

Working Paper Series

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STATUS MATTER?

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November 2024



CENTRE FOR DEVELOPMENT STUDIES
(Under the aegis of Govt. of Kerala & Indian Council of Social Science Research)
Thiruvananthapuram, Kerala, India

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ABSTRACT

Is employment related vulnerability during a shock such as the pandemic differentiated by migration status? In this paper, we examine this and related questions using primary data from a Census of Kadakkavoor, a village in south Kerala that has experienced large scale migration to the Middle East for over half a century. Employment vulnerability is conceptualised in terms of loss of jobs and / or loss of incomes both of which may have been a partial loss or full loss. Econometric analysis confirms that current migrants, those who were overseas or at home on vacation from their jobs during the time of data collection, face a lower likelihood of adverse impact to both work and income/salary as compared to non-migrants. This may be because current migrants possess certain advantages that gives them access to migration in the first place as represented by their relatively higher education levels and the lower representation of workers from marginalised social groups among them or it may be on account of the working conditions at the destination place. Second, we find that return migrant workers, including those who returned in the wake of the COVID pandemic, are more vulnerable to adverse impacts on their work and income as compared to the non-migrant category. Notably the COVID 19 returnees were virtually hived off from the category of current migrants as it was immediately before the pandemic and fared worse than other returnees fared. In summary, COVID-19 employment vulnerabilities are highest among return migrants and lowest among current migrants. This directs attention to pre-existing advantages, which may act as employment cushions during unusual times. We explore various channels to examine the pathways to explain these findings. Current migrants were found to be more educated, richer and to have better migration-based networks as compared to non-migrants and return migrants. These findings shed some light on the complex intertwined relationship between migration and employment vulnerabilities during an unusual event like the pandemic. We document that the highest adverse impacts are those on the most vulnerable social groups thereby exacerbating their pre-existing vulnerabilities.

Keywords- migration, job loss, pandemic, India

Acknowledgements: We acknowledge the funding by the Kerala and the World Economy Unit at the Centre for Development Studies (with support from Kerala government) for the project. We extend our gratitude to Neethu Mol and Preetha V Mohan for their excellent research assistance. We also thank all the survey team and the respondents for their help and cooperation.

I. Introduction

The COVID 19 pandemic and ensuing lockdowns caused an overlapping health and economic shock of a rare kind, generating intense distress across the world. In the months immediately following the first lockdown in India in March 2020, there was large scale loss of jobs and earnings / income (Mohan and Kar, 2022, Kannan and Khan, 2022, Vyas, 2020, Kesar et al., 2021, Abraham et al. 2022). Migrant workers within and across countries came into special focus as many of them lost their means of survival and safe shelter (Hans et al. 2021, Khan and Arokkiaraj, 2021, IOM, 2020). Compelled to return to their home countries, when travel restrictions were eased, many migrants lost backlogs of unpaid wages (Foley and Piper, 2021). The state of Kerala, with over 2 million international migrants and accustomed to receive substantial remittances has been seen as uniquely vulnerable to the shock (See Withers et al., (2021).¹ More than 2 million people returned to the state but the lockdown affected employment and household incomes irrespective of migration status.² In this backdrop, we examine whether employment related vulnerability because of the pandemic was differentiated by migration status using primary data from a Census of a village in south Kerala that has experienced large-scale migration to the Middle East for over half a century.

A sizeable scholarship presents international migration from Kerala as a success story as it fostered individual prosperity and bolstered a previously sagging economy (Mathew and Nair, 1978; Prakash 1998; Zachariah et al 2003, Rajan et al, 2019). Remittance-receiving households register higher living standards in Kerala evident in relatively higher spending on food, durable goods, health and education (Sunny et al. 2020: 14). This would lead us to expect that migrants would be less vulnerable to an external shock. However, return migration has been described as a source of disillusionment and economic decline leading return migrants to seek state support (Zachariah et al 2006, Prakash, 2013). The question that arises here is whether the gains from migration endure over a longer period.

¹The total volume of remittances of Kerala in 2020-21, including private transfer and NRI deposits, was estimated to be ₹2.7 lakh crore; private transfers (remittances) amounting over 1 lakh crore was 19 % of total private transfers to India (KILE: 2022: 6). The annual average remittances that Kerala received between 1972 and 2020 amounted to 14.75 % of net state domestic product (Kannan and Hari, 2021:942, 46) and 16 % of households in the state were estimated to have received remittances in 2018 (Rajan and Zachariah, 2019).

²The Kerala Migration Survey, 2018 estimates international migrants at 2.1 million (see Rajan and Zachariah, 2019) and the KMS 2024 put it at 2.2 million (Kallungal, 2024). These figures are lower than the number of people repatriated to Kerala. A part of the excess is on account of people travelling overseas to visit their relatives and friends or as tourists.

Notably, the position of current and return migrants has not been probed within a single comparative frame, a gap that we seek to address here. The broader question we address is whether what are celebrated as migration related advantages in employment and earnings during ‘normal’ times persist during a crisis for all categories of migrants. Employment vulnerability is conceptualised in terms of loss of jobs and / or loss of incomes both of which may have been a partial loss or full loss. The pandemic brought into effect circumstances that were entirely unexpected and unfamiliar. The lockdown and cessation of a large part of economic activity affected people who were reliant entirely or substantially on earnings from unprotected jobs.

Poor social protection and structural inequalities at home may be reinforced through migration (de Haan, 2012). Social structures such as caste and gender generate differential vulnerability to loss of livelihoods, irrespective of migration status, which may be thrown into sharp relief during the pandemic owing to the nature of the shock. Our village census allows us to assess the vulnerability of workers to loss of employment and earnings according to migration status and to probe this vulnerability in terms of structural conditions. The study, conducted in 2021, after the bulk of return migration had occurred, also allows us to understand how migration affected household behaviour and the local economy during the pandemic.

The rest of the paper is organized as follows. We first provide an overview of the disruption of lives and livelihoods because of the pandemic and then lay out the explanatory framework developed for the study. The next section provides a brief account of livelihoods and migration from Kadakkavoor village. We then present the data and variables, and discuss the results.

II. The COVID 19 pandemic and Disruption of Livelihoods

Only the rural agricultural sector in India remained unaffected by the pandemic, showing a small decrease in hours worked whereas work participation of rural women in construction actually increased likely because of augmented work under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS, which is an indicator of distress) (Mohan and Kar, 2022).³ Looking at trajectories of impact with Centre for Monitoring the Indian Economy (CMIE) data, Abraham et al (2022) observe that only 61% were employed continuously prior to, during, and post the lockdown in 2020 compared to 96 % in 2018-19,

³The study based on Periodic Labor Force Survey quarterly data for 2018-19 and 2019-20 found that the actual WPR declined by around 12 percentage points (amounting to a 19% fall in actual workforce) from the October–December level for rural men and 24 percentage points (39% fall in actual workforce) for urban men. For women, the corresponding fall in actual workforce are 22% and 43%.

the base period. Kerala experienced a significantly greater immediate loss of employment compared to other states owing perhaps to the stringency of the lockdown as the state had the highest caseload of COVID 19 at the time but there was better recovery in the following quarters (Karkalpudi, 2022).⁴

Arguably, international labor migrants suffered disproportionately from the pandemic. Rajan and Pattath (2021: 20-24) found that half of returnees to Kerala had lost their jobs and that loss of wages was particularly high among this group.⁵ This assumes importance as over half of migrant households reported using remittances for subsistence (Rajan and Zachariah, 2019). Though India did not adopt international labor migration as an economic strategy, unlike several Asian countries, it has a large migrant workforce in the Middle East. People from Kerala led this migration from the 1970s to mid-2000 assisted largely by networks, personal connections and a vast recruitment industry. Recognising the gains to be had, the state government has, since the 1990s, actively sought to facilitate the process.⁶

Kerala accounted for a quarter of the 9.56 million people repatriated through the Vande Bharat Mission (VBM) flights, arranged by the Government of India (GOI), between May 2020 and October 2021, second only to Delhi, where migrants from the northern heartland states disembark (Press Information Bureau (PIB), Nov 2021). Ticket fares on the VBM flights were reported to be higher than is normal during the crisis (Smitha, 2020). In addition, migrants also returned on chartered flights, thus the total returnees to Kerala exceeded the 2.4 million accounted for by the VBM flights. A distinct category of stranded migrants was those who were home on leave prior to the lockdown and unable to go back to their place of employment (Prakash, 2022). Between May 2020 and October 2021, the VBM flights ferried over 2 million people from Kerala to overseas destinations (PIB, Nov 2021), which provides an indication of the urgency of overseas employment.

International migrants are a powerful interest group in Kerala with a voice in policymaking and representation on official bodies dealing with migration. Issues concerning migrants are politically sensitive in the state. To ease their return, the state government was compelled to

⁴The study used PLFS data.

⁵ Using the Computer Assisted Telephonic Interviews they interviewed 1985 return migrants and found that nearly 90 % had been in 'distress' owing to loss of jobs and fear associated with the pandemic.

⁶ The GOK has been at the forefront in supporting migrants by networking, facilitation of regular migration and designing and co-ordination of welfare schemes. In 1996, Kerala became the first state to start a department for non-resident Keralites to network, build a data bank and guide aspirants. NORKA Roots, set up in 2002, provides information, documentation services and welfare measures for migrant labor. The government formed the Loka Kerala Sabha in 2017 for interaction with the Malayali diaspora.

relax its COVID containment strategies (Choolayil and Putran, 2021: 16, Chathukulam and Tharamangalam, 2020). The state government was at the forefront in initiating special welfare measures for return migrants during the pandemic (Khan and Arokkiaraj, 2021: 10).

III. Explanatory Framework

We build on the idea of an economic shock (in this instance induced by the COVID 19 pandemic), the varied nature of migration-development linkages and precarity in the structuring of temporary labor migration to explain the differentiation of employment vulnerability in terms of migration status. There are three elements to this framework.

First, the income shock generated by the COVID 19 pandemic, a health emergency, halted mobility, unlike a natural disaster or a conflict situation that sets off mass mobility, and when restrictions were eased gradually, generated distress-driven reverse migration. In terms of its nature, COVID 19 pandemic was different from other shocks- livelihoods were destroyed or temporarily halted but migration was not an option. In fact, migrants returned in large numbers with looming uncertainty about their return to their overseas jobs.

Second, the economic shock dealt a blow to the overly optimistic view of migration and development linkages that had lent credibility to temporary labor migration as an economic strategy for developing countries. Notwithstanding internal critiques, migration optimism gained ground in the 1990s and fostered the belief that remittances can fuel development in source countries (de Haan: 2012: 10). However, the accumulated empirical and theoretical evidence showed that the relationship between migration and development is differentiated, context dependent and nuanced (de Haas, 2012: 10). Multiple channels mediate migration and contribute to differentiation in outcomes. For instance, government policy led migration provides greater scope for equitable access to information and protection for workers whereas social / community networks are likely to exclude people who do not possess them generating more inequality.⁷

Third, experiences of stranded and returnee workers during the pandemic spoke to the idea of ‘protracted precarity’ of migrant labor (Piper 2022), i.e., social and economic insecurities that structure migration at the source are persist on return because they are not eased through migration. Migration optimism informed a global shift in development thinking on migration, furnishing legitimacy for temporary labor migration regimes. The Kafala system in the Middle East, quintessentially a temporary migration regime, limits the ability of source countries to

⁷For a discussion of the effects of information asymmetry on migration costs see Abella (2018).

protect their citizens at the destination. As source country policies revolve around managing migration and return and facilitating remittances, they do not focus on rights and have not been able to address the extant power asymmetry (Piper, 2022). Network driven migration reinforces structural disadvantage in and through migration as aspirants with weak networks rely on the recruitment industry at excessive cost.⁸ The pandemic exacerbated and amplified the pre-existing insecurities of migrant contract workers many of who were then forced out of employment and returned empty handed (Foley and Piper, 2021).

Beneficial migration development linkages are apparent at the aggregate level in Kerala. It is widely acknowledged that remittances contributed to reducing poverty, advancing human development and improving living standards (Nair, 1991, Prakash, 1998, GoK, 2006, Parameswaran, 2011, Zachariah and Rajan 2003, 2015, Rajan and Zachariah, 2018, Kannan and Hari, 2020, Sunny et al., 2020, GoK, 2006). However, there is a counter narrative that the voluminous flow of remittances has negative consequences for the goods producing sectors (Harilal and Joseph 2003, Parameswaran, 2020). The resulting constraints on domestic employment would not only narrow the ability of return migrants to be fruitfully employed but also intensify the vulnerability of workers at a time of crisis. Yet, it may not explain fully the narrative of economic decline of return migrants, which implies that individual prosperity of migrants is short, lived.

Return migration, which began to assume significance in the mid-1980s, has included periodic repatriation of irregular workers and evacuation during conflicts, both conditions of obvious distress (Nair, 1999).⁹ Over the past decade, returnees eclipsed the number of emigrants even though the percentage of households reporting remittance receipts continued to rise (Sunny et al. 12). The COVID 19 returnees are a special category as they were virtually hived off from the category of current migrants such as it was immediately before the pandemic owing to the intensity of the shock. Thus, return migration precipitated by the crisis may provide more insight into the nature of protracted precarity among migrants.

The disconnect observed between a dominant narrative of successful international migration and a despondent one of return deserves attention here. Abraham (2020: 16) finds that a major reason for return is the adverse labor market conditions at the destination and that on return

⁸ A survey of workers returning from Saudi Arabia at Delhi airport showed that the dominant component of migration cost was for recruitment and the average migration cost was no less than nine months' average earnings of the worker prior to migration (Sasikumar, 2019: 122).

⁹ The Nitaqat program in Saudi Arabia saw 1.4 lakh workers repatriated to India (MOIA, 2013) and 80,000 people returned to Kerala on account of the war in Kuwait in 1990 (Nair, 1999).

there is a high level of persistence in the pre-migration occupations at the source, especially in the lower occupational categories. These findings indicate little skill enhancement and low upward mobility because of migration. Typically, returnees are observed to be older, less educated and with higher levels of unemployment than migrants (Nair, 1999). More than half of a sample of returnees were found to be employed as casual labor or in low earning self-employment and agriculture with only one third earning over Rs 5000 a month (Prakash, 2013: 94). While remittances had been used for subsistence, to build houses and to pay for education, weddings and dowries, there was a dearth of opportunities for profitable investment of savings. Current migrants have a higher social and skill profile vis-à-vis return migrants at least partially because of advancement of human development among the youth. The percentage of emigrants who engaged in casual labor dipped from about 44 per cent in 1998 to about 12 per cent in 2018 whereas emigrants engaged in high-paid occupations increased from about 40 per cent to about 52 per cent (Sunny et al., 2020). However, conditions at the source may be such that contract labor may not be able break free from structural inequality through temporary labor migration.

The deeper roots of economic vulnerability may be found in social structures that generate constraints and risks for workers at the intersections of caste, gender and class. The immediate impact of the lockdowns on employment in Kerala corresponding to the first and second waves in March 2020 and May 2021 respectively were hardest on the Schedule Castes(SC) and Scheduled Tribes(ST) compared to Other Backward Classes(OBC) and unreserved categories (Karkalpudi, 2022). Studies on how caste or gender mediate migration experience is scarce, but the limited evidence indicates that structural inequality persists despite migration.¹⁰

Migration from Kerala is male dominated and the SC / ST have the lowest emigration rate, 3.4 % compared to 22.0 % for all population (Zachariah et al. 2003). Migrants from the socio-economic margins are hamstrung by scarcity of social networks and credible sources of information. For instance, migrant women domestic workers, who are drawn disproportionately from the societal margins and suffer from information asymmetry, are highly susceptible to the risk of extortion and deception (Kodoth, 2016).

¹⁰ Migrant women domestic workers from Kerala were forced into repeated stints of migration to the Middle East to pay off debts, to meet the basic survival needs of their families and to pay for daughters' marriages. Rarely were they able to overcome the conditions that led them to migrate in the first place (Kodoth and Varghese, 2012). A comparative study found that the privileged castes in three Tamil Nadu villages made the most gains while the oppressed castes persisted with migration on account of poor conditions at home (Arokkiaraj, 2022: 55).

IV. The Village study

Kadakkavoor, a village in south Kerala bordering the state capital has witnessed large-scale migration to the Middle East since the gulf boom in the 1970s. This marked a sharp change in the direction of migration from the village, which was to South East Asia in the first half of the twentieth century. A region bordering the present village was studied previously as part of the Census village monographs in 1961 (129 households were enumerated) and a sample of households from this area was re-surveyed in 1999 (Sivanandan, 2007).¹¹The 1961 Census monograph mentions that emigration had ceased at the time though previously it had been a significant feature of this area. The 1999 resurvey found that almost 48 % of households had migrants and Gulf employment was the single largest source of employment for men.

Through a census of Kadakavoor panchayat in 2021, we found that migration to the Middle East had been ongoing since at least the 1950s, that it was male dominated and 70 % of migration was to the UAE. During the past decade, first time migrant men had declined while return had increased sharply. Marking a sharp spike, 229 migrants (210 male and 19 female) returned in the year 2020, corresponding to the pandemic, having lost their jobs or otherwise having decided to return for good.

Women's migration was a constant feature from the 1950s but it remained at low levels and both emigration and return had increased in the past decade. The turn to migrant livelihoods in this region was accompanied by a decline in female work participation rates as evident from the two previous studies from 43 per cent in 1961 to 27 percent in 1999. Previously women in this area were absorbed in the coir processing industry, which had declined (Sivanandan, 1999). This decline fostered greater dependence of households on migrant incomes and accentuated survival risk in the face of a crisis.

Migration was not spread evenly across the village making way for considerable diversity within the village. Of the 16 wards, six had current migrants or returnees in over 50 % of households whereas in four wards there were current migrants or returnees in less than 20 % of households. There were current migrants in 20 to 30 % of households in most wards whereas two wards had current migrants in fewer than 10 % of households and the most migrant intensive ward had a current migrant in one third of households. The most migration intensive

¹¹The area studied by the Census, 1961 is now under the neighboring Vakkom panchayat.

ward was adjacent to the area in which the two previous studies were conducted. Caste and community were also important opportunity structures including access to migration and the insecurities associated with it. The numerically dominant community in the village were the Hindu Ezhavas, classified as an OBC who along with Muslims (also OBC) had similarly high levels of access to migration followed by the privileged castes (Nairs). The numerically small Christian community (Other Eligible Castes who were considered more disadvantaged than the OBC), who depended largely on fishing had the highest proportion of migrants or returnees in their households whereas the SC had the least access. The intensity of migration from this region, the uneven spatial distribution of migrants as well as social, cultural and economic diversity and the sizeable numbers of return migrants makes Kadakkavoor an important site for investigation of how a once in a life time shock - pandemic - affected employment through the lens of migration.

V. Data and variables

The survey was conducted in Kadakkavoor panchayat in two waves. The first wave spanned all 7488 households (approximately 20000 individuals) across 16 wards. This wave commenced in April 2021 but was suspended shortly due to the second wave of COVID-19 infections that plagued India. It was resumed in August 2021 and continued until December 2021. We collected data on the social and demographic profile of household members and the spatial distribution of migrants according to social/ religious groups. Since this phase coincided with the COVID-19 pandemic, we also take advantage of the ongoing transformation in international migration with a focus on how COVID- 19 affected onward and return migration. In addition, we study how migration status may have mediated the impact of the COVID-19 pandemic on employment in households. In the second phase of the survey, we focused on a smaller subset to provide a detailed account of migration processes, gender relations, investment decisions, networks and employment characteristics. We used a stratified random sampling strategy and collected data from 1488 households where we stratified the sample at the ward level. The second phase was conducted between August and November 2022. The main analysis of this study draws data from the first wave. We use the data from the survey in the second wave only to indicate some underlying mechanisms and channels that explain our main findings.

Variables

We start with our dependent variable- employment impact. We use the concept of vulnerability to capture employment impact. Employment vulnerability is a multidimensional concept and

has been defined using different approaches – for instance, it can be the risk of working under inadequate opportunities (Bocquier et al., 2010; Bazillier et al., 2016). In contrast, Hudson (2006), Pollert and Charlwood (2009) measure employment vulnerability as receiving lower wages and income. Bazillier et al. (2016) focus on various characteristics to construct an employment vulnerability index ranging from employment relationship, type of contract to the ability to decide daily work assignment and occupation category.

These studies outline how workers may face vulnerability at various stages of work. Specifically, employment vulnerability at the time of finding a job may be observed in the form of risks of not being hired due to unobservable factors such as discrimination, being offered lower compensation and so on. Employment vulnerability may also exist in the form of poorer conditions of work such as lack of social security. In contrast, we seek to examine vulnerability in a very unusual context of total breakdown of normal institutional structures related to employment. Are the above-mentioned aspects such as discrimination and lower payments among others heightened by the collapse of institutions owing to COVID?

Lockdowns due to the pandemic unravelled stark patterns in employment vulnerabilities. Barring the small sliver of people who have protected employment, those who have employment that was easily shifted to online modes and those who became essential services (health and social care workers – who were therefore vulnerable to falling ill), most of the workforce faced high uncertainty related to employment security. In fact, among migrants, most waged workers in manufacturing, construction, services and agriculture were stranded without compensation in the Middle East¹². This included the technically skilled category – plumbers, electricians, drivers, and mechanics and so on. In such unusual times, it may be meaningful to capture if the individual faces adverse impact to their jobs in the form of working longer hours or a pay cut or delayed payment or complete loss of jobs.

In this study, we use a very context specific approach made necessary by the multiple lockdowns that were imposed and the slow process of return to normal life to measure employment and income vulnerability by considering any adverse impact to an individual's existing job. These measures take into account the nature of the pandemic, which brought normal life to a halt. We refrain from vulnerability faced during job search since searching for jobs during COVID-19 had specific issues related to uncertain and multiple lockdowns, curbs on mobility and opening of offices. This question was rendered more complicated during

¹² Source: <https://www.bbc.com/news/world-middle-east-52655131>

COVID because of the lack of continuity with the previous period. Many people lost jobs and the normal process of job search was thrown into disarray. These restrictions and limitations may overestimate or underestimate employment vulnerability for certain sections of the population. We recognize that the same restrictions may plague capturing vulnerability related to working conditions such as the work environment and decent work opportunities since certain sectors required employees to work from home and so on.

We try to account for these salient features by considering employment vulnerability only for individuals that reported on being employed before COVID-19. Thus, our eligible population for this study is all the individuals belonging to the working age group of 15 and 64 years. Further, we also drop individuals who are not in the workforce (individuals who are in education, household care and who are not seeking employment). Additionally we drop individuals who were part of the workforce but were unemployed- our data suggests that less than 7% of individuals were seeking employment in the workforce implying that sample selection may not be serious concern in the current analysis¹³. Hence, our final dataset comprises of 9631 individuals that reported being employed before the pandemic.

We use two measures of employment impact¹⁴. We ask the following question in our survey- “How was your work affected in the post lockdown period?” Respondents are asked to answer the impact related to work and related to income/salary¹⁵. Based on the responses, we use impact to work and impact to income/salary as the two measures. Impact on work is measured as an ordered variable that takes the value zero if there is no impact, one if the workload has increased or work has been relocated to home premises, two if work has reduced and three if job is completely lost. Similarly, impact to income/ salary takes the values 0, 1 and 2 depending on whether there was no impact, reduction and complete absence. The reason for having separate indicators for loss to job and income stems from the unique context due to lockdowns. In the pandemic context, employment loss would mean loss of income but income loss may be temporary without employment loss. This would not apply to other sources of income that the family may have. We also use alternate ways to measure impact on work and income by

¹³ This may be because people were engaged in some form of work owing to the circumstances and hence recorded as working. For instance, in our sample, individuals engaged in NREGS have been clubbed under public sector employment when NREGS only provides daily employment for a certain period each year.

¹⁴ We will use employment vulnerability and employment impact interchangeably hereafter.

¹⁵ Respondents can choose the following options related to work- “1-Completely lost job, 2- Partially lost job, 3- Overtime work, 4- Relocated the work to home, 5- Did not affect the job”. The options related to income were- “1- Income/salary decreased, 2- Income/salary completely lost, 3- Income/ salary not affected, 4- Others”.

taking dummy variables for any impact and complete impact in different versions of the econometric model.

Our main variable of interest is migration status. For our main models, we measure migration status at the individual level using relevant dummy variables. Specifically, we use a dummy variable to define a current migrant if a permanent member of the household was employed overseas at the time of the survey. Similarly, we use a dummy variable for return migrants for permanent members of the households that were abroad for a minimum of six months period and have returned permanently¹⁶. Individuals who are not current or return migrant are defined as non-migrants.

We use a host of control variables that may be associated with employment status of an individual. We control for age and education (categorical variable that takes the whole values 0-9 for illiteracy, literate but no school education, primary level, upper primary and middle level, 10th class, higher secondary, undergraduate, postgraduate and higher respectively). We also control for marital status and employment type at the individual level¹⁷. We control for the social background of the household (General, Other Backward Classes, Scheduled Caste and Scheduled Category) and religion of the household (Hindu, Christians, Muslims and others). We also collect data on the exact location of the household using Global Positioning System (GPS) coordinates of latitude and longitude specification.

VI. Some basic patterns and descriptive statistics

In our overall sample of previously employed people, we had 51% males and 76% married individuals. Further, 68% of households belong to the Other Backward Class (OBC) category and 81% are Hindus. At the individual level, 83% of working individuals were non-migrants, 9% were current migrants and 8% were return migrants. In terms of employment type, 32% of working individuals were salaried employees, 24% were daily wageworkers in the public sector and 32% were engaged in other forms of daily employment¹⁸. Among women who were employed, 46% were engaged in daily wage work in the public sector. In contrast, among employed men, 39% and 34% were in other forms of daily employment and salaried jobs

¹⁶ Some studies refer to this category as past migrants.

¹⁷ Codes for occupation: Self-employment-11, Employer-12, Unpaid family enterprise-21, salaried employee-31, - daily wages in the public sector-41, Other types of daily wage jobs-51, Looking for a job-81, studying-91, doing household works -92, In addition to doing household works, domestic farming, animal husbandry, sewing, weaving, etc.-93, Pensioners / Overseas Income-94

¹⁸ The broad employment patterns include current migrant, return migrant and non-migrant categories. In the domestic market, MGNREGS is included under the category of daily wageworkers in the public sector.

respectively. Finally, 65% (62%) and 16% (14%) of employed individuals reported partial and complete impact to work (income) respectively.

We present the contrasting socio-economic characteristics and employment impacts for different migration categories in Table 1.

Table 1- Socio-economic attributes across migration categories

	Current Migrants	Non Migrants	Return Migrants
<i><u>Basic profile</u></i>			
Current age	39.29	38.51	46.55
Female ¹⁹	6.6%	66.2%	7.6%
Educational qualification ²⁰	6.70	6.27	6.07
<i><u>Social group</u></i>			
OBC	78.0%	68.5%	77.2%
SC	7.5%	17.7%	7.6%
General	14.4%	13.7%	15.2%
<i><u>Religion</u></i>			
Hindu	80.1%	81.6%	80.0%
Christian	4.0%	4.8%	7.8%
Muslim	15.4%	13.3%	11.4%

Source: Compiled from survey

Table 1 compiles some systematic differences across the three migrant categories. Return migrants are older than the current and non-migrant category since these would include early returnees who returned post retirement or long back. Employed women are over represented in the non-migrant category group indicating the low presence of women in migration. Further, current migrants are more educated than the other two categories. In terms of social category we find an over representation of scheduled caste in the non-migrant category.

¹⁹ These proportion percentages are defined for each group. For instance, of all the current migrants, 6.6% are females.

²⁰ We control for age and education (categorical variable that takes the whole values 0-9 for illiteracy, literate but no school education, primary level, upper primary and middle level, 10th class, higher secondary, undergraduate, postgraduate and higher respectively).

Table 2- Employment impact across migration categories

	Current Migrants	Non Migrants	Return Migrants
<i>Impact to employment measured as codes indicating the following</i>			
Not affected	481	897	42
Overtime work/Relocated work to home	33	213	6
Partial loss	764 (52%)	5184 (71%)	612 (54%)
Complete loss	172 (12%)	994 (13%)	469 (41%)
<i>Impact to income measured as codes indicating the following</i>			
No impact	419	1202	67
Reduced	862 (58%)	5392 (72%)	653 (56%)
Complete loss	916 (12%)	916 (12%)	447 (38%)

Source: Compiled from survey

Table 2 compiles the employment impact (according to both measures) for the three migrant groups. While all three categories indicate a high proportion of working individuals getting impacted due to COVID-19 in some form, the representation of non-migrants is unusually higher for the “partial” loss to work and income as compared to other categories. In contrast, a higher share of return migrants indicated complete loss of income and work as compared to the other categories.

The above discussion reveals some systematic patterns exhibited between various categories of migration and the extent of employment impact. To capture these effects in a more systematic format we use the following probit model:

$$\Pr(y_{ijw}) = \alpha + \beta Mig_stat_{ijw} + \gamma Ind_{ijw} + \delta Hhd_{jw} + \theta D_w + \varepsilon_{ijw}$$

where y_{ijw} is an indicator of impact on employment (work and income/salary) of the i th individual in the j th household in the w th ward. Mig_stat_{ijw} is the vector of all migration category dummy variables. Further, Ind_{ijw} and Hhd_{jw} are individual and household level factors. Further, since the wards in Kadakkavoor panchayat vary greatly in resources, infrastructure quality and other unobserved characteristics. We use the vector of ward dummies as denoted by D_w . ε_{ijw} is the error term of the i th individual in the j th household in the w th ward.

VII Results

Main model

We compile our results from the above probit model in Table 3. We estimate ordered probit model in columns (1) and (2).

Table 3- Employment vulnerability and migration status

VARIABLES	(1) Impact to work (ordered probit)	(2) Impact to income/salary (ordered probit)
Migration status		
(Non-migrants- 0)		
Current Migrants	-0.473*** (0.092)	-0.233*** (0.080)
Return Migrants	0.801*** (0.091)	0.754*** (0.079)
Individual characteristics		
Age	-0.002 (0.002)	-0.002 (0.002)
Education	-0.219*** (0.025)	-0.219*** (0.023)
Female	-0.228*** (0.044)	-0.227*** (0.040)
Married	-0.135*** (0.036)	-0.136*** (0.038)
Household characteristics		
Size	0.010 (0.010)	0.013 (0.010)
<u>Social category (general-0)</u>		
Scheduled Caste	0.171*** (0.062)	0.162*** (0.048)
<u>Religion (Hindu-0)</u>		
Christian	0.190*** (0.047)	0.213*** (0.058)
Muslim	-0.102* (0.055)	-0.089 (0.070)
Other details		
Cut 1	-2.553*** (0.224)	-2.451*** (0.202)
Cut 2	-2.408*** (0.223)	-0.224 (0.224)
Cut 3	-0.204 (0.218)	
Ward fixed effects	Y	Y
Observations	9,367	9,631

Note: Columns (1) and (2) use an ordered probit model. Work impact is a categorical variable that takes four values- 0, 1, 2 and 3 indicating “No effect”, “Overtime or relocation of work to home”, “Partially lost job” and “Completely lost job” respectively. Income impact is a categorical variable that takes three values- 0, 1 and 2 indicating “No loss”, “Partial loss” and “Complete loss” respectively. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: Compiled from survey

Models (1) and (2) of Table 3 indicates current migrants face a lower likelihood of adverse impact to both work and income/salary as compared to non-migrants. This may be because either only the better and advantaged workers had access to migration (as observed in Table 1 through the higher education levels of current migrants and lower representation of SC workers among current migrants) and/or better working conditions at the destination place. We will explore these possibilities in future sections. Second, we find that return migrant workers are more vulnerable to adverse impacts on their work and income as compared to the non-migrant category. This also requires in-depth attention as in our study return migrants is a heterogeneous group comprising returnees who returned long back and migrants who had to return due to the pandemic. We revisit this issue also in a later section. The main finding is that among employed people, return migrants were most impacted due to the pandemic, followed by the non-migrants and the current migrants were least impacted. This broad pattern stays intact no matter how we measure impact to employment (Appendix I). It is also in line with previous studies (de Haan, 2012; Nair, 1999; Foley and Piper, 2021)²¹.

Additionally, we find that there are other factors associated with employment vulnerability. At the individual level, lower levels of education, being married and men had higher likelihood of facing adverse impact to both work and income due to the pandemic. We also find individuals belonging to the SC category were more vulnerable as compared to the other castes. Further, all models control for any unobserved effects at the ward level through ward level dummy variables. We also include robust standard errors clustered at the ward level to take account of any group effects.

Some robustness tests

Combining impact to work and impact to income/salary to generate a single indicator of employment vulnerability

²¹ The cut points in Table 3 indicate the threshold value of the latent unobserved variable that determines how the different categories of the ordinal variable (the dependent variable in the model) are generated.

We recognize that it is possible to combine impact to work and impact to income/salary and generate some overall employment vulnerability indicator. Our work impact variable takes four values between 0-3 and income impact takes three values between 0-2 (in both cases a higher impact is measured by a higher value). These are compiled in columns 2 and 4 of Table 4. . We use two alternate approaches to constructing the employment vulnerability (total impact 1 and total impact 2). We summarize the construction of these two indicators in Table 4.

For instance, the first observation in Table 4 indicates no impact on both work and compensation and hence both total impact 1 and total impact 2 take a value of zero. In contrast, the last row of Table 4 will indicate losing the job (work impact takes the highest value of 3 and income impact-2). So total impact 1 gives it the highest possible value of 2 indicating the worst impact. Every other category, in between is given a value of zero due to subjectivity and ambiguity in ranking them. Total impact 1 in Table 4 takes only three possible values (0- no impact, 1- any partial impact and 2- complete job loss) and assumes same values for all partial impacts. This may not be justified in certain cases- for instance a person working overtime and getting no income is considered to have the same adverse impact as a person having no impact on work and getting lower income. To address these overarching assumptions, we use Total impact 2 that takes values between 0-5 depending on the severity of impact.

Table 4- Two alternate indicators for total employment impact- Total impact 1 and 2

Work impact	Work impact values	Income/salary impact	Income impact values	Total impact 1	Total impact 2
No impact	0	No impact	0	0	0
Over time/WFH	1	No impact	0	1	1
Work impacted partly	2	No impact	0	1	1
Job loss (no work)	3	No impact	0	-	-
No impact	0	Decrease	1	1	1
Over time/WFH	1	Decrease	1	1	2
Work impacted partly	2	Decrease	1	1	2
Job loss (no work)	3	Decrease	1	-	-
No impact	0	Complete loss	2	1	3
Over time/WFH	1	Complete loss	2	1	4
Work impacted partly	2	Complete loss	2	1	3
Job loss (no work)	3	Complete loss	2	2	5

Source: Compiled from survey

Based on total impact 1 and 2 from Table 4, we re-estimate our main estimation models to test if our results are robust. We compile the main findings using these indicators in Table 5. The first two models provide summarized results from an ordered probit model and the rest are simple probit model. We provide only the coefficients of migrant categories.

Table 5- Total employment impact and migration status

Dependent variables	Total impact 1	Total impact 2	Any loss dummy	Complete loss dummy
Current migrants	-0.320*** (0.076)	-0.380*** (0.084)	-0.601*** (0.101)	-0.040 (0.063)
Return migrants	0.653*** (0.073)	0.813*** (0.088)	0.574*** (0.096)	0.806*** (0.097)
Other controls	Y	Y	Y	Y
No. of observations	9419	9038	9679	9419

Source: Compiled from survey

Table 5 indicates that both, current migrant dummy and return migrant dummy had a similar effect on the two measure of total employment impact, Total impact 1 and Total impact 2. The effect is similar even when we use a simple probit model where a unit value indicates any impact on employment (work or income). These broad results confirm the higher vulnerability that non-migrants and return migrants faced during the pandemic. An interesting pattern is revealed in the last column of Table 5 where we define the dependent variable, complete loss dummy as a binary variable that takes a unit value only if the worker had lost full job and full income simultaneously.

We find that while return migrants continue to be the most vulnerable group, there is no significant difference between the impact on current migrants and the non-migrants. While this seems to be paradoxical to our previous findings, the difference is mainly driven by the structure of the labor market. Most unskilled and low skilled workers in the Indian labor market are involved in casual work that operates at a daily level. The adverse impacts to such jobs will always manifest itself in the form of partial loss, as complete job loss is irrelevant for this category. For instance, due to the pandemic non-migrants in the domestic labor market will have lesser days of casual work or different type of casual work. This will always be accounted as partial job/income loss for the non-migrant category. Additionally, the low incidence of complete job loss for the non-migrant category is a strong indicator of the despair and precarious situation since they may be desperate to take any form of casual work.

In contrast, the current migrants that are involved in low skilled and unskilled occupations such as construction work will be categorised under ‘regular work’ overseas. The formality of such jobs will always ensure that in the event of an adverse shock, employers will have limited options to resort to informal ways of retaining workers. Additionally, some current migrants will wait for better opportunities of work even after losing jobs due to the pandemic. These

features lead to the dummy for current migration to be insignificant in the last model in Table 5 and hence must be read with caution.

Endogeneity concerns

It is possible that some unobserved characteristic affect migration and employment simultaneously leading to omitted variable biases. For instance, a motivated individual may be able to migrate and may be able to avoid any impact on their work or income. Similarly, it is also possible that for some unobservable factor a person is discriminated in migration access and is more vulnerable to employment. To account for this omitted variable bias, we use an instrumental variable estimation methodology wherein the first stage we examine the factors affecting migration status and then examine the impact of migration status on employment vulnerability in the second outcome stage. To establish causality in our model, we rely on the exogeneity assumption that requires using an instrumental variable that affects our outcome variables only through migration status.

We use the migration experience of neighbours as a valid instrument to migration status of the individual as the neighbours' experience will not affect the chances of my employment to be affected adversely. This is consistent with past studies such as Hiwatari (2016), Jain (2021), Zhao and Qu (2022) among others. To construct the instrument, we first use GPS data on location of each household that was collected at the time of surveying. Next, we employ the *Geodist* command in stata to calculate the geographical distance between any two pairs of households in our data by measuring the shortest length along the surface of a mathematical model of earth. We next take a 0.5 km radius around each household and all households within that circle are identified as the reference household's neighbours. Finally, we define our instrument variable, the average migration experience of all neighbouring households for the household in question. The results from the instrumental variable estimation model are compiled in Table 6.

Table 6- Impact of migration status on employment vulnerability- endogeneity

Dependent variables	(1) Any impact on work- dummy	(2) Any impact on income/ salary-dummy	(3) Compl ete job loss	(4) Comple te income loss
Current migrants	-2.190*** (0.653)	-2.679*** (0.264)	2.613* (0.344) **	2.620*** (0.364)
Return migrants	1.274*** (0.739)	0.941* (0.517)	1.515 (0.951)	1.251 (0.993)
Other controls	Y	Y	Y	Y
Wald test of exogeneity	2.73	20.64	68.70	29.17
No. of observations	9367	9631	9375	9631
First stage results				
<i>(i) Dependent variable- Current migration</i>				
F statistic	8.97	7.47	8.86	7.47
Migration experience of neighbours	0.030*** (0.008)	0.026*** (0.007)	0.030* ** (0.008)	0.026*** (0.007)
Return experience of neighbours	-0.063** (0.029)	-0.055* (0.029)	- 0.063* * (0.029)	-0.055* (0.029)
<i>(ii) Dependent variable- Return migration</i>				
F statistic	13.48	12.45	13.26	12.45
Migration experience of neighbours	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)	0.009 (0.007)
Return experience of neighbours	0.073*** (0.027)	0.071*** (0.026)	0.072* ** (0.027)	0.071*** (0.027)
Note: Note: Columns (1) and (2) use dependent variables that take a unit value if there is any impact on the individual's job and income respectively. Columns (3) and (4) use dummy variables that indicate complete job loss and income loss respectively. Columns (1) and (2) address the issue of sample selection. Columns (3)-(6) address sample selection and endogeneity. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1				

Source: Compiled from survey

Table 6 reports only the probit versions of the models discussed in Table 3. We find that columns (1) and (2) corroborate broadly our main finding even after controlling for endogeneity. However, Models (3) and (4) suggest that current migrants have a higher likelihood of complete job loss and income loss as compared to the non-migrant categories. This is a reiteration of the main finding from Table 5 and stems from the differences in the structure of labor market overseas and in India among other factors. Further, return and non-migrant categories are equally vulnerable since both categories are in the Indian labor market and hence face similar opportunities of casual employment and informal market. We also report

the values of the major test statistics required for our model to be valid. We must acknowledge that our F statistic for the first stage of current migration is slightly less than 10.

The above findings draw an interesting pattern of the differential impacts of migration on employment vulnerability during the COVID-19 pandemic. Our main findings indicate that current migrants were the least vulnerable group, followed by non-migrants and then by return migrants. However, if we measure employment vulnerability as the possibility of completely losing job or income or both, we find that current migrants faced a higher likelihood of it as compared to the other categories. We also discuss in detail how this result does not reflect any vulnerability differences but highlights the contrasting labor market situations overseas and in India and the desperation of being employed viz a viz the luxury of staying unemployed till the appropriate work opportunity arises.

Main extensions

Extension 1- Does the destination of migrants matter?

Since 65% of current and return migration from Kerala are concentrated in UAE, we try to examine the role of migration destination in our main findings. Specifically, did current migrants in UAE and return migrants from UAE faced different sort of employment vulnerabilities as compared to the other countries? To do so, we re-estimate our probit models by dividing the sample into two subsets-

- UAE sample- takes a unit value if the current and return migration is from UAE and zero only for non-migrants (we drop other country migration observations)
- In addition, in the second sub sample we do the opposite- drop UAE migration (current and return) - and consider only the non-UAE migrants. We keep the non-migrants category as it is.

We first test if there is any differences in employment vulnerability measures faced by these sub-samples (Table 7).

Table 7- Employment vulnerability differences between UAE vs. non-UAE subsamples

Attributes	UAE current + return migrants	Non UAE current + return migrants	t- stat
Adverse impact to work (as an ordered variable)	1.765	1.915	3.527***
Income impact (as an ordered variable)	0.968	1.052	3.104***
Proportion of individuals with at least partial loss of work	0.825	0.759	3.819***
Proportion of individuals with at least partial income loss	0.846	0.794	3.179***
Proportion of individuals with complete job loss	0.242	0.256	0.769
Proportion of individuals with complete income loss	0.235	0.252	0.932

Note: Impact to work and income is defined as described earlier- 0, 1 and 2 indicate no, partial and complete loss respectively. Source: Compiled from survey

Table 7 confirms that the extent of job loss and income loss is lower for UAE category as compared to the non-UAE category. This difference is systematic across the other measures of employment vulnerability as well except complete loss. To explore these differences in a detailed manner, we re-estimate our main models for the two subsamples in Table 8.

Table 8- Differential impact of migration on employment vulnerability- by countries

VARIABLES	(1) Any impact on work-dummy	(2) Any impact on income/ salary-dummy	(3) Complete job loss	(4) Complete income loss
UAE migration				
<i>Migration status</i>				
Current Migrants	-0.539*** (0.100)	-0.278*** (0.085)	-0.615*** (0.109)	-0.407*** (0.125)
Return Migrants	0.836*** (0.128)	0.783*** (0.112)	0.691*** (0.133)	0.547*** (0.134)
Other controls	Y	Y	Y	Y
Observations	8,491	8,739	8,491	8,739
Non-UAE migration				
<i>Migration status</i>				
Current Migrants	-0.353*** (0.116)	-0.127 (0.105)	-0.494*** (0.124)	-0.314** (0.138)
Return Migrants	0.829*** (0.078)	0.788*** (0.074)	1.052*** (0.168)	0.780*** (0.157)
Other controls	Y	Y	Y	Y
Observations	7,798	8,018	7,798	8,018

Source: Compiled from survey

We find that current migrants in UAE had a much lower likelihood of adverse impact to work as compared to current migrants in other countries. These differences may be driven by the fact that with 65% of migrants clustered in a single destination country, the possibility of finding alternate opportunities is easier in the UAE as compared to other countries. Additionally, the return migrants from UAE face similar vulnerabilities as compared to return migrants from non-UAE countries.

Extension 2- Return migration against the backdrop of COVID-19

Since COVID-19 was a sudden and intense shock, we take a closer look at the COVID-19 returnees. According to our sample, there were 309 covid-19 returnees. Given the small number, we move away from regression approaches and compare this group with two groups- non-COVID-19 returnees, the group that returned previously in apparently normal circumstances and current migrants. We conjecture that the COVID-19 returnees may have returned due to the pandemic and its repercussions on the labor market- there is some possibility that they may be similar to the current migrants. To explore this in detail, we present some summary statistics of migration and employment for three categories- COVID-19 returnees, current migrants and early returnees in Table 9.

Table 9- Some attributes according to specific categories of current and past migrants

Attributes	COVID-19 return migrants	Current migrants	Early return migrants
<i>Basic profile</i>			
Proportion of women	0.066	0.067	0.077
Average qualification	6.394	6.689	5.976
Proportion of married	0.860	0.822	0.95
<i>Social background</i>			
SC representation	0.11	0.07	0.06
<i>Migration profile</i>			
Age at first migration	27.10	26.91	27.98
Age at return	41.16		38.86
Years since first migration	16.767	14.56	21.96
<i>Employment vulnerability</i>			
Extent of work impact	2.719	1.443	2.172
Extent of income impact	1.587	0.789	1.178

Source: Compiled from survey

Table 9 indicates that while COVID-19 returnees are comparable to the other two groups in age at first migration, educational qualification and gender composition, there are some systematic differences. For instance, COVID-19 migrants have lower migration experience and have faced a higher degree of employment vulnerability. A striking feature of the COVID-19 return migrant category is the representation of SC category in it. The unusually higher proportion of SC migrants and lower education levels raise concerns about whether the structurally most disadvantaged groups were dominant among pandemic returnees.

To explore this issue further we use some information from the phase II of our survey where we identified 64 COVID-19 return migrants. Based on detailed information received from them, we find that more than 90 percent of these individuals were doing jobs that required the same skill at the time of their first migration and at the time of return. The remaining 10 percent of these individuals were doing jobs with lower skills at the time of return as compared to first jobs after migration. When contrasted with current migrants in Phase II, 45.42% of current migrants were involved in high skill jobs (skill code below 30). In contrast, only 36% of COVID-19 returnees were involved in similar jobs. Further, 26% of COVID-19 returnees reported financial losses due to serious disease/accident as opposed to only 15% of current migrants and the average amount spent by COVID-19 returnees on the above is more than double that of current migrants. This is in line with the other studies (Foley and Piper, 2021; Karkalpudi, 2022).

To bring out the peculiarity of situation faced by the COVID-19 returnee group, we contrast the reasons for returning with the early returnees in Table 10.

Table 10- Reasons for return by different return migrant categories

Reasons for return	% of COVID-19 migrants	% of Early return migrants
Retired	11.61	20.83
Got another job in home country	2.26	4.17
Haven't got any job	8.39	12.50
Lost job	45.81	31.06
Left the job voluntarily for household responsibility	17.74	14.77
Completed studies	0.97	0
Others	13.23	16.67

Source: Compiled from survey

Table 10 underlines that COVID-19 returnees faced higher vulnerabilities in the form of unusual proportions losing jobs and leaving jobs voluntarily for household responsibility. To summarise, COVID-19 returnees were most vulnerable due to their pre-existing disadvantages and their inability or unavailability of opportunities to upskill themselves during their migration duration. Further, the situation back home was also not conducive for continuing to stay with jobs and incomes getting impacted overseas, they had to return.

Underlying channels

The above analysis underlies how migration may be incapable of mitigating pre-existing disadvantages. To explore if there are systematic differences when accessing migration, we contrast some attributes across the migration categories in Table 11.

Table 11- Attributes that may affect migration access

Attribute	Current migrants	Return migrants	COVID returnees	Non-migrants
<i>Pre-existing factors</i>				
Proportion of graduate+	0.20	0.18	0.13	0.12
Total income	29331.11	18466.81	22237.86	20382.73
<i>Factors in the exact neighbourhood</i>				
Migration experience of neighbours within 1 km of the radius	2.81	2.92	2.84	2.48
Return experience of neighbours within 1 km of the radius	0.62	0.69	0.65	0.54

Source: Compiled from survey

Table 11 highlights that current migrants are more educated and richer than the other categories. In terms of migration exposure of households living in the immediate neighbourhood, return migrants have the highest exposure and non-migrants have the lowest exposure. Further, we also examine some migration specific network effects for the current and the return migrants (Table 13). The second phase of the survey has a specific question about knowing anyone before they migrated to that place. Our data indicates that while 13% of the current migrants knew someone who had gone to the same place before they migrated, a mere 7% of return migrants (9% of COVID returnees) report the same. Further, the distribution of the relation with the contact for the two categories is given below:

Table 12-Migration networks

Societal relations	Current migrants (%)	Return migrants (%)	COVID returnees (%)
No relations	87	93	91
Of the ones that indicated some relations:			
Family members	64.71	52.94	100
Neighbours	8.24	17.65	0
Friends	18.84	11.76	0
Relative of husband/wife	8.24	11.76	0
Others	0	5.88	0

Source: Compiled from survey

The above exploration reveals that non- migrants had lower exposure to migration to begin with. In contrast, COVID-19 returnees had the highest exposure to migration- but were disadvantaged to reap the benefits of migration. As expected, current migrants were more reliant on social networks. This suggests that strong social networks seem to be conducive to successful migration. De Haas (2012) has also underlined the role of social networks in differentiated migration outcomes for different groups of population. Interestingly, current migrants have a more dispersed social network distribution as compared to the other categories. While, early returnees also have a dispersed social network but different from current migrants.

VIII. Conclusion

The current study examines employment vulnerability due to migration during the COVID-19 pandemic in Kadakkavoor panchayat, in Kerala. We use three categories of migrant status- current migrant, return migrant and non-migrant workers and use regression techniques to find if these migrant statuses have any impact on employment and/or job loss. We find that current migrants face a lower likelihood of adverse impact to both work and income/salary as compared to non-migrants. This may be either because only the better and advantaged workers had access to migration as represented by the higher education levels of current migrants and lower representation of SC workers among current migrants and/or better working conditions at the destination place. Secondly, we find that return migrant workers are more vulnerable to adverse impacts on their work and income as compared to the non-migrant category. In summary, COVID-19 employment vulnerabilities are highest among return migrants and

lowest among current migrants. This underlines the role of pre-existing advantages in acting as employment cushions during unusual times.

We use two alternate approaches to constructing the employment vulnerability and find that the results are similar. We also recognize the presence of unobservable factors that may simultaneously affect employment and migration status leading to endogeneity concerns. For instance, it is likely that a highly motivated individual may have a higher chance of migration and may try his/her best to not be unemployed. Conversely, discrimination of any form may reduce opportunities related to migration and may increase the possibility of job and income loss. We solve this endogeneity problem, by using an instrumental variable estimation model wherein we instrument migration status of an individual with the migration experience that his/her neighbours (defined as households within a 0.5 km radius) have. We find that current migrants were the least vulnerable group, followed by non-migrants and then by return migrants. However, if we measure employment vulnerability as the possibility of completely losing job or income or both, we find that current migrants faced a higher likelihood of it as compared to the other categories.

We extend our results by focusing on the destination of migration. We find that current migrants in UAE had a much lower likelihood of adverse impact to work as compared to current migrants in other countries. These differences may be driven by the fact that with 65% of migrants clustered in a single destination country, the possibility of finding alternate opportunities is easier in the UAE as compared to other countries. Next, we focus on COVID-19 returnees as a group and find an unusually higher proportion of SC categories and lower education levels as compared to other returnees- this raises concerns if the most disadvantaged groups had to return due to the pandemic. To explore this issue further we use some more information from the phase II of our survey where we identified 64 COVID-19 return migrants. Based on detailed information received from them, we find that more than 90 percent of these individuals were doing jobs that required the same skill at the time of their first migration and at the time of return. The remaining 10 percent of these individuals were doing jobs with lower skills at the time of return as compared to first jobs after migration.

Overall, our analysis underlines how migration may be incapable of mitigating pre-existing disadvantages. Current migrants are more educated, richer, have better migration based networks as compared to non-migrants, and return migrants. These findings shed some light on the complex intertwined relationship between migration and employment vulnerabilities

during the pandemic. In an unusual time represented by the pandemic, the highest adverse impacts were on the most vulnerable socio-economic categories of workers.

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Appendix 1- Other specifications for Table 3 using simple probit models

The following group of models define dummy variables according to whether there is partial loss or complete loss of job and income. These measures are computed using the original job loss and income loss measures used in Table 3.

VARIABLES	(1) Any impact on work- dummy	(2) Any impact on income/ salary- dummy	(3) Dummy for complete job loss	(4) Complete income loss dummy
Migration status (Non-migrants- 0)				
Current Migrants	-0.593*** (0.104)	-0.398*** (0.119)	-0.181*** (0.065)	-0.034 (0.063)
Return Migrants	0.758*** (0.105)	0.591*** (0.098)	0.828*** (0.106)	0.807*** (0.095)
Individual characteristics				
Age	-0.000 (0.002)	0.000 (0.002)	-0.002 (0.002)	-0.003 (0.002)
Education	-0.453*** (0.032)	-0.423*** (0.043)	-0.087*** (0.023)	-0.080*** (0.021)
Female	-0.374*** (0.048)	-0.373*** (0.072)	-0.033 (0.057)	-0.006 (0.048)
Married	-0.264*** (0.045)	-0.221*** (0.043)	-0.031 (0.047)	-0.065 (0.049)
Household characteristics				
Size	0.016* (0.018)	0.016 (0.010)	0.018 (0.013)	0.017 (0.013)
<u>Social category (general-0)</u>				
Scheduled Caste	0.375*** (0.095)	0.363*** (0.101)	0.063 (0.078)	0.007 (0.050)
<u>Religion (Hindu-0)</u>				
Christian	0.451*** (0.080)	0.493*** (0.144)	0.082 (0.054)	0.076* (0.043)
Muslim	-0.193* (0.103)	-0.168 (0.112)	-0.029 (0.097)	0.014 (0.141)
Other details				
Cut 1				
Cut 2				
Cut 3				
Ward fixed effects	Y	Y	Y	Y
Observations	9,367	9,631	9,367	9,631

Note: Columns (1) and (2) use dummy variables that take a unit value if there is any impact on the individual's job and income respectively as dependent variables. Columns (5) and (6) use dummy variables that indicate complete job loss and income loss respectively. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: Compiled from survey

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