Youth Labor Migration in Nepal

Laurent Bossavie and Anastasiya Denisova

WORLD BANK GROUP
Jobs

Contents

Youth Labor Migration in Nepal

Laurent Bossavie
Anastasiya Denisova

Abstract: This descriptive study investigates internal and external labor migration by Nepalese youth. External labor migration is separated into the flow to India, which is unregulated, and the flow to other countries, which typically takes the form of temporary contract migration to countries with bilateral labor agreements with Nepal (referred to in Nepal as foreign employment). The study finds that labor migration by Nepalese youth is extensive and male dominated. The regions with the highest rates of labor outmigration are rural Terai, rural Hills, and Mountains. Female labor migration is mostly within Nepal, whereas male labor migration is mostly to other countries. Most labor migrants are wage-employed, and engage in services. Labor migration is positively associated with education attainment for women, but negatively associated for men. Labor migration is also positively associated with household economic status for women. Just four destination countries (Malaysia, Qatar, Saudi Arabia, and the United Arab Emirates) account for the majority of foreign employment workers. Nepal's foreign employment system faces several challenges, including implementation shortcomings in the government's institutional arrangements for workers, and the substantial market power of private recruitment agencies over workers. Male foreign employment outflow appears to be mainly associated with economic and other forces in the top destination countries. Male youth labor migration has negative effects on the likelihood of employment and hours worked for female and male youth household members who remain at home, although the effects are not consistently significant. Youth labor migrants who return from countries other than India appear to have poorer labor outcomes than youth nonmigrants.

JEL codes: J61, J08, O15
Keywords: Nepal, youth, labor migration

1. Introduction

The extent of labor migration by Nepalese youth is so large that it deserves special attention within the broader discussion of Nepal's youth employment. One-third of households in Nepal report receiving remittances from members who have migrated—a very large share compared to other South Asian countries. Despite the importance of labor migration in Nepal, there has been limited, rigorous analysis conducted on this topic using large-scale, representative data. Little analysis has been done on key issues, such as the correlates of labor migration within Nepal; the socioeconomic effects at home from labor outmigration; and the labor outcomes at home of the growing number of labor migrants who return to Nepal.

Nepal's labor migration destinations largely fall into three main categories: (1) within the country (which we refer to as "internal"); (2) to India, and (3) to other countries (which we refer to as "other external destinations"). Labor migration within Nepal and to India is unregulated. Labor migration to other countries generally takes place under bilateral agreements with the Nepal government, with workers migrating as temporary contract labor. Temporary labor migration to countries other than India is referred to in Nepal as "foreign employment." Private recruitment agencies based in Nepal recruit workers for foreign employment.[1] The Department of Foreign Employment (DOFE) under the Nepal Ministry of Labor and Employment maintains documentation on foreign employment workers and provides each worker traveling legally with an employment (or exit) permit prior to departure.

This article examines internal and external labor migration of Nepalese youth, based on an analysis of nationally representative household survey and government administrative data, namely the 2010–11 Nepal Living Standards Survey (NLSS) and 2010–16 DOFE employment permit data, and a review of documentation and research. Youth is defined as individuals aged 16–34 years. In particular, the article aims to answer the following questions for Nepalese youth:

1) What is the extent of labor migration?
2) What are the patterns in terms of where labor migrants come from, where they go, and what employment they obtain at destination?
3) What factors are associated with labor migration and with particular destination choices?

---

[1] As an exception, foreign employment worker recruitment for South Korea is handled by the Nepal Ministry of Labor and Employment, and private recruitment agencies are not allowed to engage in this activity.

4) What are the strengths and weaknesses of the institutional arrangements behind the foreign employment process?

5) What effects did macro factors in Nepal, including the severe earthquake in 2015, and in destination countries have on foreign employment outflows?

6) What are the effects of labor migration on the labor outcomes of youth household members who remain behind (stayers)?

7) What share of youth labor migrants have returned, and how do the labor outcomes of returned youth labor migrants (returnees) differ from youth nonmigrants?

We find that youth labor migration is extensive in Nepal, and that it is male dominated. The three regions in Nepal with the highest rates of male youth labor outmigration are rural Terai, rural Hills, and Mountains. Most female youth labor migrants move internally, whereas most male youth migrants go to other countries. Irrespective of gender, most youth migrants are wage-employed, particularly when they go to other countries, and engage in services. Labor migrants who move within Nepal or go to India tend to obtain information about employment at destination through informal channels, such as friends or relatives, whereas labor migrants who go to other countries tend to obtain such information from private recruitment agencies.

On the correlates of youth labor migration, female youth who are more educated or who come from richer households are more likely to migrate for labor, suggesting positive selection in their labor migration decision. In contrast, male youth who are less educated are more likely to migrate for labor, while household economic status does not appear to be associated with the likelihood of labor migration, suggesting negative or neutral selection in their labor migration decision. Male youth are more likely to migrate for labor from more agricultural communities, especially if they are landless or smallholder farmers, indicating that the state and structure of the home economy serve as a push factor. Evidence also suggests negative selection in labor migration to India, presumably facilitated by the low costs of migrating to that country, and positive selection in the decision to migrate internally, indicating that the domestic urban labor market is more attractive to male youth with more human capital and other resources.

Most foreign employment workers go to four countries: Malaysia, Qatar, Saudi Arabia, and the United Arab Emirates. The government institutional arrangements in Nepal that guide the foreign employment process appear to suffer from implementation shortcomings. In addition, private recruitment agencies in Nepal are seen to have substantial market power, which may raise

the monetary costs of, and reduce the expected gains from, workers obtaining foreign employment. Foreign employment outflow appears to be influenced mainly by economic and other forces in destination countries, rather than by forces in Nepal. The 2015 earthquake in Nepal appears to have had a negative effect on the outflow of foreign employment workers who went through private recruitment agencies (mostly new foreign employment workers), but not on foreign employment workers who did not use private recruitment agencies (mostly workers who have renewed contracts with their foreign employers).

Male youth labor migration appears to have negative effects on the likelihood of employment and hours worked for both female and male youth stayers, although the effects are not consistently significant. Male youth labor migration has significant positive effects on school enrollment and years of education for children in the household, and the effects appear to be mediated through remittances.

A large share of male youth labor migrants return home. The share is highest for those who migrated to India, which is consistent with the view that migrants to this country engage in circular or seasonal labor migration, facilitated by the low costs of migrating to India. Comparing labor outcomes at home between youth returnees and youth who have not migrated, returnees from countries other than India appear to do worse.

The remainder of the paper is structured as follows: Section 2 describes the main data sources. Section 3 discusses the structure of analysis using one of the main data sources, the 2010–11 NLSS. Sections 4 and 5 discuss the patterns and correlates of youth labor migration, respectively. Section 6 focuses on foreign employment, discussing the institutional arrangements in Nepal for foreign employment; the process that workers follow to seek and secure such work; foreign employment trends; and macro determinants of these trends. Section 7 discusses the effects of male youth labor migration on the labor outcomes of male and female youth stayers, and on the education outcomes of children in the household. Section 8 focuses on returned youth labor migrants, and compares labor outcomes for this group to those for youth who did not migrate. Section 9 concludes by examining the implications of the findings for data, research, and policy.

2. Data

The main sources of data for this study is the 2010–11 Nepal Living Standards Survey (NLSS) and the Department of Foreign Employment (DOFE) employment permit data.

Nepal Living Standards Survey: The third round in a series, the 2010–11 NLSS is representative at the national level, as well as for 12 regions within the country. The original sample was 7,200 households from 600 primary sampling units (PSUs). Out of this total sample, 1,200 households from 100 primary sampling units were drawn from the second NLSS round (the 2003–04 NLSS) to constitute a panel sample, and 6,000 households from 500 PSUs were drawn to constitute a cross-sectional sample. See Government of Nepal (2011) for survey design details. We use the cross-sectional sample, for which 5,988 households from 499 primary sampling units were successfully interviewed.

The survey comprises both a household questionnaire and a community questionnaire. In the household questionnaire, the survey gathers information from the household respondent on household members who are absent at the time of the survey but are expected to return. The information includes the reason for absence, which allows us to identify labor migrants. It also includes age at departure, marital status, education, destination district within Nepal or other country, employment at destination, and remittances. The household questionnaire also asks household members who are present at the time of the survey whether they migrated for at least two consecutive months over the past five years, as well as the reason for their migration. This information allows us to identify labor migrants who have returned.

The survey has at least two important limitations. First, information on labor outcomes of migrants at destination is limited. In particular, the survey does not gather information on migrant wages at destination. Second, the survey does not gather information on whether the returned labor migrant intends to migrate again. Thus, we are not able to distinguish between circular migration and permanent return, a potential meaningful distinction for the returned migrant's labor market attachment and outcomes at home.

DOFE employment permit data: The DOFE data comprise employment permit data from January 2010 to May 2016 for foreign employment workers who went through recruitment agencies (which we refer to as agency-based foreign employment workers) and employment permit data from September 2011 to May 2016 for foreign employment workers who did not use recruitment agencies (which we refer to as individual foreign employment workers). In the data,

individual foreign employment workers are categorized into three groups: (1) new; (2) repeat (those who renewed their employment permits); and (3) legalized (those who initially left Nepal without an employment permit but were allowed to later apply to DOFE for legalization of their status). For all foreign employment workers, we have data on the worker's age, gender, district of origin, destination country, date of permit issue, recruitment agency, foreign employer, occupation, and wage.

Our DOFE data have at least three important limitations. First, date of birth is missing for more than 40 percent of workers who received foreign employment permits prior to 2013. Second, we have wage data only for agency-based foreign employment workers. These wage data should be interpreted with caution. The recruitment agency may have over-reported wages to comply with the minimum wage at destination mandated by DOFE. The recruitment agency is obligated to provide DOFE with a written foreign employment contract for DOFE to issue a permit. There is no guarantee that this is the same contract that the foreign employment worker sees. (Agency-based foreign employment workers do not apply for permits themselves; instead agencies collect their passports and apply for permits in bulk). Third, the data allow us to identify whether a foreign employment worker is new or repeat only for individual foreign employment workers and not for agency-based foreign employment workers.

3. Structure of analysis using Nepal Living Standards Survey data

We use the 2010–11 NLSS for an analysis of patterns of youth labor migration, the correlates of youth labor migration, and the effects on youth labor outmigration on the labor outcomes of youth stayers, and report the results in Sections 4, 5, and 7, respectively. We also use these data for an analysis of the home labor outcomes of returned youth labor migrants, reporting the results in Section 8. While we perform the full set of analysis for male youth, the analysis for female youth is partial, contingent on sufficient sample sizes.

Most of our results are based on multiple regression analysis. Factors for individual-level regressions for youth comprise age (in quadratic form), marital status, education level, caste or ethnicity group, household economic status (in consumption expenditure quintiles), a standardized community amenities index (constructed based on principal-components analysis), amount of time to the nearest road, household size (including absent members), household farmland ownership status, share of households engaged in farming in the community, and identifiers for regions (urban Hills, rural Hills, Mountains, which is rural; urban Terai, rural Terai, and Kathmandu Valley, which is urban). By community, we mean the primary sampling unit.

The outcome variables for our various regressions are either binomial, multinomial, or continuous. For the binomial and multinomial structures, we estimate appropriate logit regressions, and transform the estimated coefficients into average marginal effects, which we report. Inference for all regressions is based on robust standard errors clustered at the level of the primary sampling unit. Other relevant methodological steps are discussed just before we present the results.

While we report regression results for all Nepal, we also estimate regressions for the three regions in the country (taken together) that have the largest male youth labor migration outflows, namely rural Hills, rural Terai, and Mountains, under the assumption that patterns and correlates may be stronger for these regions. We find that the results for all Nepal and for these three regions are qualitatively similar.

In addition, recognizing that the panel sample presumably differs from the cross-sectional sample because of the nature of attrition, as a robustness test, we estimate regressions of the correlates of labor migration, the effects at home from labor migration, and the home labor outcomes for returned labor migrants using 2003–04 values for the factors. We find that the results are qualitatively similar when we use 2010–11 regression factors in the cross-sectional sample or the 2003–04 regression factors in the panel sample. The results for the panel sample are available upon request.

4. Patterns in youth labor migration

In this section, we present statistics for youth who are labor migrants at the time the 2010–11 NLSS was administered to households. Youth labor migration is extensive, and dominated by youth and men. Eighteen percent of Nepalese youth have migrated for labor. Disaggregated by gender, we find that 30 percent of male youth have migrated for labor, compared to 5 percent of female youth. Seventy-two percent of labor migrants are youth, and 87 percent of youth labor migrants are male.

Data to compare Nepal's youth labor migration rate to those in other South Asian countries are unavailable. However, data are available to estimate the share of households that receive remittances, and we use these numbers as a rough proxy for the extent of labor migration. As Figure 1 shows, Nepal stands out: 33 percent of Nepalese households received remittances in 2010–11, compared to 21 percent for Bangladesh in 2009–10, 19 percent for Pakistan in 2013–14, and 14 percent for Sri Lanka in 2009–10. The cross-country picture remains similar when we look at rural or urban households across these countries.

Figure 2 shows youth labor outmigration rates by region. Youth labor outmigration rates are higher for rural than urban regions. For male youth, the rate is highest for rural Hills (36 percent), rural Terai (35 percent), and Mountains (35 percent), and lowest for Kathmandu Valley (10 percent). Although the rate of male youth labor outmigration for Kathmandu Valley is relatively low, it translates into a large absolute number, as the region accounts for a significant share of the country's male youth population. Female youth labor outmigration rates are generally low and vary little among regions (from a high of 7 percent for Mountains to a low of 3 percent for rural Terai and Kathmandu Valley).

Figure 3 shows the distribution of youth labor migrants by destination. The most common destinations for female youth labor migrants are rural and urban areas of Nepal (32 percent and 39 percent, respectively), followed by external destinations other than India (24 percent). Only 5 percent of female youth labor migrants go to India. The most common destinations for male youth labor migrants are India (27 percent), other external destinations (33 percent), and urban Nepal (27 percent).

Panel A of Figure 4 shows the distribution of youth labor migrants by type of employment (wage or self-employment) at destination. While the ''do not know'' share at times obscures the picture (especially for female youth labor migrants to India), the evidence suggests that the vast

majority of youth labor migrants to external destinations are wage employed, irrespective of gender. The majority of male youth labor migrants to internal destinations are also wage employed, but a large share are self-employed. For female youth labor migrants to internal destinations, the share is similar for those who are wage-employed and those who are self-employed.

Panel B of Figure 4 shows the distribution of youth labor migrants by sector of employment (agriculture, industry, construction, and services) at destination. Again, while the "do not know" share makes the picture unclear, employment in services dominates for both female and male youth labor migrants, across destinations. In addition, a sizeable share of male youth labor migrants are employed in construction across destinations, whereas a sizeable share of female youth labor migrants to internal destinations are employed in agriculture.

Figure 5 shows the distribution of information on employment at destination for youth labor migrants. The main sources of such information for female and male youth labor migrants to internal destinations and India are family, friends, and neighbors. While substantial shares of female and male youth labor migrants to external destinations other than India also obtain information on employment at destination through family, friends, and neighbors, a greater percentage obtain such information through recruitment agencies. Interestingly, if the statistics are taken at face value, nontrivial shares of youth labor migrants to internal destinations and India also have received information on employment at destination from recruitment agencies.

5. Correlates of youth labor migration

What factors are associated with youth labor migration, and to specific destinations? Although previous research has explored the correlates of labor migration, the factors associated with labor migration by Nepalese youth are not well understood. Evidence is particularly limited in terms of the factors associated with the choice of destination for labor migration by Nepalese youth.

In this section, A labor migrant is defined to be an individual who is absent for labor reasons from the household at the time the 2010–11 NLSS was administered to the household, departed from the household in the five years before the 2010–11 NLSS was administered, and has the intention to return, all as reported by the household.

A. *Existing evidence on the correlates of migration for Nepal*

Rigorous evidence based on representative data is limited for Nepal on the determinants of migration and choice of migration destination. Using village-level panel data over the period 2001–10, Shrestha (2017a) examines several different potential pull and push factors in the decision to migrate among Nepalese. He finds that an income gain associated with rainfall increases the likelihood of migration to India, which is characterized as a destination with low costs of, and low economic gains from, migration, but that it has no effect on the likelihood of migration to other external destinations, which are characterized as high cost and high gain. He also finds that an increase in the intensity of the Maoist insurgency conflict (which occurred between 1996 and 2006), measured by deaths per thousand in the population, increases the likelihood of migration to external destinations. Additionally, he shows that an increase in migrant demand from external destinations, as reflected by their economic growth rates, increases migration to those destinations. These findings are consistent with the classical economic model of migration in the presence of credit constraints.

Using survey data from a rural agricultural setting (Chitwan Valley), Bhandari (2004) finds that households with less access to cultivated land are more likely to migrate, indicating the role of a push factor. Based on qualitative research in a village in Kathmandu District, Gaurab (2014) suggests that earnings differentials between home and destination influence the decision to migrate.

Existing evidence also suggests that social networks influence the decision to migrate. Using survey data for a small sample of agricultural households in eastern Chitwan District, Regmi at al. (2014) find that the number of extended family members that a migrant has at destination—which serves as a measure of the migrant's social network—is positively associated with the decision to migrate.

Ethnicity also appears to influence the decision to migrate, including the choice of destination. Using nationally representative household survey data, Sharma et al. (2014) find that Terai Janajati and Hill Dalit workers are most likely to migrate internally, and that Newar, Tarai Janajati, and Tarai Dalit workers are least likely to migrate externally. The authors also find that Muslim workers are most likely to migrate to Gulf countries, whereas Hill Dalit workers are most likely to migrate to India.

Similarly, using the same data as the previous study, World Bank (2011) finds that Dalits have more labor migrants in India than other ethnic groups. Ethnic groups from the Hills region in Nepal are overrepresented among Nepalese labor migrants to Gulf countries. There could be multiple pathways behind the association between ethnicity and migration. For example, ethnicity could influence the decision to migrate because it is associated with household wealth, and household wealth helps cover the costs of migration in the presence of credit constraints. Ethnicity-based networks at destination could also have a bearing on the gains and costs from labor migration. These pathways, among others, are untested in the existing literature.

Finally, using data from the Chitwan Valley, Massey et al. (2010) find that favorable environmental conditions, measured by the extent of area covered in flora and the time needed to gather firewood, decrease the likelihood of migration. Using the same data, Shrestha and Bhandari (2007) find that environmental insecurity at home, as measured by lower access to forest resources, is positively associated with the decision to migrate.

B. *Correlates of youth labor migration*

Figure 6 reports the bivariate relationship between the likelihood of labor migration and education attainment (measured in years of schooling) among youth. The likelihood of labor migration is high among male youth with low levels of schooling, at about 50 percent, but the figure declines in an almost linear fashion for individuals who have completed more than six years of schooling. This suggests negative, skill-based selection in the labor migration decision

among male youth. For female youth, the likelihood of labor migration is low throughout the distribution of years of schooling, with a small increase after 12 years of schooling.

Table 1 reports the regression results of the correlates of labor migration to any destination, separately by male and female youth. For male youth, those with higher levels of education (School Leaving Certificate or higher) are less likely to migrate, controlling for other factors, which is consistent with the bivariate relationship shown in Figure 6. Compared to youth from the Brahmin community, those from the Dalit and Muslim communities are more likely to migrate, whereas those from the Terai middle caste community are less likely to migrate. The likelihood of migration increases with the share of households engaged in agriculture in the community, controlling for, among other things, the level of development in the community as captured by a community infrastructure index. In other words, workers tend to migrate from more agricultural communities, suggesting a push factor. On the other hand, workers from households that own at least one hectare of agricultural land are less likely to migrate, suggesting that large land ownership discourages labor migration.[2]

For female youth, those who are married are less likely to migrate, while those who have higher levels of education attainment, who come from richer households, or who reside in a community with a higher level of development are more likely to migrate. The agriculture-related characteristics of the household or the community do not appear to be associated with the labor migration decision of female youth. The nature of the association between migration and education attainment, household economic status, and the level of community development indicates that female youth labor migration is positively selected by skill and other dimensions.

For both male and female youth, those from regions outside of Kathmandu Valley are more likely to migrate. Neither household size (accounting for absent members) nor whether the community experienced a natural disaster in the last five years appears to be associated with the likelihood of labor migration.

C. *Correlates of youth labor migration by destination*

Individual, household, and community factors may also influence the labor migrant's destination choice. In the basic economic model, the migrant evaluates his expected utility in each

---

[2] Nepalese landholding households on average own 0.7 hectares of agricultural land.

possible destination choice and decides to migrate to the destination where the expected utility is highest (Sjaastad 1962).

Figure 7 shows the association between the likelihood of labor migration to a given destination and years of schooling for male youth (Panel A) and female youth (Panel B). The associations for male youth differ markedly by destination. For labor migration to India, the likelihood of migration is relatively high at low levels of schooling but decreases sharply after six years of schooling. This indicates negative selection in the decision to migrate for labor to India. For labor migration to other external destinations, the likelihood of migration increases with years of schooling for up to 10 years of schooling but decreases with years of schooling after that. For internal destinations, the likelihood of migration increases with years of schooling, indicating positive selection in the decision to migrate for labor to these destinations.

For female youth, the differences across destinations in the association between the likelihood of labor migration and years of schooling is less striking. For internal destinations, the likelihood of labor migration increases slightly up to five years of schooling and is then relatively flat. It is higher than the likelihood of labor migration to India or to other external destinations for all years of schooling. For India and other external destinations, the likelihood of labor migration is virtually zero for up to 12 years of schooling, and then increases with years of schooling, especially for labor migration to other external destinations.

Table 2 presents regression results of the correlates of destination choice for male youth labor migrants. The reference category is male youth who did not migrate for labor. We do not estimate the regression relationship for female youth because of small sample sizes.

The association between years of schooling and choice of labor migration destination shown in Figure 7 is robust to controlling for other factors. Those with more years of schooling are more likely to migrate internally, and less likely to migrate to India and other countries. In terms of household economic status, those from richer households are more likely to migrate internally or to external destinations other than India, and less likely to migrate to India. The education-related results suggest that the earnings gain is higher from internal migration than external migration for those with a high level of education attainment. On the basis of education attainment and household economic status, it appears that migration to India is negatively selected, whereas internal labor migration is positively selected. Labor migration to other external

destinations is negatively selected with respect to education attainment, and positively selected with respect to household economic status.

The likelihood of migration increases with the share of households engaged in agriculture in the community, irrespective of destination choice. However, controlling for the prevalence of agricultural activity in the community and for household economic status, those from households with relatively large agricultural land ownership are less likely to migrate internally or to India, and more likely to migrate to other external destinations.

In terms of some of the other factors, the likelihood of migration increases with the individual's age, irrespective of destination choice. Those who are married are less likely to migrate to other external destinations, while marital status does not appear to be associated with the likelihood of migrating internally or to India. Relative to those from the Brahmin community, those from the Newar community are more likely to migrate internally; those from the Janajati and Muslim communities are more likely to migrate to other external destinations; and those from the Terai middle caste, Newar, Janajati, and other communities are less likely to migrate to India. Compared to those from Kathmandu Valley, those from the other regions are more likely to migrate to internal destinations or to India. In contrast, the likelihood of migration to other external destinations appears to be similar across all regions.

6. Foreign employment

This section provides an overview of the institutional arrangements for foreign employment, that is, temporary, contract-based labor migration to countries other than India. It also examines the efficiency of the process the worker follows to seek and secure foreign employment, based on available documentation, and data from the 2015 World Bank Global Knowledge Partnership on Migration and Development (KNOMAD) migration cost database and from the 2009 Nepal Migration Survey (NMS).

A. *Regulatory system*

In the late 1990s and early 2000s, the Nepal government's policy on labor outmigration was focused on the creation of institutional mechanisms to facilitate temporary labor migration to countries other than India. Subsequently, partly due to the success of this policy and partly due to changing economic conditions, the labor migration flow to other countries increased markedly. The policy focus then shifted from one of labor migration promotion to one of regulation of the labor migration process to these new external destinations, with particular attention on protecting the rights and welfare of Nepalese workers. Evidence of this shift can be seen with the formulation of Nepal's Foreign Employment Policy in 2012; the preparation of legislation, directives, and manuals associated with the policy; and the creation of the National Strategic Action Plan 2015–22 focused on improving the welfare of foreign employment workers.

The 2012 Foreign Employment Policy has resulted in the creation of the following directives and manuals aimed at improving the foreign employment process and protecting the rights of foreign employment workers: the 2013 Standard on the Enlisting Process of the Health Examination, the 2013 Directive on the Procedure on Individual Labor Permits, the 2014 Manual on Registration and Renewal of Orientation Training Institutions, the 2014 Manual on Extending Objective Assistance to Skill Trained Human Resources, and the 2015 Directive on Sending Domestic Helpers for Foreign Employment. These directives and manuals complement the 2007 Foreign Employment Act (FEA), which prescribes penalties for misconduct by recruitment agencies, including for fraud, misrepresentation of work conditions, overcharging of foreign employment workers, and falsification and confiscation of documents.

The Nepal government also has institutions that seek to promote safe and decent foreign employment. The 2007 FEA mandated the creation of institutions designed to ensure the welfare

of Nepalese foreign employment workers before departure and at destination. These include: (1) the Foreign Employment Welfare Fund (FEWF), managed by the Foreign Employment Promotion Board (FEPB); (2) the Department of Foreign Employment (DOFE); and (3) the Foreign Employment Tribunal (FET).

Foreign Employment Promotion Board: FEPB is responsible for promoting foreign employment and providing for the social protection and welfare of foreign employment workers, including through management of the Foreign Employment Welfare Fund. Using Fund resources, the Board: (1) conducts skills training and pre-departure orientation; (2) engages in rescue and rehabilitation of workers who run into problems in their destination country, and in reintegration of foreign employment workers return to Nepal; and (3) provides financial support and compensation to families for the occupational death or disability of foreign employment workers.

The Foreign Employment Welfare Fund is financed through several sources, including: (1) foreign employment worker fees (each worker is supposed to make a one-time payment of NPR1,000) and interest earned from deposited fees; (2) license and deposit fees collected from recruitment agencies (recruitment agencies are mandated to pay a deposit of US$30,000 and a fee of US$200 upon registration of the agency, and a deposit of US$2,000 per registered individual agent); and (3) any other contributions received from foreign employment-related institutions or grants from local or foreign entities (Paoletti et al. 2014).

Labor attachés: The Foreign Employment Act mandates that any of Nepal's embassies that is based in a host country with more than 5,000 Nepalese foreign employment workers must have a labor attaché to oversee the welfare of these workers. As of July 2015, Nepal had labor attaches in eight countries: Bahrain, Kuwait, Malaysia, Oman, Qatar, South Korea, Saudi Arabia, and the United Arab Emirates (ILO 2016). The main responsibilities of the labor attaché include assisting in resolving disputes between workers and employers; assisting with the rescue of workers as needed and the repatriation of a worker's body in case of death; informing the Nepal government about labor conditions in the destination country; and checking if the terms of the bilateral agreement between Nepal and the destination country are respected.

Department of Foreign Employment: DOFE is responsible for the regulation of recruitment agencies and the registration of foreign employment workers, with the aim of preventing fraud, such as the overcharging of workers or the provision of false information about foreign employment terms and conditions. DOFE is also responsible for grievance redressal.

Foreign Employment Tribunal: The tribunal is a semi-judicial body responsible for the resolution of complaints filed by individual prospective or incumbent foreign employment workers (i.e., those not using recruitment agencies) and of other complaint cases that lie outside DOFE's jurisdiction.

Vocation and Skills Development Training Center: VSDTC provides counseling services for foreign employment workers, and helps workers enroll in and use online banking services.

Recruitment agencies: A prospective foreign employment worker has two options for migrating legally: (1) through a recruitment agency; or (2) on his own. Most new workers choose to go through recruitment agencies. Recruitment agencies are regulated by DOFE. Currently, 754 recruitment agencies are registered under DOFE. Based on our DOFE data, about 900 agencies helped arrange foreign employment for individuals between 2010 and 2015.

Recruitment agencies rely on their counterparts in destination countries to obtain data on the number and type of workers required. Each recruitment agency submits obtained information to DOFE to verify that it meets the requirements of the Foreign Employment Act and to obtain DOFE's approval to recruit workers. The agency then advertises the employment opportunities through public media channels and individual agents, and recruits workers. Once it selects the workers and obtains the necessary documents (such as a medical report and proof of life insurance), the agency registers the workers with DOFE and obtains employment permits for them.

Initially, a prospective foreign employment worker interacts with an individual agent who represents one or more agencies in his or her locality. The individual agent provides the worker with information on foreign employment opportunities and often helps him or her to obtain necessary documents, such as a passport. After the contract is secured, the worker travels to Kathmandu to sign necessary papers, pass a medical examination, and obtain required pre-departure training on, as relevant, procedures, legal rights, culture, and language at destination. Prior to departure, the worker must pass a document check by the Labor Migration Desk at Kathmandu's Tribhuvan International Airport to ensure that he or she has at least the minimum required documents: (1) a copy of the contract in Nepali providing at least a minimum wage; (2) proof of life insurance; (3) proof of passed medical tests; and (4) an employment permit from DOFE.

Workers can also secure foreign employment without using recruitment agents or agencies. Workers who choose this path are referred to as individual foreign employment workers. To proceed as an individual foreign employment worker, the worker either (1) must have an immediate family member or an employer in the destination country who sponsors his or her foreign employment, or (2) must be renewing his or her contract with the foreign employer for whom the worker previously worked. In 2011–12, DOFE began to allow applications for individual foreign employment permits. In 2012, the Nepal government decided to legalize the status of those who had illegally obtained foreign employment in the past, and DOFE began issuing individual foreign employment permits to such workers. The government also strengthened the process associated with individual foreign employment through the 2013 Directive on the Procedure on Individual Labor Permits.

Both agency-based and individual foreign employment workers have access to grievance redressal mechanisms provided by DOFE and the tribunal. However, DOFE handles grievances of agency-based foreign employment workers only. Grievance redressal mechanisms have been improving for DOFE and the tribunal, but only a very small number of workers register cases with either of the—and that figure continues to fall. Between 2012 and 2015, DOFE resolved only 19 percent of cases against recruitment agencies and only 13 percent of cases against individual agents. Public data are currently unavailable on the nature of cases that are settled by DOFE, nor are details available on the actual amounts paid to complainants. However, data show that the average settlement amount is less than 20 percent of the amount claimed, and that, for a majority of cases, it takes more than one year to reach a settlement (Paoletti et al. 2014, ILO 2016). In contrast to DOFE, the tribunal's performance has been improving, with the organization settling 50 percent of cases by the end of fiscal year 2014–15.[3]

While the Nepal government in principle has the laws and institutions necessary to ensure safe and gainful foreign employment for migrant workers, in fact it faces several challenges. The institutional arrangements are geared towards ensuring safe employment through pre-migration checks and training provided by DOFE, the Foreign Employment Promotion Board, and the Vocation and Skills Development Training Center. The Foreign Employment Promotion Board

---

[3] As a caveat, the statistic does not provide information on: (1) the length of time it takes for many cases to be settled, as some end up being carried over for years; (2) the outcomes of the settled cases, as the tribunal does not make this information public; and (3) whether the settlements were in fact adhered to by the parties given the tribunal's limited enforcement capacity (Paoletti et al. 2014).

and labor attachés provide support to Nepalese foreign employment workers at destination, and workers can register their grievances with DOFE and the tribunal. Furthermore, recent legislative changes that increase the focus on ensuring safe migration for individual foreign employment workers reflect the responsiveness of the system to changing ground realities. However, many of the institutions engaged in the foreign employment process remain underfunded and understaffed. Inefficiencies in the grievance redressal services likely discourage workers from taking their issues to DOFE or the tribunal. These inefficiencies are potentially due in part to understaffing and underfunding in the two organizations.

B. *Potential inefficiencies in the foreign employment process*

Figure 8 summarizes the process followed by the worker to obtain foreign employment. Foreign employment workers who secure contracts through recruitment agencies tend to do so with the assistance of local individual recruitment agents. Recruitment agencies are mostly registered in Kathmandu, and have a limited number of local branches. These local branches can be opened after obtaining approval from DOFE. In 2014, the government halted the process of registering and opening local branches. As a result, according to Paoletti et al. (2014), there were only 47 legal local branches belonging to 35 agencies in 2014.

Agencies use registered and unregistered individual agents to identify workers for recruitment. Workers may not have a good way to signal their ability or reliability to the recruitment agency. They also may have limited, reliable information on the process for foreign employment. This limits them to working through an individual agent. Individual agents usually come from the same communities as workers. Thus, they are well placed to assess the qualities of the worker. Supporting this conjecture, Paoletti et al. (2014) report that agencies tend to prefer workers whom individual agents send them as opposed to workers who approach the agency on their own.

The widespread use of individual agents is substantiated by 2015 KNOMAD migration cost data and 2009 NMS data. All workers who obtained their foreign employment through recruitment agencies made payments to local individual agents. Less than 5 percent of foreign employment workers stated that they sought help from a recruitment agency directly.

Little data are available on the number of registered and unregistered agents, and the data that are available often appear contradictory. For example, the DOFE website listed 693 agents as

of February 2015, while pravasipath.com states that in 2015, only 1,800 of almost 100,000 agents were registered.[4] Furthermore, to the best of our knowledge, no studies exist that examine the worker-individual agent marketplace and the conditions and processes through which workers and individual agents interact; the individual agent-agency marketplace and the conditions and process through which agents and agencies interact; or the interaction among individual agents, such as how they share or split market territory. That workers tend to interact with individual agents to secure foreign employment would be less of a source for concern if the worker-agent market was competitive and transparent, if there were efficient ways to obtain credible information on agent and agency reputations, and if formal grievance redressal systems for workers were efficient and effective. There is little evidence of these aspects as well.

One reason that agencies tend to use unregistered agents is because agent registration costs can be prohibitively expensive for both agencies and agents. Agencies must pay a deposit of about US$2,000 to DOFE for each registered agent. The agency has the right to ask the agent to repay up to US$700 of this sum, making registration an expensive proposition for the agent as well. Once the agent is registered with one agency, he cannot work with any other agency. Another reason agencies use unregistered agents is because DOFE imposes only a small penalty for using unregistered agents. In addition, workers have no way to file claims against agencies that use unregistered individual agents, which lowers the risk associated with using them.

The high prices paid by workers for agent services suggest that the market may not be competitive. Given the large number of agencies and unregistered agents, basic economic theory would suggest that competition among agents would drive agent prices down to the cost of the transaction for the agent. There is little evidence that agent prices have declined over time. A comparison of the costs of migration as recorded in the 2009 NMS and 2015 KNOMAD database shows that the median price paid by the worker to obtain employment in Qatar declined by about NPR10,000 from a median of about NPR100,000 in 2009 to a median of NPR90,000 in 2015. Furthermore, both the 2009 and 2015 median prices are substantially higher than the government-mandated price of NPR70,000 for Gulf destinations. Only 25 percent of foreign employment workers surveyed in 2015 paid the mandated price or less. Furthermore, in the 2015 data, virtually no worker reported paying the local agent NPR10,000 or less, which was the price ceiling for agents mandated by the government before the free visa and free ticket policy.

_____

[4] Pravasipath.com is an online migration rights awareness project of Humanity United.

An agent may gain market power by having a monopoly in his area or by engaging in collusive behavior with other agents. This market power can result in higher agent prices. To the best of our knowledge, there are currently no studies on the structure and dynamics of the agency market, and what these imply for agent prices. Unless the number of registered agents is increased, the recent government push to ensure that foreign employment workers use registered agents may have the unintended effect of increasing the market power of registered agents in many areas, given their limited number, potentially driving up prices.

The market may fail to weed out bad agents and agencies, which can add to market inefficiency. In the 2015 KNOMAD database, 37 percent of workers report that they learned about foreign employment opportunities from a relative and 80 percent of those say they had to pay a local agent to secure employment. Paoletti et al. (2014) indicate that agents are often close relatives or friends, so workers may opt to suppress grievances to avoid damaging community ties. Thus, bad agents and agencies can continue to survive and operate with their reputations untarnished.

While high agency prices may be due to an uncompetitive market, the competitive price may actually exceed the price mandated by the government. Mandated prices may be too low to attract sufficient numbers of agents to the market, which would lead to agency services being under-provided. Enforcing mandated prices or lowering them could in fact undermine the worker-agent market to the detriment of the worker.

The high costs associated with foreign employment are a policy concern. High costs can lead foreign employment workers to take on large amounts of debt early in the process, which in turn may make them more accepting of fraud or unfavorable contract terms. To address high costs, the Nepal government announced a free visa and free ticket policy in 2015. Under this policy, the foreign employer should bear the full cost of the migrant worker's visa and travel. It remains unclear what effect this policy will have on the worker's costs. According to 2015 KNOMAD data, the median cost of visa and ticket represented about 40 percent of the worker's total median cost.[5] It is possible that by controlling visa and ticket costs but not other costs, the policy could have the unintended effect of increasing worker payments to agents, because agents would have more consumer surplus available from the worker to extract as payment.

---

[5] However, only 12 percent of respondents knew the airfare cost, and fewer than 10 percent knew the visa cost.

C. *Foreign employment trends*

In the remaining subsections, we discuss patterns in and correlates of trends in foreign employment flows for Nepalese male workers only (female foreign employment outflow represents only 5 percent of the total outflow). Note that, while we refer to the statistics as representing workers, to be precise, they are employment permit statistics (as a worker can obtain multiple employment permits over time, the number of unique workers would be less than the number of employment permits issued). Also note that our full data period is January 2010–May 2016 for statistics related to agency-based foreign employment outflow and September 2011–May 2016 for statistics related to individual foreign employment outflow.

Ninety-six percent of agency-based foreign employment workers and 85 percent of individual foreign employment workers went to four destinations: Malaysia, Qatar, Saudi Arabia, Qatar, and the United Arab Emirates. Prior to 2015, Gulf countries were the second-most popular destination after Malaysia for agency-based foreign employment workers, and the most popular destination for individual foreign employment workers (see Figure 9). Qatar was the top destination among Gulf countries for agency-based foreign employment workers, but with a decline in numbers in 2015, Saudi Arabia took its place as No. 1. Among individual foreign employment workers, Qatar has consistently remained the top destination through the years.

D. *Effects of macroeconomic factors in Nepal and destination countries on foreign employment flow*

The main destination Gulf countries are largely dependent on oil exports. Oil prices experienced a drastic decline in the second half of 2014, falling from US$100 per barrel in August 2014 to about US$50 per barrel in January 2015.[6] This decline negatively affected economic growth in these countries.[7] Except for Becker et al. (2005), who find that macroeconomic deterioration in Russia depressed migration from Kazakhstan to Russia, international evidence is lacking on the effect of negative shocks in destination countries on labor migration.

Table 3 reports regression results for the relationship of international oil prices, quarterly gross domestic product (GDP) growth rates at destination, and annual GDP growth rates in Nepal,

---

[6] http://www.imf.org/external/pubs/ft/survey/so/2016/car042516c.htm.
[7] Ibid.

all lagged, with agency-based and individual foreign employment outflow to Malaysia, Qatar, and Saudi Arabia (the top three destinations). International oil prices are positively associated with both agency-based and individual foreign employment outflow from Nepal.

GDP growth rates in Qatar and Saudi Arabia are negatively associated with agency-based and individual foreign employment outflow from Nepal. This result differs from Shrestha (2017a), who finds that the growth in the numbers of foreign employment workers going to Gulf countries and Malaysia between 2001 and 2010–11 is positively associated with growth in the construction and manufacturing sectors (as proxied by the growth in carbon dioxide emissions from these sectors) in these destination countries.

Many destination country employers find foreign employment workers especially attractive because they can easily hire and fire such workers. In addition, foreign employment workers are under legal contract to a particular employer. Thus, reforms to laws that govern foreign employment in destination Gulf countries may have had different effects on new and repeat foreign employment workers. For example, in 2011, the United Arab Emirates began to allow foreign employment workers to change employers, a departure from the traditional "kafala" system that tied the worker to his or her employer without any possibility of change and that made the employer the worker's legal guardian. Naidu et al. (2015) find that the reform led to higher earnings for incumbent foreign employment workers, and a decrease in demand for new foreign employment workers. Qatar passed a similar law in December 2016.

Malaysia was the top destination country for agency-based foreign employment workers until 2015, with an increase in numbers from 2011 through 2014. However, the country has ranked behind Qatar, Saudi Arabia, the United Arab Emirates, and other countries (taken together) with respect to the number of individual foreign employment workers (see Figure 11). The sharp difference in the levels of agency-based and individual foreign employment flows to Malaysia may be due in part to the low wages offered to foreign employment workers. Malaysia offers the lowest wages out of the top destination countries. The median monthly wage for foreign employment workers in Malaysia is US$60 lower than the next-lowest median wage among the main destination Gulf countries (Qatar, Saudi Arabia, and the United Arab Emirates). Thus, foreign employment workers may be less inclined to return to Malaysia and may seek employment elsewhere. The low repeat flow (reflected in the number of Nepalese workers renewing their foreign employment permits for Malaysia) may also be due to Malaysian

regulations aimed at discouraging long-term employment of low-skilled foreign employment workers. The Malaysian government views foreign employment inflow to be a stop-gap measure for domestic labor shortages (Devadason and Meng 2014).

Foreign employment flow from Nepal to Malaysia dropped sharply in 2015 (see Figure 10). The trend may be due to efforts by the Malaysian government to adhere to its 2009 promise to drastically reduce the number of labor migrants by 2015. The trend may also be due a sharp decline in the value of the Malaysian currency between mid-2014 and mid-2015, which would have made the country a less attractive foreign employment destination for Nepalese workers (Shrestha 2016b).

E. *Effect of the 2015 earthquake in Nepal on foreign employment outflow*

Nepal experienced a severe earthquake with a magnitude of 7.8 to 8.1 on April 25, 2015, which caused extensive damage and loss.[8] The potential effect of this earthquake on foreign employment outflow is theoretically ambiguous. Foreign employment outflow may have fallen because workers decided to remain in Nepal to help their households and communities recover from the earthquake. Foreign employment outflow may also have fallen because workers had greater difficulty in raising the funds needed to migrate, or because the arrangements for securing foreign employment (for example, recruitment agency operations) may have been disrupted by the earthquake. On the other hand, outflow may have risen if workers used foreign employment as an economic coping strategy.

Table 4 reports regression results for the effect of the earthquake on foreign employment outflow to the top three destinations of Malaysia, Qatar, and Saudi Arabia, under a difference-in-differences framework (before and after the earthquake, and between worst-affected districts and other districts). We find that the earthquake had a negative effect on agency-based foreign employment outflow, controlling for district of origin, and lagged values for GDP growth rates in destination countries and in Nepal.

Agency-based foreign employment flows may have been negatively affected because workers were unable to make the needed payments to recruitment agencies, and because operations by recruitment agencies were disrupted due to the earthquake. Individual foreign employment flows would have been free of these constraints.

---

[8] The country also experienced several aftershocks, including one with a magnitude of 7.3 on May 12, 2015.

7. Effects of male youth labor migration on the labor outcomes of remaining youth household members

What are the effects of labor migration on the labor outcomes of youth who have not migrated? Given the extent of labor migration and the potential interdependency of labor choices of household members in Nepal, labor migration can affect the labor outcomes of household members who remain at home. In addition, a large outflow of male youth can have aggregate labor market effects at home.

A. *Labor supply*

According to standard theory, the overall effect of labor migration on the labor supply of non-migrating members of the migrant's household is ambiguous (for brevity, we refer to these nonmigrant household members as "stayers"). There are at least two pathways through which labor migration could affect the labor outcomes of stayers, with opposite effects. A first pathway is the receipt of remittances by households. In our 2010–11 sample, 81 percent of labor migrants sent remittances to their households. The standard model of labor-leisure choice predicts that individuals receiving remittances will increase their consumption of leisure and decrease their labor supply, because household non-labor income increases through remittances (an income effect).

As a second pathway, labor migration can create a need to substitute for the labor of migrants to compensate for foregone income (a disruption effect). If the labor of stayers and outmigrants are substitutes, stayers may increase their labor supply. In addition, a large outflow of migrants can have aggregate labor market effects at home. In particular, a reduction in aggregate labor supply can increase aggregate wages in the local labor market, increasing the price of leisure for stayers. Stayers may then choose to increase their labor supply (a substitution effect). For households observing both the income effect and the disruption effect or substitution effect, the net effect of labor migration on the labor supply of stayers is ambiguous. In addition, households may initially have to finance the costs of migration of their members, a particularly important concern for labor migration to external destinations other than India. As a result, stayers may have to increase labor supply to pay for these costs.

Rigorous international evidence on the effects of migration on home outcomes is mixed. De Brauw and Giles (2012) find for China that labor migration from rural areas is associated with

increases in the total labor supplied to productive activities and the amount of land per capita managed by remaining household members. Examining the effect of remittances on household labor supply in rural Mexico, Amuedo-Dorantes and Pozo (2006) find that male labor supply does not change but female labor supply declines. Examining the effect of remittances on household labor supply in El Salvador, Acosta (2006) finds that female labor supply declines.

The available evidence for Nepal is also mixed. Using 2003–04 NLSS data, Lokshin and Glinskaya (2009) find that male outmigration has a negative effect on household female labor force participation. Using household data from two districts, Maharjan et al. (2013) find that male outmigration has a positive effect on female employment, especially on female agricultural employment. Using 2010–11 NLSS data, Phadera (2016) finds that outmigration has a positive effect on wage employment by female household members, and a negative effect on the labor supply of male household members. Finally, using population census data from 2001 and 2010 to construct village-level statistics, Shrestha (2017d) finds that an increase in the village outmigration rate is associated with an increase in the village labor force participation rate. The result appears to be driven by increases in nonagricultural employment by women and agricultural employment by men. Combining population census and 2010–11 NLSS data, Shrestha also finds that a higher village outmigration rate is associated with higher wages. The result appears to be driven by higher wages for women, and higher wages in agriculture. The mixed results are likely due in part to differing samples, instrumental variable strategies, and units of treatment (for example, household members versus village residents). They also likely reflect the challenge of identifying and estimating the effects of labor outmigration using observational data.

Here, we examine the effect of whether a household has a male youth member who is a labor migrant (our main "treatment" indicator) on the labor outcomes for female and male youth stayers. A labor migrant is defined here to be an individual who is a labor migrant at the time the 2010–11 NLSS was administered to the household. There are few observations for female labor migrants, and hence they are excluded from the treatment indicator. We also examine the effects of alternative household-level treatment indicators, namely whether the household had a male youth labor migrant who: (1) sent remittances; (2) had migrated internally; (3) had migrated to India; or (4) had migrated to another external destination.

As discussed in Section 5, we find that youth labor migrants systematically differ from youth nonmigrants. Consequently, we expect that stayers in households with labor migrants may

differ from stayers in households without labor migrants. The poor overlap in the distribution of characteristics of these two groups of households can make estimates of the effects of male youth labor migration on stayer outcomes imprecise and sensitive to the choice of specification. To obtain an optimal subsample, we use the approach by Crump et al. (2009), discarding any observations with extreme predicted probabilities of male youth labor migration from the household. The approach does not bias the estimates because the optimal subsample depends on the joint distribution of characteristics and household labor migration status and not on the distribution of outcomes. The approach also can greatly improve the precision of the estimates. However, given the data, the method does not allow us to interpret these associations (which we refer to as "effects") as causal.

We estimate the effect of male youth labor migration on stayers in two stages. In the first stage, we (1) estimate regressions of whether the household has a male youth labor migrant, using an extensive set of household and community characteristics, (2) predict the household probabilities of having a male youth labor migrant, and (3) following the general optimal rule suggested by Crump et al. (2009), only retain households with predicted probabilities between 0.1 and 0.9. Implementing this procedure results in trimming about 16 percent of households from the sample. Sample sizes for the outcome regressions for stayers are still large after the trimming. In the second stage, we estimate the effect of having a male youth labor migrant on the labor outcomes of stayers in the trimmed sample, separately for female and male youth stayers, controlling for individual, household, and community characteristics.

Tables 5 and 6 present regression results for the effects of male youth labor migration on the labor outcomes of male and female youth stayers, respectively. Table 7 presents the regression results of male youth labor migration on school enrollment and years of schooling for children aged 5–15 years in the household. All statistics are based on 2010–11 NLSS data.

We find that male youth labor migration has negative effects on the likelihood of employment for female and male youth stayers, but the effects are insignificant. Male youth labor migration also has negative effects on hours worked for female and male youth stayers, but only the effect of −11 percent for female youth stayers is significant. Looking at the alternative treatment indicators, we find that male youth labor migration to external destinations other than India has significant negative effects on the likelihood of employment of −34 percentage points for male youth stayers and −21 percentage points for female youth stayers. Male youth migration

coupled with remittances has significant negative effects on hours worked of –12 percent for male youth stayers and –13 percent for female youth stayers.

Looking at participation in noneconomic activities, male youth labor migration has a significant positive effect of 8 percentage points on the likelihood of noneconomic participation by male youth stayers, with the effect appearing to be driven by remittances. Male youth labor migration to India has significant negative effects on hours in noneconomic activities of –32 percent for male youth stayers and –16 percent for female youth stayers. The collective evidence suggests that cutbacks in labor supply occur in economic and noneconomic activities by youth stayers.

B. *Sector and type of employment*

Labor migration could affect the allocation of labor supply by stayers across types of employment (Amuedo-Dorantes and Pozo 2006). One way is through the disruption effect discussed previously, in particular when the household runs an enterprise. In our 2010–11 sample, 85 percent of labor migrants originate from rural areas, where self-employment in agriculture is prevalent, representing 61 percent of total rural employment. The disruption effect can produce a labor shortage in household enterprises. If the skills of stayers are a substitute for those of labor migrants, stayers may increase their labor supply to household enterprises.

We find that male youth labor migration does not appear to have effects on the likelihoods of wage employment, self-employment in agriculture, employment in industry, or employment in services either for male or female youth stayers. Looking at the alternative treatment indicators, male youth labor migration to India has significant negative effects on the likelihood of employment in services for female and male youth stayers. Male youth labor migration combined with remittances has a significant positive effect of 5 percentage points on the likelihood of self-employment in agriculture for male youth stayers.

C. *Wage earnings*

Male labor migration can affect the labor earnings of stayers. Migration out of rural areas decreases local labor supply. Keeping labor demand fixed, a decrease in labor supply can increase aggregate wages. We find that the effects on wage earnings for female and male youth stayers are

positive (9 percent and 6 percent, respectively), but insignificant. The direction of the effects we find are in line with what Shrestha (2017d) documents.

D. *Children's education*

Previous studies suggest that labor migration can influence the education investment decision for children in the household, mainly by providing extra household income to cover children's school expenditures, and reducing the need for child labor. Acosta (2006) and Yang (2008) find for El Salvador and the Philippines, respectively, that remittances reduce child labor and increase child school enrollment. Evidence for Nepal suggests that remittances are positively associated with children's education. Using 1995–96 NLSS data, Bansak and Chezum (2004) find that remittances have a positive effect on children's school enrollment, particularly for young boys. Using data for the Sainik Basti settlement in western Nepal, Thieme and Wyss (2005) find that migration is associated with higher education attainment by children. Using 2010–11 NLSS data, Shrestha (2017d) finds that the village outmigration rate has a positive effect on girls' school enrollment.

We find that, whereas the effect of male youth labor migration on the likelihood of school enrollment by household children is small and insignificant, male youth labor migration combined with remittances to the household has a positive effect of 2 percentage points on the likelihood of child school enrollment. Although none of the effects are significant, the effect on child school enrollment is larger for male youth labor migration to external destinations compared to the effects for migration to India and to internal destinations. Male youth labor migration also has a positive effect of 0.1 additional years of schooling for household children. The effect that male youth labor migration combined with remittances has on years of schooling is the same. Here, while again none of the effects are significant, the effects of male youth migration to India and to internal destinations are larger than the effect of male youth migration to other external destinations. To summarize, it appears that male youth labor migration has positive effects on the education of household children, mediated through remittances to the household.

8. Youth labor migrants who have returned

What is the rate of return from labor migration for youth, and what are the labor outcomes at home of returned youth labor migrants? A returned youth labor migrant (or "returnee") is defined to be a youth household member who had migrated for labor for at least two consecutive months in the five years before the 2010–11 NLSS was administered to the household, but is present in the household at the time of the survey. Seventeen percent of male youth were returnees, whereas 1 percent of female youth were returnees. Given the negligible percentage of female youth returnees, we restrict the analysis to male youth returnees only.

A. *Share of youth labor migrants who have returned*

Figure 11 shows the share of male returnees among male youth who migrated for labor in the five years before the 2010–11 NLSS for administered. In total, 29 percent returned. The rate of return differs by destination, specifically between India (41 percent) and other destinations (21 percent for internal destinations and 24 percent for other external destinations). The higher rate of return for male youth labor migrants to India is consistent with the view that labor migration to India tends to be seasonal in nature, or is used as a temporary coping strategy by households during times of economic stress (WFP 2008).

The rate of return suggests that temporary labor migration is extensive. However, the high rate may be an artifact of the data, given that the NLSS defines household absentees as individuals who are temporarily absent from the household but are expected by the household to return. Those household members who have migrated for labor and are not expected to return would not be accounted for in the estimation, and thus the estimated rate may be upwardly biased.

B. *Home labor outcomes of male youth labor migrants who have returned*

The international literature is thin on the labor outcomes of migrant workers once they return home. Evidence from low- and middle-income countries suggests that return from international migration is associated with higher wages at home. Reinhold and Thom (2013) find that the labor market experience accumulated by Mexican migrants in the United States increases their earnings upon returning home. Similarly, Wahba (2015) finds that temporary international migration by Egyptian workers results in a wage premium upon return. A few studies examine the occupational choices of returned labor migrants, in particular with respect to entrepreneurship and

self-employment (Mesnard 2004; Dustmann and Kirchkamp 2002; McCormick and Wahba 2001). These studies find that returned labor migrants are more likely to become employers and self-employed workers compared to nonmigrants, and that savings accumulated by a migrant at destination is an important factor.

Comparing the labor outcomes of youth returnees back home to those of youth nonmigrants is complicated by the double selectivity of return (migration self-selection and return self-selection). To adjust for these differences in characteristics between returned labor migrants and nonmigrants, we trim the sample based on the approach by Crump et al. (2009) discussed in Section 7. Based on this approach, we trim out 33 percent of observations. Given that we are also interested in comparing the labor outcomes of nonmigrants to returnees from the three destination choices, we repeat the trimming exercise with each appropriate subsample. The subsample of returnees from internal destinations has a small number of observations.[9] Hence, the results from comparing the labor outcomes of nonmigrants to returnees from internal destinations should be viewed with caution.

Table 8 presents the average labor outcomes of male youth nonmigrants, and the difference in average labor outcomes for male youth returnees, in the relevant trimmed samples. Returnees are 12 percentage points less likely to be employed than nonmigrants. Conditional on working, returnees work 15 percent less hours on average, are 9 percentage points more likely to be self-employed in agriculture, and are 6 percentage points less likely to be engaged in services than nonmigrants.

The overall results are driven by returnees from external destinations. Labor market integration appears to be weaker for returnees from other external destinations (i.e., other than India) than other returnees. Returnees from other external destinations are 23 percentage points less likely to be employed than nonmigrants. Conditional on working, such returnees are 24 percentage points less likely to be wage employed, are 10 percentage points less likely to be engaged in services; and work 25 percent fewer hours on average than nonmigrants. The weak labor market integration of returnees from other external destinations may be because these

---

[9] Trimmed sample sizes for the analysis: (1) analysis of all returnees: 418 returnees and 1,298 stayers; (2) analysis of returnees from internal destinations: 75 returnees and 1,298 stayers; (3) analysis of returnees from India: 198 returnees and 1,298 stayers; (4) analysis of returnees from other external destinations: 145 returnees and 1,298 stayers.

returnees expect to migrate out for labor again soon. Our data do not allow us to distinguish between those whose return is temporary and those whose return is more permanent.

The outcomes for returnees may be poorer than those for nonmigrants because the former recently returned, and therefore may not have had sufficient time to reintegrate into the local labor market. We investigate whether the labor outcomes of recent returnees (those who returned less than a year ago) differ from the outcomes of returnees who have been back home for a longer period. We find that recent returnees are 15 percentage points less likely to be employed than nonmigrants, while other returnees are 10 percentage points less likely to be employed. Both differences with nonmigrants are statistically significant. Also, recent returnees work 25 percent fewer hours on average than nonmigrants (who work on average 37 hours a week), while other returnees work 10 percent fewer hours on average than nonmigrants. The differences with nonmigrants are statistically significant for both types of returnees. In sum, the labor supply of returnees, at both the intensive and extensive margins, is significantly lower than for nonmigrants, even for returnees who have been back home for a relatively long period.

9. Conclusion

Standard economic theory posits that earnings differentials between home and potential destination influence the labor migration decision. Youth in Nepal tend to leave more agricultural communities, presumably for remunerative employment opportunities elsewhere. A large majority of labor migrants are wage-employed in services, whereas a large share of youth who did not migrate for labor are self-employed in agriculture. Low household income is an important correlate of labor migration to India, suggesting that poorer households may use such labor migration as a strategy to cope with chronic economic distress or temporary income shortfalls, such as during the agricultural slack season. The predominance of India as a labor migration destination among poorer households may also be due to financial constraints, as migration to India is relatively low cost compared to the cost of migration to other external destinations. Additionally, the low, fixed cost of labor migration to India makes circular or seasonal migration more affordable, which may explain the higher return rate observed for labor migrants to India.

Further analysis of the gains and costs of internal and external labor migration for Nepalese youth would benefit from the systematic collection of representative data on labor migrants at destination, including data on labor earnings, working and living conditions, and contract and employer characteristics. Such data could be gathered from cross-sectional surveys conducted at main destinations of labor migrants, or from panel data in which Nepalese youth are tracked over time (with continued tracking at destination for those who migrate).

While Nepal has laws and institutions to regulate the foreign employment process for external destinations other than India, there are indications that the process is not sufficiently safe, efficient, or economical for workers. The design of sound interventions to improve the foreign employment process will require primary data and diagnostic research on several, interrelated issues. These include: (1) the characteristics, motives, and practices of individual agents; (2) the structure, workings, and evolution of the worker-individual agent market, and likewise for the agent-agency market, with a focus on how information on the quality of workers, agents, and agencies are exchanged and how service prices are set—and what these imply for the welfare of workers, agents, and agencies; (3) the search and matching process that workers follows to link with an agent, and, in turn, an agency; (4) the perceptions that workers hold about the gains and risks of seeking foreign employment through agents and agencies; (5) the effectiveness and

efficiency of interventions to train workers for foreign employment; and (6) the effectiveness and efficiency of formal grievance redressal mechanisms.

Based on available documentation, data, and analysis, Nepal's management of the foreign employment process could benefit from efforts to: (1) improve the performance of formal grievance redressal systems for workers, (2) make the agent market more open and competitive, (3) provide crucial information to prospective workers on the migration process and related costs, and (4) detect, punish, and debar agents and agencies that engage in fraudulent or exploitative transactions with workers.

The evidence suggests that some groups are much less likely to migrate for labor, which indicates low gains, or high barriers or costs, for these groups. The low rates of labor migration by female youth to external and internal destinations are particularly striking. Globally, female labor migration has been increasing. However, the risk of abuse and exploitation is perceived to be higher for female than male labor migrants. This concern accounts in part for the low rate of female labor migration from Nepal to external destinations. Some bilateral labor agreements between Nepal and destination countries explicitly restrict female labor migration to prevent abuses. Female youth labor migration rates to India and to internal destinations also remain very low, despite the absence of formal restrictions. Thus, there is a need to better understand the factors, both drivers and barriers, associated with female labor migration.

Our analysis of returned labor migrants shows that integration into the home labor market appears to be weak. This may be due to either constraints on, or choices made by, the returned labor migrant. More investigation is required to develop interventions to effectively leverage the returned labor migrant's work experience, financial capital, labor skills, and other competencies they may have acquired at destination. One way to gather data on the labor outcomes of returnees would be through a more detailed module in household sample surveys, that directly questions household members who have returned from external and internal labor migration.

Reintegration programs may help returned labor migrants obtain productive, remunerative employment at home. One of the more comprehensive programs is the Overseas Foreign Worker (OFW) Reintegration Program in the Philippines. The program provides services and assistance to the labor migrant and his or her family through the entire cycle, that is, prior to departure to destination, through the worker's time at destination, and upon the worker's return, to help him or her reintegrate into the home community and labor market. Labor market reintegration services

include skills training, credit, and guidance for self- or wage-employment activities (Go 2012). Some programs have aimed to better recognize the skills and competencies that labor migrants acquire at destination. Rigorous evidence is lacking on the effectiveness of such reintegration programs in general.

It may be worth considering policies and programs that aim to increase the gains and reduce the costs of labor migration, tailored by destination (internal, India, and other external). Presently, labor migrants to internal destinations or to India tend to find employment at destination through informal channels, whereas labor migrants to other external destinations tend to use private recruitment agencies to find employment at destination. The government could facilitate by providing prospective labor migrants with regular, reliable, and relevant information on employment opportunities at destination, through easily accessible channels such as mobile phone-based portals. At the same time, it could provide prospective employers at destination with information on prospective labor migrants. Evidence for Nepal shows that labor migrants adjust their beliefs and decisions based on information about employment risks and conditions at destination (Shrestha 2017b). Similarly, evidence from the Philippines indicates that information gathered at fairs organized for rural workers to obtain domestic or international employment influence decisions on type and location of employment (Beam 2016).

Government facilitation could also take the form of small cash transfers to incentivize labor migration. Even transfers of a relatively small amount of money have been shown to facilitate labor migration and raise household welfare in Bangladesh (Bryan, Chowdhury, and Mobarak 2014). Such facilitation may help socioeconomically disadvantaged groups overcome information, skill, or financial constraints to labor migration, potentially boosting the efficiency and equity gains from labor migration.

References

Acosta, Pablo. 2006. "Labor Supply, School Attendance, and Remittances from International Migration: The Case of El Salvador." Policy Research Working Paper 3903, World Bank, Washington DC.

Amuedo-Dorantes, Catalina, and Susan Pozo. 2006. "Migration, Remittances, and Male and Female Employment Patterns." *American Economic Review* 96 (2): 222–6.

Bansak, Cynthia, and Brian Chezum. 2009. "How do Remittances Affect Human Capital Formation of School-Age Boys and Girls?" *American Economic Review* 99 (2): 145–8.

Beam, Emily A. 2016. "Do Job Fairs Matter? Experimental Evidence on the Impact of Job-Fair Attendance." *Journal of Development Economics* 120 (C): 32–40.

Bhandari, Prem. 2004. "Relative Deprivation and Migration in an Agricultural Setting of Nepal." *Population and Environment* 25 (5): 475–99.

Bryan, Gharad, Shyamal Chowdhury, and Ahmed Mushfiq Mobarak. 2014. "Under-Investment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh." *Econometrica* 82 (5): 1671–1748.

Crump, Richard, Joseph Hotz, Guido Imbens, and Oscar Mitnik. 2009. "Dealing with Limited Overlap in Estimation of Average Treatment Effects." *Biometrika* 96 (1): 187–99

De Brauw, Alan, and John Giles. 2012. "Migrant Labor Markets and the Welfare of Rural Households in the Developing World: Evidence from China." Discussion Paper 6765, Institute for the Study of Labor, Bonn.

Devadason, Evelyn. S., and Chan W. Meng. 2014. "Policies and Laws Regulating Migrant Workers in Malaysia: A Critical Appraisal." *Journal of Contemporary Asia* 44 (1): 19–35.

Dustmann, Christian, and Oliver Kirchkamp. 2002. "The Optimal Migration Duration and Activity Choice After Remigration." *Journal of Development Economics* 67 (2): 351–72.

Fernández–Huertas Moraga, Jesus. 2013. "Understanding Different Migrant Selection Patterns in Rural and Urban Mexico." *Journal of Development Economics* 103 (C): 182–201.

Gaulé, Patrick. 2014. "Who Comes Back and When? Return Migration Decisions of Academic Scientists." *Economic Letters* 124 (3): 461–4.

Go, Stella P. 2012. *The Philippines and Return Migration: Rapid Appraisal of the Return and Reintegration Policies and Service Delivery*. Manila: International Labour Organization.

International Labour Organization. 2016. *Labour Migration for Employment. A Status Report for Nepal: 2014/15*. Kathmandu: International Labour Organization.

Lessem, Rebecca. 2013. "Mexico-U.S. Immigration: Effects of Wages and Border Enforcement." Unpublished paper.

Lokshin, Michael, and Elena Glinskaya. 2009. "The Effect of Male Migration on Employment Patterns of Women in Nepal." *World Bank Economic Review* 23 (3) 481–507.

Maharjan Amina, Seigfried Bauer, and Beatrice Knerr. 2013. "Migration for Labor and its Impact on Farm Production in Nepal." Kathmandu: Center for the Study of Labor and Mobility, Social Sciences, Baha.

Massey, Douglas S., William G. Axinn, and Dirgha J. Ghimire. 2010. "Environmental Change and Out-Migration: Evidence from Nepal." *Population and Environment* 32 (2-3): 109–36.

McCormick, Barry, and Jackeline Wahba. 2001. "Overseas Work Experience, Savings and Entrepreneurship Amongst Return Migrants to LDCs." *Scottish Journal of Political Economy* 48 (2): 164–78.

Mesnard, Alice. 2004. "Temporary Migration and Capital Market Imperfections." *Oxford Economic Papers* 56 (2): 242–62.

Naidu, Suresh, Yaw Nyarko, and Shing-Yi Wang. 2016. "Monopsony Power in Migrant Labor Markets: Evidence from the United Arab Emirates." *Journal of Political Economy*, 124 (6): 1735–92.

Government of Nepal. 2011. *Nepal Living Standards Survey 2010/11: Statistical Report: Volume 1*. Kathmandu: Central Bureau of Statistics, Government of Nepal.

Paoletti, Sarah, Eleanor Taylor-Nicholson, Bandita Sijapati, and Bassina Farbenblum. 2014. *Migrant Workers' Access to Justice at Home: Nepal*. New York: Open Society Foundation.

Phadera, Lokendra. 2016 "International Migration and its Effect on Labor Supply of the Left-Behind Household Members: Evidence from Nepal." Paper prepared for the 2016 Annual Meeting of the Agricultural and Applied Economics Association, Boston, July 31-August 2.

Regmi, Madhav, Krishna Paudel, and Deborah Williams. 2014. "Push and Pull Factors Associated with Migration in Nepal: An Economic Perspective." Paper presented at the Agricultural and Applied Economics Association Annual Meeting, Minneapolis, Minnesota, July 27–29.

Reinhold, Steffen, and Kevin Thom. 2013. "Migration Experience and Earnings in the Mexican Labor Market." *Journal of Human Resources* 48 (3): 768–820.

Sharma, Sanjay, Shibani Pandey, Dinesh Pathak, and Bimbika Sijapati-Basnett. 2014. *State of Migration in Nepal*. Kathmandu: Center for the Study of Labor and Mobility, Social Sciences, Baha.

Shrestha, Maheshwor. 2017a. "Push and Pull: A Study of International Migration from Nepal." Policy Research Working Paper 7965, World Bank, Washington DC.

Shrestha, Maheshwor. 2017b. "Death Scares: How Potential Work-Migrants Infer Mortality Rates from Migrant Deaths." Policy Research Working Paper 7946, World Bank, Washington, DC.

Shrestha, Maheshwor. 2017c. "Get Rich or Die Tryin': Perceived Earnings, Perceived Mortality Rate and the Value of a Statistical Life of Potential Work-Migrants from Nepal." Policy Research Working Paper 7945, World Bank, Washington, DC.

Shrestha, Maheshwor. 2017d. "The Impact of Large-Scale Migration on Poverty, Expenditures, and Labor Market Outcomes in Nepal." Policy Research Working Paper 8232, World Bank, Washington, DC.

Shrestha, Sundar, and Prem Bhandari. 2007. "Environmental Security and Labor Migration in Nepal." *Population and Environment* 29 (1): 25–38.

Sijapati, Bandita. 2014. *Enhancing Employment-Centric Growth in Nepal: Situational Analysis for the Proposed Employment Policy, Government of Nepal*. Kathmandu: International Labour Organization.

Sijapati, Bandita. 2015. *Migration and Resilience Experiences from Nepal's 2015 Earthquake*. Kathmandu: Center for the Study of Labor and Mobility, Social Sciences, Baha.

Sjaastad, Larry. 1962. "The Costs and Returns of Human Migration." *Journal of Political Economy* 70 (4, supplement): 80–93.

Thieme, Susan, and Simone Wyss. 2005. "Migration Patterns and Remittance Transfer in Nepal: A Case Study" *International Migration* 43 (5): 59–98.

Wahba, Jackline. 2015. "Selection, Selection, Selection: Labor Market Impact of Return." *Journal of Population Economics* 28 (3): 535–63.

\World Bank. 2011. *Large–Scale Migration and Remittance in Nepal: Issues, Challenges and Opportunities.* Report No. 55390-NP, Washington DC: World Bank.

World Food Program (WFP). 2008. *Passage to India: Migration as a Coping Strategy in Times of Crisis in Nepal.* Kathmandu, Nepal: World Food Program.

Yang, Dean. 2008. "International Migration, Remittances and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks." *Economic Journal* 118 (528): 591–630.

Figure 1: Households That Report Getting Remittances, Nepal Versus Other South Asian Countries
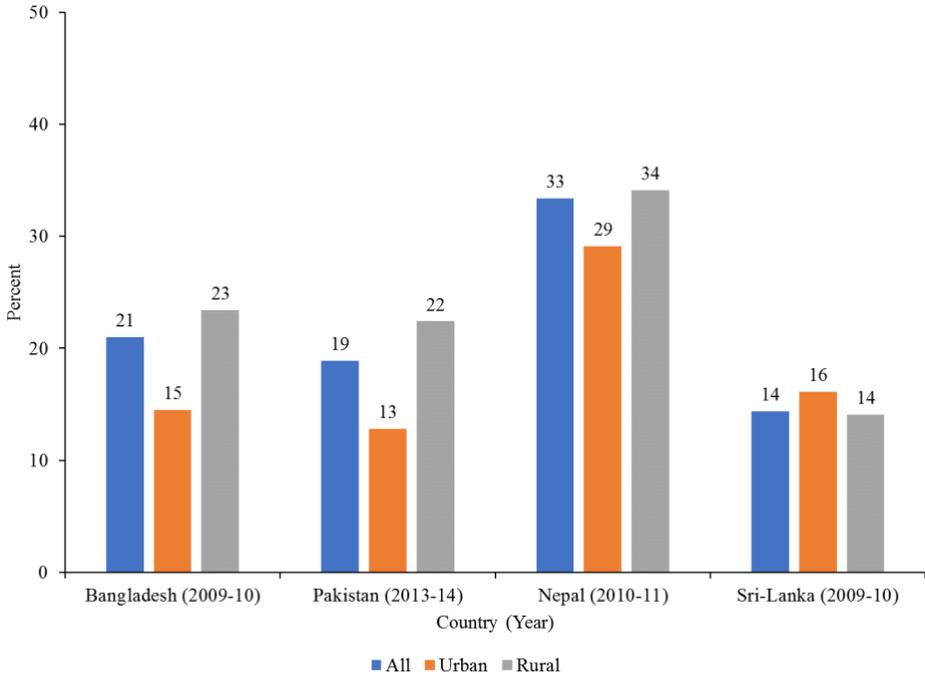
Source: Own estimates based on data from the 2009–10 Bangladesh Household Income and Expenditure Survey, the 2010–11 Nepal Living Standards Survey, the 2013–14 Pakistan Household Income and Expenditure Survey, and the 2009–10 Sri Lanka Household Income and Expenditure Survey.
Note: Estimates are adjusted for sampling weights.

Figure 2: Share of Youth Who Have Migrated for Labor, by Home Region, 2010–11
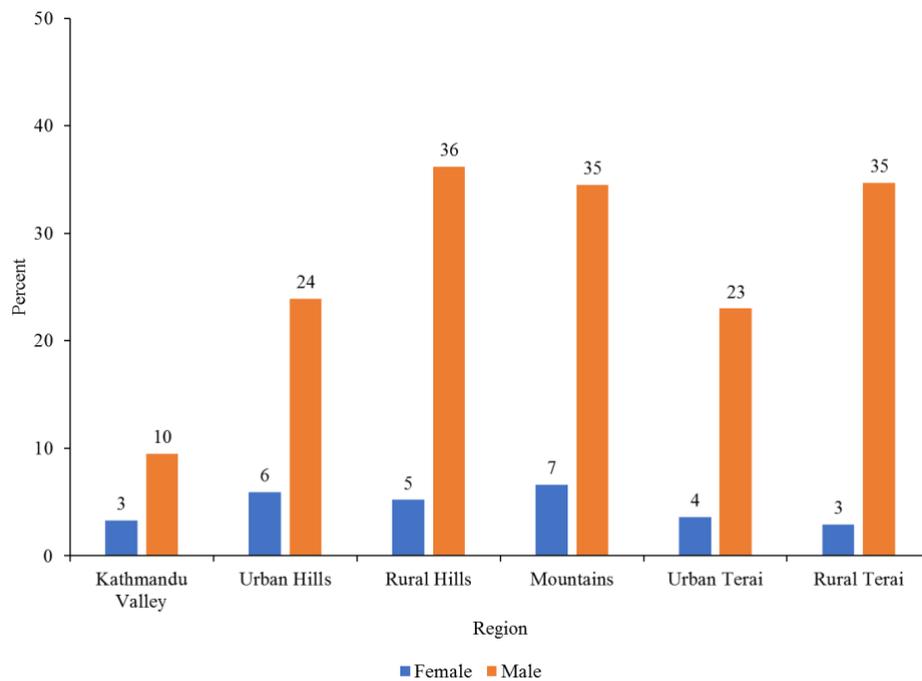
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. Estimates are adjusted for sampling weights.

Figure 3: Distribution of Male and Female Youth Labor Migration, by Destination, 2010–11
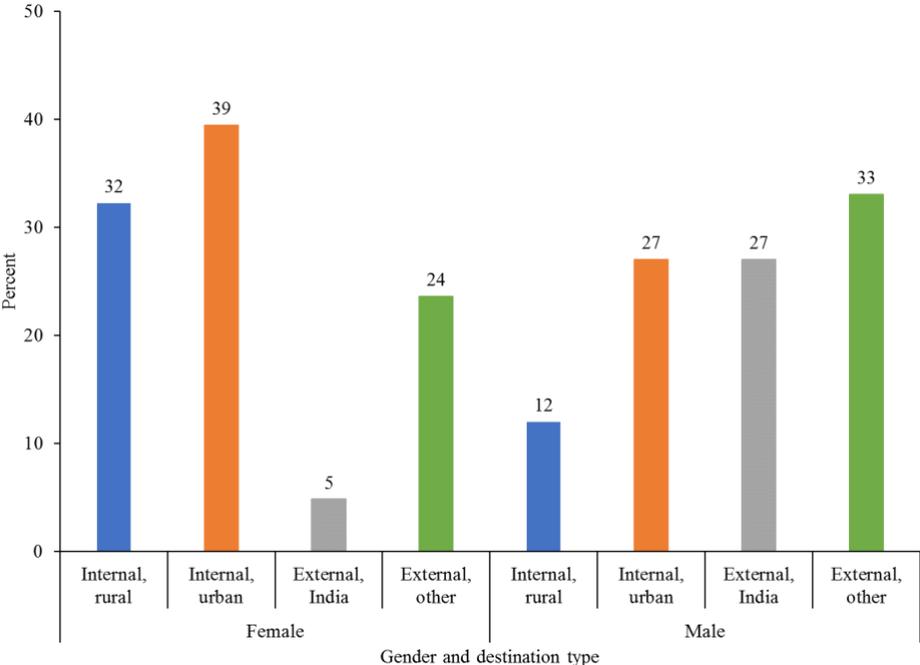
Source: Own estimates using data from the 2010–11 Nepal Living Standards Survey (NLSS).
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. Estimates are adjusted for sampling weights.

Figure 4: Sector and Type of Employment at Destination for Youth Labor Migrants, by Gender and Destination, 2011–11

a. Employment type
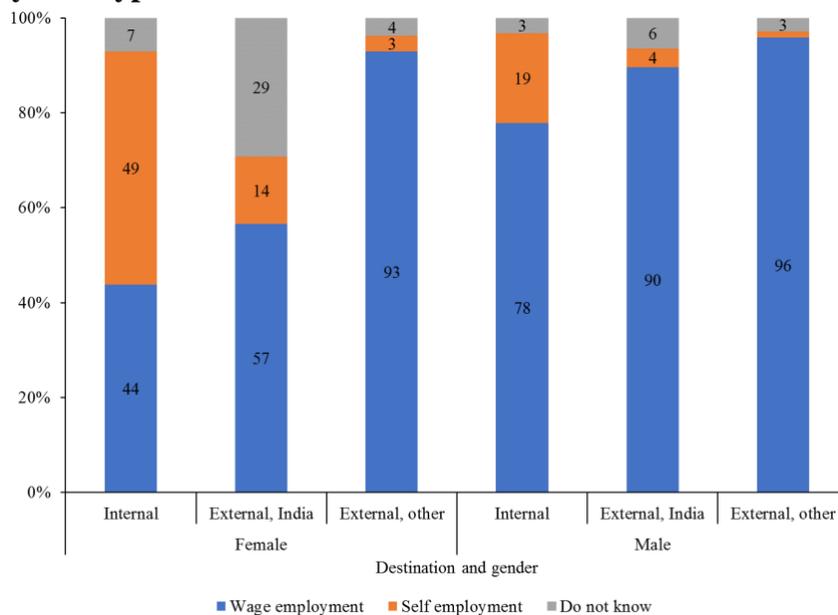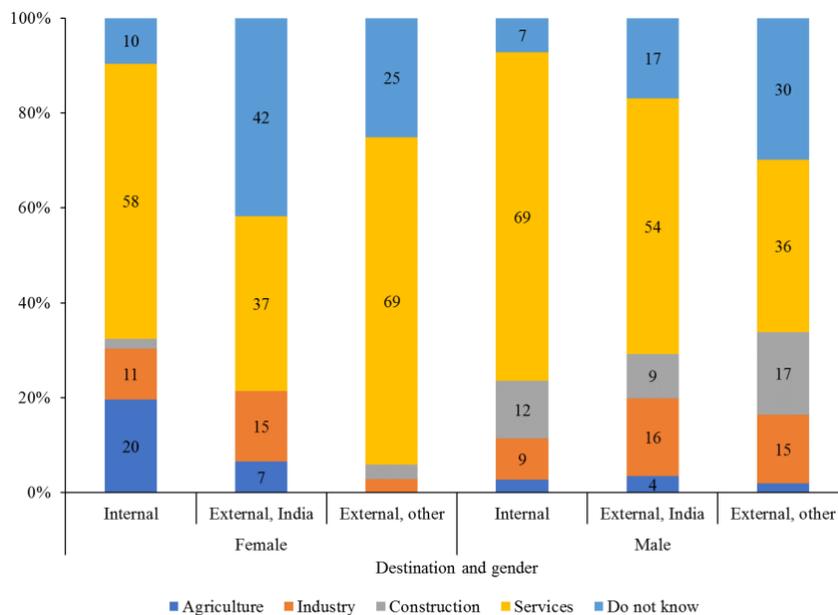
- Wage employment - Self employment - Do not know

b. Sector

- Agriculture - Industry - Construction - Services - Do not know

Source: Own estimates using data from the 2010–11 Nepal Living Standards Survey (NLSS).
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. Estimates are adjusted for sampling weights.

Figure 5: Source of Information on Employment at Destination for Youth Labor Migrants, by Gender and Destination, 2010–11
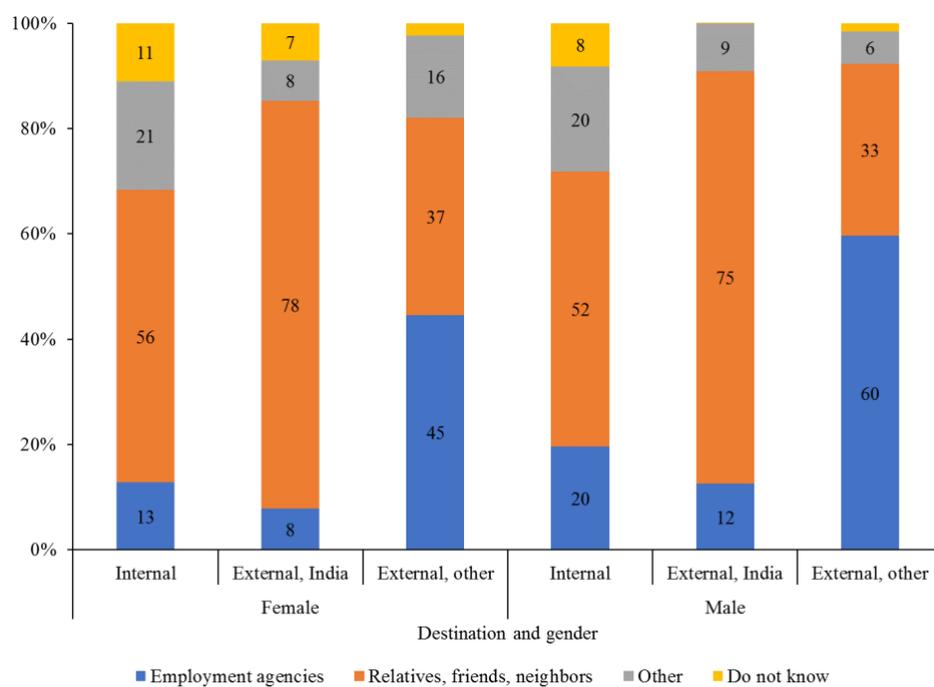
Source: Own estimates using data from the 2010–11 Nepal Living Standards Survey.
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. Estimates are adjusted for sampling weights.

Figure 6: Likelihood of Youth Labor Migration, by Education Attainment and Gender, 2010–11
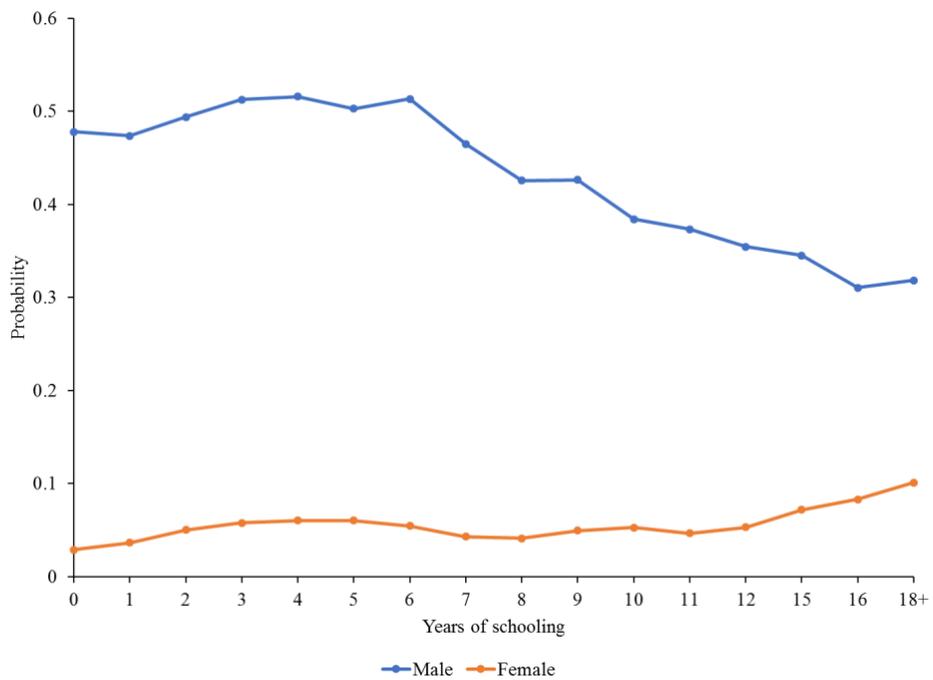
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household at the time the 2010–11 NLSS was administered to the household, left the household in the five years before the 2010–11 NLSS was administered, and has the intention to return, all as reported by the household. All estimates are adjusted for sampling weights.

Figure 7: Likelihood of Youth Labor Migration, by Education Attainment and Destination, 2010–11

a. **Male**
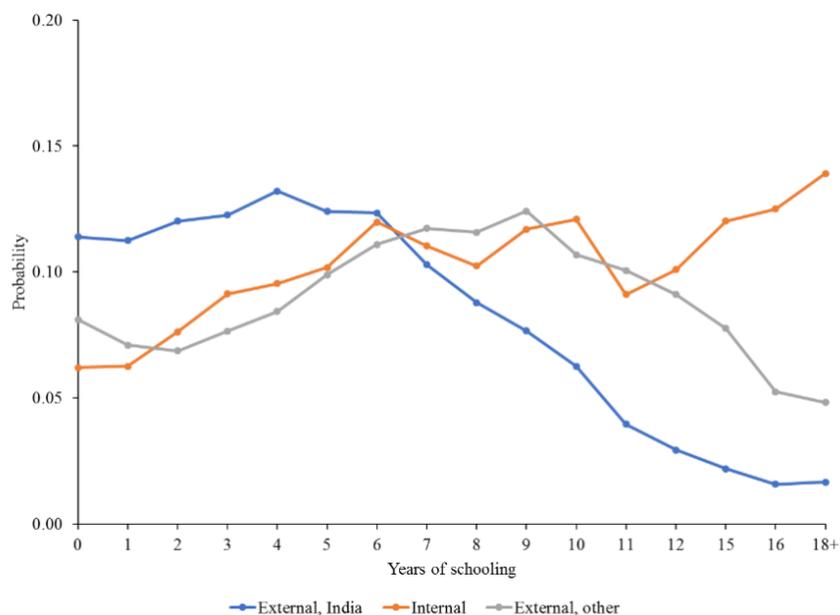
b. **Female**
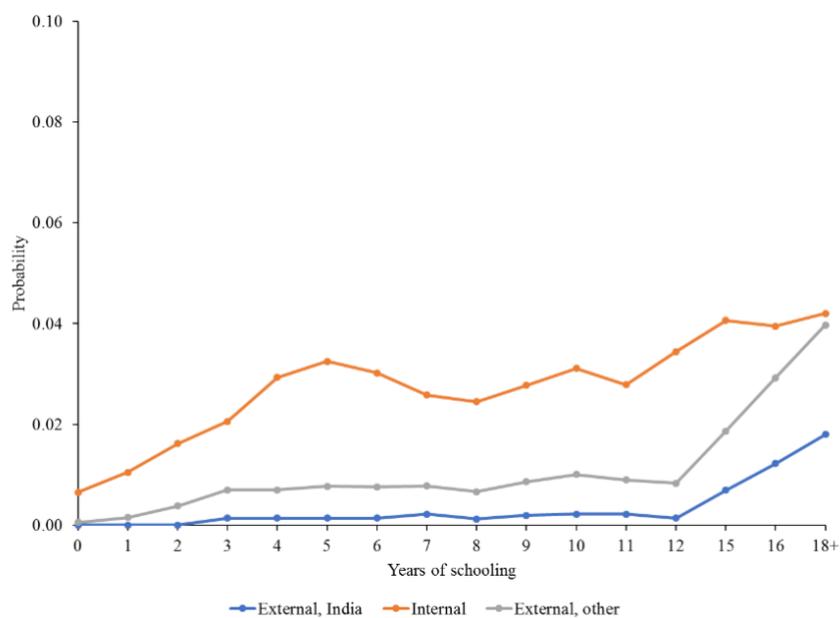
Source: Own estimates using data from the 2010–11 Nepal Living Standards Survey (NLSS).
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household at the time the 2010–11 NLSS was administered to the household, left the household in the five years before the 2010–11 NLSS was administered, and has the intention to return, all as reported by the household. Estimates are adjusted for sampling weights.

Table 1: Correlates of Youth Labor Migration, by Gender, 2010–11
Binomial Logit Estimations

Average marginal effects

Factor	Male (1)	Female (2)
Age	0.190***	0.058***
	(0.013)	(0.009)
Age squared	–0.003***	–0.001***
	(0.000)	(0.000)
Married	–0.027	–0.039***
	(0.020)	(0.011)
Education (reference category: less than SLC)		
SLC or 11th grade	–0.046**	0.035***
	(0.018)	(0.011)
Grade 12 and above	–0.129***	0.052***
	(0.030)	(0.016)
Consumption quintile (reference category: 1st quintile)		
2nd	0.005	0.036**
	(0.027)	(0.015)
3rd	0.012	0.037**
	(0.028)	(0.016)
4th	0.041	0.032*
	(0.029)	(0.018)
5th (richest)	0.048	0.071***
	(0.032)	(0.018)
Ethnicity/caste (reference category: Brahmin)		
Terai middle class	–0.098***	–0.023*
	(0.033)	(0.012)
Dalit	0.075***	0.025
	(0.028)	(0.015)
Newar	–0.035	0.021
	(0.037)	(0.023)
Janajati	–0.010	0.036***
	(0.021)	(0.010)
Muslim	0.074*	–0.037***
	(0.044)	(0.014)
Other	–0.148***	-0.036*
	(0.051)	(0.020)
Community amenities index	0.003	0.012**
	(0.018)	(0.006)
Time to nearest paved road (in hours)	–0.003*	-0.000
	(0.002)	(0.001)
Natural disaster in the past five years	–0.006	0.010
	(0.023)	(0.010)
Household size (including absentees)	0.003	0.002
	(0.003)	(0.002)
Household owns at least one hectare of agricultural land	–0.073***	0.014

Table 1: Correlates of Youth Labor Migration, by Gender, 2010–11
Binomial Logit Estimations

Average marginal effects

| Factor	Male	Female
	(1)	(2)
	(0.026)	(0.011)
Share of household heads in PSU employed in agriculture	0.267***	0.018
	(0.038)	(0.016)
Region (Reference category: Kathmandu Valley)		
Urban Hills	0.152***	0.050***
	(0.034)	(0.017)
Rural Hills	0.275***	0.048***
	(0.033)	(0.010)
Mountains	0.328***	0.084***
	(0.052)	(0.026)
Urban Terai	0.189***	0.034***
	(0.037)	(0.012)
Rural Terai	0.302***	0.052***
	(0.031)	(0.012)
Observations	4,937	4,827

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.
*Note*: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household at the time the 2010–11 NLSS was administered to the household, left the household in the five years before the 2010–11 NLSS was administered, and has the intention to return, all as reported by the household. SLC = School Leaving Certificate. PSU = Primary Sampling Unit. Robust standard errors, clustered at the PSU level, are reported in parentheses. Estimates are all adjusted for sampling weights.
* = $p<0.1$, ** = $p<0.05$, *** = $p<0.01$.

Table 2: Correlates of Choice of Destination, Male Youth Labor Migration Only, 2010–11 Multinomial Logit Estimation

Average marginal effects

Factor	Reference category: Did not migrate		
	Destination		
	Internal	External, India	External, other
	(1)	(2)	(3)
Age	0.048***	0.021**	0.139***
	(0.013)	(0.010)	(0.013)
Age squared	–0.001***	–0.000**	–0.002***
	(0.000)	(0.000)	(0.000)
Married	0.013	0.010	–0.049***
	(0.017)	(0.016)	(0.015)
Education (reference category: less than SLC)			
SLC or 11th grade	0.053***	–0.107***	–0.002
	(0.016)	(0.019)	(0.014)
Grade 12 and above	0.089***	–0.123***	–0.119***
	(0.030)	(0.040)	(0.036)
Consumption quintile (reference category: 1st quintile)			
2nd	0.033	–0.034*	0.027
	(0.025)	(0.018)	(0.029)
3rd	0.038	–0.058***	0.059**
	(0.025)	(0.020)	(0.025)
4th	0.055**	–0.097***	0.104***
	(0.027)	(0.024)	(0.026)
5th (richest)	0.050*	–0.101***	0.111***
	(0.029)	(0.029)	(0.029)
Ethnicity/caste (reference category: Brahmin)			
Terai middle class	–0.048*	–0.088***	0.030
	(0.026)	(0.024)	(0.028)
Dalit	–0.003	0.028	0.031
	(0.025)	(0.025)	(0.024)
Newar	0.084*	–0.156***	0.002
	(0.046)	(0.023)	(0.026)
Janajati	–0.004	–0.080***	0.073***
	(0.018)	(0.020)	(0.017)
Muslim	–0.072**	0.018	0.114***
	(0.033)	(0.045)	(0.039)
Other	–0.030	–0.116***	–0.002
	(0.038)	(0.030)	(0.053)
Community amenities index	–0.006	0.020**	–0.019
	(0.011)	(0.008)	(0.016)
Time to nearest paved road (in hours)	–0.001	–0.002*	–0.000
	(0.001)	(0.001)	(0.001)
Natural disaster in the past five years	–0.015	–0.006	0.011

Table 2: Correlates of Choice of Destination, Male Youth Labor Migration Only, 2010–11 Multinomial Logit Estimation

Average marginal effects

Factor	Reference category: Did not migrate		
	Destination		
	Internal	External, India	External, other
	(1)	(2)	(3)
	(0.020)	(0.019)	(0.019)
Household size (including the absentee)	0.001	−0.001	0.003
	(0.003)	(0.003)	(0.002)
Household owns at least one ha of agricultural land	−0.037*	−0.087***	0.040**
	(0.021)	(0.020)	(0.018)
Share of household heads in PSU employed in ag.	0.066**	0.106***	0.101***
	(0.028)	(0.033)	(0.034)
Region (Reference category: Kathmandu Valley)			
Urban Hills	0.097***	0.051**	0.004
	(0.023)	(0.024)	(0.031)
Rural Hills	0.162***	0.115***	0.005
	(0.020)	(0.023)	(0.028)
Mountains	0.243***	0.101***	-0.005
	(0.045)	(0.036)	(0.034)
Urban Terai	0.079***	0.103***	0.014
	(0.016)	(0.030)	(0.034)
Rural Terai	0.129***	0.149***	0.028
	(0.018)	(0.022)	(0.028)
Observations	4,937		

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.

Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household at the time the 2010–11 NLSS was administered to the household, departed from the household in the five years before the 2010–11 NLSS was administered, and has the intention to return, all as reported by the household. SLC = School Leaving Certificate. PSU = Primary Sampling Unit. Robust standard errors, clustered at the PSU level, are reported in parentheses. All estimates are adjusted for sampling weights.

* = $p<0.1$, ** = $p<0.05$, *** = $p<0.01$.

Figure 8: Path of the Foreign Employment Worker

Worker decides to migrate	The prospective foreign employment worker is required to obtain a passport. They have two options for doing so: • District level at the office of the Chief District Officer, for a cost of $50 with a waiting time of up to *three months*; • Kathmandu, at the Department of Passport, for a cost of $100 with a wait time of just a
Worker obtains a passport	Nineteen out of 75 districts have a "safer migration desk" (Safer Migration Project/FEPB). It is mandatory for workers to check in with this desk prior to departure.
Worker initiates formal process with an individual agent As a common practice, the agent takes away the worker's passport.	Individual agents serve as important intermediaries between manpower agencies located in Kathmandu and prospective foreign employment workers. Due to information asymmetries, agencies are more willing to recruit candidates recommended by an agent than those who approach them directly. Candidates choose agents from their social networks based on how trustworthy the network and the candidate perceive the agent to be, regardless of whether the agent is registered or not.
	Nepal's legislation makes it quite complicated to sue an individual agent, in particular an unregistered one. An estimated 98% of agents are unregistered. Furthermore, even if a worker has proper documentation and finds supporting legislation to file a claim with DOFE, only 15% of claims against individual agents were settled over the past three years, and only 12% of the amount claimed was ordered to be paid as compensation to a migrant.
An initial payment is made to the agent	On average, the total payment made is about $1,350. Eighty percent of foreign employment workers resort to borrowing money with annual interest rates of up to 30%. At this point, the contract becomes irreversible as the only way for many workers to pay this money back is through securing foreign employment.

Prospective foreign employment worker waits for an offer while his debts grow.

Worker receives a contract and signs it	**Manpower agency submits bulk application for labor permits from DOFE.**	**Worker passes medical test and receives pre-departure training.** Pre-departure trainings and medical tests are often conducted by manpower agencies or firms working with these agencies.

Worker passes last document check by the Labor Migration Desk at Kathmandu Tribhuvan International Airport.

To pass the check, the foreign employment worker is supposed to have:

(i)   a copy of the contract in Nepali guaranteeing at least minimum wage
(ii)   proof of life insurance (purchased by the manpower agency but with royalties paid by the worker)
(iii)   proof of passing medical test and pre-departure training
(iv)   labor permit from DOFE

Labor attaches in embassies provide support to documented foreign employment workers

Embassies do not systematically collect data on their support to foreign employment workers

Upon return to home country, for grievances and disputes, a documented worker can go to DOFE or FET.

DOFE has settled 15-20% of cases received in the past three years. After five years, FET settled 80% of cases it received.

Source: Based on data from Humanity United (2016), Shrestha (2017a), Paoletti et al. (2014), ILO (2016), and the Department of Foreign Employment, Government of Nepal.

Figure 9: Top Destinations for Male Foreign Employment Workers

a. Agency-based outflow in 2011–2015
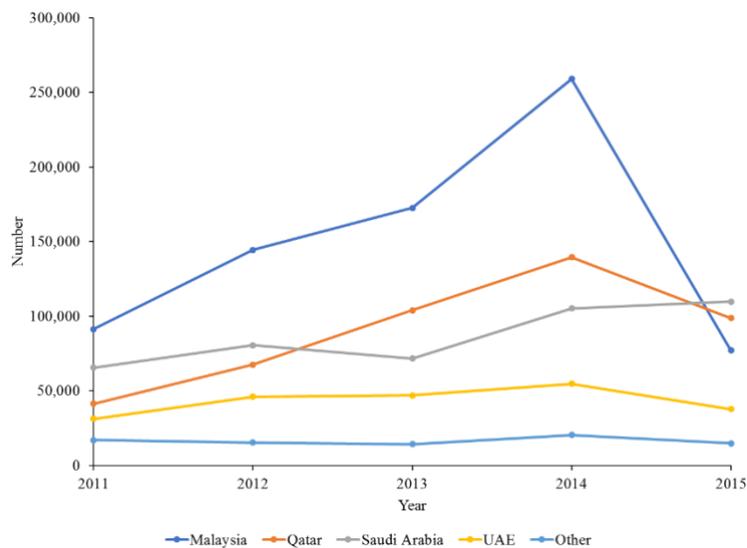
b. Individual outflow in 2012–2015
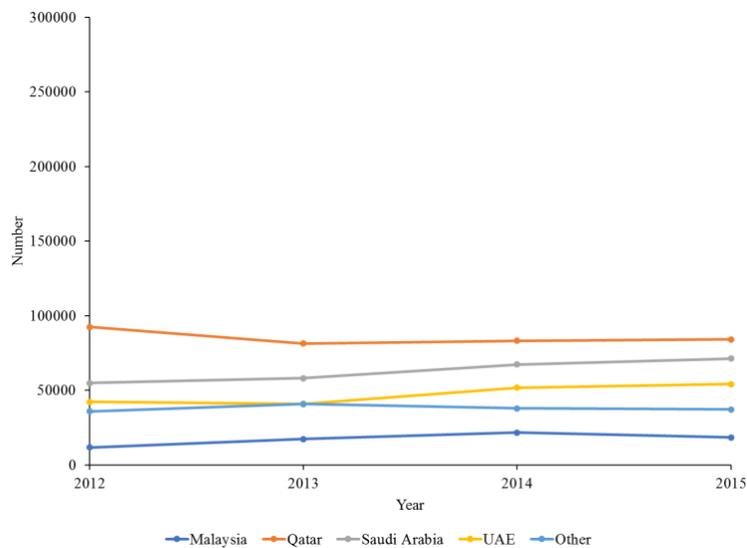
Source: Own calculations based on data from the Department of Foreign Employment, Government of Nepal.

Table 3: Macroeconomic Determinants of Male Foreign Employment Worker Outflow

Quarterly data from January 2013 to December 2015

|	Logged quarterly foreign employment outflow by home district and destination			
	Agency-based outflow		Individual-based outflow	
	(1)	(2)	(3)	(4)
Logged lagged annual GDP growth rate in Nepal	–2.540***	0.201*	–0.421***	0.432***
	(0.09)	(0.09)	(0.10)	(0.08)
Logged lagged quarterly GDP growth rate at destination	–0.154***	–0.595***	0.161***	–0.106***
	(0.02)	(0.02)	(0.01)	(0.02)
Malaysia×Logged lagged quarterly GDP growth rate at destination	0.936***	1.478***	–1.723***	0.05
	(0.10)	(0.07)	(0.12)	(0.05)
Logged lagged quarterly oil price	—	2.811***	—	0.601***
		(0.07)		(0.07)
Malaysia×logged lagged quarterly oil price	—	–0.0807***	—	–0.239***
		(0.02)	–	(0.02)
District dummies	Yes	Yes	Yes	Yes
Observations	1,345	1,121	1,300	1,087
R-squared statistic	0.85	0.92	0.87	0.91

Sources: Own estimations based on data from the Department of Foreign Employment, Government of Nepal; World Development Indicators Database; and the Global Economic Monitor Commodities Database.

Note: Dependent variable is logged quarterly outflow of male foreign employment workers from a given district to a particular destination starting from January 2013 to December 2015. The estimations are limited to the top three destinations (Malaysia, Qatar, and Saudi Arabia) that account for close to 85 percent of total male foreign employment outflow in that period. Quarterly GDP growth rates in destination countries and average quarterly oil prices are lagged by two quarters. Average quarterly oil price is constructed from data on monthly crude oil, average spot price of Brent, Dubai and West Texas Intermediate, equally weighed. Standard errors are reported in parentheses.

* = $p<0.1$, ** = $p<0.05$, *** = $p<0.01$.

Figure 10: Monthly Male Foreign Employment Flow to Malaysia versus Other Foreign Employment Destinations, January 2014–April 2016
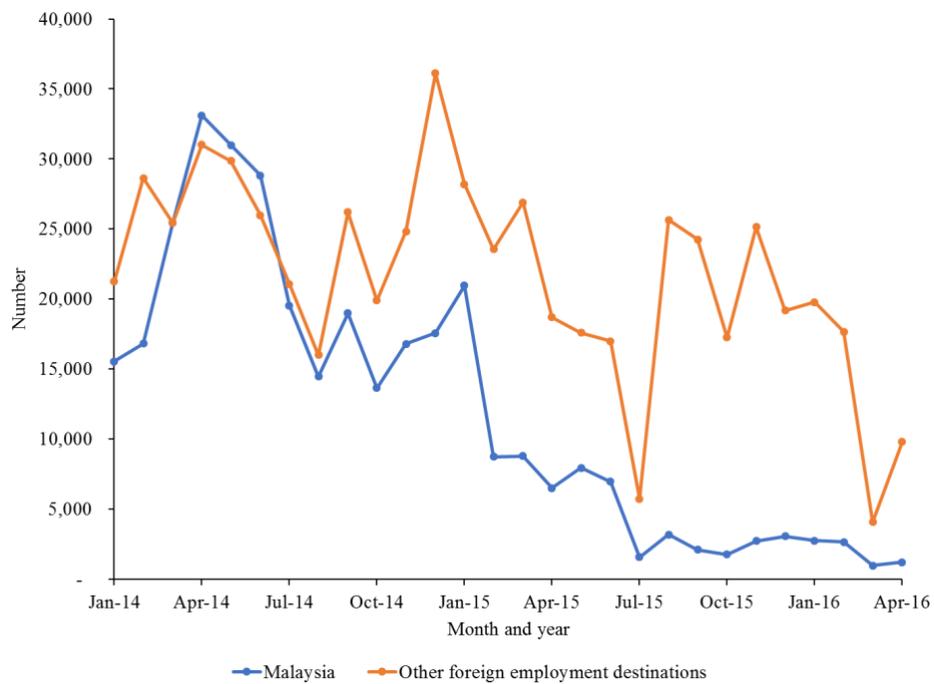
Source: Calculations based on data from the Department of Foreign Employment, Government of Nepal.

Table 4: Effect of the 2015 Earthquake on Male Foreign Employment Worker Outflow

Quarterly data from January 2013 to December 2015

	Logged quarterly foreign employment outflow by home district and destination	
	Agency-based outflow	Individual-based outflow
	(1)	(2)
Post earthquake	0.168***	-0.131***
	(0.03)	(0.03)
Earthquake-affected district	2.133***	2.850***
	(0.04)	(0.04)
Earthquake-affected district×post earthquake	-0.173**	0.07
	(0.05)	(0.05)
District dummies	Yes	Yes
Observations	1,121	1,087
R-squared statistic	0.92	0.91

Sources: Own estimations based on data from the Department of Foreign Employment, Government of Nepal; World Development Indicators Database; and the Global Economic Monitor Commodities Database.

Note: Dependent variable is logged quarterly outflow of male foreign employment workers from a given district to a particular destination starting from January 2013 to December 2015. The estimations are limited to the top three destinations (Malaysia, Qatar, and Saudi Arabia) that account for close to 85 percent of total male foreign employment outflow in that period. Regressions control for lagged GDP growth rates at destination and in Nepal, lagged international oil prices, and district. Earthquake affected district are the 14 districts that are considered to be the heaviest hit: Bhaktapur, Dhading, Dolakha, Gorkha, Kathmandu, Kavrepalanchowk, Lalitpur, Makwanpur, Nuwakot, Okhladunga, Ramechhap, Rasuwa, Sindhuli, and Sindupalchowk. Standard errors are reported in parentheses.

* = p<0.1, ** = p<0.05, *** = p<0.01.

Table 5: Effects of Male Youth Labor Migration on Female Youth Stayers, Trimmed Sample, 2010–11
Least Squares and Binomial Logit Estimations
Average marginal effects

Indicator	Employed	Conditional on employment						Engaged in NEA	Conditional on NEA
		Wage employed	Self-employed in ag.	Employed in industry	Employed in services	Log hours worked	Log wage earnings		Log hours in NEA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
a. Main household-level treatment indicator									
Household has male youth labor outmigrant(s)	–0.103	–0.012	0.018	0.002	0.008	–0.109**	0.085	0.013	–0.042
	(0.080)	(0.020)	(0.020)	(0.015)	(0.017)	(0.047)	(0.053)	(0.010)	(–0.030)
b. Alternative household-level treatment indicators									
Has male youth labor outmigrant(s) sending remittances	–0.066	–0.018	0.018	–0.003	0.016	–0.134***	0.101*	0.006	–0.024
	(0.085)	(0.021)	(0.022)	(0.014)	(0.016)	(0.051)	(0.057)	(0.010)	(0.032)
Has male youth labor outmigrant(s) to internal des	0.115	–0.009	0.024	0.002	0.002	–0.073	0.071	0.012	0.049
	(0.114)	(0.026)	(0.027)	(0.019)	(0.021)	(0.055)	(0.077)	(0.013)	(0.042)
Has male youth labor outmigrant(s) to India	–0.008	–0.007	0.033	–0.009	–0.079**	–0.079	0.008	0.012	–0.162***
	(0.125)	(0.033)	(0.036)	(0.025)	(0.032)	(0.073)	(0.082)	(0.013)	(0.051)
Has male youth labor outmigrant(s) to other external des.	–0.206*	–0.025	–0.003	0.010	0.035	–0.083	0.160	0.009	0.043
	(0.110)	(0.027)	(0.028)	(0.019)	(0.024)	(0.060)	(0.102)	(0.012)	(0.043)
Observations	4,446	2,040	2,040	2,040	2,040	2,040	645	4,446	1,969

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.

Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. NEA = Noneconomic activity. Ag. = agriculture. Des. = destination. The propensity score trimmed sample only includes observations with predicted values between 0.1 and 0.9 in a household-level male youth labor migration binomial logit regression. All outcome regressions control for the individual's age, marital status, schooling status, education level, and ethnicity/caste, whether the individual has a chronic illness or disability, whether the individual was ill in the last month, whether the individual is poor, community amenities and access to roads, the share of household heads employed in agriculture in the PSU, and region identifiers. Robust standard errors, clustered at the PSU level, reported in parentheses. All estimates are adjusted for sampling weights.

* = p<0.1, ** = p<0.05, *** = p<0.01.

Table 6: Effects of Male Youth Labor Migration on Male Youth Stayers, Trimmed Sample, 2010–11
Least Squares and Binomial Logit Estimations

Average marginal effects

Indicator	Employed	Conditional on employment						Engaged in NEA	Conditional on NEA
		Wage employed	Self-employed in ag.	Employed in industry	Employed in services	Log hours worked	Log wage earnings		Log hours in NEA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
a. Main household-level treatment indicator									
Household has male youth labor outmigrant(s)	–0.172	–0.01	0.011	0.017	–0.021	–0.075	0.063	0.081***	–0.016
	(0.114)	(0.032)	(0.026)	(0.027)	(0.029)	(0.049)	(0.065)	(0.024)	(0.081)
b. Alternative household-level treatment indicators									
Has male youth labor outmigrant(s) sending remittances	–0.105	–0.046	0.054**	0.014	–0.053*	–0.123**	0.073	0.109***	0.008
	(0.125)	(0.033)	(0.027)	(0.028)	(0.031)	(0.056)	(0.075)	(0.027)	–0.086
Has male youth labor outmigrant(s) to internal des.	–0.001	–0.013	–0.020	0.049	0.017	–0.193***	0.020	0.065*	0.172*
	(0.16)	(0.043)	(0.033)	(0.034)	(0.033)	(0.066)	(0.085)	(0.035)	(0.102)
Has male youth labor outmigrant(s) to India	0.087	0.001	0.025	0.013	–0.089*	0.017	0.121	0.030	–0.319***
	(0.207)	(0.048)	(0.038)	(0.042)	(0.049)	(0.097)	(0.094)	(0.040)	(0.122)
Has male youth labor outmigrant(s) to other external des.	–0.341**	0.022	0.017	0.024	–0.035	0.059	0.039	0.072**	0.089
	(0.171)	(0.052)	(0.043)	(0.041)	(0.041)	(0.073)	(0.093)	(0.036)	(0.126)
Observations	2,341	1,318	1,318	1,318	1,318	1,318	688	2,341	792

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.

Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. NEA = noneconomic activity. Ag. = agriculture. Des. = destination. The propensity score trimmed sample only includes observations with predicted values between 0.1 and 0.9 in a household-level male youth labor migration binomial logit regression. All outcome regressions control for the individual's age, marital status, schooling status, education level, and ethnicity/caste, whether the individual has a chronic illness or disability, whether the individual was ill in the last month, whether the individual is poor, community amenities and access to roads, the share of household heads employed in agriculture in the PSU, and region identifiers. Robust standard errors, clustered at the PSU level, are reported in parentheses. All estimates are adjusted for sampling weights.

* = p<0.1, ** = p<0.05, *** = p<0.01.

Table 7: Effects of Male Youth Labor Migration on Household Child's Education, Trimmed Sample, 2010–11
Ordinary Least Squares and Binomial Logit Estimations
*Average marginal effects*

Indicator	School enrollment (1)	Years of schooling (2)
a. Main household level-treatment indicator		
Household has male youth labor outmigrant(s)	0.011	0.104*
	(0.010)	(0.053)
b. Alternative household-level treatment indicators		
Has male youth labor outmigrant(s) sending remittances	0.023*	0.101*
	(0.012)	(0.055)
Has male youth labor outmigrant(s) to internal destinations	0.002	0.082
	(0.017)	(0.079)
Has male youth labor outmigrant(s) to India	0.001	0.088
	(0.014)	(0.086)
Has male youth labor outmigrant(s) to other external destinations	0.021	0.049
	(0.016)	(0.082)
Observations	6,745	

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.
Note: A youth labor migrant is defined to be an individual aged 16–34 years who is absent from the household for labor reasons at the time the 2010–11 NLSS was administered to the household and has the intention to return as reported by the household. The propensity score trimmed sample only includes observations with predicted values between 0.1 and 0.9 in a household-level male youth labor migration binomial logit regression. Child is defined as an individual aged 5–15. Child-level regressions control for age, age squared, gender, presence of a disability or health problem, consumption quintiles, the share of household heads employed in agriculture in the village, household head's education, household size, ethnicity, community amenities index, amount of travel time to paved road, and whether a natural disaster occurred in the village in the past four years. Robust standard errors, clustered at the PSU level, are reported in parentheses. All estimates are adjusted for sampling weights.
* = p<0.1, ** = p<0.05, *** = p<0.01.

Figure 11: Percent of Returned Male Youth Labor Migrants, by Destination
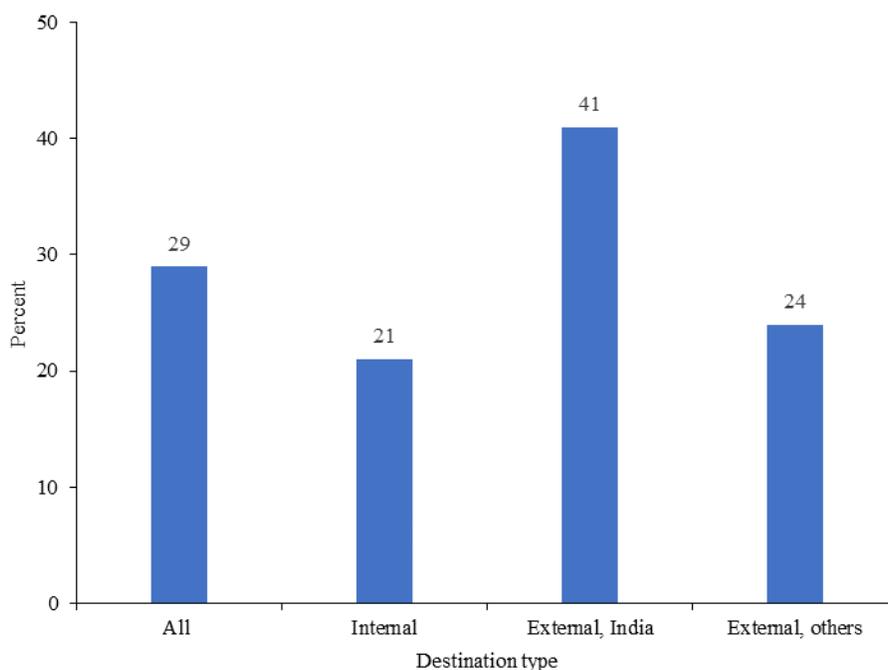
Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.
Note: A returned youth labor migrant is defined as an individual aged 16–34 years who migrated for labor in the five years before the 2010–11 NLSS was administered to the household, but is present in the household at the time of the survey. The percentages reported in the figure are estimated shares of returned youth labor migrants out of youth who migrated for labor in the five years before the 2010–11 NLSS was administered. All estimates are adjusted for sampling weights.

Table 8: Labor Outcomes of Returned Labor Migrants Relative to Nonmigrants, Male Youth, Trimmed Sample, 2010–11
Ordinary Least Squares and Binomial Logit Estimations
Average marginal effects

	Employed	Conditional on employment					Conditional on wage employment
		Wage employee	Self-emp. in ag.	Employed in industry	Employed in services	Log hours worked	Log wage earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Return migrant	–0.122***	–0.041	0.088***	0.036	–0.95***	–0.149***	–0.036
	(0.025)	(0.033)	(0.031)	(0.023)	(0.026)	(0.051)	(0.099)
a. By time of return							
Returned in the past year	–0.152***	–0.037	0.096**	–0.005	–0149**	–0.245***	–0.099
	(0.034)	(0.051)	(0.043)	(0.039)	(0.060)	(0.094)	(0.112)
Returned over a year back	–0.095***	–0.052	0.088**	–0.007	–0.084**	–0.108***	–0.026
	(0.028)	(0.038)	(0.035)	(0.032)	(0.036)	(0.054)	(0.084)
b. By return destination							
From internal destinations	–0.056	0.075	–0.048	0.126***	–0.044	–0.058	–0.016
	(0.053)	(0.063)	(0.050)	(0.039)	(0.054)	(0.123)	(0.104)
From India	–0.072**	0.085**	0.082**	0.020	–0.034	–0.133**	–0.093
	(0.034)	(0.036)	(0.040)	(0.030)	(0.037)	(0.065)	(0.103)
From other external destinations	–0.225***	–0.236***	0.210***	–0.014	–0.096**	–0.245***	0.105
	(0.034)	(0.063)	(0.049)	(0.039)	(0.043)	(0.090)	(0.178)
Observations	1,383	1,000	1,000	1,000	1,000	1,000	357

Source: Own estimates based on data from the 2010–11 Nepal Living Standards Survey.
Note: A returned labor migrant is defined as an individual aged 16–34 years who migrated for labor for at least two consecutive months in the five years before the 2010–11 NLSS was administered to the household, but is present in the household at the time of the survey. The propensity score trimmed sample only includes observations with predicted values between 0.1 and 0.9 in a household-level labor migration logit regression. All outcome regressions control for the individual's age, marital status, schooling status, education level, and ethnicity/caste, whether the individual has a chronic illness or disability, whether the individual was ill in the last 30 days, and whether the individual is poor, community amenities and access to roads, the share of household heads employed in agriculture in the PSU, and region identifiers. Robust standard errors, clustered at the PSU level, are reported in parentheses. Estimates are adjusted for sampling weights.
* = p<0.1, ** = p<0.05, *** = p<0.01.

MORE IN THIS SERIES:

1. Fostering Quality of Employment for Women
2. Where to Create Jobs: Cities or Towns?
3. Targeted SME Financing and Employment Effects: What Do We Know and What Can We Do Differently?
4. Zambia: A Review of the World Bank Group Jobs Portfolio
5. Job Creation in the Private Sector - An Exploratory Assessment of Patterns and Determinants at the Macro, Sector, and Firm Levels
6. Expanding Social Insurance Coverage to Informal Workers
7. Economic Analysis of Jobs Investment Projects: Guidance Note
8. Reducing Costs and Enhancing Benefits of Formality: From the Firm's Perspective
9. Jobs in North Lebanon: Assessment of the Potato Value Chain
10. Lending for Jobs Operations
11. Youth Labor Skill Training in Nepal
12. Why Secondary Towns Can Be Important for Poverty Reduction: A Migrant's Perspective
13. Youth Labor Migration in Nepal

WORLD BANK GROUP
Jobs

Address: 1776 G St, NW, Washington, DC 20006
Website: http://www.worldbank.org/en/topic/jobsanddevelopment
Twitter: @WBG_Jobs
Blog: https://blogs.worldbank.org/jobs/