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Worker Voices

A Large-Scale Study of Migrant Construction Workers
from Bundelkhand to Delhi, India

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Worker Voices: A Large-Scale Study of Migrant Construction Workers from Bundelkhand to Delhi, India was conducted in Uttar Pradesh, Madhya Pradesh, and Delhi/NCR, from January 2019 to March 2021 by Two Six Technologies in collaboration with scholars at the University of California, Los Angeles. (UCLA). This study was funded by a grant from the Global Fund to End Modern Slavery. The opinions, findings, and conclusions stated herein are solely those of the authors.

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Additional information about this study may be obtained from Two Six Technologies, 901 N Stuart St, Arlington, VA 22203; Telephone: (540) 446-0808; Internet: <https://twosixtech.com>

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Acronyms

GFEMS	Global Fund to End Modern Slavery
TST	Two Six Technologies
TIP Office	U.S. Department of State Office to Monitor and Combat Trafficking in Persons
UCLA	University of California, Los Angeles
NCR	National Capital Region
ILO	International Labour Organization
NGO	Non-Governmental Organization
MC	Micro-Contractor
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
BOCW	Building and Other Construction Workers Act
NFSA	National Food Security Act
RPL	Recognition of Prior Learning
CAPI	Computer-Assisted Personal Interview
RDS	Respondent-Driven Sampling
FGD	Focus Group Discussion
IRB	Institutional Review Board
PII	Personally Identifiable Information

Executive Summary

Between 30 million and 100 million people migrate seasonally in India each year for work.¹ Day labor in construction projects is one of the most common motivations for this seasonal migration, with the construction industry employing approximately 50 million people in India in 2012² and accounting for as much as 11% of India's GDP as of 2014.³ However, numerous sources^{4,5,6} highlight the significant workplace hazards, ranging from dangerous conditions and a lack of adequate safety protocols to extremely high risk forced labor conditions at job sites.

The Bundelkhand region, part of the states of Madhya Pradesh and Uttar Pradesh (see: Figure I), is a major point of origin for migrant laborers within India. The region's population faces unemployment, lack of adequate infrastructure facilities and industrial base, poor health, under production, and under development.⁷ Migrants from Bundelkhand have been characterized in previous research as generally male (69.1%, with most female migrants traveling with their families rather than seeking employment), between ages 30 and 39, educated up to the secondary (54.8%) or intermediate (25.89%) levels, and engaging in unskilled labor at destination work sites (81.7%).⁸

To examine the experiences of migrants from Bundelkhand who traveled to Delhi NCR for construction work, Two Six Technologies, in concert with grantee organizations and

¹ Deshingkar, P. (2006). Internal migration, poverty and development in Asia. *The Overseas Development Institute*. <https://cdn.odi.org/media/documents/5669.pdf>

² Soundararajan, V. (2013). Construction workers—Amending the law for more safety. *Economic and Political Weekly*, 48(23), 21–25.

³ Kara, S. (2014). Bonded labor: Tackling the system of slavery in South Asia. *Columbia University Press*.

⁴ Wells, J., & International Labour Organisation. Sectoral Activities Programme (ILO). (2001). *The construction industry in the twenty-first century: Its image, employment prospects and skill requirements*. International Labour Office (ILO). https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_PUBL_9221126226_EN/lang--en/index.htm

⁵ Kara, S. (2014). Bonded Labor: Tackling the System of Slavery in South Asia. *Columbia University Press*.

⁶ Pandey, V. (2019, January 7). Behind India's construction boom: "We risk our lives to build your homes." *BBC*. <https://www.bbc.com/news/world-asia-india-46698626>

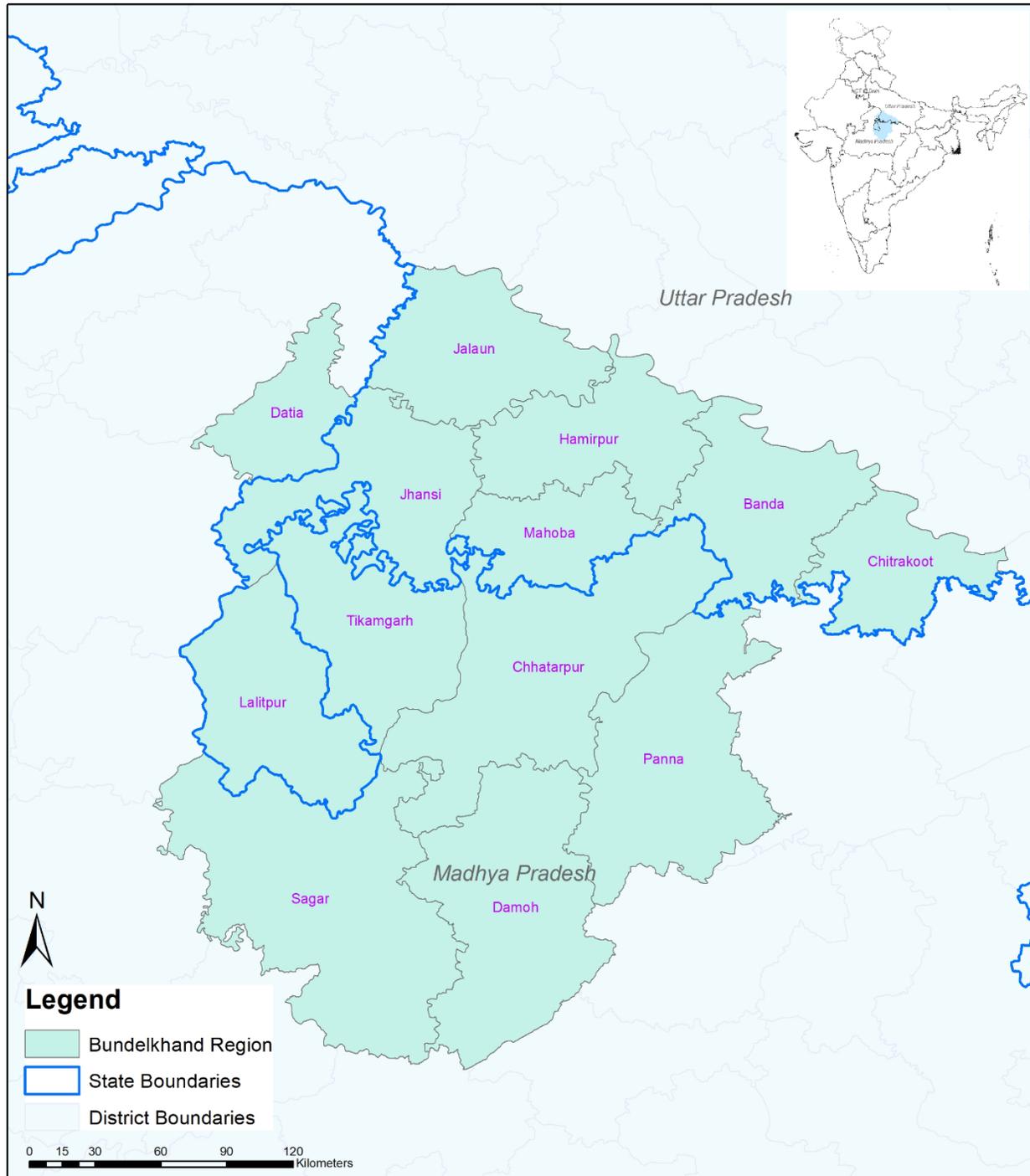
⁷ Sharma, P. K. (2018). Rural development scenario and strategies in Bundelkhand region of Madhya Pradesh, India. *American Journal of Rural Development*, 6(3), 104–108.

⁸ Anuja, A. R., Kar, A., Kumar, P., Jha, G. K., & Singh, B. K. (2018). Analysis of Factors Triggering Distress Migration in Bundelkhand Region of Central India. *Economic Affairs*, 63(4), pp. 1055-1059.

in coordination with GFEMS, performed a large-scale, multi-year Worker Voices study that enrolled 92,846 individuals to participate, out of which 31,762 were successfully re-contacted⁹, and 17,788 were both eligible to provide information on their working conditions via short follow-up surveys, and able to complete a follow-up survey. In addition, as part of the program, many participants were provided with: (i) support enrolling into government entitlements programs; (ii) skills certifications (Recognition of Prior Learning – RPL); and (iii) employment via micro-contractors trained on ethical labor practices. To evaluate the effectiveness of these interventions in lowering the risk of forced labor, this study also analyzed the differences in participant experiences based on the type of intervention received and compared them to those that did not receive any support.

Figure I: Context Map of the Bundelkhand Region and its Comprising Districts

⁹ Successful recontact is defined as the registering participant answering the follow up phone call.



Demographic information, such as participant district of origin, caste, gender, age, and highest level of attained education, were collected as part of the study to enable a better understanding of the role these factors may play in the risk of experiencing forced labor in India’s construction industry. General description of the convenience sample participants, key insights from the statistical analysis, and associated recommendations that emerge from this study are shared below.

Demographics

Median age of respondents was around 30 years with male workers comprising 96.4% of the study sample. The mostly migrant males were accompanied by, on average, 1.8 dependents. Two-thirds of the sample were ordinary laborers, a quarter were master workers, and the remaining self-reported as being helpers. Eight percent of the respondents reported owing a debt to their employer and 14.7% stated taking out loans or advances to seek and obtain work in the construction industry.

Sixty-eight percent of the study participants belonged to the Scheduled Caste (SC) and 23.2% to Other Backward Classes (OBC). These historically marginalized, poor, and vulnerable populations have been observed to make up the majority of migrant construction workers in previous studies in varying proportions, depending on communities of origin and destination. Chhatarpur (16.3%), Tikamgarh (15.1%), Lalitpur (11.9%) and Panna (11.8%) districts of the Bundelkhand region were the largest observed senders among the thirteen districts of origin. In addition, more than half (53%) of the study sample reported having attained an education up to 5th class with more than a third (34%) reporting having no formal education.¹⁰

Scale and Nature of the Problem

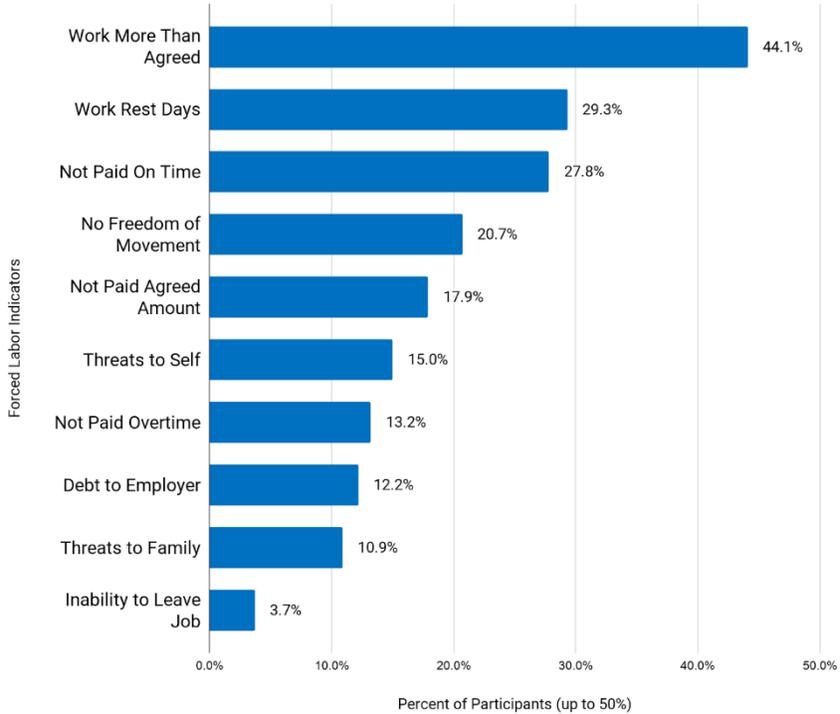
Nearly 30% of the study participants reported experiencing some form of forced labor. This includes respondents who reported experiencing any of the severity tiers (high, medium, or low) of forced labor and exploitation indicators that were developed in concert with the U.S. Department of State's Office to Monitor and Combat Trafficking in Persons (TIP), local NGOs, the International Labour Organization (ILO), University of California-Los Angeles (UCLA), and other stakeholders. Roughly 5% of the participant population reported experiencing critically severe forced labor conditions, and were referred to local organizations providing comprehensive services, including legal support.

Working more than agreed, working on rest days for fear of being fired, and not being paid on time were the highest reported forced labor indicators (Figure II). This suggests prolific and systemic failures in ensuring the freedom and the economic and personal safety of workers in the construction industry. In particular, the prevalence of debt among study participants (8% owing employers and 14.7% taking out loans for job seeking)—in combination with high incidence of working more hours than agreed,

¹⁰ Detailed education level distribution: 34% no formal education, 19% up to 5th Class, 23% 6-8th Class, 15% 9-10th Class, 5% 11-12th Class, 3% College+.

receiving lower wages than agreed, and lack of overtime pay—suggests a high risk of debt bondage.

Figure II: Forced Labor Indicators Reported by Percent of Study Participants



Source: Author’s Calculations

Attributes such as age, gender, caste, and level of education do affect the risk of experiencing forced labor. When it comes to age, participants over the age of 30 had a stronger risk of experiencing forced labor. Similarly, female participants also have greater risk of experiencing forced labor. However, men are more likely to report on such experiences. Directional correlation tests on education and forced labor data show that seven of ten forced labor indicators are negatively associated with having attained any level of formal education. Formal educational attainment is also statistically significantly associated with certain castes and districts of origin. General Category and OBC workers are more likely to have some formal educational attainment as compared to SC and ST workers. This is perhaps also why caste-based analysis indicates that SC workers are most likely to experience forced labor among all caste groups.

Educational attainment is associated with the district of origin and district of origin has some relationship with forced labor outcomes. Participants from Banda, Chitrakoot, Jhansi, Mahoba, or Sagar were all more likely to report their attainment of formal education than workers from Chhatarpur, Damoh, Lalitpur, and Panna districts in the

Bundelkhand region. Meanwhile, Lalitpur, Chhatarpur, Jhansi and Tikamgarh correlate positively with several forced labor indicators, and Banda, Chitrakoot, Damoh, Mahoba and Panna show negative correlation with most indicators. When these two lines of inquiry are considered together, the hypothesis that the district of origin influences educational attainment, which subsequently affects the likelihood of experiencing forced labor emerges. However, in testing against other district-level economic factors, such as income and Human Development Index (HDI)¹¹, the study found inconclusive evidence of relationships with forced labor indicators. For instance, Panna has the lowest HDI of any of the examined districts of origin but is negatively associated as a district of origin for study participants with nearly every forced labor indicator studied with high levels of statistical significance. Further research is required to understand the relationship between district of origin and forced labor outcomes.

Work level, use of a recruiter to find employment, daily wages, and the number of dependents are also correlated with forced labor outcomes. Workers operating at higher levels of responsibility and skill, who are paid more, have a lower likelihood of reporting experiencing forced labor conditions. Those that use a recruiter have a higher likelihood of experiencing forced labor. In addition, analyzing the number of dependents against forced labor outcomes revealed that the number of dependents was negatively correlated with high severity indicators but positively correlated with medium severity indicators. Those who had fewer dependents were also paid overtime less frequently, which is likely because those with more dependents worked more hours than agreed upon. This suggests that respondents with families may be willing to assume more hours of work in hopes of receiving more payment.

Worker debt is one of the strongest predictors of forced labor, and in many cases suggests instances of debt bondage or bonded labor. In the study sample, debt owed to one's employer statistically significantly positively correlates with all forced labor indicators ($p < .001$ in all cases). A binary logistic regression analysis to determine the likelihood of falling into medium severity forced labor conditions among participants suggests that those who had assumed debts faced an approximately 45% probability of falling into high or medium severity forced labor indicator categories, whereas those who had not assumed any debts faced an approximately 12% probability of falling into forced labor.

¹¹ The HDI encompasses three dimensions (long and healthy life, knowledge, a decent standard of living) measured by the life expectancy index, education index, and GNI index, respectively. More information may be found in the United Nations Development Programme Human Development reports here: <http://hdr.undp.org/en/content/human-development-index-hdi>

Effects of Interventions on Reducing Forced Labor Risks

Lower forced labor prevalence rates were observed in participant cohorts that verified receipt of government entitlements or were employed under trained micro-contractors (both with and without RPL certification) as compared to those that did not avail interventions. This is likely due to the utility provided by social protection safety nets in creating a financial buffer that allows for more agency and choice in employment to workers by lowering the need to take on debt. Similarly, training micro-contractors, who typically belong to similar communities as workers themselves, on ethical labor practices, trade skills, and general capacity building support creates improvements in the first line of supervision for migrant workers. RPLs serve as a validation of skills that workers already possess, aligned with the vocational training strategy of the Skill India Initiative of the Ministry of Skill Development and Entrepreneurship, enable workers to negotiate higher wages and potentially empower them to leave exploitative employment situations.

Employment with trained micro-contractors reduces the risk of forced labor. By using sample matching techniques, researchers were able to statistically evaluate the effect of training micro-contractors in ethical labor practices in reducing the risk of forced labor. Evidence strongly supports the notion that training micro-contractors has a negative effect on forced labor prevalence.

Daily wages received by workers that worked with ethically trained micro-contractors, with or without RPL certification, were higher on average. Compared to all other workers who reported mostly receiving daily wages in the ₹250–499 range, most workers working with ethically trained micro-contractors, with or without RPL certification, reported receiving daily wages in the ₹500–999 range.

Having some formal education is positively correlated with actually receiving entitlements after registering for them. Further, entitlement receipt reduces the probability of experiencing forced labor but only for those that have some form of formal education, and not for those that do not have formal education. This is possibly because bargaining power is less likely to materialize for those without formal education despite having access to entitlements. For these groups, more inquiry is needed to understand what social safety net programs might be beneficial and any barriers that may need to be addressed in accessing entitlements for those without any formal education.

Key Lessons

Although the study used a convenience sample of seasonal construction workers migrating from the Bundelkhand region to the Delhi NCR, it developed and analyzed a unique and large database of responses from 17,788 individuals that provided rich insights into the scale and nature of exploitation and forced labor in India's construction industry, and who are at the greatest risk of victimization. The study also evaluated the effectiveness of the three interventions that were implemented to reduce the prevalence of forced labor.

From a methodological standpoint, the study offered three key lessons:

First, communicating early and often with all relevant stakeholders helped anticipate and adapt to the study's evolution and exogenous events. As a study (and survey sample) grows in size, complexity, and geographic distribution, collaboration, and adaptation become all the more important. Exogenous shocks such as the COVID-19 pandemic, and associated lockdowns, also created challenges that would not have been overcome without the frequent and early communication.

Second, an integrated research and intervention contact management and survey scheduling system created systemic efficiencies that supported working with large sample sizes. The study was able to register 92,846 individuals, recontact 31,762, and gather follow-up labor status data from 17,788 eligible participants, while recording their participation by intervention type, and minimizing data entry errors and data loss, because of this integrated approach. The system was also critical to seamlessly identifying and referring at-risk individuals to support services.

Third, designing the survey questionnaire and the sampling strategy to be flexible helped the study be more responsive to better understanding of the context after the study's start. When asking about vulnerabilities and/or stigmatized conditions, open ended questions can provide the flexibility required to help the research adapt to unanticipated feedback based on local conditions, socioeconomic and cultural concerns, and the unique experiences of respondents. A majority of prior literature on forced labor has treated it as a static phenomenon. Findings of this study make clear the fact that not only do forced labor conditions arise and occur in a myriad of ways, but that they may be dynamic. It is recommended that future research programming related to labor conditions endeavor to consider and evaluate how these conditions evolve over time.

And although the study did not follow a randomized and controlled sampling process that would allow for a rigorous intervention effectiveness, recruiting as many migrant construction workers departing from Bundelkhand for Delhi/NCR as possible to

participate in the study gave researchers the tools to pursue richer insights beyond the scope of the interventions (e.g., using the same large sampling frame for a rapid assessment of the effects of COVID-19 on the migrant construction workers).

Policy Recommendations

To reduce the prevalence of forced labor in India's construction industry and ensure the safety and protection of migrant workers, the following policy recommendations are posited to inform action:

First, government and industry stakeholders need to proactively provide migrant construction workers with social welfare and protection schemes. Access to entitlements were found to have a positive impact on reducing forced labor outcomes among migrant construction workers, likely due to the safety net they provide which enables informal workers to avoid or leave potentially exploitative situations. Social protection programs can also help reduce indebtedness, which the study found to be a strong predictor of forced labor. However, any such program should be designed to be accessible for all, including those with no formal education - which the study found to be an attribute of those workers that did not receive entitlements, despite registering to receive them.

Second, provide incentives and support at the micro-contractor level to generate positive effects for both migrant workers and the construction industry as a whole. As the first line of supervision, micro-contractors play a critical role in the prevalence of forced labor in construction supply chains. Micro-contractors are also members of the same communities that migrant workers belong to (i.e., same castes, districts of origin etc.). By sensitizing micro-contractors to the implications of unethical labor practices to workers and providing training in entrepreneurship and ethical employment, the study found a significant reduction in the risk of forced labor outcomes.

Third, scaling 'light-touch' accreditation programs such as RPL can support the professionalization of skill sets for migrant construction workers. Aligned with the vocational training strategy of the Skill India Initiative of the Ministry of Skill Development and Entrepreneurship, formal acknowledgement of prior learning can provide workers with more bargaining power when negotiating wages. They also establish credibility with employers, provide greater degree of agency in work relationships, and boost confidence to leave exploitative work conditions in search of better opportunities.

Introduction

Construction is the fastest-growing job market globally¹² and the second largest industry in India with 60 million jobs; however, the industry faces a shortage of skilled laborers. Domestic seasonal migrants (estimated at 30 to 50 million persons, typically from agricultural or other subsistence sectors¹³) help shortfall constructions during their off-season. As many of these migrants are unskilled in construction, they are more vulnerable to exploitation.

Non-governmental organizations (NGOs) working to combat trafficking in India have identified exploitative intermediaries or brokers as the initiators of forced and bonded labor among internal migrants. The prevalence of this trafficking is assessed between

¹² Currently, the growth of the construction market is assessed at greater than 10% of the compound annual growth rate for 2015 to 2025.

¹³ Government of India. (2017). India on the Move and Churning. *aEconomic Survey of India 2016–17*, 264–84. New Delhi: Ministry of Finance.

7.5 and 10 percent.¹⁴ Based on this estimate, between three and five million migrants in India fall victim to forced labor each year (of which 200,000 are from Bundelkhand).

The Government of India faces increasing pressure to reduce the prevalence of forced labor and ensure skilling and safe migration for India-based construction workers. In addition to protecting persons from trafficking, there is also a business imperative to addressing the lack of formalization and skilled labor in the industry. Business estimates indicate addressing skilled labor will enhance productivity between five and seven percent and reduce costs due to delayed projects by five percent.¹⁵

To address skilled labor, the government has set a target to skill 400 million persons by 2022¹⁶ despite a current skilling capacity of 10 million per year. To address financial insecurity among workers in the industry, India's supreme court ordered the development of a model scheme to improve entitlement delivery to construction workers.

In support of the Indian government's effort to formalize the construction industry, a consortium of Jan Sahas, Sambhav Foundation, and Pratham delivered a set of interventions that were tested to understand their ability to improve the conditions of workers, specifically the prevalence of forced and bonded labor among internal migrants from the Bundelkhand region who work in India's construction sector in Delhi/the National Capital Region (NCR). The consortium created a scalable and sustainable alternative to the exploitative broker system by registering nearly 100,000 eligible migrant construction workers and determining those profiles (e.g., receipt of entitlements, use of ethical micro-contractors, and skills certification via Recognition of Prior Learning [RPL]) that encourage safer employment.

Existing Research

In India, between 30 million and 100 million people migrate seasonally.¹⁷ Day labor in construction projects is one of the most common motivations for seasonal migration in India, with the construction industry employing approximately 50 million people in

¹⁴ This figure was provided by the research and analysis staff of Jan Sahas.

¹⁵ Barbosa, F., Woetzel, J., & Mischke, J. (2017). Reinventing Construction: A Route of Higher Productivity. McKinsey Global Institute.

¹⁶ <https://nsdcindia.org/skillcentres> (Retrieved on 28 May 2021)

¹⁷ Deshingkar, P. (2006). Internal migration, poverty and development in Asia. *The Overseas Development Institute*. <https://cdn.odi.org/media/documents/5669.pdf>

India in 2012¹⁸ and accounting for as much as 11% of India's GDP as of 2014.¹⁹ However, construction laborers in India face several significant workplace hazards, ranging from dangerous conditions and a lack of adequate safety protocols to an extremely high risk of facing exploitation or forced labor conditions at job sites. Numerous sources^{20,21,22} have highlighted the extreme risks many laborers face in the Indian construction industry.

The population of the Bundelkhand region within Madhya Pradesh and Uttar Pradesh faces "unemployment, lack of adequate infrastructure facilities and industrial base, poor health, under production, and under development."²³ This region is also the point of origin for a majority of rural-to-urban migration in central India.²⁴ These migrants have been characterized in previous research as generally male (69.1%, with most female migrants traveling with their families rather than seeking employment), between ages 30 and 39, educated up to the secondary (54.8%) or intermediate (25.89%) levels, and engaging in unskilled labor at destination work sites (81.7%).²⁵

Prior literature has established that both domestic and transnational migrant workers are at high risk for labor trafficking. In India, poverty and dangerous working conditions threaten the safety of millions of seasonal migrant laborers every year.²⁶ However, vulnerable populations are, unfortunately, also typically harder to reach. Among

¹⁸ Soundararajan, V. (2013). Construction workers—Amending the law for more safety. *Economic and Political Weekly*, 48(23), 21–25.

¹⁹ Kara, S. (2014). Bonded labor: Tackling the system of slavery in South Asia. *Columbia University Press*.

²⁰ Wells, J., & International Labour Organisation. Sectoral Activities Programme (ILO). (2001). *The construction industry in the twenty-first century: Its image, employment prospects and skill requirements*. International Labour Office (ILO). https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_PUBL_9221126226_EN/lang--en/index.htm

²¹ Kara, S. (2014). Bonded Labor: Tackling the System of Slavery in South Asia. *Columbia University Press*.

²² Pandey, V. (2019, January 7). Behind India's construction boom: "We risk our lives to build your homes." *BBC*. <https://www.bbc.com/news/world-asia-india-46698626>

²³ Sharma, P. K. (2018). Rural development scenario and strategies in Bundelkhand region of Madhya Pradesh, India. *American Journal of Rural Development*, 6(3), 104–108.

²⁴ Office of the Registrar General and Census Commissioner, India. (2001). *Migration*. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/Census_And_You/migrations.aspx

²⁵ Anuja, A. R., Kar, A., Kumar, P., Jha, G. K., & Singh, B. K. (2018). Analysis of Factors Triggering Distress Migration in Bundelkhand Region of Central India. *Economic Affairs*, 63(4), pp. 1055-1059.

Srivastava, R., & Sutradhar, R. (2016). *Migrating out of poverty? A study of migrant construction sector workers in India*. Indian Institute for Human Development. <http://www.ihdindia.org/1.pdf>

²⁶ Soundararajan, V. (2013). Construction workers—Amending the law for more safety.

counter-trafficking researchers, representative samples are often logistically challenging to collect.^{27,28} Indirect sampling and prevalence estimation methods are common, as is the use of respondent-driven sampling (RDS) when surveying *within* hidden or hard-to-reach populations. These approaches are increasingly leveraged as a valuable means of learning about a hidden or vulnerable group that is otherwise challenging or impossible to survey and learn from at a large scale.²⁹

Increasingly, governments, including India³⁰ and the Philippines,³¹ track migration across decadal or annual censuses to provide more granular information about and design better policies in support of these transient and vulnerable populations. Yet in these cases, the process of migrating and labor experiences and outcomes following migration are often omitted, whether from instruments themselves or due to the relatively large time intervals between surveys. Prior reports have identified that 18% of global forced labor occurs in the construction industry.³² In spite of this, research concerning the proportion of migrant construction workers enduring forced labor, whether in India or elsewhere, is scarce.

Study Contributions

This study aimed to determine the prevalence of forced/bonded labor within a large sample of Indian migrant workers who migrated from the Bundelkhand region to the Delhi/National Capital Region (NCR) and were employed in the construction sector. The Global Fund to End Modern Slavery (GFEMS) registered 92,846 unique and eligible individuals for this study, gathered substantial data and evidence concerning the experiences of more than 17,788 of these registered participants who migrated to the Delhi/NCR geography for work in the construction industry, and also examined the labor outcomes of migrants who took part in three intervention programs—led by grantees composed of Jan Sahas, Sambhav Foundation, and Pratham—to gather insights on interventions that are cost effective, scalable, and replicable. In conjunction with GFEMS and grantees, Two Six Technologies (TST) implemented this large-scale

²⁷ De Cook, M. (2007). *Directions for national and international data collection on forced labour*. ILO.

²⁸ Anchovy, S. B. (2012). Research on Indicators of Forced Labor. *Verité*.

²⁹ Global Fund to End Modern Slavery. (2020). *Prevalence Estimation Methods Brief*. Ed. Gauer Bermudez, L., Okech, D., and Prakesh, M. <https://www.gfems.org/news/2021/2/10/resource-prevalence-estimation-methods-brief>

³⁰ Office of the Registrar General and Census Commissioner, India. (2001). *Migration*.

³¹ Mapa, C. D. S. (2020, June 4). *Total number of OFWs estimated at 2.2 million*. Philippines Statistics Authority. <https://psa.gov.ph/statistics/survey/labor-and-employment/survey-overseas-filipinos>

³² ILO. (2017). Global estimates of modern slavery: forced labor and forced marriage.

survey research effort and examined the incidence and facets of labor exploitation among migrant workers who took part in the study.

During the study period, the COVID-19 pandemic spread to India and led to nationwide lockdowns as well as significant slowdown of several economic sectors, including construction.³³ In coordination with the State Department Office to Monitor and Combat Trafficking in Persons (TIP Office), a research panel of academic and institutional labor and migration experts, and local non-governmental organizations (NGOs) providing pandemic-related relief and aid to migrant populations in India, the research team fielded a tailored, 42-question survey examining the impact that the pandemic had on the lives of the study population, including new vulnerabilities and threats to their livelihoods resulting from the pandemic.

The motivation for the study was twofold. First, GFEMS sought to understand the benefits of specific interventions in reducing or eliminating the risk of migrant construction workers meeting forced labor conditions—particularly, entitlements, skills certification via RPL, and employment via ethical micro-contractors, and their effect on reducing one’s proclivity to forced labor conditions. Benefits monitored included ration cards, social welfare from the Building and Other Construction Workers Act (BOCW) (and related entitlements), MGNREGA, and Family Samagra. A comprehensive list of entitlements provided at source and destination is provided in the *Intervention Groups* section of the Study Overview.

Second, the researchers sought to construct both a highly granular and a large-scale data collection concerning the experiences, labor conditions, and migration patterns of domestic migrant construction workers in India, which can be used to inform and improve both policies and monitoring and intervention services supporting this key population. In particular, the team sought to collect a diversity of valuable information from the study’s large sample of domestic migrants over time and to use this information to provide a number of important findings beyond an estimate of the prevalence of forced labor within the study sample. These additions include developing a rich descriptive statistical analysis of the sampled population, including examinations of a large number of factors that correlate with experiencing forced labor conditions, ranging from geography of origin to gender, caste, and education level. The researchers also provide an examination of how the COVID-19 pandemic and the Government of India’s response to the pandemic impacted the substantial population

³³ Biswas, A., Ghosh, A., Kar, A., Mondal, T., Ghosh, B., & Bardhan, P. K. (2021). The impact of COVID-19 in the construction sector and its remedial measures. *Journal of Physics: Conference Series*, 1797(1), 012054.

of migrant laborers in India throughout 2020, particularly the exposure of a number of critical underlying vulnerabilities among this key population.

Study Overview

In formulating this research project, a consortium of Jan Sahas, Sambhav Foundation, and Pratham intended to reduce the prevalence of forced labor and bonded labor among internal migrants from the Bundelkhand region who work in India's construction sector in Delhi/NCR. This study evaluated a scalable and sustainable alternative to the exploitative broker system by registering workers, primarily at their home villages prior to migration (80.8%), successfully following-up with approximately 31,762 at least once, and collecting responses concerning labor conditions from 17,788 respondents who had migrated and found work in the construction industry (i.e., eligible participants). The researchers used these responses to examine those profiles (e.g., receipt of entitlements, skills certification via RPL, and employment via ethical micro-contractors) that encourage safer migration outcomes.

The study enrolled prospective migrants, collected basic demographic information, and tracked participants through their seasonal journeys to work in the construction industry. A call center followed up with each migrant laborer at least twice throughout the migration season³⁴ to collect information about the presence of indicators of forced labor. The outcome data provided by a large group of migrants are compared to those from the three groups that have been provided with government entitlements, received skills certification via RPL, or are employed under ethical micro-contractors.

To facilitate the data and information management needs of this large-scale effort, TST designed customized software to support registration, which automatically added new registrants to a scheduling queue to facilitate follow-up engagements, built a deduplication application to exclude candidates registered during a previous migration season based on their phone number, and worked closely with enumeration and grantee organizations to iteratively simplify data collection while retaining provenance across all surveys in a unified participant database.

Through this program sponsored by GFEMS, the research team gathered substantial data and evidence to advance research on domestic migrant labor, inform interventions designed to reduce or eliminate the prevalence of forced labor among

³⁴As identified by the team's Indian partner organizations and experts, the migration seasons ranged from 3-6 months in length, and began in January, March, August, and October.

domestic migrant construction workers in India, and inform and inspire further steps to raise significant public/private financing and improve labor practices as well as outcomes among this key population.

Study Design

Prevalence Estimation Approach: Longitudinal Migration Tracking³⁵

This study used structured surveys and a location-based repeat sample enrollment process to assess the working conditions of Indians in the construction industry who migrate for work. Over two years, study participants were solicited at varied intervals³⁶ from the Indian population through an initial registration survey enumerated at transit hubs in the Bundelkhand region of central India (i.e., in districts of origin), at transit hubs in the Delhi/NCR area, and at labor *chowks* and residential areas or slums for migrant workers in Delhi. Those meeting the inclusion criteria (adult individuals from the Bundelkhand region, who either intended to migrate to Delhi/NCR for construction work or had already migrated to Delhi/NCR for construction work, who were not serving in the military or government, who had not already enrolled in the study, and who consented to participation) were offered the opportunity to register. Registration samples were collected without replacement (i.e., those who were already enrolled were not able to re-register). Ultimately, registrants who did not migrate to Delhi/NCR, or did migrate but did not find work in the construction industry, were not counted as “eligible participants” and were excluded from the various analyses.

There were four study cohorts, to which participants were not randomly assigned for logistical reasons, making the study design a quasi-experimental design.³⁷ The interventions examined were 1) receipt of government entitlements, 2) skills certifications for workers via Recognition of Prior Learning (RPL), and 3) employment via

³⁵ This study used a large non-probability sample of registrants, and repeatedly sampled from this non-probability sampling frame. As a result, the prevalence measured in the study applies to the study sample, and not to the larger population of migrant construction workers from Bundelkhand to Delhi/NCR. As such, and because sufficiently rigorous and comprehensive external public data does not exist to contextualize or validate the study sample, the researchers do not attempt to generalize their findings to the entire population of construction workers who migrate from Bundelkhand to NCR via a statistical estimation procedure.

³⁶ Registration enumeration schedules were determined at the discretion of local NGOs and were influenced by factors such as weather, local events, power outages, seasonal holidays, COVID-19 pandemic related restrictions etc.

³⁷ A quasi-experimental design estimates the impact of an intervention on the target population without random assignment. See: Campbell, D. T., & Riecken, H. W. (1968). Quasi-experimental design. *International encyclopedia of the social sciences*, 5(3), 259-263.

micro-contractors trained on ethical practices. The fourth study cohort was a large group of registrants who received no interventions.

There were 35,647 workers who applied for or received government entitlements as part of this program³⁸; 2,033 received skills certification via RPL, and 1,081 were employed under ethical micro-contractors. Participants were re-contacted at regular intervals over two years in order to monitor their safety and labor status.

This study included three instruments:

1. An initial registration survey (fielded in-person at geographies specified above)
2. A follow-up survey (fielded remotely via call center)
3. A follow-up survey concerning the effects of the COVID-19 pandemic and lockdown on participants (fielded remotely via call center)

Data Collection and Enumerator Training

Registration data was collected through enumerators employed by grantee organizations Jan Sahas, Sambhav Foundation, and Pratham. All enumerators were trained prior to performing registration, and a majority had previously served as enumerators on efforts examining or seeking to reduce the prevalence of forced labor in the Indian construction industry. As a result, a majority of enumerators had prior expertise in both the subject matter and the necessary fieldwork in support of data collection.

Prior to conducting the initial registration survey, enumerators participated in a three-day training process to standardize and verify survey delivery practices. On Day 1, enumerators received training on survey delivery (i.e., how to verify comprehension and consent, and provide information without making promises). On Day 2, enumerators received an introduction to the technology to be used in this study and training on conducting surveys using the Android tablets. On Day 3, enumerators engaged in field testing of the survey and technology, which was monitored for standardization and compliance by TST's partner, Sattva Consulting.

Enumerators collected and documented survey answers using offline Android tablets that automatically synced to a secured IST-hosted server when connected to Wi-Fi. The tablets were password-protected to prevent unauthorized access to the data. GPS was enabled on tablets to identify the specific locations of each registration, and

³⁸ Of these workers, 22,515 received entitlements and 13,132 registered for but did not receive entitlements by the end of the project.

timestamps for submissions were tracked. Although the research team developed and implemented procedures for anomaly detection in registration, no significant anomalies were observed.

Initial Registration Survey

Survey participants were solicited through an initial in-person recruitment effort. Enumerators targeted a roster of previously identified train stops and bus stations across the Bundelkhand region to solicit participants for the study. Enumerators provided background information about the study and its structure and asked potential participants their age, if they currently worked as government or military employees, and for verbal consent prior to beginning the initial registration survey.

The registration survey, delivered verbally by enumerators in local languages or dialects following a computer-assisted personal interview (CAPI) approach, included study information, an initial consent form, mandatory exclusion criteria, a battery of demographic questions, and contact information for each registrant.

After completing the initial registration survey, enumerators obtained verbal consent from individuals interested in participating, including permission to recontact. Enumerators received the individual's name, father's full name, contact information (i.e., phone number), and address. This information was also used in the event that a study participant was subjected to forced labor conditions, at which point the researchers referred the participant to NGO partners for action.

Follow-Up Survey

Upon migration, study participants were contacted via phone from a call center run by RuralShores to complete follow-up surveys at 1 week, 3 weeks, 2 months, 6 months, and 12 months after migration to assess their working conditions. The follow-up questionnaire reviewed the respondent's current migration and employment status (i.e., whether they had migrated or returned home, if they were employed in the construction industry), then asked whether the respondent had received entitlements through GFEMS programs or others, migrated with dependents, and experienced (or was experiencing) any number of forced labor indicators. Based on several indicators (see Figure 2), the participant's response data was filtered according to the tiers outlined in Figure 3. The data gathered was uploaded to TST's secured data management server.

Category	Indicator	Description	Severity	Palermo Category
Menace of Penalty	Work on rest days for fear of being fired	Intimidation/Threats	Mid	Coercion
	Threat to self	Threats	High	Coercion
	Threat to family	Threats	High	Coercion
	Not paid on time	Wage withholding	Low	Fraud
	Not paid 2x for overtime - (those who worked more than 8 hours per day and reported no overtime payment)	Wage withholding	Low	Fraud
Involuntariness	Debt to employer	Debt bondage Restricted	Mid	Coercion
	No freedom of movement (after work shift)	movement/isolation	High	Force
	Inability to leave job / employer	Debt bondage	Mid	Coercion
	Work more hours than agreed upon	Deception	Mid*	Fraud
	Not paid agreed upon wage	Deception	Mid*	Fraud

* These fields are insufficient on their own to warrant a trafficking claim, and must be considered in concert with other present

Figure 1. Categorization of forced labor indicators by description and severity

This approach provided information directly from the target population on migrant level pathways, the prevalence of labor trafficking (i.e., the proportion of the population victimized), and the effect of interventions administered by GFEMS’ partner organizations (i.e., entitlements, micro-contractor support, and micro-contractor support with RPL).

The design of this study also enabled the researchers to provide timely information to NGOs to facilitate the rescue of victims of forced labor, considering the continuous monitoring of respondent location and forced labor status. If enumerators identified respondents meeting severe forced labor conditions, respondents were given contact information for rescue or intervention organizations, through whom they could request assistance and legal remediation. The follow-up survey data management system was also designed to automatically flag respondents who met Tier 1 criteria. Among those meeting Tier 1 criteria, participant contact information was automatically shared with Jan Sahas in real-time for additional follow-up and, if necessary, intervention.³⁹

³⁹ During informed consent for both registration and follow-up surveys, respondents were informed that, in addition to being provided with contact information for support organizations, their information may be automatically shared with these organizations in the event that they experienced forced labor conditions.

	Menace of Penalty		Involuntariness
Tier 1a	Threat to Self ¹ Threat to Family ¹	AND	No Freedom of Movement ² AND Debt Bondage ¹
Tier 1	Threat to Self ¹ Threat to Family ¹	AND	No Freedom of Movement ²
Tier 2	Work Rest Days ¹	AND	No Freedom of Movement ²
	Threat to Self ¹ Threat to Family ¹	AND	Debt Bondage ¹ Inability to Leave ¹ Fraud (Wages or Hours) ³
Tier 3	Work Rest Days ¹	AND	Debt Bondage ¹ Inability to Leave ¹ Fraud (Wages or Hours) ³

Note: Palermo classifications are specified above as: ¹ Coercion, ² Force, ³ Fraud

Figure 2. Tiering system for forced labor indicators

COVID-19 Follow-Up Survey

As a result of the COVID-19 pandemic, the research team, GFEMS, and partner organizations prepared and executed a single follow-up survey targeting all registrants and focused on the effects of the pandemic on the employment, economic welfare, and personal safety of the migrant workers. This survey asked participants many of the same questions as the typical follow-up survey but also asked questions about:

- Participants' ability to return home (i.e., availability of transportation)
- Changes in household income (pre/post pandemic and lockdown)
- Changes in employment (if unemployed, how long have they been unemployed and whether they were employed pre-pandemic)
- Changes in debt levels and prevalence as a result of the pandemic
- Near-term financial needs and concerns (food security, housing, medical, etc.)

- Receipt of government benefits (specific programs provided by the government due to the pandemic)

These fields were developed through several iterations of discussions with migration researchers, public health experts, and other programmatic advisors, and were also informed by multiple COVID-19 vulnerability surveys fielded by TST and other members of the research team in early 2020, as well as their results. Based on these inputs, the research team concluded that debt, lack of money for basic necessities, loss of employment, inability to quarantine or return home safely, and receipt/non-receipt of government benefits were the most critical and relevant topics to identify i) the most important and time-sensitive vulnerabilities that the pandemic may have exposed among members of the study sample, and ii) the most vulnerable members of the study sample, who needed immediate aid and relief. The researchers further judged that examining changes in employment status, income, and new debts assumed would be valuable in the context of this study, as these questions had already been fielded in pre-pandemic follow-up surveys.

Responses to questions about the impact of COVID-19 were used to generate two different vulnerability groups, described in the referenced report, which were used to identify the severity of the vulnerabilities experienced by the study participants as a result of the pandemic.⁴⁰

Intervention Groups

As indicated under Study Design, qualified participants who received interventions were divided into three key groups based on the interventions received: those who were provided with government entitlements, those who received skills certification via RPL, and those who were employed under ethical micro-contractors.

Entitlements

To protect the vulnerable workers in the construction industry in India, the Indian Parliament enacted the Building and Other Construction Workers Act (BOCW) in 1996. The law mandates that construction companies pay a portion (minimum of 1%) of their project costs to the welfare of their workers registered under the BOCW Act. Benefits include pension, education and maternity assistance, loans for purchase of required

⁴⁰ A report detailing the impact of COVID-19 on the study population was released by GFEMS in October, 2020: <https://www.gfems.org/news/2020/10/15/understanding-the-effect-of-the-covid-19-pandemic-on-migrant-construction-workers-in-india>

An earlier report leveraging the study sample was released by Jan Sahas in April 2020: <https://freedomfund.org/wp-content/uploads/Voices-of-Invisible-Citizens.pdf>

tools, accident and medical expenses, and funeral support. Data released by the Ministry of Labour and Employment in early February 2019 showed that only about 35 million of the at least 50 million construction workers were registered under the BOCW Act. Ratios for migrant construction workers is expected to be significantly worse.

Additional entitlements for both laborers and their families include ration cards enabling individuals to purchase food grain under the Indian National Food Security Act (NFSA)⁴¹, widow and disability pensions for family members, job cards from the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA),⁴² housing schemes,⁴³ and maternity support. For a full list of tracked entitlements, see Figure 4.

ENTITLEMENTS at SOURCE			ENTITLEMENTS at DESTINATION		
#	Names of Schemes	Priority	#	Names of Schemes	Priority
1	BOCW Card	1	1	BOCW Card	1
2	BOCW (Heath Benefit)	1	2	Applicable BOCW Schemes	1
3	BOCW (Education Benefit)	1	3	Portability of Ration	1
4	BOCW (Maternity Benefit)	1	4	Enrolling children for Anganwadi Scheme	1
5	BOCW (Child Benefit)	1	5	Pradhan Mantri Suraksha Bima Yojana	1
6	BOCW (Marriage for Daughters)	1	6	Pradhan Mantri Jeevan Jyoti Bima Yojana	2
7	BOCW (Accident Assistance Scheme)	1	7	Transit Shelter Scheme	2
8	BOCW (Disability Pension)	1	8	Sukanya Samridhi Yojana	2
9	BOCW (Funeral Rites)	1	9	Janani Suraksha Yojana	2
10	BOCW (Awaas)	1			
11	Ration Card	1			
12	Pensions (Oldage, Widow & Disability)	1			
13	Awaas (PM/CM)	1			
14	MGNREGA	1			
15	Pradhan Mantri Matritva Vandana Yojana	1			
16	Education Scholarship (other than BOCW)	2			
17	Cycle for Disabled	2			
18	BOCW (for girl child)	2			
19	Ayushman Card	2			
20	National Family Benefit Scheme (Parivarik Labh)	2			

Figure 3. Entitlements at source and destination

Partner organizations were tasked with registering 30,000 participants in this study for entitlements. The goal with this cohort was to understand the role that support provided by entitlements and benefits plays in reducing the risk of forced labor. Although assignment to the cohorts was non-random, the team was able to observe outcomes for individuals who were registered for entitlements separately from individuals who were registered for *and had received* entitlements. Partner

⁴¹ See: <http://mahafood.gov.in/website/english/PDS.aspx>

⁴² See: https://www.nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx

⁴³ See: <http://www.iay.nic.in/netiay/home.aspx>

organizations reviewed each applicant's entitlement registration forms prior to submission to ensure that the applicant qualified for the entitlement and had also properly completed their applications; therefore, lack of receipt may be primarily attributed to delays, inefficient state and local distribution, and potential lack of follow-up in cases where questions arose. If the receipt of entitlements is interpreted as a semi-randomized outcome of registering for entitlements with some static probability, then it is possible to provide a basic measurement of the effect of receiving entitlements as compared to being registered for *but not receiving* them.

Micro-Contractor

A key question faced by labor researchers and policymakers in India, is how to reduce the incidence of predatory recruitment and employment practices in the construction industry.⁴⁴ This phenomenon may be especially prevalent among migrant laborers. For instance, potential candidates may be lured into jobs with promises of high wages or fair working hours, and then fall prey to delayed payment, decreased freedom of movement, overtime without a legally mandated increase in compensation, and other indicators of high-risk and forced labor.

Contractors are middlemen in the construction industry with access to specialized and non-specialized labor. They work directly with developers and employers and win contracts for construction work. Once a contract has been won, they hire the necessary labor to complete the work. Exploitation risks emerge in the process of labor contracting as these contractors get paid by employers and developers but may not equitably distribute to their labor force, or they may cut costs by not adequately staffing a contract and requiring hired personnel to work longer hours in risky conditions.

For this study, consortium partners Pratham and Sambhav Foundation were tasked with registering 3,000 participants who were employed with micro-contractors provided with training on ethical practices through the program. Pratham and Sambhav Foundation intervene at this level by enrolling micro-contractors into training programs, and also by allowing laborers themselves to become ethically trained micro-contractors and entrepreneurs. This process aimed to improve overall hiring conditions, reducing predatory practices and the risk of exploitation.

⁴⁴ Mosse, D., Gupta, S., Mehta, M., Shah, V., Rees, J. F., & Team, K. P. (2002). Brokered livelihoods: Debt, labour migration and development in tribal western India. *Journal of Development Studies*, 38(5), 59–88.

Recognition of Prior Learning (RPL) certification

According to ILO, training can “facilitate good job matches for migrants in destination countries and help them to avoid forced labour and other abusive job situations.”⁴⁵

Skills training can increase a person’s employability, income-earning capacity, and work opportunities. While this project did not provide skills training, it offered opportunities for workers to be evaluated and receive a certificate indicating their skills by providing them with on-the-job skills certification via Recognition of Prior Learning (RPL). The RPL approach focuses on accrediting skills and learning acquired outside of formal contexts, and is aligned with the broader vocational training strategy of the Skill India Initiative, a flagship scheme of the Ministry of Skill Development and Entrepreneurship (MSDE). This approach aimed to grant workers with additional credibility and improved bargaining power with potential employers. Partner organizations were tasked with registering 2,000 participants for skills certification via RPL.

Ethical Considerations and At-Risk Protocols

This study was reviewed and approved by WCG IRB in the United States and by Ashoka University in India. Amended approval was received for the COVID-19 sub-component of the study. Given the vulnerability of the key population under study, TST also worked with GFEMS and grantees to develop and submit an At-Risk Protocol, which established practices for communicating with, reporting, and referring at-risk respondents (defined as those working in forced labor conditions) to Jan Sahas, a support organization that intervened and provided legal and other forms of aid. The At-Risk Protocol was developed in concert with Jan Sahas and underwent iterative development and review that included advisory assistance by GFEMS, the TIP Office, UCLA, and additional research methods advisory panel. For more information concerning the At-Risk Protocol, see Appendix E.

⁴⁵ International Labour Organization. (2018). Ending forced labour by 2030: A review of policies and programmes. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_653986.pdf

Methodology

Subject Selection and Sampling Design

Eligible participants in this study were construction workers at least 18 years of age originating from the Bundelkhand region who a) intended to migrate to Delhi/NCR or had recently migrated to Delhi/NCR; b) had not served in the military or government; and c) consented to participation.

TST performed interval-based surveys using repeat samples of migrant construction workers registered at points of departure and at destination to collect the data for this study. This methodological approach was designed to enable registration of the greatest possible number of respondents from the key population of migrant construction laborers and follow-up with these study participants remotely and at scale via a call center managed by RuralShores, a local study partner.⁴⁶

The registration process involved teams of enumerators who selected points of departure from a roster of transit hubs compiled during focus group discussions (FGDs) and planning meetings between TST, GFEMS, and NGO stakeholders who provide support to migrant construction workers across Central and Western India. Rather than randomly selecting potential registrants, enumerators sought to approach, screen, and interview *all* potential migrant workers at points of departure during registration dates scheduled in coordination with GFEMS. Those who were migrating to work in the construction sector were given information about the study, its sponsors and objectives, and provided informed consent to register for the effort. Therefore, the sampling process sought comprehensiveness over random selection, and may be described as a large-scale convenience sampling process. However, owing to the scale of the study, the research team and sponsors proceeded with registration in this manner to gather and provide new information and insights that stand on their own *and* may be used in the future to develop population-level prevalence estimates of forced labor among migrant construction workers in the Delhi/NCR geography.

Based on focus group discussions with stakeholders and subject matter experts in India prior to the study's data collection phase, labor conditions for migrants are often dynamic. For instance, different migrant workers may experience labor trafficking at different times after migrating and beginning to work. This also reflects findings and

⁴⁶ See: <https://www.ruralshores.com/>

recommendations made by others in the migration research community.⁴⁷ The researchers determined that after registering 92,846 potential migrant construction laborers, the process of parsing, detecting, and measuring indicators of and correlates with labor trafficking among the registration sample would require repeat surveys (i.e., samples with replacement) from the registrant sample over time. For this reason, the team performed multiple follow-up surveys at different time intervals after registrants' migration dates.

Contact Management and Queueing

The scale and technical sophistication of the effort required the researchers to build and implement a new contact management system and queueing system for follow-up scheduling. This system, *mTracker*, was built in Python and Java programming languages and enabled the research team to schedule and prioritize follow-up calls (Figure 5). *mTracker* allowed the researchers to reduce attrition and avoid repeated calls to registrants outside of their scheduled intervals. *mTracker* integrated directly with the registration and follow-up data management systems and the follow-up interface surfaced to call center enumerators (Figure 6). The system was encrypted and password-protected to prevent personally identifiable information (PII) spillage.⁴⁸

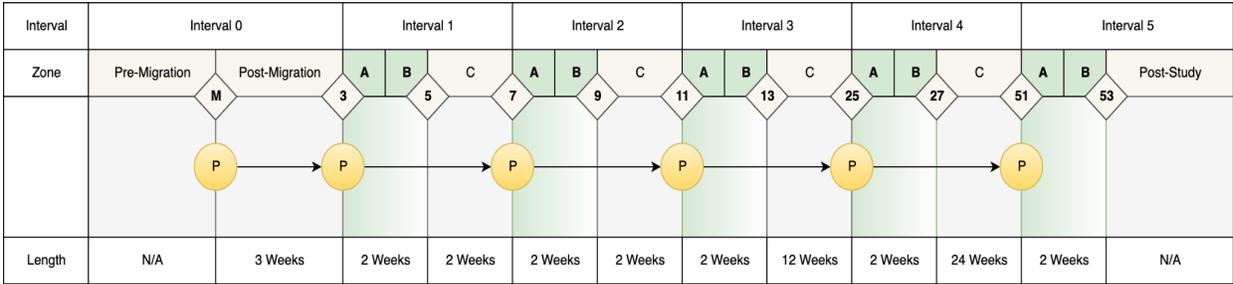


Figure 4. Interval schedule

⁴⁷ Kahanec, M., & Zimmermann, K. F. (2008). *Migration and globalization: Challenges and perspectives for the research infrastructure*. IZA Institute of Labor Economics. <https://www.iza.org/publications/dp/3890/migration-and-globalization-challenges-and-perspectives-for-the-research-infrastructure>

⁴⁸ For more information on *mTracker*, see Appendix D.



Copy Worker ID and Interval

Call Status	<input checked="" type="radio"/> Successful	<input type="radio"/> No Answer	<input type="radio"/> Failed	<input type="radio"/> Call Back	<input type="radio"/> Opt-Out	
Migration Status	<input type="radio"/> Migrated		<input checked="" type="radio"/> Planned	<input type="radio"/> No Plans		
Migration Timeframe	<input type="radio"/> On Date	<input type="radio"/> 1 Week	<input type="radio"/> 2 Weeks	<input checked="" type="radio"/> 3 Weeks	<input type="radio"/> 4 weeks	<input type="radio"/> Over 4 Weeks
Remarks	<input type="text" value="Enter notes or remarks"/>					

Figure 5. mTracker user interface for call center

New Registrant Deduplication

The continuous registration of construction workers at transport hubs during this study resulted in a small portion of the sample (reported qualitatively by enumerators, and estimated at under 5% of attempted registrations) being engaged by enumerators more than once (i.e., registering with replacement). To avoid duplicate registrations and save resources, TST developed an android application that contained an encrypted database of all registrants in the study. The app polled TST servers multiple times a day and updated its repository with new registrants. Using a potential participant’s phone number, enumerators could verify whether that person had already registered for the study using their phone number. At no time was the list of registrants available to enumerators or at risk of spillage.

Data Collection and Processing Training

Training of registration enumerators at Jan Sahas was conducted in December 2018 and January 2019 by Two Six Technologies staff. The attendees were supervisors from each of the 10 districts (source) as well as those in Delhi/NCR (destination) where registrations occurred. During three-day training sessions, twelve supervisors were trained on the tablets, software, subject selection criteria, and survey scripting and were provided with further guidance and documentation on how to train their teams of

enumerators. Staff from RuralShores, who established a call center to perform follow-up enumeration via phone surveys, were trained in January 2019 by Two Six Technologies team members using the same process and underwent periodic re-training and evaluation approximately every 6 months, or as required by updates to the study or follow-up instrument. A total of 22 individuals were trained at RuralShores; 19 enumerators, 1 supervisor and 2 IT individuals who were in charge of maintaining the system and incorporating it into the call centers automated dialers.

Training provided these teams with an introduction to the study, its design and objectives, the registration and follow-up survey questions, the enumeration and content management systems to be used by interviewers, and interview scripts. As part of training, enumerators conducted mock interview sessions and practiced the administration and interview processes to establish familiarity with the technology-enabled workflows. The training also covered the consent process, eligibility criteria, respondent confidentiality management practices and safeguards, and case management and referral protocols for at-risk respondents. Team members were also allowed to ask any questions that emerged during training. TST staff also established email and WhatsApp contact lines for any questions or concerns among interviewers during enumeration and briefed all teams on these support lines.

Registration trainees from Jan Sahas were assigned to 12 data collection teams spread across 10 districts in Bundelkhand and in Delhi; each team consisted of a team supervisor and 6 interviewers. Follow-up trainees at RuralShores worked in the same office space with the supervisor present throughout the day. Senior staff from Jan Sahas and RuralShores coordinated and supervised their respective fieldwork activities. Registration began in January 2019 and was completed in March 2021. Follow-up enumeration by RuralShores started in January 2019 and ended on March 31, 2021.

Enumeration

Registration began in January 2019 and continued through March 2021. Registration at points of arrival in Delhi/NCR began in August 2019. New registrations were paused from March to September 2020, the height of the COVID-19 pandemic, in accordance with laws in India and guidance from the TIP Office, GFEMS, and other stakeholders. During this time, the research team performed a specialized follow-up survey to examine the impact of COVID-19 on the key population and new vulnerabilities that may have arisen due to the pandemic.

Registration took place via computer-assisted personal interviews (CAPI),⁴⁹ which were performed face-to-face at transit hubs in the Bundelkhand region of India, at points of arrival in Delhi/NCR, and at labor *chowks* as well as migrant residential areas and slums in Delhi/NCR. These areas were selected and targeted as a result of multiple team and stakeholder discussions as well as field observations intended to identify the largest areas of congregation for migrant construction workers from Bundelkhand to Delhi/NCR. To register study participants in low-connectivity geographies without mobile data connectivity, the enumerators used customized software that asynchronously updated cloud-hosted registration databases when tablets regained Internet connectivity. The researchers identified no discrepancies between registration reports from enumerators and digital registration logs. Tablet registrations were logged alongside GPS coordinates to ensure that enumeration took place at identified registration points.

This study used repeat samples from the collected registrant sample pool. Follow-up surveys were administered via call center at five intervals: 1 week, 3 weeks, 2 months, 6 months, and 12 months. If an enrolled participant had not yet migrated, the follow-up survey was paused, and the participant was recontacted after 1–2 months. If the enrolled participant stated they had no further plans to migrate, they were removed from the study sample and not recontacted.

Data Analysis

Survey Data Processing

Registration and follow-up survey data were merged across the different cohorts and then filtered to enable analysis by the research team. The filtering process ensured that duplicate entries were removed, that individual respondents could be tracked across intervals, and that common fields from different registration groups could be unified under a common schema.

Registration data was deduplicated using a respondent's phone number, removing any entries other than the first instance, then scrubbed to remove individuals who did not provide consent, were not from Bundelkhand, do not work in the construction industry, reported working for the government, or reported being under 18 years of age. During

⁴⁹ Caeyers, B., Chalmers, N., & De Weerd, J. (2012). Improving consumption measurement and other survey data through CAPI: Evidence from a randomized experiment. *Journal of Development Economics*, 98(1), 19–33.

registration, respondents provided up to three back-up phone numbers in the event that their primary phone number was disconnected.

A similar process was employed for follow-up engagement data: Any respondent who did not meet the above inclusion criteria (as a secondary safeguard) and had not yet migrated was removed. Participant responses from follow-up engagements were then merged with their demographic data (collected during registration).

Data was normalized prior to analysis. Blank, "N/A," and outlier responses were excluded from our report due to the lack of diagnostic value provided by these responses. Outlier responses include:

- Gender data other than men or women (e.g., transgender/prefer not to answer)
- Daily wages falling outside ₹100–2,000
- Participants who indicated more than 15 dependents migrated with them
- Education level listed as "other" since the type of education itself could not be determined.

The analysis team shared deduplicated and clean responses with the survey enumeration team, grantee organizations, research advisors, and other key personnel to ensure consistency and correctness in analyses and findings produced by different programmatic stakeholders.

Sample Statistics

Table 1. Statistical testing: Demographic category association

Category	Variable Type	Age	Gender	Caste	Edu.	Dep.	Work Level	Wage	District	Recruiter Use	Formal Edu.	Age (+/-)
	Ordinal (1–7)	Binary	Nom.	Ordinal (1–6)	Cont.	Ordinal (1–3)	Num.	Nom.	Binary	Binary	Binary	
Age	Ordinal (1–7)		Wilcoxon Glass Rank	Chi-square Cramer's V	Pt-biserial	Pt-biserial	Pt-biserial	Pt-biserial	Chi-square Cramer's V	Wilcoxon Glass Rank	Wilcoxon Glass Rank	
Gender	Binary			Chi-square Cramer's V	Pt-biserial	Pt-biserial	Wilcoxon Glass Rank	Pt-biserial	Chi-square Cramer's V	Pearson's r	Pearson's r	Pearson's r
Caste	Nom.				Chi-square Cramer's V							
Edu.	Ordinal (1–6)					Pt-biserial	Chi-square Cramer's V	Pt-biserial	Chi-square Cramer's V	Wilcoxon Glass Rank	Wilcoxon Glass Rank	Wilcoxon Glass Rank

Dep.	Cont.						Pt-biserial	Pearson's r	Chi-square Cramer's V	Pt-biserial	Pt-biserial	Pt-biserial
Work Level	Ordinal (1-3)							Pt-biserial	Chi-square Cramer's V	Wilcoxon Glass Rank	Wilcoxon Glass Rank	Wilcoxon Glass Rank
Wage	Num. (interval)								Chi-square Cramer's V*	Pt-biserial	Pt-biserial	Pt-biserial
District	Nom.									Chi-square Cramer's V	Chi-square Cramer's V	Chi-square Cramer's V
Recruiter Use	Binary										Pearson's r	Pearson's r
Formal Edu.	Binary											Pearson's r
Age (+/-)	Binary											

Notes. Age (+/-) = Binary variable of persons under 30 and 30+ years of age. Formal Education = Binary variable of persons who have attended school and those who have not. Chi-Square assumes use of Fisher's test where $n < 5$. Cont. = Continuous variable; Dep. = Dependents; Edu. = Education; Nom. = Nominal; Num. = Numerical; Pt-Biserial = Point-biserial.
* Wage is treated as a categorical variable in this context.

The researchers used statistical tests to examine associations between several participant data points and a series of labor trafficking indicators. These indicators were developed in coordination with GFEMS, the TIP Office, and external research advisors and reflect the TIP Office definition of labor trafficking and the ILO definition of forced labor. Based on guidance from GFEMS and the TIP Office, indicators were segmented into tiers of severity. Those facing any set of conditions meeting the definition of labor trafficking, regardless of tiering, were referred to Jan Sahas for intervention and legal support.

Table 2. Statistical testing: Demographic categories vs. forced labor tiers and indicators

		Tiers	Individual Indicators
Demographic	Variable Type	Categorical (Binary)	Categorical (Binary)
Age	Categorical (Ordinal)	Chi-square / Fisher Exact Cramer's V	Chi-square / Fisher Exact Cramer's V
Gender	Categorical (Binary)	Pearson's r	Pearson's r

Caste	Categorical (Nominative)	Chi-square / Fisher Exact Cramer's V	Chi-square / Fisher Exact Cramer's V
Education	Categorical (Ordinal)	Chi-square / Fisher Exact Cramer's V	Chi-square / Fisher Exact Cramer's V
Dependents	Quantitative (Interval)	t-test	t-test
Work Level	Categorical (Ordinal)	Chi-square / Fisher Exact Cramer's V	Chi-square / Fisher Exact Cramer's V
Wage	Quantitative (Interval)	t-Test	t-Test
District of Origin	Categorical (Nominative)	Chi-square / Fisher Exact Cramer's V	Chi-square / Fisher Exact Cramer's V
Recruiter Use	Categorical (Binary)	Pearson's <i>r</i>	Pearson's <i>r</i>
Debt to Employer	Categorical (Binary)	Pearson's <i>r</i>	Pearson's <i>r</i>
Notes. Fisher's Exact test was used where $n < 5$.			

Over time, the researchers were able to collect sufficient data to identify and measure attrition. The team used multiple logistic regression to measure attrition effects in terms of registrant characteristics and subsequently added incentives targeting key subsamples to reduce any non-random attrition detected. Incentives took the form of a payment of roughly INR 50 of mobile airtime via SMS, and participants qualifying for incentives were notified via SMS messages. The researchers began providing incentives in June, 2020.

Prevalence Estimation

The researchers estimate the prevalence of forced labor within each study cohort as a sample statistic. The researchers document each sub-sample's constitution using participant characteristics collected, and compare these findings to those from prior literature, but note the absence of sufficiently granular external demographic data to enable weighting to estimate prevalence among a broader population. Owing to the sampling approach used, which emphasized comprehensive mass-registration over random selection, and due to the non-random assignment of interventions, as well as a lack of broader information about migrant construction workers from the Bundelkhand region to Delhi/NCR, the researchers do not attempt to estimate the overall prevalence of forced labor among this population. Currently, there are no authoritative data sources that can be used to inform the size or demographics of the population of

migrants from Bundelkhand, the population of migrant construction workers in Delhi/NCR (or in India), or the intersection of these two populations. Future efforts that are able to incorporate such authoritative population-level data may contextualize this report's findings within the broader study population.

Nonetheless, for the cohort under study, the researchers examine the prevalence of forced labor across Tiers 1, 1A, 2, and 3, and use correlation tests to evaluate the relationships between a number of participant characteristics and forced labor indicators reported by study participants during follow-up surveys. The researchers also evaluate their findings in the context provided by prior research about migrant construction labor in India.

In all cases, the researchers report the eligible sample sizes, statistical test(s) used, strength of correlation or association, and effect size.

Attrition

TST looked at both the time elapsed since the last successful contact with a registrant and the respondent's overall lack of response as factors to classify whether or not someone attrits. However, no registrant was ever removed from the call queue unless they requested to opt-out of the study. For this reason, individuals identified as attritors did occasionally re-join the study at a later date. For instance, in some cases, people followed-up for the first time eight or more months after registration. Given the time elapsed, these individuals would have been considered attritors prior to the successful recontact.

The team first defined attrition in the context of the study's design and the interval-based follow-up schedule. Attrition is established when a respondent misses calls for a period equaling their next two scheduled follow-ups. This means that attrition is more stringent for people in earlier intervals and more flexibly defined for people in later intervals (since later intervals are further apart). In addition, only those who are currently migrated for work can be considered attritors.

Quantitatively, the following rules represent the criteria for defining or excluding a study participant as an attritor:

- (1) Any individual who reached interval 3 and has not followed up for 1 year is an attritor.
- (2) Any individual who has reached interval 2 and has not followed up for 6 months is an attritor.

- (3) Any individual who has reached interval 1 and has not followed up for 3 months is an attritor.
- (4) Any individual who migrated within the past 3 months from the date of analysis is not an attritor.

In addition, we note several circumstances under which a respondent is never considered an attritor. No individual who has reached intervals 4 or 5 is an attritor. These participants are always treated as “active” and are always eligible for recontact. For the purpose of measuring attrition, any individual who has not yet migrated, returned home, or opted out of the study is also not considered an attritor.

Data Management Approach

TST maintained a common database to manage registration and follow-up records. The mTracker queueing and contact management system drew from this database to establish phone queues and surface respondent phone numbers and first names to enumerators at RuralShores for follow-up enumeration. TST monitored call center workloads, queue sizes, and call outcomes in real-time using an analytics dashboard built using Datadog.⁵⁰

All collected data were stored immediately in a secured and encrypted database, to which only a small number of research team members held access. All members were trained and certified to handle human subject research data before receiving access to the data. In cases where registrations took place in disconnected geographies, tablets automatically uploaded registration data when Internet connectivity was re-established. Upon uploading the data, the tablets would erase their own records to minimize the risk of spillage of personally identifiable information (PII).

Considerations Due to COVID-19

During the COVID-19 pandemic, the researchers utilized access to the existing registrants to conduct enumerator-led phone interviews to learn about changes to their personal and financial security resulting from the COVID-19 outbreak, in particular how the outbreak may have affected the risks of falling into forced labor. The study was conducted in Hindi. The field period was June 11, 2020, to August 7, 2020. The eligibility criteria were as follows:

- Adult (18+) construction workers already registered for the Worker Voices study since October 2018

⁵⁰ See: <https://www.datadoghq.com/>

- Must not have served in the military or government
- Consent to participation

All existing eligible participants were contacted via telephone at least once for this specialized follow-up survey. Additionally, the prioritization queue of outbound calls was based on vulnerability criteria. The criteria considered were:

- Lack of formal education or any education past 5th grade
- Gender (female respondents prioritized)
- Number of dependents (respondents with fewer dependents prioritized)
- Whether or not the respondent indicated that they were in debt during the last successful contact
- Whether the respondent's daily wage was under 300 Rs.
- Whether the respondent is a member of Scheduled Castes or Scheduled Tribes

Respondents with more vulnerability indicators received calls first; engagements then proceeded in descending order based on the number of vulnerabilities associated with each participant.

Further, selected demographics among the participant sample pool were notified that their participation in the COVID-19 study would be incentivized with roughly 50 Rs. of mobile airtime via SMS prior to commencement of the study. These included:

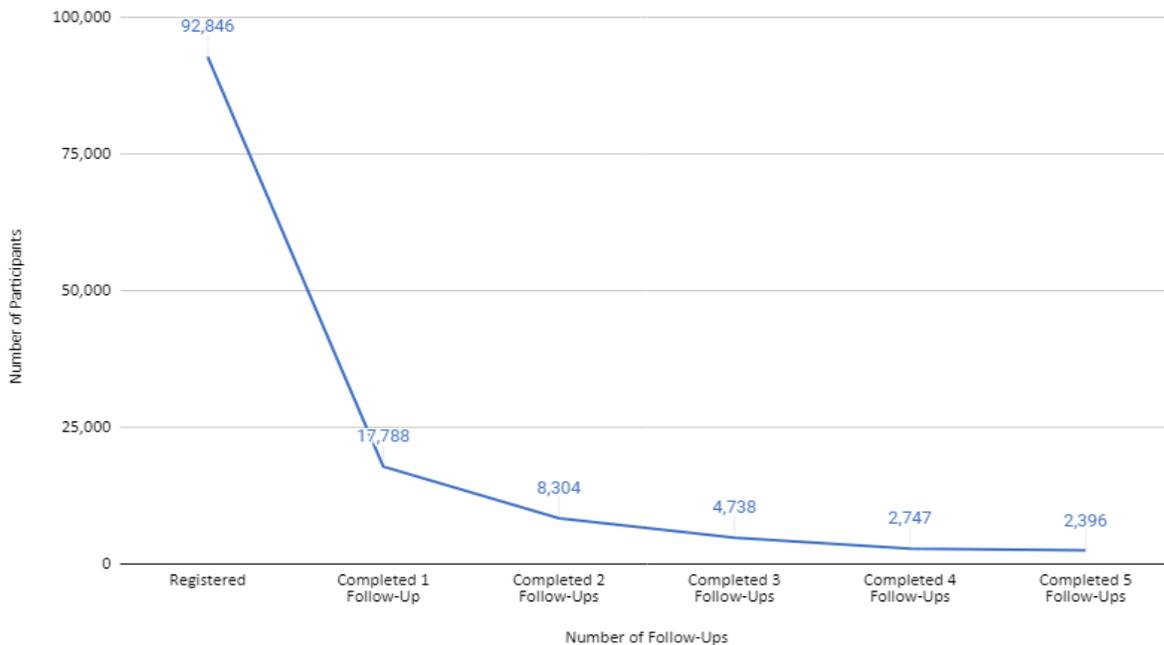
- Female respondents
- Respondents with daily wages of under 300 Rs.
- Respondents who indicated that they were in debt during the last successful contact
- Respondents who both have no or little formal education and are traveling with fewer than three dependents

These groups were selected because previous attrition analyses indicated that these groups were among the most likely to attrit from the study.

Findings

Sample Statistics

After deduplication, a total of **92,846 unique eligible individuals** were registered for the study. Of those, **80.8% were registered in the Bundelkhand region**. 17.7% were registered at points of arrival, labor *chowks*, migrant residential areas, or work sites at destination.⁵¹ A total of 17,788 eligible registrants followed-up after migration at least once (i.e., were successfully resampled for a full status interview), with 8,304 completing two follow-up interviews, 4,738 completing three, 2,747 completing four, and 2,396 completing five. From the collected responses, the researchers were able to evaluate a large number of demographic and other basic information points about the surveyed population of migrant construction workers. Below, we examine these data points as well as associations and correlations between them. The below findings refer specifically to participants who participated in at least 1 follow-up status interview.



This chart graphs completions over the lifetime of participation in the study for all registered migrant workers. It is not date-specific, as workers registered for the study throughout 2019 and 2020.

⁵¹ The remainder, roughly 2.5% of registered participants, were located at either destination work sites or in Bundelkhand, and were registered remotely via phone interviews.

Figure 6. Follow up completion over survey rounds for all participants

Demographic Statistics

Study participants were roughly evenly split between those under/over 30 years of age, with **47.4% of participants under age 30, and 52.6% age 30 or older**. Overall, this sample is older than Srivastava and Sutradhar’s 2016 study, which used snowball sampling to survey migrant construction workers in Delhi/NCR.⁵² In that study, approximately 63% of participants were under 30. In contrast, the age demographics in this study roughly correspond to those of Srivastava and Sutradhar’s household survey from 2016 of roughly 150 migrant worker households in Delhi/NCR; the average age of these respondents was 32.7 years.⁵³

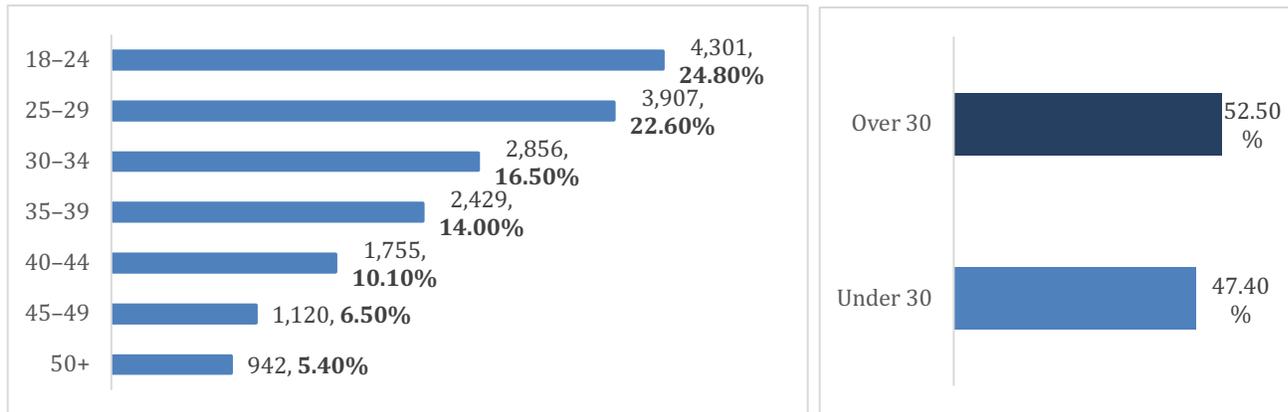


Figure 7. Distribution by age

group; distribution by age (over or under 30 years)

N=17,310

The study sample was approximately **96.4% male**. Although the construction industry in India has been predominantly male for decades, with the 2001 Census reporting approximately 88.54% of construction workers to be male⁵⁴, migration studies offer varying reports for the gender distribution of the subset of construction workers who are migrants. Srivastava and Sutradhar’s 2016 household survey of NCT-based migrant construction workers ultimately surveyed *only* male workers, for a 100% male sample

⁵² Srivastava, R., & Sutradhar, R. (2016). Migrating Out of Poverty? A study of migrant construction sector workers in India. *Indian Institute for Human Development*.

⁵³ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

⁵⁴ Office of the Registrar General and Census Commissioner, India. (2001). *Economic Activity*. Ministry of Home Affairs, Government of India. https://censusindia.gov.in/census_and_you/economic_activity.aspx

composition. Srivastava and Sutradhar’s non-probability sample of 150 NCT-based construction workers bore a similar gender distribution to our sample, with approximately 97.3% of respondents reporting to be male.⁵⁵ A 2012 study of migrant construction workers in Kolkata found approximately 93.3% of respondents were male.⁵⁶ Based on existing literature, the researchers are unable to confirm whether or not the collected sample’s gender distribution is representative of migrant construction workers from Bundelkhand.

Figure 8. Distribution by gender



N=17,325

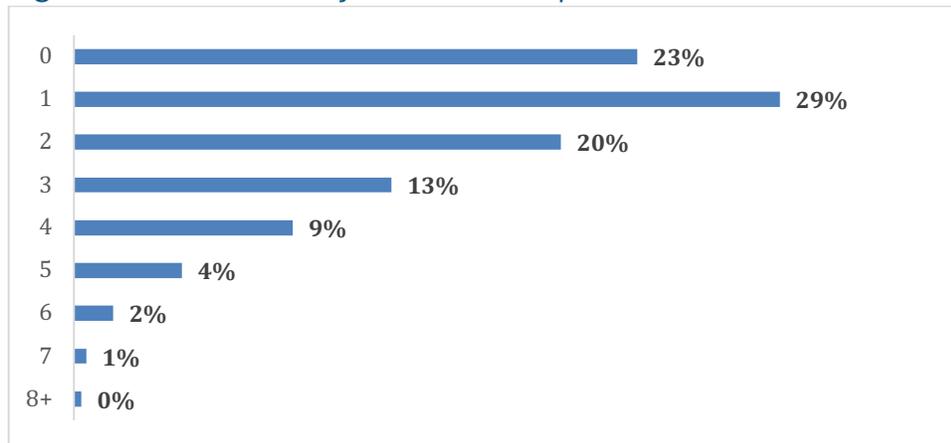
A majority of study participants who migrated reported migrating with at least one dependent. **The average number of dependents migrating with study participants was 1.8.** Slightly fewer than 25% of participants were migrating alone. Prior literature has hypothesized that economic conditions at destination geographies likely influence the decision to migrate with or without dependents, with more expensive destinations potentially leading to an increase in individual migration without dependents in order to reduce costs and maximize the amount of money that migrants can remit to their families back at points of origin.⁵⁷

⁵⁵ Srivastava, R., & Sutradhar, R. (2016). Migrating Out of Poverty? A study of migrant construction sector workers in India. *Indian Institute for Human Development*.

⁵⁶ Tiwary, G., Gangopadhyay, P. K., Biswas, S., Nayak, K., Chatterjee, M. K., Chakraborty, D., & Mukherjee, S. (2012). Socio-economic status of workers of building construction industry. *Indian journal of occupational and environmental medicine*, 16(2), 66. <https://doi.org/10.4103/0019-5278.107072>

⁵⁷ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

Figure 9. Distribution by number of dependents

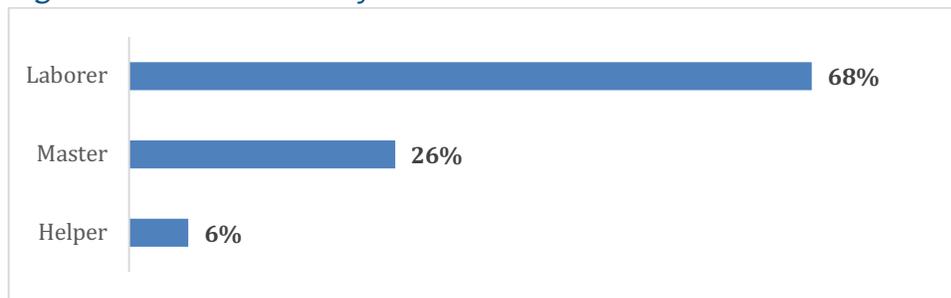


N=17,326

Economic and Employment Statistics⁵⁸

In the construction industry, the migrant laborers surveyed were primarily (67.8%) ordinary laborers. Master workers were the second largest group, at roughly one-quarter of the sample (26.4%). Helpers were a small percentage of the sample.

Figure 10. Distribution by work level

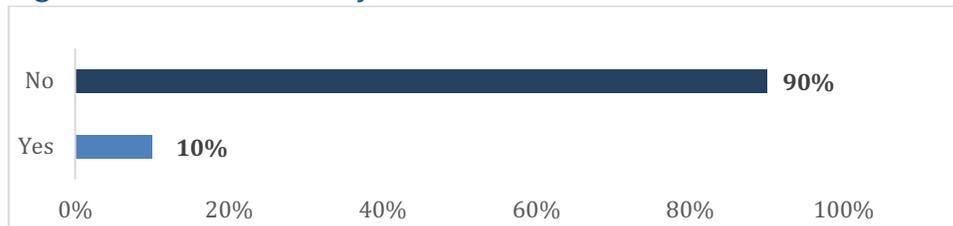


N=17,294

Ninety percent (90%) of participants indicated that they did not use a recruiter to obtain employment at their destination.

⁵⁸ The researchers note that “work level” lacks formal definition in prior literature, does not correspond to a formal certification among participants, and may have been ambiguously understood by the participants. For example, *raj mistry*, which roughly corresponds to the English title of a “master craftsman,” is not a formal title granted to many workers, even if their duties may include those of an overseer or foreperson.

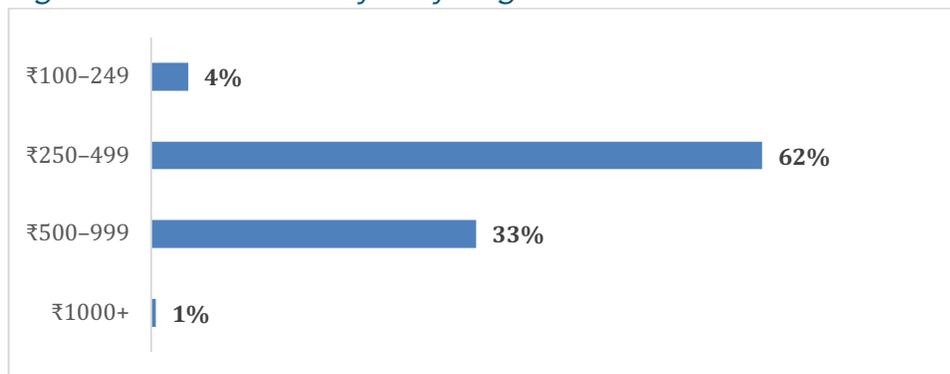
Figure 11. Distribution by recruiter use



N=11,306

Almost all participants (99.5%) reported a daily wage under ₹1,000, with the overall average daily wage reported as ₹412.9, with a median of ₹400, a lower 25th percentile of ₹300 and an upper 25th percentile of ₹500.

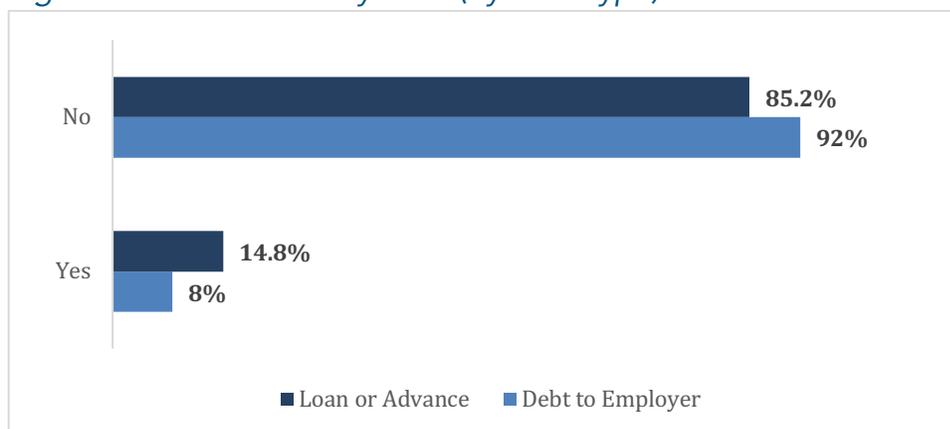
Figure 12. Distribution by daily wage



N=17,041

Eight percent (8%) of respondents indicated that they owed a debt to their employer. 14.7% of respondents stated that they took loans or advances in order to obtain or seek work in the construction industry.

Figure 13. Distribution by debt (by debt type)



N=17,072

Social Statistics⁵⁹

The majority of study participants (68.1%) indicated that they belong to a **Scheduled Caste (SC)**. The second largest group was **Other Backward Classes (OBC)** at 23.2% of the overall sample. Prior literature has shown varied caste distributions among migrant construction workers, with Raj and Singh surveying a primarily OBC (40.2%) sample of 508 respondents (with 168 of respondents employed in construction at the time of enumeration) in Varanasi⁶⁰ and Tiwari et al. surveying 150 participants in Kolkata, finding that 59% of respondents were General Category.⁶¹ Srivastava and Sutradhar's 2016 snowball sample of migrant construction workers in the Delhi/NCR region comprised approximately 38.7% OBC, 33.3% ST, 6.7% SC, and 21.3% other castes.⁶² These authors' household surveys of 150 migrant construction workers in Delhi/NCR, which also "backtraced" two smaller sub-samples of workers to their origin villages, found that migrant workers from one village were roughly 80.6% OBC, whereas in the other all migrant workers were Muslims.⁶³ More broadly, World Bank's 2018 report⁶⁴ on domestic migration in India identified that "households classified as Scheduled Tribe (ST) or Scheduled Caste are more likely to have a short-duration out-migrant." These prior findings show that caste distributions vary widely between migrant worker cohorts

⁵⁹ In this section, the researchers refer to Scheduled Caste, Scheduled Tribes, Other Backward Classes, Religious Minorities, and other groups in a constitutionally scheduled classification system of castes used by the Government of India to provide certain entitlements and privileges to castes that have historically been marginalized. "Scheduled Caste" refers to a historically marginalized population known under earlier British colonial rule as "Depressed Classes." "Scheduled Tribes" refers to historically marginalized indigenous tribes that were previously treated as outside of the social class system. "Other Backward Classes" refers to a population of otherwise historically disenfranchised underrepresented groups. "Religious Minorities" is a more recently established group referring to people of underrepresented faiths, including Muslims, Sikhs, Christians, Buddhists and Zoroastrians, among others.

⁶⁰ Dharma Raj, D., & Singh, B. P. (2017). Demographic and socio-economic profile of labourers in construction industry of Varanasi City (India). *Journal of Statistics Applications & Probability*, 7(1), 151–159. <http://dx.doi.org/10.18576/jsap/07011410.18576/jsap/070114>

⁶¹ Tiwary, G., Gangopadhyay, P. K., Biswas, S., Nayak, K., Chatterjee, M. K., Chakraborty, D., & Mukherjee, S. (2012). Socio-economic status of workers of building construction industry. *Indian Journal of Occupational and Environmental Medicine*, 16(2), 66–71. <https://doi.org/10.4103/0019-5278.107072>

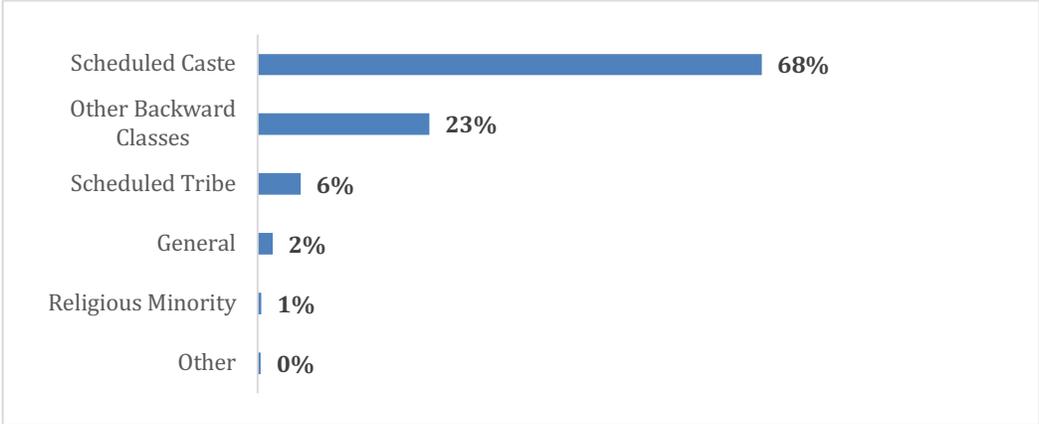
⁶² Srivastava, R., & Sutradhar, R. (2016). Migrating Out of Poverty? A study of migrant construction sector workers in India. *Indian Institute for Human Development*.

⁶³ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

⁶⁴ Nayyar, G., & Kim, K. Y. (2018). India's internal labor migration paradox: the statistical and the real. *World Bank Policy Research Working Paper*, (8356).

and their different communities of origin.

Figure 14. Distribution by caste



N=17,254

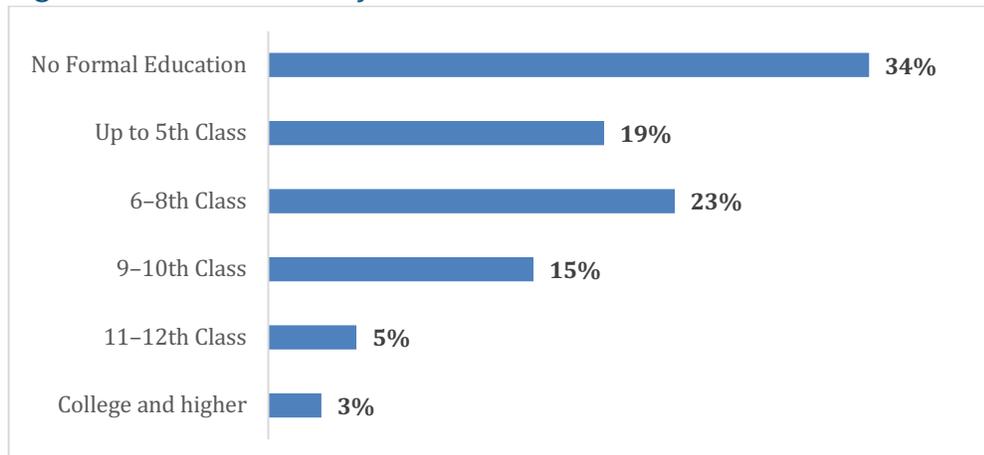
Approximately **one third of the study participants reported no formal education.** Responses were relatively evenly distributed among participants reporting attaining up to 5th class, 6th–8th class, and 9th–10th class. A small percentage reported higher educational attainment than 10th class. All recent surveys of migrant construction workers in India that have collected educational information have shown that the largest percentage of workers in any single educational category are those with no formal education. The educational distribution reflected in this study’s sample is relatively consistent with the data obtained by Srivastava and Sutradhar⁶⁵ who found that only 26% of migrant construction workers in Delhi/NCR reported education levels higher than primary. The surveyed workers’ education levels are also similarly, but not equally distributed to those of the sample surveyed in Varanasi by Raj and Singh⁶⁶ who reported 47% of respondents with no formal education, 20% up to 5th class, and 15% between 6th and 8th class.

⁶⁵ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

<https://doi.org/10.1177/0973703016648028>.

⁶⁶ Dharma Raj, D., & Singh, B. P. (2017). Demographic and socio-economic profile of labourers in construction industry of Varanasi City (India).

Figure 15. Distribution by education level

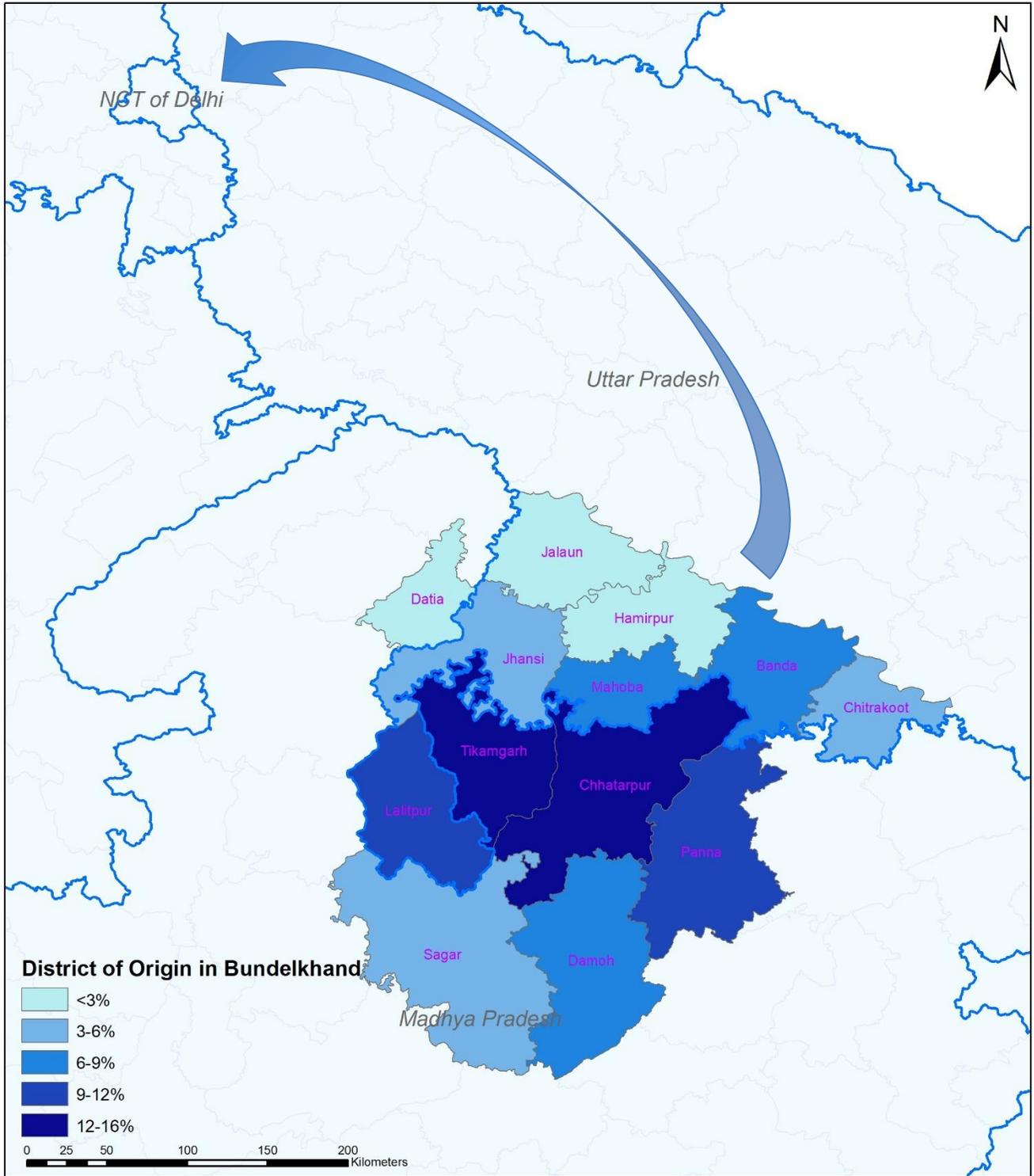


N=17,295

District of Origin Statistics

More than 10% of the collected sample of migrants were from each of the following districts: Chhatarpur (16.3%), Lalitpur (11.9%), Panna (11.8%), and Tikamgarh (15.1%). The researchers were unable to retrieve any recent source from either the Indian National Sample Survey or research literature that described a large sample of migrant construction workers from Bundelkhand who were employed in Delhi/NCR, nor the geographic distribution of migrant laborers within the Bundelkhand region. Existing literature and news sources note 50% to 70% of rural households in Bundelkhand may have at least one member who has migrated either annually or permanently.⁶⁷

⁶⁷ See, for example: Lahariya, K. (2019, May 21). Migrant workers who returned to UP's Banda to vote complain of intimidation by officials, long journey home. *Firstpost*. Retrieved May 7, 2021, from <https://www.firstpost.com/india/migrant-workers-who-returned-to-ups-banda-to-vote-complain-of-intimidation-by-officials-long-journey-home-6676351.html>



Note: This map visualizes the percentage of total study participants that migrated from each district in the Bundelkhand region. For example, Tikamgarh was the district of origin of 15% of the total study participants.

Figure 16. Migration Heat Map

Other Statistical Findings

Among the 92,846 qualifying and enrolled registrants, the number of people registered under **BOCW**, whether during or prior to the study, was 13,998 (15.1%). 92,414 possessed an Aadhar Card, 80,403 had a bank account, 14,532 had a Pan Card, 59,728 had a ration cards, 74,295 had voter IDs, 32,898 had MGNREGA job cards, 43,022 had family Samagra IDs. Only 117 reported having none of the key documents needed to access various welfare benefits.

Non-Intervention Participants

Prevalence of Forced Labor

Over the course of the study, **444 non-intervention participants (4.22%) met criteria for Tier 1 forced labor, 1,819 participants (17.27%) met criteria for Tier 2 forced labor, and 3,147 participants (29.88%) met criteria for Tier 3 forced labor.** 153 (1.45%) of the non-intervention participants falling into *Tier 1* also had debts to their employers, therefore meeting the *Tier 1A* (highest-risk) forced labor definition.

The most common indicator of forced labor within this cohort was working more hours than were agreed upon or contractually stipulated. The second most common indicator of forced labor among non-intervention participants was working on rest days for fear of losing their jobs. More than 20% of respondents also reported not being paid on time and having no freedom of movement after their work shifts, with more than 15% reporting threats to themselves, and not being paid their agreed upon wages.

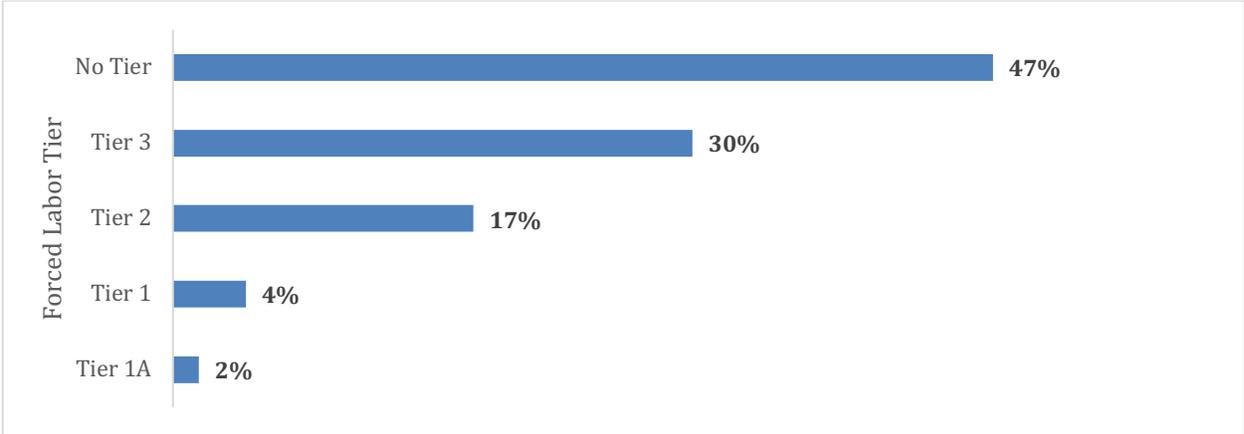
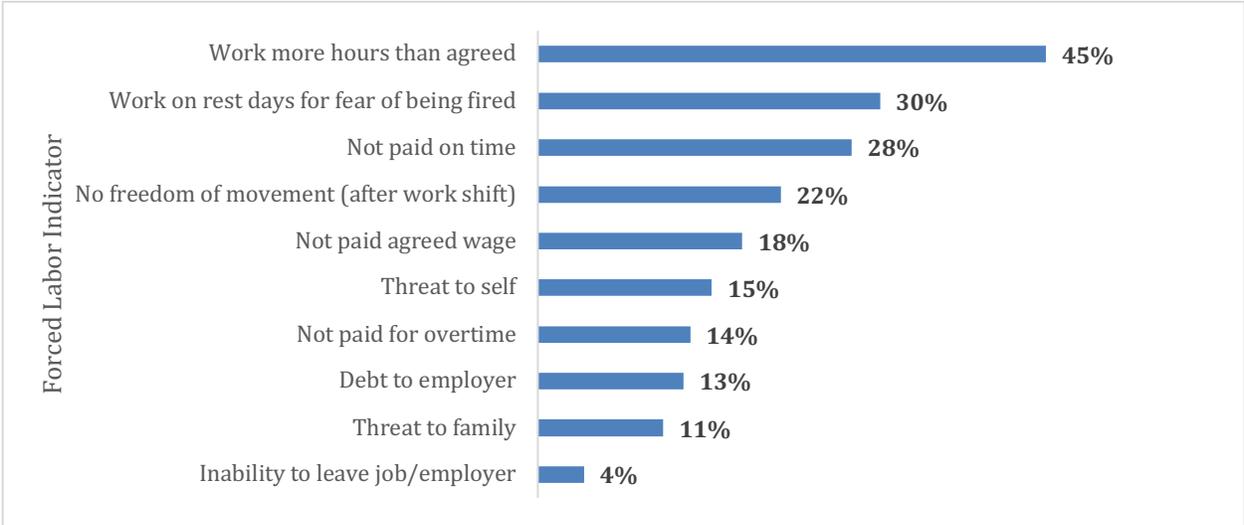
Although no previous studies have examined this migrant population at the same scale, other research has highlighted the exploitative nature of debt, unsafe working conditions, restricted movement, and poor pay (up to and including debt bondage) as common or even endemic to migrant labor in modern India.⁶⁸ Srivastava and Sutradhar⁶⁹ note, drawing from household surveys of 150 migrant construction workers in Delhi/NCR, that conditions are dangerous, working hours tend to be far higher than the expected 8 hours, for which many migrants are not paid overtime. With little formal training available, skill development is difficult to obtain or certify. Among many

⁶⁸ Mosse, D., Gupta, S., Mehta, M., Shah, V., Rees, J. F., & Team, K. P. (2002). Brokered livelihoods: Debt, labour migration and development in tribal western India. *Journal of Development Studies*, 38(5), 59–88.

⁶⁹ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

workers, a substantial portion of their pay goes toward debts, preventing larger remittances.

Figure 17. Prevalence of forced labor among non-intervention participants by indicator and by tier⁷⁰



N=10,533

⁷⁰ Respondents selected multiple indicators that best described their current situation.

Intervention Recipients

According to follow-up data, 2,103 participants registered for entitlements, 1,159 of whom confirmed they had received an entitlement during the study period.⁷¹ Further, 256 participants reported employment via ethical micro-contractors trained by Pratham, and 269 participants reported employment via ethical micro-contractors and receipt of an RPL certifications through Sambhav Foundation.

Below, we examine some sample statistics of the different cohorts.

Table 3. All cohorts: Distribution by age

Age Groups	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
18–24	2,834	26.9%	217	18.7%	168	17.8%	104	40.9%	43	16.0%
25–29	2,362	22.5%	271	23.4%	224	23.7%	66	26.0%	50	18.7%
30–34	1,656	15.7%	194	16.7%	181	19.2%	39	15.4%	40	14.9%
35–39	1,394	13.3%	181	15.6%	144	15.3%	18	7.1%	58	21.6%
40–44	1,046	9.9%	126	10.9%	95	10.1%	14	5.5%	41	15.3%
45–49	657	6.2%	85	7.3%	77	8.2%	9	3.5%	27	10.1%
50+	570	5.4%	85	7.3%	55	5.8%	4	1.6%	9	3.4%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

Table 4. All cohorts: Distribution by gender

Gender	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
Men	10,141	96.3%	1,094	94.4%	904	95.8%	253	98.8%	238	88.8%
Women	388	3.7%	65	5.6%	40	4.2%	3	1.2%	30	11.2%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

⁷¹ Those who were registered for, but did not receive, entitlements during the study period may have different outcomes from those who confirmed receipt of their entitlements. We examine these groups separately in these analyses to identify whether outcomes and/or other informative data points significantly diverged between them.

Among both the non-intervention cohort and entitlement recipients/registrants, “No Formal Education” was most commonly identified as the participant’s highest attained education level. In contrast, among Micro-Contractor participants, the largest educational category was “6th-8th Class,” and among Micro-Contractor participants with RPL, the single largest educational category was “Up to 5th Class.”

Table 5. All cohorts: Distribution by education level

Education	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
No Formal Edu.	3,662	34.8%	377	32.6%	384	40.8%	48	18.8%	40	14.9%
Up to 5th Class	1,977	18.8%	201	17.4%	140	14.9%	51	19.9%	93	34.6%
6–8th Class	2,442	23.2%	266	23.0%	184	19.5%	77	30.1%	89	33.1%
9–10th Class	1,594	15.2%	206	17.8%	167	17.7%	50	19.5%	35	13.0%
11–12th Class	556	5.3%	67	5.8%	39	4.1%	22	8.6%	11	4.1%
College+	277	2.6%	40	3.5%	28	3.0%	8	3.1%	1	0.4%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

Participants in Micro-Contracting programs were more likely to be from “Other” districts, with little participation from Tikamgarh, Chhatarpur, Damoh, Lalitpur, or Panna. These were the most common districts of origin among other cohorts.

Table 6. All cohorts: Distribution by district of origin

District	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
Banda	929	8.8%	45	3.9%	15	1.6%	–	0.0%	2	0.7%
Chhatarpur	1,715	16.3%	159	13.7%	401	42.7%	3	1.2%	3	1.1%

Chitrakoot	405	3.9%	10	0.9%	6	0.6%	–	0.0%	0	0.0%
Damoh	960	9.1%	208	17.9%	54	5.8%	1	0.4%	9	3.3%
Jhansi	531	5.0%	82	7.1%	24	2.6%	1	0.4%	32	11.9%
Lalitpur	1,295	12.3%	59	5.1%	44	4.7%	–	0.0%	0	0.0%
Mahoba	1,004	9.5%	75	6.5%	43	4.6%	5	2.0%	0	0.0%
Other	183	1.7%	32	2.8%	9	1.0%	246	96.1%	192	71.4%
Panna	1,297	12.3%	251	21.7%	17	1.8%	–	0.0%	4	1.5%
Sagar	650	6.2%	84	7.2%	63	6.7%	–	0.0%	22	8.2%
Tikamgarh	1,548	14.7%	154	13.3%	263	28.0%	–	0.0%	5	1.9%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

Participants in Micro-Contracting programs were also majority OBC, as opposed to non-intervention workers and entitlement recipients/registrants, all of whom were majority SC. General Category members also comprised a larger percentage of Micro-Contractor participants.

Table 7. All cohorts: Distribution by caste

Caste	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
General	158	1.5%	13	1.1%	7	0.7%	40	18.4%	42	16.5%
Other Backward Classes	2,423	23.0%	226	19.6%	134	14.2%	120	55.3%	116	45.5%
Other	41	0.4%	2	0.2%	–	0.0%	–	0.0%	–	0.0%
Religious Minority	42	0.4%	3	0.3%	–	0.0%	10	4.6%	8	3.1%
Scheduled Caste	7,223	68.7%	844	73.1%	734	77.8%	36	16.6%	78	30.6%
Scheduled Tribe	630	6.0%	67	5.8%	69	7.3%	11	5.1%	11	4.3%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

Daily wages differed by a wide margin between participants employed with micro-contractors, both with and without RPL certification, and those not employed with micro-contractors. Among those not employed with MCs, between 60% and 65% of

participants responded that their daily wages ranged between ₹250–499, whereas fewer than 50% of those employed with MCs fell into this wage range, with a majority indicating that their wages fell into the ₹500–999 range. This finding echoes surveys conducted with micro-contractors who underwent training by Pratham and Sambhav Foundation, wherein a majority of MCs indicated that their daily wage rates were above ₹500.

Table 8. All cohorts: Distribution by daily wage

Caste	Non-Int.		Ent. Rec.		Ent. Reg.		MC		MC and RPL	
	n	%	n	%	n	%	n	%	n	%
₹100–249	418	4.1%	54	5.0%	41	4.5%	1	0.4%	2	0.9%
₹250–499	6,521	64.4%	679	62.9%	599	61.4%	113	47.9%	101	45.5%
₹500–999	3,145	31.0%	344	31.9%	306	33.6%	116	49.2%	113	50.9%
₹1000+	49	0.5%	2	0.2%	5	0.5%	6	2.5%	6	2.7%

Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.

Prevalence of Forced Labor

Table 9. All cohorts: Forced labor indicators and tiers

Indicator	Ent. Rec. (n = 1,159)		Ent. Reg. (n = 944)		MC (n = 256)		MC and RPL (n = 269)	
	n	%	n	%	n	%	n	%
Work on rest days for fear of being fired	349	30.1%	326	34.5%	32	12.5%	17	6.3%
Threat to self	161	13.9%	178	18.9%	13	5.1%	9	3.4%
Threat to family	119	10.3%	125	13.2%	7	2.7%	3	1.1%
Not paid on time	356	30.7%	313	33.2%	52	20.3%	54	20.1%
Not paid for overtime	148	12.8%	151	16.0%	22	8.6%	12	4.5%
Debt to employer	134	11.6%	155	16.4%	2	0.8%	–	0.0%
No freedom of movement (after work shift)	271	23.4%	200	21.2%	39	15.2%	58	21.6%
Inability to leave job/employer	36	3.1%	41	4.3%	6	2.3%	–	0.0%

Work more hours than agreed	509	43.9%	464	49.2%	71	27.7%	59	21.9%
Not paid agreed wage	221	19.1%	185	19.6%	24	9.4%	11	4.1%
Tier	n	%	n	%	n	%	n	%
Tier 1	49	4.2%	52	5.5%	3	1.2%	2	0.7%
Tier 1A	18	1.6%	18	1.9%	1	0.4%	–	0.0%
Tier 2	178	15.4%	191	20.2%	9	3.5%	8	3.0%
Tier 3	355	30.6%	324	34.3%	35	13.7%	18	6.7%
Notes. Non-Int. = Non-Intervention; Ent. Rec. = Received Entitlements; Ent. Reg. = Registered for Entitlements; MC = Micro-contractors; MC and RPL = Micro-contractors and Recognition of Prior Learning.								

Entitlement Registrants/Recipients

In terms of the overall tiers of forced labor severity, those who confirmed receipt of entitlements had lower Tier 1, Tier 1A, Tier 2, and Tier 3 incidence of forced labor than those who had been registered for, but had not received their entitlements, by a margin of between 10% to 25%. Because these groups represent a single cohort with divergent benefit-oriented outcomes, the researchers further examine whether differences in the incidence of forced labor indicators are statistically significant between those who received and did not receive the entitlements for which they were registered. We find that receipt of entitlements is significantly negatively correlated with working on rest days ($p < .05$), threats to self ($p < .005$), threats to family ($p < .05$), not receiving overtime payment ($p < .05$), owing a debt to one's employer ($p < .005$), and working more than agreed hours ($p < .05$). Receipt of entitlements is negatively correlated with falling into *Tier 2* forced labor ($p < .005$), and positively correlated with the *No Tier* category denoting a status that does not meet any definition of forced labor ($p < .05$).

Table 10. Forced labor indicators and receipt/non-receipt of entitlements among intervention cohort registered for entitlements

Forced Labor Indicators	Correlation	Significance
Work on rest days for fear of being fired	-.046	.036*
Threat to self	-.067	.002**
Threat to family	-.047	.032*

Not paid on time	-.027	.221	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	-.046	.034*	
Debt to employer	-.071	.001**	
No freedom of movement (after work shift)	.026	.239	
Inability to leave job/employer	-.033	.131	
Work more hours than agreed	-.053	.015*	
Not paid agreed wage	-.007	.744	
Tier	Correlation	Significance	<i>n</i>
Tier 1	-.030	.169	101
Tier 2	-.064	.003**	369
No Tier	.044	.043*	1,354
<p><i>n</i> = 2,103 Correlation / Significance: Pearson's <i>r</i>, where *<i>p</i> < .05, **<i>p</i> < .01, and ***<i>p</i> < .001; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and receipt of government entitlements among participating migrant workers who were employed in the construction industry in Delhi/NCR, who had been registered for entitlements. The relationships in this table are directional; they identify whether a positive or negative statistically significant relationship exists between forced labor indicators and whether or not a participant ultimately received the government entitlements for which they were registered by partner organizations.

The researchers then fit a binary logistic regression model to examine whether education may account for the relationship between entitlement receipt and improved forced labor outcome probabilities. The regression model was tested between Tier 1 or 2 forced labor outcomes, formal education, and receipt of entitlements among those who registered for them. We observe a significant interaction between these variables at $p < 0.01$. In particular, those who receive entitlements *and* are formally educated have a significantly lower probability of falling into Tier 1 or 2 forced labor.

The researchers further examine correlations between education and entitlement receipt among those who were registered for entitlements, and observe a positive correlation ($r = 0.085$ at $p < 0.001$). This indicates that not only are entitlement applicants with a formal education more likely to receive their entitlements, but also entitlement

receipt only statistically significantly reduces the probability of falling into forced labor among those that have received a formal education. Barriers may therefore exist among those without formal education in receiving entitlements and in subsequently benefiting from reduced risk of forced labor as a result of their receipt.

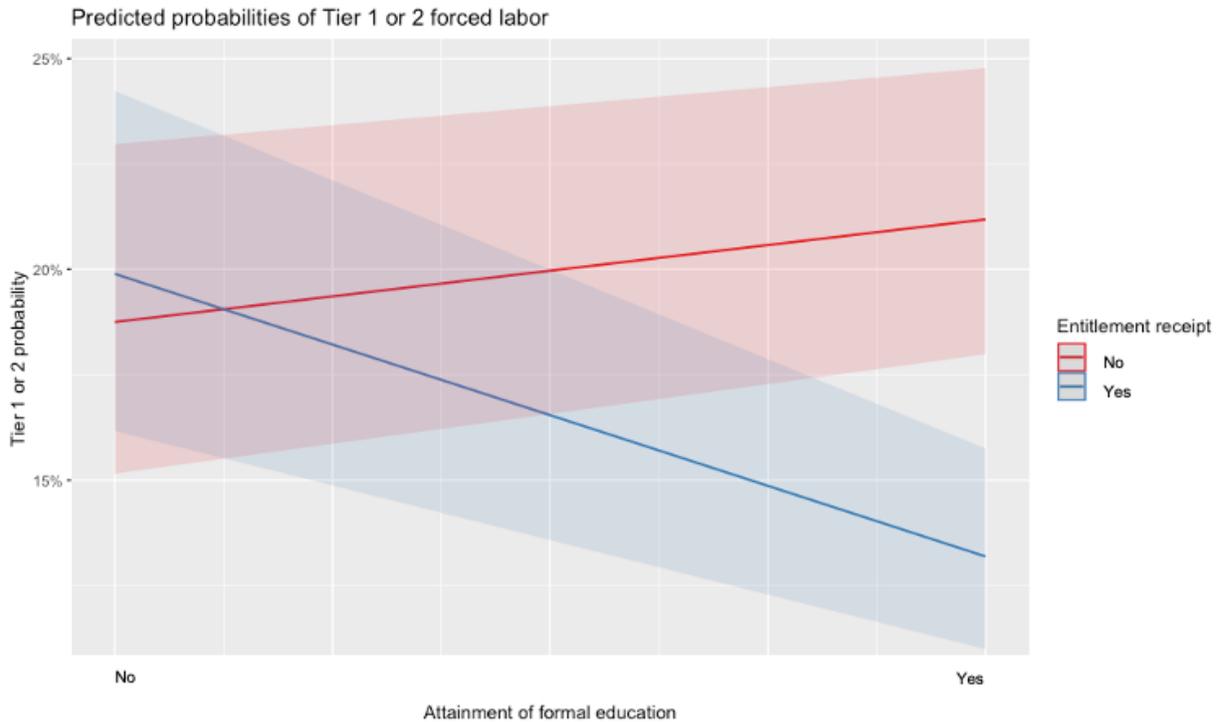


Figure 18. Interaction plot between formal education, entitlement receipt, & Tier 1 or 2 forced labor⁷²

Micro-Contractors

The prevalence rates of forced labor among micro-contractor participants were dramatically lower than those of other cohorts, and those who were placed with ethical micro-contractors and also received RPL certification featured the lowest prevalence rates of any cohort across all tiers. Micro-Contractor (MC) participants, including those

⁷² This figure illustrates the probability of falling into Tier 1 or 2 forced labor (shown on the y-axis), with the red line representing individuals who did not receive entitlements and the blue line representing those who did receive entitlements. The x-axis represents attainment of formal education, with the left side depicting those with no formal education and the right side depicting those who possess any level of formal education. Attainment of formal education *alongside* receipt of an entitlement has a significant effect on the probability of falling into forced labor, as evidenced by the difference between the red and blue lines.

who also received RPL certification, had the lowest debt rates of any cohort by a significant margin. In general, these participants also had lower rates in all examined tiers of forced labor. The researchers caution that, due to the sampling processes used for intervention and non-intervention cohorts, as well as the significant demographic differences between the cohorts discussed in the previous section, these results alone cannot be interpreted to suggest that ethical MC participation reduces forced labor rates.

To further investigate micro-contractor effectiveness as a prevalence reduction treatment, the researchers used statistical sample matching to develop and evaluate a matched sample between non-intervention and MC participants. The researchers first evaluated a number of techniques from the literature in order to select the best approach for this study's design and data. Owing to differences in the data collection approach, methods that included pre-treatment measurements of dependent variables, including Haviland and Nagin's propensity score matching process⁷³ and Li, Propert, and Rosenbaum's risk set matching function,⁷⁴ were discarded. The researchers ultimately utilized a propensity score matching method from Dehejia and Wahba⁷⁵ and evaluated the available matching functions by examining the matched sample size (i.e., examining the number of dropped samples) and covariate means between the micro-contractor and non-intervention matched samples.

Using the *MatchIt* package in R, the researchers found that sampling with replacement was not necessary in order to develop a complete and statistically indistinguishable matched sample (measured in terms of Welch two-sample *t*-tests between matched and treatment covariate means, with no covariates producing significant differences at $p < .05$). Both the "nearest neighbor" function using propensity score difference as a distance measure and the "optimal" pair matching function produce matched samples that meet these two conditions.⁷⁶ TST matched using formal education, age, use of recruiters, gender, caste, and assumption of debts, as these covariates are each associated with forced labor outcomes. The inclusion of debt assumption as a covariate is an imperative, owing to the fact that debt and forced labor outcomes have the

⁷³ Haviland, A., Nagin, D. S., & Rosenbaum, P. R. (2007). Combining propensity score matching and group-based trajectory analysis in an observational study. *Psychological methods*, 12(3), 247.

⁷⁴ Li, Y. P., Propert, K. J., & Rosenbaum, P. R. (2001). Balanced risk set matching. *Journal of the American Statistical Association*, 96(455), 870-882.

⁷⁵ Dehejia, R. H., & Wahba, S. (2002). Propensity score-matching methods for nonexperimental causal studies. *Review of Economics and statistics*, 84(1), 151-161.

⁷⁶ Austin, P. C. (2014). A comparison of 12 algorithms for matching on the propensity score. *Statistics in medicine*, 33(6), 1057-1069.

strongest relationship of any covariate; however, we note that the “treatment” of employment with micro-contractors may itself affect the probability of assuming debt to obtain or retain employment. For this reason, the researchers caution that any effects observed may be *underestimated*; by balancing the sample in terms of debt, some effects of the treatment may be erased.

We ultimately use the “nearest neighbor” matched sample for the comparative analysis. We select this matching function as opposed to the optimal matching function because it produces a slightly lower overall standardized mean difference across all covariates (.067 vs. .077), because it is widely used in the literature, and because it offers clear and interpretable inclusion/exclusion criteria. We then examine the impact of the micro-contractor treatment using a binomial logistic regression fit to the following coefficients: presence/lack of formal education, age above/below 30, use of recruiter, gender, caste (binarized), assumption of debt, and employment with a micro-contractor. The dependent variable for the regression is defined as falling into either Tier 1 or Tier 2 forced labor. The researchers also measure interaction effects between debt and the treatment. Table 22 summarizes these findings.

Table 11. Evaluating the impact of micro-contractor employment with matched sample

Covariates	Estimate	Std. Err.	z	Pr(> z)	Significance
(Intercept)	-3.00322	0.92972	-3.23	0.00124	<.01
Formal Education	0.27246	0.52647	0.518	0.60479	<i>Not Sig.</i>
Age (<30/30+)	0.64517	0.38966	1.656	0.09778	<.1
Recruiter Use	0.0543	0.66884	0.081	0.93529	<i>Not Sig.</i>
Gender	-13.58849	1056.73118	-0.013	0.98974	<i>Not Sig.</i>
General	-0.53817	0.92768	-0.58	0.56183	<i>Not Sig.</i>
Other Backward Classes	0.2891	0.78039	0.37	0.71105	<i>Not Sig.</i>
Other	NA	NA	NA	NA	<i>Not Sig.</i>
Scheduled Caste	0.02203	0.89954	0.024	0.98046	<i>Not Sig.</i>
Scheduled Tribes	0.04114	1.27825	0.032	0.97432	<i>Not Sig.</i>
Religious Minority	0.42411	0.97514	0.435	0.66362	<i>Not Sig.</i>
Debt	2.53271	1.4571	1.738	0.08218	<.1
Micro-Contractor	-1.01669	0.43462	-2.339	0.01932	<.05

Employment					
Debt:MC	1.44836	2.12706	0.681	0.49592	Not Sig.

This table provides estimated effects and significance levels for a binomial logistic regression fit to a matched sample between participants employed with micro-contractors and participants from the non-intervention cohort.

Overall, only the micro-contractor covariate has a significant relationship with forced labor outcomes at $p < .05$. This covariate is negatively associated with falling into forced labor. Participant age has a significant positive relationship with falling into forced labor at $p < .1$, as does the assumption of debt. As mentioned previously, it is possible that the treatment itself significantly reduces the probability of a worker falling into debt; as a result, by balancing the samples with respect to debt, any impact that employment with micro-contractors may have on reducing worker debt is not measured. This may lead to an underestimation of the positive impact of the intervention. Seeking to further examine the relationship between debt and micro-contractor enrollment vis-a-vis labor outcomes, we examine their interaction effect as part of the regression, and find the interaction effect to have an insignificant relationship with falling into Tier 1 or 2 forced labor.

The use of sample matching poses risks to any comparative analysis between study cohorts. However, given the logistical constraints of the study and its design, we provide the above analysis as a best-possible evaluation, noting that it offers some empirical support to the notion that, controlling for other covariates, employment with micro-contractors *does* reduce the risk of forced labor.

Other Key Findings

Across all collected data, a number of statistical associations with forced labor emerge. Below, we provide correlation tables alongside discussion of the complex relationships between several participant characteristics and forced labor.

Age and Forced Labor

Key Takeaway: Correlations between Age and Forced Labor exist. Participants over age 30 face significantly greater FL risks.

Table 12. Forced labor indicators and tiers: significance of age

Forced Labor Indicators	Correlation	Significance
Work on rest days for fear of being fired	.082	<.001 ⁺⁺⁺
Threat to self	.057	<.001 ⁺⁺⁺

Threat to family	.054	<.001 ⁺⁺⁺	
Not paid on time	.032	.007 ⁺⁺	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.156	.653	
Debt to employer	.035	.002 ⁺⁺	
No freedom of movement (after work shift)	.033	.004 ⁺⁺	
Inability to leave job/employer	.023	.149	
Work more hours than agreed	.060	<.001 ⁺⁺⁺	
Not paid agreed wage	.039	<.001 ⁺⁺⁺	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.020	.346	716
Tier 2	.060	<.001 ⁺⁺⁺	2,878
No Tier	.076	<.001 ⁺⁺⁺	11,708
<p><i>n</i> = 17,310 Correlation: Cramer's V; Significance: Chi-Square Test where *<i>p</i> < .05, **<i>p</i> < .01, and ***<i>p</i> < .001; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported age among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are not directional; they identify whether a statistically significant relationship exists in general between forced labor indicators and participant age.

A number of significant but small associations exist between age and forced labor indicators, including working on rest days for fear of being fired, receiving threats to self and to family, not being paid on time, owing a debt to one's employer, no freedom of movement after work, working more than agreed upon hours, and not receiving agreed upon daily wages. Furthermore, age is significantly associated with the lower-severity Tier 2 criteria for forced labor, and with not meeting any tier of forced labor.

By redistributing age into binary categories of "younger than 30" and "30+," we obtain directional correlations to elaborate upon the previous findings. Most individual indicators offer small but significant or highly significant correlations. A large and significant negative correlation emerges between the binary age field and the "No

Tier" forced labor category. Participants over age 30, who are also more likely to be female ($r = .06, p < 0.001$) and less likely to be formally educated ($r = -.18, p < .001$), are also more likely to report indicators meeting the criteria for one or more tiers of forced labor.

Table 13. Forced labor indicators and tiers: Significance of age (<30 / 30+)

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired	.063	<.001***	
Threat to self	.043	<.001***	
Threat to family	.026	<.001***	
Not paid on time	.015	.047*	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	-.009	.236	
Debt to employer	.021	.005**	
No freedom of movement (after work shift)	.020	.009**	
Inability to leave job/employer	-.017	.024*	
Work more hours than agreed	.048	<.001***	
Not paid agreed wage	.026	<.001***	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.008	.302	716
Tier 2	.043	<.001***	2,878
No Tier	-.587	<.001***	11,708
<p><i>n</i> = 17,310 Correlation / Significance: Pearson's <i>r</i>, where *<i>p</i> < .05, **<i>p</i> < .01, and ***<i>p</i> < .001; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported age (over/under 30) among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a positive or negative statistically significant relationship exists between forced labor indicators and whether or not a participant is over age 30.

Gender and Forced Labor

Key Takeaway: Correlations between Gender and Forced Labor exist. Female participants face significantly greater FL risks.

Although there were few female study participants, our findings indicate that these female migrant construction workers are more likely to face a number of forced labor indicators than the surveyed male workers, and that men are more likely to report “No Tier” conditions (i.e., conditions that do not meet a definition of forced labor).

Women were more likely to report threats to self and family, not being paid on time, no freedom of movement after work shifts, and inability to leave their job or employer. Women were significantly more likely to fall into both Tier 1 and 2 definitions of forced labor. Chakraborty’s 2020 study of female migrant workers in South Asia identified that women who migrated for work in the construction industry were more likely to work lower paying, unskilled and menial jobs as opposed to men⁷⁷. Furthermore, Chakraborty notes that women who migrate without their families are more likely to face stigma, harassment, and discrimination.

Table 14. Forced labor indicators and tiers: Significance of gender

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired	.010	.194	
Threat to self	.023	.003**	
Threat to family	.026	<.001***	
Not paid on time	.024	.001**	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	-.007	.339	
Debt to employer	.003	.664	
No freedom of movement (after work shift)	.035	<.001***	
Inability to leave job/employer	.018	.017*	
Work more hours than agreed	<-.001	.982	
Not paid agreed wage	.001	.858	
Tier	Correlation	Significance	<i>n</i>

⁷⁷ Chakraborty, A. (2020). Negotiated agency amidst overlapping vulnerabilities of women migrant workers in South Asia. *Social Change*, 50(1), 61–76. <https://doi.org/10.1177/0049085719901070>

Tier 1	.015	.044*	716
Tier 2	.021	.007**	2,881
No Tier	-.015	.043*	11,717
<p>$n = 17,325$ Correlation / Significance: Pearson's r, where *$p < .05$, **$p < .01$, and ***$p < .001$; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and participant gender among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and whether or not a participant self-reports as female.

Social Statistics and Forced Labor

Key Takeaway: Several correlations between Education, Caste, and Forced Labor exist. Participants with no formal education, as well as those who are members of Scheduled Castes, face significantly greater FL risks.

Education level is significantly associated with nearly all forced labor indicators. After adjusting education level to a binary field denoting attainment of any level of formal education, directional correlations show that seven of ten forced labor indicators are negatively associated with having attained any level of formal education. Tier 1 and Tier 2 are both negatively associated with having attained any formal education ($p = .017$ and $p < .001$, respectively), and the "No Tier" category is positively associated with formal education ($p < 0.001$).

Table 15. Forced Labor Indicators and Tiers: Significance of Education Level

Forced Labor Indicators	Correlation	Significance
Work on rest days for fear of being fired	.026	.043 ⁺
Threat to self	.035	<.001 ⁺⁺⁺
Threat to family	.043	<.001 ⁺⁺⁺
Not paid on time	.023	.095
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.028	.019 ⁺
Debt to employer	.025	.050

No freedom of movement (after work shift)	.038	<.001 ⁺⁺⁺	
Inability to leave job/employer	.022	.013 ⁺	
Work more hours than agreed	.039	<.001 ⁺⁺⁺	
Not paid agreed wage	.022	.141	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.023	.097	713
Tier 2	.041	<.001 ⁺⁺⁺	2,874
No Tier	.043	<.001 ⁺⁺⁺	11,698
<p><i>n</i> = 17,294 Correlation: Cramer's V; Significance: Chi-Square Test where ⁺p < .05, ⁺⁺p < .01, and ⁺⁺⁺p < .001; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported education level among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are not directional; they identify whether a statistically significant relationship exists at all between forced labor indicators and the education level reported by study participants.

Table 16. Forced labor indicators and tiers: Significance of education level (formal education)

Forced Labor Indicators	Correlation	Significance
Work on rest days for fear of being fired	-.024	.002 ^{**}
Threat to self	-.034	<.001 ⁺⁺⁺
Threat to family	-.038	<.001 ⁺⁺⁺
Not paid on time	-.012	.105
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.002	.787
Debt to employer	-.022	.004 ^{**}
No freedom of movement (after work shift)	-.025	<.001 ⁺⁺⁺
Inability to leave job/employer	-.012	.130
Work more hours than agreed	-.038	<.001 ⁺⁺⁺
Not paid agreed wage	-.018	.017 [*]

Tier	Correlation	Significance	<i>n</i>
Tier 1	-.018	.017*	713
Tier 2	-.039	<.001***	2,874
No Tier	.040	<.001***	11,698

n = 17,294
Correlation / Significance: Pearson's *r*, where **p* < .05, ***p* < .01, and ****p* < .001; no marking indicates no significance.
Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.

This table describes the statistical relationship between specific indicators of forced labor and formal educational attainment among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and whether or not participants reported having any formal education.

Formal educational attainment is also significantly associated with certain castes and districts of origin. General Category and OBC are positively correlated with formal educational attainment (both *p* < .001), indicating that both are more likely to have a formal education within the collected sample, whereas SC and ST participants are negatively associated with formal educational attainment (*p* = .006 and *p* < .001, respectively), indicating that they are less likely to have a formal education. This coincides with statistically significant correlations between educational attainment and district of origin: participants from Banda, Chitrakoot, Jhansi, Mahoba, or Sagar are all more likely to report their attainment of formal education (*p* < .005 in all cases), whereas study participants from Chhatarpur, Damoh, Lalitpur, and Panna are less likely to do so (*p* < .005 in all cases). This raises the possibility of divergent geographic, educational, and caste-based clusters within the respondent pool, some of which may be more likely to report experiencing forced labor at destination work sites.

Table 17. Significance of formal education with caste

Caste	Correlation	Significance
General	.035	<.001***
Other Backward Classes	.060	<.001***
Other	.006	.407
Religious Minority	-.002	.810
Scheduled Caste	-.021	.006**

Scheduled Tribe	-0.094	<.001***
Correlation / Significance: Pearson's <i>r</i> , where * <i>p</i> < .05, ** <i>p</i> < .01, and *** <i>p</i> < .001; no marking indicates no significance.		

This table describes the statistical relationship between formal educational attainment and caste among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between specific castes and whether or not participants reported having any formal education.

Table 18. Significance of formal education with district of origin

District	Correlation	Significance
Banda	.068	<.001***
Chhatarpur	-.096	<.001
Chitrakoot	.049	<.001***
Damoh	-.023	.002**
Jhansi	.050	<.001***
Lalitpur	-.023	.002**
Mahoba	.030	<.001***
Panna	-.023	.002**
Sagar	.023	.002**
Tikamgarh	-.009	.214
Correlation / Significance: Pearson's <i>r</i> , where * <i>p</i> < .05, ** <i>p</i> < .01, and *** <i>p</i> < .001; no marking indicates no significance.		

This table describes the statistical relationship between formal educational attainment and district of origin among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between specific districts of origin and whether or not participants reported having any formal education.

Indeed, as shown below, a number of castes and districts of origin also significantly correlate with forced labor indicators. Overall, the "caste" data field is statistically significantly correlated with working on rest days, threats to self, threats to family, not being paid on time, working more than agreed hours, and not being paid agreed wages (all *p* < 0.001); it is also statistically significantly correlated with debt to

employer at a lower significance level ($p < 0.05$). More broadly, a participant’s caste classification statistically significantly correlates with their probability of falling into all forced labor tiers ($p < 0.01$) as well as the ‘no forced labor’ category ($p < 0.001$).

Table 19. Significance of caste with forced labor indicators and tiers

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired*	0.05	<.001 ⁺⁺⁺	
Threat to self†	.048	<.001 ⁺⁺⁺	
Threat to family†	.039	<.001 ⁺⁺⁺	
Not paid on time*	.044	<.001 ⁺⁺⁺	
Not paid for overtime† (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.025	.055	
Debt to employert	.028	.030 ⁺	
No freedom of movement (after work shift)*	.018	.339	
Inability to leave job/employert	.009	.968	
Work more hours than agreed*	.048	<.001 ⁺⁺⁺	
Not paid agreed wage*	.044	<.001 ⁺⁺⁺	
Tier	Correlation	Significance	<i>n</i>
Tier 1*	.019	.003 ⁺⁺	716
Tier 2†	.032	.003 ⁺⁺	2,878
No Tier†	.041	<.001 ⁺⁺⁺	11,654
<p><i>n</i> = 17,254 Correlation: Cramer’s V; Significance: * Chi-Square Test; † Fisher’s Exact Test where ⁺$p < .05$, ⁺⁺$p < .01$, and ⁺⁺⁺$p < .001$; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported

caste among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are not directional; they identify whether a positive or negative statistically significant relationship exists at all between forced labor indicators and a participants' castes.

When segmenting by indicators and the different caste classification categories, the researchers observed a number of small but statistically significant (and occasionally highly significant) correlations, indicating weak but highly reliable directional effects.

Scheduled Castes were found to be positively correlated with the presence of threats to self, threats to family, working on rest days, not being paid on time, not being paid for overtime, working more than agreed hours, and not being paid agreed wages, indicating that being a member of SC reliably increases the risk of experiencing several forced labor indicators by small margins. Scheduled Tribes were found to be negatively correlated with working on rest days, threats to self, threats to family, not being paid on time, not being paid for overtime, working more than agreed hours, and not being paid agreed wages, showing that among the examined categories, this group is slightly, but reliably, less likely to experience these forced labor indicators. Those who identified as members of some other group were less likely to be paid on time and more likely to owe a debt to their employer than those who did not. OBC members were negatively correlated with several indicators (working on rest days, threats to self, threats to family, not being paid on time, working more than agreed hours, and not being paid agreed wages), as were General Category members (negatively correlated with threats to self, not being paid on time, and working more than agreed hours). No significant correlations existed between Religious Minorities and any forced labor indicators.

These findings indicate that in general, Scheduled Caste members are significantly more likely to face forced labor indicators compared to other groups. In interpreting the above, however, the researchers caution that Scheduled Caste members represent approximately 68% of the overall sample, OBC represents approximately 23% of the sample, and General, Other, RM, and ST collectively comprise less than 10% of the sample. In comparison, the population of India has been estimated as roughly 40% OBC, 20% SC, and 9% ST.⁷⁸ This class imbalance may reflect the different demographics of those who migrate for construction work. On the other hand, owing

⁷⁸ Government of India. (2008). *Sarvekshana*, Ministry of Statistics & Program Implementation, National Sample Survey Organization, 94th Issue, Vol. XXVIII, No. 3 & 4.

to the study’s sampling process, these correlations may reliably hold for the sample but may not be representative of the experiences of those groups at the population level.

Table 20. Forced labor indicators and tiers: analysis of individual castes

	General	OBC	Other	RM	SC	ST
FL Indicators	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Work on rest days (fear of being fired)	.003	-.030***	-.007	-.003	.053***	-.027***
Threat to self	-.017*	-.020**	-.014	-.012	.046***	-.026***
Threat to family	-.010	-.019*	-.005	-.014	.035***	-.020**
Not paid on time	-.017*	-.020**	.002**	-.015	.037***	-.018*
Not paid for overtime*	.006	-.005	.002	-.002	.019*	-.021**
Debt to employer	.007	-.004	.022**	-.009	.014	-.010
No FOM (after work shift)	<.001	.014	.012	.009	.001	.001
Unable to leave job/employer	-.001	-.002	-.006	.003	<-.001	-.004
Work more hours than agreed	-.018*	-.022**	-.006	-.004	.048***	-.028***
Not paid agreed wage	-.020**	-.021**	.002	-.014	.041***	-.019*

Notes. OBC = Other Backward Classes; RM = Religious Minority; SC = Scheduled Caste; ST = Scheduled Tribe; FL = Forced Labor; FOM = Freedom of Movement.

Correlation / Significance: Pearson’s *r*, where **p* < .05, ***p* < .01, and ****p* < .001; no marking indicates no significance.

* Participant worked more than 8 hours in a day and reported no overtime payments.

This table describes the statistical relationship between specific indicators of forced labor and reported caste among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a positive or negative statistically significant relationship exists between forced labor indicators and a specific caste group.

District of Origin and Forced Labor

Key Takeaway: Correlations between District of Origin and Forced Labor exist. District of Origin significantly correlates with Forced Labor outcomes (both positive and negative) for a number of districts examined.

Participants’ district of origin correlates with every forced labor indicator, and with all measured tiers of forced labor. For each correlation, the statistical significance was measured at $p < .001$, with a single exception being that inability to leave one’s job or employer was measured at $p < .01$.

Table 21. Forced labor indicators and tiers: Significance of district

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired	.121	<.001 ⁺⁺⁺	
Threat to self	.113	<.001 ⁺⁺⁺	
Threat to family	.100	<.001 ⁺⁺⁺	
Not paid on time	.079	<.001 ⁺⁺⁺	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.088	<.001 ⁺⁺⁺	
Debt to employer	.110	<.001 ⁺⁺⁺	
No freedom of movement (after work shift)	.058	<.001 ⁺⁺⁺	
Inability to leave job/employer	.037	.009 ⁺⁺	
Work more hours than agreed	.092	<.001 ⁺⁺	
Not paid agreed wage	.094	<.001 ⁺⁺⁺	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.078	<.001 ⁺⁺⁺	714
Tier 2	.119	<.001 ⁺⁺⁺	2,877
No Tier	.128	<.001 ⁺⁺⁺	11,711
<p><i>n</i> = 17,311 Correlation: Cramer’s V; Significance: Chi-Square Test where *$p < .05$, **$p < .01$, and ***$p < .001$; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported districts of origin among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are not directional; they identify whether a statistically significant relationship exists at all between forced labor indicators and participants’ districts of origin.

By splitting the districts of origin into individual binary fields, we are able to examine directional correlations with forced labor indicators by district. At a high level, Chhatarpur, Jhansi, Lalitpur, and Tikamgarh each correlate positively with more than

one forced labor indicator. Tikamgarh correlates positively with the most forced labor indicators (9), followed by Lalitpur (4), Chhatarpur (3), and Jhansi (2). In contrast, Banda, Chitrakoot, Damoh, Mahoba, and Panna all correlate *negatively* with more than one forced labor indicator, indicating lower likelihood of certain indicators among participants from these districts. Panna correlates negatively with the most indicators (9), followed by Banda, Chitrakoot, and Mahoba (4), then Damoh (2).

The researchers note that in interpreting these findings, the distribution of positive and negative indicator correlations by district do not correspond with district-level economic factors such as income and HDI, which is surprising. For instance, Panna has the lowest HDI of any of the examined districts of origin, at 0.347, but is negatively associated as a district of origin for study participants with nearly every forced labor indicator studied with high levels of statistical significance. Jhansi, which has two smaller positive correlations in the table below (working rest days and owing a debt to employer (both $p < .05$), has the highest HDI and highest per capita income of any of the studied districts of origin.⁷⁹ The researchers observed that Tikamgarh, Jhansi, Lalitpur, and Chhatarpur are all spatially clustered. However, further research may be necessary to determine the underlying causes of these correlations.

Table 22. Forced labor indicators: Analysis of individual districts

	Banda	Chha.	Chit.	Damoh	Jhansi	Lalitpu	Maho.	Panna	Sagar	Tikam.
FL Indic.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.	Corr.
Work rest days (fear being fired)	-.021**	.011	-.022**	-.003	.023**	.023**	-.016*	-.042***	.031	.076***
Threat to self	-.022**	.013	.014	-.010	.014	.020**	-.021**	-.044***	-.009	.087***
Threat to family	-.023**	.004	-.003	-.010	.012	.026***	-.019*	-.045***	-.008	.075***
Not paid on time	<.001	.028***	-.001	-.007	.006	-.011	-.004	-.047***	-.016*	.058***
Not paid OT♦	.009	.005	.009	-.029***	<.001	.015	-.007	-.052***	.015*	.059***
Debt to employer	.009	.003	-.004	-.008	.016*	.025***	-.020**	-.051***	.001	.069***
No FOM (after work shift)	.013	<-.001	.006	-.018*	.001	.006	.020**	-.038***	-.002	.037***
Unable to leave job/employer	.001	.002	.023**	-.008	.004	-.033	-.004	-.002	.003	.005

⁷⁹ National Institute for Transforming India. (2012). Bundelkhand Human Development Report 2012. *NITI Aayog*.

Work more hours than agreed	-.008	.024**	-.016*	-.014	.017	-.004	-.001	-.034***	.007	.060***
Not paid agreed wage	-.022**	.022**	-.023**	-.002	<-.001	.011	-.015	-.036***	.009	.067***

Notes. Chha. = Chhattarpur; Chit. = Chitrakoot; Maho. = Mahoba; Tikam. = Tikamgarh; FL Indic. = Forced Labor Indicators; OT = Overtime; FOM = Freedom of Movement.

Correlation (Corr.) / Significance: Pearson's r , where * $p < .05$, ** $p < .01$, and *** $p < .001$; no marking indicates no significance

♦ Participants worked more than 8 hours in a day and reported no overtime payments.

This table describes the statistical relationship between specific indicators of forced labor and reported districts of origin among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a positive or negative statistically significant relationship exists between forced labor indicators and a specific district of origin.

Economic Indicators and Forced Labor

Key Takeaway: Correlations between Work Level, Recruiter Use, Daily Wages and Forced Labor exist. Participants working at lower Work Levels, participants who use recruiters to find jobs, and participants who are paid less face significantly greater FL risks.

As may be expected, work level, recruiter use, and daily wages also significantly correlate with a number of forced labor indicators. Workers reporting higher wages, who serve at higher work levels (e.g., helper or master / raj mistry), and who do not use a recruiter, are all less likely to experience forced labor.

Table 23. Forced labor indicators and tiers: Significance of work level

Forced Labor Indicators	Correlation	Significance
Work on rest days for fear of being fired	.033	<.001***
Threat to self	.031	<.001***
Threat to family	.021	.019*
Not paid on time	.017	.079
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.026	.003**
Debt to employer	.020	.036*
No freedom of movement (after work shift)	.020	.027*
Inability to leave job/employer	.019	.042*
Work more hours than agreed	.025	.005**

Not paid agreed wage	.027	.001 ⁺⁺	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.008	.552	714
Tier 2	.023	.011 ⁺	2,873
No Tier	.029	<.001 ⁺⁺⁺	11,697
<p><i>n</i> = 17,294 Correlation: Cramer's V; Significance: Chi-Square Test where ⁺p < .05, ⁺⁺p < .01, and ⁺⁺⁺p < .001; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported work levels among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are not directional; they identify whether a statistically significant relationship exists at all between forced labor indicators and work level responses.

Table 24. Forced labor indicators and tiers: Significance of recruiter use

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired	.033	<.001 ^{***}	
Threat to self	.047	<.001 ^{***}	
Threat to family	.054	<.001 ^{***}	
Not paid on time	.018	.053	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.033	<.001 ^{***}	
Debt to employer	.029	.002 ^{**}	
No freedom of movement (after work shift)	.013	.154	
Inability to leave job/employer	.013	.155	
Work more hours than agreed	.044	<.001 ^{***}	
Not paid agreed wage	.008	.379	
Tier	Correlation	Significance	<i>n</i>
Tier 1	.037	<.001 ^{***}	385
Tier 2	.055	<.001 ^{***}	1,574

No Tier	-.050	<.001***	8,132
<p>$n = 11,306$ Correlation / Significance: Pearson's r, where $*p < .05$, $**p < .01$, and $***p < .001$; no marking indicates no significance. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>			

This table describes the statistical relationship between specific indicators of forced labor and reported recruiter use among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and whether or not a study participant used a recruiter to find work.

Table 25. Forced labor indicators and tiers: Significance of daily wage

Forced Labor Indicators	Correlation	Significance	Mean Wage (meets)	Mean Wage (does not meet)	
Work rest days (fear being fired)	-.092	<.001	₹394	₹421	
Threat to self	-.066	<.001	₹392	₹417	
Threat to family	-.074	<.001	₹384	₹417	
Not paid on time ♦	-.067	<.001	₹397	₹418	
Not paid for overtime ♦♦	-.092	<.001	₹381	₹418	
Debt to employer	-.094	<.001	₹379	₹418	
No freedom of movement (after work shift)	-.055	<.001	₹397	₹416	
Inability to leave job/employer	-.018	.022	₹400	₹413	
Work more hours than agreed	-.052	<.001	₹405	₹419	
Not paid agreed wage	-.062	<.001	₹395	₹417	
Tier	Correlation	Significance	Mean Wage (meets)	Mean Wage (does not meet)	n
Tier 1	-.065	<.001	₹370	₹415	711
Tier 2	-.103	<.001	₹381	₹419	2,872

No Tier	.121	<.001	₹425	₹389	11,428
<i>n</i> = 17,041 Correlation: Point Biserial Test / Significance: Welch Two-Sample t-Test ♦ The indicator of not paid on time refers to temporal payments rather than wage deductions. ♦♦ Participant worked more than 8 hours in a day and reported no overtime payments. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.					

This table describes the statistical relationship between specific indicators of forced labor and reported daily wages among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and the daily wages reported by participants.

Worker debt is one of the strongest predictors of forced labor, and in many cases indicates debt bondage or bonded labor. For this reason, debt is treated as an additional criterion to establish Tier 1A, for those workers who face Tier 1 forced labor conditions *and* debts to their employers. In the study sample, debt owed to one’s employer significantly positively correlates with all other forced labor indicators ($p < .001$ in all cases), and with both Tier 1 and Tier 2 forced labor conditions. Debt owed to an employer also strongly negatively correlates with reports of “No Tier” work conditions ($r = -.334, p < .001$).

Table 26. Forced labor indicators and tiers: Significance of a debt owed to an employer

Forced Labor Indicators	Correlation	Significance	
Work on rest days for fear of being fired	.248	<.001***	
Threat to self	.202	<.001***	
Threat to family	.193	<.001***	
Not paid on time	.151	<.001***	
Not paid for overtime (i.e., participant worked 8+ hrs/day and reported no overtime payments)	.189	<.001***	
Debt to employer	–	–	
No freedom of movement (after work shift)	.101	<.001***	
Inability to leave job/employer	.064	<.001***	
Work more hours than agreed	.185	<.001***	
Not paid agreed wage	.172	<.001***	
Tier	Correlation	Significance	<i>n</i>

Tier 1	.149	<.001***	727
Tier 2	.283	<.001***	2,952
No Tier	-.334	<.001***	12,038

n = 17,788

Correlation / Significance: Pearson's *r*, where **p* < .05, ***p* < .01, and ****p* < .001; no marking indicates no significance.

Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.

This table describes the statistical relationship between specific indicators of forced labor and reported debts among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and whether or not participants reported owing a debt to their employer.

The researchers further examined the likelihood of falling into at least Tier 2 forced labor among participants who had assumed debts using a binary logistic regression. Those who had assumed debts faced an approximately 45% probability of falling into Tier 2 forced labor, whereas those who had not assumed any debts faced an approximately 12% probability of falling into forced labor.

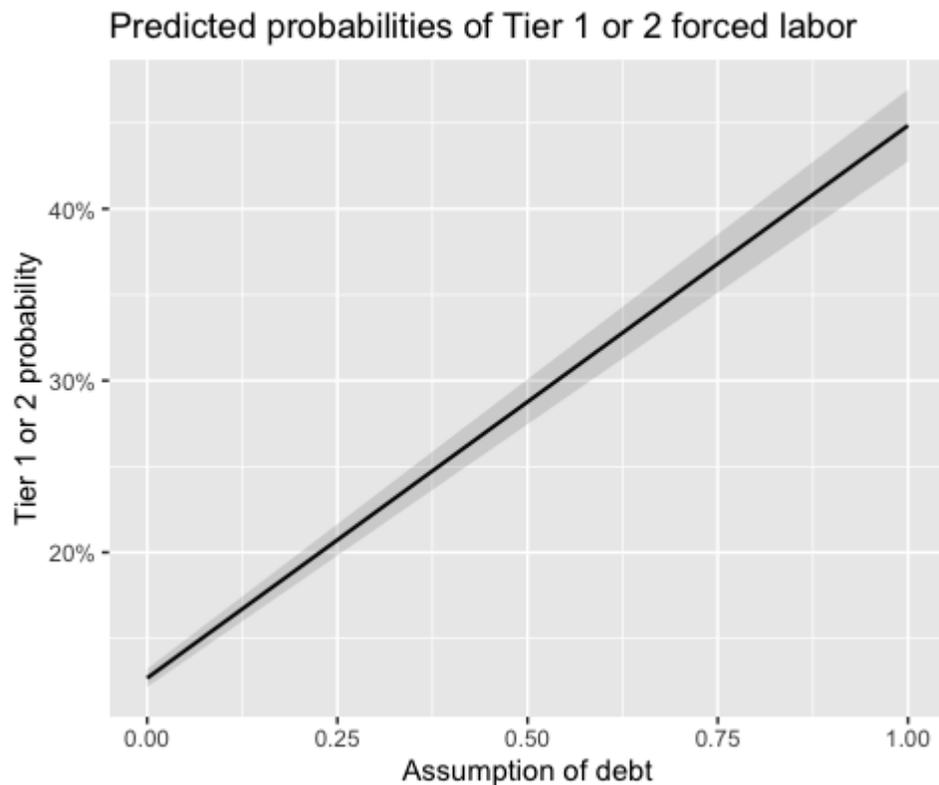


Figure 19. Plot of relationship between debt and Tier 1 or 2 forced labor probabilities⁸⁰

Dependents

Key Takeaway: The number of dependents traveling with a study participant does correlate with labor outcomes, but the findings are mixed.

The researchers examined whether or not traveling with dependents correlated with forced labor. Prior studies have noted that, in cases where travel to and cost-of-living at destinations are prohibitively high, migrant workers may travel alone in order to save and remit larger sums of money⁸¹. In the study sample, the number of dependents negatively correlated with Tier 1 ($p < .05$) but positively correlated with Tier 2 ($p < .05$). Those who traveled with fewer dependents did, however, tend to be less frequently paid for overtime ($p < .001$), whereas those traveling with more dependents tended to work more hours than agreed upon ($p < .001$). Intuitively, respondents with families may be willing to assume more hours than agreed upon with the hope of receiving more payment, given that their costs for food, supplies, and other necessities at destinations are higher than those of individual migrants; at the same time, they may be more likely to demand payment for overtime *because* they face these additional costs.

Table 27. Forced labor indicators and tiers: Significance of number of dependents with migrant

Forced Labor Indicators	Correlation	Significance	Mean number of dependents (meets)	Mean number of dependents (does not meet)
Work rest days (fear being fired)	.019	.013	1.9	1.8
Threat to self	.017	.025	1.9	1.8
Threat to family	.008	.035	1.8	1.8
Not paid on time♦	.024	.002	0.2	1.8
Not paid for overtime♦♦	-.024	.001	1.7	1.8

⁸⁰ This graph depicts the changing probability of falling into forced labor (y-axis) dependent on whether or not a participant has assumed any debts (x-axis).

⁸¹ Srivastava, R., & Sutradhar, R. (2016). Labour migration to the construction sector in India and its impact on rural poverty. *Indian Journal of Human Development*, 10(1), 27–48.

Debt to employer	<-.001	.970	1.8	1.8	
No freedom of movement (after work shift)	.015	.048	1.9	1.8	
Inability to leave job/employer	<-.001	.934	1.8	1.8	
Work more hours than agreed	.027	<.001	1.9	1.8	
Not paid agreed wage	.013	.091	1.8	1.8	
Tier	Correlation	Significance	Mean number of dependents (meets)	Mean number of dependents (does not meet)	<i>n</i>
Tier 1	-.007	.034	1.8	1.8	715
Tier 2	.016	.030	1.9	1.8	2,881
No Tier	-.010	.206	1.8	1.8	11,717
<p><i>n</i> = 17,326 Correlation: Point Biserial Test / Significance: Welch Two-Sample t-Test ♦ The indicator of not paid on time refers to temporal payments rather than wage deductions. ♦♦ Participant worked more than 8 hours in a day and reported no overtime payments. Note: The authors caution that not all migrant workers consistently responded to every question, and that Tier 3 results are not included in several of the included tables. These variations may result in different response totals among the different tables.</p>					

This table describes the statistical relationship between specific indicators of forced labor and reported number of migrating dependents among participating migrant workers who were employed in the construction industry in Delhi/NCR. The relationships in this table are directional; they identify whether a statistically significant positive or negative relationship exists between forced labor indicators and the number of dependents that participants reported were migrating with them.

COVID-19 Effects and Recovery

Vulnerability Study

The COVID-19 pandemic severely impacted the surveyed population and limited the researchers' ability to collect data in support of the original study; however, the researchers extended the scope of the study during the pandemic in order to understand how it exposed new vulnerabilities among this highly vulnerable migrant population, and several grantees used the resulting data to effectively lobby for improved treatment of domestic migrant workers in India during the pandemic. From 11 June 2020 to 7 August 2020, a one-time survey was conducted via enumerator-led

phone interviews to understand how COVID-19 affected enrolled and qualifying participants' lives, jobs, and personal security.

Study Design

Eligible participants were adult (18+) migrant construction workers who were already enrolled in the Worker Voices study, were from Bundelkhand, had not served in the military or government, and consented to participation. The researchers also offered an incentive worth 50 R in mobile airtime to participants from the following groups:

- Female respondents
- Respondents with daily wages under 300 Rs
- Respondents who reported a debt during the last successful contact
- Respondents who reported no or little formal education and were traveling with fewer than three dependents

These groups were selected because they were more likely to attrit from the study, as indicated by previous attrition analyses. Of note, members of Scheduled Caste and Scheduled Tribes comprised a large percentage of the above groups.

All existing, eligible participants were contacted via telephone at least once for this specialized follow-up survey, and outbound calls were prioritized based on vulnerability criteria. The criteria considered were as follows:

- Lack of formal education or any education past 5th grade
- Gender (female respondents prioritized)
- Number of dependents (respondents with fewer dependents prioritized)
- Whether or not the respondent reported debt during the last successful contact
- Whether the respondent's daily wage was under 300 Rs
- Whether the respondent was a member of Scheduled Caste or Tribe

The above criteria were used to formulate a call queue for this one-time engagement; if a participant met more criteria, then they were assigned to an earlier position in the call queue.

Results

The research team received 10,464 completed responses in two months, which revealed the following:

- Half of respondents reported no monthly income, and more than one third of participants who work(ed) in construction had not been paid for pre-pandemic work.
- Mean pay decreased by nearly 10% from pre-pandemic levels among participants who remained employed in the construction industry.
- Roughly 40% of participants assumed debts as a result of COVID-19 and lockdown measures, primarily to feed themselves and their families.
- Sixty percent (60%) of participants reported no support from government schemes.

The researchers also discovered that only 33% of respondents were still working in the construction industry at the survey's conclusion, with 39% of micro-contractor participants remaining in the construction industry.

In terms of vulnerability, the tiering criteria had to change to reflect the impact of the pandemic. Previously, a scoring system focused on indicators of forced labor automatically placed migrants into tiers of vulnerability. For this specialized follow-up engagement, the researchers worked with GFEMS and the TIP Office to adapt the new categorical schema to measure the various risk factors migrants faced due to the pandemic and the lockdown instituted by the Government of India. The goal was to identify the most vulnerable participants: those needing immediate attention (Group A) and those who had not received any benefits/government support designed to alleviate the impact of the pandemic (Group B). Table 38 describes the groups in greater detail.

Table 28. Tiering indicators and counts

Tier	Indicator	Count
Group A	Worker is migrating with a pregnant family member or needs immediate medical assistance	15
	Worker is in transit between destination and source and has no means or money to complete the journey	34
	Worker and family have not eaten properly in a few days	138
	Worker and family only have enough money for three days or less	416
	Worker or family member has been subjected to violence	1

Group B	Workers has yet to receive support, welfare, or entitlements from the government schemes during the COVID-19 pandemic	6,271
No Tier	Neither Group A nor Group B indicators	4,249
		N = 10,520

A total of 527 (5%) unique participants fell into Group A. This group was automatically flagged by the mTracker system, and the data was shared with partnered non-governmental organizations for further follow-up and support. The most common indicator in Group A was insufficient funds to sustain basic needs (e.g., food and shelter) for more than three days. In addition, 60% of the participants interviewed for this study had not received any support from the various government COVID-19 relief schemes (i.e., members of Group B).

The researchers also measured changes in response rates among key demographic groups with a higher proclivity for attrition (based on a Year 1 attrition analysis, detailed in the **Attrition** section of this report). We found that incentives had a statistically significant effect on completion rates, and that none of the previously identified demographic categories were associated with lower response rates during this engagement.

Studying the effects of COVID-19 on study participants provided alarming information on vulnerability caused by the pandemic and lockdown. The findings suggested that roughly half of the surveyed respondents had yet to return to work or obtain another income source. Also, approximately 40% of respondents had assumed new debts to provide necessities such as food and housing. Many of these threats exposed migrants to new, increased risks of exploitation resulting from the assumption of debt and lack of income. These situations may have exposed study participants to new forms of exploitation (including other forms of human trafficking), as this vulnerable population pursued all possible avenues to survive the period of extended economic slowdown and unemployment.

Limitations

The research team sought to obtain a sufficiently large sample to enable this study and its findings to reflect the diversity of labor experiences among the surveyed population at a highly granular level. However, this study focused on examining the vulnerabilities

and outcomes among a sample of migrant construction workers who departed from the Bundelkhand region and worked at sites in Delhi/NCR. As such, its results are not generalizable to all migrants from the Bundelkhand region, nor all migrant construction workers in Delhi/NCR, nor to any broader migrant population. Furthermore, many migrant workers in construction and other industries in Delhi/NCR have resided in this destination geography for an extended period of time - according to the Indian Census, in some cases more than 10 years. As enrollment of the overwhelming majority of participants for this study took place in Bundelkhand, those who had already migrated and lived at a destination geography for an extended period of time (e.g., over 10 years) would not have been able to participate.

Resource Constraints

A number of resource constraints affected the research team's ability to comprehensively collect and analyze data from all members of the target population. It would not be possible to enumerate all day, every day at every point of departure. Enumerators followed train/bus schedules for travel to Delhi/NCR at source points of departure, and for a small subset of registrants, targeted trains and buses arriving from Bundelkhand region at major bus and train stations in Delhi/NCR. The researchers did not distinguish between these two groups during analysis.

The researchers were not able to register individuals using any more informal forms of migration beyond buses and trains. It would have been impossible to cover all forms of transit, so the registration process focused on particular high-volume transit pathways and modalities.

Among many participants, follow-up contact was never obtained. There are several possible reasons for this. For instance, participants may not have had their phones available at the time that enumerators placed follow-up calls. To attempt to reduce the size of this effect, participants were called three times before their call queue position was "bumped" to make way for new participants who needed following up. After this, participants typically were re-contacted again after 2+ weeks elapsed.

The researchers note that many migrants may have changed their phone numbers during the course of the study. If the participants' new phone numbers had not been entered into the enumerator MIS, then recontact at this point would become impossible, and the participant would ultimately be treated as an attritor.

Lastly, numerous studies have shown that participant retention improves with incentives. If the researchers had been able to pay all enrolled participants for

participating at each follow-up interval (i.e., incentivized using a pay-per-completion model), then it is likely that participant retention would have improved.

Sampling Approach

Due to the non-probabilistic registration process, which strove to be comprehensive during the targeted times and locations as opposed to a randomized registration process, the researchers can only provide findings based on sample statistics. This extends to the groups receiving various forms of intervention, who were non-randomly assigned and have significant demographic differences from the non-intervention participant pool in some cases. Furthermore, we believe that the validity threat posed by weighting given currently publicly available demographic data is quite high, in large part because granular and recent demographic data for migrants following the specific pathway examined in this study are not readily available.

Attrition

In many cases where it is possible to rigorously survey a migrant population, the process of examining and estimating the prevalence of vulnerabilities and hazards faced by these communities, such as forced labor or sexual exploitation, has been presented as directly calculated sample statistics, which may be subsequently weighted for population-level prevalence estimation. For instance, researchers have used cross-sectional post-migration surveys to estimate the prevalence of forced labor among respondents as a proportion of the collected sample.⁸² However, as with censuses, methodological drawbacks exist with cross-sectional approaches, including when the surveys are enumerated post-migration. For example, not all migrants are seasonal or circular; many remain at destination sites permanently or semi-permanently for years. Additionally, these methodologies face other limitations due to the dynamic nature of labor exploitation - many high-risk and exploitative jobs are, by design, informal, casual, and temporary. Seasonal migrants from the Bundelkhand region may face forced labor conditions sporadically and ephemerally as part of their overall migrant labor experience rather than statically through the duration of their employment.⁸³

⁸² Mak, J., Abramsky, T., Sijapati, B., Kiss, L., & Zimmerman, C. (2017). What is the prevalence of and associations with forced labour experiences among male migrants from Dolakha, Nepal? Findings from a cross-sectional study of returnee migrants. *BMJ open*, 7(8), e015835.

⁸³ The notion that forced labor conditions are dynamic, disappearing and re-emerging throughout a laborer's period of employment, was continuously raised and emphasized by local NGOs in focus group discussions (FGDs) during the design stage of this project.

The researchers believe that they were able to minimize the above risks by regularly surveying registrants for more than 1 year following their migration, *while* the registrants were working. However, the researchers note that under the current design, as with any longitudinal design, non-responses may be non-random, and even directly a result of experiencing forced labor or associated vulnerabilities that may prevent return.

The researchers caution that some amount of non-random attrition was observed during the course of the study. Attrition was tested and estimated using a binomial probit model, which was fit to several participant characteristics, including gender, caste, number of dependents, existence of debt, and being paid late.

In the first year of the study, the researchers observed several participant characteristics that were significantly associated with attrition, including being female (0.23, $p = .02$), migrating with fewer dependents (0.04, $p = .00$), being a member of Scheduled Caste (0.16, $p = .00$), and, with the largest estimated effect, holding a debt to one’s employer (0.56, $p = .00$).

Table 29. Study Attrition: Year 1, Engagements prior to 1 January 2020

Attrition Variables Analyzed	Est.	Standard Error	z Value	p Value
Intercept	.59	0.12	5.12	.00
Formal Education	-.04	0.04	-0.99	.32
Male	-.23	0.10	-2.33	.02
Number of Dependents	-.04	0.01	-3.06	.00
Scheduled Caste	.16	0.05	3.51	.00
Existence of Debt	.56	0.07	7.83	.00
Last Reported Daily Wage	.00	0.00	-21.03	.00
Note. Standard errors calculated with maximum likelihood estimation				

In response, during the second year of the study, the researchers began incentivizing participation to female registrants as well as those migrating with few dependents, members of Scheduled Caste, and debt holders. Attrition data from the second year reversed several of the above effects in response:

Table 30. Study Attrition: Year 2, Engagements after 1 January 2020

Attrition Variables Analyzed	Est.	Standard Error	z Value	ρ Value
Intercept	-.76	0.34	-2.22	.03
Formal Education	-.17	0.11	-1.46	.14
Male	.63	0.30	2.11	.04
Number of Dependents	-.11	0.03	-3.30	.00
Scheduled Caste	.18	0.11	1.62	.10
Existence of Debt	-.19	0.29	-0.64	.52
Last Reported Daily Wage	.00	0.00	-2.76	.01

Note. Standard errors calculated with maximum likelihood estimation

During the second year, female participants were significantly more likely to continue participating in the study than were male participants (0.63, $p = .04$), and debt no longer remained a significant factor in attrition. However, those with fewer dependents continued to attrit at a slightly higher rate (0.11, $p = .00$). The researchers examined participation rates between incentivized and non-incentivized sub-samples after introducing incentives and observed a response rate of 15% among incentivized participants, versus a response rate of 12% among those whose participation was not incentivized. We found the difference in participation among incentivized participants versus non-incentivized participants to be statistically significant ($p < .001$).

When fitting a model to all response and attrition data from the project, we observe the following findings.

Table 31. Study attrition overall

Attrition Variables Analyzed	Est.	Standard Error	z Value	ρ Value
Intercept	1.89	0.13	14.80	.00
Formal Education	-.12	0.04	-2.80	.01
Male	.14	0.11	1.25	.21
Number of Dependents	-.11	0.01	-8.65	.00
Scheduled Caste	.10	0.05	2.09	.04

Existence of Debt	.32	0.09	3.53	.00
Last Reported Daily Wage	-.10	0.00	-17.06	.00
<i>Note.</i> Standard errors calculated with maximum likelihood estimation				

These findings show no significant difference in terms of gender but do detect statistically significant correlations between debt (with a smaller magnitude of 0.32, $p = .00$), lack of a formal education (0.12, $p = .01$), having fewer dependents (0.11, $p = .00$), being a member of Scheduled Caste (0.10, $p = .04$), and attrition. The researchers note that these findings reflect, in part, the fact that engagement and participation slowed down after the onset of the COVID-19 pandemic, with many registrants returning to their home geographies or seeking employment outside of the construction industry. We hypothesize that incentives during Year 2 ameliorated some of the initial non-random attrition, but that the overall dataset did not shift enough to nullify some of these effects.

Conclusion

Many technical capabilities and parties came together to ensure the execution of this innovative and large-scale multi-modal study. Execution required close daily collaboration and coordination with research scientists, policy stakeholders, and field-based grantee and advocate organizations on multiple continents over the course of two years. Drawing from these experiences, we offer the following recommendations to future research efforts that use longitudinal or interval-based survey methods to examine the conditions faced by migrant populations:

- (1) Communicate early and often with all relevant stakeholders in order to anticipate and adapt in response to exogenous events. As a study (and survey sample) grows in size, complexity, and geographic distribution, collaboration and adaptation become all-the-more important.
- (2) A contact management and recontact scheduling system is critical to enable timely follow-up recontact at scale. Integrating a CMS with survey systems and at-risk referral systems offers a seamless and simple workflow for enumerators, reducing data entry errors and data loss.
- (3) In cases where a significant percentage of a target population is illiterate, use voice-based engagement including phone calls, video calls, or IVR to ensure proper coverage of the entire study population.

- (4) Consider sampling design carefully, given available access points to the target population and the overall study objectives. In this study, the project team sought to recruit as many migrant construction workers departing from Bundelkhand for Delhi/NCR or migrant workers from Bundelkhand already in Delhi as possible. In studies seeking to generalize sample findings to population-level estimates in terms of demographics or labor outcomes, a large probability sample that is sensitive to time, location, and other factors that may impact sample composition and dependent outcomes, as discussed in the findings section, and developed in close coordination with on-the-ground experts and advocates, is recommended. Prior studies of migrant construction workers in India, whether in the Delhi/NCR destination geography or elsewhere, have often relied on small sample sizes that do not sufficiently capture the diversity of experiences and outcomes among the many different strata found in migrant populations.
- (5) Similarly, in studies that seek to quantitatively examine intervention effectiveness, a different assignment and sampling process is necessary to ensure that outside factors such as demographic, geographic, or socioeconomic characteristics may be “ruled out” as potential causes for different outcomes.
- (6) The researchers recommend including open-ended questions, particularly when asking about vulnerabilities and/or stigmatized conditions. In particular, local conditions, socioeconomic and cultural concerns, and the unique experiences of respondents will always result in unanticipated feedback that can be critical for adaptation and future follow-up.
- (7) A majority of prior literature on forced labor has treated it as a static phenomenon. Our findings make clear the fact that not only do forced labor conditions arise and occur in myriad ways, but that they may be dynamic. We recommend that future research programming related to labor conditions endeavor to consider and evaluate how these conditions evolve over time.

To reduce the prevalence of forced labor in India’s construction industry and ensure the safety and protection of migrant workers, the following policy recommendations are posited to inform action:

First, government and industry stakeholders need to proactively provide migrant construction workers with social welfare and protection schemes. Access to entitlements were found to have a positive impact on reducing forced labor outcomes among migrant construction workers, likely due to the safety net they provide which enables informal workers to avoid or leave potentially exploitative situations. Social protection programs can also help reduce indebtedness, which the study found to be a

strong predictor of forced labor. However, any such program should be designed to be equitable for all, including those with no formal education. The study found education levels to be an important attribute of those workers that did not receive entitlements, despite registering to receive them. Underlying reasons for this discrepancy may include lack of application, form completeness, or other additional factors for rejection.

Second, provide incentives and support at the micro-contractor level to generate positive effects for both migrant workers and the construction industry as a whole. As the first line of supervision, micro-contractors play a critical role in the prevalence of forced labor in construction supply chains. Micro-contractors are also members of the same communities that migrant workers belong to (i.e., same castes, districts of origin etc.). By sensitizing micro-contractors to the implications of unethical labor practices to workers and providing training in entrepreneurship and ethical employment, the study found a significant reduction in the risk of forced labor outcomes.

Third, scaling 'light-touch' accreditation programs such as RPL can support the professionalization of skill sets for migrant construction workers. Aligned with the vocational training strategy of the Skill India Initiative of the Ministry of Skill Development and Entrepreneurship, formal acknowledgement of prior learning can provide workers with more bargaining power when negotiating wages. They also establish credibility with employers, provide greater degree of agency in work relationships, and boost confidence to leave exploitative work conditions in search of better opportunities.

Appendix A: Registration Survey Instrument and Script

There are 39 questions in this survey.

Enter the name of your organization *

Please choose only one of the following:

- Jan Sahas
- Pratham
- Sambhav Foundation
- Haqdarshak

Enter Location for Registration: *

Please choose only one of the following:

- Delhi NCR (Ghaziabad, Gurgaon, Noida, Faridabad, New Delhi)
- Mumbai
- Gwalior
- Sagar
- Jhansi
- Mahoba
- Lalitpur
- Chitrakoot
- Banda
- Chhatarpur
- Damoh
- Panna
- Tikamgarh
- Other

Enter place of registration: *

Please choose only one of the following:

- At transport hub (bus / train station) in Bundelkhand
- At transport hub (bus / train station) in Delhi NCR
- At labour communities labour nakas in Delhi NCR
- Registration OVER THE PHONE
- At construction site in Bundelkhand
- At construction site in Delhi NCR
- At construction site in Mumbai
- In the village in Bundelkhand
- Other

[ENUMERATOR] Enter your name:

Please write your answer here:

I am _____ from Neev, a group of organizations dedicated to ensuring safe migration for seasonal workers. By registering with us you enable us to quickly check in with you to ensure your safety and provide support when necessary.

These questions should take you less than 5 minutes to answer. Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the Principal Investigator in the study to discuss this research, please let me know and I will provide you with the principal investigators contact information. For this study, the principal investigator is Dr. Carrick Longley from IST Research. We hope that you participate in this study with us.

By continuing with this survey, you acknowledge that your participation in the study is voluntary, you are 18 years of age or older, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Do you wish to continue with this survey? * *

Please choose only one of the following:

- Yes
- No

Do you or will you work in construction? *

Please choose only one of the following:

- Yes
- No

How old are you?

Please choose only one of the following:

- Under 18 years of age
- 18 - 24
- 25 - 29
- 30 - 34
- 35 - 39
- 40 - 44
- 45 - 49
- 50 - 54
- 55 - 59
- 60 -64
- 65 - 69
- 70 - 74

Are you currently serving as a government or military employee? *

Please choose only one of the following:

- Yes
- No

Click on the location image to get your location up to a desired Accuracy

No Location Detected

Please write your answer here:

ENUMERATOR INPUT - Sex of participant *

Please choose only one of the following:

- Male
- Female
- Transgender
- Prefer not to answer

Please provide your and your father's full name: *

What is your primary phone number on which we can call you? *

Please write your answer here:

- +91

Do you have another phone number you can be reached at? If yes, please enter it here.

Otherwise, leave this question blank.

Please write your answer here:

- +91

What is your religion?

Please choose only one of the following:

- Hinduism
- Islam
- Christian
- Sikhism
- Buddhist
- Jain
- Other

Do you belong to any of the following castes?

Please choose only one of the following:

- SC
- ST
- OBC
- General
- Religious Minority
- Respondent does not know
- Other

What is your marital status?

Please choose only one of the following:

- Never married

- Married
- Widowed
- Separated
- Divorced

What is the name of your village, panchayat, and block? *

What district do you belong to? *

Please choose only one of the following:

- Jhansi
- Mahoba
- Lalitpur
- Chitrakoot
- Banda
- Chhatarpur
- Damoh
- Panna
- Sagar
- Tikamgarh
- Other

Which state do you belong to? *

Please choose only one of the following:

- Uttar Pradesh
- Madhya Pradesh
- Bihar
- Punjab
- Rajasthan
- Haryana
- Delhi
- Maharashtra
- Gujarat
- Himachal Pradesh
- Uttarakhand
- West Bengal
- Odisha
- Other

Are you literate? Can you read and write? *

Please choose only one of the following:

- Yes
- No

What is the highest level of education you have received? *

Please choose only one of the following:

- No formal education
- up to 5th class
- 6th-8th Class
- 9th-10th Class
- 11th-12th Class
- College or Higher
- Other

Have you received any vocational training related to construction? *

Please choose only one of the following:

- No training
- Informal training
- Formal training

Have you received an RPL certification or a certification for assessment of your construction skills? *

Please choose only one of the following:

- Yes
- No
- I don't know

How many dependents do you have?

(NOT household size but actual dependents for which respondent has to provide) *

Please write your answer here:

·

How many family members who are dependent on you are migrating with you or have already migrated with you? *

Please write your answer here:

·

Have you ever migrated for construction work before? *

Please choose only one of the following:

- Yes
- No

Where are you currently working or planning to migrate to for construction work? *

Please choose only one of the following:

- Delhi NCR (Ghaziabad, Gurgaon, Noida, Faridabad, Delhi)
- Mumbai or Thane
- Bangalore
- Gujarat (Ahmedabad, Surat etc.)
- Rajasthan
- Jhansi

- Mahoba
- Lalitpur
- Chitrakoot
- Banda
- Chhatarpur
- Damoh
- Panna
- Sagar
- Tikamgarh
- Indore
- Gwalior
- Bhopal
- I am not sure
- Other

When do you plan to migrate or start working at the construction site? * for work in construction? *

Please choose only one of the following:

- Today
- within a month
- between 1 - 3 months
- 4 - 6 months
- after 6 months
- I am already working at a construction site
- I don't know

Do you already have a job at your destination? *

Please choose only one of the following:

- Yes
- No

Did you use a contractor or recruiter to secure this job? *

Please choose only one of the following:

- Yes
- No

At what level do you work or plan to work (Muzdor, Karigar)? *

Please choose only one of the following:

- मज़दूर / Labourer
- Helper
- कारीगर / Master

What type of job do you or will you work in construction?

*

Please choose only one of the following:

- Cement mixing
- Carpentry
- Brick Carrying
- Masonry
- Electrician
- Tile making
- Welding / fitting
- Plumbing
- Painting
- Other

How much money do you anticipate being paid or are already paid for your work?

Please answer in expected daily wages. *

Please choose only one of the following:

- Less than 200
- 201–300
- 301–400
- 401–500
- 501–600
- 601–700
- 701–800
- 801+
- I don't know

Do you owe a debt or have you taken an advance from any contractor or recruiter? *

Please choose only one of the following:

- Yes
- No

How much of an advance did you receive for this job?

(enter in rupees numbers only) *

Please write your answer here:

·

Do you have any other debts at present from the bank / moneylenders / others? *

Please choose only one of the following:

- Yes
- No

(Select ALL that apply)

Do you have any of the following? *

Please choose all that apply:

- Aadhaar

- Bank account
- Pan card
- Ration card
- Voter ID
- BOCW Card
- Mnrega/Job card
- Family Samagra ID
- NONE

Do you have regular access to any of the following means of communication? Please select all that apply.

Please choose all that apply:

- Feature phone (SMS and voice only)
- Smart phone (no net)
- Smart phone (net access)
- WhatsApp
- NONE

Thank you for completing this survey! *

Please choose only one of the following:

- Ok

Submit your survey.

Thank you for completing this survey.

Appendix B: Follow-Up Survey Instrument and Script

There are 38 questions in this survey.

Please copy the "worker id" and "interval number" and "validation key" of the participant exactly as soon in the contact management system. *

This is _____ calling from Jan Sahas and Neev in support of the Longitudinal Migration Study.

Thank you for agreeing to participate in the LMT study. This is a follow up call to ensure your safety after migrating for construction work that should take 5 minutes.

यदि आप सर्वे के सारे सवालों का जवाब देते हैं, तोह हम आप का धन्यवाद देने के लिए आपके फ़ोन पे लगभग 50 रुपये का एक टॉप-उप या रिचार्ज करवा देना चाहेंगे, जो अगले 2 हफ्तों में आपके फोन बैलेंस में दिखाई देगा।

Do you have a few minutes to answer some quick questions?

*

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- I want to opt out

Thank you, you will be removed from our call list.

अगर आपको अपने काम से संबंधित चिंताएँ हैं या आपको हमारी हॉटलाइन के किसी सदस्य से बात करनी हो तो आप हमें toll-free number 18002000211 पर कॉल करें। आपका धन्यवाद।

(ENUMERATOR click opt out in contact management system)

Only answer this question if the following conditions are met:

Answer was 'I want to opt out' at question '2 [consent]' (This is _____ calling from Jan Sahas and Neev in support of the Longitudinal Migration Study. Thank you for agreeing to participate in the LMT study. This is a follow up call to ensure your safety after migrating for construction work that should take 5 minutes. यदि आप सर्वे के सारे सवालों का जवाब देते हैं, तोह हम आप का धन्यवाद देने के लिए आपके फ़ोन पे लगभग 50 रुपये का एक टॉप-उप या रिचार्ज करवा देना चाहेंगे, जो अगले 2 हफ्तों में आपके फोन बैलेंस में दिखाई देगा। Do you have a few minutes to answer some quick questions?)

Choose one of the following answers

Please choose only one of the following:

- END Survey

Thank you, we will be in touch later for the LMT study.

अगर आपको अपने काम से संबंधित चिंताएँ हैं या आपको हमारी हॉटलाइन के किसी सदस्य से बात करनी हो तो आप हमें toll-free number 18002000211 पर कॉल करें। आपका धन्यवाद।

(Enumerators update status in Contact Management System by selecting "unable to participate")

Only answer this question if the following conditions are met:

Answer was 'No' at question '2 [consent]' (This is _____ calling from Jan Sahas and Neev in support of the Longitudinal Migration Study. Thank you for agreeing to participate in the LMT study. This is a follow up call to ensure your safety after migrating for construction work that should take 5 minutes. यदि आप सर्वे के सारे सवालों का जवाब देते हैं, तोह हम आप का धन्यवाद देने के लिए आपके फ़ोन पे लगभग 50 रुपये का एक टॉप-उप या रिचार्ज करवा देना चाहेंगे, जो अगले 2 हफ्तों में आपके फोन बैलेंस में दिखाई देगा। Do you have a few minutes to answer some quick questions?)

Choose one of the following answers

Please choose only one of the following:

- END Survey

Are you currently serving as a government or military employee? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '2 [consent]' (This is _____ calling from Jan Sahas and Neev in support of the Longitudinal Migration Study. Thank you for agreeing to participate in the LMT study. This is a follow up call to ensure your safety after migrating for construction work that should take 5 minutes. यदि आप सर्वे के सारे सवालों का जवाब देते हैं, तोह हम आप का धन्यवाद देने के लिए आपके फ़ोन पे लगभग 50 रुपये का एक टॉप-उप या रिचार्ज करवा देना चाहेंगे, जो अगले 2 हफ्तों में आपके फोन बैलेंस में दिखाई देगा। Do you have a few minutes to answer some quick questions?)

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Are you currently working in or planning to work in construction? *

Please choose only one of the following:

- Yes
- No

Are you currently away from your village for construction work? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '6 [constructionWork]' (Are you currently working in or planning to work in construction?)

Choose one of the following answers

Please choose only one of the following:

- Yes I have migrated out of my village
- No I haven't migrated out of my village
- I had recently migrated out of my village but am currently back in my village again

Do you plan to migrate? If so, when? *

Only answer this question if the following conditions are met:

----- Scenario 1 -----

Answer was 'No I haven't migrated out of my village' at question '7 [migration]' (Are you currently away from your village for construction work?)

----- or Scenario 2 -----

Answer was 'I had recently migrated out of my village but am currently back in my village again' at question '7 [migration]' (Are you currently away from your village for construction work?)

Choose one of the following answers

Please choose only one of the following:

- I do NOT plan to migrate this year
- Within 1 week
- within 2 weeks
- within 3 weeks
- within 4 weeks
- more than 4 weeks from now

Thank you for your time, we will be in touch later for the LMT study.

*(ENUMERATOR - update contact management system with migration timeframe) **

Only answer this question if the following conditions are met:

Answer was 'more than 4 weeks from now' or 'within 3 weeks' or 'within 2 weeks' or 'Within 1 week' or 'within 4 weeks' at question '8 [migrationPlan]' (Do you plan to migrate? If so, when?)

Choose one of the following answers

Please choose only one of the following:

- END Survey

Thank you for your time.

(ENUMERATOR - update contact management system with migration timeframe)

Only answer this question if the following conditions are met:

Answer was 'I do NOT plan to migrate this year' at question '8 [migrationPlan]' (Do you plan to migrate? If so, when?)

Choose one of the following answers

Please choose only one of the following:

- END Survey

Since we last spoke, have you changed your contractor? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- I currently do not have a job

Are you currently working in or planning to work in construction?

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

How did you find your current job? *

Choose one of the following answers

Please choose only one of the following:

- Labor Chowk/I found it myself
- Contractor who brought you from your village
- I don't have a job

Where are you currently working or living? *

Choose one of the following answers

Please choose only one of the following:

- Delhi NCR (Ghaziabad, Gurgaon, Noida, Faridabad, Delhi)
- Mumbai or Thane
- Bangalore

- Gujarat (Ahmedabad, Surat etc.)
- Rajasthan
- Jhansi
- Mahoba
- Lalitpur
- Chitrakoot
- Banda
- Chhatarpur
- Damoh
- Panna
- Sagar
- Tikamgarh
- Indore
- Gwalior
- Bhopal
- I am not sure
- Other

Did you use a recruiter or recruiting agency to find your current job? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

What type of construction work do you primarily do? *

Choose one of the following answers

Please choose only one of the following:

- Cement Mixing
- Carpentry
- Brick Carrying
- Masonry
- Electrician
- Tile Making
- Welding/Fitting
- Plumbing
- Painting
- Other

Do you feel threatened or intimidated to work through violence from your current employer? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Have any of your family members been threatened with violence or any other form of retribution if you do not work? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Are you indebted to your employer or recruiter (i.e. do you owe your employer or recruiter money, advance, or labor to pay off a debt)? *

Choose one of the following answers

Please choose only one of the following:

- Yes I am indebted to my employer
- Yes I am indebted to my recruiter
- No

Do you have loans or advances that were acquired to obtain or seek work in the construction industry? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Are you paid on time for your work? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- I don't know

How long has it been since you were not paid by your employer? *

Only answer this question if the following conditions are met:

Answer was 'No' at question '21 [paymentDelay]' (Are you paid on time for your work?)

Choose one of the following answers

Please choose only one of the following:

- less than 1 week
- 1 - 5 weeks
- 6 - 8 weeks
- 9 - 12 weeks
- more than 12 weeks behind
- I don't know

Are you paid at the same rate that your employer told/promised you would be paid? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- I don't know/not discussed before joining

Do you work more than what was agreed upon? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- There was no prior agreement

Do you work on rest days for fear of being fired? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Do you get paid double the rate for your work if you work more than 8 hours a day? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No
- I do not work more than 8 hours a day
- I don't know

Is a member of your family who is dependent on you living with you? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

Are those family members working in construction with the same employer as you? *

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '27 [familyLive]' (Is a member of your family who is dependent on you living with you?)

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

How many days per week do you usually work? *

Only numbers may be entered in this field.

Please write your answer here:

.

How many hours a day do you usually work? *

Only numbers may be entered in this field.

Please write your answer here:

.

How much do you get paid per day

If no work enumerator enter 0

Only numbers may be entered in this field.

Please write your answer here:

.

After your shift is over, are you and/or your family members able to move around freely in the city or village where you live with no restriction from your employer? *

Choose one of the following answers

Please choose only one of the following:

- Yes
- No

If you wanted to, could you leave your employer for a new job? *

Choose one of the following answers
Please choose only one of the following:

- yes immediately
- Yes after I pay off my debt or advance
- No because he owes me money
- No because I owe him money or advance or work
- No because he threatens me and/or my family

Did you receive a certificate for your skills training and assessment? *

Choose one of the following answers
Please choose only one of the following:

- Yes
- No
- I don't know

Have you registered to receive any entitlements? Pension, Housing scheme, ration cards, BOCW, or others?

LEAVE BLANK IF NO REGISTRATIONS

Check all that apply

Please choose all that apply:

- BOCW
- Housing Scheme
- Ration Cards
- Pension
- Other:

Have you received any benefits yet? *

Choose one of the following answers
Please choose only one of the following:

- Yes
- No

Have you or a member of your household attended an awareness camp? *

Choose one of the following answers
Please choose only one of the following:

- Yes--Myself prior to migration
- Yes--A member of my household has attended
- No -- Neither myself nor a household member attended
- Both I and my family members have attended

- I don't know

Thank you for your time taking this survey. If you have concerns related to your working conditions or would like to speak to a member of our hotline, please reach out to us at 1800 200 0211. Thank you!

(ENUMERATORS - Update status on Contact Management System

*Is the worker saying anything to the toll free hotline that we should communicate to JS? **

Choose one of the following answers

Please choose only one of the following:

- Yes, worker is saying he cannot connect to the number
- Yes, worker is saying he connected to the number but received no help
- No

Submit your survey.

Thank you for completing this survey.

Appendix C: COVID-19 Survey Instrument and Script

There are 42 questions in this survey.

*Please copy the "worker id" of the participant exactly as soon in the contact management system. **

This is _____ calling from Neev in support of the Longitudinal Migration Study. This is a follow up call to ensure your safety and better understand the impact of COVID-19 which should take just 5 minutes.

We would like to provide a small phone top up of about Rs 50 to you, as a token of thanks, if you respond to all the questions in the survey, which will be reflected in your phone balance in the next 2 weeks.

Do you have a few minutes to answer some quick questions? *

Please choose only one of the following:

- Yes
- No, call back later
- I want to opt out

Thank you, you will be removed from our call list.

(ENUMERATOR click opt out in contact management system) *

Please choose only one of the following:

- END Survey

Thank you, we will be in touch later for the LMT study.

(Enumerators update status in Contact Management System by selecting "Call Back") *

Please choose only one of the following:

- END Survey

Are you currently serving as a government or military employee? *

Please choose only one of the following:

- Yes
- No

Thank you, you will be removed from our call list. *

Please choose only one of the following:

- OK

Are you currently working in the construction sector? *

Please choose only one of the following:

- Yes
- No

Were you working in the construction sector prior to March 2020? *

Please choose only one of the following:

- Yes
- No

Are you currently away from your village? *

Please choose only one of the following:

- Yes I have migrated out of my village
- No I am in my village

If you wanted to, could you return home? *

Please choose only one of the following:

- Yes
- No

Do you plan to migrate? If so, when? *

Please choose only one of the following:

- I do NOT plan to migrate this year
- 2 weeks from now
- 1 month from now
- 2 months from now
- 3 or more months from now
- I don't know if I will migrate

Which district or city are you currently located in? *

Please choose only one of the following:

- Delhi NCR (Ghaziabad, Gurgaon, Noida, Faridabad, Delhi)
- Mumbai or Thane
- Bangalore
- Gujarat (Ahmedabad, Surat etc.)
- Rajasthan
- Jhansi
- Mahoba
- Lalitpur
- Chitrakoot

- Banda
- Chhatarpur
- Damoh
- Panna
- Sagar
- Tikamgarh
- Indore
- Gwalior
- Bhopal
- I am not sure
- Other

Did you use a recruiter or recruiting agency to find your current job? *

Please choose only one of the following:

- Yes
- No

If you wanted to, could you leave your employer? *

Please choose only one of the following:

- Yes, immediately
- Yes after I pay off my debt or advance
- No because he owes me money
- No because he threatens me and/or my family
- No because I need to pay off my debt or advance
- Restricted due to lockdown, cannot physically leave

When was the last time you worked in Construction? *

Please choose only one of the following:

- Before January 2020
- January 2020
- February 2020
- March 2020
- April or later
- I never worked in construction
- Other

When was the last time you were paid for the work you were doing? *

Please choose only one of the following:

- Before January 2020

- January 2020
- February 2020
- March 2020
- April or later

Have you received payment for all the work that you did prior to the lockdown/pandemic? *

Please choose only one of the following:

- Yes
- No
- I was not working before the lockdown

Do you think you will be paid the unpaid amount by your employer later or do you need support in recovering back wages? *

Please choose only one of the following:

- My employer will pay me
- I need help with recovering my wages
- I don't know

How much do you get paid per day?

ENUMERATOR DAILY WAGE needs to be entered

leave blank if no answer

Please write your answer here:

.

How much were you getting paid per day when you were working before the covid lockdown?

ENUMERATOR DAILY WAGE needs to be entered

leave blank if migrant does not want to answer

Please write your answer here:

.

What is the current monthly household income for you and your family members?

ENUMERATOR enter MONTHLY HOUSEHOLD INCOME

- If worker gives a range instead of an average, take the lower figure in the range.

- Write 0 if there is no household income.

- Household income can be from any source like farming, selling milk / eggs / products, other members of the family working in jobs etc

- leave blank if no answer

Please write your answer here:

.

What was the monthly household income for you and your family members before the lockdown and COVID-19?

ENUMERATOR enter MONTHLY HOUSEHOLD INCOME

- If worker gives a range instead of an average, take the lower figure in the range.

- Write 0 if there is no household income.

- Household income can be from any source like farming, selling milk / eggs / products, other members of the family working in jobs etc

-leave blank if no answer

Please write your answer here:

.

Were you in debt before the COVID-19 pandemic and lockdown?

*Enumerator - this debt could be from anyone **

Please choose only one of the following:

· Yes

· No

What were the main reasons you took on debt prior to the lockdown? SELECT ALL THAT APPLY

*Enumerator - Read out all options for the question This debt question is only for Debt taken before Covid and lockdown **

Please choose all that apply:

- Agriculture related
- Education Needs
- Food Needs
- Housing needs (rent / mortgage)
- Medical Needs (medicine, healthcare costs)
- Utility Needs (water, gas/electric)
- Marriage Costs
- Deaths/Funeral Costs
- To repay other debts
- Other:

Have you taken on debt as a result of COVID-19 and the lockdown? *

Please choose only one of the following:

· Yes

· No

What will you mainly use the debt for? SELECT ALL THAT APPLY

*Enumerator - Read out all options for the question This debt question is only for Debt taken as a result of Covid and lockdown **

Please choose all that apply:

- Agriculture related
- Education Needs
- Food Needs
- Housing needs (rent / mortgage)
- Medical Needs (medicine, healthcare costs)
- Utility Needs (water, gas/electric)
- Marriage Costs
- Deaths/Funeral Costs
- To repay other debts
- Other:

Do you plan on taking debt or additional debt to meet your financial needs? *

Please choose only one of the following:

- Yes
- No

Do you believe that you will have trouble repaying your debts this year? *

Please choose only one of the following:

- Yes
- No

What type of work do you plan to do in the future? *

Please choose all that apply:

- Construction
- Farming on own land
- Farming as a labourer
- MGNREGA work
- I don't know
- Other:

Do you plan on going back to the same employer? *

Please choose only one of the following:

- Yes
- No

- I don't know / NA

What are your main financial needs for the next 2–3 months? Select all that apply:

*Enumerator - read out all options for the question **

Please choose all that apply:

- Agriculture Related Needs
- Education Needs
- Food Needs
- Housing needs (rent / mortgage)
- Medical Needs (medicine, healthcare costs)
- Marriage Costs
- Repaying Debts
- Other:

If the lockdown continues or you are out of a job for the next three months, or you lose your current job, how long can your savings support yourself and your dependents? *

Please choose only one of the following:

- I don't have any savings
- Less than a week
- 1–2 weeks
- up to 1 month
- 1– 2 months
- 3–4 months
- more than 4 months

Are you experiencing or perceiving any threats from any of the following: Employer, Recruiter, Law Enforcement, Family or Friends, Neighbors?

ENUMERATOR SELECT ALL THAT APPLY *

Please choose all that apply:

- NO threats perceived
- Employer
- Recruiter
- Law enforcement
- Family or Friends
- Neighbors
- Other:

Are you aware of the benefits being provided by the Indian government due to the Coronavirus interruptions? *

Please choose only one of the following:

- Yes
- No

Have you received any benefits after the lockdown (like ration, pension, direct bank transfers, MGNREGA wages)? * *

Please choose only one of the following:

- Yes
- No
- I don't know

Why do you think you have not received any benefits? *

Please choose all that apply:

- Not aware of schemes
- Don't have supporting documents to avail schemes
- Have supporting documents but not received
- I don't know
- Other:

Do you think that the benefits received were sufficient? *

Please choose only one of the following:

- Yes
- No
- I don't know

Which benefits have you received?

*Enumerator - read out each option **

Please choose all that apply:

- Limited Ration
- Full Ration
- Pension / Advance on pension
- Direct benefit transfer in bank
- MGNREGA wages
- I don't know
- Other:

Who have you received benefits from?

*Enumerator - Read out each option **

Please choose all that apply:

- Employer
- Government
- NGOs
- Family and/or Friends
- I don't know
- Other:

Which of the following do you have:

*ENUMERATOR READ ALL OPTIONS **

Please choose all that apply:

- bank account
- Aadhar-linkage to bank account
- valid ration card
- BOCW card
- MGNREGA card
- NONE of the above
- I don't know

Which of these would you consider an immediate need:

*ENUMERATOR READ ALL OPTIONS OUT **

Please choose all that apply:

- Supporting documents or support with applications to benefits
- Dry rations
- Cooked food
- Transport back home
- Immediate medical support
- Medical kits like masks, sanitizers, soaps, etc.
- Recovery of wages
- Other:

Is the worker in serious need of immediate assistance in any of the following ways? *

Please choose all that apply:

- NO immediate assistance required
- Worker has a pregnant family member with them, or is in need of immediate medical assistance
- Worker is in transit between destination and source and has no means or money to complete the journey
- Worker and his family have not eaten properly in a few days
- Worker and his family only have money left for 3 days or less

- Worker or a family member has been subjected to violence
- Other:

Submit your survey.

Thank you for completing this survey.

Appendix D: At-Risk Survey Instrument and Script

There are 31 questions in this survey.

*Please paste the migrants phone number below. Copy and paste exactly as shown in the CMS. **

Please write your answer here:

This is _____ calling from Jan Sahas and Neev in support of the Longitudinal Migration Study. Your situation was flagged in our system and we wanted to conduct a short 5 minute interview to ensure your safety and provide support where applicable.

Do you have a few minutes to answer some quick questions? *

Please choose only one of the following:

- Yes
- No
- I want to opt out

Have you served in the past or currently serving as a government or military employee?

*

Please choose only one of the following:

- Yes
- No

Thank you, you will be removed from our call list. Please reach out directly to us in case you need support or have any concerns with your working conditions at toll-free hotline number: 18002000211

(Input "opt-out" in CMS) *

Please choose only one of the following:

- END Survey

Thank you, we will follow up at a later time. (input "call back" in CMS) *

Please choose only one of the following:

- END Survey

Are you currently away from your village for construction work? *

Please choose only one of the following:

- Yes I have migrated out of my village
- No I haven't migrated out of my village
- I recently migrated out of my village but am currently back in my village again

Do you feel threatened or intimidated to work through violence from your current employer? *

Please choose only one of the following:

- Yes
- No

Since the last time you spoke with a Jan Sahas / Neev representative have you changed jobs? *

Please choose only one of the following:

- Yes
- No
- I don't have a job

What company do you currently work for?

Please write your answer here:

How long have you worked for this company? *

Please choose only one of the following:

- Less than 1 month
- Equal to or more than 1 month, but less than 2 months
- Equal to or more than 2 months, but less than 3 months
- Equal to or more than 3 months

What type of construction work do you primarily do? *

Please choose only one of the following:

- I don't have a job
- I don't work in construction
- Cement Mixing
- Carpentry
- Brick Carrying
- Masonry
- Electrician
- Tile Making
- Welding/Fitting
- Plumbing
- Painting
- Other

Have you ever experienced physical or sexual violence through your current employer? *

Please choose only one of the following:

- Yes
- No

Have any of your family members been threatened with violence or any other form of retribution by your current employer if you do not work? * *

Please choose only one of the following:

- Yes
- No

Has your family ever experienced physical or sexual violence through your current employer? *

Please choose only one of the following:

- Yes
- No

After your shift is over, are you and/or your family members able to move around freely in the city or village where you live with no restriction from your employer? *

Please choose only one of the following:

- Yes
- No

Are you indebted to your employer or recruiter (i.e. do you owe your employer or recruiter money or labor to pay off a debt or advance)? *

Please choose only one of the following:

- Yes
- No

Do you work on rest days for fear of being fired? *

Please choose only one of the following:

- Yes
- No

Are you paid on time for your work? *

Please choose only one of the following:

- Yes
- No

Are you paid at the same rate that your employer told/promised you would be paid? *

Please choose only one of the following:

- Yes
- No
- There was no discussion on wages at the time of giving the job

Do you work more than what was agreed upon? *

Please choose only one of the following:

- Yes
- No
- There was no prior agreement

Is the employer holding your wages? Does the employer owe you money for your work that has not been paid yet? *

Please choose only one of the following:

- yes
- no

How much are you owed? *

Please write your answer here:

How long has it been since you were not paid by the employer who owes you money?

*

Please choose only one of the following:

- less than 1 week
- 1 - 5 weeks
- 6 - 8 weeks
- 9 - 12 weeks
- more than 12 weeks behind
- I don't know

Is a member of your family who is dependent on you living with you? *

Please choose only one of the following:

- Yes
- No

If you wanted to, could you leave your employer? *

Please choose only one of the following:

- Yes immediately
- Yes after I pay off my debt
- No because he owes me money
- No because I owe him money or advance or work
- No because he threatens me or my family

Who brought you there? *

Please choose only one of the following:

- Dalaal / Agent
- Employer / Contractor
- Friend
- Family
- Self
- Other

What type of support are you hoping to receive if any? *

Please choose all that apply:

- I don't need any support
- wage recovery
- Rescue from worksite
- legal support
- Information
- Other:

What is your current address?

Please write your answer here:

Do you have any other phone number we can contact you in?

Please write your answer here:

.

Other comments (Name and number of contractor or agent, specific problems, etc.)

Please write your answer here:

Survey End, thank you for your time! *

Please choose only one of the following:

- *END Survey*

Submit your survey. Thank you for completing this survey.

Appendix E: At-Risk Protocol



Protocol Title: Longitudinal Migration Tracking in India: Engagements with
"At-Risk" Participants

Protocol Number: 120180278

Date: 26 March 2019

Principal Investigator

Dr. Carrick Longley
401 Hanover St

Fredericksburg, VA 22401
(910) 515-9980

Carrick.longley@istresearch.com

Sponsor

Laura Gauer Bermudez
1175 Tysons Blvd 5th Floor

Tysons, VA 22102
(202) 288-0578

laura@gfems.org

Research Site

57a, Akashneem Marg
DLF Phase 2, Sector 25
Gurugram, Haryana 122002
India
(910) 515-9980

Purpose of the Study

This study aims to determine the prevalence of forced/bonded labor within India’s construction sector. The Global Fund to End Modern Slavery (GFEMS) intends to gather substantial data and evidence concerning the experiences of 100,000 Indian construction workers who migrate for work and determine whether skilling/placement programs—led by grantees composed of Jan Sahas, Sambhav Foundation, and Pratham—reduce instances of forced labor in a manner that is cost effective, scalable, and replicable. In conjunction with GFEMS and grantees, IST Research (IST) will determine the effectiveness of the programs and estimate the prevalence of labor exploitation in India prior to and following the implementation of these programs.

This protocol addresses our approaches to managing participants who meet criteria for being “at risk” for forced labor during follow-up surveys, conducted 1 week, 4 weeks, 7 weeks, 6 months, and 1 year following migration.

Background

Construction is the fastest growing job market globally⁸⁴ and the second largest industry in India with 60 million jobs; however, the industry is facing a shortage in skilled laborers. Internal seasonal migrants (estimated at 30 to 50 million persons, typically from agricultural or other subsistence sectors) help shortfall constructions during their off-season, but as many of these migrants are unskilled in construction, they are more vulnerable to exploitation.

Nongovernmental organizations (NGOs) have identified instances of forced and bonded labor among internal migrants, initiated through exploitative middlemen or brokers, and the prevalence of this trafficking is assessed between 7.5 and 10 percent. Based on this estimate, between three and five million migrants fall victim to forced labor each year (of which 200,000 are estimated from Bundelkhand).

The Government of India faces increasing pressure to reduce the prevalence of forced labor and ensure skilling and safe migration for India-based construction workers. In addition to protecting persons from trafficking, the lack of skilled labor significantly delays construction projects across the country; however, business estimates indicate addressing skilled labor will enhance productivity between five and seven percent and reduce costs due to delayed projects by five percent.

To address skilled labor, the government has set a target to skill 400 million persons by 2022 despite a current skilling capacity of 10 million per year, and India’s supreme court ordered the development of a model scheme to improve entitlement delivery to construction workers.

⁸⁴ Currently, the growth of the construction market is assessed at greater than 10% of the compound annual growth rate for 2015 to 2025

To support the efforts of the Indian government, a consortium comprised of Jan Sahas, Sambhav Foundation, and Pratham intends to reduce the prevalence of forced labor and bonded labor among internal migrants from the Bundelkhand region who work in India’s construction sector in Delhi/the National Capital Region (NCR) and Mumbai. The consortium intends to create a scalable and sustainable alternative to the exploitative broker system by tracking 100,000 workers and determining those profiles (e.g., receipt of skilling and/or entitlements, placement using licensed recruiters, use of micro-contractors) that encourage safer migration.

Through this program, the Global Fund to End Modern Slavery (GFEMS) intends to gather substantial data and evidence to launch a Public Private Partnership with the potential to scale the program to reach hundreds of thousands of internal migrants and raise tens of millions of USD in public/private financing.

Criteria for Subject Selection

As this protocol is a subset of the original India LMT study, subjects identified for the At-Risk Engagements must be registered as part of the LMT study and meet the International Labour Organization’s (ILO’s) definition of forced labor. As defined by the ILO, forced labor is any instance where a respondent reports at least one indicator under Menace of Penalty (or Threat of Penalty; threats to self or family members if the worker does not comply) and Involuntariness (worker is laboring without full consent to the conditions of employment).

Forced Labor Indicator Mapping

Table 1 categorizes and describes indicators based on description and severity.

Table 1. Categories of indicators

Category	Indicator	Description	Severity
Menace of Penalty	Not paid 2x for overtime	Withholding of wages	mid
	Work on rest days for fear of being fired	Intimidation/Threats	high
	Threat to self	Threats of violence	high
	Threat to family	Threats of violence	high
	Not paid on time	Withholding of wages	low
Involuntariness	Debt to Employer	Debt bondage	mid
	No freedom of Movement (after work shift)	Restricted movement/isolation	high
	Inability to leave job/employer	Restricted movement	mid
	Work more than agreed upon	Deception	mid
	Not paid agreed wage	Deception	mid
		Deception/Exploitative	
	No breaks	work environment	mid

Severity Tiers for Direct “At-Risk” Engagement

Figure 1 shows the three tiers that have been developed to gauge the severity of conditions and prioritize “At-Risk” engagement follow-ups with migrants.

	<u>Threat of Penalty</u>		<u>Involuntariness</u>
Tier 1	No Freedom of Movement Debt to Employer	+	1 Involuntariness Indicator
	No Freedom of Movement Threat to Family Threat to Self		N/A
Tier 2	No Freedom of Movement	+	1 Involuntariness Indicator
	Not able to leave Job	+	1 Involuntariness Indicator
	Threat to Family	+	1 Involuntariness Indicator
	Threat to Self	+	1 Involuntariness Indicator
Tier 3	No Freedom of Movement		N/A
	Threat to Self		N/A
	Threat to Family		N/A

Figure 1. Tiers of Severity for “At-Risk” Engagements

Migrants in Tier 1 must meet indicators from two scenarios: (1) report no freedom of movement, debt to the employer, and at least one Involuntariness indicator and (2) report no freedom of movement and threat to themselves and their families. Individuals meeting these criteria are considered to be in the most severe tier for possible exploitation.

Migrants in Tier 2 must report at least one Threat of Penalty indicator (no freedom of movement, not able to leave their job, threat to themselves or their family) and at least one Involuntariness indicator. Migrants who report at least five indicators from any category are also included in this tier. Five or more indicators may indicate possible exploitation; however, consideration must be given to Indian work culture. Some respondents may be unable to leave their jobs because they received an advance; some may have chosen to work overtime, on rest days, or for longer than agreed to earn extra money.

Tier 3 is composed of migrants who report any of the three major Threat of Penalty indicators, no freedom of movement, threat to themselves or their families.

Self-Reported Forced Labor Conditions

Individuals who consent to participate in the LMT study will be provided with a laminated card with the toll-free hotline number that can be used by migrants to share concerns about their work situation and/or seek help. IST will also send an SMS message to registered participants to remind them of the follow-up engagements and share the hotline number again.

Throughout follow-up engagements, which will occur in five predetermined intervals post migration, the phone number and its purpose will be reiterated. This toll-free hotline gives participants full control over whether they want their case to be referred and investigated for possible forced labor. The hotline will be managed by our local NGO partner, Jan Sahas, and we will only share additional identifying information on individuals who opt in for hotline access and subsequently contact the hotline for help. The toll-free hotline number is 1.800.200.0211.

Methods and Procedures

Responses Meeting Tier Criteria

IST Research has developed an algorithm that will flag LMT participants who participate in the follow-up engagements and are "At-Risk" for exploitative labor conditions. This flagging is based on the criteria described under "Criteria for Subject Selection." Contact information and names of these individuals will be shared with Jan Sahas for further engagement and follow-up. Jan Sahas will expand the toll-free hotline team to handle outbound calling and engagement with this group of "At-Risk" migrants.

The "At-Risk" engagements are designed to confirm information provided during the follow-up surveys, gauge whether further assistance is required and desired by the migrant, describe what assistance may look like if Jan Sahas can support, and—ultimately—assist the person in need. If Jan Sahas cannot fully assist, but the person is in need, Jan Sahas will refer the migrant to the NGOs working in the respective destination location. These NGOs, who work closely with Jan Sahas, will be briefed on the case and provided the necessary information to support and assist the migrant. Annex A lists the NGOs associated with Jan Sahas and their contact information.

Jan Sahas Assistance

IST Research will share contact information for "At-Risk" migrants with Jan Sahas, who has expanded its toll-free hotline team to include an additional three individuals. These team members will place outbound calls to "At-Risk" migrants from 8:00am to 8:00pm (eight-hour shifts), local time. Jan Sahas will contact migrants and their families to gather information concerning bondage, threats, location, and details on the employer/contractor. Further, Jan Sahas will confirm the information reported during LMT follow up engagements.

Prior to preparing an official complaint, Jan Sahas will obtain consent from migrants and/or their families. Following consent, the legal proceedings will be explained, and a plan will be

developed to aid the migrant. Jan Sahas will coordinate meetings with appropriate government authorities if rescue, wage settlement, and repatriation is necessary. Government Standard Operational Procedures will be followed.

In case of rescue, victims will be provided a medical examination, travel assistance (in case of repatriation), food, shelter, and interim financial assistance as necessary. After the safety of the migrant is confirmed and if the migrant provides consent, the migrant and/or his/her family will be briefed on possible legal interventions to prepare legal courses of action. An example consent form is provided in Annex B.

IST Research has developed a short web survey, which will be filled out following “At-Risk” engagements by Jan Sahas’ team. This survey is designed to inform GFEMS and IST Research of the outcome of these “At-Risk” engagements and next steps forward and also serve as a repository for migrants in need.

Note on Rehabilitation of Released Bonded Labor Survivors

Rehabilitation concerns the restoration to former rights, authority, or abilities, which—per *Bandhua Mukti Morcha vs. Union of India*—is critical for victims of forced and bonded labor as a lack of adequate rehabilitation may make such survivors (a) worse off than before their period of bondage and (b) at higher risk for relapse into such conditions.

Under the Bonded Labour System (Abolition) Act of 1976, the District Magistrate is empowered with identifying, rescuing, and rehabilitating survivors of bonded labor in his/her district—assisted by the Central Sector Scheme for Rehabilitation of Bonded Labourers (current as of 17 May 2016). This scheme provides:

- Immediate cash assistant (minimum 20,000 R)
- Full cash assistance (1 lakh for males; 2 lakh for adult women and children following conviction of the employer)
- Economic rehabilitation (land based and non-land based—the latter to include housing, employment training, health care, and education)

Direct Call to Call Center

Inbound calls from migrants participating in the LMT study will be answered by Jan Sahas' toll-free hotline team, which will be available 24 hours a day. Jan Sahas will use the web survey to guide the conversation and ensure all information necessary to determine whether assistance is required, desired, and available is obtained. If Jan Sahas is not able to provide further assistance, the migrant will be referred to NGOs working in the respective destination location. Jan Sahas has worked closely with NGOs and may seek support with rescue operations, wage settlements, worker repatriation, and protection (see Annex A).

Data Storage and Confidentiality

Call center operators will collect and store survey results on a secured IST Research-hosted server, which will be password protected with two-factor authentication and all data encrypted with industry standard practices and security measures. The survey results will only be accessible by the IST Research project team and relevant individuals within GFEMS. Subject identifiers (i.e., phone number) will only be shared with IST Research, GFEMS, and partners to conduct "At-Risk" engagements with individuals who previously consented to participate. Additional identifying information (i.e., name, father's name, address) will only be shared with Jan Sahas in the instance a survey participant requires aid or rescue, and Jan Sahas can provide support and assistance.

Transition from Research Participation

Due to the nature of this research (i.e., survey vs. medical/clinical trials), transition procedures are not applicable.

Risk/Benefit Assessment

Risk Category

The research presents minimal risk to subjects; however, expectations of what support and assistance may look like must be appropriately communicated with migrants. Training will be provided to Jan Sahas members handling these "At-Risk" engagements.

Potential Risk

There are no perceivable risks associated with this study; however, study participants may encounter risks we can neither foresee nor control. Participation is purely voluntary, and the decision not to partake in this study will not have any negative consequences on subjects.

Protection Against Risks

In the instance of situations that may place migrants in questionable positions, we have outlined processes to combat potential issues associated with "At-Risk" outbound/inbound engagements, assistance, and intervention.

Subjects with questions or complaints concerning the study may contact the principal investigator or representative.

"At-Risk" Outbound/Inbound Engagements

While risk is minimal for subjects participating in the "At-Risk" outbound/inbound engagements, we intend to manage communications between call center operators and study subjects to reduce the potential for adverse effects.

First, all "At-Risk" outbound/inbound engagements will require consent from the subject. In addition, call center operators will communicate the assistance and support process that Jan Sahas and associated NGOs can provide during the dialogue to ensure expectations are managed appropriately.

Assistance and Intervention

In some circumstances, subjects may request assistance and intervention, which—considering the potential dangers that subjects may encounter—may require rescue. In these circumstances, the problem will be addressed in the following manner:

- **If Jan Sahas can support**, it will do what it can to alleviate the suffering of affected individuals.
- **If Jan Sahas cannot unilaterally support**, it will relay the contact to a partner organization with the capability to provide adequate assistance (see Annex A). While we are not familiar with the processes of external organizations, Jan Sahas will follow up with these organizations to ensure affected persons receive adequate support.

Other items to consider for instances of assistance and intervention include the following:

- **Expectation Management:** In communicating with subjects, we will do what we can as quickly as we can to inform subjects that some processes may be slowed, and support may not be immediate. This is especially true for any assistance provided outside of our purview—that is, by those organizations listed in Annex A. By establishing these limitations at the start, we hope to quell any concerns with participants and encourage greater trust between subject and researchers.
- **Fear of Retaliation:** The delicate nature of this research may instill subjects with fear that open, honest communication concerning their work environment may lead to negative consequences. To combat these fears, we will provide migrants with the ability to call our hotline at any time for support. Further, we will ensure any personally identifiable information is protected and secured to prevent any unintentional leaks that may jeopardize the migrant's condition. We will also rely on our partner organizations for repatriation and rehabilitation (keeping in mind the need to follow up on their activities out of concern for affected migrants).

Potential benefits to the subjects

Participation in "At-Risk" Outbound/Inbound Engagements

"At-Risk" engagements, both outbound and inbound, will help our partners better understand the working conditions of migrants and enable them to provide necessary support and assistance where applicable.

Receipt of Assistance and Intervention

Subjects who encounter forced/bonded labor are entitled to rehabilitation, repatriation, and medical/economic assistance per India's Central Sector Scheme for Rehabilitation of Bonded Labourers (current as of 17 May 2016; see "Note on Rehabilitation of Released Bonded Labor Survivors" under "Method and Procedures"). However, some of these provisions may not be granted until after an abuser is convicted.

Alternatives to Participation

Aside from not participating, there are no alternatives to participating.

Subject Identification, Recruitment, and Consent/Assent

Method of Subject Identification and Recruitment

Subjects for this follow-on research include those individuals who have registered and consented to participate in the LMT survey and either (1) meet forced labor criteria (as described under "Criteria for Subject Selection") during the follow-up surveys or (2) self-identify as a victim of forced labor by contacting the call center directly.

Process of Consent

If an individual either meets forced labor criteria or contacts the Jan Sahas hotline directly to report conditions of forced labor, the call center operator will inform the individual what assistance may look like and how much time assistance would take. Further, the operator will ask the individual to provide their consent, which will allow Jan Sahas to reach out to them and provide support. Following receipt of consent, Jan Sahas will assist as applicable or route the issue to an authority capable of providing support. In addition to verbal consent for "At-Risk" outbound calls, Jan Sahas will present migrants with a consent form prior to initiating support. An example consent form is provided in Annex B.

Subject Capacity

Only subjects with the capacity to consent will be permitted to participate in this research.

Subject/Representative Comprehension

During training, call center operators will be instructed on how to effectively communicate how assistance will be provided to affected persons and to determine participant comprehension. In addition, operators will remind subjects in their preferred language that participation is

voluntary, and subjects may withdraw from the study at any point and for any reason without prejudice.

Debriefing procedures

There are no debriefing procedures required by this research.

Consent Forms

"At-Risk" engagements consist of individuals who either meet forced labor criteria or self-report forced labor conditions. These migrants are a subset of the LMT study who have already been presented with the consent forms during the registration periods and have agreed to participate in and be contacted by implementing partners of the LMT study. During each "At-Risk" engagement, participants will be reminded of the program and asked to provide consent again. Call center operators will indicate consent was verbally provided in a web survey, which the operator will complete as soon as the call is completed.

Costs to the Subject

Subjects will incur no costs in participating in this research.

Payment for Participation

Subjects will receive no payment for participating in this research.

Annex A | NGOs Affiliated with the Migration and Bonded Labor Program

Name and Address	State	Contact
HAQ: Centre for Child Rights	Delhi	Address: B-1/2, Ground Floor Malviya Nagar, New Delhi 110017 Email: info@haqcrc.org Phone: +91.11.26673599
Volunteers for Social Justice	Punjab	Email: ddva2013@gmail.com Phone: +91.1826.222432 Toll-Free Phone: 1.800.180.2432
Center for Labour Research and Action	Gujarat	Address: 14 Kirtan Society, Opp. Ambedkar Foundation, Ranip Cross Road, Ahmedabad 382480 Email: info@clra.in Phone: 079.27521544 Toll-Free Phone: 1.800.233.3155
Pratham	Mumbai	Address: 4th Floor, Gen. J. Bhosale Marg. Nariman Point Mumbai, Maharashtra 400021 Email: info@pratham.org Phone: 91.22.22819561
Ajeevika Bureau	Rajasthan	Email: info@ajeevika.org Phone: 0294.2451062, 0294.2450682 Toll-Free Phone: 1.800.180.0999
Nirman	Maharashtra	Email: Nirman@gmail.com
International Justice Mission	All Over India	
National Domestic Workers Movement	All over India	Address: 104/A, St Mary's Apts, Nesbit Road, Mazgaon, Mumbai 400010, India Email: contact@ndwm.org Phone: 022.2378.0903
Center for Dalit Rights	Rajasthan	Address: 112, Surya Nagar, Gopalpura Bypass Jaipur (Raj) INDIA. Email: cdrjaipur@gmail.com Phone: +91.141.2504119 +91.141.2504837

Annex B | Consent Form Example



Date: .././....

To,

Coordinator
Nirman Mazdoor Shashkatikaran Programme
(Programme for Empowerment of Construction Workers)
Resource Center.

I/we.....father/husband.....age.....caste.....resident of
..... date of incident .././.... type of incident date of
FIR..... police station.....district..... state.....

Brief details of the case:

That, I swear the above information provided true to my best knowledge.

Now, I father/husband resident of give my/our consent and
have no objection for the appropriate legal assistance and judicial actions in my/our case.

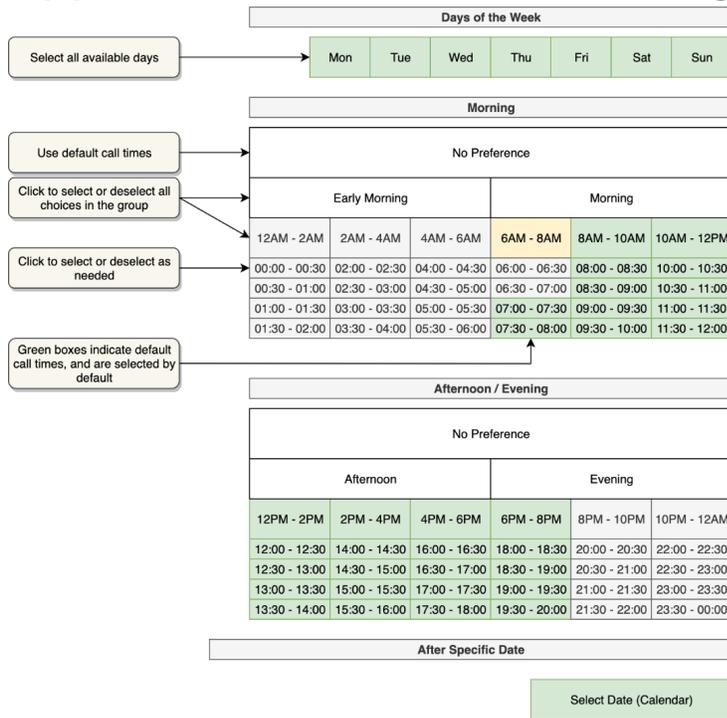
Two witnesses

1. Name: resident of Signature
2. Name: resident of Signature

Sincerely

Applicant signature

Appendix F: mTracker Scheduling Interface



INITIAL	INTERVAL	CALL_BACK	ADJUSTED	REATTEMPT
1	2	3	4	5
6	7	8	9	10
11	12	13		14
15	16	17		18
19	20			21
				22
				23

QUEUE GROUPS

QUEUE GROUPS		
INITIAL	First outbound call	1
INTERVAL	Follow-up Check-in / First Attempt	1
CALL_BACK	Scheduled Call-back / First Attempt	1
ADJUSTED	Administratively Assigned / Adjusted / Delayed	1
REATTEMPT	Reattempts	Sort: Number of reattempts