

# *Improving Surveys Through Ethnography: Insights from India's Urban Periphery*

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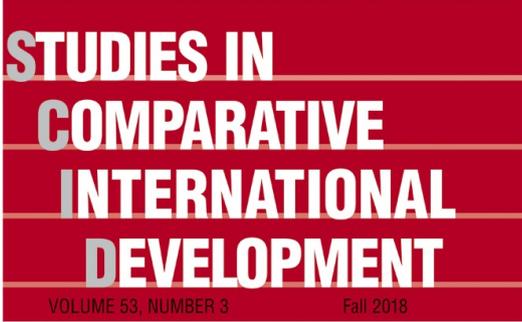
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# Improving Surveys Through Ethnography: Insights from India's Urban Periphery

Tariq Thachil<sup>1</sup>

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**Abstract** How can ethnographic research improve surveys? I illustrate the benefit of sustained qualitative research on survey design and implementation with reference to my own study of a neglected urban population: internal migrants. Such migrants are an important part of expanding South Asian and African cities. The informality and circular mobility of these populations prevent researchers from accessing them through traditional residence-based surveys. Scant existing knowledge weakens our ability to design theoretically precise and contextually appropriate survey instruments for these understudied communities, particularly cognitively demanding survey experiments to assess political attitudes. I argue that ethnographic fieldwork can help researchers address insufficient access and weak ecological and construct validity. I substantiate these arguments with data and insights from 15 months of fieldwork among circular urban migrants in India. First, I show how ethnography can help design context-sensitive sampling strategies that mitigate concerns of inadequate coverage, high non-response, and inefficiency. Second, I show how ethnography can be used to improve the ecological and construct validity of survey-based experiments. Finally, I show how such ethnographic innovations can be applied beyond the study population that inspired them. Sustained qualitative fieldwork can thus improve survey-based research on political behavior on neglected communities across the global south.

**Keywords** Migration · Behavior · Surveys · Ethnography · Urbanization

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## Introduction

Internal rural-urban migration is helping change the demographic landscape of the global south, particularly sub-Saharan Africa and Southern Asia. In West Africa, there are now 100 million more urban residents than in 1990, and countries like Ghana have reported majority urban populations for the first time in their histories (Nathan 2016). The percentage of Indonesians living in cities has steadily risen over the past two decades, and 2000–2010 marked the first decade in which India added more people to its cities than its villages. Despite these shifts, political scientists have devoted scant attention to poor internal migrants moving to the cities of the global south. The few studies that do examine these communities primarily focus on native responses to migrant influxes (Weiner 1978, Fearon and Laitin 2011, Gaikwad and Nellis 2017). We continue to know remarkably little about the attitudes and behaviors of poor migrants themselves.

This scholarly neglect is at least partly due to the informal and circular nature of urban migration across the global south. Rapid urbanization in wealthy Western democracies during the nineteenth century was fueled by permanent migration to relatively stable factory jobs (Rodden 2011). By contrast, poor urban migrants in low-income countries are predominantly employed within the informal sector. Insecure employment and high costs of urban living prevent the poorest migrants from permanently resettling their families to the city, prompting them to circulate between village and city several times a year.<sup>1</sup>

Informality and circularity underwrite scholarly neglect of urban migrants. These traits complicate efforts to obtain reliably representative samples of urban migrant communities through standard residence-based surveys (Weisberg 2005). Highly transient circular migrant populations are often excluded from residence-based government censuses, phone directories, or electoral rolls used by survey researchers. Researchers who do succeed in locating these migrants may still struggle with how best to measure their opinions. This issue is increasingly significant as scholars favor cognitively demanding survey instruments, highlighted by complex experimental questions. To ensure sufficient *construct validity* for such questions, researchers must be able to design intelligible measures that precisely operationalize their theoretical concepts of interest.<sup>2</sup> To ensure sufficient *ecological validity*, they must also maximize the contextual congruence between the environment constructed by the experiment and the respondent's quotidian environment. For example, many survey experiments utilize scenarios intended to closely mimic real-life situations. Without prior knowledge of such situations, researchers are likely to default to boilerplate templates bearing little resemblance to the respondent's reality.<sup>3</sup> Avoiding such pitfalls requires ex-ante knowledge that most researchers of understudied migrant populations simply do not possess.

<sup>1</sup> Extensive circular migration has been documented in countries ranging from Ethiopia (Dercon and Krishnan 2000), to Madagascar (Dostie et al. 2002), to Thailand (Paxson 1993). My survey sample of circular Indian migrants found they made an average of 2.55 trips to their home village each year.

<sup>2</sup> Morton and Williams (2010: 260–261) define *construct validity* as relating to “how valid the inferences of the data are for the theory the researcher is evaluating... In experimental research, the question is whether the design of the experiment is such that the variables investigated are closely equivalent to the variables the theory is concerned with.”

<sup>3</sup> Morton and Williams (2010: 265) define *ecological validity* as “whether the environment constructed in the research is similar to that in the target environment.”

Challenges of access coupled with concerns of ecological and construct validity plague efforts to study the political behavior of poor urban migrants. Understanding such behavior is crucial, given both the increasing demographic heft of these communities, and their distinctive features. For example, a survey of circular migrants in India (described later) found only 10.35% were registered to vote in their destination city. Yet these migrants spend over 9 months a year on average in these cities. How does this unique combination of urban presence without urban franchise affect the ways in which migrants are incorporated within city politics? A second example stems from the ethnic composition of migrant communities. Villages in sub-Saharan Africa and South Asia rarely contain ethnically diverse populations of the same class position.<sup>4</sup> By contrast, Sub-Saharan African and South Asian cities often concentrate equally poor migrants from diverse backgrounds into multi-ethnic slums and informal marketplaces (Agarwala 2013; Auerbach 2016; Marx et al. 2014; Nathan 2016; Resnick 2013). Are migrants more likely to mobilize along ethnic or class lines within these ethnically diverse, economically homogenous settings? A third example comes from the fact that most circular migrants are men who move without their families.<sup>5</sup> How will patterns of cooperation, conflict, and mobilization play out in such overwhelmingly male urban communities?

Sustained qualitative fieldwork can provide crucial leverage against challenges of access, as well as of construct and ecological validity that hinder efforts to answer these important questions. Despite the sustained popularity of mixed methods research in comparative politics, efforts to combine qualitative research with surveys can often be additive and lopsided towards the latter. This paper advocates a more interactive and balanced approach, in which ethnographic fieldwork explicitly informs survey design and implementation. Such “ethnographic surveys” develop context-sensitive sampling protocols and questionnaires through sustained pre-survey qualitative fieldwork carried out by the researcher directly.<sup>6</sup>

I illustrate the concrete benefits of ethnographic surveys by outlining two innovations generated by this approach in my study of circular urban migrants in India. First, I discuss how ethnographic research can motivate context-sensitive sampling protocols for inaccessible or invisible populations. I illustrate this potential with one such innovation for circular migrants: *worksite sampling*. I further argue that while ethnographically informed sampling strategies are often developed to deal with a specific study population, they can have broader applicability. For example, coverage errors and efficiency concerns with residence-based surveys apply to many communities beyond circular migrants. Prominent examples include those who live in informal arrangements outside of public record (slum residents or undocumented immigrants), those who are rarely at home (domestic help or miners), and those whose homes are spatially dispersed and interspersed with non-target populations (street vendors). I outline the general costs and

<sup>4</sup> In sub-Saharan Africa, geographically bounded ethnic divisions ensure relatively homogenous village communities (McCauley 2014). In South Asia, villages are ethnically diverse, but ascriptive differences are “ranked” and correlate strongly with economic status (Horowitz 1985).

<sup>5</sup> In my migrant sample, only 21.44% of respondents had migrated with their wife to the city.

<sup>6</sup> My approach is similar to, but distinct from, the idea of “participatory econometrics” (Jha et al. 2007). Ethnographic surveys are based on *direct* qualitative fieldwork conducted by the principal researcher, and presume a period of *sustained* qualitative fieldwork. By contrast, participatory econometrics can be based on relatively short stints of fieldwork that can be delegated to research teams.

benefits of worksite sampling as an alternative to residence-based sampling for these oft-excluded communities. I also discuss how ethnographic fieldwork can help improve the implementation of worksite-based surveys, including in selecting respondents, reducing non-cooperation, and ensuring privacy within crowded and chaotic interview worksites.

Next, I outline the potential for ethnography to address construct and ecological validity concerns plaguing surveys (and especially survey experiments) conducted among understudied communities. Specifically, I show how ethnography allows researchers to construct experimental vignettes that effectively operationalize broad theoretical concepts into precise and intelligible questions for respondents. Ethnography can also help researchers word questions in the specific experiences and vernaculars of respondents, in ways that reduce the artificiality of the experiment. This novel approach of constructing “ethnographic vignette-experiments” also has broad potential applicability beyond the motivating case of circular migrants. Finally, I discuss how ethnography can help probe the potential causal mechanisms associated with anticipated treatment effects. I conclude by more broadly contextualizing the paper’s insights regarding the role of ethnography in strengthening survey design and implementation within research on understudied populations across the global south.

## Developing Ethnographic Survey Protocols: Worksite Sampling of Circular Migrants

### Limits of Residence-Based Sampling for Poor Urban Populations

Most surveys across the developing world utilize residence-based sampling based on census lists, voter rolls, or directories. Yet such protocols face difficulties in producing representative samples of populations whose dwellings are excluded within standard government lists (coverage error), who are unlikely to be in those residences when enumerators arrive (unit non-response error), or who are relatively small in number and/or spatially dispersed (inefficiency concerns).

First, standard government lists of residences, such as censuses or electoral registers, have significant *coverage* errors regarding populations that lack access to formal housing. Such populations are often transient, including Sahel pastoralists, Syrian refugees, and Eastern European Roma communities. Coverage errors are also acute for populations who live in informal settlements unrecognized by the state, including the nearly 800 million people who live in urban slums worldwide (United Nations 2014). Government lists also entirely exclude the most marginal urban populations, such as those forced to sleep on the footpath.

A second limitation of residence-based strategies is that they underrepresent specific individuals within households. *Unit non-response* biases are especially high for study populations who spend little time at home (Weisberg 2005). Such populations can be narrow (female domestic helpers) or broad (working age males or college students).

A third limitation of residence-based lists is that they provide highly *inefficient* sampling frames for accessing rare, hidden, or spatially dispersed populations. For example, Adida (2014) studies transnational immigrant communities living within three West African cities. These populations are small fractions of their host cities, and

information regarding their size and location is not publicly accessible. Similarly, Scacco (2008) studies residents who participated in riots in two Nigerian towns, a small target population not externally distinguishable from non-participants. Random draws from lists of urban residences would require enumerators to contact an unacceptably high number of natives (Adida) or non-rioters (Scacco) to yield a modest sample of the population of interest.

Thus, residence-based sampling techniques suffer from deficiencies that will yield highly unrepresentative samples or neglect certain communities entirely. The first advantage ethnographic fieldwork can confer is enabling a researcher to anticipate whether these concerns apply to a target population about whom they know little. For example, ethnographic fieldwork revealed that coverage, nonresponse, and inefficiency concerns are all significant for circular migrants in India. First, the vast majority of my informants are excluded from standard government residence lists in their destination cities. These lists include the census, which enumerates citizens at their residences, or voter cards that are registered on the basis of home address. Because most migrants are young adult males who traveled without their families to seek employment, very few have fixed urban addresses. Most migrants live in unlisted rented rooms, unrecognized slum settlements, or sleep on the footpath. Further, the likelihood of exclusion from a residence-based list is not randomly distributed. Instead, the poorest circular migrants, notably those forced to sleep on the streets, are the most likely omissions.<sup>7</sup>

Qualitative fieldwork also revealed how residence-based surveys would suffer high non-response rates even if circular migrants' urban domiciles were located. Most of my informants work long hours and prefer to spend their scant leisure time outside of their cramped rooms. Further, fieldwork revealed enumerators would be hard pressed to interview the few migrants they found at home. Most migrants cram into illegally rented rooms, and only one occupant maintains an arrangement with the dwelling's owner. These arrangements are verbal, as the properties are either illegal or undeclared rentals. Enumerators arriving at the property would most likely have to first speak with the owner, who would be unlikely to disclose he had renters, let alone how many.

Given extensive potential coverage and non-response errors, it is not surprising that short-term migrants make up very low proportions of mainstream Indian household surveys. Less than 1% of urban respondents to the country's landmark National Sample Survey (2008) were short-term migrants.<sup>8</sup> Replicating this residence-based protocol would require a researcher to interview roughly 100,000 urban households to capture a sample of 1000 circular migrants. Most research budgets cannot afford such inefficiencies, even less so when conducting complex survey experiments requiring significant statistical power.

In addition to exposing the shortcomings of residence-based approaches, ethnographic fieldwork was also crucial in revealing the inadequacies of common strategies for increasing the efficiency or coverage of residence-based sampling. Perhaps the most common such strategy is to use convenience samples that involve targeted, non-random

<sup>7</sup> Current Indian census protocols classify a person as a migrant if her place of birth is different from where she is being enumerated. This definition is highly inadequate for capturing circular migrants, who cycle between village and city several times a year. Employment statistics suggest the number of circular migrants in India as close to 100 million, nearly 10 times some official government estimates (Deshingkar and Farrington 2009). Similar undercounting occurs in other Asian countries, notably Indonesia (Hugo 1977).

<sup>8</sup> This figure likely reflects coverage errors stemming from definitions of migrants that do not capture circularity, rather than the true size of these populations.

selection of particular enclaves (Adida 2014; Marx et al. 2014). Such strategies can efficiently yield data on understudied communities. However, their use of non-random selection in at least one stage can undermine the representativeness of the sample they generate. Further their efficiency gains are reduced for populations that do not or cannot establish concentrated enclaves, and are dispersed across the city (as circular migrants are).

Spatial dispersion also limits the utility of other innovative and inclusive residence enumeration protocols. To capture recent internal migrants to Beijing missing from official lists, Landry and Shen (2005) specify spatial sampling units small enough to be fully enumerated. Comprehensive enumeration allows them to capture a study population whose location is not known *ex-ante*. However, circular migrants are both dispersed and a small proportion of the overall population of large Indian cities. Consequently, researchers would need to fully enumerate a very large number of spatial units to capture even a modest sample. This approach also cannot mitigate concerns of high non-response among migrants who spent little time in their urban residences.

Fieldwork also revealed the futility of respondent-driven sampling. Scacco (2008) used this approach to identify rioters, by asking half of her random sample of 400 urban citizens to recruit one rioter they knew personally. This approach relies on extensive social overlap between a “hidden” study population and a “visible” recruiter population. Yet such overlap is often low, especially if hidden and visible populations hold unequal socioeconomic status. In my case, ethnography revealed relatively few native urbanites will have a transient circular migrant in their social network and vice versa.

### Worksite Sampling: Benefits and Pitfalls

Given the challenges of surveying certain populations where they live, researchers should consider alternative arenas of access. Ethnographic fieldwork can help unearth such alternatives. My ethnographic research confirmed circular migrants spent most of their day working or finding work, and precious little time at home. Consequently, informants forged most of their meaningful economic and social relationships at worksites. As one migrant told me, “the [labor] market is the city for us.”<sup>9</sup> Data from an original survey backed up this remark, as 80% of respondents reported making more close friends at worksites than at their urban residences.

Sampling populations like circular migrants at their worksites promised several advantages. First, this approach can provide efficiency gains for populations whose residences are spatially dispersed, but whose occupations are sectorally concentrated. Such conditions are most obviously met when study populations are themselves occupationally defined, such as miners or shopkeepers. However, more broadly defined communities may also fit these criteria. For example, street traders make up 61% of Lusaka’s informal urban poor (Resnick 2013). In India, one single sector—construction—employs about half of all circular migrants.<sup>10</sup> In both cases, respondents may be more efficiently accessed at the street or labor markets at which they congregate, rather than their more dispersed residences.

<sup>9</sup> Author interview, Delhi, 9/15/2013.

<sup>10</sup> See Supplement Figure 2. There is general agreement that construction is the leading employer of circular migrants. NSS (2008), Deshingkar and Farrington (2009), and UNESCO (2012) all estimate roughly 45–55% of such migrants work in this sector.

Second, worksite sampling can significantly decrease contact-based non-response rates among study populations who are often at work, but rarely at home. Contact can especially be improved if these worksites are visible and readily accessible. For example, I found circular migrants congregate at informal labor spot markets (known as labor *chowks* or squares) to find short-term contracts on construction sites. In countries like Vietnam, circular migrants disproportionately populate informal street vendor *bazaars* (Jensen and Peppard Jr. 2003). In either case, migrants flow from invisible residences into accessible and publicly visible worksites on city streets.

Third, an empirical focus on worksites may be analytically more appropriate for scholars studying particular substantive themes. For example, scholars interested in the relative salience of ethnicity and class may want ethnically diverse samples of the same occupational class. Worksite sampling is especially well suited to producing such samples. Other scholars may want to study phenomena that primarily take place at worksites, including union organization (Teitelbaum 2010), market segmentation (Robinson 2016), informal economic cooperatives (Grossman 2015), or urban police repression (Thachil 2017, 2018).

Worksites can thus concentrate residentially dispersed respondents, render visible “hidden” populations, and provide substantively appropriate arenas for investigating particular phenomena. Since each of these advantages accrued for my study population, I sampled circular migrants at urban labor spot markets. Through a multistage sampling process described later, I interviewed a sample of 3018 circular migrants across 58 worksites (marked on Supplement Figure 3A-3B). Using the standard residence-based protocol of India’s National Sample Survey, I would have had to contact over 300,000 urban residences to generate an equivalently large sample.

### Potential Concerns with Worksite Sampling

A shift to worksite sampling can thus pay immediate efficiency dividends for surveying particular populations. That said, researchers considering this approach must address several potential threats to inference when using this approach. Broadly, we can distinguish concerns associated with *worksite selection*, *respondent selection*, and *respondent non-cooperation*. The form and extent of these problems, and their solutions, will vary across populations and contexts. In keeping with this paper’s call for ethnographically informed survey research, I do not offer universal prescriptive solutions. Instead, I illustrate how pre-survey qualitative fieldwork can inform context-sensitive survey protocols that reduce the severity of these concerns.

The first concern is of *worksite selection*. Convenience sampling from a handful of well-known worksites can improve efficiency but severely limit sample representativeness. Consequently, worksite sampling will be most attractive when a target population’s worksites are easier to comprehensively enumerate than their residences. For example, Grossman (2015) samples vendors in Lagos from a list of all major vendor markets kept by the city’s Waste Management Authority. She supplements this list with her own enumeration of key commercial areas. This strategy is undoubtedly more efficient than trying to enumerate vendor residences which are dispersed across Lagos, and interspersed with non-vendor residences.

For my work, locating causal labor markets in a city was also more tractable than enumerating circular migrant residences. However, enumerating worksites was still

laborious. Through a painstaking zone-wise enumeration process (described in the supplement due to space constraints), my team enumerated 222 markets across my study cities of New Delhi (the national capital) and Lucknow (the provincial capital of India's most populous state).

A second major concern with worksite sampling is *respondent selection* at chosen worksites. Specifically, how can enumerators ensure random selection at crowded and chaotic urban worksites? This issue is especially pronounced at worksites where respondents do not have fixed spatial positions. To overcome this issue, I designed a context-specific lottery for sampling. Qualitative fieldwork revealed that workers were funneled into each labor market from a handful of major access points. Survey teams therefore included a scout team of 4 people, who would visit sampled *chowks* a day ahead of enumerators. Scout teams would note all major entry points. On enumeration days, 3–4 people would be stationed at these points and offer any approaching worker an opportunity to participate in the study. Workers who agreed were given a colored, numbered lottery token.

Drawings were held for numbered tokens within a specified range.<sup>11</sup> From 8 a.m. onwards, we selected 1 participant per enumerator every half hour (roughly the length of the interview) to be interviewed by random draws of numbered tokens.<sup>12</sup> These tokens were handed out sequentially, meaning higher numbers indicated a laborer had arrived at the *chowk* later in the day. This procedure was motivated by fieldwork revealing the importance of sampling workers who came to the market at different times, as arrival times correlated with differences in employability and work ethic.

A third concern with worksite sampling was *non-cooperation*. Worksite sampling can improve rates of contact, but may decrease rates of cooperation, as respondents are plausibly busier at worksites than residences. The most common approach to improving cooperation—providing incentives—is tricky in such settings. Small incentives may be insufficient to induce taking time off from working or finding work. Alternatively, particular migrants (such as those with lower skills or work ethic) might be more susceptible to small incentives, biasing the pool of potential respondents. Large incentives conversely risk creating too much demand for participation, and potential resentment among those not selected.

Ethnographic fieldwork suggested an alternative mechanism for reducing non-cooperation was minimizing time requirements and privacy concerns. First, sequential lotteries in which tickets were handed out based on time of arrival helped to minimize the time between a participant getting a token, being informed about whether they would be surveyed, and being surveyed. Second, I designed a concise questionnaire that was pre-tested to ensure it could be completed within 20 min. Third, ethnographic fieldwork helped me reduce privacy-related non-cooperation. I observed the movement of workers *within* the markets was highly spatially concentrated, with few venturing more than 50 m beyond the market's perimeter. I therefore demarcated interview areas (see Supplement Figures S4a–4c) that were 100–200 m from the market, and allowed a direct line of sight to the market.

These defined areas kept participants close to the market (and possible job opportunities), while greatly improving their privacy. Participants were told they were free to

<sup>11</sup> There were five drawings, so each draw was for 1/5th of the market's size (observed by the scout team).

<sup>12</sup> The peak of labor market hiring is from 7:30 to 11 a.m., and many markets vanish by noon.

leave the interview at any time if they observed a potential work opportunity during the interview.<sup>13</sup> This decision was made on ethical grounds, and in full anticipation that it might lead some respondents to abandon a survey in progress, thereby reducing completed surveys. That said, giving respondents this option may have also improved willingness to participate among those who did take and complete the survey. The net effect of this decision on overall completed surveys cannot therefore be assumed to be negative, especially given the overall robust response rate reported in the supplement (80.5%).

### Payoffs of Worksite Sampling

Ethnographic fieldwork facilitated context-sensitive survey protocols, random selection of respondents, and measures to reduce nonresponse. Gauging the success of these efforts can be difficult. Any enumeration of worksites, however painstaking, may not be definitively exhaustive. However, the same is true for any listing exercise, including of residences, especially if a high proportion of units are informal. Second, sample representativeness is difficult to concretely estimate when lacking a reliable census of the target population. However, this concern is also not specific to worksite sampling and plagues *any* effort to survey a target population whose full size and distribution are unknown.

Given such constraints, one useful strategy for assessing the benefits of worksite sampling is to estimate the proportion of a worksite-generated sample that would likely have been excluded by residence sampling. My own data shows strikingly few circular migrant respondents would have been accessed at home. Fifty-four percent of migrants lived in short-term rented rooms in multistory buildings. Less than 10% of these renters had a formal written arrangement with the landlord. Both landlords and occupants would be unlikely to admit to the presence of these illegal renters to unknown enumerators. A further 10% of respondents lived in rented space within unofficial dwellings in slum settlements. Another 5% of respondents lived in extremely low budget “motels,” and 24.5% lived on the footpath. These last two categories would have been completely excluded from a residence-based strategy. Importantly, survey data found these most likely omissions were systematically poorer than the migrants who lived in rented rooms.

These figures suggest over 30% of my sample, disproportionately drawn from the bottom of my population’s income distribution, would have been completely excluded from a residence-based survey. A further 50–60% had an extremely low probability of capture. It thus seems highly plausible that the proportion of circular migrant worksites covered via zone-wise worksite enumeration is higher than the small proportion of residences (and migrants within those residences) that standard listing exercises would have captured.

We can similarly assess the efficacy of ethnographically informed steps to improve protocol in selecting respondents within worksites. The data suggest efforts to reduce non-cooperation were successful. A total of 15,090 laborers were approached to participate, of whom 11,772 (78%) agreed to participate in the lottery. A total of 4022 migrants were selected for interviews, yielding 3018 completed surveys (80.5%).

<sup>13</sup> As noted on page 10 of the supplement, 520 workers abandoned the survey for work opportunities (the bulk of the 788 refusals we received).

Finally, these steps to ensure random selection of respondents within worksites appear to have paid statistical dividends. One purpose of ensuring random sampling within worksites was to guard against enumerators picking clumps of respondents from shared social networks within a market, who might cluster together. To check the success of this effort, I computed the intra-cluster correlation coefficients for several respondent attributes, including age, religion, caste, income, time in the city, and annual trips to home villages. The coefficients were extremely low, ranging from .05 (caste) to .08 (income). This test suggests individuals within a sampled worksite were no more similar to each other than to individuals from a different worksite.

Data from the survey also reveals the limits of alternative strategies, such as respondent-driven sampling (Scacco 2008). The survey found little of the social overlap between native city residents and circular migrants this approach requires. Ninety-five percent of respondents at worksites were circular migrants, meaning migrants rarely interacted with native co-workers. In their residences, 98% of renters lived in rooms with exclusively migrant roommates. Given such social segmentation, it is unsurprising that 92% of respondents listed only other circular migrants among their five closest urban friends.

Finally, worksite sampling produces samples that are limited to a single occupational sector. Consequently, this approach is more appropriate for occupationally concentrated target population, such as restaurant workers, than occupationally diverse populations, such as recent college graduates. It is also more appropriate for worksites that are readily accessible, such as street vendor markets, than those that are not, such as diamond mines. Worksite sampling can be replicated across multiple occupational sectors to improve the scope of a study's findings. For example, I replicated my study of migrant construction laborers with self-employed migrant street vendors at urban marketplaces. Doing so broadened the empirical scope of my study considerably, as available data suggests construction labor (52%) and self-employment (32.3%) together encompass the vast majority of circular migrant employment experiences (NSS 2008: 95).<sup>14</sup>

## Developing Ethnographic Survey Instruments

In this section, I pivot from discussing how ethnography can help better access respondents to how it can improve efforts to effectively interview them. I specifically focus on how ethnography can enhance the construct validity of survey experiments, particularly the development of theoretically precise and contextually resonant experimental vignettes.

The popularity of vignette-experiments is understandable, as they can improve efforts at causal identification and reduce concerns of social desirability bias. However, vignette construction requires the researcher to operationalize theoretical concepts of interest precisely. Second, these vignettes must be sufficiently contextually resonant so as to be meaningful to respondents. Such issues of construct and ecological validity can

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<sup>14</sup> Unfortunately, data constraints force me to rely on the flawed NSS data for these distributions, even as I have discussed why this data is highly inadequate in capturing circular migrant flows.

stem from inadequate attention to the topic, structure, and language of the vignette, and severely compromise the experiment (Morton and Williams 2010). Such issues are especially troubling when studying poor and poorly understood populations such as circular migrants.

To ensure my vignettes were theoretically precise and grounded in the experiences of my respondents, I drew extensively on my fieldwork. This explicit use of ethnography to design experimental vignettes has broad applicability. I therefore outline this process in some detail, emphasizing three critical functions of sustained ethnographic observation:

1. Operationalizing concepts:
  - a. Identifying specific situations from the respondent's life that best capture a broad concept of interest, improving construct validity.
  - b. Ensuring these situations are presented in words and experiences of respondents to improve ecological validity.
2. Validating vignettes: Addressing potential concerns with a particular operationalization, including comparisons with potential alternatives.
3. Assessing causal mechanisms: Improve the design of post-treatment questions assessing the potential causal mechanisms underpinning hypothesized treatment effects.

To contextualize this discussion, it is helpful to briefly outline my specific survey experiment. The purpose of my vignette-experiment was to assess the degree to which ethnic differences divided circular migrants of highly similar class profiles. Each vignette was centered on a hypothetical migrant, whose identity was manipulated by changing his name and his home state (see supplement for vignette texts and treatment details). The names identified the migrant's narrow ethnic *jati* or subcaste and also placed them within one of four broader caste categories (Supplement Table 2). The experiment thus created either an ethnic match or mismatch between the respondent and the hypothetical migrant along a narrow caste identity, a broader caste category, and a regional ethnic identity.

This experimental design offers several advantages in complex urban settings. First, we can recover precise estimates of ethnic preferences by comparing assessments when the respondent is a coethnic of the fictitious migrant and when they are not (Dunning and Nilekani 2013). This technique avoids having to ask respondents sensitive ethnic preferences directly, helping reduce concerns of social desirability bias. Second, this design enables assessing the relative salience of nested narrow and broad dimensions of ethnicity, as well as of a crosscutting ethnicity based on region of origin (supplement Figure 1). Finally, it permits assessing how the salience of ethnic identities varies across situations and specific decisions, in line with certain constructivist theories of ethnicity (see Chandra 2012).

### Operationalizing Concepts

My research design sought to test whether ethnic differences divided migrants within three distinct arenas: labor market competition (economic), interpersonal cooperation

(social), and informal leadership (political). The first step of this process was to operationalize these broad concepts into theoretically precise and contextually resonant vignettes.

For example, to assess if ethnic differences exacerbated animosities stemming from labor market competition, it is imperative to understand how competitive dynamics manifested at the *chowks*. Ethnography revealed that in this setting, competitive tensions primarily played out through the specific practice of “rate-*katna*” or wage-cutting. The oversupply of workers created incentives for migrants to undercut each other in wage negotiations with prospective employers.

A lot of people here are such motherfuckers. Let us say you are a *thekedar* [contractor] who drives up to the *chowk* on a motorcycle. I am talking with you to try and fix a job. I am talking to you fixing the rate. While I am talking someone else comes and puts their leg up onto the motorcycle, and goes away with you, agreeing to work for less. Such people are the reason our *dehadi* [daily wage rate] remains so low.<sup>15</sup>

Such competitive dynamics clearly have divisive potential. These insights informed the selection of “rate-cutting” as the practice through which to operationalize the theoretical construct of “competition” in the vignette-experiment.

Second, ethnographic research also revealed how best to capture the specific concept of competitive tensions being colored by ethnic differences:

It is one thing when we [lower castes] have to go for less money- that is usually just on days we can't find work, but upper castes?...They [upper castes] are *kamchors* (lazy)...in the village they are landlords so they can take it easy. So here they will go to the [construction] site and give such little effort they don't mind taking less money and cutting our rates.<sup>16</sup>

In the quote above, ethnic differences did not shape perceptions of *who* cut wages. Migrants see laborers of all ethnicities, including their own, engaging in this practice. Thus, a question simply asking “which ethnic group is most likely to cut wages” would not capture how ethnic differences shape competitive tensions. Instead, the informant above suggests ethnic differences shape *how* wage-cutting acts are perceived. When committed by coethnics, wage-cutting is sympathetically described as compelled by poverty. When committed by non-coethnics, it is perceived as a systematic economic threat stemming from an intrinsic group attribute. Consequently, the vignette focused on asking respondents to evaluate a migrant who had engaged in wage-cutting, rather than presenting them with a migrant and asking them how likely the latter was to engage in wage-cutting.

Finally, I used direct experiences and languages from informant quotes to design the precise wording of the vignette, which read:

<sup>15</sup> Field notes, Rani Nagar Chowk, 9/22/2013.

<sup>16</sup> Interview, Tilak Nagar, 10/29/2013.

Once a laborer was standing at a *chowk* like this one and trying to fix a job with an employer, who he told his daily wage rate. As he was doing so, another laborer approached the employer from the other side. This second laborer's name was [NAME] and he is a member of the [ETHNIC] community from [STATE]. He told the employer he would do the work for less money.

Readers will note the overlaps between this wording, and the quotations cited above. Following this vignette, respondents were asked to evaluate whether the wage-cutting migrant constitutes an economic threat.

Note that ethnography was crucial in providing a precise operationalization of competition into a rate-cutting vignette and the nature of what migrants were asked in this vignette (improving construct validity). It was also central to designing the vignette in the specific words and experiences of my respondents (improving ecological validity).

The vignette on informal leadership was constructed through a similar process. Ethnography revealed the most salient form of informal leadership at labor markets was the figure of the *chowk*'s "union" leader. *Chowks* either had such leaders, or else migrants frequently discussed the need for one. Importantly, there was remarkable consensus about the role of such an informal union leader: fixing wage rates to eliminate undercutting, and selecting which laborer should go for which job to reduce chaotic crowding and fights.<sup>17</sup> I explicitly folded this information into the vignette:

Now I am going to tell you about a laborer I previously spoke to at a *chowk* like this one. After that I will ask your opinion about this laborer. His name is [NAME] and he is a member of the [ETHNIC] community from [STATE]. He wanted to start an organization among laborers at his *chowk*. When a builder or contractor comes to this *chowk* to find workers, the organization headed by [NAME] from [STATE] would then decide which laborer went for which job, and make sure no one went for less than the standard rate.

Once again, ethnography enabled me to provide respondents with a precise and contextualized conceptualization of informal leadership among circular migrants.

### Validating Vignettes

Ethnography was essential not just for selecting the basis of the vignette, but addressing potential criticisms of each selection. For example, my informants revealed the most important cooperative decision they made in the city was deciding whom to share accommodation with. To assess the salience of intra-class ethnic divisions within this arena, I therefore presented survey respondents with a vignette about a migrant looking for a roommate in the city and assessed their willingness to share a rented room with this person.

Conventional wisdom suggests sharing housing is a poor measure of cooperative endeavors for at least three reasons. First, it is a highly private decision in which willingness to cooperate with an unknown person is likely to be extremely low. Second, the premise of the vignette may be unrealistic. Circular migrants are assumed to draw on existing social networks, and make housing decisions well before leaving their

<sup>17</sup> Interview, Rani Nagar, 9/18/2013.

villages. Third, the vignette may be potentially offensive. Indian caste-based divisions are grounded in differentials of ritual purity and pollution that make shared housing especially sensitive.

Fieldwork helped allay such concerns. Poverty, high city rents, and the need to live close to the *chowk* made privacy and discretion unaffordable luxuries for my informants, forcing them to share cheap rented rooms with each other. Second, contra conventional wisdom, migrants were *more* likely to find roommates at the *chowk* itself than from their sending village (an insight corroborated by subsequent survey results). The frequency and abruptness with which circular migrants return to their home villages also make those remaining in the city constantly search for new roommates to split rent with. Accordingly, they must often enter into shared living arrangements with workers who they have only known briefly.

Third, my ethnography confirmed that sharing rooms across caste boundaries was sufficiently permissible within the city:

See here [in Delhi] people of all castes can stay in the same room. [In the village] people will say, I can't drink water from here, or touch someone from there. But we are all here in the city because of the compulsions of *dal-roti* [hunger/poverty].<sup>18</sup>

Sharing housing with a non-coethnic was therefore a realistic and appropriate scenario to present respondents with.

Fieldwork also revealed the unsuitability of other potential measures of cooperation. First, I found plausible alternative measures of cooperation, notably lending money, to be inappropriate. Within the context of the *chowks*, where poverty is widespread and uniform, asking for money from another laborer is often stigmatized and associated with migrants suffering from alcohol or drug addiction—a presence at every *chowk*.

Second, my ethnography suggested severe shortcomings with commonly utilized behavioral games, particularly those involving the use of cash or tokens (see Habyarimana et al. 2007; Bussuroy and Selway 2011). Gambling is pervasive among some migrants at labor markets. Yet this practice was highly stigmatized by other workers, who saw the gamblers as degenerate and irresponsible. Observing such polarization, I pre-tested a standard behavioral game using tokens with a subset of my close informants. The use of tokens was poorly received, with several informants walking away from the group saying they would not play the game because “I am not a gambler, I am a responsible family man.”<sup>19</sup> This finding was significant, as such games are often assumed to be value-neutral and exportable to any setting. Such incorrect assumptions are likely to persist without sustained pre-intervention qualitative fieldwork.

### Revealing Causal Mechanisms

Finally, ethnographic research also helped design post-treatment survey questions probing *why* ethnic differences might prove salient in a specific issue arena. One way such questions have been deployed to study mechanisms is through mediation analysis (Baron

<sup>18</sup> Interview, Rani Nagar, 11/10/2013.

<sup>19</sup> Author field notes, Tilak Nagar, 11/20/2013.

and Kenny 1986). The ability of such analyses to rigorously identify causal mediation effects is highly limited (Bullock et al. 2010), even beyond the broader drawbacks of post-treatment measures (Gelman and Hill 2007). Yet such analyses may still be useful in more modest tests of whether particular variables meet certain necessary conditions for mediators (Lupu 2017).<sup>20</sup> More recent approaches emphasize tests that include an experimental manipulation of mediators, although even these approaches face significant hurdles in yielding reliable inferences (Bullock and Ha 2011).

Irrespective of which approach one takes to assessing causal mechanisms, it is imperative to operationalize plausible theoretical mechanisms for an anticipated treatment effect into precise and contextually relevant questions. Once again, ethnographic research can significantly bolster such efforts.

For example, ethnic biases might hamper interpersonal cooperation in shared housing because of perceptions of *cultural difference* or of *economic reliability*. How might we distinguish between these two theoretical pathways within the specific context of rented rooms migrants share?

Ethnographic fieldwork revealed an important issue signifying cultural difference within rented rooms centered on enforced proximity to a roommate's cooking and dietary patterns. For example, many upper caste Hindu respondents noted their discomfort at sharing rooms with Muslims, who they presumed would eat meat frequently.<sup>21</sup> Respondents from the state of Bihar similarly worried that they ate rice, and did not like the smell of *rotis* (bread made from wheat) cooked by migrants from the state of Uttar Pradesh. Drawing on these insights, the vignette on shared housing included a post-treatment question assessing how much difference respondents perceived between their dietary customs and those of the hypothetical migrant. While this question was non-experimental in nature, qualitative fieldwork could equally aid in the design of experimentally manipulated mediators, or instruments of these mediators. For example, if we believe the willingness to cooperate in the housing vignette is mediated by perceptions of cultural difference, we could use experimental cues relating to diet to indirectly manipulate the salience of such differences.

With respect to economic reliability, ethnographic fieldwork revealed migrants worried that members of other ethnicities were less likely to be dependable for their share of the rent. One respondent from the eastern state of Bihar told me that "People from [the state of] Uttar Pradesh usually do not make enough money to pay rent on time..."<sup>22</sup> I therefore asked respondents to assess the likelihood of the hypothetical respondent abandoning the shared quarters before the last month of rent was due. The analysis revealed that perceived cultural difference met the three conditions of a plausible mediator of willingness to live with another migrant, but perceived economic reliability did not.

In other arenas, pre-survey ethnographic work may reveal potential mechanisms that the author had not initially considered. For example, within the arena of informal leadership, my assumption was that if migrants disfavored union leaders from other ethnicities, it would be due to perceptions that the latter were less likely than coethnic

<sup>20</sup> Lupu (2017) notes such *implicit* mediation analysis can analyze if the mediator is correlated with the independent variable whose effect it may mediate, the outcome variable (controlling for the independent variable of interest), and whether both of these relationships are in the same direction. For an alternative methodology based on Bayesian estimation methods, see Imai et al. 2010, 2011.

<sup>21</sup> Interview, Tilak Nagar Chowk, 11/27/2013.

<sup>22</sup> Interview, Tilak Nagar, 9/25/ 2013.

leaders to allocate them jobs (a distributive mechanism). Yet my fieldwork revealed migrants may also perceive non-coethnic leaders as more likely to be personally corrupt (probity mechanism). For example, a lower caste informant reported being paid much less than expected because the upper caste Brahmin worker who had helped him find the job had taken a disproportionately large cut from the contractor. “If a Brahmin were to head a union, I could never join it,” he told me.<sup>23</sup> Still other informants articulated concerns that non-coethnics were less likely to have sufficient intelligence to successfully lead such informal organizations (competence mechanism).<sup>24</sup> Drawing on these insights, the survey included post-treatment questions assessing which of these mechanisms—competence, probity, or distributive behavior—was most influential in underwriting the salience of ethnicity within informal leadership selection. The analysis found evidence supporting the plausibility of the probity and distributive mechanism, but not for the competence mechanism.

### Payoffs of Ethnographic Survey Design

I have outlined how ethnographic insights can help improve instrument and vignette-experiment design. This discussion emphasized how ethnography helps operationalize abstract concepts into deeply contextualized vignettes. I argue such vignettes are preferable to boilerplate templates lacking construct and ecological validity. In this section, I shift to discuss how ethnographically informed techniques can also yield substantive insights that conventional approaches are unlikely to capture.

Recall the main purpose of my vignette-experiment was to assess the degree to which ethnic differences divided circular migrants of highly similar class profiles. Ethnography’s first substantive contribution was to compel me to look beyond the conventional focus on voting in studies of political behavior. Only a small proportion of my migrant informants held urban voting rights, suggesting a more multidimensional analysis was appropriate. I therefore centrally focused on multiple arenas of immediate importance to my migrant informants: labor market competition (wage-cutting threats), interpersonal cooperation (sharing housing), and informal political leadership (“union” leader selection).

This multidimensional design informed my experiment’s core findings, which are reported in detail elsewhere (Thachil 2017). Crucially, I found considerable variation in the salience of intra-class ethnic differences across these three vignettes. Migrants divided sharply along ethnic lines when considering whom to cooperate with and whom to support as an informal leader. However, the same ethnic differences were completely irrelevant in the arena of labor market competition. Migrants rated coethnic and non-coethnic wage-cutters as highly equal economic threats.

A single vignette-experiment would not have been able to uncover this situational variation. Such variation is theoretically significant, as it cuts against classical modernization and social contact theories that anticipate ethnic differences will uniformly dissipate in diverse, cosmopolitan cities (Apter 1965; Allport 1954). Situational variation also counters the expectations of more critical “second-generation” modernization and contact theories that expect ethnic salience to uniformly sharpen in competitive urban settings (Bates 1983; Islam and Hewstone 1993).

<sup>23</sup> Interview, Tilak Nagar Chowk 11/21/2013.

<sup>24</sup> Interview, Tilak Nagar Chowk, 11/23/2013.

A second substantive contribution of ethnographic insights was in specifying different potential mechanisms through which ethnic salience can be established in a given arena. For example, I discussed above how ethnography suggested migrants might regard non-coethnic union leaders as less competent, more corrupt, or less likely to provide them jobs than coethnic leaders. While tests between these fine-grained distinctions are far from definitive, they still proved meaningful in establishing the relative plausibility of these mediators.

Finally, ethnography expanded the substantive scope of my inquiry. My initial focus was on traditionally important Indian ethnic divisions of caste and religion. I did not consider regional ethnic differences, whose salience is often underwritten by linguistic differences that did not seem relevant for my migrant sample. Circular migrants in my study cities were predominantly from Uttar Pradesh and Bihar, two states that are both within the north Indian “Hindi belt.” Yet my ethnography revealed significant regional tensions that prompted my inclusion of a region-of-origin manipulation in my vignette-experiment (see Supplement Table 2 and Figure 1). This addition proved important: regional ethnic differences proved as salient in shared housing and informal leadership vignettes as caste and religion. This finding significantly revealed salient cleavages among circular migrants in the city that are not significant within their sending villages. Further, these regional differences effectively crosscut caste and religious differences. In evaluating roommates or union leaders, migrants were indifferent between co-regionalists of a different caste (or religion), and co-castes (or co-religionists) of a different region. Given that such crosscutting effects are seen to potentially moderate social conflict, this finding is of substantive importance.

## Conclusion

Across a rapidly urbanizing global south, populations marked by mobility and informality remain underrepresented in studies of political behavior. This neglect stems largely from the difficulties of capturing such populations through standard tools of residence-based survey research. Scarce information also prevents scholars from designing survey instruments adequately attuned to the complexities of these neglected communities. Consequently, important innovations, such as survey-based experiments, often have insufficient construct and ecological validity for poorly understood populations. Ethnographic research can play a critical role in breaking this vicious cycle of low information and scholarly neglect. Sustained fieldwork can help scholars design context-sensitive sampling protocols, such as the worksite sampling approach developed here. Ethnography can also improve the validity of survey instruments, especially by enabling the construction of “ethnographic survey experiments.” Below I discuss how each of these innovations can be applied beyond the study population that inspired them.

A worksite sampling approach may prove valuable for populations who are too poor or mobile to have fixed residences, are rarely available in their residences, or whose residences are highly dispersed. In such cases, worksite sampling can offer coverage and efficiency gains relative to residence sampling, especially for groups that are occupationally concentrated in accessible worksites. Such conditions are most obviously met when a target population is itself occupationally defined, such as factory

workers or hotel employees. However, they are also true of more broadly defined populations. For example, urban migrants across the developing world disproportionately cluster into particular professions, such as construction labor in India or street vending in Zambia.

A worksite-based strategy also illustrates the value of looking beyond residences as primary interview sites for key issue areas. Take the subject of religious participation's effect on political behavior. Scholars wishing to construct samples of religiously active citizens may access concentrated pools of their respondents outside places of worship (Chhibber et al. 2018; McClendon and Riedl 2016). Yet the methodological implications of these approaches need more attention. This paper hopes to spark such conversations.

The second innovation advanced in this paper is the use of ethnographic fieldwork to strengthen the design of survey instruments, specifically survey experiments. Deep familiarity with circular migrants helped operationalize broad concepts into context-specific vignettes, validate this operationalization, and design tests for assessing subtly different causal mechanisms. These insights are particularly valuable at a time when scholars of comparative politics are increasingly turning to vignette-based approaches to study a broad array of topics, including ethnic voting (Chauchard 2015), electoral violence (Rosenzweig 2015), and attitudes towards corruption (Banerjee et al. 2014).

More broadly, this paper complements other contributions to this volume by highlighting the necessity of sustained fieldwork for rigorous comparative political science. Such reminders are necessary at a juncture when time spent in the field may well be declining among doctoral students in political science (Kapiszewski et al. 2015: 64). Such shifts are partly produced by disciplinary pressures to minimize fieldwork time, and even outsource quantitative data collection entirely. While other contributors highlight the continued relevance of qualitative fieldwork as a standalone research strategy, this piece hopes to highlight its necessity for valid quantitative data collection and analysis.

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