MOBILE PHONE SURVEY METHODS FOR MEASURING SOCIAL DISCRIMINATION

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For further information on the SARI survey, including data and documentation, please visit: https://riceinstitute.org/data-page/

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EXECUTIVE SUMMARY

Many countries regularly collect representative data on social attitudes in order to measure and understand social inequality. The Social Attitudes Research, India (SARI) project studies prejudice and discrimination in India using a low-cost mobile phone survey. We collect representative data on explicit prejudice and discrimination against women, Dalits, and Muslims. We also measure public attitudes about social policies. This report explores the promise of using mobile phone surveys to conduct research on social attitudes in India.

Part 1 describes the background and purpose of SARI, discusses its importance in the Indian context, and describes the topics that SARI studies. SARI has been administered in eight places thus far: Delhi, Uttar Pradesh, Mumbai, Rajasthan, Bihar, Jharkhand, and Maharashtra. In each place, SARI interviewed representative samples of adults ages 18 to 65.

Part 2 of the report details SARI's data collection practices. It covers sampling strategy, including how respondents were found and selected; the construction of statistical weights for data analysis; protocols for interviewing respondents; the tools used by interviewers to keep track of calls and interviews; and monitoring practices used to ensure high quality data. It ends with a discussion of strategies used in SARI to measure a respondent's caste group.

Part 3 of the report analyzes the quality of SARI data. It describes SARI's response rates and compares them to phone surveys in other contexts. We find that SARI's response rates are high compared to phone surveys from the United States, but they are lower than response rates from face-to-face interviews in India.

It then compares demographic characteristics of respondents in the raw SARI data to the demographic characteristics of respondents in India's 2015-16 Demographic and Health Survey, the National Family Health Survey (NFHS-4). We find that the raw SARI data underrepresent older people, less educated people, those living in rural areas, and Dalit and Adivasi people. Part of the reason for this is incomplete household-level mobile phone coverage: people with these characteristics are more likely to live in households without a phone. In Delhi and Mumbai, where household-level mobile phone coverage is nearly universal, the unweighted SARI data better represent the population than they do in places (such as Jharkhand), where household-level mobile phone coverage is lower.

Similar to face-to-face surveys, we solve the problem of under and over representation of groups using statistical weights. We find that differences between weighted and unweighted means are smaller in India Human Development Survey (IHDS), a face-to-face survey, than in SARI (regardless of the data source used for weighting), but that the overall difference that weighting makes between these two methods of data collection is not large. This suggests that even though face-to-face surveys currently achieve higher-quality samples, weighted mobile phone surveys can be of reasonably high quality as well.

Part 3 also describes the duration of SARI interviews in different places, as well as refusal rates and rates of partial completion. We find that partial interviews are more likely to occur when the questionnaire is longer. We find that item non-response is higher in SARI than in the India Human Development Survey (IHDS), a face to face survey. This suggests that respondents are more willing to skip a question when interviewed by phone. However, the differences in item non-response rates are not large.

Lastly, Part 3 investigates the presence or absence of question order effects in SARI. SARI used question and block randomization in order to minimize question order effects. There was no difference in responses by question order for most questions. We did, however, find that people's attitudes towards inter-caste and inter-religious marriage depended on the order in which other questions about marriage attitudes were asked.

Part 4 of the report compares responses to questions administered by phone in SARI with similar questions administered face-to-face in the India Human Development Survey (IHDS). This comparison is possible because some SARI questions were modeled off of IHDS questions.

We find that many respondents are willing to report socially conservative attitudes over the phone, and that measurements of gender discrimination, discrimination against Dalits, and attitudes towards intermarriage are similar across the two modes of data collection. Overall, responses from the SARI data weighted using the NFHS-4 are similar to responses from the weighted IHDS. This gives us confidence that SARI is able to collect valid estimates of social attitudes, and that using the phone as the mode of data collection does not negatively impact data quality.

Overall, we conclude that SARI is able to achieve high-quality data and that respondents are willing to report socially conservative attitudes in a mobile phone survey. Mobile phone surveys have the potential to allow researchers to gather social scientific data at a lower cost than before, even for topics as sensitive as discrimination and prejudice. As mobile phone coverage expands in India, phone surveys will become increasingly reliable as a method of collecting survey data.

We hope that this greater capacity for measuring social inequality will expand public discourse on how best to bring about social progress in India. These uncomfortable but important problems are not discussed deeply enough today, as many people assume that economic progress will automatically bring social progress. Accurately measuring the extent of the problem may open up space for more frank discussions about social inequality in India, and the need for social policies to address it.

We hope that the findings and interpretations in this report encourage others to use the SARI data, which can be found at https://riceinstitute.org/data/social-attitudes-research-india-sari-data/. Our experience with mobile phone surveys suggests that they are a valuable tool for measuring social attitudes and social progress. We invite other research groups to adapt what we have learned about conducting mobile phone surveys to their own contexts and research questions. Together, we can deepen the public and scholarly conversation about social inequality in India.

PART 1: BACKGROUND – Social Attitudes Research, India (SARI)

1.1 Purpose

Researchers around the world measure and track social attitudes through representative, repeated, cross-sectional surveys. Survey data is important for understanding social inequality in India, where strict caste, gender, and religious hierarchies often inhibit human development (Ramalingaswami et al., 1997; Coffey & Spears, 2017).

Social inequality has consequences for individuals, too (Thorat, 2010; Baru et al., 2010; Thorat & Desai, 2012). Discrimination against Dalits prevents them from accessing water, qualifying for loans, entering police stations, and eating with upper castes. Dalits experience mistreatment at school, at work, and in hospitals (Shah et al 2006; Thorat & Joshi 2015). Indian Muslims also face severe discrimination, which leads to lower literacy and employment rates, and to poor mental health (Chaudhuri 2018; Coffey & Gupta 2019). Finally, women in India face discrimination throughout their lives: before birth, girl babies experience sex-selective abortion; girl children face neglect; and young women are expected to be hard-working and self-sacrificing during their childbearing years (Barcellos et al., 2014; Coffey 2015; Jeffrey, Jeffrey, & Lyon 1989).

The Social Attitudes Research, India survey (SARI) measures explicit prejudice and practices of discrimination using cost-effective, mobile phone technology. SARI is unique because, to our knowledge, no representative survey has previously made the measurement of social attitudes in India its primary focus.

1.2 Surveyed populations and survey topics

As of May, 2020, SARI has been administered in eight states and cities: in Delhi and Uttar Pradesh in 2016, Mumbai and Rajasthan in 2016-17, and Bihar, Jharkhand, and Maharashtra in 2018. Men and women ages 18 to 65 were interviewed in every sample, except in Mumbai, where only men ages 18 to 65 were interviewed. In SARI, men interview men and women interview women. The Mumbai sample only includes men because at the time of the survey we could not recruit enough female, Marathi-speaking interviewers. Table 1 describes the locations, dates, and populations in each of the eight SARI samples.

Table 1. SARI sample descriptions

Sample	Dates	Population
Delhi	April to July 2016	Men and women, ages 18-65
Uttar Pradesh	April to July 2016	Men and women, ages 18-65
Mumbai	August 2016 to May 2017	Men, ages 18-65
Rajasthan	August 2016 to May 2017	Men and women, ages 18-65
Bihar	March to August 2018	Men and women, ages 18-65
Jharkhand	March to August 2018	Men and women, ages 18-65
Maharashtra	March to August 2018	Men and women, ages 18-65

Respondents were asked different sets of questions based on their state/city, sex, and social identities. For example, in Delhi or Uttar Pradesh, an upper caste Hindu man was asked questions about intermarriage with Dalits and with Muslims, as well as questions about his attitudes towards and practice of untouchability. A lower caste Hindu man was asked questions about inter-religious, but not inter-caste,

marriage, and about his own experiences with caste discrimination. Women, both single and married, were asked about whether they practice ghunghat/pardah, while married men were asked about their wives' practice of ghunghat/pardah.

Table 2 describes the topics asked about in each SARI sample. Some topics, like sanitation, gender, and untouchability were asked in all samples. Others, like personal experiences of discrimination, opinions on climate change, and mental health, were asked in some samples and not others.

Table 2. Survey topics covered in SARI in each state/city

State/city	Survey topics covered
Delhi & Uttar Pradesh	1. religion & caste 2. sanitation 3. gender 4. reservations 5. intermarriage (general) 6. untouchability 7. personal experiences of discrimination
Rajasthan & Mumbai	1. religion & caste 2. sanitation 3. gender 4. reservations 5. intermarriage (general) 6. untouchability 7. personal experiences of discrimination 8. group likelihood of experiencing discrimination 9. climate change 10. class identification
Bihar, Jharkhand & Maharashtra	1. religion & caste 2. sanitation 3. gender 4. reservations 5. intermarriage (general) 6. aadhaar & government benefits 7. untouchability 8. household assets 9. mental health 10. beef eating & violence against Muslims 11. compassion for the poor 12. intercaste marriage (personal) + caste of spouse 13. reservations knowledge & policies 14. meat eating 15. violence against spouse 16. medical abortion 17. group likelihood of experiencing discrimination 18. class identification 19. social choice experiment

PART 2: DATA COLLECTION

2.1 Sampling strategy

2.1.1. Probability-weighted random digit dialing

Random digit dialing is a common method for recruiting representative samples of survey respondents. SARI uses a form of random digit dialing designed around India's mobile network. In India, the Department of Telecommunications assigns mobile phone companies 5-digit "series" that phone companies are allowed to use at the beginning of the 10-digit mobile phone numbers that they sell in a particular mobile circle. The SARI team generates a sampling frame of potentially active numbers in each mobile circle by first creating a list in which series appear in equal proportion to the number of subscribers a company reports (TRAI)[1], divided by the number of series it has. We then add a randomly generated five-digit number to each series to form a 10 digit mobile number. SARI interviewers call these numbers in a random order.

Although phone surveys have been used in developed countries for many years, they are relatively new in India because mobile coverage is only recently high enough to collect high-quality samples. Telecom Regulatory Authority of India (TRAI) data on mobile teledensity (wireless subscriptions per 100 people) show that teledensity is higher in urban areas than rural areas, which suggests that statistics computed from phone survey data will be more accurate for urban India than for rural India. However, it is important to remember that the number of mobile subscriptions *per adult* will be higher than those officially reported by TRAI, which are *per person* (both children and adults). Finally, as we discuss below, statistical weights are used to adjust for the fact that certain groups tend to be underrepresented in our sample.

2.1.2. Within-household respondent selection

In order to ensure that adults who do not have their own mobile phones are included in our sample, we use within-household respondent selection.

The person who answers the phone is asked to list the eligible respondents – adults ages 18 to 65 who are the same sex as the interviewer – living in his/her household. Qualtrics survey software, which interviewers use for recording responses, randomly selects a respondent from that list. If the person owns a mobile phone, we randomize among him/her and any adult household members of the same sex who do not own a mobile phone. If the person does not own a mobile phone, we randomize among him/her and all other eligible household members. In order to reach less educated respondents, for a fraction of surveys in Bihar, Jharkhand, and Maharashtra, respondents were asked to list the education level of each listed individual. Qualtrics then chose the least educated person in the household to be interviewed.

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[1] For example, this Telecom Regulatory Authority of India report from April 2018 shows the number of subscribers per company, per state/city: https://main.trai.gov.in/sites/default/files/Press_Release_No4_Eng_11012018.pdf. For each state/city, we used the most recent report at the time of the start of the survey to create sampling frames.

2.2 Statistical weights

Like other surveys, we use statistical weights to adjust for the fact that people from some demographic groups are more likely to respond to the survey than others. The weights given in the publicly available dataset used from the 2011 Census to construct weights that account for the intersection of:

- two sex categories: male, female
- two place of residence categories: urban, rural
- five education level categories: no schooling, primary and below, middle and below, secondary and below, above secondary
- 10 age group categories: 18-19, nine 5-year age bands from 20-65

Therefore, respondents are assigned to one of 200 possible bins in Uttar Pradesh, Rajasthan, Bihar, Jharkhand, and Maharashtra, 100 possible bins in Delhi (which has no rural respondents) and 50 possible bins in Mumbai (which has no female or rural respondents). A respondent's statistical weight is the ratio of the number of people in the 2011 Census in that bin to the number of people in the SARI sample who are in that bin. Some of the results presented in this report use weights constructed using this same methodology, but using the NFHS-4 as a comparison, as the NFHS-4 data was collected in 2015, and so is more recent than the 2011 Census. Using NFHS-4 versus the Census does not ultimately make any meaningful difference to the conclusions of the report.

Abstracting away from possible biases due to non-sampling error (such as social desirability bias), the estimates we produce will be biased only if, conditional on the intersection of education, age, sex, and place of residence, people in households in which someone owns a mobile phone would give different answers to our questions than people in households in which no one owns a mobile phone.

2.3 Interviewing protocols

2.3.1. Locating same-sex respondents within a household

Interviews were conducted between interviewers and respondents of the same sex, in order to ensure maximum levels of comfort in taking the survey. In cases when the person who answers the phone is the same sex as the interviewer, the interviewer proceeds with asking for consent to participate in the survey. If, however, a male answers the phone when a female interviewer calls the household, the interviewer explains her purpose briefly and then asks to speak with a woman in the household, if one is available.

2.3.2. Informed consent

Interviewers must get consent from the respondent before proceeding with the survey, by asking the respondent if they are willing to spend approximately 10 minutes on the phone with them, answering questions for a study on how people live and what they believe about the area in which they live. This happens first with the individual who answers the phone, as respondents get consent to begin the process of the household listing. After the household listing has been completed, the Qualtrics software selects a respondent from within the household to take the actual survey. This selected person may be same or different from the person who first answers the phone. If the selected person is different, the interviewer

must additionally ask for consent from the selected respondent before proceeding with the remainder of the survey.

2.3.3. The interview

Interviewers try to make respondents feel comfortable in sharing their opinions, respecting any response without showing approval or disapproval, and without sharing any personal information that might influence respondent answers. For example, interviewers use caste-neutral and religion-neutral names for themselves in order to reduce interviewer-induced social desirability bias. Additionally, interviewers adhere exactly to the wording of the questionnaire to avoid the addition of personal biases and to reduce errors. An exception to this norm is that interviewers are allowed to rephrase questions if respondents do not understand them as written. Rephrasing of questions is approved by the survey managers in advance. If, after repeating a question and rephrasing it, the respondent does not understand what is being asked, interviewers skip the question.

Question and question block randomizations were used to reduce question order effects. This meant that questions were displayed in a random order within a certain topic, or that respondents were randomly selected to only be asked one question out of a larger set of related questions. This allowed us to balance questions and options to ensure that the structure of the question, rather than its content, were not what was driving results (see section 3.2.4).

2.4. Calling protocols

In this section, we describe our calling protocols, starting with Table 3 below which shows an example call log that our interviewers use to keep track of each phone call that they make. Although this call log has only one "call back" section shown, actual call logs have five such sections. The status column was programmed in Excel to change based on the last call made, directing interviewers in how to proceed.

Table 3. Example of call log in Excel

Call no	full phone number	date	month	am (1) pm (2)	what happened (code only)	respondent name/ description	notes	Call back 1: date	month	am (1) pm (2)	what happened (code only)	respondent name/ description	notes	status
1	88901XXXXX	30	7	2	23		half done							refusal
2	90245XXXXX	30	7	2	20									refusal
3	97851XXXXX	30	7	2	4									refusal
4	96498XXXXX	30	7	2	20									refusal
5	72979XXXXX	30	7	2	3									refusal
6	95711XXXXX	30	7	2	3									refusal
7	97857XXXXX	30	7	2	19									callback
8	99827XXXXX	30	7	2	21		womn talking							refusal
9	91667XXXXX	30	7	2	1									refusal
10	95301XXXXX	30	7	2	12									completed
11	86963XXXXX	30	7	2	3									refusal
12	92516XXXXX	30	7	2	21		cal tmrw 9clk							refusal
13	96607XXXXX	30	7	2	1									refusal
14	78913XXXXX	30	7	2	2									refusal
15	87693XXXXX	30	7	2	20									callback

Note: The status column does not necessarily match the codes seen above because codes in the columns for call backs 1 through 5 have been deleted. In a functioning call log, the status column is automatically updated in Excel when subsequent codes are placed in the code columns for each call back. See Appendix Table A1 for full list of codes.

2.4.1. Original calls

A team of eight interviewers call respondents for approximately eight hours per day, in two 4-hour shifts between 8am and 12pm, and 3:30pm and 7:30pm. Timings were chosen to maximize reaching a wide variety of respondents: for example, those who work in an office are often easier to reach in the mornings before they leave for work or in the late evening after they leave the office, while women who work in the home are often easier to reach in the afternoons. Each interviewer is given a list of phone numbers to call (see section 1.2.2 below for details on how phone numbers are generated), of which approximately 50% are valid numbers. Valid numbers are tried up to five times. The interviewers dial numbers into handheld mobile devices. They record call outcomes in Excel spreadsheets as seen in Table 3 above (see codes in Appendix Table A1) and record respondents' answers to survey questions in Qualtrics in real time.

2.4.2. Call Backs

Respondents are often called back multiple times before an interview is completed. Interviewers ask respondents for a convenient time to complete the interview. Interviewers can either schedule a date and time for a call back if a respondent agrees, either before an interview begins or if it is partially complete. If a respondent does not give a specified time to be called back, if the line is engaged, or if the phone number rings with no answer, interviewers try to call the same number again at the beginning of the subsequent shift. If, after a fifth callback, the respondent has not been reached or has not agreed to be interviewed, the number is considered to be a refusal.

2.4.3. Refusals

In cases when no one of the correct sex lives in the household; the respondent declines participation prior to respondent selection; or if a valid number was engaged but not answered for all five initial calls; interviewers follow "refusal conversion" practices common in phone survey methodology, in which a set number of additional calls are made to these numbers by a different interviewer to try to reach respondents and convince them to participate. Since we are reaching respondents on mobile phones which are sometimes shared among several users, it is possible that one user might be willing to participate even though the initial respondent was not. Following an interval of at least four weeks from the initial call, a different interviewer of the same sex calls phone numbers initially classified as a refusal, using the same procedure as first-time calls. After five additional tries, a call is considered a final refusal and not called again.

2.5 Monitoring

2.5.1. Interviewer performance monitoring

On a weekly basis, interviewer performance is checked by compiling statistics on the number of new calls and call backs that each interviewer made, as well as the fraction of numbers that were valid, and the fraction of valid phone numbers that were converted into interviews. On a biweekly basis, the frequencies of how calls are coded by interviewers are checked to ensure that no interviewer has excessive refusals or too few call backs. The rate at which certain interviewers record positive or negative answers to specific questions is also monitored to check for social desirability bias introduced by the interviewer's interactions with the respondent. Survey managers track call backs to make sure none remain incomplete, and also to track overall interviewer performance based on the number of completed interviews.

2.5.2. Sample quality monitoring

Each shift, a survey manager randomly selects one interviewer to monitor. The manager checks to make sure that all call backs (scheduled and unscheduled) have been completed and selects two phone numbers from amongst those in which the interviewer has begun an interview. For these phone numbers, the survey manager will check the call duration recorded in Qualtrics against the call duration listed on the bill provided by the phone company. This allows the survey manager to ensure that interviewers are not filling out surveys in Qualtrics without having a respondent on the phone.

Additionally, once every two weeks, SARI data is compared to the distribution of Census data on dimensions of age, education, caste, place (rural/urban), and sex. Though sample weights adjust for differential non-response, interviewers are intentional in trying to reach individuals from all education levels, castes, ages, and places. The survey manager uses these results to share constructive feedback with the interviewers both as a group and individually at the beginning of each new work week.

A fraction of surveys in Bihar, Jharkhand, and Maharashtra were done with the least educated person in the household, as a method to reach less educated respondents so that our sample more closely matched the education distribution of the Census. This procedure was implemented based on advice received from a senior Gallup researcher. Sample quality continued to be monitored in the same way as described above.

2.5.3. Data quality monitoring

The SARI survey managers monitor data quality, to improve data collection practices as soon as potential problems are identified. Each shift, a survey manager provides structured feedback to one interviewer on his/her performance by listening in on at least one of his/her calls. While listening to the call, the survey manager fills out an Interview Quality Checklist (see Appendix Table A2 for the content of the checklist). Among the things that the survey manager checks are whether the interviewer speaks respectfully to the respondent, how accurately the interviewer asks the questions, and whether the interviewer remains neutral which asking questions so as to avoid biasing responses.

2.6 Measurement of caste

Measuring the respondent's caste group (i.e. Dalit, Adivasi, OBC, General, Brahmin, other) is important to the SARI project because people from different caste groups are asked different questions about untouchability, intermarriage, and discrimination. SARI improved its methods for measuring caste over time.

In Delhi and Uttar Pradesh, in the first samples that were collected, respondents were asked about their caste group (SC, ST, Forward, Brahmin, or other), and then asked to identify their sub-caste (jati name). We learned that it is easier for people to tell interviewers their sub-caste than to tell interviewers their caste group. Therefore, in the other samples, respondents were asked their sub-caste first. In order to reduce errors in recording sub-caste names, the survey form used a drop-down menu of sub-caste names published by state governments. The drop-down lists also indicated which caste group the sub-caste belongs to in that particular state/city. Before recording the respondent's caste group, the interviewer verified the listed group with the respondent. In instances in which a respondent classified him/herself into a different caste group than indicated by the state caste list, interviewers classified the respondent according to his or her answer.

When a respondent did not know his or her sub-caste or caste group, the interviewer requested him or her to ask other family members, or to check his/her ration card or other government documents.

PART 3: QUALITY OF SARI MOBILE PHONE SURVEY SAMPLES

3.1. Comparisons of demographic characteristics in raw SARI data and NFHS-4

To monitor the composition of the SARI sample as it was being collected, we compared demographic characteristics of SARI respondents with the population of the relevant state/city, as recorded in the 2011 Census. Here, we compare demographic characteristics from the raw (unweighted) SARI with weighted data from the NFHS-4, a state-level representative sample collected in 2015. We use NFHS-4 data here because they provide a more recent comparison.

We present these comparisons in two ways. For categorical variables, like caste and place, we use simple bar graphs to compare the SARI and NFHS-4 samples. Figures 1 and 2 below show breakdowns of caste and place categories, respectively, in the raw SARI data and the weighted NFHS-4 data, for each sample separately. For continuous variables, like age and education, we present quintile-quintile (Q-Q) plots, which compare distributions from SARI and the NFHS-4. In Figures 3 and 4 below, if the distributions of these demographic variables are identical across the two datasets, the points will lie on the 45-degree line. Deviations from the line show sections of the distribution for which the raw SARI data do not match the NFHS-4 data.

We now present results for each demographic variable in turn. States/cities are shown in order from greatest to least mobile phone coverage according to NFHS-4 data (see Table 7 in Section 3.2.2.1 below).

3.1.1. Age

Figure 1 shows QQ plots comparing the age distribution in SARI to the age distribution in the NFHS-4. Since SARI only interviewed adults ages 18-65, the NFHS-4 data are also restricted to the same ages.

These QQ plots graph the estimated weighted age quantiles of the NFHS-4 on the x-axis and the estimated unweighted age quantiles of SARI on the y-axis. An imaginary 45 degree reference line is where all the points would be if the SARI and NFHS-4 data had the same distribution, thus the further away the points are from the line, the less similar the two distributions are. Points above the 45 degree line show sections of the distribution for which SARI age values are higher than the corresponding NFHS-4 values, and points below the 45 degree line show sections of the distribution for which SARI age values are lower than the corresponding NFHS-4 values.

In Figure 1, we see that for younger ages, SARI data matches NFHS-4 data closely. However, for older ages, SARI has values that are lower than the values in the NFHS-4, across all samples, meaning that SARI underrepresents older people. This could be because older people are less likely to own a mobile phone, or that they are less willing to be interviewed by phone. Although SARI's Mumbai sample most closely matches the Mumbai sample in the NFHS-4, the extent of phone coverage does not otherwise appear to be correlated with better or worse representativeness of older individuals.

Figure 1. QQ plot for Age: NFHS-4 versus SARI, by state/city
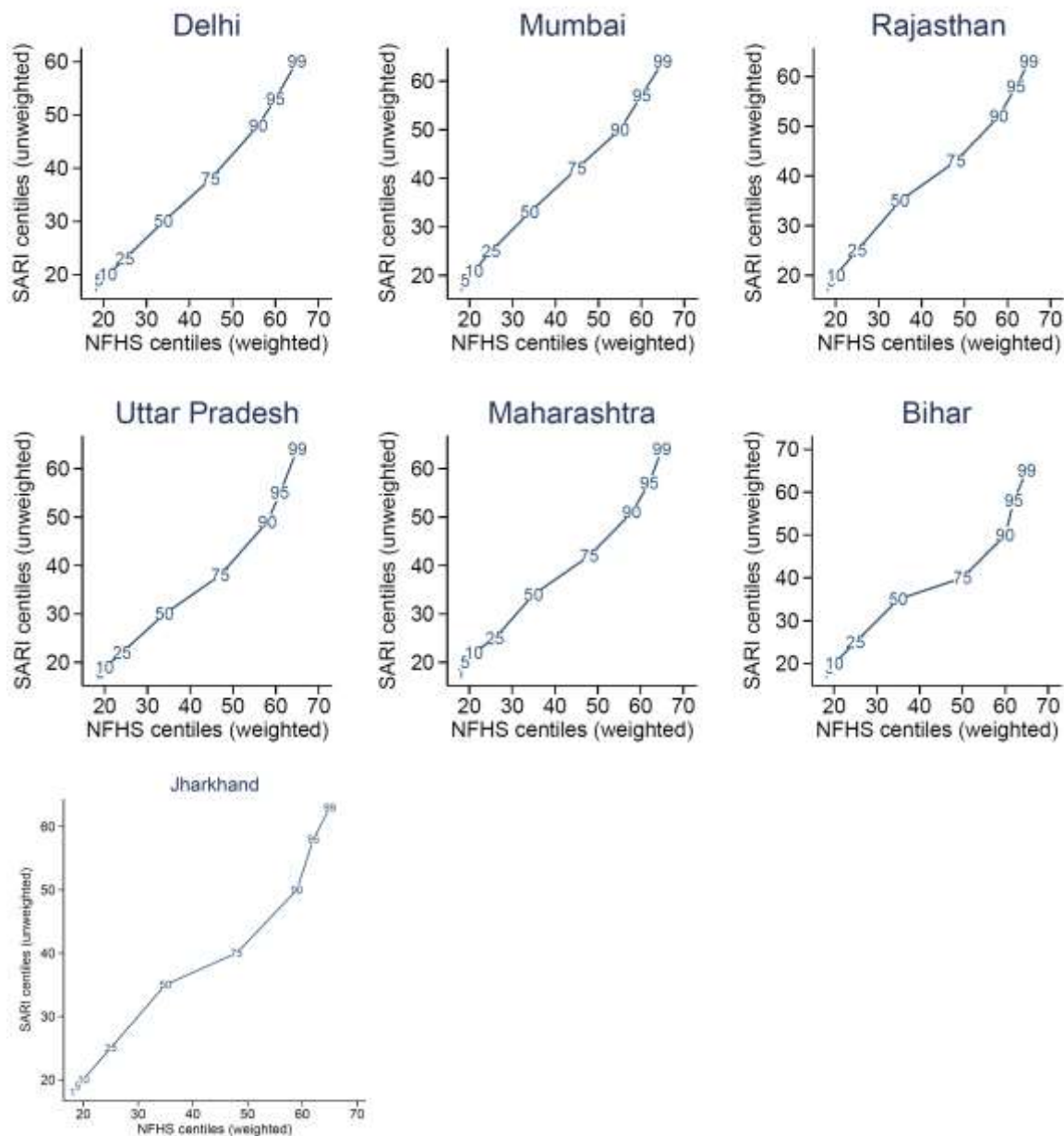
3.1.2. Education

In Figure 2, we see that in many cases, the SARI data is below the imaginary 45 degree line, meaning that SARI underrepresented less educated people. This could be because less educated people are less likely to own a mobile phone, or that they do not want to participate in the survey. As with age, SARI's Mumbai sample most closely matches the NFHS-4 Mumbai sample on education.

Figure 2. QQ plot for Education: NFHS-4 versus SARI, by state/city
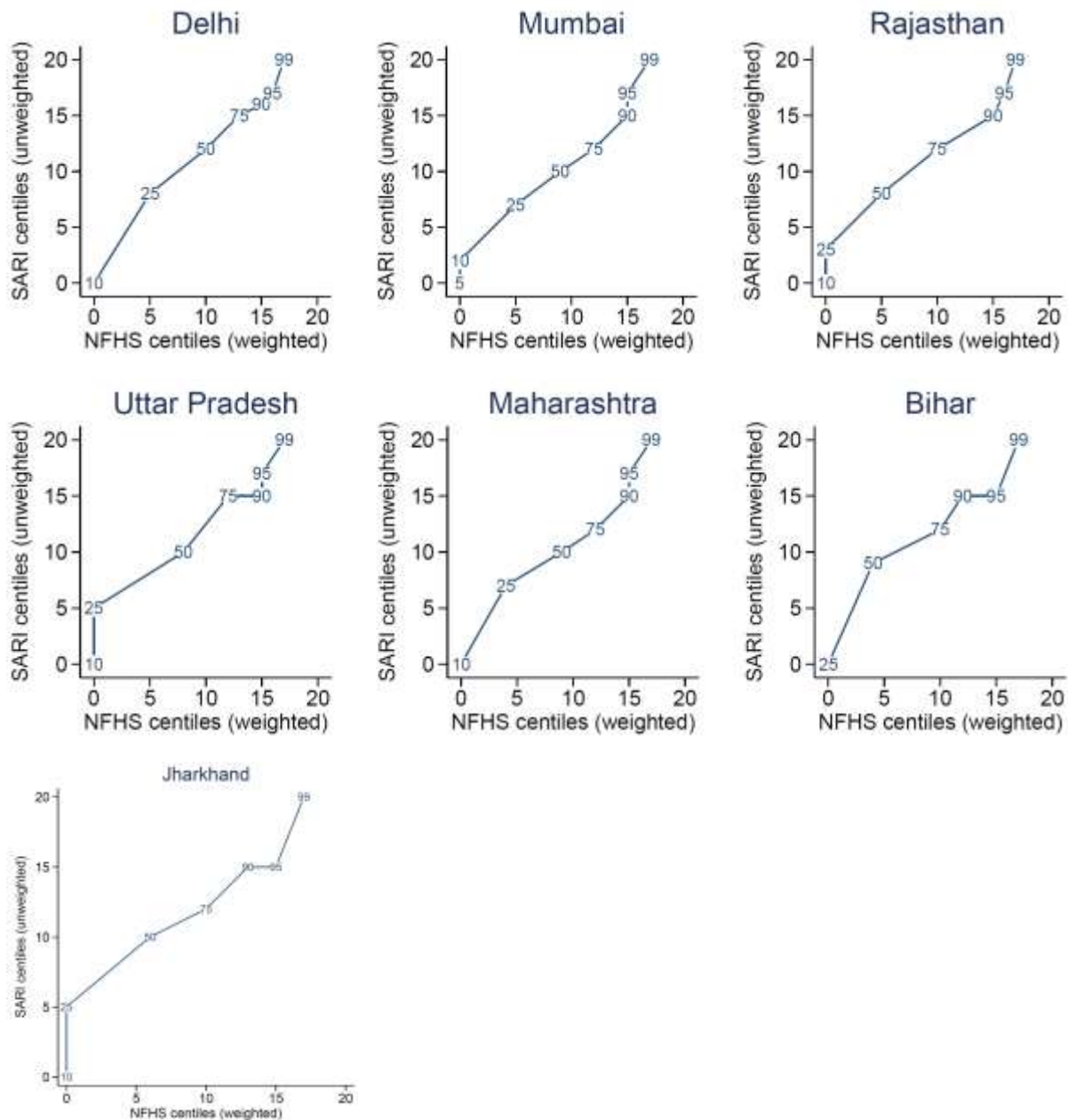
3.1.3. Place (Urban/Rural)

Figure 3 shows the five samples that have both urban and rural areas: Rajasthan, Uttar Pradesh, Maharashtra, Bihar, and Jharkhand. Delhi and Mumbai are not included since they are completely urban. In all samples except Maharashtra, SARI underrepresents rural areas. Again, this could be because individuals in rural areas are less likely to own a mobile phone, that they are harder to reach than those in urban areas, or that they are less willing to be interviewed by phone. Within these five samples, even though Jharkhand has the least phone coverage (84%) and Rajasthan has the most (94%), the difference between

the rural SARI sample and the rural NFHS-4 sample are similar, thus the extent of phone coverage does not appear to be clearly correlated with better or worse representativeness of rural individuals.

Figure 3. Place breakdown: NFHS-4 versus SARI, by state/city
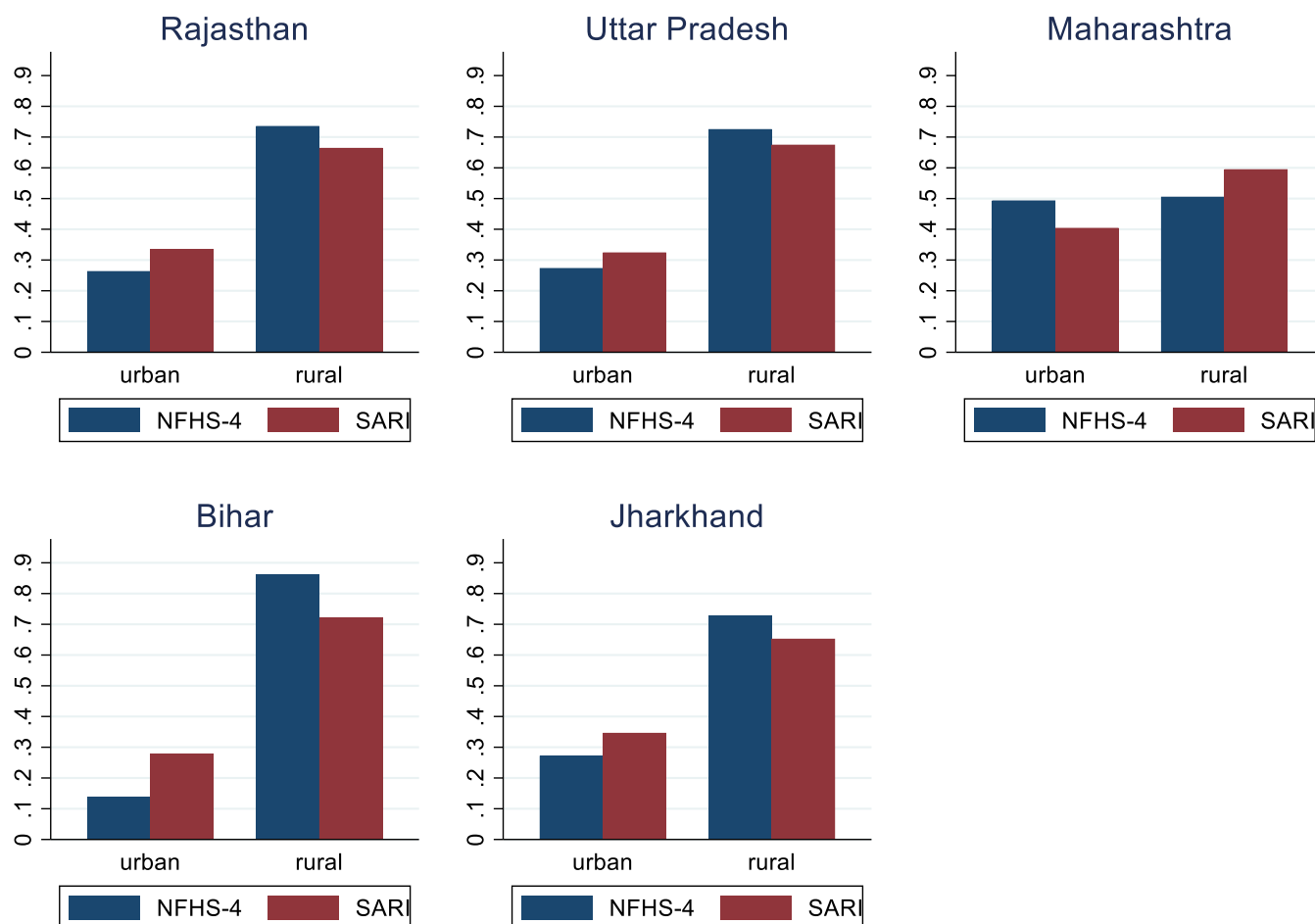
3.1.4. Caste

The NFHS-4 categorized caste groups in the following categories: SC, ST, OBC, none of the above, don't know. The NFHS' "none of the above" mostly consists of those who report being of General caste. A small fraction of people are classified as "don't know", and have been included with the "none of the above" category. For clarity, Figure 4 describes people classified by the NFHS-4 as "none of the above" and "don't know" as "General."

SARI categorized caste group in the following categories: SC, ST, OBC, General, Brahmin, other. For comparability, those classified as "Brahmin" are included in the "General" category, and since only a small fraction of individuals are classified as "other", these have also been included in the "General" category as well.

Figure 4 shows that in all samples, SARI underrepresents Dalits and ST individuals, and overrepresents individuals who are classified as "General." SARI underrepresents OBC individuals in all samples except for Mumbai and Maharashtra, where the SARI data overrepresents OBC individuals. This may be the case for several reasons: it is possible that low-caste individuals are less likely to own mobile phones, or that they may be harder to reach by mobile phone than non-low-caste individuals, or that they are less willing to answer questions by phone about the particular topics that SARI covered. Phone coverage in and of itself does not appear to be clearly correlated with better representativeness of low-caste individuals.

Figure 4. Caste breakdown: NFHS-4 versus SARI, by state/city
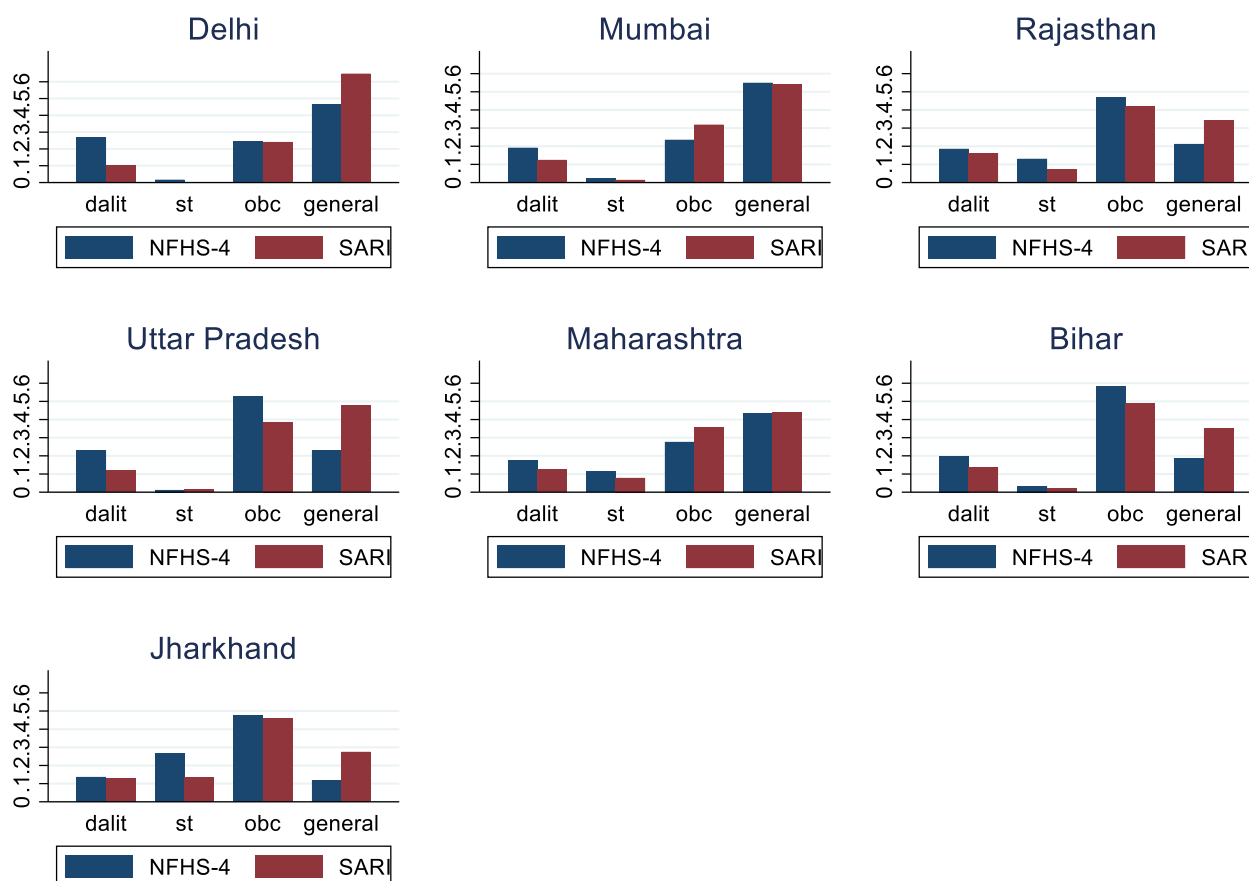
3.1.5. Summary measure of the number of people in the "wrong bin"

As described in Section 2.2, respondents were categorized into bins by sex, age, education level, and place (rural/urban) in order to calculate survey weights on our SARI samples. Another way to measure how much the characteristics of the sample deviated from that of the population is to compare the number of people in each bin in each SARI sample to the Census counts of people in each bin.

For example, with two sex bins (male and female), ten age bins (18-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-65), five education bins (0 years, 1-5 years, 6-8 years, 9-10 years, 11+ years), and

two place bins (rural and urban), a state like Uttar Pradesh would have a total of 200 bins, while a state like Delhi, which is all urban, would have a total of 100 bins. To explain, we assume only two categories, sex and place, and assume that an imaginary 100,000 individuals are evenly spread throughout the four categories, as in Table 4 below. If, in a SARI sample of this same population, we ended up with 20,000 rural women instead of 25,000, and 30,000 urban men instead of 25,000, then this measure would tell us that 10,000 individuals were classified in the "wrong bin."

Table 4. Two-category "wrong bin" example

	Rural	**Urban**
Men	25,000	25,000
Women	25,000	25,000

By scaling each SARI sample and each Census population to 100,000 people, we are able to calculate the difference between the number of people who should have been in each bin according to the Census and the number of people in each bin that our sample actually reached. A summary measure of the number of people in the "wrong bin," calculated as the summation of the absolute differences across all bins between the Census population and the sample, divided by 100,000, is given in Table 5 below. Larger fractions mean that there is greater deviation between the SARI sample and the Census population counts across all bins. Better matching very closely follows the pattern of mobile phone coverage: less of the sample is classified into the "wrong bin" in places with greater phone coverage.

Table 5. Fraction of people in "wrong bin" by sample

	Fraction of people in "wrong bins" (out of an imaginary sample size of 100,000 individuals per state/city)
Mumbai	0.29
Delhi	0.41
Rajasthan	0.65
Maharashtra	0.69
Uttar Pradesh	0.75
Bihar	0.77
Jharkhand	0.84

3.1.6 Conclusions about sample composition

Ideally, the raw (unweighted) SARI distributions of demographic characteristics would match the demographic characteristics in the population of each state/city. The fact that some groups, such as less educated people, are underrepresented, and others, such as younger adults, are overrepresented, recommends the use of statistical weights. Weighted SARI responses are valid measures of the social attitudes in the population if SARI participants' responses are, on average, similar to responses which would be given by people with the same age, sex, place of residence, and education who did not respond to the survey.

3.2 Data quality

3.2.1. Response rates

Table 6 provides response rates and sample sizes for the seven SARI samples. We compute response rates as the number of surveys in which a respondent answered at least a third of the questions, divided by the number of mobile numbers that were valid (as opposed to nonexistent, switched off, or not available) when they were first called (Groves & Fultz 1985):

$$Response\ rate = \frac{\#\ of\ complete + partial\ interviews}{\#\ of\ valid\ numbers\ called}$$

Table 6. Response rates and sample sizes

Place	Response Rate	Sample Sizes		
		Men	Women	Total
Delhi	16%	753	658	1411
Uttar Pradesh	26%	791	808	1599
Mumbai	16%	1695	N/A	1695
Rajasthan	25%	1611	1749	3360
Bihar	19%	1450	1988	3438
Jharkhand		459	550	1009
Maharashtra	25%	920	746	1666

Note: Rates for Bihar and Jharkhand cannot be calculated separately because Bihar and Jharkhand mobile numbers are pooled into the same mobile circle. State of residence is only known for individuals who began the survey, but not for every valid phone number called.

SARI's response rates will appear low to people who are accustomed to working with field survey data collected in face-to-face interviews. However, these response rates are high compared with phone surveys done in other countries; a Pew Research Center study from the United States by Kohut et al. (2012) found an average response rate of 9% in its 2012 surveys. They concluded that despite relatively low response rates, phone surveys that are weighted to match the demographic composition of the population provide accurate estimates of public opinion. SARI's sample sizes are consistent with other representative samples used to analyze social attitudes.

3.2.2. Mobile phone coverage and sample quality

3.2.2.1. Teledensity

Is higher mobile phone coverage in a given places associated with a closer match between the raw SARI data and the NFHS-4 data? We assess the extent of phone coverage in two ways. First, the NFHS-4 gives us estimates of mobile phone ownership at the household level. While this is different from mobile phone

ownership at the individual level, it gives us a lower bound on the extent of phone coverage by state/city. Second, TRAI regularly publishes statistics on the number of mobile phone subscription by mobile phone circle. Mobile phone circles cover a state or a large city. Among the places where SARI surveyed, Bihar and Jharkhand included in the same mobile circle; thus, they are reported together. Uttar Pradesh is split into two circles, east and west. The Uttar Pradesh sample includes both the Uttar Pradesh East and the Uttar Pradesh West mobile circles. Using the TRAI subscription figures from March 2019 divided by the state/city population from the 2011 Census, we report the number of mobile phone subscriptions per person, and the number of subscriptions per adult (age 18 and over). Where the average person has more than one subscription, this number will be higher than one. Both individual and household level measures are useful for understanding mobile phone coverage in a population.

For each SARI sample, Table 7 shows these three measures of mobile phone coverage. The order of coverage is similar across the three measures, although Maharashtra and Uttar Pradesh are switched in ranking in terms of subscriptions per person.

Table 7. Mobile phone coverage (NFHS-4) and subscriptions per person and per adult (TRAI)

NFHS-4 (greatest to least)		TRAI - subscriptions per person (greatest to least)		TRAI - subscriptions per adult (greatest to least)	
Delhi	99%	**Delhi**	3.08	**Delhi**	4.60
Mumbai	97%	**Mumbai**	3.04	**Mumbai**	4.18
Rajasthan	94%	**Rajasthan**	0.97	**Rajasthan**	1.66
Uttar Pradesh	92%	**Maharashtra**	0.85	**Uttar Pradesh**	1.48
Maharashtra	91%	**Uttar Pradesh**	0.84	**Maharashtra**	1.26
Bihar + Jharkhand	89%	**Bihar + Jharkhand**	0.65	**Bihar + Jharkhand**	1.18

The scatter plots in Figures 5 and 6 below show that the samples with the greatest phone coverage and with the highest number of subscriptions per adult tend to have lower numbers of people in the "wrong bin". The correlation between fraction missing and TRAI subscriptions per adult is slightly higher at -0.94 than the correlation between fraction missing and NFHS-4 mobile phone coverage at -0.87. It makes sense that greater teledensity and greater phone coverage would be associated with a greater ability to recruit participants from more bins, leaving less bins empty.

Figure 5.Number of people in the wrong bin, by NFHS-4 mobile phone coverage
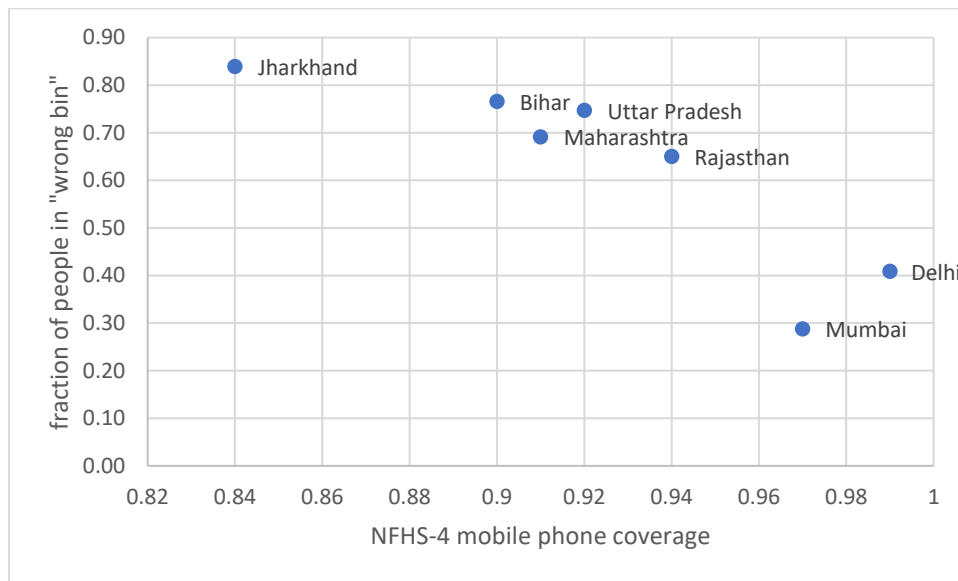
Figure 6. Number of people in the wrong bin, by TRAI subscriptions per adult
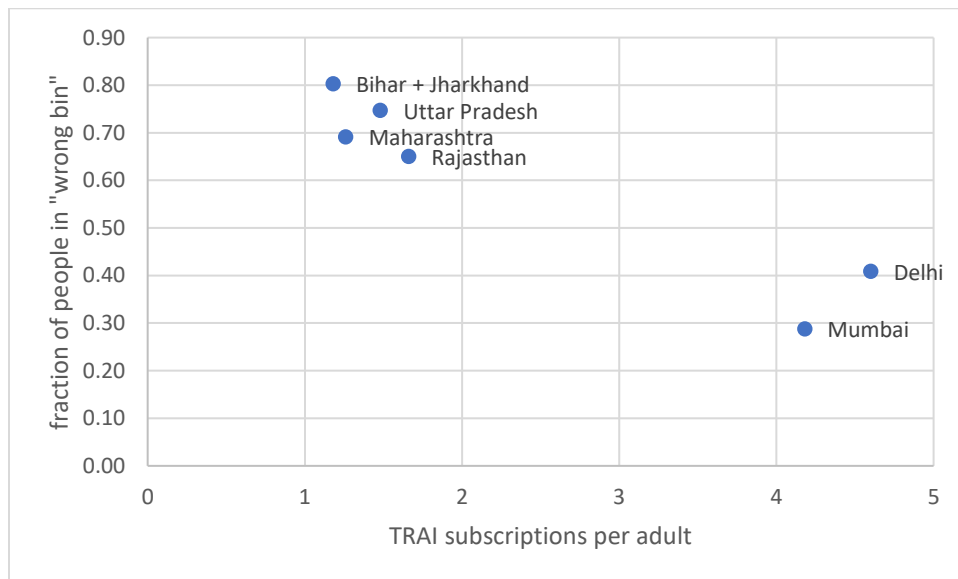
3.2.2.2. Mobile phone ownership by caste

Are low caste households less likely to own mobile phones than higher caste households? If so, this would constitute a reason why lower caste people are less well-represented in the SARI data than higher caste households.

We explore two ways of examining whether lower caste individuals may be less well represented in SARI. First, Table 8 shows household-level data from the NFHS-4 on the fraction of households in each SARI state/city that own a mobile phone by caste group. It finds that Dalit and Adivasi households are less likely

to have mobile phones than OBC and general households, but the differences are not dramatic. We note that Adivasi households have the lowest mobile phone coverage.

Table 8. Household mobile phone coverage by caste (NFHS-4)

	UP	Delhi	Rajasthan	Mumbai	Bihar	Jharkhand	Maharashtra
Dalit	88%	98%	93%	97%	86%	81%	90%
Adivasi	83%	99%	86%	94%	86%	73%	78%
OBC	92%	99%	95%	97%	91%	89%	93%
General[2]	96%	99%	97%	98%	93%	94%	94%

We then ask what the caste breakdown of our samples would be if interviewers were able to recruit participants in proportion to their mobile phone ownership in the population. Table 9 thus shows the caste breakdown respondents in SARI, and compares this to the fraction of individuals ages 18-65 (only men in Mumbai) who live in households that own mobile phones in the NFHS-4.

Table 9. Caste profile of SARI respondents compared to people ages 18-65 living in households that own mobile phones in the NFHS-4

	Uttar Pradesh		Delhi		Rajasthan		Mumbai		Bihar		Jharkhand		Maharashtra	
	NFHS	SARI	NFHS	SARI	NFHS	SARI	NFHS	SARI	NFHS	SARI	NFHS	SARI	NFHS	SARI
Dalit	22%	13%	27%	11%	18%	19%	18%	12%	19%	18%	13%	15%	17%	13%
Adivasi	1%	1%	2%	1%	12%	9%	2%	2%	3%	3%	24%	16%	10%	9%
OBC	53%	42%	25%	24%	47%	41%	24%	32%	59%	51%	50%	47%	28%	36%
General[3]	24%	44%	47%	64%	22%	31%	56%	54%	19%	29%	13%	23%	45%	42%

Table 9 shows that lower caste individuals (either Dalits or Adivasis) are less likely to participate in SARI relative to the proportion of people who lives in households that own mobile phones. This is true in all states/cities, and indicates that even after accounting for an incomplete sampling frame, SARI tends to under-represent low-caste respondents and over-represent high-caste respondents. We rely on statistical weights to correct for such differentials, which is common practice in survey methodology. In future rounds of SARI data collection, we will endeavor to develop further tools to encourage participation by lower caste respondents.

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[2] The "none of the above" category in the NFHS-4 consists mostly of those classified as "General" caste across all samples. NFHS-4 respondents who answered "don't know" are combined with "none of the above" here, and both are included in the category called "General".

[3] The "none of the above" category in the NFHS-4 consists mostly of those classified as "General" caste across all samples. NFHS-4 respondents who answered "don't know" are combined with "none of the above" here, and both are included in the category called "General". SARI respondents who answered "other" are combined with "General" here for the sake of comparison with the NFHS-4.

3.2.3. Interview characteristics (duration, refusal rates, partial interviews) in SARI

While some topics and questions remained constant throughout all SARI samples, the questionnaire changed over time: the same survey was administered in Delhi and Uttar Pradesh between April and July 2016, a new survey was created to be administered in Rajasthan and Mumbai between August 2016 and May 2017, and a third survey was created to be administered in Bihar, Jharkhand, and Maharashtra between March and August 2018. We added new questions each time a new set of states/cities was surveyed, and few questions were removed. Therefore, states/cities that were surveyed later in time had longer questionnaires. Table 10 describes some important interview characteristics, including interview duration, rates of refusal, and missing data within completed interviews, with descriptions of each aspect given below.

Table 10. Interview characteristics

	Interview duration		Refusals		Missing data	Final sample sizes
Sample	Average duration in minutes	Sample size for interview duration	Initial refusal rate	Final refusal rate	Fraction partial interviews	
Delhi	12.12	74	85.30%	88.60%	5.30%	1411
Uttar Pradesh	13.20	90	75.30%	83.40%	4.40%	1599
Mumbai	13.63	150	84.30%	95.80%	7.60%	1695
Rajasthan	13.94	301	78.50%	93.20%	5.90%	3360
Maharashtra	21.78	283	79.10%	83.40%	12.60%	1666
Bihar + Jharkhand	23.52	974	85.00%	95.30%	16.50%	4447

Note: Rates for Bihar and Jharkhand cannot be calculated separately because Bihar and Jharkhand mobile numbers are pooled into the same mobile circle. State of residence is only known for individuals who began the survey, but not for every valid phone number called.

3.2.3.1. Interview duration

As part of quality monitoring practices, survey managers checked the phone numbers of completed surveys in phone bill records to check how long the phone calls lasted, also providing a record of the approximate duration of an interview. Survey managers did this exercise for a randomly selected number of surveys, thus sample sizes for interview duration are not equal to total sample sizes. This measure is approximate because these durations include not only the time taken for asking interview questions, but also the time spent convincing the person who answered the phone to continue with the survey, locating the correct selected respondent, and convincing that person to participate in the survey. If the interview was completed in multiple calls, the durations of these called are added up.

Interview durations in Bihar, Jharkhand, and Maharashtra are substantially longer than those in Delhi, Uttar Pradesh, Mumbai, and Rajasthan because several questions, many greater in complexity, were added to the survey administered in these three states (see section 1.2). Interview duration for Maharashtra, Bihar, and Jharkhand could only be ascertained by survey managers for a small subset of phone numbers because phone companies did not provide itemized bills for all months of the survey. For this reason, interview duration was averaged over all completed interviews, rather than the small random subset that was checked

by survey managers. There are many more phone numbers for which duration could be counted in Bihar and Jharkhand because a larger fraction of surveys in those states were conducted during the months in which itemized bills were provided.

3.2.3.2. Refusal rates

We measure two types of refusals which are reported in Table 10 above:

- **Initial refusal**. According to SARI's protocol, interviewers call valid phone numbers up to five times. Cases when the respondent declines participation, either before or after selection respondent is selected from his household, divided by the number of mobile phone numbers that are valid when the interviewer first calls that number, are considered refusals (Groves & Fultz 1985):

$$Refusal\ rate = \frac{\#\ of\ refusals}{\#\ of\ valid\ numbers\ called}$$

The refusal rate is not simply one minus the response rate (see section 3.2.1.) for two reasons. First, following an interval of at least four weeks from the initial call, in a common survey practice known as "refusal conversion", a different interviewer calls numbers that were classified as refusals before respondent selection in an attempt to convert the refusals to completed interviews. In addition to interview attempts that were clearly refused, SARI interviewers additionally called back numbers in which it was reported that no one of the correct sex lived in the house, as well as valid numbers that were simply not answered at all for all five attempts. Although we do not report the fraction of calls for which refusal conversion occurred, interviews that were ultimately completed through this process are included in the final sample. Second, it is possible that a respondent completed a large fraction of the survey and then refused, in which case the interview would be counted both in the response rate and in the refusal rate.

- **Final refusal**. A refusal is considered final if an initial refusal goes to refusal conversion, meaning five additional calls to that number are attempted, but still cannot be converted.

3.2.3.3. Missing data

Partial interviews are defined as interviews that were completed through the gender section (approximately one-third of the way through the survey) and thus included in the final dataset, but stopped the survey at a point other than the end of the survey. Table 10 reports rates of partial interviews for each state/city in order to assess the threat to data quality that comes from people losing interest or patience in the survey and refusing to respond before the interview is completed.

3.2.3.4. Relationship between interview duration, refusal rates, and partial interviews

We see that interview duration increased slightly between the Delhi and Uttar Pradesh, and Mumbai and Rajasthan interviews, and that it increased substantially in surveys administered in Bihar, Jharkhand, and Maharashtra. For example, an upper caste, married Hindu man would have been asked approximately 34 questions in Delhi and Uttar Pradesh, 47 questions in Mumbai and Rajasthan, and 69 questions in Bihar,

Jharkhand, and Maharashtra. The level of sophistication of the survey questions also increased substantially in the Bihar/Jharkhand/Maharashtra questionnaires. The most difficult-to-answer questions were asked towards the end of the survey. For example, one set of questions in Bihar, Jharkhand, and Maharashtra asked respondents about their possession of an Aadhaar card, and asked them to remember if there were any public services they were denied because they did not have an Aadhaar card. Rather than simply being a yes/no question about the respondent's beliefs, this requires the respondent to consider whether lack of an Aadhar card has impacted the services they are able to access. Thus, these surveys were not simply longer, but also perhaps cognitively more taxing than those administered in Delhi, Uttar Pradesh, Mumbai, and Rajasthan.

One reason that we see differences in interview duration within surveys that were administered using the same questionnaire may be because of the interaction between this complexity and respondent's levels of education. For example, respondents in Maharashtra completed the survey in less time than those in Bihar and Jharkhand. Given greater levels of education in Maharashtra as compared to Bihar and Jharkhand, it is possible that respondents were able to complete the survey more quickly. Similarly, we see the same pattern between Delhi and Uttar Pradesh, and Mumbai and Rajasthan: in the places with higher average levels of education (i.e. Delhi and Mumbai), interview durations are shorter than in the places with lower average levels of education (i.e. Uttar Pradesh and Rajasthan). The fact that questions in Delhi, Uttar Pradesh, Mumbai, and Rajasthan were generally less complex may explain why differences in durations among these surveys conducted with similar questionnaires are smaller than the differences between Maharashtra and Bihar/Jharkhand.

Interview duration does not seem to lead to a higher likelihood of initial or final refusal. This makes sense if refusal rates are more a reflection of whether an interviewer is able to convince a respondent to agree to begin the survey. However, partial interviews are likely a reflection of whether interviewers are able to keep respondents comfortable and engaged as they participate. A difference in rates of partial interviews emerges when interviews become much longer.

3.2.4. Question order effects are minimal

The SARI survey used several randomization strategies to investigate and to minimize the effect of question order on responses. Respondents were randomly assigned to be asked blocks of survey questions in one of two orders, as illustrated in Figure 7. The difference between the two conditions (or orders of question blocks) is that in Condition 1, respondents are asked to share their own caste and religion early in the survey, before they are asked their views on caste-related questions such as reservation. In Condition 2, respondents are asked about their views on reservation before being asked to share their own caste and religion. Random assignment of the two conditions allows us to investigate an instance of "in-group consciousness" effects. Prior research suggests that raising a respondent's awareness of his/her in-group can influence the probability that he/she supports public policies related to that identity (Hogg & Terry, 2000).

Figure 7. Question block randomization in the SARI survey
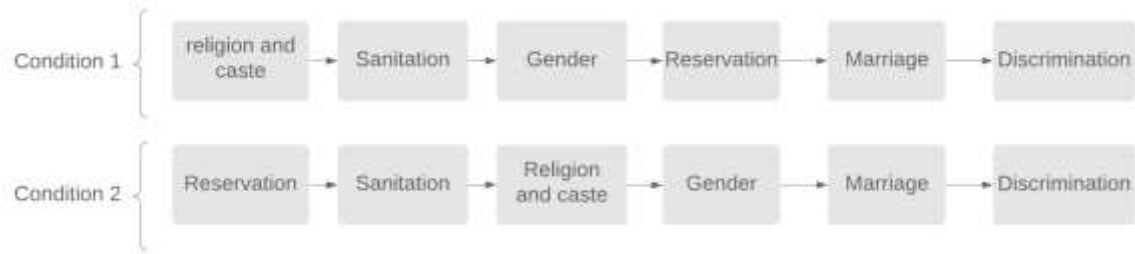
Other randomizations included in the survey varied the order of questions asked within a particular block. For instance, the marriage section randomized whether a question on support for a law against intercaste marriage appeared before or after a question on whether the respondent would oppose a member of his/her own family having an intercaste or inter-religious marriage. The gender block asked four questions, including a question on whether women should work outside the home, in a random order. Table 11 presents the wording of all the questions in the marriage and the gender blocks, as well as the questions on reservation discussed above. For a full explanation of all randomizations done in each round, see Appendix Section 6.4.

Table 11. Questions included in SARI randomization blocks

Section	Questions
Marriage	1. In your opinion, should there be a law stopping high caste and low caste people from marrying each other?
	2. If a close relative or someone in your family married someone from a Harijan or Dalit caste would you oppose it or not? (asked only to *non-Dalits*)
Reservations	1. In your opinion, do you favor or oppose with having reservations for women?
	2. In your opinion, do you favor or oppose with having reservations based on caste?
Gender	1. In your opinion, should a married woman, whose husband earn a good living, work outside the home or not?
	2. In your opinion, should a young girl or boy select a spouse/life partner for him/herself or should his/her parents select a spouse/life partner for him/her?
	3. *For married women:* Do you practice ghunghat/pallu/pardah/burkha? *For married men:* Does your wife practice ghunghat/pallu/pardah/burkha?
	4. When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?

These question order randomizations allow us to look for frame-of-reference effects and consistency effects. Frame-of-reference effects occur when a proceeding question changes what is salient to a respondent or what is in her frame-of-reference. For instance, asking about intercaste marriage in a person's own family before a question on support for a law against intercaste marriage could increase support for such a law if it changes people's perception of the probability that an intercaste marriage could be a social problem in their own lives.

Consistency effects might occur when a question to which most people might give a certain type of response occurs early in a question block. For instance, the vast majority of people give a conservative response to the question of whether parents or children should choose the child's spouse (most people say the parents should choose). If this question appears first, responses to the question that follow might be more conservative than if another question, on which the population were more divided, appeared first.

Table 12 shows the results of analyses investigating the presence of question order effects. It shows no question order effects for the block-randomization of questions about the person's caste and religion on support for reservations. The lack of an in-group consciousness effect could possibly be explained by the fact that there were intervening questions about sanitation and gender that could have diminished the person's in-group consciousness.

Table 12 shows small question order effects on support for laws against intercaste marriage. Support for laws against intercaste marriage are indeed higher when the question is preceded by one about what the person would do if there were an intercaste marriage in his/her own family.

Finally, Table 12 shows that support for women working outside the home was slightly different if it was preceded by a question about whether one's parents should chose his/her life partner. However, it was not different if preceded by a question on whether the respondent (if a woman) or the respondent's wife (if a man) practices ghunghat/pardah.

Although Table 12 shows two instances of question order effects influencing SARI's measurements of social attitudes, it is worth noting that the differences are quite small and that we investigated a number of other randomizations that had no effect on responses. Overall, question order effects did not pose a major threat to the interpretation of the data. We do, however, plan to continue randomizing question order where possible in order to minimize such effects, where present.

Table 12. Question order effects in SARI

Panel A. Support for caste and gender based reservation

	support gender based reservation				
	mean	se	95% CI		n
caste first, reservation second	0.87	0.006	0.854	0.876	3,655
reservation first, caste second	0.87	0.006	0.861	0.883	3,502

	support caste based reservation				
	mean	se	95% CI		n
caste first, reservation second	0.59	0.008	0.572	0.605	3,539
reservation first, caste second	0.59	0.008	0.575	0.608	3,390

Panel B. Support for law stopping inter-marriage

	support law stopping inter-marriage				
	mean	se	95% CI		n
law question after question about family	0.48	0.008	0.466	0.499	3,537
law question before question about family	0.42	0.008	0.408	0.440	3,572

Panel C. Should women work

	women should work				
	mean	se	95% CI		n
choose spouse not before women work	0.58	0.008	0.569	0.600	3,771
choose spouse right before women work	0.53	0.012	0.502	0.548	1,843
choose spouse before work, but intervening questions	0.53	0.012	0.511	0.557	1,850

	women should work				
	mean	se	95% CI		n
ghunghat not before women work	0.56	0.008	0.547	0.579	3,688
ghunghat right before women work	0.53	0.012	0.510	0.555	1,866
ghunghat before women work, but intervening question	0.57	0.011	0.548	0.593	1,910

PART 4: COMPARING SURVEY MODES: MOBILE PHONE SURVEYS VS. FACE-TO-FACE SURVEYS

In seeking to understand the potential of mobile phone surveys to collect accurate data, it is important to check results against standard, in-person survey methods. This is particularly important for sensitive questions about topics such as discrimination and prejudice, for which we might expect survey mode to influence responses. In this section, we compare SARI results to those from the India Human Development Survey (IHDS), a face-to-face panel survey.

4.1. India Human Development Survey (IHDS) and SARI

The India Human Development Survey (IHDS) is a nationally representative panel survey of over 41,000 households, conducted in 2005 and 2012. The IHDS included several questions on gender and caste discrimination; some of SARI's questions were modeled off of IHDS questions to be able to compare state/city level estimates (at another point in time), and to be able to learn about differences in responses between face-to-face and mobile phone interviews. For this report, we only use data from the 2012 IHDS.

Questions that are comparable across the two surveys, and the places in which they were asked, are listed in Table 13 below. Although Mumbai is listed in the table several times, results presented in this section do not include Mumbai because SARI interviewed men, but not women, in Mumbai. Because respondents to the IHDS household questionnaire are primarily women, and respondents to the IHDS women's questionnaire are entirely women, SARI data from Mumbai and IHDS data from Mumbai are not comparable. In the results we present here, SARI samples are restricted to female respondents for comparability.

Table 13. Description of questions that are similar in IHDS and SARI

SARI question	IHDS question	Coding	State/city in which question was asked in both surveys
Gender			
When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?	When your family takes the main meal, do women usually eat with the men? Do women eat first by themselves? Or do men eat first?	SARI: coded yes if men usually eat first IHDS: coded yes if men eat first	Delhi Uttar Pradesh Rajasthan Mumbai Bihar Jharkhand Maharashtra
(for Hindu women) Do you practice ghunghat/pallu? **(for Muslim women) Do you practice pardah/burkha?**	Do you practice ghungat / burkha/ purdah/ pallu?	SARI: coded yes if respondent says yes IHDS: coded yes if respondent says yes	Delhi Uttar Pradesh Rajasthan Mumbai
When you want to go outside alone somewhere near your home, such as to visit a neighbor, do you need to ask your husband or family, or do you just tell them and go?	Now, I would like to ask you about going to the following places, please tell us whether you have to ask permission of your husband or a senior family member to go to the home of relative or friends (in the village/neighborhood)?	SARI: coded yes if respondent has to ask husband or family IHDS: coded yes if respondent has to ask husband or family	Bihar Jharkhand Maharashtra
Discrimination			
Do any members of your family practice untouchability?	In your household, do some members practice untouchability? PLUS (If no to previous question), would there be a problem if someone who is scheduled caste were to enter your kitchen or share utensils?	SARI: coded yes if anyone in the household (including respondent) answers yes IHDS: coded yes if answer to either question is yes	Delhi Uttar Pradesh Rajasthan Mumbai Bihar Jharkhand Maharashtra
Intermarriage			
Are the castes of your wife's/husband's family and your family the same or different?	Is your husband's family the same caste as your natal family?	SARI: coded yes if respondent reports that castes of families are different IHDS: coded yes if respondent says no, husband's family's caste is not the same as her natal family	Bihar Jharkhand Maharashtra

In Tables 14, 15, and 16 below, we compare results from the SARI and IHDS questions listed in Table 13 to understand if there are any important differences between responses in face-to-face and mobile phone

surveys. For each sample, from left to right, we compare unweighted SARI data; then Census-weighted SARI data, then SARI data weighted using NFHS-4 data, then unweighted IHDS data, and finally weighted IHDS data. In all tables, the columns for the SARI data weighted by the NFHS-4 and the weighted IHDS columns are highlighted in gray, as these are the most comparable estimates.

We analyze the difference between the unweighted and weighted samples to see if weighting makes a bigger difference to mobile phone estimates than face-to-face estimates. We present the SARI results with two different sets of weights (Census 2011 and NHFS-4). Differences between IHDS and SARI samples may be because the surveys were done in different years: for example, if age structure has changed in the intervening years, weighting using the 2015-16 NFHS-4 might yield very different results from weighting using the 2011 Census. We find that the data source used for weighting does not make a large difference in SARI estimates.

4.1.1. Gender

The gender questions in Table 14 below were asked to ever-married women in the IHDS. The SARI samples have thus been restricted to ever-married women for comparability.

Table 14. Fraction reporting food, cover, and permission gender practices

	SARI, unweighted	SARI, Census weighted	SARI, NFHS4 weighted	IHDS, unweighted	IHDS, weighted
Panel A. Fraction of women who eat last					
Delhi					
mean	30%	34%	34%	21%	21%
95% CI	(26%, 35%)	(29%, 39%)	(28%, 39%)	(18%,24%)	(18%, 24%)
Uttar Pradesh					
mean	52%	54%	54%	46%	50%
95% CI	(48%, 56%)	(49%, 60%)	(48%, 59%)	(46%, 48%)	(47%, 52%)
Rajasthan					
mean	43%	46%	46%	43%	43%
95% CI	(40%, 45%)	(43%, 49%)	(43%, 49%)	(41%, 45%)	(41%, 45%)
Bihar					
mean	58%	65%	64%	47%	51%
95% CI	(56%, 60%)	(62%, 68%)	(61%, 68%)	(45%, 50%)	(47%, 54%)
Maharashtra					
mean	21%	25%	24%	9%	9%
95% CI	(18%,24%)	(21%, 31%)	(19%, 28%)	(8%, 10%)	(8%, 10%)
Jharkhand					
mean	44%	49%	46%	44%	49%
95% CI	(39%, 48%)	(43%, 56%)	(41%, 52%)	(40%, 47%)	(45%, 54%)
Panel B. Fraction of women who wear gunghat/pallu					
Delhi					
mean	60%	61%	62%	75%	75%
95% CI	(56%, 65%)	(56%, 66%)	(56%, 67%)	(71%, 78%)	(71%, 78%)
Uttar Pradesh					
mean	81%	88%	86%	83%	86%
95% CI	(78%, 84%)	(84%, 91%)	(82%, 89%)	(82%, 84%)	(84%, 88%)
Rajasthan					
mean	89%	92%	91%	95%	96%
95% CI	(87%, 90%)	(90%, 93%)	(90%, 93%)	(94%, 96%)	(95%, 97%)
Panel C. Fraction of women who have to ask permission to go to neighbor's house					
Bihar					
mean	59%	65%	64%	80%	80%
95% CI	(57%, 61%)	(62%, 68%)	(61%, 67%)	(76%, 82%)	(77%, 82%)
Maharashtra					
mean	66%	66%	66%	73%	73%
95% CI	(62%, 69%)	(60%, 71%)	(60%, 70%)	(71%, 74%)	(71%, 74%)
Jharkhand					
mean	48%	53%	51%	72%	69%
95% CI	(43%, 52%)	(46%, 60%)	(45%, 57%)	(69%, 75%)	(65%, 73%)

Note: These questions were asked in the IHDS to ever-married-women, thus we restrict the SARI samples to ever-married-women also.

For women eating last (Panel A), IHDS estimates are consistently lower than SARI estimates. One reason for this may be that greater anonymity in phone surveys as compared to face-to-face survey allows respondents to admit more openly this conservative practice.

For ghunghat/pardah (Panel B), IHDS estimates are slightly higher than SARI estimates, though not by much. This may be because interviewers can physically see respondents in a face-to-face survey, and thus cannot hide whether ghunghat/pardah is practiced in their home, whereas on the phone, respondents can more easily claim that it is not done.

For permission to go to a neighbor's house (Panel C), IHDS estimates are consistently higher than SARI estimates. Perhaps on this measure respondents feel that it is socially more acceptable for women to stay in the home, and so feel more socially pressured in-person to say that they have to ask permission.

The practice of ghunghat/pardah and the practice of having to ask permission to go to a neighbor's house might vary by age, since empowerment often increases with age, with younger women often being more controlled within the household and older women often having more freedom.

Figures 8 and 9 below show estimates of ghunghat/pardah and asking permission, by age. Both datasets show that older women are less likely to practice both ghunghat/pardah and having to ask for permission, though the IHDS trends are more dramatic. The trend is more steeply downward sloping for asking permission compared to ghunghat/pardah, suggesting that ghunghat/pardah may be influenced by other factors more strongly than age.

Figure 8. Ghunghat/Pardah practice by age, SARI and IHDS
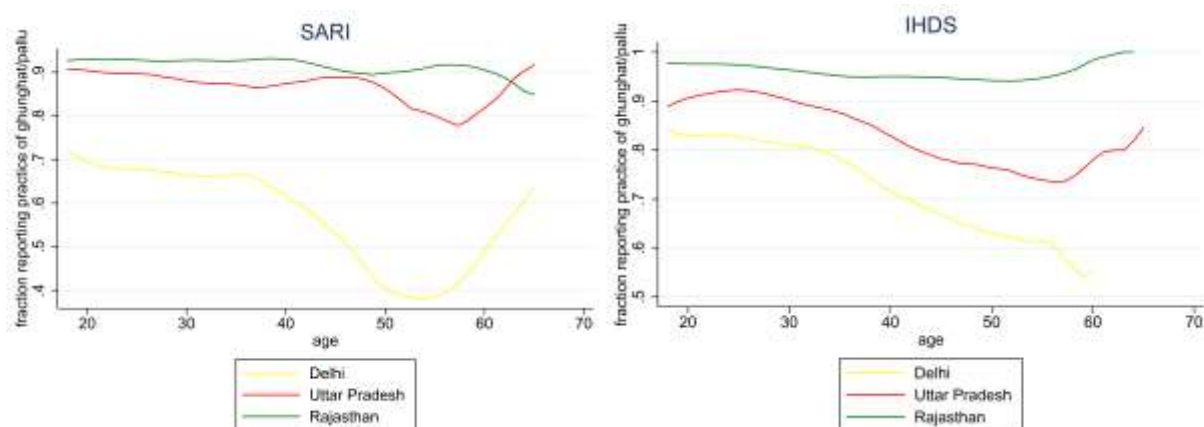
Figure 9. Practice of having to ask permission to go to neighbor's house by age, SARI and IHDS
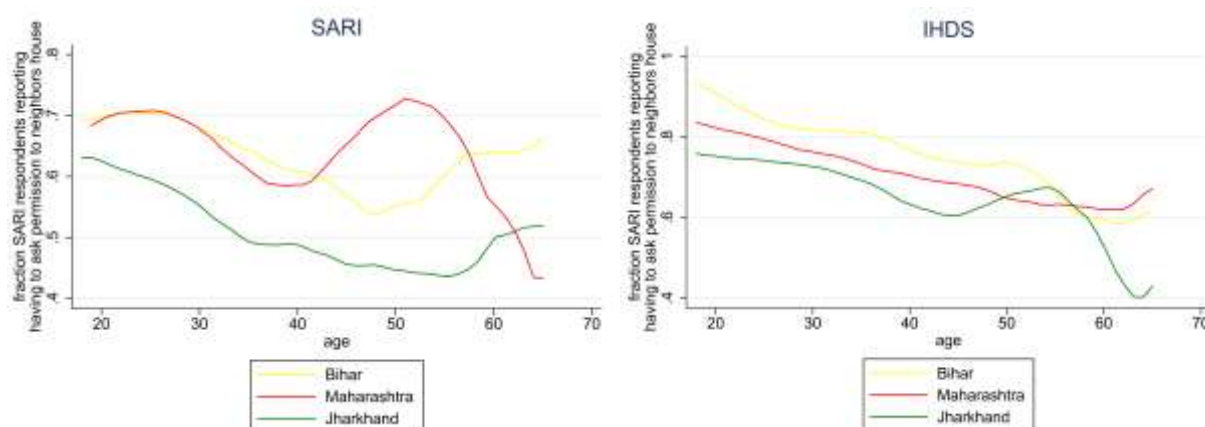
4.1.2. Discrimination against Dalits

The IHDS asked about practices of untouchability to households of all caste backgrounds. SARI asked about the practice of untouchability only to non-SC, non-ST, and non-Muslim households, so IHDS was restricted for purposes of comparability. The IHDS household survey, which included the untouchability questions, was primarily answered by women. For comparability, the SARI samples are restricted to female respondents.

In the Delhi, Uttar Pradesh, and Rajasthan samples of SARI, respondents were first asked whether someone in their household practiced untouchability. If they said yes, they were subsequently asked if they themselves practiced untouchability. In the Bihar, Jharkhand, and Maharashtra samples of SARI, respondents were first asked whether they practiced untouchability. If they said no, they were subsequently asked if someone in their family practiced untouchability. SARI respondents were coded as practicing untouchability if anyone in the household, including the respondent, was reported to practice untouchability.

The IHDS first asks directly if someone in the household practices untouchability. If the respondent says "no", a subtler question is asked about whether if it would be OK with the respondent if a low caste person were to go into her/his kitchen and use utensils. IHDS respondents were coded as practicing untouchability if respondents answered yes to either question.

In Table 15, we find that for untouchability, IHDS yielded much lower estimates than SARI in Delhi, Bihar, Maharashtra, and Jharkhand. Perhaps where estimates were lower in in-person surveys, respondents felt much more comfortable admitting caste prejudice anonymously by phone. This may be an indication that in these places, there is a consciousness of casteism and that it is wrong to discriminate and hold prejudiced beliefs.

On the other hand, IHDS yielded higher estimates in Rajasthan, and similar estimates in Uttar Pradesh, though these results are not statistically significant. These are some of India's most conservative states, thus perhaps talking openly about untouchability by phone or in person is not seen to be very different.

Table 15. Fraction reporting that someone in their household practices untouchability

	SARI, unweighted	SARI, Census weighted	SARI, NFHS4 weighted	IHDS, unweighted	IHDS, weighted
Delhi					
mean	37%	41%	40%	20%	20%
95% CI	(33%, 42%)	(35%, 46%)	(35%, 46%)	(16%, 25%)	(16%, 26%)
Uttar Pradesh					
mean	53%	61%	58%	57%	55%
95% CI	(49%, 58%)	(54%, 67%)	(52%, 64%)	(54%, 59%)	(52%, 59%)
Rajasthan					
mean	57%	62%	61%	64%	65%
95% CI	(54%, 59%)	(58%, 66%)	(57%, 64%)	(61%, 66%)	(63%, 68%)
Bihar					
mean	57%	66%	64%	54%	53%
95% CI	(54%, 60%)	(62%, 69%)	(61%, 68%)	(51%, 57%)	(49%, 58%)
Maharashtra					
mean	40%	49%	44%	4%	4%
95% CI	(36%, 44%)	(42%, 55%)	(38%, 50%)	(3%, 5%)	(3%, 5%)
Jharkhand					
mean	44%	49%	50%	18%	20%
95% CI	(39%, 50%)	(41%, 57%)	(43%, 57%)	(14%, 22%)	(15%, 26%)

Note: The untouchability questions in the IHDS were asked in the household survey, and in the IHDS, over 90% of respondents to the household survey were female. We thus restrict the SARI sample to only women for analysis of untouchability questions.

4.1.3. Intermarriage

The intercaste marriage question (see Table 13) in the IHDS does not specify to respondents how intercaste marriage is defined, thus a response of yes could mean that the person is married to someone of a different caste group (i.e. an OBC individual with an SC individual), or it could mean that the person is married to some of a different sub-caste within the same caste group (i.e. a Chamar individual with a Nai individual, though both are Dalit). For comparability purposes, SARI also asked a similarly broad question, which is used in the analysis here. However, in order to understand how respondents understand the question of intercaste marriage, SARI also followed up by asking about the respondents' spouse's caste group and sub-caste in the event that they reported having an intercaste marriage. Those results are not shown here.

Estimates of intercaste marriage in Table 16 are higher in the IHDS than SARI, even though intercaste marriage continues to be taboo across the country. This finding is counterintuitive if we believe that people are more comfortable admitting to things that are not the social norm in more anonymous phone surveys. Perhaps IHDS respondents and SARI respondents were understanding intercaste marriage to be defined in different ways, or it may be the case that IHDS respondents somehow felt social pressure to answer in the affirmative about their own marriage. Alternatively, perhaps intercaste marriage is more common than is

understood and IHDS respondents felt more comfortable sharing that information with interviewers in person.

SARI additionally asked the intermarriage question with a prompt to a randomly selected half of respondents, with interviewers prefacing the question by saying "Many people marry within their own caste, but some people marry outside their caste" (the other half of respondents were asked the same question in the same way as the IHDS, with no prompt). The purpose was to see if making intercaste marriage appear more socially acceptable would change respondents' responses. Preliminary results show that prompting yields similarly low results among SARI respondents.

Table 16. Fraction reporting they are in an intercaste marriage

	SARI, unweighted	SARI, Census weighted	SARI, NFHS4 weighted	IHDS, unweighted	IHDS, weighted
Bihar					
mean	3%	2%	2%	10%	12%
95% CI	(2%, 4%)	(1%, 4%)	(1%, 3%)	(8%, 11%)	(10%, 15%)
Maharashtra					
mean	2%	3%	2%	3%	3%
95% CI	(0.6%, 4%)	(1%, 7%)	(1%, 6%)	(3%, 4%)	(2%, 3%)
Jharkhand					
mean	6%	3%	4%	9%	11%
95% CI	(3%, 10%)	(1%, 6%)	(2%, 8%)	(8%, 12%)	(9%, 14%)

Note: This question was asked in the IHDS to ever-married-women, thus we restrict the SARI sample to ever-married-women also.

4.2. Non-response: SARI versus IHDS

Non-response to sensitive questions about social inequality may be higher in mobile phone surveys (perhaps because there is less social pressure to answer the question of a person who is not in front of you) or it might be lower (perhaps because a respondent to a phone survey is more anonymous). We are aware of no prior data that could be used to test these hypotheses. The SARI data provide a unique opportunity to examine, and possibly improve upon mobile phone survey methods.

Non-response was calculated as the fraction of respondents who did not answer a given question, out of those who were asked the question. In order to ensure comparability across SARI and IHDS samples, samples were restricted to match the more restrictive sample for each question. For example, the question of eating order was asked only to ever-married women in the IHDS, but it was asked to all individuals in SARI. For comparability, we restrict the SARI sample to only ever-married women. Sub-sample restrictions are shown in the third column of Table 17.

Non-response is not very different between IHDS and SARI on eating last. However, it is clearly higher in SARI for ghunghat, permission, untouchability, and intermarriage. From Table 17 below, it appears that respondents are more willing to skip a question on the phone. There are several reasons that this may be true. First, it may be because there is less pressure to answer when the interviewer is not physically with the respondent. It could also be the case that interviewers have to work harder on the phone to make sure

the respondent does not hang up the phone. Losing a respondent in this way is less of a risk in-person. Last, it could also be that questions are simply easier to understand in-person where interviewers can use visual cues to check if a respondent has understood what is being asked, and rephrase as needed.

Overall, non-response is low across both surveys, and while differences in non-response exist, they are not very large between the two surveys. This suggests that respondents are similarly willing to answer questions about social inequality in-person and by phone. This is promising in terms of the potential of phone surveys in capturing respondent attitudes to these important issues.

Table 17. Fraction non-response on sensitive questions, SARI versus IHDS

Question	Sample	Sub-sample	SARI	IHDS
When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?	Delhi	ever-married women	0.21%	0.13%
	Uttar Pradesh	ever-married women	0.00%	0.08%
	Rajasthan	ever-married women	0.26%	0.04%
	Bihar	ever-married women	0.39%	0.33%
	Maharashtra	ever-married women	0.44%	0.54%
	Jharkhand	ever-married women	0.00%	0.26%
Do you wear ghunghat/pallu/pardah/burkha?	Delhi	ever-married women	0.63%	0.00%
	Uttar Pradesh	ever-married women	0.72%	0.00%
	Rajasthan	ever-married women	2.14%	0.04%
When you want to go outside alone somewhere near your home, such as to visit a neighbor, do you need to ask your husband or family, or do you just tell them and go?	Bihar	ever-married women	5.75%	0.87%
	Maharashtra	ever-married women	4.37%	0.27%
	Jharkhand	ever-married women	7.88%	0.90%
Does anyone in your family believe in/practice untouchability?	Delhi	non-SC/ST/Muslim, ever-married women	4.99%	0.00%
	Uttar Pradesh	non-SC/ST/Muslim, ever-married women	4.29%	0.10%
	Rajasthan	non-SC/ST/Muslim, ever-married women	2.06%	0.06%
	Bihar	non-SC/ST/Muslim, ever-married women	3.20%	0.42%
	Maharashtra	non-SC/ST/Muslim, ever-married women	1.71%	0.09%
	Jharkhand	non-SC/ST/Muslim, ever-married women	1.55%	0.28%
Are the castes of your husband's family and your family the same or different?	Bihar	ever-married women	0.81%	0.47%
	Maharashtra	ever-married women	0.67%	0.66%
	Jharkhand	ever-married women	1.93%	0.26%

PART 5: CONCLUSIONS

Mobile phone surveys have the potential to radically reduce the time and expense of conducting social scientific surveys in India, which would allow researchers to collect data on more questions, and to do so more frequently, than is possible using face-to-face interviews. As India's mobile phone ownership steadily increases, SARI has been able to reach individuals on their mobile phones and interview them on a range of social issues, demonstrating that mobile phone surveys offer a lower-cost alternative to traditional face-to-face surveys, even when asking sensitive questions about discrimination and prejudice.

PART 6: APPENDIX

6.1. Call log codes

Table 18. List of call log codes

Code	Reason
1	Incorrect number; number does not exist
2	Incoming facility not available; call end, no beep, no bell; call cannot be connected/call cannot get through; your call is rejected; request cannot be completed
3	Switched off
4	Not reachable
5	Not available
6	Temporarily not unavailable
7	All lines are busy / network busy
8	Beeps
9	No one of correct sex lives in household
10	refusal before respondent selection
11	refusal after respondent selection, did not speak to selected respondent
12	survey completed
13	refusal after survey partially completed with selected respondent or after selected respondent came on the phone
14	interviewer could not understand person before respondent selection
15	interviewer could not understand selected respondent
16	person could not understand interviewer well enough for respondent selection
17	selected respondent couldn't understand interviewer
18	other (enter reason in notes)
19	person speaking to someone else (number busy)
20	phone rang, no answer
21	call back to select respondent
22	respondent selected, call back to speak to respondent
23	survey partially completed with selected respondent, call back to finish
25	No one falls in the required age group; 18-65

6.2. Interview quality monitoring

Table 19. Checklist for interview quality

This checklist will give you a way to systematically track what is going well and what can be improved for each interviewer, so you can show them what you're noticing during your weekly one-on-ones. For each week, we will generate a random order in which you will sit with each interviewer until you are able to observe 3 answered calls or 1 completed interview. We can decrease the frequency of this monitoring after a few weeks if needed. Use this sheet only once the interviewer gets someone on the phone who is willing to talk to them.

Date: _____   Interviewer Code:_____   Interviewer Name: _____   Shift: (1) morning (2) evening_____

A. Introduction:

No.	Question	Call 1	Call 2	Call 3	Notes
A.0	STATUS OF SURVEY (CODES 9-18, 21-23)	[ ] [ ]	[ ] [ ]	[ ] [ ]	
A.1	Did the interviewer introduce him/herself politely?	Yes…………………………………1 No……………………………………2	1 2	1 2	
A.2	Did the interviewer introduce the study using the correct language?	Yes…………………………............1 No……………………………………2	1 2	1 2	
A.3	How much did the interviewer try to convince the respondent for an interview?	Not at all…………………………..1 A little……………………………..2 Quite a lot………..……………...3	1 2 3	1 2 3	
A.4	How effective was the interviewer's convincing?	Not effective……….…………….1 Somewhat effective..……………2 Very effective……..…………….3	1 2 3	1 2 3	
A.5	How could the interviewer have done better at convincing the respondent to talk to him/her?	_____ _____ _____			
A.6	Did the interviewer ask the mobile phone/household selection questions correctly, in order to do the household listing correctly?	Yes……………………………….1 No……………………………………2	1 2	1 2	

B. Questions:

No.	Question	Call 1	Call 2	Call 3	Notes
B.1	Did the interviewer read each question in Qualtrics carefully, to make sure that he/she was asking the correct version of each question, in the correct order?	Yes………………………………1 No………………………………..2	1 2	1 2	
B.2	Did the interviewer wait until the respondent gave his/her full answer before filling out options in Qualtrics, and moving to the next question?	Yes………………………………1 No………………………………..2	1 2	1 2	
B.3	Did the interviewer probe when it was necessary/useful?	Yes………………………………1 No………………………………..2	1 2	1 2	
B.4	Did the interviewer do a good job answering the respondent's questions (being patient, using the correct language, etc.)?	Yes………………………………1 No………………………………..2 N/A……………………..……..3	1 2 3	1 2 3	
B.5	Did the interviewer indicate approval or disapproval in reaction to any of the respondent's answers?	Yes………………………………1 No………………………………..2 N/A………..………………….3	1 2 3	1 2 3	
B.6	When the respondent didn't provide an immediate answer, did the interviewer try patiently three times, and then skip the question if she got no response?	Yes………………………………1 No………………………………..2 N/A………………………….3	1 2 3	1 2 3	
B.7	Overall, was the interviewer speaking nicely to the respondent, throughout the interview?	Yes………………………………1 No………………………………..2	1 2	1 2	
B.8	Did the interviewer use the correct code in recording the interaction?	Yes………………………………1 No………………………………..2	1 2	1 2	

6.3. SARI Questionnaires

6.3.1 Questionnaire for Uttar Pradesh and Delhi

A1. Interviewer code _____

A2. Which circle is this number in?
1. Uttar Pradesh
2. Maharashtra
3. Delhi NCR
4. Mumbai

A3. Introduce the study. What happened after getting consent to continue from the person on the phone?
1. They said to call later
2. There is no one of the interviewer's sex in this household
3. Start the interview
4. Consent not given
5. Other

Close the tab, if 4 or 5

A4. Do you live in Uttar Pradesh only, or do you live somewhere else? (*depending on answer to A2*)
1. Uttar Pradesh
2. Uttrakhand
3. Other _____

Close the tab, if Uttrakhand or other is the answer
A5. How long have you been living there?
1. No of years _____
2. Since always
3. After marriage

A6. Which type of place is your home in?
1. Big city
2. Town
3. Village
4. Own fields

B1. We want to understand generally how big people's families are. Can you tell me how many people live with you? (*fill in number*)

B2. Out of the total, how many are women/men? (*fill in number*)

B3. Out of these, how many are women/men between the ages of 18 and 65? (*fill in number*)

B4. Can you tell me who the men/women between the ages of 18 and 65 are? (*List them*)

Select Respondent

B5. Can I speak with [**name – randomized from B4**]? *Get consent to speak to the selected respondent. If they ask why we want to speak to them, give an answer from the script. If the selected respondent is not*

available, find out what time to call back and record this information on the call log and calendar.

B6. *Use the script to tell the respondent about the study. Is the person willing to answer questions?*
1. Yes
2. No
3. Call later

B7. How many years of schooling have you completed? (*choose from drop down list*)

B8. How old are you? (*fill in number, or 88 if the respondent doesn't know his/her age*)

B9. Are you married?
1. Yes
2. No
3. Yes, but not anymore

Religion & Caste
(*Randomization applies, refer to randomization document for details*)

C1. What is your religion?
1. Hindu
2. Muslim
3. Sikh
4. Christian
5. Jain
6. Other

C2. What is your caste? (*fill in jati name*)

C3. Which caste group do you belong to? Scheduled caste, general caste, other backward caste, scheduled tribe, or Brahmin?
1. Scheduled caste
2. OBC
3. General caste
4. Brahmin
5. ST
6. Other

Sanitation

D3. Have you heard of the Swacch Bharat Abhiyan?
1. Yes
2. No

D4. What activities do you think are included in the Swacch Bharat Abhiyan? (*multiple options allowed, asked only if respondent says yes to D3*)
1. Cleaning
2. Picking up trash
3. Latrines
4. Other_____

K1. In your opinion, should a married woman, whose husband earns a good living, work outside the home or not?
  1. Yes, she should work
  2. No, she should not work

K2. In your opinion, should a young girl or boy select a spouse/life partner for him/herself or should his/her parents select a spouse/life partner for him/her? *If the respondent says that both should have equal say, ask: What do you think would be better – for the young person to select her own life partner or for her parents to select one for her?*
  1. Yes, they should select their own life partners
  2. No, the parents should select their life partners

K3. *For married women:* Do you practice ghunghat/pallu/pardah/burkha *(language of practice depends on respondent's religion).* *For married men*: Does your wife practice ghunghat/pallu/ pardah /burkha?
  1. Yes
  2. No
  3. Don't have a wife *(for men who do not live with their wives in the place where they are being interviewed, or if their wife has died)*

K4. When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?
  1. They eat together
  2. Women eat first
  3. Men eat first
  4. Nothing is fixed, other

Reservations: women & low caste
(*Randomization applies, refer to randomization document for details*)

I1. In government colleges and jobs, the government keeps certain openings just for women. In some places, the government also keeps certain openings just for those of Harijan or Dalit castes or other backward castes. This is called reservations. Before today, had you heard of reservations?
  1. Yes
  2. No

I2. In your opinion, do you favor or oppose with having reservations for women?
  1. favor
  2. oppose

I3. In your opinion, do you favor or oppose with having reservations based on caste?
  1. favor
  2. oppose

Reservations: Why? *(If answer to I1 is yes)*

J1. Why do you favor having reservations based on caste?
1. Support reservations for the development of lower castes
2. Support reservations to reduce discrimination
3. Support reservation to help the poor
4. support reservations to open opportunity in jobs/studies
5. can't say why support reservations
6. support reservations for other reasons

J2. Why do you oppose having reservations based on caste?
1. oppose reservations because people should put in effort
2. oppose reservations because govt should give seats for merit
3. oppose reservations because it should be based on income
4. oppose reservations because it causes conflict
5. oppose reservations because it should be given to everyone
6. oppose reservations because it is no longer needed
7. oppose reservations because within dalits, only the rich benefit
8. can't say why oppose reservations
9. oppose reservations for other reasons

J3. Why do you think the government has reservations?
1. To obtain votes
2. To reduce discrimination
3. To help the poor
4. To give equal opportunities in work and education
5. Can't say / don't know
6. Other

Marriage
(Randomization applies, refer to randomization document for details)

L1. In your opinion, should there be a law stopping high caste and low caste people from marrying each other?
1. Yes
2. No

L2. If a close relative or someone in your family married someone from a Harijan or Dalit caste would you oppose it or not? *(asked only to non-Dalits)*
1. Yes, I would oppose it
2. No, I would not oppose it

L3. If a close relative or someone in your family married a Muslim/Hindu *(respondent will be asked the opposite religion to themselves)* would you oppose it or not?
1. Yes, I would oppose it
2. No, I would not oppose it

Discrimination: untouchability (asked to non-Dalits)

S1. Does anyone in your family believe in/practice untouchability?
1. Yes
2. No

S3. Do you yourself believe in/practice untouchability? (*only asked if respondent says yes to S1*)
1. Yes
2. No

Discrimination: friends (asked to non-Dalits)
(*Randomization applies, refer to randomization document for details*)

T1. Do you have any friends or acquaintances who are from a Harijan or Dalit caste?
1. Yes, a close friend
2. Yes, an acquaintance
3. No, no one

T2. In the past few years, have you eaten at the home of any Harijan or Dalit friend or acquaintance?
(*asked only if respondent answered yes in T1*)
1. Yes
2. No

T3. In the past few years, has your Harijan or Dalit friend or acquaintance come to your home to have food? (*asked only if respondent answered yes in T1*)
1. Yes
2. No

Discrimination: Dalit (asked to Dalits only)
(*Randomization applies, refer to randomization document for details*)
As you know, discrimination and injustice based on caste is wrong, but still, we hear instances of this kind sometimes. Perhaps you have personally experienced such problems, or perhaps you have not. I just want to understand if any of the following things have happened to you or not.

U2. In the past five years have you ever felt that anyone disrespected or insulted you because of your caste?
1. Yes
2. No

U3. Can you tell me what happened the last time that this happened to you? (*open ended, only asked if respondent says yes to U2*)

U4. In your childhood or youth, did you ever feel that someone had disrespected or insulted you because of your caste?
1. Yes
2. No

U5. Can you tell me about this? (*open ended, only asked if respondent says yes to U4*) *If the person says that many things happened, asked the person: What was the time that made you feel the worst?*

U6. Have you ever had a job or done manual labor?
1. Yes
2. No

U7. Has it ever happened that you didn't get a job that you could have gotten (meaning, that you were

qualified for) because of your caste? (*only asked if respondent said yes to U6*)
1. Yes
2. No

U8. Has it ever happened that you didn't get paid as much as you were supposed to be paid for some work that you did because of your caste? (*only asked if respondent said yes to U6*)
1. Yes
2. No

U9. Has it ever happened to you in a work environment that someone did not treat you properly because of your caste? *(only asked if respondent said yes to U6)*
1. Yes
2. No

U10. In your opinion, has caste injustice decreased, increased, or stayed the same as compared to a few years ago?
1. Decreased
2. Increased
3. Same as before

U11. In your opinion, is caste as important in people's lives today as it was 10 years ago?
1. Yes
2. No

Discrimination: Muslim (asked to Muslims only)
(*Randomization applies, refer to randomization document for details*)

As you know, discrimination and injustice based on religion is wrong, but still, we hear instances of this kind sometimes. Perhaps you have personally experienced such problems, or perhaps you have not. I just want to understand if any of the following things have happened to you or not.

V2. In the past five years have you ever felt that anyone disrespected or insulted you because of your religion?
1. Yes
2. No

V3. Can you tell me what happened the last time that this happened to you? *(open ended, only asked if respondent says yes to U2)*

V4. In your childhood or youth, did you ever feel that someone had disrespected or insulted you because of your religion?
1. Yes
2. No

V5. Can you tell me about this? *(open ended, only asked if respondent says yes to U4) If the person says that many things happened, asked the person: What was the time that made you feel the worst?*

V6. Have you ever had a job or done manual labor?
1. Yes
2. No

V7. Has it ever happened that you didn't get a job that you could have gotten (meaning that you were qualified for) because of your religion? (only asked if respondent said yes to V6)
    1. Yes
    2. No

V8. Has it ever happened that you didn't get paid as much as you were supposed to be paid for some work that you did because of your religion? *(only asked if respondent said yes to V6)*
    1. Yes
    2. No

V9. Has it ever happened to you in a work environment that someone did not treat you properly because of your religion? *(only asked if respondent said yes to V6)*
    1. Yes
    2. No

V10. In your opinion, has religious intolerance decreased, increased, or stayed the same as compared to a few years ago?
    1. Decreased
    2. Increased
    3. Same as before

V11. In your opinion, is religion as important in people's lives today as it was 10 years ago?
    1. Yes
    2. No

6.3.2. Questionnaire for Rajasthan and Mumbai

A1. Interviewer code

A3. Introduce the study. What happened after getting consent to continue from the person on the phone?
6. They said to call later
7. There is no one of the interviewer's sex in this household
8. Start the interview
9. Consent not given
10. Other

A4.1 Do you live in Rajasthan or do you live in some other state?
5. Rajasthan
6. Other___

Close the tab, if other

A5.1 How long have you been living there?
1. No of years ____
2. Since Always
3. After Marriage

A6. Which type of place is your home in?
5. Big city
6. Town
7. Village
8. Own fields

B1. We want to understand generally how big people's families are. Can you tell me how many people live with you? (*fill in number*)

B2. Out of the total, how many are women/men? (*fill in number*)

B3. Out of these, how many are women/men between the ages of 18 and 65? (*fill in number*)

B4. Can you tell me who the men/women between the ages of 18 and 65 are? You can tell them as per the relation you share with them such as mother/father, sister-in-law/brother? (*List them*)
Select Respondent

B5. Can I speak with [**name – randomized from B4**]? *Get consent to speak to the selected respondent. If they ask why we want to speak to them, give an answer from the script. If the selected respondent is not available, find out what time to call back and record this information on the call log and calendar.*

B6. *Use the script to tell the respondent about the study. Is the person willing to answer questions?*
4. Yes
5. No
6. Call later

B7. How many years of schooling have you completed? (*choose from drop down list*)

B8. How old are you? (*fill in number, or 88 if the respondent doesn't know his/her age*)

B9. Are you married?
    4. Yes
    5. No
    6. Yes, but not anymore

Religion & Caste
(Randomization applies, refer to randomization document for details)

C1. What is your religion?
    7. Hindu
    8. Muslim
    9. Sikh
    10. Christian
    11. Jain
    12. Other

C2. What is your caste? (*fill in name/choose from drop-down menu*)

C3. Which caste group do you belong to? Scheduled caste, general caste, other backward caste, scheduled tribe, or Brahmin?
    7. Scheduled caste
    8. OBC
    9. General caste
    10. Brahmin
    11. ST
    12. Other

Sanitation

D3. Have you heard of the Swacch Bharat Abhiyan?
    3. Yes
    4. No

D4. What activities do you think are included in the Swacch Bharat Abhiyan? *(multiple options allowed, asked only if respondent says yes to D3)*
    5. Cleaning
    6. Picking up trash
    7. Latrines
    8. Other_____

Gender
(Randomization applies, refer to randomization document for details)

K1. In your opinion, should a married woman, whose husband earns a good living, work outside the home or not?
    3. Yes, she should work
    4. No, she should not work

K2. In your opinion, should a young girl or boy select a spouse/life partner for him/herself or should

his/her parents select a spouse/life partner for him/her? *If the respondent says that both should have equal say, ask: What do you think would be better – for the young person to select her own life partner or for her parents to select one for her?*
3. Yes, they should select their own life partners
4. No, the parents should select their life partners

K3. *For married women:* Do you practice ghunghat/pallu/pardah/burkha *(language of practice depends on respondent's religion).* *For married men:* Does your wife practice ghunghat/pallu/ pardah /burkha?
4. Yes
5. No
6. Don't have a wife *(for men who do not live with their wives in the place where they are being interviewed, or if their wife has died)*

K4. When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?
5. They eat together
6. Women eat first
7. Men eat first
8. Nothing is fixed, other

Reservations: women & low caste
(Randomization applies, refer to randomization document for details)

I1. In government colleges and jobs, the government keeps certain openings just for women. In some places, the government also keeps certain openings just for those of Harijan or Dalit castes or other backward castes. This is called reservations. Before today, had you heard of reservations?
3. Yes
4. No

I2. In your opinion, do you favor or oppose with having reservations for women?
3. favor
4. oppose

I3. In your opinion, do you favor or oppose with having reservations based on caste?
3. favor
4. oppose

Reservations: Why?
(Randomization applies, refer to randomization document for details)

J1. Why do you favor having reservations based on caste?
7. Support reservations for the development of lower castes
8. Support reservations to reduce discrimination
9. Support reservation to help the poor
10. support reservations to open opportunity in jobs/studies
11. can't say why support reservations
12. support reservations for other reasons

J2. Why do you oppose having reservations based on caste?
10. oppose reservations because people should put in effort
11. oppose reservations because govt should give seats for merit

12. oppose reservations because it should be based on income
13. oppose reservations because it causes conflict
14. oppose reservations because it should be given to everyone
15. oppose reservations because it is no longer needed
16. oppose reservations because within dalits, only the rich benefit
17. can't say why oppose reservations
18. oppose reservations for other reasons

J3. Why do you think the government has reservations?
7. To obtain votes
8. To reduce discrimination
9. To help the poor
10. To give equal opportunities in work and education
11. Can't say / don't know
12. Other

Marriage
(*Randomization applies, refer to randomization document for details*)

L1.1 In your opinion, should there be a law stopping high caste and low caste people from marrying each other?
3. Yes
4. No

L2.1 If a close relative or someone in your family married someone from a Harijan or Dalit caste would you oppose it or not? *(asked only to non-Dalits)*
3. Yes, I would oppose it
4. No, I would not oppose it

L3. If a close relative or someone in your family married a Muslim/Hindu *(respondent will be asked the opposite religion to themselves)* would you oppose it or not?
3. Yes, I would oppose it
4. No, I would not oppose it

Discrimination: untouchability (asked to non-Dalits)

S1. Does anyone in your family believe in/practice untouchability?
3. Yes
4. No

S3. Do you yourself believe in/practice untouchability? *(only asked if respondent says yes to S1)*
3. Yes
4. No

Discrimination: friends (asked to non-Dalits)
(*Randomization applies, refer to randomization document for details*)

T1. Do you have any friends or acquaintances who are from a Harijan or Dalit caste?

4. Yes, a close friend
5. Yes, an acquaintance
6. No, no one

T2. In the past few years, have you eaten at the home of any Harijan or Dalit friend or acquaintance? *(asked only if respondent answered yes in T1)*
   3. Yes
   4. No

T3. In the past few years, has your Harijan or Dalit friend or acquaintance come to your home to have food? *(asked only if respondent answered yes in T1)*
   3. Yes
   4. No

Discrimination: Dalit (asked to Dalits only)
(Randomization applies, refer to randomization document for details)

U1. As you know, discrimination and injustice based on caste is wrong, but still, we hear instances of this kind sometimes. Perhaps you have personally experienced such problems, or perhaps you have not. I just want to understand if any of the following things have happened to you or not.

U.2. 1p Now we will talk about school and college. Have you ever felt that you have personally been discriminated against in school or college because you are a dalit?
   3. Yes
   4. No

U.3.1p Now we will talk about government officials. Have you ever felt that you have personally been discriminated against in school or college because you are a dalit?
   1. Yes
   2. No

U.4.1p Now we will talk about police. Have you ever felt that you have personally been discriminated against in school or college because you are a dalit?
   3. Yes
   4. No

U6.1 Now I want to ask you about work and job. Have you ever been employed?
   3. Yes
   4. No

U7.1p Has it ever happened that you didn't get a job that you could have gotten (meaning, that you were qualified for) because of your caste? *(only asked if respondent said yes to U6)*
   3. Yes
   4. No

U8.1p Has it ever happened that you didn't get paid as much as you were supposed to be paid for some work that you did because of your caste? *(only asked if respondent said yes to U6)*
   3. Yes
   4. No

U9.1p Has it ever happened to you in a work environment that someone did not treat you properly because of your caste? *(only asked if respondent said yes to U6)*
  3. Yes
  4. No

U.11.1 Have you ever hidden your caste from a stranger?
  1. Yes
  2. No

U10.1 In your opinion, how often does it happen that a dalit person in your state face discrimination? Does it happen every day, often, sometimes or never?
  1. Every day
  2. Often
  3. Sometimes
  4. Never

U.2.1h Now we will talk about school and college. In your opinion, how likely is it for a dalit to face discrimination at school or college? Is it highly likely, somewhat likely or not very likely to happen?
  1. Highly Likely
  2. Somewhat likely
  3. Less likely

 U.3.1h Now we will talk about government officials. In your opinion, how likely is it for a dalit to face discrimination while getting some work done from a government official? Is it highly likely, somewhat likely or not very likely to happen?
  1. Highly Likely
  2. Somewhat likely
  3. Less likely

U.4.1h Now we will talk about the police. In your opinion, how likely is it for a dalit to face discrimination by the police? Is it highly likely, somewhat likely or not very likely to happen?
  1. Highly Likely
  2. Somewhat likely
  3. Less likely

U.6.1 Now I want to ask about your work and job. Have you ever been employed?
  1. Yes
  2. No

U.7.1h In your opinion, how likely is it for a dalit to face discrimination while finding a job? Is it highly likely, somewhat likely or not very likely to happen?
  1. Highly Likely
  2. Somewhat likely
  3. Less likely

U.8.1h In your opinion, how likely is it for a dalit to face discrimination in wage payment and not get what he/she earned for the work he/she did? Is it highly likely, somewhat likely or not very likely to happen?
  1. Highly Likely
  2. Somewhat likely
  3. Less likely

U.9.1h In your opinion, how likely is a dalit to be treated badly by other people at his/her workplace because of his/her caste? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

Discrimination: Adivasi/ST (asked to Adivasi only)
(Randomization applies, refer to randomization document for details)

UU.3 As you know, discrimination and injustice based on caste is wrong, but still, we hear instances of this kind sometimes. Perhaps you have personally experienced such problems, or perhaps you have not. I just want to understand if any of the following things have happened to you or not.

U2. 3p Now we will talk about school and college. Have you ever felt that you have personally been discriminated against in school or college because you are an ST?
1. Yes
2. No

U.3.3p Now we will talk about government officials. Have you ever felt that you have personally been discriminated against in school or college because you are an ST?
1. Yes
2. No

U.4.3p Now we will talk about police. Have you ever felt that you have personally been discriminated against in school or college because you are an ST?
1. Yes
2. No

U6.3 Now I want to ask you about work and job. Have you ever been employed?
1. Yes
2. No

U7.3p Has it ever happened that you didn't get a job that you could have gotten (meaning, that you were qualified for) because of your caste? *(only asked if respondent said yes to U6)*
1. Yes
2. No

U8.3p Has it ever happened that you didn't get paid as much as you were supposed to be paid for some work that you did because of your caste? *(only asked if respondent said yes to U6)*
1. Yes
2. No

U9.3p Has it ever happened to you in a work environment that someone did not treat you properly because of your caste? *(only asked if respondent said yes to U6)*
1. Yes
2. No

U.11.3 Have you ever hidden your caste from a stranger?
1. Yes

2. No

U10.3 In your opinion, how often does it happen that an ST person in your state face discrimination? Does it happen every day, often, sometimes or never?
1. Every day
2. Often
3. Sometimes
4. Never

U.2.3h Now we will talk about school and college. In your opinion, how likely is it for an ST to face discrimination at school or college? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.3.3h Now we will talk about government officials. In your opinion, how likely is it for an ST to face discrimination while getting some work done from a government official? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.4.3h Now we will talk about the police. In your opinion, how likely is it for an ST to face discrimination by the police? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.6.3 Now I want to ask about your work and job. Have you ever been employed?
1. Yes
2. No

U.7.3h In your opinion, how likely is it for an ST to face discrimination while finding a job? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.8.3h In your opinion, how likely is it for an ST to face discrimination in wage payment and not get what he/she earned for the work he/she did? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.9.3h In your opinion, how likely is an ST to be treated badly by other people at his/her workplace because of his/her caste? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

As you know, discrimination and injustice based on religion is wrong, but still, we hear instances of this kind sometimes. Perhaps you have personally experienced such problems, or perhaps you have not. I just want to understand if any of the following things have happened to you or not.

U2. 2p Now we will talk about school and college. Have you ever felt that you have personally been discriminated against in school or college because you are a Muslim?
   1. Yes
   2. No

U.3.2p Now we will talk about government officials. Have you ever felt that you have personally been discriminated against in school or college because you are a Muslim?
   1. Yes
   2. No

U.4.2p Now we will talk about police. Have you ever felt that you have personally been discriminated against in school or college because you are a Muslim?
   1. Yes
   2. No

U6.2 Now I want to ask you about work and job. Have you ever been employed?
   1. Yes
   2. No

U7.2p Has it ever happened that you didn't get a job that you could have gotten (meaning, that you were qualified for) because of your religion? *(only asked if respondent said yes to U6)*
   1. Yes
   2. No

U8.2p Has it ever happened that you didn't get paid as much as you were supposed to be paid for some work that you did because of your religion? (*only asked if respondent said yes to U6*)
   1. Yes
   2. No

U9.2p Has it ever happened to you in a work environment that someone did not treat you properly because of your religion? (*only asked if respondent said yes to U6*)
   1. Yes
   2. No

U.11.2 Have you ever hidden your religion from a stranger?
   1. Yes
   2. No

U10.2 In your opinion, how often does it happen that a Muslim person in your state face discrimination? Does it happen every day, often, sometimes or never?
   1. Every day
   2. Often

3. Sometimes
4. Never

U.2.2h Now we will talk about school and college. In your opinion, how likely is it for a Muslim to face discrimination at school or college? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.3.2h Now we will talk about government officials. In your opinion, how likely is it for a Muslim to face discrimination while getting some work done from a government official? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.4.2h Now we will talk about the police. In your opinion, how likely is it for a Muslim to face discrimination by the police? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.6.2 Now I want to ask about your work and job. Have you ever been employed?
1. Yes
2. No

U.7.2h In your opinion, how likely is it for a Muslim to face discrimination while finding a job? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.8.2h In your opinion, how likely is it for a Muslim to face discrimination in wage payment and not get what he/she earned for the work he/she did? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

U.9.2h In your opinion, how likely is a Muslim to be treated badly by other people at his/her workplace because of his/her religion? Is it highly likely, somewhat likely or not very likely to happen?
1. Highly Likely
2. Somewhat likely
3. Less likely

Climate change
(*Randomization applies, refer to randomization document for details*)

V.1 My next question is regarding weather and climate. In the past five years, do you think the temperature is getting warmer, colder or is same as before?
1. Warmer

2. Colder
3. Same as before

V.2. a (*If Warmer is Selected in V.1)* You said that the temperature is getting warmer. Do you think it is good that it is getting warmer, it is bad that it is getting warmer, or does it not make a difference?
    1. Good
    2. Bad
    3. Does not make a difference

V.2.b (*If Colder is Selected in V.1)* You said that the temperature is becoming colder. Do you think it is good that it is getting colder, is it is bad that it is getting colder, or does it not make a difference?
    1. Good
    2. Bad
    3. Does not make a difference

V.3 Do you have electricity at your home?
    1. Yes
    2. No

V.4 Do you ever face electricity cuts? (*If yes is selected for V3)*
    1. Yes
    2. No

V.5 In the past 24 hours, what was the duration of the electricity cut? (*If yes is selected for V3)*

V.6 Now I will talk about the problem that your grandchildren might have to face. Many scientists believe that the earth will become really warm, to an extent that agriculture will become difficult and people will start falling sick. One of the reasons could be that the way electricity is produced today creates a lot of heat. This is making the earth warmer. Some scientists feel that one solution to this problem could be to cut down the use of electricity which may reduce rising temperatures in the future.

V.7. 1a Would you be willing to bear an additional hour of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If yes is selected for V3)*
    1. yes
    2. no

V.7.2a Would you be willing to bear three additional hours of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If yes is selected for V3)*
    1. yes
    2. no

V.7.3a Would you be willing to bear five additional hours of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If yes is selected for V3)*
    1. yes
    2. no

V.7.3a Should those who have electricity be willing to bear an additional hour of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If no is selected for V3)*
    1. yes
    2. no

V.7.2b Should those who have electricity be willing to bear three additional hours of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If no is selected for V3*)
1. yes
2. no

V.7.3b Should those who have electricity be willing to bear five additional hours of electricity cuts so that the temperature doesn't rise more by the time your grandchildren are living? (*If no is selected for V3*)
1. yes
2. no

Class category
(*Randomization applies, refer to randomization document for details*)

W1.1 My last question is: In your opinion, is your family poor, middle-class or comfortable?
1. Poor
2. Middle Class
3. Comfortable

W1.2 My last question is: In your opinion, is your family poor, labor class, middle-class or comfortable?
1. Poor
2. Labor Class
3. Middle Class
4. Comfortable

6.3.3. Questionnaire for Bihar, Jharkhand, and Maharashtra

A1. Interviewer code _____

A2. What happened after you were able to get through to speak to someone of your own gender?
1. Need to call back again
2. Start interview
3. Did not consent / Refused to be interviewed

Close the tab if did not consent/ refused to be interviewed

A.3.1. Do you live in Bihar or in Jharkhand or in some other state?
1. Bihar
2. Jharkhand
3. Other state _____

A.4.1. How long have you been living there?
1. No of years _____
2. Since always
3. After marriage

A.4.2. Does your family live with you?
0. No
1. Yes

A.4.3. Interviewer: Which state is this interview about?
1. Bihar
2. Jharkhand
3. Other_____

A.5. I will read out some options to you and you tell me where your home is. Is your home in a big city, town, village, or do you live on your own fields?
1. Big city
2. Town
3. Village
4. Own fields

B.1.1. We want to understand generally how big people's families are. Can you tell me how many people live with you including all women, children, and men in your home? (*fill in number*)

B.2.1. How many of these are girls and women/men and boys? (*fill in number*)

B.3.1a. How many of these women or girls/men or boys aged between 18 and 65 years old? (*fill in number*)

Respondent Selection: Using mobile phone

B.3.1b. Do you have your own mobile or does it belong to someone else in your home?

1. Yes, it's my own
2. No, it's not my own

B.4.1b. Based on your relationships, can you tell me who are the women and girls/ men and boys aged between 18 and 65 years in your home? For instance, your mom, sister-in-law/ father, brother – please tell based on relationships like this. *(list them and ask if each of them have a mobile phone)*

Respondent selection: based on education

B.4.1. Based on your relationships, can you tell me who are the women and girls/ men and boys aged between 18 and 65 years in your home? For instance, your mom, sister-in-law/ father, brother – please tell based on relationships like this. *(list them and ask for each of them how many classes have they attended)*

Select respondent

B5. Can I speak with [**name – randomized from roster**]? *Get consent to speak to the selected respondent. If they ask why we want to speak to them, give an answer from the script. If the selected respondent is not available, find out what time to call back and record this information on the call log and calendar.*

B.6. *Use the script to tell the respondent about your study. Is the respondent ready to speak with you?*
1. Yes
2. No (The person on the phone does not want to go ahead)
3. Call later
4. No (The selected respondent does not want to go ahead)

X.1. In which language would it be better to have the rest of the interview?
1. Hindi
2. Bhojpuri or Mithili / Jharkhandi or Chhota Nagpuri
3. Other _____

B.7. Till where have you studied? *If respondent does not understand, then ask:* Till what level have you studied? (*choose from drop down list*)

B.8. How old are you? *If respondent does not understand, then ask*: What is your age? (*fill in number, or 88 if the respondent doesn't know his/her age*)

B.9. Have you gotten married?
1. Yes
2. No
3. Yes, but not married now

B.10a. Do you live with your mother-in-law & father-in-law? *If surveyor cannot understand respondent's answer, then ask:* In the last one month, did your mother-in-law & father-in-law live with you or not?
1. Both live with me
2. Only mother-in-law lives with me
3. Only father-in-law lives with me
4. Neither lives with me

B.10b. Do you live with your mother & father? *If surveyor cannot understand respondent's answer, then ask:* In the last one month, did your mother & father live with you or not?
1. Both live with me

2. Only mother lives with me
3. Only father lives with me
4. Both do not live with me

B.12. Does this person's wife live with him here?
   0. No
   1. Yes

B.13a. Till where has your husband studied? *If respondent does not understand, then ask:* Till what level has your husband studied? (*choose from drop down list*)

B.13b. Till where has your wife studied? *If respondent does not understand, then ask:* Till what level has your wife studied? (*choose from drop down list*)

Sanitation

D.3. Have you heard of the Swachh Bharat Mission?
   0. No
   1. Yes

D.4. What activities do you think are included in the Swachh Bharat Mission? (*multiple options allowed, asked only if respondent yes to D.3)*
   1. Cleaning
   2. Picking up trash
   3. Latrines
   4. Other_____

Religion & Caste

C.1. What is your religion?
   1. Hindu
   2. Muslim
   3. Sikh
   4. Christian
   5. Jain
   6. Other

C.2a. Which caste group do you belong to? *(select from drop-down menu)*

C.2b. What is your caste? (*fill in jati name*)

C.3. Which caste group do you belong to? Scheduled caste, general caste, other backward caste, scheduled tribe, or Brahmin?
   1. Harijan or Dalit
   2. Backward caste
   3. General or forward caste
   4. Brahmin

5. Tribal
6. Other

K.1. In your opinion, should a married woman, whose husband earns a good living, work outside the home or not?
   0. No, she should not work
   1. Yes, she should work

K.2. In your opinion, should a young girl or boy select a spouse/life partner for him/herself or should his/her parents select a spouse/life partner for him/her? *If the respondent says that both should have equal say, ask: What do you think would be better – for the young person to select her own life partner or for her parents to select one for her?*
   0. Parents' choice
   1. Own choice

K.4. When your family eats lunch or dinner, do the women usually eat with the men? Or do the women usually eat first? Or do the men usually eat first?
   1. They eat together
   2. Women eat first
   3. Men eat first
   4. Nothing is fixed, other

K.6.1. When you want to go outside alone somewhere near your home, such as to visit a neighbor, do you need to ask your husband or family, or do you just tell them and go?
   1. Have to ask
   2. Tell them and go
   3. Do not need to tell them for nearby visits
   4. Someone accompanies me
   5. Don't go
   6. There's no elder person in household

K.6.2. When you want to go outside alone somewhere near your home, such as to visit a neighbor, do you need to ask an elder person in your family, or do you just tell them and go?
   1. Have to ask
   2. Tell them and go
   3. Do not need to tell them for nearby visits
   4. Someone accompanies me
   5. Don't go
   6. There's no elder person in household

K.6.3. When your wife wants to go outside alone somewhere nearby alone, such as to visit a neighbor, does she need to ask you or someone, or does she just tell you and go?
   1. Has to ask
   2. Tells them and goes

3. Does not need to tell for nearby visits
4. Someone accompanies her
5. Does not go outside
6. There's no elder person in household

K.6.4. When you want to go outside alone somewhere near your home, such as to visit a neighbor, do you need to ask an elder person in your family, or do you just tell them and go?
1. Have to ask
2. Tell them and go
3. Do not need to tell them for nearby visits
4. Someone accompanies me
5. Don't go
6. There's no elder person in household

Marriage
(*Randomization applies, refer to randomization document for details*)

L.1.1. In your opinion, should there be a law to stop marriages between upper and lower castes?
0. No
1. Yes

L.2.1. If one of your close relatives or a member of your family gets married to someone from a lower caste, i.e. harijan or dalit caste, will you oppose this or not? *(asked only to non-Dalits)*
0. No
1. Yes

L.3.1a. If one of your close relatives or a member of your family gets married to someone who is Muslim, will you oppose this or not? *(asked only to non-Muslims)*
0. No
1. Yes

L.3.1b. If one of your close relatives or a member of your family gets married to someone who is Hindu, will you oppose this or not? *(asked only to Muslims)*
0. No
1. Yes

Aadhaar

E.1. Do you have an Aadhaar card?
0. No
1. Yes

E.2. Do you think that Aadhaar is necessary to get government benefits? Eg: ration, pension, gas, bank account.
1. Yes
2. No

3. Required for some things, not for others

S.2. Do you practice untouchability? *(Asked only to non-Dalit and non-Adivasi Hindus)*
   0. No
   1. Yes

S.1. Do any members of your family practice untouchability? (*only asked if respondent says No to S.2*)
   0. No
   1. Yes

G.1 We want to understand what things are used by people in <state>. I'll name some items and you should tell me if you have it or not.
   0. No
   1. Yes

   - Mixer
   - Motorcycle / Scooter
   - Fan
   - Fridge
   - Cooker

G.2 Do you have a latrine or not?
   0. No
   1. Yes

G.3 Did you use this latrine yesterday to defecate or did you go outside? *(only asked if respondent says yes to G.2)*
   1. Used latrine
   2. Defecated in the open

G.4 Did you build the latrine using your own funds or did the government build it? (*only asked if respondent says yes to G.2*)
   1. Built on our own
   2. Government built it
   3. Both

We don't always feel the same way. Sometimes we are sad and sometimes we are happy, sometimes we are worried and sometimes relaxed. In the next few questions, I will ask how you have felt in the past one month.

M.1. Sometimes people are afraid or anxious about somethings. In the past one month, how often did you feel **anxious**? What would you say – Most of the time, sometimes, or never?
1.   Most of the time
2.   Sometimes
3.   Never
4.   Can't say
5.   Does not want to respond

M.2.   Sometimes people feel hopeless about their future. In the past one month, how often did you feel **hopeless**? What would you say – Most of the time, sometimes, or never?
Most of the time
1.   Most of the time
2.   Sometimes
3.   Never
4.   Can't say
5.   Does not want to respond

M.3.   Sometimes there are lots of thoughts in our head or we can't sit in one place. In the past one month, how often did you feel **restless**? What would you say – Most of the time, sometimes, or never?
1.   Most of the time
2.   Sometimes
3.   Never
4.   Can't say
5.   Does not want to respond

M.4   Sometimes we are so unhappy that nothing pleases us. In the past one month, how often did you feel **depressed**? What would you say – Most of the time, sometimes, or never?
1.   Most of the time
2.   Sometimes
3.   Never
4.   Can't say
5.   Does not want to respond

M.5   Sometimes we feel **disinterested in work** that we normally do, or it takes a lot of **effort to do work**. In the past one month, how often did you feel this way? What would you say – Most of the time, sometimes, or never?
1.   Most of the time
2.   Sometimes
3.   Never
4.   Can't say
5.   Does not want to respond

M.6   Sometimes we feel that we are worthless. In the past one month, how often did you feel **useless or worthless**? What would you say – Most of the time, sometimes, or never?
1.   Most of the time

2. Sometimes
3. Never
4. Can't say
5. Does not want to respond

N.1. In the next few questions, I will ask you about the sadness or problems you faced in the last 30 days. If something like this happened in the last 30 days, say yes. If this did not happen in the last 30 days, say no. Now I will ask you questions one-by-one.

N.1.1. In the last 30 days, did you feel less hungry?
    0. No
    1. Yes

N.1.2. In the last 30 days, did you have trouble sleeping?
    0. No
    1. Yes

N.1.3. In the last 30 days, did you have trouble thinking clearly?
    0. No
    1. Yes

N.1.4. In the last 30 days did you feel tired all the time?
    0. No
    1. Yes

N.1.5. In the last 30 days, did you have trouble taking decisions?
    0. No
    1. Yes

N.1.6. In the last 30 days, did you think about ending your life?
    0. No
    1. Yes

Beef-eating
(Randomization applies, refer to randomization document for details)

T.1. Some days ago a Hindu person suspected that a Muslim person had eaten beef and beat him up badly. According to you, was it right what the Hindu person did to the Muslim person?
    0. Not right
    1. It was right

T.2. Some days ago a Hindu person saw that a Muslim person had eaten beef and beat him up badly. According to you, was it right what the Hindu person did to the Muslim person?
    0. Not right
    1. It was right

T.3. Some days ago a mob of Hindu people suspected that a Muslim person had eaten beef and beat him up badly. According to you, was it right what the mob of Hindu people did to the Muslim person?
    0. Not right

1. It was right

T.4. Some days ago a mob of Hindu people saw that a Muslim person had eaten beef and beat him up badly. According to you, was it right what the mob of Hindu people did to the Muslim person?
   0. Not right
   1. It was right

F.1 Now I will ask you about the government. Do you think that the government should increase the work it does for the poor, reduce it, or is the government doing fine?
   1. Increase
   2. Decrease
   3. Doing fine

F.2 Now I will ask you about the government. Do you think that the government should increase the spending it does towards the poor, reduce it, or is the government spending fine?
   1. Increase
   2. Decrease
   3. Doing fine

Inter-caste marriage
(*Randomization applies, refer to randomization document for details*)

P.1.2. Many people marry within their own caste, but some people marry outside their caste. Are the castes of your wife's/husband's family and your family the same or different?
   1. Same
   2. Different

P.2.2. Are the castes of your wife's/husband's family and your family the same or different?
   1. Same
   2. Different

Caste of spouse

R1.2. What was your wife's/husband's "biradari" before marriage?
If respondent does not understand, then ask: what is your wife's family's caste?
If respondent still does not understand, then ask: what does your wife's family put after their name?
(Drop-down list)

R1.2a. If name of caste is not in dropdown menu then write it below
_____

R.2.2. Which group does that "biradari" belong to? Harijan or dalit, backward caste, general or forward caste, brahmin, or tribal? *If respondent does not know which group their caste belongs to, then select the*

appropriate option yourself from the caste list given to you. And if the respondent's caste is not included in the caste list, then write 88 in the "Other" box.
1. Harijan or Dalit
2. Backward caste
3. General or forward caste
4. Brahmin
5. Tribal
6. Other

Reservations knowledge
(Randomization applies, refer to randomization document for details)

I.7 Have you heard of reservations before today?
0. No
1. Yes

I.7.2 Have you heard of reservations or quotas before today?
0. No
1. Yes

Reservations policies

I.8 I will ask you about some government rules. You should tell me if you think these rules are right or not.

Government colleges keep some seats reserved only for Dalits/harijan, backward castes, and tribal students
0. Not right
1. Right

Government jobs keep some seats reserved only for Dalits/harijan, backward castes, and tribal students
0. Not right
1. Right

In some village sarpanch elections, only dalit/harijan or tribals can stand
0. Not right
1. Right

Meat eating

V.1 Some people eat meat & fish and some people don't. Do you eat meat and fish?
0. No
1. Yes

V.2 Do you feel that it's really ok for people to eat meat & fish or not ok? *(only asked if respondent says No to V.1)*
- 0. No
- 1. Yes

Is meat eating dirty?

V.3.1 Now I want to ask you a question about cleanliness. Among some people, eating meat & fish is common, for instance, among Muslims. Do you feel that due to eating meat & fish, their homes are less clean or not? (*only asked to non-Muslims if their responded with no in V.2*)
- 0. No, not less clean
- 1. Yes, less clean

Aadhaar and Government Benefits

E.3 You said some time ago that you have an Aadhaar card. When you did not have an Aadhaar card, did you miss out on getting some government benefit? (*only asked if respondent says yes to E.1*)
- 0. No
- 1. Yes

E.4 You said sometime ago that you do not have an Aadhaar card. Because of not having an Aadhaar card, have you missed out on getting some government benefit? (*only asked if respondent says No to E.3*)
- 0. No
- 1. Yes

E.5 Which government service or benefits did you miss out on?.(*only asked if respondent says Yes to E.3 or E.4*)

- Ration
- Pension
- Gas
- Bank account
- Loan
- Mobile service or SIM card
- NREGA wages
- Scholarship
- Other_____

E.6 When you got an Aadhaar card made, which service did you benefit from?
- Got nothing
- Ration
- Pension
- Gas
- Bank account
- Loan
- Mobile service or SIM card
- NREGA wages

- Scholarship
- Other_____

O.1 Do you think it's right for parents to beat their kids or not right?
   0. No
   1. Yes

O.2 According to you, is it right for school masters to beat kids or not right?
   0. No
   1. Yes

O.3 Do you think it's right for a husband to beat his wife or not right?
   0. No
   1. Yes

Medical abortion (all men and married women)

J..1 I would like to speak to you about pregnancy now. Some people have a lot of information about pregnancy and health, and some people know less. Do you know that when a pregnant woman wants to abort a child, then she can get medicines at the chemist or hospital for abortion? Have you heard about such medicines before?
   0. No
   1. Yes

J.2 Here's how this medicine works: there's a pack of five tablets. If a pregnant woman takes these, she feels spasms or stirring in her stomach and starts to bleed as if during menstruation. Then the child is aborted. Have you ever taken such medicines to abort a child?
   0. No
   1. Yes

J.3 Here's how this medicine works: there's a pack of five tablets. If a pregnant woman takes these, she feels spasms or stirring in her stomach and starts to bleed as if during menstruation. Then the child is aborted. Has your wife ever taken such medicines to abort a child?
   0. No
   1. Yes

J.4 According to what you know, till when can a pregnant woman safely take these medicines to abort a pregnancy? Can these medicines be taken in first three months, first six months, or anytime during a pregnancy?
   1. Anytime in first three months
   2. Anytime in first six months
   3. Anytime during pregnancy
   4. Don't know

J.5 If a pregnant woman does not want to keep the child, do you think she should abort the child or not?
1. Abort
2. Should not abort

J.6 Do you think that the decision to abort the child should be taken by the woman or should she ask the family?
1. Decide on her own
2. Ask family

Discrimination (asked to Dalits / Adivasis / Muslims)
(*Randomization applies, refer to randomization document for details*)

U.3.1h Now we will talk about government officers. In your opinion, how often does it happen that a dalit person faces discrimination while trying to get some work done by a government officer? A lot, a little, or rarely? *(only asked to Dalits)*
1. A lot
2. A little
3. Rarely
4. Never

U.10.1 Do you think that in the last five years, there is less discrimination based on caste, more or same as before? *(only asked to Dalits)*
1. Less
2. More
3. Same as before

U3.3h Now we will talk about government officers. In your opinion, how often does it happen that a tribal person faces discrimination while trying to get some work done by a government officer? A lot, a little, or rarely? *(only asked to Adivasis/Tribals)*
1. A lot
2. A little
3. Rarely
4. Never

U.10.2 Do you think that in the last five years, there is less discrimination based on caste, more or same as before? *(only asked to Adivasis/Tribals)*
1. Less
2. More
3. Same as before

U3.2h Now we will talk about government officers. In your opinion, how often does it happen that a Muslim person faces discrimination while trying to get some work done by a government officer? A lot, a little, or rarely? *(only asked to Muslims)*
1. A lot

2. A little
3. Rarely
4. Never

U.10.3 Do you think that in the last five years, there is less discrimination based on caste, more or same as before? *(only asked to Muslims)*
1. Less
2. More
3. Same as before

Middle class

W.1.2 In your opinion, is your family poor, labor class, middle class, or well off?
1. Poor
2. Middle class
3. Labor class
4. Well-off

Social Choice Experiment[4]
(*Randomization applies, refer to randomization document for details*)

F.3.1 In the next question, I would like to know your thoughts on "how the benefits given by the government should be distributed". **Parmeshwar Jha & Kamal Paswan** are both residents of Bihar. Both have families with five members. Parmeshwar Jha's family has a monthly income of **8000**. Kamal Paswan's family has a monthly income of **6000**. Under a government scheme, the village chief has to distribute Rs. 10,000 between these two families. Now the chief has to decide how much out of Rs. 10,000 to give to each family. In your opinion, how much money should Parmeshwar Jha get?

F.3.2 In the next question, I would like to know your thoughts on "how the benefits given by the government should be distributed". **Parmeshwar Jha & Kamal Paswan** are both residents of Bihar. Both have families with five members. Parmeshwar Jha's family has a monthly income of **10000**. Kamal Paswan's family has a monthly income of **4000**. Under a government scheme, the village chief has to distribute Rs. 10,000 between these two families. Now the chief has to decide how much out of Rs. 10,000 to give to each family. In your opinion, how much money should Parmeshwar Jha get?

District

Q180 In which district of Bihar do you live? *(Drop-down list)*

Q183 In which district of Jharkhand do you live? *(Drop-down list)*

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[4] Given are two examples of social choice experiments used; please refer to the SARI documentation online, here: https://riceinstitute.org/data/sari-dataset-documentation/ for the full list.

6.4. SARI Explanation of Randomization

6.4.1. Explanation of randomization for survey in Uttar Pradesh and Delhi

Survey order [variable name: condition]: The entire survey was ordered in two different ways. Half of all respondents were asked about their caste early in the survey, before the reservations questions. In case making caste salient affected their answers, half of all respondents were asked about reservations first, before asking about caste. Questions were asked to respondents in one of the following two orders:
1. Condition 1 = religion & caste, sanitation, gender, reservations, marriage, discrimination
2. Condition 2 = reservations, sanitation, religion & caste, gender, marriage, discrimination
    a. When respondents were asked about reservations right at the beginning of the survey, they were not asked why they agreed or disagreed with the policy since we felt that this would make the respondents uncomfortable to the point where they would be likely to discontinue the survey.

Gender [variable name: rand_gender]: The following four gender questions were presented to respondents in a random order:
1. Gender 1 = women working outside of home (asked to all respondents)
2. Gender 2 = choosing own spouse (asked to all respondents)
3. Gender 3 = ghunghat/pardah (asked only to married respondents, and asked about ghunghat or pardah depending on the respondent's religion)
4. Gender 4 = who eats last (asked to all respondents)

Reservations questions [variable name: rand_reserv]: All respondents were asked whether they had heard about reservations prior to the survey. If they had not, they were given a short description of what reservations are. Then all respondents were asked whether they support or oppose reservations for women, and then whether they support or oppose reservations based on caste. The order of the two questions about women's or caste questions was randomized, and questions were presented to respondents in one of two ways:
1. Either question about women's reservations first, and then question about caste reservations
2. Caste reservations question first, and then question about women's reservations

Marriage questions [variable name: rand_marriage]: All respondents were asked about whether they would support a law opposing high caste and low caste individuals from marrying. Then respondents were asked personal questions regarding intermarriage within their own families. The order of the law question and the personal questions was randomized, and questions were presented to respondents in one of two ways:
1. Law question first
    a. Law question
    b. Then the order of the following two personal questions was also randomized:
        i. If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)
        ii. If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
2. Law question last
    a. Then the order of the following two personal questions was also randomized:
        i. If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)

        ii.   If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
     b. Law question

Untouchability questions about friend/acquaintance [variable name: rand_dalitfrd]: Non-dalit respondents were asked if they had a dalit friend or acquaintance. If they reported having a dalit friend or acquaintance, they were asked one of two questions about that friend/acquaintance:
1. Whether the dalit/harijan friend/acquaintance had eaten a meal at their home
2. Whether they had eaten a meal at the dalit/harijan friend/acquaintance's home

Caste discrimination questions [variable name: rand_cstdisc]: Questions about experiences of caste discrimination were asked only to dalits and adivasis. Personal questions included those asking if the respondent had experienced caste discrimination in their youth and in the past 5 years, and if the respondent reported having worked, if they had experienced various kinds of discrimination while looking for work or at the workplace. General questions included one about how the respondent believes caste discrimination had changed in the previous five years and one about whether the respondent believes caste is as important as it was five years ago. The order of personal and general questions was randomized, and questions were presented to respondents either as:
1. General questions asked first, and then personal questions
2. Personal questions first, and then general questions

Religious discrimination questions [variable name: rand_rlgdisc]: Questions about experiences of religious discrimination were asked only to Muslims. Personal questions included those asking if the respondent had experienced religious discrimination in their youth and in the past 5 years, and if the respondent reported having worked, if they had experienced various kinds of discrimination while looking for work or at the workplace. General questions included one about how the respondent believes religious discrimination had changed in the previous five years and one about whether the respondent believes religion is as important as it was five years ago. The order of personal and general questions was randomized, and questions were presented to respondents in one of two ways:
1. General questions asked first, and then personal questions
2. Personal questions first, and then general questions

6.4.2. Explanation of randomization for survey in Rajasthan and Mumbai

<u>Survey order [variable name: condition]</u>: The entire survey was ordered in two different ways. Half of all respondents were asked about their caste early in the survey, before the reservations questions. In case making caste salient affected their answers, half of all respondents were asked about reservations first, before asking about caste. Questions were asked to respondents in one of the following two orders:
3. Condition 1 = religion & caste, sanitation, gender, reservations, marriage, discrimination
4. Condition 2 = reservations, sanitation, religion & caste, gender, marriage, discrimination
    a. When respondents were asked about reservations right at the beginning of the survey, they were not asked why they agreed or disagreed with the policy since we felt that this would make the respondents uncomfortable to the point where they would be likely to discontinue the survey.

<u>Gender [variable name: rand_gender]</u>: The following four gender questions were presented to respondents in a random order:
5. Gender 1 = women working outside of home (asked to all respondents)
6. Gender 2 = choosing own spouse (asked to all respondents)
7. Gender 3 = ghunghat/pardah (asked only to married respondents, and asked about ghunghat or pardah depending on the respondent's religion)
8. Gender 4 = who eats last (asked to all respondents)

<u>Reservations questions [variable name: rand_reserv]</u>: All respondents were asked whether they had heard about reservations prior to the survey. If they had not, they were given a short description of what reservations are. Then all respondents were asked whether they support or oppose reservations for women, and then whether they support or oppose reservations based on caste. The order of the two questions about women's or caste questions was randomized, and questions were presented to respondents in one of two ways:
3. Either question about women's reservations first, and then question about caste reservations
4. Caste reservations question first, and then question about women's reservations

<u>Reservations why questions [variable name: rand_reserv_why)</u>: Within Condition 1, in which respondents were asked about reservations later in the survey (after their own caste), respondents who had heard of reservations before the survey were randomly selected to answer follow up questions about why they agreed or disagreed with caste reservations, and why they thought the government gave reservations at all. Thus respondents who received the survey in the order of Condition 1 and who had heard of reservations before the survey either:
1. Received follow up 'why' questions asking them why they agree/disagree with caste reservations policy (depending on what opinion they gave), and follow up questions about why they think the government gives reservations
2. Did not receive these follow up questions (just as in Condition 2)

<u>Marriage questions [variable name: rand_marriage]</u>: All respondents were asked about whether they would support a law opposing high caste and low caste individuals from marrying. Then respondents were asked personal questions regarding intermarriage within their own families. The order of the law question and the personal questions was randomized, and questions were presented to respondents in one of two ways:
3. Law question first
    a. Law question
    b. Then the order of the following two personal questions was also randomized:

i.   If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)
            ii. If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
    4. Law question last
        a. Then the order of the following two personal questions was also randomized:
            i.   If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)
            ii. If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
        b. Law question

Untouchability questions about friend/acquaintance [variable name: rand_dalitfrd]: Non-dalit respondents were asked if they had a dalit friend or acquaintance. If they reported having a dalit friend or acquaintance, they were asked one of two questions about that friend/acquaintance:
    3. Whether the dalit/harijan friend/acquaintance had eaten a meal at their home
    4. Whether they had eaten a meal at the dalit/harijan friend/acquaintance's home

Caste discrimination questions [variable name: rand_disc_sc, rand and rand_disc_st]: Questions about experiences of caste discrimination were asked only to dalits and adivasis. Within dalits and within adivasis, respondents were randomly selected to receive either questions framed personally, about whether the respondent had personally experienced discrimination in various venues, or as likelihood questions, about how likely the respondent thought a person from his/her group would be to face discrimination in various venues. Personal and likelihood questions included those asking if the respondent had experienced caste discrimination in school/college, while getting work done by government officials, while interacting with the police, and while looking for work/working. Additionally, dalits and adivasis were asked general questions: these included one about whether the respondent had ever hidden his/her caste from a stranger, and the respondent's opinion about the frequency with which someone of their caste usually experiences discrimination. The order of personal/likelihood and general questions was randomized, and questions were presented to respondents either as:
    1. Personal venue questions, then general questions
    2. General questions, then personal venue questions
    3. How likely venue questions, then general questions
    4. General questions, then how likely venue questions

Religious discrimination questions [variable name: rand_disc_mus]: Questions about experiences of religious discrimination were asked only to Muslims. Within Muslims, respondents were randomly selected to receive either questions framed personally, about whether the respondent had personally experienced discrimination in various venues, or as likelihood questions, about how likely the respondent thought a person from his/her group would be to face discrimination in various venues. Personal and likelihood questions included those asking if the respondent had experienced religious discrimination in school/college, while getting work done by government officials, while interacting with the police, and while looking for work/working. Additionally, Muslims were asked general questions: these included one about whether the respondent had ever hidden his/her religion from a stranger, and the respondent's opinion about the frequency with which someone of their religion usually experiences discrimination. The order of personal/likelihood and general questions was randomized, and questions were presented to respondents either as:
    1. Personal venue questions, then general questions

2. General questions, then personal venue questions
3. How likely venue questions, then general questions
4. General questions, then how likely venue questions

Personal discrimination questions in various venues [variable names: rand_venue_disc_sc_p, rand_venue_disc_mus_p, rand_venue_disc_st_p]: Questions about discrimination in specific venues were asked to dalits, Muslims, and adivasis. These venues included school/college, while getting work done by government officials, and while interacting with the police (discrimination in looking for work and at the workplace were not included in this randomization). When respondents were asked about their personal experiences of discrimination in these venues, the order in which respondents were asked the three venue questions were in one of the following ways:
1. School/college, government official, police
2. School/college, police, government official
3. Government official, school/college, police
4. Government official, police, school/college
5. Police, school/college, government official
6. Police, government official, school/college

How likely discrimination questions in various venues [variable names: rand_venue_disc_sc_h, rand_venue_disc_mus_h, rand_venue_disc_st_h]: Questions about discrimination in specific venues were asked to dalits, Muslims, and adivasis. These venues included school/college, while getting work done by government officials, and while interacting with the police. When respondents were asked about how likely members of their group were to experience discrimination in these venues, the order in which respondents were asked the three venue questions were in one of the following ways:
1. School/college, government official, police
2. School/college, police, government official
3. Government official, school/college, police
4. Government official, police, school/college
5. Police, school/college, government official
6. Police, government official, school/college

General discrimination questions [variable names: rand_gen_disc_sc, rand_gen_disc_mus, rand_gen_disc_st]: Two general discrimination questions were asked to dalits, Muslims, and adivasis. One question asked whether the respondent had ever hidden his/her caste/religion from a stranger, and the second asked the respondent how frequently they felt caste/religious discrimination occurred to members of their group. The order in which these two general questions were presented to respondents was randomized, and questions were presented to respondents either as:
1. Frequency question first, then hiding question
2. Hiding question first, then frequency question

Electricity power cuts questions (own electricity) [variable name: rand_elec_own]: Respondents who reported having electricity in their homes were asked if they would be willing to sacrifice additional hours of power cuts daily for the benefit of future generations. Respondents with electricity were asked one of the following three questions;
1. Whether they would be willing to bear 1 extra hour of power cuts daily for future generations
2. Whether they would be willing to bear 3 extra hours of power cuts daily for future generations
3. Whether they would be willing to bear 5 extra hours of power cuts daily for future generations

Electricity power cuts questions (others electricity) [variable name: rand_elec_others]: Respondents who reported not having electricity in their homes were asked if they believed those who do have electricity in

their homes should be willing to sacrifice additional hours of power cuts daily for the benefit of future generations. Respondents without electricity were asked one of the following three questions:
1. Whether those with electricity should be willing to bear 1 extra hour of power cuts daily for future generations
2. Whether those with electricity should be willing to bear 3 extra hours of power cuts daily for future generations
3. Whether those with electricity should be willing to bear 5 extra hours of power cuts daily for future generations

Middle class questions [variable name: rand_mdclass]: Respondents were asked which economic class they believe their household fits within. Respondents were given either three categories to select from, or four, as follows:
1. 3 categories: poor, middle class, or comfortable
2. 4 categories: poor, labor class, middle class, or comfortable

6.4.3. Explanation of randomization for survey in Bihar, Jharkhand, and Maharashtra

Respondent selection [variable name: condition]: Within each household, the person who answered the phone was asked to list all adults between the ages of 18 and 65 of the same sex as the interviewer. Selection was done in one of two ways: either (i) respondents were asked whether each person listed owned their own mobile phone or not, or (ii) respondents were asked the education level of each person listed. Method (i) was used through May 15th, 2018 and method (ii) was used afterwards.

For method (i), the respondent and individuals who do not own their own mobile phone were considered eligible to be selected for the survey. Qualtrics survey software randomly selected an individual from the list of eligible respondents to be surveyed. Within method (i), only for version 22 of the survey, interviewers would administer a survey in which either:
1. Condition 1 = the first person listed in the household roster (usually "self") was included in the list of eligibles for random respondent selection
2. Condition 2 = the first person listed in the household roster (usually "self") was not included in the list of eligibles for the random respondent selection

For method (ii), Qualtrics survey software selected the least educated individual from everyone listed to be surveyed.

Gender [variable name: rand_gender]: The following four gender questions were presented to all respondents in a random order:
9. Gender 1 = women working outside of home (asked to all respondents)
10. Gender 2 = choosing own spouse (asked to all respondents)
11. Gender 4 = who eats last (asked to all respondents)
12. Gender 6 = whether the respondent is allowed to go to a neighbor's home without asking permission from senior members of the household (asked to all respondents)

Marriage questions [variable name: rand_marriage]: All respondents were asked about whether they would support a law opposing high caste and low caste individuals from marrying. Then respondents were asked personal questions regarding intermarriage within their own families. The order of the law question and the personal questions was randomized, and questions were presented to respondents in one of two ways:
5. Law question first
    a. Law question
    b. Then the order of the following two personal questions was also randomized:
        i. If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)
        ii. If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
6. Law question last
    a. Then the order of the following two personal questions was also randomized:
        i. If respondent would oppose a close relative marrying a low caste person (if the person is low caste themselves, then they are not asked this question. Low caste respondents are only asked the question about interreligious marriage)
        ii. If respondent would oppose a close relative marrying a Hindu or a Muslim (depending on religion of respondent)
    b. Law question

Mental health [variable names: rand_mentalhealth]: All respondents were randomly assigned to be asked one of two sets of mental health questions, about their experiences over the past 30 days. They were either asked:
1. Kessler: these questions gave respondents the option to answer that they had experienced a specific emotion a lot of the time, sometimes, or never.
2. SRQ: these questions asked respondents to answer a yes or no about whether they had experienced specific symptoms.

Beef eating [variable names: rand_beef]: All respondents were randomly assigned to be presented with one of the following versions of a question about whether physical violence for meat eating is alright or not:
1. Whether it is alright for a Hindu person to beat a Muslim person on the suspicion that the Muslim person eats meat
2. Whether it is alright for a Hindu person to beat a Muslim person for eating meat
3. Whether it is alright for a Hindu mob to beat a Muslim person on the suspicion that the Muslim person eats meat
4. Whether it is alright for a Hindu mob to beat a Muslim person for eating meat

Compassion for the poor [variable names: rand_compassion]: All respondents were randomly assigned to be presented with one of the following questions, about whether they feel the government is doing enough for the poor or not:

1. Whether the government is doing enough for the poor
2. Whether the government is spending enough for the poor

Intercaste marriage [variable names: rand_intercaste]: All married respondents are asked whether their spouse is the same caste (jati) as them, or a different caste (jati) from them. Married respondents are randomly assigned to be presented with this question in one of two ways:

1. Either the question is asked on its own, or
2. A statement saying "Many people marry within their own caste, but some people marry into other castes" prior to the question.

Reservations knowledge [variable names: rand_reserv]: All respondents were asked whether they had heard of reservations. They were randomly assigned to be presented with this question in one of two ways:

1. Either the question if they had heard of "aarakshan, reservations, or quota", or
2. If they had heard of "aarakshan or reservations"

Caste and religious discrimination questions [variable names: rand_discrim]: Dalit, Adivasi, and Muslim respondents were asked how often they believed people of their group were discriminated against by government workers. They were also asked if they believe that discrimination against their group has

gotten worse, gotten better, or stayed the same over the past 5 years. The order of these two questions was randomly presented in one of two ways:

1. Either the question about government workers was asked before the change over time question, or
2. The change of time question was asked before the question about government workers

Social choice experiment [variable names: rand_social]: All male respondents heard a short vignette about two men: both are from the same place and have 5 people in their family. The names of the individuals change, and how much they currently earn changes based on the vignette. Respondents were asked to allocate a total of 10,000 Rs. between the two men. Out of a total of 28 variations, each respondent was randomly assigned to be presented with one vignette.

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