari, 2014).

Trends in Murder and Property Crimes

It is important to note that the property crimes have shown a sharper declining trend than violent crimes (see Figures 2 and 3). Between 1971 and 2011, burglary rate decreased by 74%, theft by 54%, and rioting by 51%, while murder rate decreased only by 3%. Despite such significant differences in percentage of decrease between murder and property crime rates, the crime rate series of burglary, rioting, and theft, with some discrepancies, seem to correspond to each other. Unexpectedly, the trend of rioting is nearly identical to the trends of burglary and theft, except that burglary and theft peaked in 1974 and rioting peaked in 1981.

All the four crime series, following the similar pathways initially, peaked in 1974 and troughed immediately for 1–2 years before starting an upward trend. Unexpectedly, all rates, except that of murder, declined. The murder rate increased until 1991 when it reached the highest recorded rate. The declining trends in the three series saw a turning point in 1986–1987 when they show increasing trends before continuing with their declining trends. The small peak in the three series also coincided with a sharper increase in the increasing trend in murder rate. After its peak in 1991, murder rate series shows a decreasing trend and almost follows the similar pathway as followed by the other three series. After 2007–2008, theft and rioting series increased, whereas the decreasing trend in murder and burglary has reduced. The biggest discrepancy between murder and other series is that between 1977 and 1978 burglary, theft, and rioting rates were decreasing, while murder rate was increasing. Except for this inexplicable discrepancy, all the four series have shown a correspondence in long term.

Trends in Robbery, Burglary, and Theft

Although robbery is primarily defined as a violent crime and shows a great correspondence with murder trend, it is also identified as property crime due to intent. The common intent of property gain is present when robbery, burglary, or theft is committed. Therefore, we asked whether there is a correspondence among the three crime rate series. Figure 3 shows a long-term trend between robbery, burglary, and theft rates. The robbery and theft rate series especially show a striking similarity.

Conclusion

By presenting the trend analyses of the police-recorded crime data, we sought to demonstrate the long-term trends of serious violent and property crimes in India and demonstrate whether the crime trend in India followed the global drop in crime, including the declining trend in the United States. Additionally, we intended to illustrate the trends of different crimes in terms of their peak, troughs, and turning points, to see the similarities and differences in long-term trends between different crimes. To achieve the objectives of the study, first, we presented the long-term national trends in murder, rape, robbery, burglary, theft, and rioting from 1971 to 2011. Next, we presented comparative analyses between the trends in murder and other violent crimes; trends in murder and property crimes; and trends in robbery, burglary, and theft. We also presented some discussion on the global crime trend, police-recorded crime and its limitations, the problems of reporting and recording of crime, and the magnitude of dark figure of crime prior to the data analyses.

We determined that murder, robbery, burglary, theft, and rioting rates decreased, whereas rape increased between 1971 and 2011. The crime series showing declining trends have different peaks and turning points. The turning point in the rate of murder takes place after 1992 when the highest murder rate was recorded. In contrast, the trends of robbery, burglary, and theft do not follow the murder trend and show turning points after 1974, whereas the rate of rioting began dropping after

1981. Generally, the homicide trend is followed by the trends of other categories of serious crime, because homicide is relatively more accurately measured and is considered as an indication of overall crime trend. The analyses of ICVS data also show that different categories of crime in a country are intercorrelated (Van Dijk & Tseloni, 2012). However, it is inexplicable as to why the trends of other serious crimes, especially violent crimes, do not follow murder trend in India. Murder is the only crime that follows the global trend in homicide. This unusual phenomenon indicates toward the problems of reporting and recording of crimes in India. The overwhelming evidence suggests that problems of reporting and recording of crimes greatly affect the measurement of crime in India (Chakraborty, 2003; Chockalingham, 2003; Lalita Kumari v. Govt. of U. P. and Ors, 2013; Mohan, 2008; Prasad, 2013; Singh, 1996; Verma, 2000). The lack of reporting and inadequate recording are least likely to affect murder and most likely to affect other crimes, which may be one of the reasons for the anomaly between the trends of murder rate and the rates of other crimes. The *Principal Offence Rule* counting protocol used by the NCRB, which counts the most serious crime only, may also be responsible to create the anomaly between the trends of murder and other crimes. The analyses show that the most similar trends are displayed by robbery, burglary, and theft, although the rate of burglary still continues to decrease and the rates of robbery and theft have shown upward trend after 2003. The similarity between the two property crimes and robbery is understood as the motivation for the three crimes are similar. Rioting shows trend similar to the trends of property crimes indicating toward the role of some common factors including reporting and recording practices.

Perhaps, the most unexpected observation about the crime trends in India is a continuously increasing trend of rape, which is against the global trend in rape, as well as the trends in other crimes in India. Is it because of the real increase in rapes in India, or an increase in reporting and recording of rape incidents, or both? The continuous increasing trend in police-recorded rape rate may also be a function of increased reporting and recording of rape cases in recent years and decades. Gender equality and women empowerment gained much attention by activists and researchers in the 1970s and 1980s (Dave, 2013), which resulted in several legal, institutional, and enforcement steps. In 1992, the National Commission of Women was established and the NCRB added *crime against women* to *Crime in India*. The Protection of Women from Domestic Violence Act was passed in 2005, and the higher courts issued important instructions and guidelines with regard to crimes against women. The percentage of women in criminal justice system, especially in the police, increased and many police departments have established special cells for women and children. Apart from these factors, research also shows that women representation in local government has increased the reporting and recording of crimes against women (Iyer et al., 2012). Therefore, the continuously increasing trend of the rape rate may be primarily a function of increased reporting and recording.

Crime trends in India show some similarities as well as dissimilarities with the trends in the United States and other Western countries. The murder rate trend in India is similar to the murder rate trends in the United State and other developed countries, but the trends in rape, robbery, burglary, and theft show some dissimilarity. While rape shows complete dissimilarity, property crimes, especially burglary, show some similarities. The burglary rates began a declining trend in the late 1970s in India and in the 1980s in the United States and in other developed countries, but there is no evidence to suggest that the similar trends in burglary were caused by the similar factors. The downward trend in burglary is understandable due to the development in security technology and changes in household belongings have affected motor vehicle theft and burglary more than any other crime globally (Herring, 2013).

As we discussed previously, the police-recorded crime has certain universal and country-based limitations. Police recorded-crime data not only have questionable reliability because of the serious issues with reporting and recording but are also not true trend indicators. The reporting and recording of crime can be significantly altered by external social, legal, political, or operational factors

(Van Dijk, 2007). The break in time series of police-recorded rape in India after the December 2012 high-profile rape case in New Delhi demonstrates how public emotion and media can alter the pathway of police-recorded crime. Considering these limitations of the data used in the study, we urge the readers to consider the result of the study with caution, and also make a case for an alternative crime measures in India.

Since India does not participate in the ICVS and does not have a national victimization survey, we do not have the means to assess the reliability of police-recorded crime. More importantly, we do not have means to make an estimate of actual number of crime occurring. Victim surveys calibrate police crime statistics, give victims' perspective to the measurement of crime, and provide a better estimation of real magnitude of crime. A better estimated criminal victimization and knowledge of victims' perspective are essential in designing and evaluating crime policies. The importance of a victimization survey in India, a country that aspires to be an important economic power and global player, cannot be exaggerated. Moreover, India has a serious issue of nonrecording of crimes by the police. The observation of the Indian Supreme Court and findings of some city-based and regional victim surveys indicate an enormous number of crimes not reported and/or recorded by the police. Thus, the establishment of a national victimization survey may prove to be the biggest step in the direction of minimizing the discretion of the police with regard to recording of crime. Therefore, we very strongly recommend that India establish a national victimization survey and regularly participate in the ICVS.

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Notes

1. Since the scope of the article is limited to the presentation of trends, the study does not provide a comprehensive discussion on the explanation of crime drop.
2. According to the security hypothesis, crime drop is a result of an increased security in the past few decades. Western countries made significant investment in private security measured by household and companies over the past few decades, which greatly helped preventing crimes, such as household burglaries and car thefts (Van Dijk, Manchin, Kesteren, Nevala, & Hideg, 2005).
3. Cognizable crimes are the serious violent and property crimes in which the police have power of arrest without an arrest warrant. Cognizable crimes, as defined by the criminal procedure code in India, are similar to felony, or arrestable crimes in different common law countries. The classification of crime between cognizable and noncognizable greatly influences the recording and arrest. Mandatory recording of crime incidents are recommended for only cognizable crimes (Lalita Kumari v. Govt. of U. P. and Ors, 2013), therefore, the recording of noncognizable crimes is even more problematic in India and may be a big contributor to the dark figure of crime.
4. Based on the recommendations of the National Police Commission, the government of India also helped states and union territories to establish State Crime Record Bureaus and District Crime Record Bureaus.
5. An explanation of nonrecording of crime by the police is out of scope for this article.

Supplemental Material

The online data supplements are available at http://icj.sagepub.com/supplemental

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