

## Measuring Crimes Against Women in India: Moving Beyond Police Recorded Data

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India has been gripped by widespread panic over the incidence of crimes against women in the recent past. This was partly triggered by the gruesome rape and murder of a female physiotherapy student in Delhi in December 2012. Since that time, incidences of crime against women in India have received prominent attention in both the national, as well as international news media. There is a widely held belief that India has a real problem of excessive incidence of crimes against women.

In the aftermath of the Delhi rape in 2012, the Central Government constituted the JS Verma Committee to look into the legal regime relating to crimes against women in India. After little less than a month of deliberation, this Committee published a report prescribing wide reforms to the criminal law and criminal justice administration in India. Some of these prescriptions were enacted into law in the Criminal Law Amendment Act, 2013.<sup>1</sup> Others, such as those relating to police reforms, are yet to be acted upon. It is striking that the suggestions in the JS Verma Committee Report are made without any examination of existing data on the incidence of crimes against women in India.

As opposed to this, legislative debates on crimes against women in India rely almost exclusively on data released by the National Crime Records Bureau (NCRB).<sup>2</sup> This is also true of many journalistic accounts of the problem.<sup>3</sup> This is not surprising as the NCRB is the sole source of aggregate crime data in India. The NCRB collects data on offences recorded by police across the country. It then aggregates this 'police recorded' crime data and publishes the results on an annual basis, through its flagship publication 'Crime in India'.

There exists serious doubt about whether this data accurately represents the incidence of crime in Indian society. This is especially true of crimes against women. Around the world, police recorded crime data is used with caution as it tends to under-represent the true levels of crime. Victims may fail to report offences to police for a range of factors. Some of these are the preservation of 'honour', or a perceived lack of 'seriousness' of an offence. Similarly, there are a number of factors on the police side that prevent

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<sup>1</sup> The Criminal Law Amendment Act, 2013 introduced many new offences in the Indian Penal Code, such as Acid Attack (Section 326A), Attempt to Acid Attack (Section 326B), Voyeurism (Section 354C) among others. Additionally, the Act also altered the definition of Rape under Section 375 of the IPC to include acts other than peno-vaginal penetration.

<sup>2</sup> Cf. India, Rajya Sabha, Parliamentary Debates (2013, December 11) Session No. 230 (Naznin Faruque); India, Rajya Sabha, Parliamentary Debates (2013, May 8) Session No. 228 (R. Rajeeve)

<sup>3</sup> (Rukmini, 2014) (Bhalla, 2014)

their recording of offences. This is unquestionably true in India as well. In these circumstances an obvious question presents itself. How reliable is Indian data on crimes against women?

The available answers to this question are mixed. Preliminary research on NCRB data on crimes against women suggests that these offences are highly under-recorded. (Ghosh, 2013; Gupta, 2014) This is not surprising. At the same time, research on NCRB data on *other* offences (offences against property) provides a different answer. This research shows that while the NCRB under-counts the incidence of crime, it still provides a reasonable estimate of the relative incidence of crime in different areas. (Prasad, 2013). This suggests that if a particular district has the highest rate of offences against property as measured by the NCRB, it is likely to have a high rate of these crimes even when measured by other methods. This begs the question; does this hold true for NCRB data on crimes against women?

In this paper we provide answers to both questions. First, we build on existing research to show that the NCRB drastically under-records crimes against women in India. We do this by comparing NCRB data to data from two nationally representative multi-topic household surveys. This result confirms existing beliefs about police recorded crime data the world over. More saliently, we then show that NCRB data on crimes against women is unreliable even as a measure of the relative incidence of these crimes across different spatial units. This is a startling result which makes it clear that NCRB data on crimes against women is an unsound basis for any legal or policy interventions. This also runs counter to research on NCRB data for other offences.

This paper is arranged in three parts. In the first part we provide a brief overview of existing literature on this subject, and outline the contribution made by our research. In part two we estimate the levels of under-recording in NCRB data by comparing it with data from the National Family Health Survey 3 (NFHS-3) and the Indian Human Development Survey (IHDS). In part three we focus on the spatial distribution of crimes against women under the different data sources.

## Literature Review

Before moving to a study of the existing literature, we draw attention to the difference between **violence against women** and **violent crime against women**. Violence against women is a larger category, and includes a range of emotional, physical and/or sexual acts perpetrated on female victims. On the other hand, violent crimes against women are acts that are specifically proscribed by the existing criminal law. In India, all acts of violence against women are not necessarily crimes. A notable example of this is marital rape. This is a significant act of violence against women, but is specifically excluded as a criminal offence.<sup>4</sup>

There is substantial literature on violence against women in India. Most studies of this type are based on data from public health surveys, and point specifically to the overwhelming prevalence of Intimate Partner Violence (IPV) in India. Examples of these studies are Coast, Leone and Malviya (2012), Martin et. al. (1999)

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<sup>4</sup> See Section 375 of the Indian Penal Code. This remains the case even after the introduction of the Criminal Law Amendment Bill, 2013.

Duvvury et. al. (2002) Stephenson et. al. (2006) Visaria (2000) and Jeyaseelan et. al. (2007). These studies estimate the prevalence of gender based violence in India as anywhere between 18 to 70 per cent of all women in the country.<sup>5</sup>

As opposed to this, academic studies of crimes against women in India using data from the NCRB are few and far between. Mukherjee et. al. (2001) provide the first substantial study of this nature. Their paper studies the spatial distribution and socio-economic correlates of crimes against women in India. Crucially, they do not address the question of the under-recording of these crimes in NCRB data. Instead, they assume it to be constant across the country. In contrast, a few more recent studies address the question of under-recording squarely. Iyer et. al. (2011) study the effects of women's political representation on recorded crimes against women. They find that increased political representation is marked by an increase in recorded crimes against women. They attribute this to a greater willingness among both victims and police authorities to have these crimes recorded and addressed. Ghosh (2013) provides evidence that instances of domestic violence are especially under-recorded in NCRB data. Lastly, Gupta (2014) attempts to estimate levels of under-recording in the NCRB data by comparing this to data from the National Family Health Survey (NFHS). He finds that NCRB data drastically under-counts the incidence of most crimes against women in India.

This study builds on this earlier research and improves on it in two ways. First, we adopt a different methodological approach to Gupta (2014) to compare NFHS and NCRB data. We do this in order to estimate levels of under-recording of various crimes against women. We find that levels of under-recording might be even higher than earlier imagined. Second, we provide the first evidence that the NCRB data is completely inaccurate in even identifying the *relative* incidence of crimes against women across India. The NCRB data identifies spatial patterns that bear no relation to the actual incidence of crimes against women in the states and regions of the country. This result is an important corrective to the kind of analysis conducted by Mukherjee and Rustagi (2001).

### **Assessing levels of under-recording in NCRB crime data**

In this section we assess the levels of under-recording in NCRB data on crimes against women. It is well known that police recorded crime data does not truly represent the incidence of crime in society. To estimate the scale of this problem, we use data from two nationally representative multi-topic household surveys. These are the National Family Health Survey 3 (NFHS-3) and the Indian Human Development Survey (IHDS).

The National Family Health Survey (NFHS-3)<sup>6</sup> was conducted in 2005-06 by the International Institute for Population Sciences on behalf of the Ministry of Health and Family Welfare, Government of India. The

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<sup>5</sup> These studies primarily measure physical and sexual violence by intimate partners.

<sup>6</sup> The standardized methodology followed for the NFHS is used in more than 90 countries throughout the world and more commonly referred to as the 'Demographic and Health Surveys'. For additional information on standardized questionnaires, sample design and field procedures to collect the data, see <http://www.dhsprogram.com/>.

NFHS-3 collected health and demographic information for a nationally representative sample of 109,041 households, 124,385 women aged 15-49 and 74,369 men aged 15-54. The NFHS-3 covered all 29 states and 99 percent of India's population and was nationally representative at the state level. In addition to the standard health and demographic questionnaire a domestic violence module was included as part of the Woman's Questionnaire, collecting information on different forms of violence and their help-seeking behavior. The module contained detailed information on physical and sexual abuse by spouse and non-spouse for women aged 15-49, physical consequences of spousal violence, when spousal violence first occurred and on violence perpetrated by wives against their husbands.

The Indian Human Development Survey (IHDS)<sup>7</sup> was a nationally representative survey conducted in 2004-5 by the University of Maryland and the National Council of Applied Economic Research (NCAER), New Delhi. The IHDS was a survey of 41,554 households in 1503 villages and 971 urban neighbourhoods across India covering a range of socio-economic topics including education, marriage, income, social capital and gender relations. The IHDS household questionnaire included one question on the frequency of sexual harassment of unmarried women within their community. The IHDS women's questionnaire also included five questions on whether it was common within their community for men to beat their wives under five separate situations.

We compare NCRB crime data to data from the NFHS-3 2005/6 and the IHDS 2005. We use NCRB data from 2006, the closest year to the NFHS survey, and Census 2001 population data. Using this data, we measure the under-recording of crimes against women in NCRB data in three ways. First, we look at results from the NFHS on victim reporting patterns to police. Second, we compare rates of incidence from the NCRB and the NFHS and assess the disparity between the two. Lastly, we see whether NCRB data bears any relation to perceived levels of crimes against women contained in the IHDS. We find that in all three cases, it is clear that the NCRB seriously misrepresents patterns and incidence of violent crimes against women.

### **Victim reported levels of reporting to the police**

The NFHS-3 included a question on whether and by whom help was ever sought by female victims according to type of violence. This gives us a quick measure of how many victims actually reported their victimisation to police.

From the NFHS-3, 2.1 percent of women aged 15-49, who had ever experienced physical or sexual violence AND had ever sought help, had ever sought help from the police. This means that of all victims of violence who sought help, only 2.1 per cent sought help from the police. (This figure is not by incidence of crime or reporting rate to the police - so a woman may have experienced repeated physical and sexual violence, but may have only gone to the police once). The upper bound estimate of reporting to police was even lower, at 0.5 percent. This is the percent of women aged 15-49 who had ever experienced physical or sexual violence and had ever sought help from the police.

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<sup>7</sup> For additional survey methodology, questionnaires and sample information see <http://www.ihds.umd.edu/>.

As a caveat, these low percentages represent only victim reporting to the police; there is no way of telling how many of these instances were actually recorded as offences by Police.

A quick look at patterns of victim reporting to police in crimes against women in other jurisdictions reveals that these are low across the board, though not nearly as low as in India. In the United States, data from the National Crime Victimization Survey (NCVS) between 2008 and 2012 established that approximately 60% of rapes were never reported to the police by victims.<sup>8</sup> In England and Wales, according to data from the Crime Survey of England and Wales (CSEW) for the years 2009/10, 2010/11 and 2011/12, only 15% of victims of the most serious sexual offences<sup>9</sup> informed the police of the incidents (Ministry of Justice, Home Office and the Office for National Statistics, 2013).

Going by the NFHS-3 data rates of victim reporting to police in India are distressingly low, even when compared to the generally low rates in other countries. This is the first indication that NCRB data on crimes against women drastically under-records levels of offending. We now move on to study rates of offending as established by NCRB and NFHS-3 data.

### **Crime rates in the NCRB and NFHS-3 data**

In this part we compare police recorded rates of crimes in the NCRB data from 2006, to victim reported rates of crime from the NFHS-3 from 2005-6. Since the NFHS-3 was not designed primarily as a crime victimisation survey, its questions are not designed to capture the incidence of all violent crime against women. Comparing data from the two sources therefore requires a translation of questions from the NFHS to particular offences captured in the NCRB. We separate the offences into two categories; spousal and non-spousal crimes against women. We deal with each of these in turn.

#### *Spousal crimes*

The spousal crime we look at is 'Cruelty by Husband and Relatives' under Section 498A of the Indian Penal Code. The NCRB data for 2006 shows that 0.012% of the female population (using projected female population for 2006 from the 2001 census) reported 'Cruelty by Husbands and Relatives' under Section 498A of the Indian Penal Code.

Section 498A has in recent years proven to be an extremely contentious provision. There is a widely held belief that this provision is misused by 'disgruntled' wives to harass their husbands. This was in fact the view taken by the Supreme Court of India in *Arnesh Kumar v State of Bihar & Ors.*<sup>10</sup> In that case the Court

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<sup>8</sup> These statistics are also available on the website of the Rape and Incest National Network (RAINN), at <https://www.rainn.org/get-information/statistics/reporting-rates>. RAINN use these statistics to establish that out of every 100 rapes that occurred in the United States, only 3 would see the perpetrator convicted.

<sup>9</sup> This includes the two offences of Rape and Sexual Assault.

<sup>10</sup> (2014) 8 SCC 273

cited data from the National Crime Records Bureau to show that very few cases under Section 498A resulted in conviction. This was taken to mean that a lot of these cases were frivolous.

The actual import of Section 498A is wide. Clause (a) defines cruelty to include '*any willful conduct likely... to cause grave injury or danger to life, limb or health (whether mental or physical) of the woman*'. We link this to questions (1005A) and (1005B) in the NFHS-3.<sup>11</sup> Question (1005A) asks respondents whether their (last or current) husband inflicted any of a list of acts of violent conduct on them. This list includes acts of increasing seriousness, from slapping (1005A - a) to forced sexual acts against the will of the respondent. (1005A - i). Question 1005B at the same time asks respondents how often these acts have been committed within the last 12 months. The inclusion of both mental and physical health in Section 498A means that it may reasonably be read as including most of the kinds of conduct described in Questions 1005A and 1005B. Question 1005B is particularly useful because it allows us to estimate the incidence of this offence in the 12 month period before the survey, covering 2005-2006. This can then be compared with NCRB data from 2006 in order to estimate the extent of under-recording of the crime of Cruelty. Two earlier attempts to estimate the under-recording of spousal crimes also count 'dowry deaths' under Section 304-B of the IPC.<sup>12</sup> We do not do so for the simple reason that the NFHS data does not include cases of spousal or family violence resulting in death as it is *victim reported* violent acts.

As opposed to the NCRB, which reported a 0.012 per cent rate of incidence for the offence of Cruelty (of the total female population), over 21 per cent of all respondents to the NFHS reported experiencing forms of victimisation that satisfied the definition of the offence of 'Cruelty', including instances of physical as well as sexual violence. The victim reported rate of incidence of 'Cruelty' is therefore over a thousand times higher than that recorded by the NCRB. Hence, there exists absolutely no doubt that the NCRB data drastically under-records the incidence of spousal crimes against women. Looked at in this light, the debate on Section 498A appears to lack a sound empirical basis. If anything, Section 498A of the Indian Penal Code appears to be a seriously under-used provision.<sup>13</sup>

Figure 1 gives a breakdown of all physical and sexual violent acts committed by spouses as reported by women 15-49 years old in the NFHS-3.

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<sup>11</sup> The NFHS-3 does not include a category of violent acts by spouse and relatives so we use spousal violence for the comparison with NCRB data. This does not invalidate our findings as spousal violence is much more common than family violence and the NFHS data can be seen as a lower bound estimate of the 'Cruelty' category in the NCRB data.

<sup>12</sup> Gupta (2014) and Ghosh (2013)

<sup>13</sup> A similar view is expressed by Agnes (2015), though without relying on NCRB crime data.

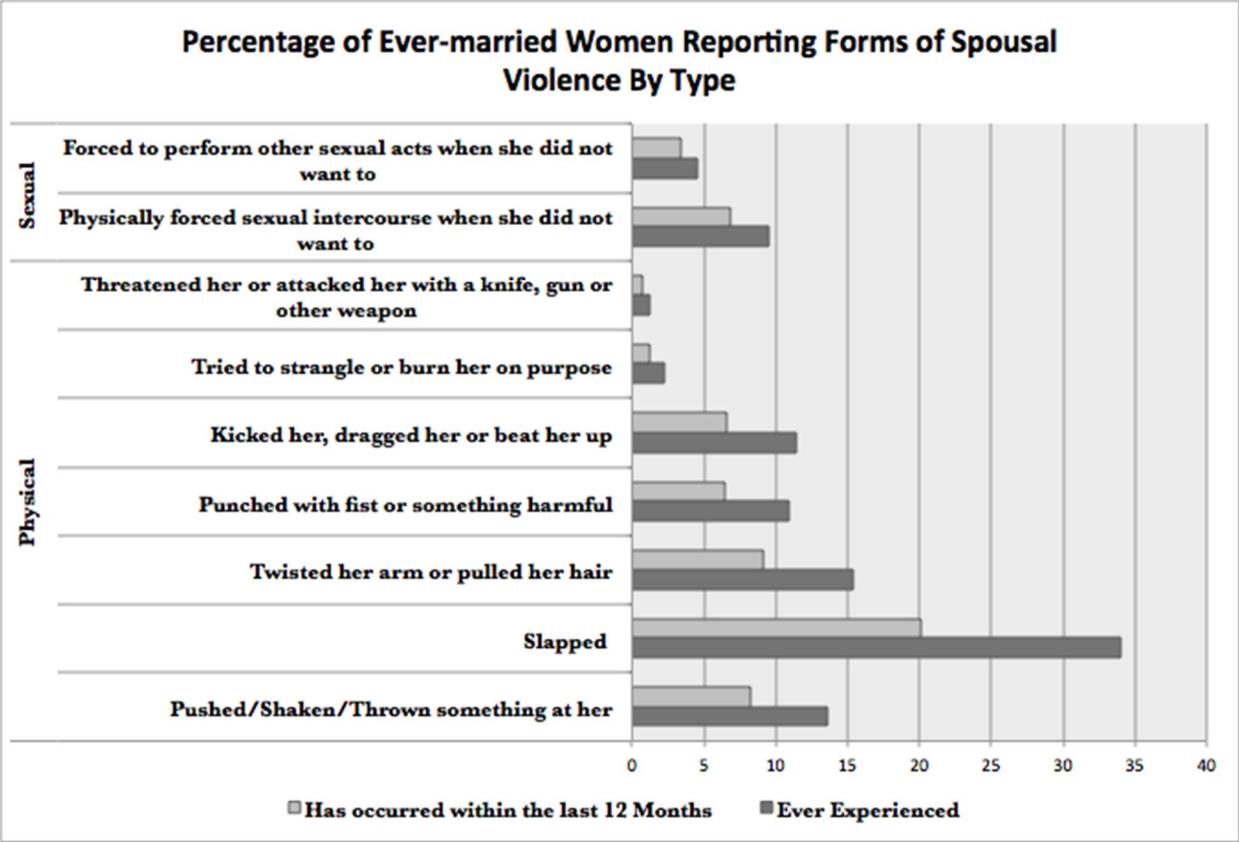


Figure 1: Spousal Violence NFHS-3

*Non-spousal crimes*

In the aftermath of the Delhi rape and murder in 2012, non-spousal crimes against women in India have been thrown into sharp focus. As opposed to spousal crimes against women, these crimes are less likely to be dismissed as ‘non-serious’ or as ‘domestic issues’ by Police, and therefore likely to display differential levels of under-recording. In this section we see how badly these offences are under-recorded, and if they are more or less under-recorded than spousal crimes against women.

We look at two crimes in particular. The first of these is Rape, under 376 of the IPC, while the second is Molestation, under Section 354. We compare the incidence of these offences in the NCRB data, to the results of question 1020 from the NFHS. Question 1020 is as follows: *In the last 12 months has anyone (other than your current/last husband) forced you to perform sexual intercourse or any other sexual acts against your will?*

The offence of Rape is defined to include all cases of sexual intercourse with a woman against her will. On the other hand, the offence of Molestation, under Section 354, outlaws ‘assault or criminal force to a woman with intent to outrage her modesty’. Though the expression ‘outraging modesty’ is somewhat nebulous, the Supreme Court of India has interpreted it widely to include ‘pulling a woman, removing her

saree, coupled with a request for sexual intercourse' as satisfying the requirements for this offence.<sup>14</sup> Together, these two offences appear to cover the ground of Question 1020 in the NFHS survey.

The combined rate of incidence of these two offences was 0.011 per cent of the female population as per the NCRB data. By contrast, 0.16 per cent of respondents to the NFHS reported forms of victimisation that could be classified as either rape or molestation. Therefore, the rate of incidence of these offences under the NFHS appears to be over 10 times higher than that reported by the NCRB. Though still very high, this is much lower than the rate of under-recording seen in the case of spousal offences. It appears therefore that spousal crimes against women in India suffer from much more under-recording than non-spousal crimes. This confirms results from earlier studies in India and elsewhere which suggest that levels of under-reporting in cases of domestic violence are much higher than in cases of non-spousal crimes against women (Felson, 2002; Gupta, 2014).

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<sup>14</sup> Ramkripal v State of Madhya Pradesh CrI. Appeal 370 of 2007, Supreme Court of India

<b>NCRB Classification of Crime Against Women</b>	<b>NCRB 2006 [using Census 2001 projected 2006 total female population]</b>	<b>NCRB 2006 [using Census 2001 total 15-49 female population]</b>	<b>NFHS-3 2005/6</b>	<b>IHDS 2004/5*</b>
Rape (S. 376 IPC)	0.004%	0.008%		--
Molestation (S. 354 IPC)	0.007%	0.014%	0.16%	--
Sexual Harassment (S. 509 IPC)	0.002%	0.004%	--	(13%)
Cruelty by Husband and Relatives (S. 498A IPC)	0.12%	0.025%	21.4%	(85%)
Dowry Death (S. 304B IPC)	0.001%	0.003%	--	--
Kidnapping and Abduction (Sec. 363-369, 371-373 IPC)	0.003%	0.007%	--	--
Importation of Girls (S. 366B IPC)	0%	0%	--	--
Sati Prevention Act 1987	0%	0%	--	--
Immoral Traffic Prevention Act 1986	0.001%	0.002%	--	--
Indecent Representation of Women (Prohibition) Act 1986	0.0003%	0.001%	--	--
Dowry Prohibition Act 1961	0.001%	0.002%	--	--

Table 1: Victim Reported and Police Recorded incidence of crimes against women

\* IHDS Only collected information on *perception* of prevalence of violence against women within their community.

## Comparing NCRB data and perceived levels of prevalence

In this section, we compare data from the NCRB to data from the Indian Human Development Survey (IHDS) on the perceived prevalence of crimes against women. IHDS data has earlier been used to assess the level of underreporting in the NCRB crime reports, for the specific offences of theft, burglary and hurt (Prasad, 2013). Unlike for those offences, the IHDS does not ask female respondents of their experience of victimisation in crimes against women. Instead, the IHDS asks respondents about their *perception* of the prevalence of physical violence and harassment against women in their community. Since the IHDS only measures perception, the results of this comparison need to be interpreted with caution. The perceived prevalence of crimes against women is not necessarily a robust indicator of the actual incidence or prevalence of crimes against women. On the flip side, the benefit offered by the IHDS is that it is representative at the District level, as opposed to the NFHS which is only representative at the State level. This enables us to use a second data source, beyond the NFHS-3, to examine the correlation between the perception of violence against women and police recorded crimes against women.

We compare two questions from the IHDS to police recorded measures of two crimes against women. The first question pertains to harassment of unmarried girls. The second relates to intimate partner physical violence.

### *Harassment of unmarried females*

The IHDS includes a question (No.18.4) asking respondents how often unmarried girls are harassed in their village or neighbourhood. We compare responses to this question to the Indian Penal Code offence of Sexual Harassment. This is an offence of lesser seriousness than Rape or Molestation (using the punishment prescribed as a measure), and prohibits 'words, gestures or acts intended to insult the modesty of a woman.' Though the IHDS does not explicitly define its usage of the term 'harassment', it most likely refers to acts that stop short of physical or sexual assault.

The IHDS specifies the harassment of *unmarried* girls. The IPC offence does not contain such a qualification, meaning that cases can be registered even when the victim of harassment is a married girl/woman. Notwithstanding this difference, it is reasonable to expect the perception measured by the IHDS to broadly correspond to patterns of Sexual Harassment under the IPC.

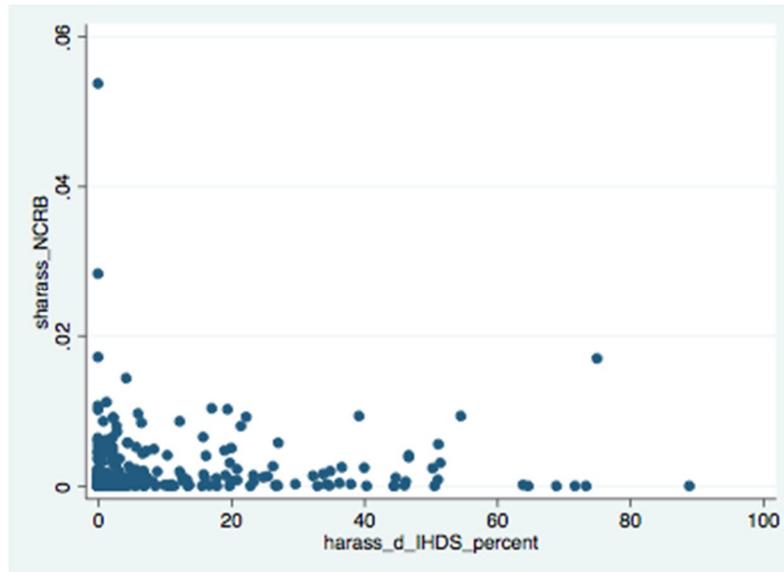


Figure 2: NCRB and IHDS Sexual Harassment

As is visible from the scatter diagram above, there is no discernible correlation between the prevalence of the offence of Sexual Harassment as per the police recorded data, and the perception of its occurrence as per the survey data in the districts for which data from both sources is available. What this means is that in most districts where respondents to the IHDS perceived a high prevalence of harassment of unmarried women, the NCRB data did not display a high prevalence of the offence of Sexual Harassment. A standard OLS regression found the coefficient of IHDS harassment variable in explaining NCRB harassment data to be very close to 0 (-.0000113). This indicates that perceived levels of harassment of unmarried females within communities from the IHDS is unrelated to the recorded levels of harassment of women in the NCRB data.

### *Spousal Physical Violence*

The other questions from the IHDS that we use are related to spousal physical violence. The IHDS survey includes a range of questions (Nos.16.21-16.25) which ask respondents if in their community it is usual for husbands to beat their wives in a number of specified circumstances<sup>15</sup>. Even if we do not equate the practice of wife-beating described in the IHDS survey to 'Cruelty' for the purpose of the NCRB, we may still expect regions where wife beating is perceived to be common to display a higher level of incidence of acts that could be so defined as 'Cruelty'.

<sup>15</sup> The question was phrased "In your community is it usual for husbands to beat their wives in each of the following situations? (i) If she goes out without telling him?, (ii) If her natal family does not give expected money, jewelry or other items?, (iii) If she neglects the house or the children, (iv) If she doesn't cook food properly?, or (v) If he suspects her of having relations with other men.

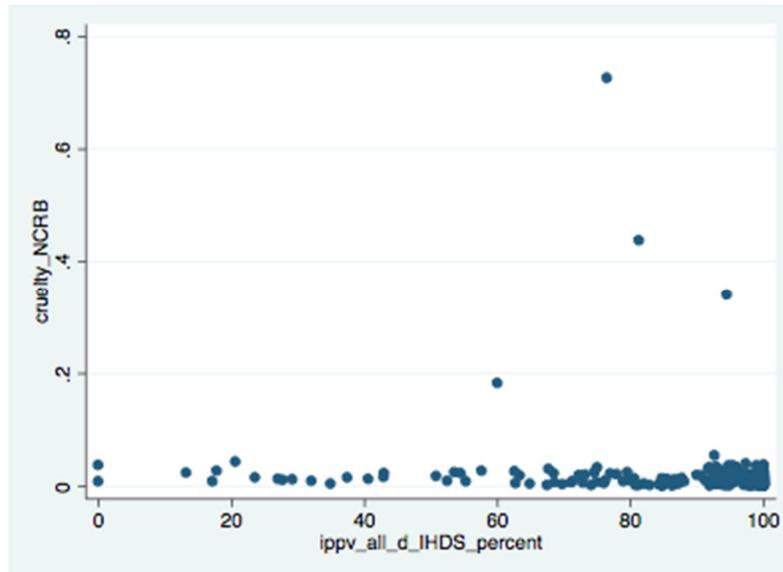


Figure 3: IHDS Wife Beating - NCRB Cruelty

The results in this case are similar to looking at harassment. The scatterplot and OLS regression<sup>16</sup>, again close to zero, show no relationship. In both cases therefore, the pattern of the particular crimes as per the NCRB does not have any relation to the perceived prevalence of these crimes among survey respondents. Though by themselves these results are by no means conclusive, when looked at in light of our other results using NFHS-3 data, they affirm the conclusion that the NCRB data gives a misleading and inaccurate representation of crimes against women in society.

Through this part of the paper we have carefully compared NCRB data on crimes against women with the results of two nationally representative surveys. If the NCRB data merely under-recorded crime against women, victim reported data would show the same patterns but higher incidence rates within the population (the OLS coefficients would be positive and statistically significant). As we find no relationship between them we conclude that the NCRB crime data not only *severely* under-records but misrepresents the incidence of crimes against women in India.

### **Inaccuracy of NCRB data: Spatial distribution of Crimes Against Women**

In this section we examine the inaccuracy of NCRB data looking at the spatial distribution of crimes against women. If levels of under-recording are consistent across the various states and regions of India, NCRB data can still tell us about the relative incidence of these crimes in the different locations. The spatial distribution of crimes against women measured by the NCRB has been the subject of earlier academic work (Mukherjee, Krishnaji, & Rustagi, 2001). Using NCRB crime data, the authors point to particular regions in the Country which they describe as 'crime specialising' regions, where the incidence of crimes against women is especially high. Starting at the district level, they point out that most of the districts in

<sup>16</sup> The coefficient was -.000208.

the Country with 'high' or 'very high' rates of crime against women are clustered around a contiguous region in Central India. This region falls largely in and around the state of Madhya Pradesh.

We cannot compare their results directly to victim reported survey data, as the best data on this question (NFHS-3) is only available at the State, rather than the District level. Instead, we conduct a state level comparison to examine more generally whether the spatial patterns seen in the NCRB data bear any resemblance to those seen in the victim reported data.

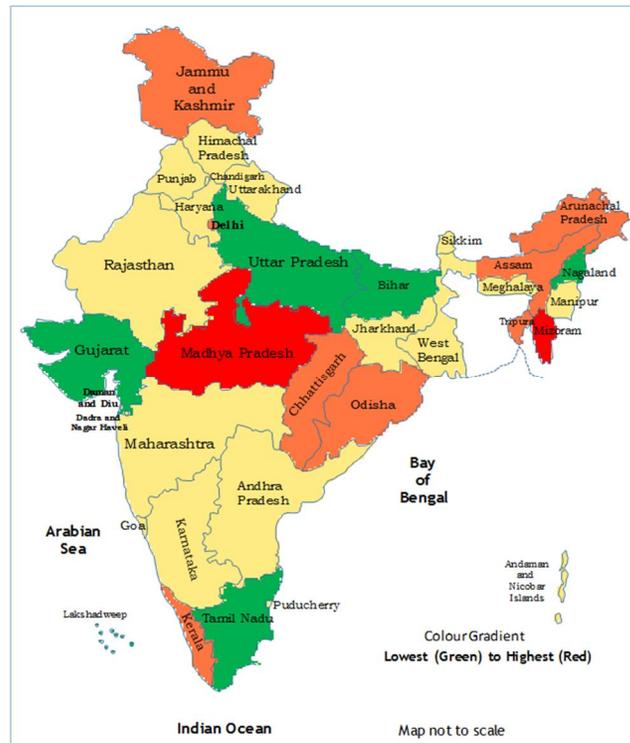


Figure 4: India - Non Spousal Sexual Violence - Police Recorded (NCRB)

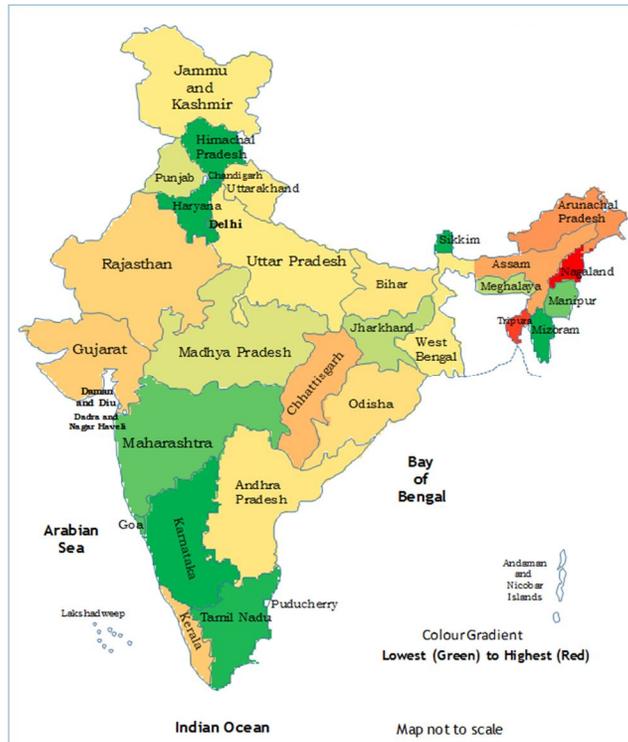


Figure 5: India - Non Spousal Sexual Violence - Victim Reported (NFHS)

Heat maps enable us to assess the relative incidence of sexual crimes against women between the Indian states as per the two data sources respectively. As the maps above illustrate, there is a wide variation between the patterns displayed by the police recorded and victim reported data on non-spousal sexual violence.

As pointed by Mukherjee et. al. in 2001, the Police recorded data does appear to highlight the central region of the country, around the state of Madhya Pradesh as an area with a relatively high incidence of sexual violence against women. Surprisingly, the victim reported data does not support this hypothesis at all. Madhya Pradesh reported the joint highest incidence of non-spousal sexual violence among Indian states from the police recorded crime data (0.03 per cent of all women). In sharp contrast, this state only reported the 16th highest incidence of sexual violence from the victim reported data (0.14 per cent of all women).

Another interesting result is witnessed in Gujarat, which reports the lowest incidence of sexual crimes against women in the police recorded data (close to 0 per cent of all women), however it reports the 7th *highest* incidence of such crimes among all states from the victim reported data (0.27 per cent of all women). Police recorded statistics on sexual crimes against women therefore appear to suffer from substantial under-recording in Gujarat.

Similar results are reported in Uttar Pradesh and Bihar; negligible levels of crime against women according to police recorded data but moderate to high levels of incidence of such crimes according to victim

reported data. Conversely, the three contiguous states of Maharashtra, Karnataka and Kerala all report reasonably high levels of relative incidence of sexual crimes against women according to the NCRB, however this is not the case as per the victim reported data. The levels of under-recording in police data from those states is therefore lower than many others.

As a quick caution the two heat maps above cannot be compared to assess the *absolute* levels of incidence as per the two data sources, as their scales are not the same. For example if a state shows up red as per the police recorded data but green under the victim reported data (such as Madhya Pradesh), this does not imply that there is in fact a higher incidence in terms of police recorded data than victim reported in that state. *Rates of incidence from the victim reported data are higher across the board.* What this simply means is that while Madhya Pradesh displays among the highest rates of incidence in terms of police recorded data, its *relative position* among all States in terms of victim reported data is much lower.

The following table further illustrates the stark difference between results from the two data sources.

	<b>Incidence of Non-spousal Sexual Violence Police Recorded Data (NCRB)</b>	<b>Incidence of Non-spousal Sexual Violence Victim Reported Data (NFHS)</b>
S.No	<b><i>Top 5 States (percentage incidence)</i></b>	<b><i>Top 5 States (percentage incidence)</i></b>
1	Madhya Pradesh (0.03)	Nagaland (1.03)
2	Mizoram (0.02)	Tripura (0.79)
3	Tripura (0.02)	Arunachal Pradesh (0.48)
4	Arunachal Pradesh (0.02)	Assam (0.41)
5	Assam (0.02)	Chhattisgarh (0.34)
	<b><i>Bottom 5 States</i></b>	<b><i>Bottom 5 States</i></b>
1	Tamil Nadu (0)	Haryana (0)
2	Uttar Pradesh (0)	Himachal Pradesh (0)
3	Bihar (0)	Karnataka (0)
4	Gujarat (0)	Sikkim (0)
5	Nagaland (0)	Mizoram (0)

*Table 2: Indian States – Percentage Incidence – NCRB and NFHS*

What is striking immediately is that four of the top 5 states in terms of victim reported sexual violence are from India's North-Eastern Region (Nagaland, Tripura, Arunachal Pradesh and Assam). Three of the top 5 states in terms of police recorded incidence of sexual violence against women are also among the top 5 states in terms of victim reported incidence of such crimes (Mizoram, Tripura and Arunachal Pradesh). Nagaland on the other hand reports the lowest incidence of sexual violence against women among all states according to the NCRB data, while it reports the highest incidence of such crimes according to the

victim reported data. This means that police recorded crime data from Nagaland suffers from massive under recording of crime unlike the other states in its region. Looking at the bottom 5 states in terms of the two data sources is similarly revealing; none of the bottom 5 states as per the police recorded data are in the bottom 5 in terms of victim reported data.

The story is similar in terms of the data on spousal violence against women, though we do not excerpt the results here in detail. The police recorded data on the offence of Cruelty reveals Rajasthan (0.02 per cent of all women; 4th highest among all states and territories) to report one of the highest levels of incidence, whereas as per the victim reported data this state reports only the 10th highest incidence of these crimes. Bihar is among the lowest states in terms of police recorded instances of these crimes (22nd highest), but is far and away the state with the greatest incidence of these crimes from the victim reported data.

The heat-maps below illustrate the combined incidence of both spousal as well as non-spousal crimes against women in the Indian States as per data from both our main sources (NCRB and NFHS). The results they display are somewhat different than in the case of only non-spousal crimes.

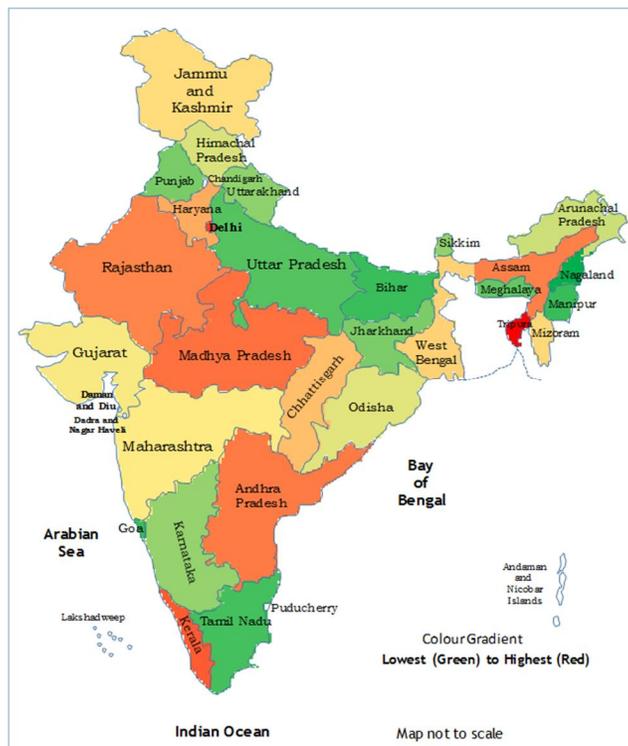


Figure 6: India States - Total (Spousal and Non-Spousal) CAW - Police Recorded (NCRB)

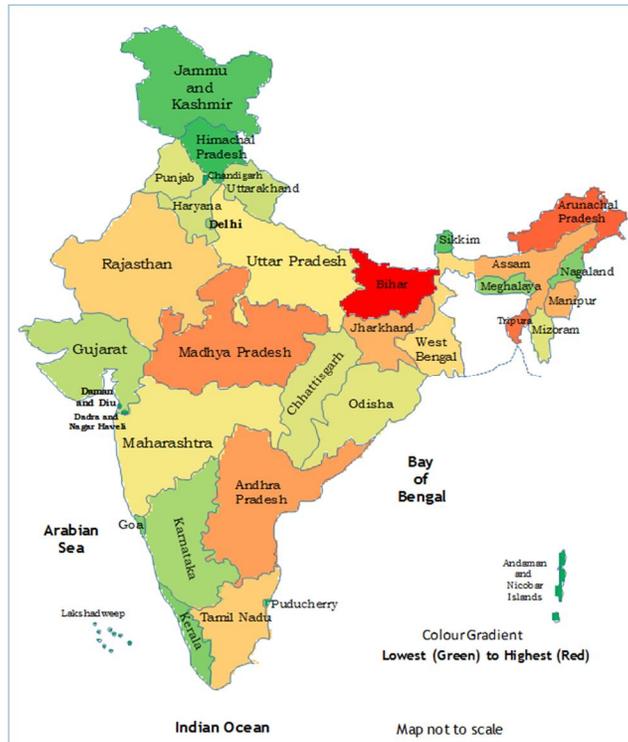


Figure 7: India States - Total (Spousal and Non-Spousal) CAW - Victim Reported (NFHS)

Again, what is clear is that both data sources throw up substantially different pictures of the geographical incidence of crimes against women in India. As per the victim reported data, Bihar has by far the highest incidence of spousal and non-spousal crimes against women; however according to the police recorded data, this State displays only the 26th highest incidence of these crimes.

Another notable result is from Delhi; this territory reports the second highest incidence of spousal and non-spousal crimes against women according to the police recorded data. Startlingly, Delhi reports only the 23rd highest incidence of such crimes according to the victim reported data. Crimes against women in Delhi have received tremendous coverage in the national media in the recent past, and a number of news reports have relied on NCRB data to brand this territory the 'rape capital' of India. (Rukmini, 2014) Our comparison of police recorded and victim reported data suggests that the higher numbers of these kinds of crimes in Delhi are more likely to be products of police recording practices than of actual relatively higher incidence.

As we indicated at the start of this section, police recorded crime data would be useful in assessing relative levels of incidence if we knew that levels of underreporting were roughly standard across states and periods of time. Mukherjee et al. proceed on this basis<sup>17</sup> Our analysis above shows that this is a troubling approach. The levels of under-recording appear to vary sharply between states and regions. Additionally,

<sup>17</sup> According to them NCRB crime data "may be useful in studying regional variations, considering that underreporting is a universal feature" (Mukherjee, Krishnaji, & Rustagi, 2001, p. 4070)

as it is impossible to know whether low police reporting by district is due to low incidence or low recording of crime. Thus, we confirm our earlier finding that NCRB data on crimes against women is unusable. NCRB data then cannot tell us anything about the spatial distribution and incidence of crimes against women in India. As a result, we state categorically that *no claims as to the spatial incidence or relative incidence of crimes against women in India can be made on the basis of data from the NCRB.*

## **Conclusion**

Measuring crime against women is at the best of times, a tremendously complex exercise. This is especially true in India where the subject is cloaked in persistent cultural mores and overlapping normative orders. Most accounts tend to fall back on the only available data source for these questions; the National Crime Records Bureau. Our analysis shows however that not only is their data affected by severe under-recording; this under-recording is inconsistent across the various geographical units of the country. This calls into serious doubt its use as any meaningful measure of incidence or even relative levels of crime against women in India. It is likely to be more useful as a starting point to examine social and Police practices in recognising and recording different kinds of offences.

This situation can only be remedied through the introduction of a specialised crime victimisation survey in India. Though the NFHS is useful, it is not especially suited to the task of estimating levels of crime. The introduction of a crime victimisation survey will enable us to finally draw back the curtains and have a long hard look at the true nature of offending in India. In the study and understanding of crimes against women in India, this is an area in need of most serious attention.

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