Sudhir Krishnaswamy
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# Crime Victimisation in India

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# Chapter 1
# Crime Victimisation Surveys in Indian Criminal Justice System Reform

**Renuka Sane and Ajay Shah**

## 1 The Criminal Justice System in the Larger Context of State Building

The state is defined as a community that achieves and maintains a monopoly on physical force in a given territory. State building consists of creating conditions under which residents do not inflict violence upon one another. In the jargon of public economics, the personal safety of citizens is a "public good." It satisfies the two tests for a public good: it is *non-rival* (your consumption of safety does not diminish my safety) and *non-excludable* (we cannot exclude a newborn child from the blanket of safety) (Kelkar & Shah, 2019). Hence, personal safety of residents is a legitimate goal for the state.

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The criminal justice system is unusually important, from the viewpoint of both economics and politics:

- In the political system, if individuals are not safe when organising political activities, the foundational concept of democracy—free competition between rival political parties—breaks down.
- In the economic system, if individuals are not safe when conducting business activities and imposing competitive pressure upon rivals, the foundational concept of capitalism—free competition between rival firms—breaks down.

In both aspects (politics or economics), remarkably modest levels of violence are required, in order to induce fear through a threat of violence. Once violence is a feasible strategy for some individuals, even on a small scale, this gives a decline in competitive conditions in politics and economics.

In politics and in economics, the hallmark of competitive conditions is close elections and the lack of domination by one party, or one firm in the marketplace. These yardsticks are only meaningful under free and fair conditions. Once violence is in the picture, these yardsticks are no longer a sufficient condition for ascertaining that healthy competition is in fray.

As an example, if one firm has 34% market share and another firm has 32% market share, the interpretation changes sharply when the former firm deploys violence upon the other. If competition in the market is free and fair, then it is reasonable to think that the two firms have similar levels of productivity. If, however, one of the two firms is gaining an upper edge through the use of violence (delivered either through private persons or through employees of the state), then it is likely that this firm has rough parity on market share but significantly inferior levels of productivity.

The personal safety of residents is also linked to freedom of speech. Violence or the threats of violence can be directed against persons who present uncomfortable facts and arguments into the public domain, thus inducing a chilling effect, and hampering both the political and economic life of a country.

For these reasons, protecting residents against internal violence is a fundamental aspect of every successful state. Personal safety is of enormous intrinsic value: high levels of safety directly generate welfare. Safety fosters exploration of the world, by the individual, under conditions of freedom, which is a purpose of human existence. The intertwined feedback loops of capitalism and freedom are founded in an environment of unquestioned personal safety. Conversely, when safety is under threat, it is not clear that political and economic freedom induces positive feedback loops upon each other. Every state aspiring for high capabilities builds institutional capacity to pursue the goal of the safety of residents. This is a combination of addressing external threats, which are addressed through a combination of international relations and military capabilities, and internal threats, which requires the criminal justice system (CJS).

## 2  Building the Criminal Justice System

The criminal justice system (CJS) is the institutional infrastructure that ensures safety of citizens. It consists of laws, courts, public prosecutors, police and prisons. In India, there are foundational flaws in each of these elements, and across many decades, a process of improvement has not commenced.[1] A research community is required, which is able to understand the full landscape of the CJS, and undertake the rational process of identifying problems, developing a strategic sense of the required changes, and working on the practical aspects of the small improvements which are made every day. A small process of thinking about courts has begun in India, but on the remaining elements there is a weak landscape (Datta et al., 2019; Saravade, 2015b; Shah, 2012).

As with many other fields, one strand of the Indian policy discourse on CJS reform consists of technological solutionism. This assigns supremacy to building computer equipment and associated monitoring mechanisms over the people such as mass surveillance using video cameras. However, as has been seen with many other fields in India, the human behaviour of the individuals that make up the state is shaped by incentives, and a more fundamental transformation of organisations, process manuals, power and incentives is required (Datta & Shah, 2015). Computer technology can be a part of a useful reform process, but a digital-first approach is generally unsuitable.

In the CJS, in particular, there is a greater danger of a digital-first approach inducing intrusions into the privacy of individuals and tilting the balance of power away from individuals and into the hands of state organisations (Bailey et al., 2018). Computer technology can be a useful element of a sophisticated reform programme, but such a reform programme needs to be primarily rooted in modifying the nature of state power and the incentives of self-interested state functionaries.[2] The first step in such a reform programme is that of establishing basic measurement of the functioning of the system.

## 3  The Role of Measurement

In most areas of public policy, it is useful to think in terms of a three-stage process:

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[1] For example, see Bhandari (2016), Parsheera (2015), Saravade (2015a), and Saravade and Sane (2013).

[2] For an analogy from the world of business, consider transformative "Business Process Re-engineering" (BPR). BPR projects have repeatedly generated large improvements in productivity. All BPR projects involve computer technology. However, BPR projects are led by the top management and primarily reshape organisation design, incentives and processes. A great deal of computer engineering is an implementation pathway. If the computer engineering were present, but the top management were not absorbed in a more fundamental reshaping of the organisation design, the technology transformation by itself would not sufficiently reinvent the firm.

## *Inputs*

We start at the inputs, a design of government, which maps into recruitment of personnel, purchases of goods and services, and their deployment into operation of exerting coercive force upon society, through a certain set of process manuals. The inputs are ultimately grounded in a theory of change about the nature of the world and the value of such state intervention. As an example, in the field of education, the inputs are teachers recruited and school buildings built.

## *Outputs*

The functionaries go about their process manuals and produce certain proximate outputs. As an example, in the field of education, the outputs are students enrolled and hours of teaching delivered.

## *Outcomes*

Finally, there is the desired impact upon society, the outcome. As an example, in the field of education, the outcome is the change in knowledge of children.[3]

Such an approach generates insights into whether the present strategy of inputs and outcomes is able to generate the desired outcomes. The education bureaucracy may like to count the number of teachers recruited, the number of schools built, the number of children enrolled and the pass rate of students in the official examination system. However, what matters most in measurement is finding a random sample of 15-year-olds and administering an internationally comparable test (the OECD PISA) upon them, to judge the knowledge of science and mathematics in these students.

This approach to outcomes measurement readily lends itself to bang-for-the-buck measures. As an example, in the field of education, it is easy to measure the per pupil expense ("PPE"). In the Indian case, over a period of the last 20 years, the PPE has risen greatly while the outcomes have essentially not changed at all. This helps question the theory of change that has shaped the existing design of inputs.

Similarly, in the field of bankruptcy, Shah and Thomas, 2017, define inputs as the laws and the institutional infrastructure required for the bankruptcy process to work, outputs as the transactions that go through the system, and outcomes as recovery rates, and broader growth in the credit markets.

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[3] See http://www.asercentre.org/Learning/Trends/-/p/375.html for the measurement of educational outcomes by ASER.

In the case of policing, inputs would be policemen or public prosecutors hired, and police stations or jails built. Outputs may be measured from within the MIS of the police. This would include measures such as the number of cases filed, the number of cases where prosecution in court commenced, the success rate in achieving conviction and the crime rate (as measured in the MIS of the police). The outcomes would be a citizen-centric view of law and order. They are the ultimate output that we seek to deliver. They consist of three things: (a) the actual incidence of crime as reported by the people (and not as counted in the MIS of the police), (b) trust in the policing system and (c) perception of safety that enables freedom in behaviour.

There is quite a bit of knowledge, internationally, on how some of this measurement is done. For an array of standardised crimes (e.g., theft of a car), a random sample of households is asked questions:

1. In the last 1 year, have you or your immediate family experienced this crime?
2. If you did, did you go to the police and was it a satisfactory experience?
3. If, hypothetically, you were to experience this crime in the future, would you go to the police?

The advantage of this household survey-based measurement is that it avoids the infirmities of the MIS systems within the police. If households prefer to not file an FIR, or if filing FIRs is difficult, then crime events would not show up in the police MIS systems. In contrast, household survey-based measurement generates direct evidence of the outcome.

An important element of all public goods problems lies in "coping costs." For example, when the electricity supply is bad, we buy voltage stabilisers or generators. It is, hence, important to measure the adaptations and distortions of behaviour of households that are caused by the prospective fear of crime. This would include questions such as:

1. How much are you spending for security-related services?
2. At what time in the evening do you feel it is unsafe for your teenage daughter to be out alone?

A good state of law and order is one where households lead an unencumbered life, where they do not suffer from costs of coping. The decision of a resident to engage in economic activity or political activity should not be shaped by the threat of violence that might be encountered.

The measurement of crime as seen from citizens versus the measurement of crime as seen in the official police MIS will throw up some discrepancies which are also interesting. They portray the unwillingness of citizens to go to the police. Our first task is to establish our statistical system. This requires ongoing measurement through two tracks: (a) internal MIS of the police and (b) survey-based measurement of outcomes.

## 4   Crime Victimisation Surveys in India

In India, small-scale city-based surveys measuring crime have been conducted since the 1980s. These include surveys that studied causes of victimisation, or the perception of the citizens by police and lawyers in the 1980s (Krishna et al., 1981; Rajan & Krishna, 1981). The first crime victims survey, with a sample of 1000 respondents, took place in 1992: International Crime (Victim) Survey in Bombay (ICS Bombay). This was followed by surveys in four cities of Tamil Nadu—Madurai, Coimbatore, Trichy, and Chennai, in 2001 (Chockalingham, 2003). In 2007 and 2008, a survey was conducted in Rajasthan that also asked questions on non-reporting of crime (Banerjee et al., 2021). This survey showed that 1.7% of individuals were victims of a crime in the prior year and that 5.9% of households had at least one member who was a victim of a crime. Theft was the most common type of crime (37.9% of all the reported crimes), followed by burglary (16.6%) and assault (12%).[4]

In 2015 and 2017, there were two large-scale crime victimisation surveys conducted by the CHRI (Project Vishwas Setu) and the IDFC Institute (SATARC), respectively. The former surveyed 5850 households in Mumbai and 4950 households in Delhi while the latter surveyed in Chennai and Bangalore in addition to Mumbai and Delhi. Both surveys broadly asked three kinds of questions:

1. Was the respondent a victim of a crime in the last 1 year? (such as theft, house break-in, sexual harassment, assault, criminal intimidation, unnatural death and missing persons)
2. Did the respondent report this to the police? Did the police respond appropriately? If the households chose to not report to the police, what were their reasons?
3. Do households feel safe in their neighbourhoods? Or in public transport? At different times of the day?

Both these surveys were focused on urban regions. The Karnataka Crime Victimization Survey (KVCS), 2018–2019, moved this forward to the full state of Karnataka thus allowing a better understanding of both urban and rural regions in the state. The KCVS also expanded the range of crimes to include public order offences like rioting, arson and unlawful assembly, and offences committed by government officials like bribery and abuse of power.

Another important survey is the Status of Policing in India Reports (SPIR) in 2018 and 2019, which not only measured the perception on the incidence of crime but also measured the perceptions and response of the police personnel. This is interesting as it gives us a perspective on how those manning the system look at

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[4] Another source of information on incidence of crime have been surveys such as the India Human Development Survey (IHDS) and the National Family Health Survey (NFHS)—though strictly not about measuring crime—they provide an indicator of some kinds of crimes experienced by survey respondents.

crime, and their role in ensuring safety. It also helps us understand the "how" and "why" behind the crime.

There are some similarities as well as differences in what one learns from the three crime vicitimisation surveys. The KCVS, for example, reports a crime victimisation rate of 30%, that is nearly double that reported by the CHRI survey. This may be associated with much greater crime rates in rural India. The SPIR finds that people's perceptions of crime differ greatly from the actual number of reported crimes in the same region—states that have the highest reported crime (such as Kerala) have the lowest perception of crime.

All four surveys have similar findings on reporting behaviour of victims of crimes—that is, there is large-scale under-reporting of crime. The process of reporting, and dealing with the system, is one of the prime reasons why people do not wish to deal with the police. The surveys also point to under-reporting by the police—when households do make it to the police station, they often are not able to register an FIR, reinforcing the reluctance to go in the first place. The KCVS survey points out that this is not uniform across complaints—registering property offences is easier than offences against the body and law. The SPIR survey also points to heterogeneity in the ability to register cases—the situation gets progressively worse for economically or socially vulnerable groups.

Despite these gaps, people's perception of the police is better than what one would have imagined. The surveys three CVS surveys show that around 50% of the victims are satisfied with the police response. However, as the SPIR points out, this overall satisfaction does not, at the same time, diminish the fear of the police.

The surveys also find that a large number of households feel "safe" in their neighbourhoods in cities such as Chennai, Bangalore, and in the state of Karnataka. Mumbai also does reasonably well. Delhi, however, fares poorly on the perception of safety with more than half the respondents saying that crime is a serious problem.

## 5   The Way Forward

The criminal justice system is a core public good. The ultimate goal of state building in a liberal democracy is that the safety of residents should be unquestioned, which would create conditions for creativity and leadership. This calls for a high prioritisation of the elements of the criminal justice system.

One of the first steps towards this aspiration is the measurement of how the system works, and where and why it fails. This can help understand the correlations between other aspects of society—such as employment, education, and prosperity—with those of crime. Such an understanding then lays the foundation for devising solutions. For example, one solution that is often talked of to reduce crime is to improve the quality of streetlights in public places. A regular measurement system also helps in evaluating whether policy actions are leading to the desired result. In the streetlight example, it would be useful to know what impact did the lights have on incidence of crime? Did they help as we had expected them to? If not, why did

they not help. This can help policymakers do course correction before it is too late. There are two areas where we can make tangible progress in measuring the CJS.

1. *Reported crime data*: Improving the quality of measurement should begin with the data capture of registration of complaints and FIRs at the police station. As we have seen from survey evidence, there is a big gap between actual crime and registered crime. This gap needs to be reduced so that crime records can become more reliable. In India, the logistics of crime measurement are also problematic; in that, crime is recorded at the police station and then aggregated at the district and state level. If the data flows through the various layers are filled with leakages, then even if the reporting improves at the station level, the aggregate statistics at the district, state and national level, will be beset with errors.

    There are two responses that are important. First, recording of data at the level of the police station should be given priority and should not be left as a "residual" duty for a relatively junior constable. These data need to be captured digitally, and the data entry staff needs to be trained through a detailed process manual on the process of classification of crime as well as entering the records. This will help with achieving consistency of data across the country, and reconciling records as the data becomes more aggregated.

2. *Survey data*: Beyond official data, there is a need to measure household interactions with the criminal justice system. As discussed earlier, welfare of citizens is the ultimate outcome of the criminal justice system. The surveys discussed in this paper are an important start to more systematic, comprehensive and continuous measurement of citizen experience with crime and the CJS. For the survey data to be credible, it needs to be conducted by independent groups (such as the role played by ASER in education). The existence of such survey data will allow researchers to build a literature on the causes and consequences of crime.

    A critical component of such measurement is the existence of "panel data," which provides repeated measurements on individuals across time. This makes it possible for us to understand how crime trends and safety perceptions have evolved over time. It also helps to study how changes in social or economic conditions of individuals affect crime relative to changes in macro-economic conditions, or changes in policy.

    An example of how research on crime and safety is a study of women's labour force participation. A unique problem that is faced in India is the lack of women's labour force participation (LFP). Indian women's LFP is at 21%, which is one of the lowest rates in the world. In Bangladesh, it is 36%; in Sri Lanka, it is 34%; in Pakistan, it is 22%; and in China, it is 61%.[5] A great research effort is underway, where economists, sociologists and anthropologists are deciphering the sources of the low women's LFP in India. It is likely that low levels of personal safety constitute one important constraint which is holding women back. If we are able to understand this constraint better and improve conditions of safety,

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[5] See https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS

we would have a large impact upon women's LFP (which is an important objective in and of itself) and upon GDP.

Once a measurement system is in place, it should be used as an input into policymaking. Measurement is also important in that it makes available "local knowledge" that can lead to a programme of reform based on the state of personal safety and conditions in each location. For example, if evidence points to certain parts of India faring worse on crime and safety perceptions, then resources can be targeted towards those regions. The police departments in each region can design responses based on the problems in their jurisdictions. Similarly, if it emerges that there is a systematic pattern in when crimes occur, or on the kinds of victims that get targeted, then policy can be designed to tackle such crime. The research literature on the criminal justice system in India is in its early stages, as is the feedback from research into policymaking. Improvements in measurement should be the catalyst in making this transformation.

## 6  Conclusion

Most elements of the Indian state work poorly. The CJS is a particularly important element of the state, as personal safety is an essential precondition for the intertwined working of democratic politics and the market economy. In the sequencing of the elements that will make the Republic of India a mature market economy located in a liberal democracy, one of the highest priorities should be the establishment of a capable CJS, the interlinked institutional apparatus of laws, courts, police, public prosecutors and prisons.

Measurement of crime through FIR is limited (as the police exercise discretion on what FIRs are filed, victims may choose to not report crimes, and the process of capturing and the releasing the statistics is limited), Crime victimisation surveys, carried out on a household panel, can create important new knowledge about crime rates, the perceptions about the police in the eyes of the people and the extent to which the lives of the people are distorted owing to the fear of crime.

Such data would be enormously influential. It would help measure the causes and consequences of changes to personal safety, assess the progress (or lack thereof) about this foundational public good and support better decision-making at the leadership of the institutions that make up the CJS.

Early work on building CVS datasets in India has begun. Many of the papers in this book report on these experiences. There is a complex agenda for CJS reform, that is an essential element of India's journey in the days to come. Building high-quality CVS data is a precondition for progress on the overall agenda of CJS reform.

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# Chapter 2
# Crime Victimization and Safety Perception Survey: Delhi and Mumbai

**Devyani Srivastava and Devika Prasad**

## 1 Introduction

The Commonwealth Human Rights Initiative (CHRI) commissioned[1] a crime victimization and safety perception survey in the cities of Delhi and Mumbai in 2014 to collect data on incidence of crime, features of the crime(s) experienced, households' reporting to the police, satisfaction levels with the police response, and perceptions of safety. At the time of its publication in 2015, this was the first known systematic attempt to record the actual crime experience of residents in both Delhi and Mumbai. While crime victimization surveys have long been recognized world over for their usefulness in measuring crime and informing policing and public safety priorities, India is yet to adopt this as a regular practice. In this light, this chapter identifies the unique insights that can be gained through such surveys to shape better-informed policies and decision-making on policing, crime prevention strategies, and public safety. It further attempts to share reflections on lessons learnt with regard to the survey methodology and the field experience while administering the survey. It is hoped this will contribute to the scholarship around crime victimization surveys emanating from India, as well as provide critical reflections and learning from this holistic survey effort to propel and strengthen both governmental and local surveys across the country.

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[1] Nielson India Pvt. Ltd. administered the survey, prepared the statistical analysis, and provided preliminary drafts of the survey report.

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The need for periodic crime victimization surveys is linked to envisioning better policing—a key area of intervention for CHRI. In India, the police are endemically under-resourced. It is imperative to allocate funds and personnel wisely. To do this, using a variety of techniques and processes to know where crime is occurring, where the public feels unsafe, and gaps between crime incidence and reported crime, can help the police to make informed decisions about crime prevention and reduction strategies, as well as public outreach initiatives. While existing crime statistics, such as those collected by the National Crime Records Bureau (NCRB), can give some insight into crime trends, these data are not comprehensive. NCRB data rely on crime reported at police stations, and not all incidents of crime are reported. Further, if not all police stations send data—whether because they lack the personnel, digital records systems or other resources to do so—even some reported crime will be missing from the official statistics.

Such gaps grow wider when we consider the urban-rural divide. An additional, and even more concerning, problem revolves around accusations of "burking"—or, police refusal to register reported crimes due to pressure to keep the crime rate low.

Each of these limitations, though they may not all be equally widespread, means that NCRB data provide an incomplete picture. It certainly does not capture unreported crime, public satisfaction with the police, or the public's perceptions of safety. Periodic public surveys are the only reliable medium to collect this information. These can assess most accurately where, when, and to whom crime is occurring. In the United Kingdom and numerous other countries, crime victimization surveys are undertaken to estimate the difference between the official crime rate, and the actual experience and reporting of crime. Through such surveys, it is possible to ask why individuals did not report crimes to the police, as well as assess the public's overall safety perception. In these ways, these surveys provide the most holistic picture of crime incidence and experience, quantitative assessments of public satisfaction levels with the police first response, and safety perceptions.

In addition, crime victimization survey findings can help identify the resource needs of the police. Findings would be able to show what resources are needed, and where, to meet the public's safety needs. Using these data, the police and government can frame budgetary/resource/human resource allocations to match the demands and needs of public safety.

Lastly, these surveys can also act as tools for police accountability, particularly as they can measure how many reported complaints the police actually register, or not. Police delay or refusal to register complaints into FIRs is a denial of access to justice right at the gateway of the legal system. In India, refusal to register complaints of specific offences is a punishable offence under the Indian Penal Code and some special laws. Surveys provide a quantum of unregistered complaints, giving police leadership, and departments as a whole, data from which to consider taking measures to prevent refusal, and enforce accountability systemically.

CHRI's survey was administered in Delhi and Mumbai. The two metropolitan cities were selected for their large, diverse populations as well as for their unique policing characteristics. Both stand out as having the largest police strength among urban police departments.

Another significant factor was that Delhi Police and Mumbai Police are both police commissionerates and thereby vest greater operational autonomy with the

police leadership at the city level than non-commissionerates. Due to this, it was felt that there may be a greater chance of pick-up by the police leadership of the findings of a crime victimization survey and prompt faster systemic responses. Finally, potential replicability was another reason to hone in on two cities, with the rationale that police organizations, particularly smaller and mid-sized ones, could more easily draw lessons from city-level survey experiences than larger state-level surveys.

The survey focused on seven cognizable crime categories—theft, assault, house break-in, sexual harassment, criminal intimidation, un-natural death, and missing persons. We chose these seven because they are broad crime categories that occur frequently, and because when most of them are reported, the police must register them by filing a First Information Report (FIR) and initiate investigation.

Criminal law in India categorizes crimes as either cognizable or non-cognizable. Cognizable offences are serious crimes defined under Section 2(c) of the Code of Criminal Procedure, 1973 (CrPC) in accordance with the First Schedule of the CrPC, or any other relevant law in force. For cognizable crimes, the police have the authority to arrest without a warrant and start an investigation without the permission of a Judicial Magistrate. Non-cognizable offences and cases, defined in Section 2(l) are less serious.

A First Information Report is a written document prepared by the police when they receive information about the alleged commission of a cognizable offence. It is only after the FIR is registered at the police station that the police can start the investigation into the occurrence.

"Missing persons" itself is not a criminal offence. When a person is reported missing, the police enter the details in designated registers in the police station and immediately initiate investigation to determine whether a crime has occurred, for instance, murder or kidnapping. A complaint or First Information Report (FIR) is registered only when evidence or reasonable suspicion of any criminal activity related to the missing person is found. To note, the police must follow different procedures when a child is reported missing.

Among sexual crimes codified in Indian law, CHRI decided to cover only the offence of sexual harassment in the Indian Penal Code (IPC).[2] Sexual harassment is defined in Section 354A of the IPC as follows:

1. A man committing any of the following acts-

    (i) Physical contact and advances involving unwelcome and explicit sexual overtures; or
    (ii) A demand or request for sexual favours; or
    (iii) Showing pornography against the will of a woman; or
    (iv) Making sexually coloured remarks,

shall be guilty of the offence of sexual harassment.

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[2]This is distinct from sexual harassment in the workplace which is defined in a separate law.

It is important to note that sexual harassment has been codified in the IPC as gender-specific—only men can be perpetrators and only women can be victims. The first three acts contained in the Section are punishable with rigorous imprisonment which may extend to 3 years, or with fine, or with both. Making "sexually coloured remarks" is punishable with a maximum prison term of 1 year, or fine, or both.

We also sought to survey how the experience of households facing might differ by socio-economic profiles and therefore selected samples of high-, mid-, and low-income households.

Overall, the survey covered 4950 households in Delhi and 5850 households in Mumbai. The survey was conducted in July–August 2015; households were

**Non-inclusion of Rape and Sexual Assault against Children**
While designing the survey, we decided to exclude the offences of rape or sexual offences against children. This is mainly due to the recognized limitations and difficulties in seeking to capture the experience of rape or other sexual offences *as part of* an omnibus crime survey. A panel of experts constituted by the US government to look at the issue of measuring rape and sexual assault as part of their National Crime Victimisation Survey highlighted at least four major obstacles.[3] These include a high degree of error in sampling with greater difficulty in ensuring a credible sample size of rape and sexual assault victims through the household sampling; the difficulties created in seeking to measure rape in the context of crime due to the fear of information being disclosed to the police; stricter requirements of privacy which an omnibus survey may not be able to ensure; and the use of ambiguous terms in the questionnaire which may not yield accurate results. The panel went on to recommend an independent survey—separate from the National Crime Victimisation Survey—for measuring rape and sexual assault.

CHRI shared similar concerns. As in any context, surveying women and children in India on sexual assault requires base knowledge of the law at least in terms of the offence, nuance, and sensitivity. More so with the expansion of the definition of rape in law in 2013, an accurate measure of a victim's experience would require the right questions to be asked around specific acts that took place in the course of the alleged assault, and the circumstances on consent. Interacting with women would have to be mindful of the deep stigma associated with admitting, or even just saying "rape," for many, and how to be able to address these in designing and administering a survey that is seeking objective answers to direct questions on crime experience and reporting. The age-appropriate language to be used with children is another issue and necessary factor of the readiness and orientation of the survey team. We were also mindful of the psychological impact it may have on survivors. Perhaps even

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[3] National Research Council (2014).

sensitively framed questions on rape can trigger trauma, fear, and apprehension. The questioning itself requires an extremely sensitive approach, including dealing with issues that may arise as a result of it. Another serious concern was the high probability of the perpetrator being within the family and the crime itself occurring within the home. Concern on this is backed by official crime statistics, which consistently reveals that a large proportion of reported rape cases are where the victim knows the offender. In 2019, for instance, the victim knew the offender in 94.2% of the reported rape cases in that year.

There were practical limitations tied to the apprehensions above. When CHRI conducted the pilot, the surveying team reported just how difficult it was to seek privacy while speaking with women within the household, and how difficult it was even to capture sexual offences such as sexual harassment and stalking. Including rape would necessitate a team comprising only of women, and conducting rigorous training both on skills and on legal provisions.

For these reasons, we felt that the level of expertise involved in this was neither feasible with the available resources, nor appropriate.

We strongly recommend that offences like rape require their own specialized surveys, and they should not be lumped together with other crime categories. They will require very carefully crafted methodology that takes into account the trauma and fear that survivors may experience. The household survey methodology is not at all suitable in surveys focused on sexual assault as it can trigger trauma for women and children and cause tensions within families/households.

surveyed based on their experiences in the preceding 12-month period (July 2014 to June 2015).

## 2   CHRI 2015 Survey: Sampling and Survey Methodology

The survey was administered at the household level in Delhi and Mumbai and covered all districts/zones in the cities. It included households, both owned and rented, among low-income, mid-income, and high-income categories and sought to distinguish the experience of recent migrants to the city against long term residents. The survey was confined to adult members only and did not extend to crimes experienced by minors. Only female adult members of the household were asked questions relating to sexual harassment.

## Survey Structure

The survey covered four subjects:

I. Crime Incidence (Part A)

   *The objective here was to estimate the incidence of seven crime categories: theft, assault, house break-in, sexual harassment, criminal intimidation, unnatural death, and missing persons. These were chosen as they represent a broad cross section of crimes that occur frequently.*

II. Crime Characteristics (Part B)

   *This component focused on understanding the characteristics of the crime committed such as sub-categories of crime, where and when it was committed, who was the perpetrator and if s/he was known to the victim.*

III. Crime Reporting and Police Response (Part C)

   *Part C focused on the reporting behavior of the victim, whether the crime was reported to the police and the experience thereof, and if the crime was not reported, the reasons thereof.*

IV. Perception of Safety (Part D)

   *This component addressed how safe respondents felt in their neighbourhoods, as well as in city travel.*

The complete survey is presented in Annexure 1. The survey exercise was conducted in July–August 2015 and asked households to answer the questions based on their experiences in the preceding 12-month period (July 2014 to June 2015).

## Sampling

The study follows a multi-stage sampling design, similar to that used in India's National Sample Survey,[4] the US Census Bureau Surveys,[5] and numerous others.

We sought to reliably estimate the rate of crime incidence at the police zone level. Delhi at the time was divided into 11 administrative police zones and Mumbai into 13. At a 95% confidence level and 5% margin of error, the required sample size is 384 for each zone.

Given the lack of reliable data on the true crime rate in either city, we decided to keep a buffer of 15% at the zone level, and the sample size was set at 450 households per zone. This gave an overall sample size of 4950 households in Delhi and 5850 households in Mumbai.

In the first stage of selecting geographical areas from which we would draw a sample of households, we used stratified random sampling to choose three census wards[6] within each police zone. All wards in each zone were first assigned to an income stratum,[7] based on whether a majority of households in the ward were high-,

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[4] *For example,* Ministry of Statistics and Programme Implementation (2015).

[5] *For example,* Murphy (2008).

[6] Wards that fell into two or more police zones were excluded for the purposes of this study.

mid-, or low-income.[8] Thereafter, one ward from each stratum was randomly selected from every zone.

In the absence of information on the exact number of households in each zone according to income level, an equal number of households were sampled from each stratum in each police zone. With 450 sample households from each zone, this translated into 150 households[9] per sample ward.

In the second stage, each selected ward was subdivided into one-square kilometre grids.[10] We excluded from selection any grids that had a different income level than that which was dominant in the ward. For example, in a high-income ward, mid- and low-income grids were omitted and random selection was performed only on high-income grids.[11] We chose 3 of these in each ward.

In the third stage, within each grid we selected a random starting point from which surveyors went continuously household to household until reaching our quota of 50, in order to meet the target of 150 households per ward. While the random walk and quota methods can be subject to limitations,[12] these sampling procedures have been successfully used in numerous studies. Given the expense of completing a full household listing in each grid, it was determined that this procedure would best meet the objectives of the study within time and resource constraints.

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[7] Income level served as the basis for the stratification; though it would be ideal to adjust strata for other parameters as well, budgetary constraints prohibited this. Income nevertheless does have strong correlations with other socio-economic parameters. Because crime incidence is likely to vary based on income and other socio-economic factors, we hoped this stratification would give insight into how households of different income levels are affected by crime.

[8] The Nielsen Neighbourhood Skyline (NSL) database was used to identify the income level of each ward. NSL provides a profile of household socio-economic demographics at the neighbourhood level for the top 57 cities in India. It includes information on income, savings, and expenditure of the households living in the neighbourhood, in addition to providing details on road networks, markets, connectivity parameters, etc. High income was defined as a majority of households earning Rs 1 million or more per year, mid-income as Rs 0.3–1 million per year, and low-income as less than Rs 0.3 million per year. The geographical units discussed here generally track those defined by municipal boundaries.

[9] With sampling spread across 11 police zones in Delhi and 13 in Mumbai, the sample size for each income strata is representative at (a) the city level with 3% margin of error at 95% confidence level and (b) at the zone level with 8% margin of error at 95% confidence level.

[10] This division was based on Nielsen's Cell Grid Geo-spatial Database. This database is based on semi-automated algorithms employing Small Area Statistics and Geo-spatial Analytics techniques to disaggregate socio-economic data for a given geographic area into a grid consisting of cells, each having an area approximately 1 sq. km. The database includes economic, demographic, infrastructure, and land cover data for every cell.

[11] Given the desire to determine statistical validity at the zone level, as well as cost and time constraints, we employed stratified sampling at the ward level. To ensure that grids appropriately represented the income level stratification of the ward as a whole, it was necessary to guarantee homogeneity of income level in the selection of grids. Admittedly, this imposes the limitation that the study would not capture whether the crime profile of heterogeneous localities differed from homogeneous ones.

[12] Anthony G. Turner, United Nations Secretariat Statistics Division (2003), as on 20 December 2015. For more details on various procedures for conducting random walks, see generally Juergen H.P. Hoffmeye-Zlotnik (2003). Out of the zone level sample of 450, 150 were to be drawn from each of three income strata, with 50 from each grid. A floor of 30 crime-affected households per zone was set. Had 30 households not been reached in this initial sweep, we would have increased the number of households surveyed by 50 until meeting that quota.

## *Survey Administration*

Nielson's field interviewers administered the survey in both the cities. The training of the interviewers involved a dedicated session with the CHRI team on legal provisions relating to the selected crimes, procedures for reporting and registration of crime, and an overview of the duties of the police in ensuring public safety. The interviewers were given background notes and checklists to explain legal provisions, including the ingredients of each crime with a focus on sexual offences brought in following criminal law amendments in 2013; differences between cognizable and non-cognizable offences; differences in the procedure for reporting and registering a complaint and a First Information Report; safeguards for women in reporting a crime; and other relevant special provisions pertaining to missing persons.

A pilot was carried out covering 100 households each in Delhi and Mumbai. The pilot highlighted several challenges the interviewers faced in accessing households. Many families expressed hesitation to talk to the survey team, or participate in the survey because it related to crimes and their experience with the police. Some among those that had experienced crime were fearful that the information being collected would get reported to the police. To instil confidence in the independence and credibility of the survey process, CHRI provided an authorization letter to the survey teams with contact details of relevant persons within the organization. The conduct of the survey would have been improved through more stringent checks of completed survey forms throughout the duration of the surveys.

Part A of the survey, which addressed demographic characteristics and whether households were affected by crime, was administered to each of the households identified in the process outlined above.

Parts B and C addressed characteristics of crime, such as where and when crime occurred, and victims' experiences when reporting to the police.[13] These parts were administered to all of the crime-affected households identified in Part A; this resulted in a total of 647 households in Delhi (13% of sample households) and 927 (15% of sample households) in Mumbai.

As there was no a priori information on incidence of any of the 7 crimes, it was not possible to set a quota for the individual crimes. Theft turned out to be the most common crime (506 incidents in Delhi and 746 in Mumbai), while in both cities fewer than 100 households were victims of each of the other six crimes. Consequently,

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[13] With regard to police response, the questionnaire contained several questions with multiple or nuanced answers, such as on cases of missing persons, or knowing whether the police properly registered a First Information Report. While CHRI provided background on law and criminal procedure, it was a challenge for the surveyors (who are not subject experts) to frame clarifying questions when needed. This may have resulted in some flaws in the findings presented here, even though they faithfully represent the answers given by respondents. One additional benefit, then, of the government undertaking routine crime victimization surveys would be to better train surveyors and build capacity to get more accurate answers, and preserve such institutional knowledge and practice over time. With this kind of robust data, the findings would best be able to help the police and government make decisions about deployment, training, and resource allocation, among others.

the analysis of reporting behaviour or police response in this section can be considered to be representative only at the city level and for all 7 crimes taken together.

Part D assessed the safety perception of residents in Delhi and Mumbai. To attain reliability at the city level, the sample size was set at 3025 respondent households in Delhi and 3575 households in Mumbai. Statistically, the sample size is representative at the city level at 95% confidence level and 2% margin of error. With 11 police zones in Delhi and 13 in Mumbai, this results in 275 samples per police zone.[14]

City-level representativeness of the safety perception of crime-affected households at a 95% confidence level and 5% margin of error would require 384 sample households. As such, analysis of the safety perception of crime-affected households will be representative at the city level as long as the crime incidence rate in Delhi and Mumbai is greater than 12.59% and 10.74%, respectively.[15]

With no a priori information on the actual rate of incidence of crime, it was decided to administer Part D to all crime-affected households. Thus, assuming $X^Z$ to be the number of crime-affected households in a police zone (and $X^W$ to be the number of crime-affected households in a ward), 275-$X^Z$ would be the number of non-victim households sampled per zone (90-$X^W$ per ward). With this design, the city-level sample would be representative of the perception of non-victim households at a 95% confidence level and 3% margin of error even if the incidence of crime exceeds 25%.

A brief demographic profile of our sample is shown below Table 2.1:

## *Weights*

The absence of a household sampling frame and lack of information on crime incidence or reporting behaviour across geographic or socio-economic factors, even at the city level, did not allow computation of household-level weights. We attempted a limited city-level weight computation based only on the number of households according to income, for which city-level information was available (Table 2.2).

The same was used for estimating the city-level projection of the number of households affected by crime. However, the same was not used at subsequent levels when estimating reporting incidence, as the number of households in each income strata who had reported crime to the police fell below 384 per strata (the minimum required sample size for a city-level representation at 95% confidence level and 5% margin of error). This statistically constrained the computation of a city-level weighted ratio for crime reporting behaviour.

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[14] The analysis at the zone level will be representative at 95% confidence level with 6% margin of error.

[15] This was computed by dividing 384 (the minimum required sample size for city level representation) by the respective city sample sizes: 3025 in Delhi and 3575 in Mumbai. Ex post, the ratios were computed to be 13% (15%) in Delhi (Mumbai).

**Table 2.1** Demographic profile of the sample of CHRI 2015 survey

| | | Part A: crime incidence | | Parts B and C: crime characteristics, reporting, and police response | | Part D: perception of Safety | |
|---|---|---|---|---|---|---|---|
| | | Delhi | Mumbai | Delhi | Mumbai | Delhi | Mumbai |
| Total in sample | | 4990 | 6036 | 647 | 927 | 3035 | 3658 |
| Income level of households | Low | 1657 | 2029 | 239 | 371 | 1013 | 1214 |
| | Medium | 1667 | 1999 | 248 | 317 | 1003 | 1243 |
| | High | 1666 | 2008 | 160 | 239 | 1019 | 1201 |
| Gender of respondent | Male | 2290 | 4030 | 275 | 620 | 1335 | 2410 |
| | Female | 2700 | 2006 | 372 | 307 | 1700 | 1248 |
| Length of residency | Greater than 5 years in city | 4631 | 5893 | 605 | 900 | 2810 | 3561 |
| | Greater than 5 years at current address | 3820 | 5322 | 521 | 804 | 2316 | 3204 |

Source: Crime Victimization Survey, CHRI, 2015

**Table 2.2** City-level weights computation for the CHRI 2015 survey

| City | Annual household earning | Population | | Sample | | Weight |
|---|---|---|---|---|---|---|
| | | No. of households (2014–15; in '000) | % of households in each strata | No. of households in sample | % of households in each strata | |
| Mumbai | <Rs 3 lakh (Low) | 1285 | 44% | 1657 | 33% | 1.34 |
| | Rs 3–10 lakh (Mid) | 807 | 28% | 1667 | 33% | 0.83 |
| | >Rs 10 lakh (High) | 802 | 28% | 1666 | 33% | 0.83 |
| | Total | 2894 | 100% | 4990 | 100% | |
| Delhi | <Rs 3 lakh (Low) | 2037 | 54% | 2029 | 34% | 1.62 |
| | Rs 3–10 lakh (Mid) | 833 | 22% | 1999 | 33% | 0.67 |
| | >Rs 10 lakh (High) | 874 | 23% | 2008 | 33% | 0.70 |
| | Total | 3744 | 100% | 6036 | 100% | |

Source: Crime Victimization Survey, CHRI, 2015