# Return Migration and Labor Market Outcomes

## Evidence from South Asia

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## Abstract

Despite the magnitude of return migration from overseas to South Asia, the labor market outcomes of return migrants to this region have been understudied. This paper aims at filling this gap by examining systematic differences between the labor market outcomes of return migrants and nonmigrants in Bangladesh, Nepal, and Pakistan using nationally-representative surveys that include information on past migration. Conditional regression analysis is used with a focus on four labor market outcomes: (i) labor force status (ii) sectoral choice (iii) employment type, and (iv) earnings. The paper finds that return migrants are somewhat less likely to be employed than nonmigrants, which is mainly driven by returnees who returned at an older age. As evidenced in other contexts, return migrants in Bangladesh and Pakistan are more likely to become entrepreneurs compared with nonmigrants. Self-employed returnees are also more likely to hire paid employees and to be engaged in non-farm activities, compared with nonmigrant entrepreneurs. Return migrants who become employees earn a small wage premium relative to nonmigrants, compared with contexts where temporary migrants are higher-skilled. The returnee wage premium, however, is larger in the construction sector where most temporary migrants were employed overseas.

# Return Migration and Labor Market Outcomes: Evidence from South Asia[*]

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# 1   Introduction

Migration is often a temporary phenomenon, either by choice or because permanent stays in destination countries are legally prohibited. In fact, temporary migration is the rule rather than the exception in many of the major migrant-sending countries across the globe (Dustmann and Görlach 2016). This is the case of low-skilled migration from South Asia: migrants from the region go to work in the Gulf countries and Southeast Asia on the basis of fixed term employment contracts and have to return home when employment overseas ends.

A growing literature in contexts other than South Asia shows that temporary migration overseas impacts migrants' labor market outcomes after return.[1] It has been reported that return migrants bring financial and human capital back home, which allows them to start up self-employment activities and gain access to higher-paying wage employment (Dustmann and Kirchkamp 2002; Piracha and Vadean 2010; Reinhold and Thom 2013; Wahba 2015; Bossavie, Gorlach, et al. 2021). On the other hand, temporary migration may be negatively associated with labor market outcomes after return: leaving the home country for several years may result in a loss of social networks that have been shown to be critical in accessing better employment. In addition, skills that are demanded and rewarded in the home country labor market may differ from those required for work overseas, which can generate job search frictions upon return (Coniglio and Brzozowski 2018). Therefore, the association between past migration overseas and labor market outcomes back in the home country is a priori ambiguous.

South Asian countries are among the top senders of international migrants globally, and emigration from the region is largely temporary. Although evidence on the labor market outcomes of return migrants has been growing in recent years, it remains very scarce for South Asia.[2] Temporary migration from South Asian countries differs from other contexts studied by the return migration literature in several respects. First, low-skilled workers from South Asia can only migrate on the basis of temporary contractual arrangements in the main destinations, primarily the Gulf countries and Southeast Asia, and have to return once their contract expires. Second, South Asian migrants are employed in very low-skilled brawn-based occupations at destination, which could limit human capital accumulation overseas as evidenced in other contexts, and reduce incentives to take up similar work after returning home. Third, the upfront monetary costs of migration from the region are very large relative to wages both at home and at destination (Ratha and Seshan 2018), which can reduce the

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[1]For a recent review of the literature on this question, see Bossavie and Ozden (2022).

[2]To the best of our knowledge, the only exceptions are Arif (1998) and Ilahi (1999) who use data from the 1980s and 1990s in Pakistan, and more recently Bossavie, Gorlach, et al. (2021) and Bossavie, Gorlach, et al. (2022) in Bangladesh.

benefits of temporary migration for migrants (Ahmed and Bossavie 2021). Finally, domestic labor market conditions in South Asian countries tend to be poorer compared to contexts where return migration has been previously studied. An examination of the labor market outcomes of return migrants in the context of South Asia can thus bring new descriptive insights to the literature on the topic.

The paper examines the labor market outcomes of return migrants relative to nonmigrants by focusing on three major migrant-sending countries in South Asia: Bangladesh, Nepal and Pakistan where labor migration is low-skilled and temporary by design. The choice of these three countries is motivated by data availability and by the similarities of labor migration patterns from these three countries. The paper utilizes nationally-representative household surveys which collect rich information on workers' current labor market outcomes and on past migration overseas. This allows to compare the labor market outcomes of return migrants to those of nonmigrants, including overall labor supply, sectoral choice, occupational choice, and earnings. For Bangladesh and Nepal, the data sets also collect information on household members who are currently away for work overseas, which allows to compare the characteristics of return migrants with those of migrants who are still overseas.

The paper examines systematic differences in the labor market outcomes of return migrants and nonmigrants along four main outcomes: (i) labor market status and labor supply (ii) sectoral choice (iii) employment type (iv) earnings. We examine these differences both unconditionally and conditionally on workers' observable characteristics that may be associated with return migrant status. Labor market choices (i) to (iii) are modeled using multinomial choice models where past migration status is one of the regressors, along with workers' other observable characteristics. Outcome (iv) is modeled using standard Mincerian regressions where past migration status is the main explanatory variable of interest.

The estimations carried out in this paper only control for differences in observable characteristics – but not in unobservables – between nonmigrants and return migrants. Therefore, the evidence reported in this paper on the association between past migration overseas and labor market outcomes should be interpreted as descriptive rather than causal. That been said, the inclusion of control variables in our estimations does not affect much the magnitude of the estimated coefficients. This suggests that selection in return migration plays overall a limited role in the South Asian context compared to other origin countries studied by prior literature.

Regarding labor supply, we find that return migrants are less likely to be employed than nonmigrants in all three countries. The employment gap is driven by both higher levels of involuntary unemployment and voluntary inactivity among return migrants, especially, largely driven by recent return migrants. The employment rate of returnees converges to that

of nonmigrants a few years after return, although it does not fully close in Bangladesh and Pakistan, mostly driven by a lower participation of returnees who came back at an older age. As reported in other contexts, we find that being over 50 has a stronger negative impact on labor force participation among return migrants compared to nonmigrants, suggesting that savings overseas may induce some return migrants to retire early from home labor markets (Dustmann and Kirchkamp 2002). That being said, returns at an older age are the exception rather than the rule in our sample of South Asian countries, as workers from South Asia typically migrate during their youth and return before the age of 40.

We also find that the occupational choices of return migrants systematically differ from those of nonmigrants. Return migrants who are wage employed are more likely to be employed in the construction sector, the main employer of labor migrants from South Asia in the main destinations. As evidenced in other contexts, we find that return migrants are more likely to be self-employed in non-agriculture compared to nonmigrants in Bangladesh and Pakistan, but not in Nepal.

Compared to prior studies in other contexts than South Asia, we find limited evidence for a returnee wage premium for returnees who become wage workers, except in Pakistan. The estimated returnee wage premium relative to nonmigrants is only 5 percent in Bangladesh and Nepal, and statistically insignificant. It is larger in Pakistan and statistically significant. One likely explanation for the smaller returnee wage premium in the context of South Asia is the low-skilled and brawn-based nature of the occupations migrants are employed in overseas, which may limit human capital accumulation at destination. Given the physicality and tediousness of occupations at destination, migrants may also not be willing to work in these same occupations and take advantage of their experience abroad once they return home at an older age. We report, however, that the minority of return migrants who find employment in the construction sector back home - the main sector of employment at destination - experience a large and statistically significant wage premium compared to nonmigrants employed in the same sector.

The paper is organized as follows. Section 2 provides some contextual background on temporary migration from South Asia. Section 3 introduces the data for Bangladesh, Nepal and Pakistan used in the paper and reports descriptive statistics. Section 4 provides details on our empirical estimation specification. Section 5 reports and discusses our descriptive results. Section 6 concludes.

# 2 Background on Temporary Migration from South Asia

Bangladesh, Nepal and Pakistan are major migrant-sending countries globally, both in terms of the absolute magnitude of flows and stocks as well as their incidence in the working age population at origin (Ahmed and Bossavie 2021). In Nepal, the incidence of international migration is especially high: 27 percent of households have at least one member working abroad, and over a third of the male working age population has ever worked abroad (Bossavie and Denisova 2018; Bulmer, Shrestha, Marshalia, et al. 2020). In Bangladesh, about 15 percent of the male working age population is either currently working overseas or did in the past, according to data from the Household Income and Expenditure Survey (HIES). In absolute terms, Pakistan and Bangladesh respectively rank 5th and 6th in the global ranking of countries with the largest diasporas overseas. Migrants from South Asia account for 15 percent of all global migrants, and for two thirds of migrants in the Gulf Cooperation Council (GCC) countries.

Labor migration from South Asia is regionally concentrated in a handful of destinations in the GCC economies, and to a smaller extent in Southeast Asia. The GCC is a major destination of migrants globally hosting over 10 percent of the total stock of international migrants. It attracts many foreign workers, primarily from lower income countries, to fill labor shortages in low-skilled occupations in the private sector which are unattractive to natives. They provide large wage gain opportunities for workers from South Asia who can expect to earn three to four times what they earn back home (Ahmed and Bossavie 2021). Migration from Bangladesh, Nepal and Pakistan is especially concentrated in Saudi Arabia and the United Arab Emirates: over 80 percent of Pakistanis and over half of Bangladeshis working overseas are employed in one of these two countries, while half of temporary migrants from Nepal are employed in Saudi Arabia alone.

Given the low skill level of the workforce in Bangladesh, Nepal and Pakistan, combined with high demand for low-skilled labor in the main destinations, temporary migration from South Asia is low-skilled for international standards. The average migrant from Bangladesh, Nepal or Pakistan has incomplete secondary education and a large share of migrants have completed primary education at most: 40 percent of labor migrants from Pakistan to the United Arab Emirates (UAE) have low education, compared to 70 percent of Nepalese migrant workers to Qatar. In Bangladesh, the share of international migrants who have at most completed primary education is 34 percent. In comparison, low-skilled migrants represent only 6 percent and 5 percent of workers from the Philippines going to Qatar and Saudi Arabia, respectively.

Low-skilled labor migration from South Asia is temporary by design, as permanent stay in the main destinations of low-skilled migrants from the region is prohibited. The main host countries of migrants from South Asia in the GCC and Southeast Asia only grant temporary residence rights to low-skilled migrants. In the GCC countries, the acquisition of citizenship is effectively prohibited, irrespective of their duration of stay in the destination countries (Wahba 2015; Fargues 2011; Fargues and De Bel-Air 2015).[3] In addition, staying in the main destinations is strictly conditional on holding a valid employment contract, which is for a fixed time duration. Temporary migrants however have the possibility to renew their labor contract and work permit at destination, if there is demand for further work by the employer at destination (Bossavie, Gorlach, et al. 2021). An expiration of the employment contract without renewal, or a layoff by the employer automatically entails returning to the home country. In this institutional setting, a job loss or the expiration of the employment contract at destination is the main reason for returning.[4] In Bangladesh, Nepal and Pakistan, the average duration of stay overseas of return migrants estimated from surveys is 6.5, 2 and 1.8 years, respectively.

# 3 Data

## 3.1 Household Survey Data

Suitable microdata to carry out a detailed analysis of temporary and return migration is rare globally (Bossavie and Ozden 2022), including for South Asia. Administrative data at origin in Bangladesh, Nepal and Pakistan only records temporary migrants once they exit the origin country, but not when they return. The only microdata for South Asian countries that allow to identify return migrants are national household surveys. In those surveys, return migrants are captured at the time they have returned home after completing their most recent migration spell overseas. Such surveys in origin countries are suitable to carry out nationally-representative comparisons of the characteristics and labor market outcomes of return migrants with those of nonmigrants, including participation in labor market activities, type of employment after return and labor earnings. The drawback, however, is that the number of return migrants captured can be small due to the relatively low incidence of recent return migrants in the total country population, combined with the fact that survey questions

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[3]According to the sponsorship system that regulates migration to the GCC, labor migrants can only enter and stay in the country through a sponsor, a local employer, which takes on both legal and economic responsibility for the migrant worker.

[4]The termination of employment abroad is reported as the main reason for returning home by labor migrants from Bangladesh and Nepal, according to the 2018/2019 World Bank Bangladesh Return Migrant Survey (BRMS), and to 2017/2018 Labor Force Survey for Nepal

typically restrict the recall period for past migration episodes.[5] In addition, nationally-representative surveys lack detail on the past migration experience which would allow to link migration patterns to labor market outcomes after return. Those nationally representative surveys can be complemented by surveys targeted to return migrants, which remain very rare globally and for South Asia, with the only exception being the Bangladesh Return Migrant Survey (BRMS) 2018/2019 recently collected by the World Bank (Bossavie, Gorlach, et al. 2021).

The three nationally-representative household surveys from Bangladesh, Nepal and Pakistan used in this paper collect detailed information on current labor market outcomes of individuals. They also ask a few questions about past migration overseas. All surveys also collect information on how long returnees have been back home, which enables to shed light on the relationship between duration of stay back in the home country and labor market outcomes, as reintegration back into home labor markets may take time. These surveys also allow to carry out a profiling of return migrants and to compare their characteristics to those of nonmigrants, shedding light on selection in return migration.

The extent of information collected on past migration differs in the three surveys. The 2017/2018 Labor Force Survey (LFS) for Nepal collects the most comprehensive data on past migration. It includes a dedicated module on past migration overseas by current household members, which asks about country of destination, occupation at destination, wages abroad, date of departure and date of return. It also includes a module on current absentees overseas which allows to compare the characteristics of current migrants and returnees. For Bangladesh, the analysis uses the 2016/2017 Household Income and Expenditure Survey (HIES) where information on past migration overseas is much more parsimonious. The survey asks current household members whether they have returned from abroad in the past five years, but does not ask further questions about the past migration experience.[6] We are however able to complement the HIES data with detailed data on return migrants from the World Bank Bangladesh Return Migrant Survey (BRMS) 2018/2019 which was targeted to households with a return migrant.[7] In Pakistan, information on past migration overseas collected in nationally representative surveys is also quite parsimonious. The national Labor Force Survey (LFS) includes a short module on past migration, which allows to identify

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[5]National household surveys in Bangladesh, Nepal and Pakistan ask individuals whether they have returned from abroad in the past 5 years only. Therefore, individuals who returned from overseas prior to that cannot be identified from the survey data.

[6]As in Nepal, however, the survey includes an absentee module collecting basic demographic information on household members that are currently absent from the household for work overseas, together with their country of destination, year of departure and occupation.

[7]For more details about the Bangladesh Return Migrant Survey (BRMS), see Bossavie, Gorlach, et al. (2021).

household members that have returned from abroad in the past 5 years and when they returned, but with no additional information. In contrast with Bangladesh and Nepal, no information on current migrants is collected. As the number of return migrants from overseas captured by each wave of the Pakistan LFS can be small relative to the working age population, we pool together the 2014/2015 and 2017/2018 waves of the survey to increase the number of return migrants in the Pakistan sample. In all three countries, an individual is categorized as a return migrant if he has returned from overseas in the past 5 years, which is the recall period used in all three surveys. Return migrants in the sample are thus relatively recent returnees, which must be kept in mind in the interpretation of the results. For all three countries, since over 95% of temporary migrants (and thus return migrants) are males, we restrict our analysis to males of working age (between age 20 and 59).

## 3.2  Descriptive Statistics

Descriptive statistics of the sample of return migrants compared to nonmigrants are reported in Table 1 for individuals aged 20 to 59, as well as the p-value for the corresponding t-tests between two samples.[8] As shown in Table 1, return migrants to South Asia are by a very large majority males, reflecting the very low share of female migrants (Ahmed and Bossavie 2021).[9] This gender pattern is driven by very low levels of domestic female labor force participation (Farole et al. 2017; Amir et al. 2018; Bulmer, Shrestha, Marshalia, et al. 2020), combined with difficult work conditions and risk of abuses at destination, as well as regulations in sending countries which in some cases explicitly restrict female migration to avoid abuses (Ahmed and Bossavie 2021). Given the very low incidence of migration among female workers, we restrict the remainder of our analysis of return migrants' characteristics and labor market outcomes to males.

As shown in Table 1 and Figure 1, return migrants are somehow higher skilled than nonmigrants in all three countries. The difference in the average years of schooling attained by return migrants and nonmigrants is substantial and statistically significant in Bangladesh, Nepal and Pakistan. In particular, the share of return migrants who have not attended school is much lower than for nonmigrants in all three countries, and workers with lower secondary education are over-represented among return migrants. However, return migrants are less likely to have some tertiary education than nonmigrants, especially in Nepal and Pakistan.

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[8]Summary statistics for the full samples of male workers in Bangladesh, Nepal and Pakistan are reported in Table A1.

[9]In Bangladesh, according to the Bangladesh Return Migration Survey (BRMS), about 4 percent of return migrants from overseas are females, a similar share as the proportion of female outmigrants from the country. In Nepal, the proportion of females among return migrants is also around 4 percent and lower than among current migrants, which partly reflects an increase in female migration in recent years.

The patterns largely originate from selection in emigration: as shown in Table A2, male temporary migrants from Bangladesh and Nepal attained a higher level of schooling than the nonmigrant male population. There is, however, a non-linear relationship between years of schooling and the likelihood to migrate overseas. In Bangladesh and Nepal, the likelihood to emigrate strongly increases for individuals that have completed primary school and have some secondary schooling and is highest for those groups (Figure A1).[10] It then declines for individuals that completed secondary school and decreases sharply for those who have some tertiary education. The lower likelihood to migrate among tertiary-educated individuals may be explained by better access to higher paying jobs domestically, such as public sector jobs (Farole et al. 2017), combined with a low demand for foreign high-skilled labor in the main destination countries.[11] This selectivity in emigration helps explain systematic differences in educational attainment between male return migrants and nonmigrants reported in Table 1.

Figure 1 also compares the educational attainment distribution of current migrants and return migrants in Bangladesh, the two countries for which this data is available. In the context of temporary migration from South Asia, one would expect no or very little selection in return migration as migrants are ultimately obliged to return to the home country. As shown in Figure 1, return migrants in Nepal and Bangladesh are somehow less educated than migrants who are still overseas. However, this static evidence may not be interpreted as negative selection of return migrants among current migrants, as it also captures cohort effects: return migrants belong to older cohorts that are on average less educated compared to current migrant cohorts.

As shown in Figure 2, return migrants are also disproportionately in prime working age compared to nonmigrants in all three countries. This is mainly because workers from South Asia migrate overseas at a relatively young age (Table 1), combined with a relatively short duration of stay of typically only a few years. In Bangladesh, return migrants tend to be older than in Nepal, both because of an older mean age at departure and a longer average duration of stay overseas (Table 1). The concentration of migrants among prime age individuals is a pattern that was evidenced globally as the costs of migrating tend to be smaller for younger individuals (World Bank 2018). In the context of migration from South Asia, this is likely reinforced by the fact that migrants are largely employed in physically demanding and tedious occupations which require good health and physical strength.

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[10]One would expect the returns to migrating to the GCC countries to be high for low-educated workers. Years of schooling, however, are correlated with income and wealth, and poorer workers face stronger liquidity and credit constraints to migrate in the South Asian context where migration costs are also very high (Ratha and Seshan 2018; Ahmed and Bossavie 2021)

[11]Although workers with tertiary education are less likely to migrate than workers with secondary education, they remain over-represented among migrants compared to nonmigrants.

# 4 Empirical Specification

We descriptively investigate differences in the labor market outcomes of nonmigrants and return migrants and their correlates by looking at four sets of labor market indicators available in the data: (i) labor market status, (ii) sectoral choice, (iii) employment type, (iv) earnings. Labor market status is a categorical variable consisting of three categories: employed, unemployed (not employed but looking for employment) and inactive (not employed and not looking for employment). The latter two allow to distinguish between voluntarily versus involuntary unemployment. The sectoral choice variable consists of four categories: (i) agriculture (ii) manufacturing (iii) construction, and (iv) services. We chose to report construction as a separate stand alone category as it is the main sector of employment of return migrants while they were overseas. Occupational choice is a categorical variable consisting of three categories: paid employee, self-employed in agriculture, and self-employed in non-agriculture. We distinguish between farm and non-farm self-employment owing to the very different nature of farm production activities and the earnings they can generate. Self-employment can be also separated into two groups according to whether hiring employees or not. Finally, earnings is a continuous variable capturing workers' hourly earnings. One limitation of the earnings variable is that it is only available for wage employees, and not for the self-employed. This needs to be kept in mind when interpreting the results of the Mincerian regressions.

To estimate the correlates of labor market status, sectoral choice and employment type, we pool the samples of return migrants and nonmigrants together. For categorical labor market outcomes, we estimate multinomial logit models where the categorical variable of interest is regressed on a set of workers' observable characteristics, including return migrant status, our main explanatory variable of interest. Formally, we estimate the following equation:

$$y_i = \alpha_1 + \beta_1 R_i + X_i \gamma_1 + \varepsilon_i \tag{1}$$

In Equation (1), $y_i$ is the categorical variable for the corresponding labor market outcome of interest; $R_i$ is a dummy variable which equals one for return migrants, and zero otherwise. We are primarily interested in estimating the coefficient $\beta_1$, which measures the conditional association between past migration overseas and current labor market outcomes in the home country. $X_i$ is a vector of control variables for workers' observable characteristics that may be correlated with return migrant status, including age cohort dummies, educational attainment dummies, type of location, marital status, head of household status, household size, and the number of dependents in the household (younger than 15 years or older than 64 years). $\varepsilon_i$ is the error term following a logistic distribution. We first run these regressions

on the pooled sample of return migrants and nonmigrants. We also run them on the two subsamples separately, to examine possible systematic differences in the role of observable characteristics such age or educational attainment in the labor market outcomes of returnees and nonmigrants.

For earnings, we estimate standard Mincerian equations where returnee status is included as a regressor to capture conditional systematic differences in the earnings of return migrants relative to nonmigrants, among workers who are paid employees. Formally, we estimate the following Mincerian regression:

$$\ln w_i = \alpha_2 + \beta_2 R_i + X_i \gamma_2 + u_i \tag{2}$$

where $\ln w_i$ is the logarithm of hourly earnings of the wage worker while other explanatory variables are identical to those in $X_i$ in Equation (1). To assess the role played by differences in observable characteristics in the returnee-nonmigrant earnings gap, we first estimate $\beta_2$ unconditionally, and then conditionally on $X_i$. As the majority of return migrants from South Asia were employed in the construction sector at destination, we also estimate the returnee wage premium separately for the susbsample of workers employed in the construction sector after return, as there could be greater wage gains for return migrants who found employment in this same sector back home. The sample used to run these Mincerian regressions is restricted to workers who were wage employees at the time of the survey, due to the availability of the earnings variable only for wage workers.

## 5 Results

### 5.1 Labor Supply

The participation of return migrants in economic activities back home may systematically differ from that of nonmigrants for several reasons.[12] This may occur because return migrants differ from nonmigrants in unobservable and observable characteristics, but also because of the migration experience itself. The sign of the association between past migration overseas and labor supply in home labor markets is unclear, a priori. On the one hand, past migration may decrease labor supply. Higher earnings and savings overseas may raise reservation wages and reduce incentives to find employment back home, especially among older individuals closer to retirement age. In addition, at least in the short run, migrants may want to allocate more time for leisure after spending several years away from relatives, as part of their lifecycle optimization plan (Dustmann and Kirchkamp 2002). Third, if the human capital

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[12]For a recent review of the literature on the topic, see Bossavie and Ozden (2022).

and experience accumulated overseas does not match demand in home labor markets, job search frictions may lead to higher unemployment among return migrants (Lucas 2005). On the other hand, past migration overseas may increase participation in economic activities at home by raising workers' human and financial capital and thus workers' productivity and earnings potential back home. The sign of the association between past migration overseas and labor supply in home labor markets is therefore an empirical question.

Few studies have investigated the labor market participation of return migrants compared to nonmigrants, and existing evidence on this question is mainly descriptive. Dustmann and Kirchkamp (2002) find that a sizeable share of return migrants from Germany to Turkey retire at an early age, presumably thanks to savings accumulated abroad.[13] Some studies evidenced that a longer duration of stay at destination can increase the likelihood to be unemployed after returning due to higher reservation wages (Piracha 2015). In the South Asian context, earlier work by Arif (1998) and Ilahi (1999) using data from Pakistan reports that return migrants from the Middle East are less likely to be employed than nonmigrants.

Table 2 and Figure 3 first display the labor market status of return migrants compared to nonmigrants by age in Bangladesh, Nepal and Pakistan. Labor market status is summarized by three indicators: (i) employment rate, defined, as the share of the working age population that is employed; (ii) labor force participation rate, defined as the share of working age population that is either employed or actively looking for employment; and (iii) unemployment rate, defined as the share of the economically active population (participating into the labor force) who is employed. First, employment rates are systematically lower among return migrants than nonmigrants in all three countries. The difference in employment rates between the two groups is statistically significant and larger in Nepal and Pakistan compared to Bangladesh (Table 2). This finding is consistent with the results of Arif (1998) and Ilahi (1999) using earlier data from Pakistan.

Figure 4, however, shows that the gap in employment rates between return migrants and nonmigrants declines with the number of years since the return. While the employment gap between returnees and non migrants is large one year after return, it diminishes with duration of stay, driven by both a decline in the unemployment rate and an increase in labor force participation.

Table 3 shows the effect of the duration of stay on return migrants back home, controlling for other individual worker characteristics: the negative association between past migration overseas and the likelihood of being employed decreases with duration of stay at home for all three countries. In Nepal, there is no statistically significant difference in the likelihood of being employed between nonmigrants and return migrants who have returned 3 years ago or

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[13]The mean age of return migrants who are out of the labor force in their sample is 45 years old.

more. In Pakistan and Bangladesh, the employment gap is smaller for less recent returnees, but it remains statistically significant for those who have returned 3 years ago or more. The negative employment gap of return migrants relative to nonmigrants is thus partly transitory and mostly observed in the years immediately after the return. As recent returnees have, by definition, to look for employment compared to nonmigrants who were already working in the country, the unemployment rate of return migrants is inflated by recent returnees (Ilahi 1999). For this reason, we restrict the rest of our analysis comparing the occupational choice of return migrants and nonmigrants to returnees who have returned for at least 24 months.

The lower employment rates observed among recent returnees may be voluntary or involuntary. To unpack this, we separately examine the unemployment rate and labor force participation among return migrants compared to nonmigrants. As shown in Figure 3, the lower employment rates of return migrants are driven by both higher unemployment rates and lower rates of labor force participation in Bangladesh and Nepal. In Pakistan, the labor force participation rate of returnees is very similar to that of nonmigrants, and the employment gap is largely driven by involuntary unemployment. This suggests that return migrants face job search frictions associated with finding employment back in South Asia, but may also have lower incentives to participate to the labor force after a migration episode overseas due to assets accumulated overseas.

To assess whether return migrants are more likely to exit the labor force at a younger age in the context of South Asia, as suggested by prior literature, we examine the labor supply of return migrants and nonmigrants separately by age group.[14] As visually depicted in Figure 3, the labor supply of return migrants drops more sharply in Nepal and Pakistan after age 45 and 50, respectively, but not in Bangladesh.

We then examine the relationship between current labor market status and age by past migration status, in a conditional multinomial regression setting. As shown in Tables 4 and 5, the negative association between the age group 50-59 dummy and the likelihood of being employed is larger for return migrants than nonmigrants in all three countries (Columns 1, 2 and 6 of Tables 4 and 5). In Nepal and Pakistan, where separate information on unemployment and labor force participation is available, this originates from a greater increase in the probability of being out of the labor force among returnees ages 50-59. Older returnees who returned home at an older age thus drop out of the labor force earlier than nonmigrants, possibly because they were able to accumulate enough assets to retire at a faster pace due to higher wages. In contrast, we do not observe any systematic differences in

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[14]Prior studies in other contexts, such as Dustmann and Kirchkamp (2002) in Turkey or Piracha and Vadean (2010) in Albania find that a sizeable share of return migrants retire at an early age, presumably thanks to savings accumulated abroad.

the coefficient on the age group dummy 40-49 between return migrants and non migrants, suggesting that the age effect is concentrated among individuals that are close to retirement age. When interpreting our results, it is important to keep in mind that our sample of return migrants only consists of return migrants who came back home in the last 5 years. As a result, inference from our analysis can only be drawn for the population of recent returnees. In particular, older returnees as captured by the survey data are also individuals who returned home at an older age.

## 5.2   Occupational choice

Conditional on being employed, the occupational choices of return migrants may also systematically differ from those of nonmigrants. We first examine the sectoral choice of return migrants relative to nonmirants, which has not been much examined by prior literature. As migrants from South Asia acquire sector-specific experience overseas, primarily in the construction sector (Ahmed and Bossavie 2021), they may be more likely to operate in those sectors after returning home to take advantage of the wage returns to experience. We first look at the unconditional distribution of return migrants across sectors of activity, compared to nonmigrants. As shown in Table 2, return migrants to South Asia are more likely to be employed in the construction sector back home compared to nonmigrants in Nepal and Pakistan, but not in Bangladesh. The difference in sectoral distribution between nonmigrants and return migrants is statistically significant in Nepal and Pakistan, while it is insignificant in Bangladesh. In Table 6, we estimate the likelihood of being employed in four main sectors of activity in a multinomial regression setting, controlling for workers' observable characteristics. In all three countries, being a return migrant increases the likelihood of being employed in the construction sector. Return migrants thus disproportionately select into occupations they were employed in at destination when they return home.

A growing body of literature also shows that return migrants are likely to become self-employed or entrepreneurs in various contexts. When options for formal wage employment at home are limited, temporary migration can be a way for aspiring entrepreneurs to ease credit constraints at home by accumulating financial capital abroad and start a business after return (Dustmann and Kirchkamp 2002; Bossavie, Gorlach, et al. 2021). The higher propensity to become self-employed among return migrants has been evidenced by Dustmann and Kirchkamp (2002) in Turkey, Mesnard (2004) in Tunisia, Piracha and Vadean (2010) in Albania, and Wahba and Zenou (2012) and Wahba (2015) in the Arab Republic of Egypt. In the context of South Asia, earlier work by Arif (1998) and Ilahi (1999) in Pakistan also reports that return migrants are more likely to be self-employed compared to nonmigrants.

One would expect similar findings for other South Asian migrants, as the lack of access to credit is an important constraint to entrepreneurship in the region (Bossavie, Gorlach, et al. 2022). In addition, spending several years abroad in lower skilled occupations may reduce access to wage employment for return migrants, reducing the opportunity cost of entrepreneurial activities.

We first examine the choice of employment type by return migrants and nonmigrants descriptively, unconditional on workers' characteristics (Table 2). In Bangladesh and Pakistan, the incidence of self-employment, particularly of non-farm self-employment, is significantly higher among return migrants than nonmigrants. The difference between the two groups is statistically significant in both countries. In Nepal, however, there is no statistical difference in the unconditional likelihood of being self-employed among return migrants. This may indicate that migrants from Nepal do not benefit as much from their migration experience compared to workers from Bangladesh or Pakistan, or that starting up self-employment after return is not a driver of temporary migration as it is in Bangladesh and Pakistan.

We then estimate a pooled multinomial logit occupational choice model to assess whether the highest propensity to become self-employed among return migrants is robust to controlling for workers' observable characteristics, such as age or educational attainment. As shown in Table 7, being a returnee remains significantly associated with non-farm self-employment in Bangladesh and Pakistan, and the association is especially large in Bangladesh. In addition, in all three countries, age significantly increases the likelihood of being self-employed in the non-farm sector, which likely reflects the need to accumulate sufficient assets over the life cycle to start up a business.

In addition to being more likely to be self-employed, return migrants are also more likely to hire paid employees in Bangladesh and Pakistan (to be an employer), as opposed to being own account workers without any employees (Table 2). The difference in the share of workers who are entrepreneurs among return migrants and nonmigrants is quite large and statistically significant in Bangladesh and Pakistan. The association between return migrant status and entrepreneurship is robust to controlling for observable characteristics in a multinomial logit regression setting (Table 8). Self-employed individuals hiring paid employees in developing economies have been categorized as "successful" entrepreneurs by the literature (Piracha and Vadean 2010; Gindling and Newhouse 2014). This suggests that return migrants also contribute to job creation in the home economy, in addition to being able to start their own account enterprise.

In all three countries, higher levels of education are associated with an increased probability of being in non-farm self-employment, except at the tertiary level. This finding is consistent with the work by Ilahi (1999) using earlier data on return migrants from Pak-

istan, as well as in other contexts such as Eastern Europe (Lianos and Pseiridis 2009). This positive relationship between educational attainment and non-farm entrepreneurship has been attributed to the importance of managerial and entrepreneurial talent in non-farm self-employment activities, for which educational attainment can act as a proxy (Gindling and Newhouse 2014). In addition, higher levels of education increase earnings potential prior to self-employment and thus allow to accumulate start-up capital faster. One likely reason for the negative association between tertiary education and self-employment is that tertiary-educated workers in South Asia typically have access to higher-paying formal wage jobs (Farole et al. 2017; Cho and Majoka 2020; Bulmer, Shrestha, Marshalia, et al. 2020) which are preferred to self-employment, as argued by the "parking lot" hypothesis of Harris and Todaro (1970). Low-skilled return migrants, on the other hand, are more likely to become informal wage workers or non-farm self-employed after return, a finding that has been reported in other contexts than South Asia (Borodak and Piracha 2011).

The pooled multinomial logit specification assumes that the coefficients on observable characteristics are identical for return migrants and nonmigrants. Those, however, may differ between the two groups. Human capital may for example matter differently in the occupational choice of returnees. Spending several years abroad in lower skilled occupations may reduce access to higher-wage domestic occupations for return migrants, as opposed to workers who always worked in the domestic labor market.[15] In addition, while there is a robust positive relationship between age and the likelihood to be self-employed in developing economies, including South Asia (Gindling and Newhouse 2014), this relationship may differ for workers who return from abroad, as higher earnings overseas can allow them to accumulate savings faster.

To assess this possibility in the context of South Asia, we run multinomial logit regressions on the subsamples of return migrants and nonmigrants separately. The results are reported in Table A3 and Table A4. Higher levels of educational attainment increase the likelihood of becoming self-employed after return among return migrants, except at the tertiary level in Nepal and Pakistan. The magnitude of the education level coefficients are similar to nonmigrants in Pakistan, but somewhat larger for returnees than nonmigrants in Nepal and Pakistan. The effect of tertiary education on the likelihood of becoming self-employed after

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[15]In the context of Pakistan, an earlier study by Ilahi (1999) has shown that higher skilled returnees to Pakistan exhibit a greater propensity for wage employment over self-employment as they command higher wages in the labour market. Similarly, McCormick and Wahba (2001) report evidence that self-employed returnees in Egypt are literate but with a low education level. In contrast, Dustmann and Kirchkamp (2002) find a positive relationship between schooling and self-employment activities in the case of return migrants to Turkey respectively, and explain this by the fact that education can have a positive effect on the returns to self-employment activities.

return, however, varies across the three countries.[16] In Pakistan, in a similar way as for nonmigrants, having some tertiary education decreases the likelihood of becoming non-farm self-employed among return migrants.

## 5.3   Earnings

Prior evidence drawn from various contexts reports systematic differences in the earnings of return migrants compared to nonmigrants. In addition to being more skilled than nonmigrants before migration, temporary migrants can acquire human capital abroad, resulting in greater labor productivity at home (Borjas and Bratsberg 1996; Dustmann and Weiss 2007; Dustmann, Fadlon, and Weiss 2011; Docquier and Rapoport 2012). Empirically, a growing literature has been reporting a positive wage premium earned by return migrants relative to nonmigrants, after controlling for the selectivity of return migration.[17]

Prior estimates of a positive returnee wage premium are mainly drawn from contexts where workers are employed in higher skilled occupation at destination compared to those of South Asian migrants. As migrant workers from South Asia are primarily employed in brawn-based occupations in the construction sector at destination, this may limit opportunities for human capital accumulation. Several studies indeed show that the extent to which migrants and home countries benefit from return migration depends on their migration experience. Mayr and Peri (2009) and Dustmann, Fadlon, and Weiss (2011) find that those benefits depend on whether returning temporary migrants can use the experience gained abroad in the home labor market. McCormick and Wahba (2001), Ambrosini et al. (2015) and Wahba (2015) find that highly educated returnees benefit more from the skills they acquired abroad. In addition, migrants' country of destination has been shown to matter in the benefits of return migration (Carletto and Kilic 2011). It is therefore unclear whether return migrants to South Asia enjoy comparable wage gains as evidenced in other contexts.

To assess whether return migrants earn a wage premium upon return relative to nonmigrants, we estimate Mincerian regressions where the logarithm of waged earnings in South Asian countries is regressed on a dummy indicator for being a return migrant. In Table 9, we first estimate the returnee wage premium unconditionally, i.e. without controlling for other observable characteristics of return migrants that may be correlated with return mi-

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[16]Return migrants with tertiary education, however, represent a minority of return migrants from South Asia in the three countries studied.

[17]A positive wage premium for return migrants has been reported for Hungary (Gang and Yun 2000), Albania (De Coulon and Piracha 2005), Romania (Ambrosini et al. 2015), Ireland (Barrett and Goggin 2010), Mexico (Reinhold and Thom 2013), several West African countries (De Vreyer, Gubert, and Robilliard 2010) and Egypt (Wahba 2007; Wahba 2015). For a recent summary of this literature, see Bossavie and Ozden (2022).

grant status. The estimated returnee wage premium is 6% in Bangladesh (Column 1), 2% in Nepal (Column 4) and 16% in Pakistan (Column 7). Next, we estimate the return wage premium controlling for other workers' characteristics, as we evidenced earlier that return migrants to South Asia are positively selected among the working age population at home. The magnitude of the estimated coefficient of interest is not much affected by the inclusion of additional control variables. In Bangladesh, the estimated wage premium declines from 6% to 5% (Column 2), and is only marginally statistically significant once workers' observable characteristics are controlled for. In Nepal, the returnee wage premium increases from only 2% to 7% (Column 5). In Pakistan, the wage premium remains almost unchanged at about 16%.

The returnee wage premium for South Asian return migrants, especially for Nepal and Bangladesh, is on the low end of estimates drawn from other contexts, especially when compared to settings where return migrants are higher skilled (Wahba 2015). As temporary migrants from South Asia are largely low-skilled, this finding is consistent with an emerging consensus from the literature which suggests that higher skilled return migrants benefit most from the migration experience in the form of higher wages (Bossavie and Ozden 2022). In Bangladesh and Nepal, the estimated wage premium is also lower than in other settings where migration is largely low-skilled, such as for return migration from the US to Mexico (Lacuesta 2010; Reinhold and Thom 2013). As our estimations do not account for selection on unobservable characteristics and since temporary migrants are positively selected among the male working age population in South Asia, the returnee wage premium could be even lower than reported by our estimates. One likely explanation for this finding is the concentration of temporary migrants from South Asia into brawn-based and tedious occupations overseas which limits opportunities for human capital accumulation, and also reduces the likelihood that migrants will be employed in the same occupations when they return home at an older age.

Prior literature suggests that the benefits of past migration depend on whether returning temporary migrants can use the experience gained abroad in the home labor market (Mayr and Peri 2009; Dustmann, Fadlon, and Weiss 2011). To test this hypothesis, we estimate the returnee wage premium for the subsample of return migrants and nonmigrants who are employed in the construction sector back home, the main sector of employment at destination. As shown in Columns 3, 6 and 9 of Table 9, the returnee wage premium is significantly larger for returnees employed in the construction sector compared to the full sample. It is about 27 percent in Bangladesh and Pakistan and lower in Nepal, although still larger than in the full sample. Although the evidence we provide is descriptive and cannot be causally attributed to the effects of past migration, return migrants who find employment in the main

sector of employment overseas back home experience a significant wage premium compared to returnees who find employment in other sectors. Those, however, are a minority in our sample: only 6%, 28% and 15% of return migrants to Bangladesh, Nepal and Pakistan, respectively, are employed in the construction sector.

# 6   Conclusion

This paper reported systematic differences in the labor market outcomes of return migrants compared and nonmigrants in South Asian countries, which are major senders of temporary migrants globally. While some of these differences are partly driven by the selection of return migrants among the working age population, they subsist when controlling for workers' observable characteristics. In particular, we find that return migrants who come back at an older age are less likely to participate to the labor force compared to nonmigrants with similar observable characteristics. Return migrants are also more likely to be self-employed compared to nonmigrants, and to hire paid employees among those that become entrepreneurs. Those who are wage employees upon return are more likely to be employed in the construction sector, the main sector of employment at destination, compared to nonmigrants. Return migrants who are paid employees earn a significant wage premium compared to nonmigrants in Pakistan, but not in Bangladesh and Nepal. The returnee wage premium, however, is larger and statistically significant in the construction sector, suggesting that return migrants who find employment in this sector benefit from their experience abroad.

This paper however also illustrates the limitations of standard nationally-representative data sets when looking at the relationship between past migration overseas and labor market outcomes back home. Given the parsimonious information on past migration overseas included in those surveys, the evidence reported in this paper is descriptive rather than causal. To investigate in detail the causal link between temporary migration overseas and labor market outcomes back home, much more comprehensive information on past migration overseas needs to be collected in nationally representative surveys of South Asian countries, in the spirit of the Egyptian Labor Market Survey (Wahba 2015). In addition, dedicated migrant surveys that collect detailed retrospective information on employment and migration history, such as the World Bank Bangladesh Return Migrant Survey (BRMS), are well-suited for that purpose, but remain quite scarce globally (Bossavie, Gorlach, et al. 2021; Bossavie and Ozden 2022).

# References

Ahmed, Amer and Laurent Bossavie (2021). *Towards Safe and Productive Migration in South Asia*. World Bank Group: Washington DC.

Ambrosini, William, Karin Mayr, Giovanni Peri, and Dragos Radu (2015). "The Selection of Migrants and Returnees in Romania: Evidence and Long-run Implications". In: *Economics of Transition* 23.4, pp. 753–793.

Amir, Saman, Aphichoke Kotikula, Rohini P Pande, Laurent Loic Yves Bossavie, and Upasana Khadka (2018). "Female Labor Force Participation in Pakistan". In:

Arif, Ghulam Mohammad (1998). "Reintegration of Pakistani return migrants from the Middle East in the domestic labour market". In: *The Pakistan Development Review*, pp. 99–124.

Barrett, Alan and Jean Goggin (2010). "Returning to the question of a wage premium for returning migrants". In: *National Institute Economic Review* 213, R43–R51.

Borjas, George and Bernt Bratsberg (1996). "Who Leaves? The Outmigration of the Foreign-Born". In: *The Review of Economics and Statistics* 78.1, pp. 165–76.

Borodak, Daniela and Matloob Piracha (2011). "Occupational choice of return migrants in Moldova". In: *Eastern European Economics* 49.4, pp. 24–46.

Bossavie, Laurent and Anastasiya Denisova (2018). "Youth labor migration in Nepal". In:

Bossavie, Laurent, Joseph-Simon Gorlach, Caglar Ozden, and He Wang (2021). "Temporary Migration for Long-term Investment". In:

— (2022). "Institutional Voids, Capital Markets and Temporary Migration: Evidence from Bangladesh". In: *World Bank Policy Research Working Paper* 9930.

Bossavie, Laurent and Caglar Ozden (2022). "Impacts of Temporary Migration on Development in Origin Countries".

Bulmer, Elizabeth Ruppert, Ami Shrestha, Michelle Marshalia, et al. (2020). *Nepal Jobs Diagnostic*. Tech. rep. The World Bank.

Carletto, Calogero and Talip Kilic (2011). "Moving up the ladder? The impact of migration experience on occupational mobility in Albania". In: *Journal of Development Studies* 47.6, pp. 846–869.

Cho, Yoonyoung and Zaineb Majoka (2020). *Pakistan jobs diagnostic: Promoting access to quality jobs for all*. World Bank.

Coniglio, Nicola Daniele and Jan Brzozowski (2018). "Migration and development at home: Bitter or sweet return? Evidence from Poland". In: *European Urban and Regional Studies* 25.1, pp. 85–105.

De Coulon, Augustin and Matloob Piracha (2005). "Self-selection and the Performance of Return Migrants: the Source Country Perspective". In: *Journal of Population Economics* 18.4, pp. 779–807.

De Vreyer, Philippe, Flore Gubert, and Anne-Sophie Robilliard (2010). "Are there Returns to Migration Experience? An Empirical Analysis Using Data on Return Migrants and Non-migrants in West Africa". In: *Annals of Economics and Statistics/Annales d'économie et de statistique* 97, pp. 307–328.

Docquier, Frédéric and Hillel Rapoport (2012). "Globalization, brain drain, and development". In: *Journal of economic literature* 50.3, pp. 681–730.

Dustmann, Christian, Itzhak Fadlon, and Yoram Weiss (2011). "Return Migration, Human Capital Accumulation and the Brain Drain". In: *Journal of Development Economics* 95.1, pp. 58–67.

Dustmann, Christian and Joseph-Simon Görlach (2016). "The Economics of Temporary Migrations". In: *Journal of Economic Literature* 54.1, pp. 98–136.

Dustmann, Christian and Oliver Kirchkamp (2002). "The Optimal Migration Duration and Activity Choice after Re-migration". In: *Journal of Development Economics* 67.2, pp. 351–372.

Dustmann, Christian and Yoram Weiss (2007). "Return Migration: Theory and Empirical Evidence from the UK". In: *British Journal of Industrial Relations* 45.2, pp. 236–256.

Fargues, Philippe (2011). "Immigration without Inclusion: Non-nationals in Nation-building in the Gulf States". In: *Asian and Pacific Migration Journal* 20.3-4, pp. 273–292.

Fargues, Philippe and Françoise De Bel-Air (2015). "Migration to the Gulf States: The Political Economy of Exceptionalism". In: *Global Migration: Old Assumptions, New Dynamics*, pp. 139–166.

Farole, Thomas, Yoonyoung Cho, Laurent Bossavie, and Reyes Aterido (2017). *Bangladesh Jobs Diagnostic*. World Bank.

Gang, Ira and Myeong-Su Yun (2000). "Returns to Returning". In: *Journal of Population Economics* 13.1, pp. 57–79.

Gindling, Thomas H and David Newhouse (2014). "Self-employment in the developing world". In: *World development* 56, pp. 313–331.

Harris, John R and Michael P Todaro (1970). "Migration, unemployment and development: a two-sector analysis". In: *The American economic review*, pp. 126–142.

Ilahi, Nadeem (1999). "Return migration and occupational change". In: *Review of Development Economics* 3.2, pp. 170–186.

Lacuesta, Aitor (2010). "A Revision of the Self-selection of Migrants Using Returning Migrant's Earnings". In: *Annals of Economics and Statistics/Annales d'Économie et de Statistique* 97-98, pp. 235–259.

Lianos, Theodore and Anastasia Pseiridis (2009). "On the occupational choices of return migrants". In: *Entrepreneurship and Regional Development* 21.2, pp. 155–181.

Lucas, Robert EB (2005). *International migration and economic development: Lessons from low-income countries*. Edward Elgar Publishing.

Mayr, Karin and Giovanni Peri (2009). "Brain drain and brain return: theory and application to Eastern-Western Europe". In: *The BE Journal of Economic Analysis & Policy* 9.1.

McCormick, Barry and Jackline Wahba (2001). "Overseas Work Experience, Savings and Entrepreneurship Amongst Return Migrants to LDCs". In: *Scottish journal of political economy* 48.2, pp. 164–178.

Mesnard, Alice (2004). "Temporary Migration and Capital Market Imperfections". In: *Oxford economic paper* 56.2, pp. 242–262.

Piracha, Matloob (2015). "Occupational choice of return migrants". In: *IZA World of Labor*.

Piracha, Matloob and Florin Vadean (2010). "Return Migration and Occupational Choice: Evidence from Albania". In: *World Development* 38.8, pp. 1141–1155.

Ratha, Dilip and Ganesh Seshan (2018). "Worker-paid recruitment costs 1". In: *Global labour and the migrant premium*. Routledge, pp. 26–35.

Reinhold, Steffen and Kevin Thom (2013). "Migration Experience and Earnings in the Mexican Labor Market". In: *Journal of Human Resources* 48.3, pp. 768–820.

Wahba, Jackline (2007). "Returns to Overseas Work Experience: The Case of Egypt". In: *International migration, economic development and policy*, pp. 235–258.

— (2015). "Selection, Selection, Selection: the Impact of Return Migration". In: *Journal of Population Economics* 28.3, pp. 535–563.

Wahba, Jackline and Yves Zenou (2012). "Out of Sight, out of Mind: Migration, Entrepreneurship and Social Capital". In: *Regional Science and Urban Economics* 42.5, pp. 890–903.

World Bank, the (2018). *Moving for prosperity: Global migration and labor markets*. The World Bank.
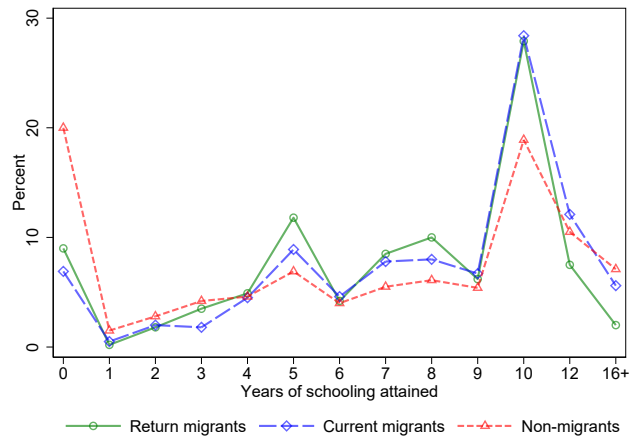
# Figures

Figure 1: Educational attainment by migration status, males 20-59
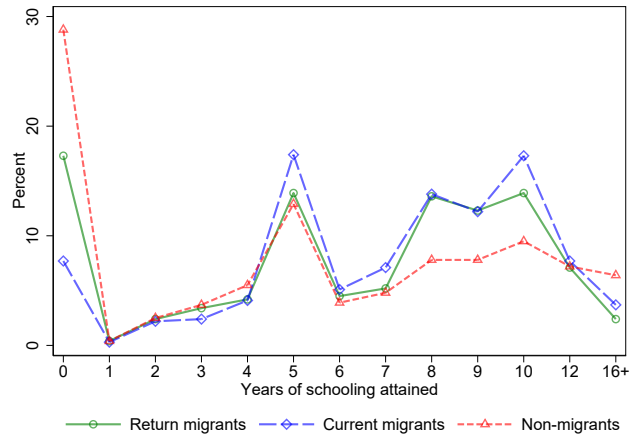
Panel A: Bangladesh



Panel B: Nepal
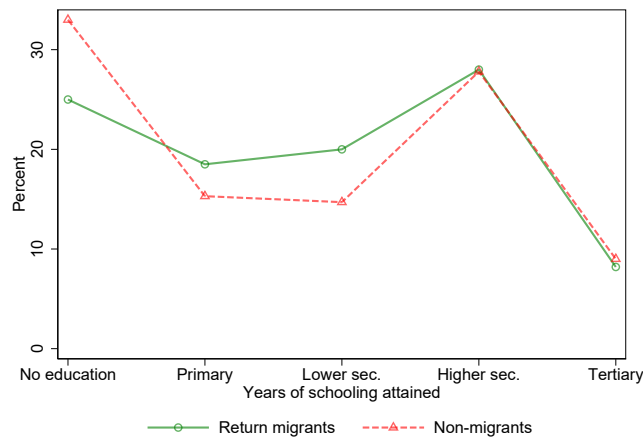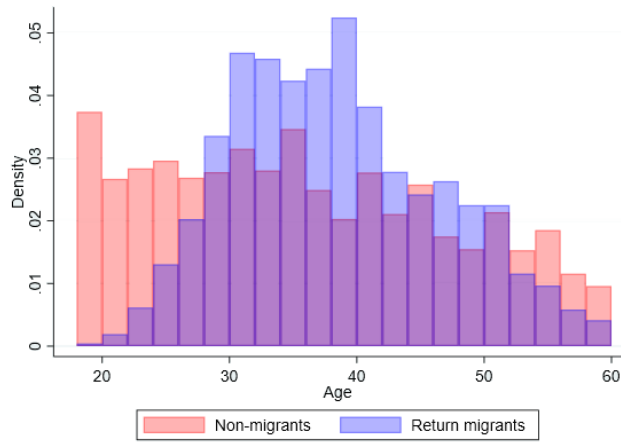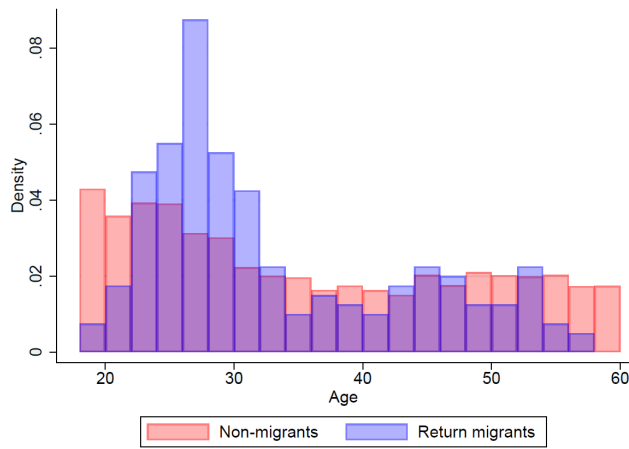


Panel C: Pakistan

Figure 2: Age profile by past migration status, males 20-59

Panel A: Bangladesh



Panel B: Nepal



Panel C: Pakistan
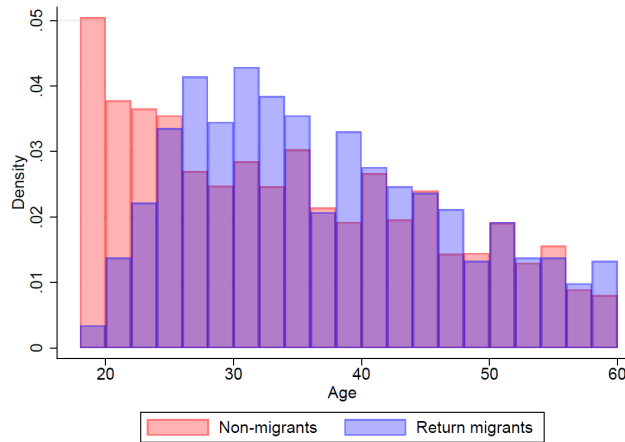
Figure 3: Employment outcomes of return migrants and nonmigrants by age group, males 20-59

Panel A: Bangladesh



Panel B: Nepal

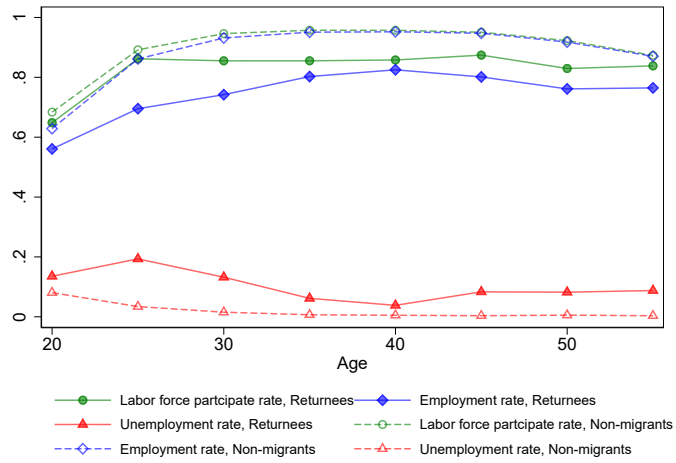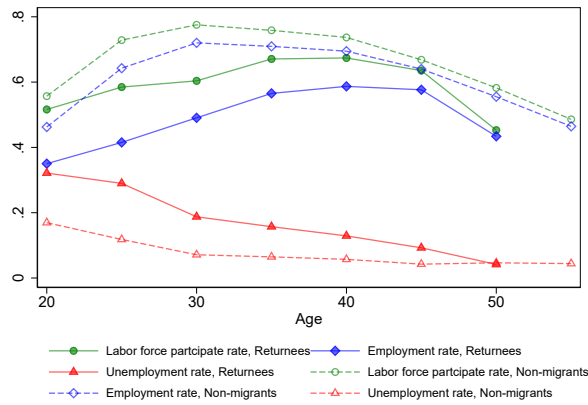(a) Full sample                    (b) Excluding recent returnees (< 2 years)
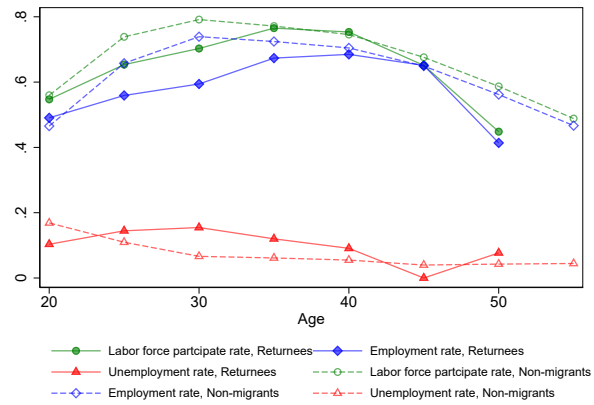
Figure 3: (continued) Employment outcomes of return migrants and nonmigrants by age group, males 20-59

Panel C: Pakistan

(a) Full sample

(b) Excluding recent returnees ($< 2$ years)

Figure 4: Employment outcomes of return migrants by years since return, males 20-59
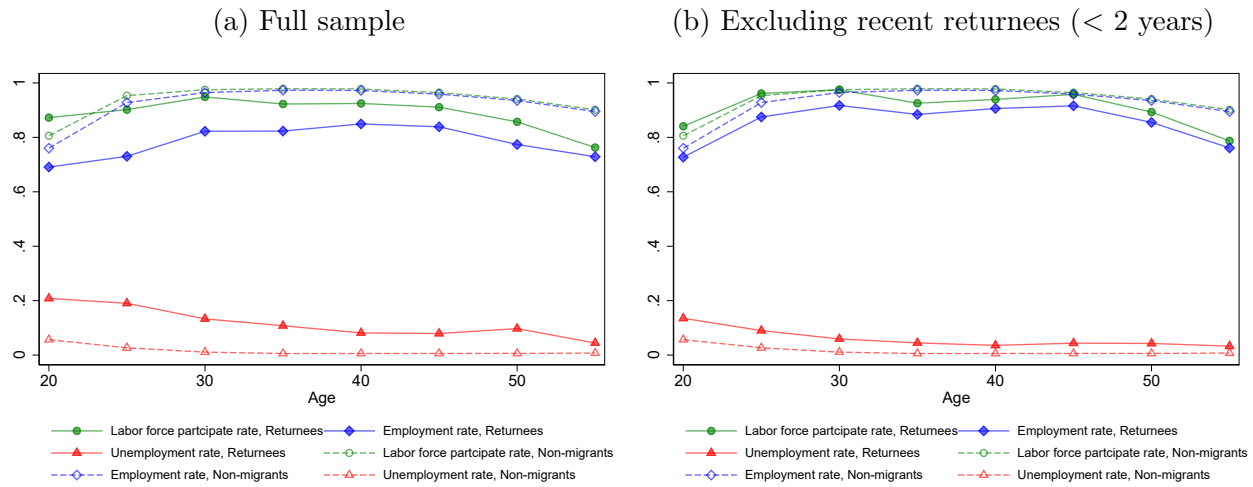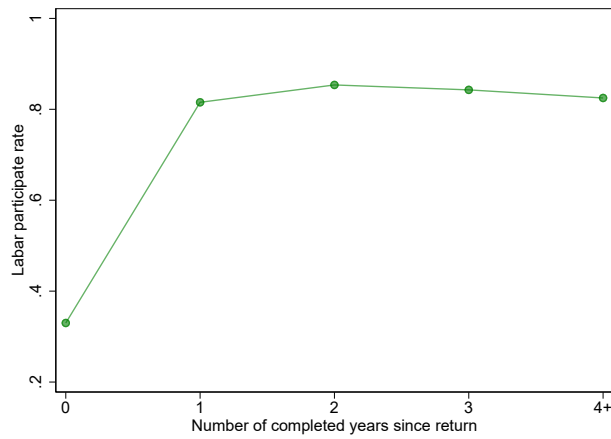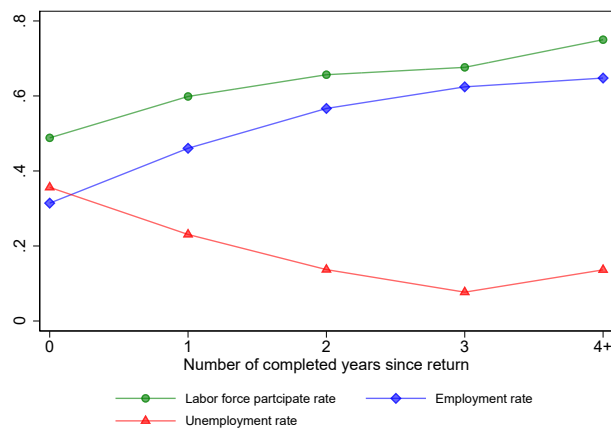
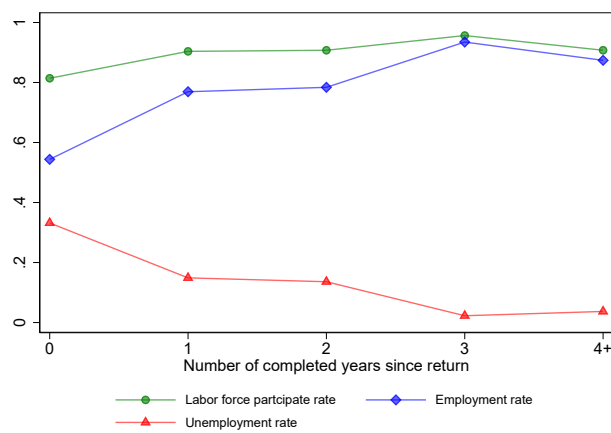Panel A: Bangladesh
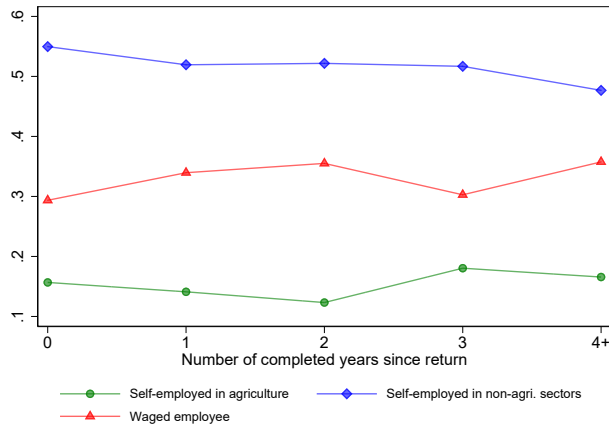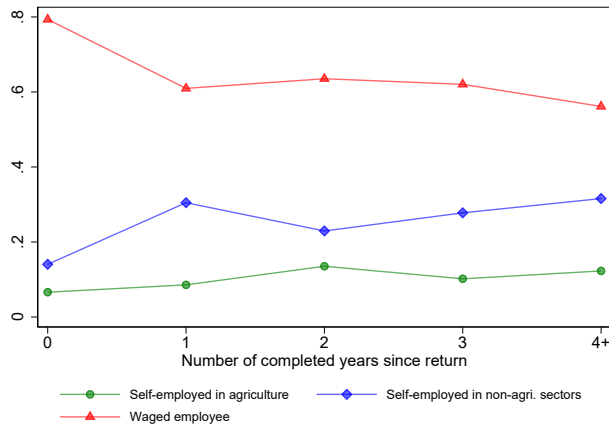


Panel B: Nepal



Panel C: Pakistan



28

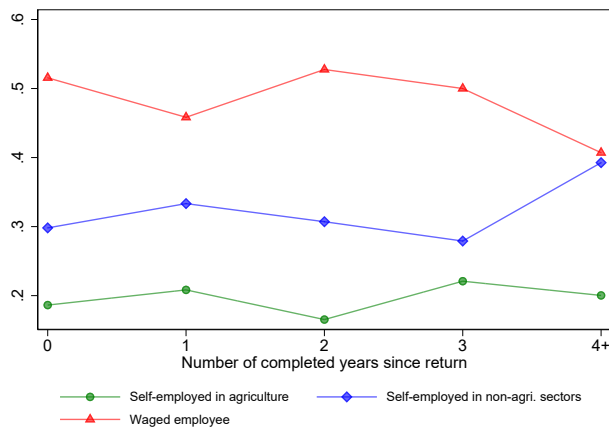Figure 5: Self-employment of return migrants by years since return, males 20-59

Panel A: Bangladesh



Panel B: Nepal



Panel C: Pakistan

# Tables

Table 1: Individual and household characteristics by past migration status

| | Bangladesh | | | Nepal | | | Pakistan | | |
|---|---|---|---|---|---|---|---|---|---|
| | Return migrants | Non-migrants | p-value | Return migrants | Non-migrants | p-value | Return migrants | Non-migrants | p-value |
| **Demographics** | | | | | | | | | |
| Male (in the full samle) | 0.75 | 0.47 | 0.00 | 0.96 | 0.42 | 0.00 | 0.87 | 0.48 | 0.00 |
| Age | 37.0 | 36.5 | 0.22 | 32.7 | 37.4 | 0.00 | 39.6 | 35.4 | 0.00 |
| Age: 20-29 | 0.25 | 0.31 | 0.00 | 0.41 | 0.32 | 0.00 | 0.23 | 0.36 | 0.00 |
| Age: 30-39 | 0.34 | 0.30 | 0.04 | 0.40 | 0.25 | 0.00 | 0.28 | 0.27 | 0.53 |
| Age: 40-49 | 0.25 | 0.23 | 0.13 | 0.17 | 0.24 | 0.00 | 0.25 | 0.22 | 0.03 |
| Age: 50-59 | 0.15 | 0.16 | 0.75 | 0.03 | 0.19 | 0.00 | 0.25 | 0.15 | 0.00 |
| | | | | | | | | | |
| Years of education | 6.6 | 5.5 | 0.00 | 7.8 | 7.1 | 0.00 | 6.4 | 6.5 | 0.72 |
| Illiterate | 0.19 | 0.32 | 0.00 | 0.07 | 0.22 | 0.00 | 0.30 | 0.34 | 0.00 |
| Primary | 0.22 | 0.25 | 0.05 | 0.20 | 0.19 | 0.59 | 0.18 | 0.15 | 0.09 |
| Lower secondary | 0.33 | 0.21 | 0.00 | 0.28 | 0.15 | 0.00 | 0.19 | 0.14 | 0.00 |
| Higher secondary | 0.20 | 0.15 | 0.00 | 0.41 | 0.35 | 0.00 | 0.27 | 0.26 | 0.60 |
| Tertiary | 0.06 | 0.07 | 0.13 | 0.04 | 0.10 | 0.00 | 0.07 | 0.11 | 0.00 |
| | | | | | | | | | |
| **Household characters** | | | | | | | | | |
| Married | 0.83 | 0.84 | 0.73 | 0.86 | 0.82 | 0.00 | 0.89 | 0.75 | 0.00 |
| Head of household | 0.68 | 0.74 | 0.00 | 0.55 | 0.60 | 0.00 | 0.65 | 0.60 | 0.00 |
| Household size | 4.7 | 4.6 | 0.01 | 5.1 | 5.4 | 0.00 | 8.7 | 7.1 | 0.00 |
| Number of dependents | 1.7 | 1.5 | 0.00 | 1.7 | 1.7 | 0.27 | 3.7 | 2.8 | 0.00 |
| Current migrants in the HH. | 0.21 | 0.05 | 0.00 | 0.19 | 0.18 | 0.56 | - | - | - |
| Rural | 0.93 | 0.91 | 0.21 | 0.40 | 0.35 | 0.01 | 0.77 | 0.59 | 0.00 |

*Source:* Bangladesh HIES 2016-17; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18.
*Note:* Sample is restricted to males aged 20-59. Sample weights are applied to summary statistics.

Table 2: Current labor market outcomes by past migration status

| | Bangladesh | | | Nepal | | | Pakistan | | |
|---|---|---|---|---|---|---|---|---|---|
| | Return migrants | Non-migrants | p-value | Return migrants | Non-migrants | p-value | Return migrants | Non-migrants | p-value |
| Employment rate | 0.74 | 0.88 | 0.00 | 0.50 | 0.64 | 0.00 | 0.79 | 0.91 | 0.00 |
| Unemployment rate | 0.10 | 0.02 | 0.00 | 0.21 | 0.08 | 0.00 | 0.11 | 0.02 | 0.00 |
| Labor participant rate | 0.82 | 0.89 | 0.00 | 0.63 | 0.69 | 0.00 | 0.89 | 0.93 | 0.00 |
| Weekly working hours | 57.8 | 54.6 | 0.00 | 48.2 | 49.0 | 0.36 | 46.5 | 51.1 | 0.00 |
| Monthly wage (LCU) | 14,192 | 11,052 | 0.00 | 18,081 | 17,123 | 0.47 | 20,653 | 20,492 | 0.82 |
| | | | | | | | | | |
| *Employment type* | | | | | | | | | |
| Waged worker | 0.31 | 0.68 | 0.00 | 0.66 | 0.67 | 0.74 | 0.45 | 0.63 | 0.00 |
| Self-employed | 0.69 | 0.32 | 0.00 | 0.34 | 0.33 | 0.74 | 0.55 | 0.37 | 0.00 |
| Self-employed in agr. | 0.15 | 0.15 | 0.91 | 0.10 | 0.07 | 0.07 | 0.22 | 0.12 | 0.00 |
| Self-employed in non-agr. | 0.53 | 0.17 | 0.00 | 0.24 | 0.26 | 0.41 | 0.33 | 0.25 | 0.00 |
| Self-employed w/o employees | 0.65 | 0.31 | 0.00 | 0.25 | 0.21 | 0.07 | 0.31 | 0.25 | 0.00 |
| Self-employed w/ employees | 0.04 | 0.01 | 0.00 | 0.09 | 0.12 | 0.04 | 0.24 | 0.12 | 0.00 |
| | | | | | | | | | |
| *Industry* | | | | | | | | | |
| Agriculture | 0.31 | 0.35 | 0.07 | 0.19 | 0.14 | 0.01 | 0.32 | 0.28 | 0.01 |
| Manufacture | 0.21 | 0.18 | 0.17 | 0.12 | 0.17 | 0.01 | 0.13 | 0.16 | 0.00 |
| Construction | 0.06 | 0.07 | 0.10 | 0.28 | 0.21 | 0.00 | 0.15 | 0.10 | 0.00 |
| Retail, hotel, restaurant | 0.12 | 0.13 | 0.37 | 0.15 | 0.16 | 0.60 | 0.19 | 0.19 | 0.75 |
| Others | 0.29 | 0.26 | 0.14 | 0.25 | 0.33 | 0.00 | 0.21 | 0.27 | 0.00 |

*Source:* Bangladesh RMS for employment type of returnees and the HIES 2016-17 for other statistics; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18.
*Note:* Sample is restricted to males aged 20-59. Sample weights are applied to summary statistics.

Table 3: Logit/Multinomial logit regressions: Labor market status

| | (1) Bangladesh | (2) Nepal | (3) | (4) | (5) | (6) Pakistan | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | Logit | Logit | Mlogit | | | Logit | Mlogit | | |
| Dependent var. | Emp. | Emp. | Out of Mkt. | Un-emp. | Emp. | Emp. | Out of Mkt. | Un-emp. | Emp. |
| Return migrant, <1 year | -0.25*** | -0.33*** | 0.23*** | 0.07*** | -0.30*** | -0.13*** | 0.11*** | 0.06*** | -0.17*** |
| | (0.01) | (0.03) | (0.02) | (0.01) | (0.03) | (0.01) | (0.01) | (0.00) | (0.01) |
| Return migrant, 1-2 year | -0.05*** | -0.16*** | 0.11*** | 0.04*** | -0.14*** | -0.07*** | 0.05*** | 0.04*** | -0.09*** |
| | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.00) | (0.01) |
| Return migrant, 3+ years | -0.09*** | -0.03 | 0.02 | 0.01 | -0.03 | -0.04*** | 0.04*** | 0.02*** | -0.06*** |
| | (0.01) | (0.03) | (0.03) | (0.01) | (0.03) | (0.01) | (0.01) | (0.00) | (0.01) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | |
| Age: 30-39 | 0.01 | 0.09*** | -0.06*** | -0.02*** | 0.08*** | 0.02*** | -0.03*** | -0.01*** | 0.04*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Age: 40-49 | -0.02** | 0.04*** | 0.01 | -0.04*** | 0.04*** | -0.00 | 0.01*** | -0.01*** | -0.00 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Age: 50-59 | -0.07*** | -0.10*** | 0.14*** | -0.07*** | -0.08*** | -0.05*** | 0.07*** | -0.01*** | -0.07*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| *Education level (illiterate as the reference group)* | | | | | | | | | |
| Education: Primary | 0.04*** | 0.05*** | -0.04*** | -0.01 | 0.05*** | 0.02*** | -0.03*** | 0.01** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Lower secondary | 0.02*** | 0.09*** | -0.08*** | -0.00 | 0.08*** | 0.00 | -0.02*** | 0.01*** | 0.00 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Higher secondary | -0.05*** | 0.08*** | -0.07*** | 0.00 | 0.07*** | -0.05*** | 0.05*** | 0.02*** | -0.07*** |
| | (0.00) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Tertiary | -0.03*** | 0.26*** | -0.24*** | 0.00 | 0.24*** | -0.05*** | 0.03*** | 0.04*** | -0.07*** |
| | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.00) |
| | | | | | | | | | |
| Rural | -0.01 | -0.10*** | 0.08*** | 0.00 | -0.09*** | 0.01*** | -0.01*** | -0.00** | 0.01*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Married | 0.08*** | 0.20*** | -0.18*** | -0.01** | 0.19*** | 0.07*** | -0.09*** | -0.02*** | 0.11*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Head of household | 0.13*** | 0.06*** | -0.04*** | -0.01** | 0.05*** | 0.04*** | -0.04*** | -0.01*** | 0.06*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Household size | -0.001 | 0.002 | -0.001 | -0.001 | 0.002 | -0.001*** | 0.001*** | 0.000 | -0.001*** |
| | (0.001) | (0.003) | (0.002) | (0.001) | (0.002) | (0.000) | (0.000) | (0.000) | (0.000) |
| Number of dependents | 0.004* | -0.005 | 0.002 | 0.002 | -0.005 | 0.002*** | -0.003*** | -0.000 | 0.003*** |
| | (0.002) | (0.004) | (0.004) | (0.002) | (0.004) | (0.000) | (0.001) | (0.000) | (0.001) |
| | | | | | | | | | |
| Observations | 48189 | 15846 | 15846 | 15846 | 15846 | 109367 | 109367 | 109367 | 109367 |

*Note:* Robust standard errors in parentheses. Sample is restricted to males aged 20-59. Marginal effects of Logit/Mlogit model are reported. To combine the HIES and the RMS sample in Column 1, sample weights are applied. Data source: Bangladesh HIES 2016 for nonmigrants and RMS 2018-19 for return migrants; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table 4: Logit/Multinomial logit regressions: Labor market status, *returnees* only

| Dependent var. | (1) Bangladesh Logit Emp. | (2) Nepal Logit Emp. | (3) Mlogit Out of Mkt. | (4) Un-emp. | (5) Emp. | (6) Pakistan Logit Emp. | (7) Mlogit Out of Mkt. | (8) Un-emp. | (9) Emp. |
|---|---|---|---|---|---|---|---|---|---|
| Return migrant, 1-2 year | 0.47*** | 0.18*** | -0.13*** | -0.04** | 0.17*** | 0.15*** | -0.08*** | -0.07*** | 0.15*** |
| | (0.02) | (0.03) | (0.03) | (0.02) | (0.03) | (0.03) | (0.02) | (0.02) | (0.03) |
| Return migrant, 3+ years | 0.47*** | 0.30*** | -0.19*** | -0.08*** | 0.27*** | 0.29*** | -0.11*** | -0.18*** | 0.30*** |
| | (0.02) | (0.04) | (0.04) | (0.03) | (0.04) | (0.03) | (0.02) | (0.02) | (0.02) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | |
| Age: 30-39 | 0.02 | 0.05 | -0.03 | -0.01 | 0.05 | 0.01 | -0.02 | 0.01 | 0.01 |
| | (0.02) | (0.04) | (0.03) | (0.02) | (0.03) | (0.03) | (0.03) | (0.02) | (0.03) |
| Age: 40-49 | -0.03 | 0.05 | -0.01 | -0.04 | 0.05 | -0.05 | 0.03 | 0.02 | -0.05 |
| | (0.03) | (0.05) | (0.04) | (0.03) | (0.04) | (0.04) | (0.03) | (0.03) | (0.04) |
| Age: 50-59 | -0.12*** | -0.12 | 0.25*** | -0.20* | -0.05 | -0.16*** | 0.12*** | 0.02 | -0.14*** |
| | (0.03) | (0.08) | (0.09) | (0.11) | (0.08) | (0.04) | (0.03) | (0.03) | (0.04) |
| *Education level (illiterate as the reference group)* | | | | | | | | | |
| Education: Primary | -0.01 | 0.01 | 0.02 | -0.03 | 0.01 | -0.01 | 0.02 | -0.02 | -0.01 |
| | (0.02) | (0.06) | (0.06) | (0.04) | (0.06) | (0.03) | (0.03) | (0.03) | (0.03) |
| Education: Lower secondary | 0.02 | -0.01 | 0.04 | -0.03 | -0.01 | -0.03 | 0.00 | 0.02 | -0.03 |
| | (0.02) | (0.06) | (0.06) | (0.04) | (0.06) | (0.03) | (0.03) | (0.02) | (0.03) |
| Education: Higher secondary | -0.01 | -0.07 | 0.06 | 0.00 | -0.06 | -0.08*** | 0.05** | 0.03 | -0.08*** |
| | (0.02) | (0.06) | (0.06) | (0.04) | (0.06) | (0.03) | (0.02) | (0.02) | (0.03) |
| Education: Tertiary | 0.03 | 0.17 | 0.71*** | -1.50*** | 0.79*** | -0.11*** | 0.02 | 0.08*** | -0.10** |
| | (0.05) | (0.10) | (0.10) | (0.10) | (0.10) | (0.04) | (0.03) | (0.03) | (0.04) |
| | | | | | | | | | |
| Rural | | -0.05* | -0.06** | -0.01 | -0.05* | 0.06*** | -0.02 | -0.03** | 0.06*** |
| | | (0.03) | (0.03) | (0.02) | (0.03) | (0.02) | (0.02) | (0.02) | (0.02) |
| Married | 0.02 | 0.16*** | -0.08* | -0.07*** | 0.14*** | 0.07** | -0.03 | -0.04* | 0.07** |
| | (0.03) | (0.05) | (0.04) | (0.02) | (0.04) | (0.03) | (0.03) | (0.02) | (0.03) |
| Head of household | 0.04* | 0.10*** | -0.07** | -0.02 | 0.09*** | 0.03 | 0.00 | -0.03 | 0.03 |
| | (0.02) | (0.04) | (0.03) | (0.02) | (0.03) | (0.03) | (0.03) | (0.02) | (0.03) |
| Household size | 0.01 | 0.01 | -0.01 | 0.00 | 0.01 | -0.00 | 0.00 | -0.00 | -0.00 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Number of dependents | 0.00 | -0.03 | 0.02 | 0.00 | -0.02 | 0.01* | -0.01** | -0.00 | 0.01* |
| | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) |
| | | | | | | | | | |
| Observations | 4705 | 1402 | 1402 | 1402 | 1402 | 1420 | 1420 | 1420 | 1420 |

*Note:* Robust standard errors in parentheses. Sample is restricted to males aged 20-59. Marginal effects of Logit/Mlogit model are reported. Data source: Bangladesh RMS 2018-19; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * $p>0.1$, ** $p>0.05$, *** $p>0.01$.

Table 5: Logit/Multinomial logit regressions: Labor market status, *nonmigrants* only

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bangladesh | | | | Nepal | | | | Pakistan | | |
| | Logit | Mlogit | | | Logit | Mlogit | | | Logit | Mlogit | | |
| Dependent var. | Emp. | Out of Mkt. | Un-emp. | Emp. | Emp. | Out of Mkt. | Un-emp. | Emp. | Emp. | Out of Mkt. | Un-emp. | Emp. |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | 0.007** | -0.013*** | 0.004* | 0.010** | 0.099*** | -0.065*** | -0.025*** | 0.090*** | 0.023*** | -0.028*** | -0.008*** | 0.036*** |
| | (0.004) | (0.004) | (0.002) | (0.005) | (0.013) | (0.012) | (0.005) | (0.012) | (0.002) | (0.003) | (0.001) | (0.003) |
| Age: 40-49 | -0.013*** | 0.017*** | -0.001 | -0.016*** | 0.046*** | 0.004 | -0.044*** | 0.040*** | -0.003 | 0.013*** | -0.008*** | -0.005 |
| | (0.004) | (0.005) | (0.003) | (0.006) | (0.013) | (0.012) | (0.006) | (0.012) | (0.002) | (0.003) | (0.002) | (0.004) |
| Age: 50-59 | -0.068*** | 0.083*** | -0.002 | -0.082*** | -0.090*** | 0.135*** | -0.060*** | -0.074*** | -0.047*** | 0.074*** | -0.007*** | -0.068*** |
| | (0.004) | (0.005) | (0.003) | (0.006) | (0.014) | (0.013) | (0.008) | (0.013) | (0.002) | (0.003) | (0.002) | (0.004) |
| *Education level (illiterate as the reference group)* | | | | | | | | | | | | |
| Educ.: Primary | 0.035*** | -0.046*** | 0.004 | 0.042*** | 0.051*** | -0.040*** | -0.006 | 0.046*** | 0.018*** | -0.030*** | 0.006*** | 0.024*** |
| | (0.004) | (0.005) | (0.003) | (0.005) | (0.013) | (0.011) | (0.007) | (0.012) | (0.002) | (0.003) | (0.002) | (0.003) |
| Educ.: Lower sec. | 0.014*** | -0.032*** | 0.014*** | 0.018*** | 0.094*** | -0.084*** | -0.001 | 0.086*** | 0.003 | -0.018*** | 0.015*** | 0.003 |
| | (0.003) | (0.004) | (0.002) | (0.005) | (0.015) | (0.013) | (0.007) | (0.014) | (0.002) | (0.003) | (0.002) | (0.003) |
| Educ.: Higher sec. | -0.045*** | 0.049*** | 0.012*** | -0.060*** | 0.085*** | -0.081*** | 0.003 | 0.078*** | -0.045*** | 0.052*** | 0.021*** | -0.073*** |
| | (0.003) | (0.004) | (0.003) | (0.004) | (0.012) | (0.011) | (0.006) | (0.011) | (0.001) | (0.002) | (0.001) | (0.002) |
| Educ.: Tertiary | -0.034*** | 0.027*** | 0.018*** | -0.046*** | 0.256*** | -0.250*** | 0.004 | 0.246*** | -0.047*** | 0.032*** | 0.037*** | -0.069*** |
| | (0.004) | (0.005) | (0.003) | (0.005) | (0.019) | (0.018) | (0.008) | (0.018) | (0.002) | (0.002) | (0.002) | (0.003) |
| Rural | -0.011** | 0.019*** | -0.005* | -0.015** | -0.099*** | 0.088*** | 0.005 | -0.093*** | 0.008*** | -0.011*** | -0.001* | 0.013*** |
| | (0.005) | (0.006) | (0.002) | (0.006) | (0.009) | (0.008) | (0.004) | (0.008) | (0.001) | (0.002) | (0.001) | (0.002) |
| Married | 0.076*** | -0.080*** | -0.017*** | 0.098*** | 0.205*** | -0.186*** | -0.007 | 0.193*** | 0.070*** | -0.093*** | -0.015*** | 0.108*** |
| | (0.003) | (0.004) | (0.002) | (0.004) | (0.013) | (0.012) | (0.005) | (0.012) | (0.002) | (0.002) | (0.001) | (0.002) |
| Head of household | 0.118*** | -0.126*** | -0.027*** | 0.153*** | 0.051*** | -0.039*** | -0.008* | 0.048*** | 0.037*** | -0.044*** | -0.012*** | 0.056*** |
| | (0.003) | (0.004) | (0.002) | (0.005) | (0.011) | (0.010) | (0.005) | (0.010) | (0.002) | (0.003) | (0.002) | (0.003) |
| Household size | -0.000 | -0.000 | 0.000 | 0.000 | 0.001 | 0.001 | -0.002* | 0.001 | -0.001** | 0.001** | 0.000 | -0.001** |
| | (0.001) | (0.001) | (0.000) | (0.001) | (0.003) | (0.002) | (0.001) | (0.002) | (0.000) | (0.000) | (0.000) | (0.000) |
| #Dependents | 0.004*** | -0.004** | -0.001 | 0.005*** | -0.003 | -0.000 | 0.003 | -0.003 | 0.002*** | -0.002*** | -0.000 | 0.003*** |
| | (0.001) | (0.002) | (0.001) | (0.002) | (0.004) | (0.004) | (0.002) | (0.004) | (0.000) | (0.001) | (0.000) | (0.001) |
| Observations | 43484 | 43484 | 43484 | 43484 | 14444 | 14444 | 14444 | 14444 | 107947 | 107947 | 107947 | 107947 |

*Note:* Robust standard errors in parentheses. Sample is restricted to males aged 20-59. Marginal effects of Logit/Mlogit model are reported. Data source: Bangladesh HIES 2016; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table 6: Multinomial logit regressions: sector choice, employed individuals only

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bangladesh | | | | Nepal | | | | Pakistan | | |
| Outcome | Agr. | Manu. | Cons. | Serv. | Agr. | Manu. | Cons. | Serv. | Agr. | Manu. | Cons. | Serv. |
| Return migrant | 0.02 | -0.37*** | 0.05*** | 0.31*** | 0.07*** | -0.06*** | 0.05*** | -0.06*** | -0.03** | -0.00 | 0.05*** | -0.01 |
| | (0.01) | (0.03) | (0.01) | (0.02) | (0.02) | (0.02) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.02) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | 0.04*** | -0.04*** | -0.01** | 0.01 | -0.01 | 0.00 | -0.06*** | 0.06*** | 0.00 | -0.00 | -0.01*** | 0.01*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Age: 40-49 | 0.08*** | -0.07*** | -0.03*** | 0.01 | 0.04*** | -0.01 | -0.09*** | 0.06*** | 0.03*** | -0.02*** | -0.02*** | 0.01** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Age: 50-59 | 0.16*** | -0.11*** | -0.05*** | -0.01 | 0.09*** | -0.03* | -0.13*** | 0.08*** | 0.09*** | -0.06*** | -0.05*** | 0.01* |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.02) | (0.01) | (0.01) | (0.00) | (0.01) |
| *Education level (illiterate as the reference group)* | | | | | | | | | | | | |
| Education: Primary | -0.09*** | 0.06*** | 0.00 | 0.03*** | -0.07*** | 0.03* | -0.02* | 0.07*** | -0.09*** | 0.02*** | -0.01*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Education: Lower sec. | -0.16*** | 0.10*** | -0.01** | 0.08*** | -0.08*** | 0.02 | -0.10*** | 0.16*** | -0.10*** | 0.02*** | -0.04*** | 0.12*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Education: Higher sec. | -0.26*** | 0.10*** | -0.06*** | 0.22*** | -0.10*** | -0.05*** | -0.20*** | 0.34*** | -0.12*** | -0.01*** | -0.08*** | 0.21*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Tertiary | -0.48*** | 0.09*** | -0.06*** | 0.46*** | -0.26*** | -0.05** | -0.28*** | 0.59*** | -0.27*** | -0.02*** | -0.13*** | 0.42*** |
| | (0.02) | (0.02) | (0.01) | (0.02) | (0.03) | (0.02) | (0.03) | (0.03) | (0.01) | (0.01) | (0.01) | (0.01) |
| | | | | | | | | | | | | |
| Rural | 0.65*** | -0.20*** | -0.05*** | -0.39*** | 0.06*** | -0.00 | 0.05*** | -0.10*** | 0.40*** | -0.13*** | -0.02*** | -0.25*** |
| | (0.04) | (0.01) | (0.01) | (0.03) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Married | 0.02 | 0.01 | -0.01 | -0.02 | -0.02 | 0.01 | 0.03* | -0.02 | -0.02*** | -0.01* | -0.01** | 0.03*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.02) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Head of household | 0.03*** | -0.03*** | -0.01 | 0.00 | 0.00 | 0.00 | -0.00 | -0.00 | -0.01*** | -0.02*** | -0.00 | 0.03*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.01) |
| Household size | -0.01*** | -0.00 | 0.00 | 0.01*** | -0.00 | 0.01*** | -0.00 | -0.01** | -0.00*** | 0.00 | -0.00*** | 0.01*** |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Number of dependents | 0.01*** | -0.01*** | -0.00 | 0.00 | 0.02*** | -0.01** | -0.00 | 0.00 | 0.01*** | -0.01*** | 0.00*** | -0.00** |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| | | | | | | | | | | | | |
| Observations | 41135 | 41135 | 41135 | 41135 | 9354 | 9354 | 9354 | 9354 | 99667 | 99667 | 99667 | 99667 |

*Note:* Robust standard errors in parentheses. Marginal effects in the Multinomial logit model are reported. Sample is restricted to males aged 20-59. Agr. is short for agriculture, Manu. is short for manufacture, Cons. is short for construction, and Serv. is short for service. To combine the HIES and the RMS sample in Columns 1-4, sample weights are applied. Data source: Bangladesh HIES 2016 for nonmigrants and RMS 2018-19 for return migrants; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table 7: Logit/Multinomial logit regressions: occupational choice (waged/farm self-employed/non-farm self-employed)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bangladesh | | | | Nepal | | | | Pakistan | | |
| | Logit | | Mlogit | | Logit | | Mlogit | | Logit | | Mlogit | |
| Dependent var./Outcome | Self-emp. | Waged | SE& agri. | SE& nonagri. | Self-emp. | Waged | SE& agri. | SE& nonagri. | Self-emp. | Waged | SE& agri. | SE& nonagri. |
| Return migrant | 0.29*** | -0.25*** | 0.03*** | 0.22*** | 0.03* | -0.03 | 0.03*** | -0.01 | 0.13*** | -0.12*** | 0.04*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | 0.07*** | -0.07*** | 0.04*** | 0.02*** | 0.13*** | -0.13*** | 0.02** | 0.11*** | 0.05*** | -0.05*** | 0.02*** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Age: 40-49 | 0.15*** | -0.14*** | 0.10*** | 0.04*** | 0.19*** | -0.18*** | 0.06*** | 0.12*** | 0.09*** | -0.08*** | 0.06*** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Age: 50-59 | 0.22*** | -0.20*** | 0.15*** | 0.04*** | 0.23*** | -0.21*** | 0.08*** | 0.13*** | 0.13*** | -0.11*** | 0.10*** | 0.01** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.00) | (0.01) |
| *Education level (illiterate as the reference group)* | | | | | | | | | | | | |
| Education: Primary | 0.08*** | -0.08*** | 0.02*** | 0.06*** | 0.07*** | -0.08*** | 0.00 | 0.07*** | 0.06*** | -0.06*** | -0.02*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Lower sec. | 0.12*** | -0.12*** | 0.02*** | 0.10*** | 0.15*** | -0.15*** | 0.01 | 0.13*** | 0.09*** | -0.09*** | -0.01* | 0.10*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Higher sec. | 0.11*** | -0.10*** | -0.01 | 0.11*** | 0.19*** | -0.19*** | 0.01 | 0.18*** | 0.06*** | -0.07*** | -0.01*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Tertiary | -0.08*** | 0.09*** | -0.15*** | 0.05*** | -0.06*** | 0.09*** | -0.13*** | 0.05** | -0.14*** | 0.14*** | -0.12*** | -0.03*** |
| | (0.02) | (0.02) | (0.01) | (0.01) | (0.02) | (0.03) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) |
| Rural | | | | | -0.03*** | 0.03*** | 0.04*** | -0.07*** | -0.01*** | -0.05*** | 0.22*** | -0.17*** |
| | | | | | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Married | -0.03** | 0.03** | -0.02 | -0.01 | 0.12*** | -0.12*** | 0.02* | 0.10*** | 0.001 | -0.006 | 0.001 | 0.005 |
| | (0.02) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.00) | (0.00) |
| Head of household | 0.08*** | -0.07*** | 0.03*** | 0.04*** | 0.11*** | -0.10*** | 0.03*** | 0.07*** | 0.20*** | -0.20*** | 0.11*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Household size | 0.03*** | -0.03*** | 0.01*** | 0.01*** | 0.01*** | -0.01** | 0.000 | 0.01*** | 0.01*** | -0.01*** | 0.001* | 0.004*** |
| | (0.003) | (0.003) | (0.002) | (0.003) | (0.003) | (0.003) | (0.002) | (0.003) | (0.001) | (0.001) | (0.001) | (0.001) |
| Number of dependents | -0.01*** | 0.01** | -0.01** | -0.003 | -0.004 | 0.004 | 0.01** | -0.01** | 0.01*** | -0.004*** | 0.003*** | 0.002 |
| | (0.005) | (0.004) | (0.003) | (0.004) | (0.005) | (0.005) | (0.003) | (0.005) | (0.001) | (0.001) | (0.001) | (0.001) |
| Observations | 41459 | 41459 | 41459 | 41459 | 9459 | 9459 | 9459 | 9459 | 99613 | 99613 | 99613 | 99613 |

*Note:* Robust standard errors in parentheses. Marginal effects in the Logit/Multinomial logit model are reported. Sample is restricted to *employed* males aged 20-59. Emp. is short for Employed and SE is short for Self-employed. To combine the HIES and the RMS sample in Column 1, sample weights are applied. Data source: Bangladesh HIES 2016-17 for nonmigrants and RMS 2018-19 for return migrants; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table 8: Logit/Multinomial logit regressions: occupational choice (waged/self-employed without/with employees)

| Dependent var./Outcome | (1) Self-emp. | (2) Waged | (3) SE | (4) Employer | (5) Self-emp. | (6) Waged | (7) SE | (8) Employer | (9) Self-emp. | (10) Waged | (11) SE | (12) Employer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bangladesh | | | | Nepal | | | | Pakistan | | | |
| | Logit | Mlogit | | | Logit | Mlogit | | | Logit | Mlogit | | |
| Return migrant | 0.29*** | -0.28*** | 0.26*** | 0.01*** | 0.03* | -0.03 | 0.04*** | -0.01 | 0.13*** | -0.12*** | 0.07*** | 0.05*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | 0.07*** | -0.07*** | 0.07*** | -0.00 | 0.13*** | -0.13*** | 0.08*** | 0.05*** | 0.05*** | -0.05*** | 0.02*** | 0.03*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Age: 40-49 | 0.15*** | -0.14*** | 0.14*** | 0.00 | 0.19*** | -0.18*** | 0.12*** | 0.06*** | 0.09*** | -0.09*** | 0.02*** | 0.07*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Age: 50-59 | 0.22*** | -0.21*** | 0.20*** | 0.00 | 0.23*** | -0.21*** | 0.15*** | 0.06*** | 0.13*** | -0.12*** | 0.02*** | 0.09*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) |
| *Education level (illiterate as the reference group)* | | | | | | | | | | | | |
| Education: Primary | 0.08*** | -0.07*** | 0.07*** | 0.01*** | 0.07*** | -0.07*** | 0.04*** | 0.03*** | 0.06*** | -0.05*** | 0.05*** | -0.00 |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.02) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Lower sec. | 0.12*** | -0.12*** | 0.11*** | 0.01*** | 0.15*** | -0.14*** | 0.07*** | 0.07*** | 0.09*** | -0.09*** | 0.07*** | 0.01*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.02) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Higher sec. | 0.11*** | -0.10*** | 0.09*** | 0.01*** | 0.19*** | -0.18*** | 0.09*** | 0.10*** | 0.06*** | -0.06*** | 0.04*** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Tertiary | -0.08*** | 0.07*** | -0.09*** | 0.01*** | -0.06*** | 0.07*** | -0.13*** | 0.06*** | -0.14*** | 0.13*** | -0.12*** | -0.01*** |
| | (0.02) | (0.02) | (0.02) | (0.00) | (0.02) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) |
| Rural | 0.18*** | -0.17*** | 0.17*** | -0.00 | -0.03*** | 0.03*** | 0.02*** | -0.05*** | -0.01*** | -0.01** | -0.12*** | 0.13*** |
| | (0.02) | (0.02) | (0.02) | (0.00) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Married | -0.03** | 0.03** | -0.02* | -0.00* | 0.12*** | -0.12*** | 0.07*** | 0.05*** | 0.001 | -0.006 | 0.001 | 0.005 |
| | (0.02) | (0.01) | (0.01) | (0.00) | (0.02) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Head of household | 0.08*** | -0.07*** | 0.07*** | 0.01*** | 0.11*** | -0.10*** | 0.07*** | 0.03*** | 0.20*** | -0.19*** | 0.09*** | 0.11*** |
| | (0.01) | (0.01) | (0.01) | (0.00) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Household size | 0.03*** | -0.03*** | 0.03*** | 0.00 | 0.01*** | -0.01** | -0.00 | 0.01*** | 0.01*** | -0.01*** | 0.00** | 0.00*** |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Number of dependents | -0.01*** | 0.01*** | -0.01*** | 0.00 | -0.00 | 0.00 | 0.00 | -0.01* | 0.00*** | -0.00*** | 0.00*** | 0.00 |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Observations | 41459 | 41459 | 41459 | 41459 | 9459 | 9459 | 9459 | 9459 | 99613 | 99653 | 99653 | 99653 |

*Note:* **SE stands for self-employment without employees; Employer are self-employed with employees.** Robust standard errors in parentheses. Marginal effects in the Logit/Multinomial logit model are reported. Sample is restricted to males aged 20-59. To combine the HIES and the RMS sample in Column 1, sample weights are applied. Data source: Bangladesh HIES 2016-17 for nonmigrants and RMS 2018-19 for return migrants; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table 9: Mincer regressions for waged workers: wage premium in return migrants

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| | | Bangladesh | | | Nepal | | | Pakistan | |
| | | | Construction sector only | | | Construction sector only | | | Construction sector only |
| | All sectors | | | All sectors | | | All sectors | | |
| Dependent variable | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) | ln(Hourly wage) |
| Return migrant | 0.064** | 0.052* | 0.276*** | 0.019 | 0.065** | 0.092** | 0.163*** | 0.154*** | 0.263*** |
| | (0.028) | (0.027) | (0.083) | (0.032) | (0.031) | (0.036) | (0.032) | (0.030) | (0.044) |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | |
| Age: 30-39 | | 0.058*** | 0.039* | | 0.133*** | 0.049* | | 0.107*** | 0.044*** |
| | | (0.010) | (0.022) | | (0.019) | (0.027) | | (0.008) | (0.016) |
| Age: 40-49 | | 0.095*** | 0.072** | | 0.182*** | 0.068** | | 0.226*** | 0.085*** |
| | | (0.011) | (0.030) | | (0.021) | (0.030) | | (0.010) | (0.018) |
| Age: 50-59 | | 0.119*** | 0.070** | | 0.234*** | 0.079* | | 0.358*** | 0.145*** |
| | | (0.013) | (0.035) | | (0.026) | (0.042) | | (0.012) | (0.023) |
| *Education level (illiterate as the reference group)* | | | | | | | | | |
| Education: Primary | | 0.092*** | 0.092*** | | 0.156*** | 0.081*** | | 0.082*** | 0.065*** |
| | | (0.008) | (0.019) | | (0.022) | (0.026) | | (0.008) | (0.014) |
| Education: Lower sec. | | 0.163*** | 0.085*** | | 0.189*** | 0.099*** | | 0.139*** | 0.157*** |
| | | (0.010) | (0.025) | | (0.024) | (0.034) | | (0.009) | (0.017) |
| Education: Higher sec. | | 0.475*** | 0.227*** | | 0.331*** | 0.196*** | | 0.369*** | 0.159*** |
| | | (0.014) | (0.051) | | (0.021) | (0.032) | | (0.008) | (0.018) |
| Education: Tertiary | | 0.980*** | 1.039*** | | 0.878*** | 0.753*** | | 0.994*** | 0.555*** |
| | | (0.018) | (0.161) | | (0.024) | (0.096) | | (0.010) | (0.065) |
| | | | | | | | | | |
| Rural | | -0.183*** | -0.118*** | | 0.012 | 0.018 | | -0.089*** | -0.146*** |
| | | (0.016) | (0.036) | | (0.015) | (0.021) | | (0.006) | (0.012) |
| Married | | 0.066*** | -0.008 | | 0.113*** | 0.045 | | 0.098*** | 0.066*** |
| | | (0.013) | (0.040) | | (0.024) | (0.036) | | (0.009) | (0.017) |
| Head of household | | 0.037*** | 0.080** | | 0.018 | 0.021 | | 0.085*** | 0.018 |
| | | (0.013) | (0.037) | | (0.018) | (0.025) | | (0.010) | (0.019) |
| Household size | | 0.015*** | 0.020** | | -0.017*** | -0.025*** | | 0.007*** | 0.003 |
| | | (0.004) | (0.010) | | (0.005) | (0.007) | | (0.002) | (0.004) |
| Number of dependents | | 0.004 | -0.003 | | 0.013* | 0.026** | | -0.000 | 0.005 |
| | | (0.005) | (0.014) | | (0.008) | (0.012) | | (0.002) | (0.005) |
| Constant | 3.672*** | 3.445*** | 3.544*** | 4.309*** | 3.863*** | 4.134*** | 4.360*** | 3.840*** | 4.163*** |
| | (0.004) | (0.025) | (0.065) | (0.008) | (0.034) | (0.049) | (0.003) | (0.012) | (0.025) |
| | | | | | | | | | |
| Observations | 26890 | 26890 | 2545 | 5314 | 5314 | 1867 | 44135 | 44135 | 9366 |

*Note:* Robust standard errors in parentheses. Sample is restricted to male *waged workers* aged 20-59. Data source: Bangladesh HIES 2016-17; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

# Appendix

Table A1: Summary statistics, males aged 20-59

|  | Bangladesh | | | Nepal | | | Pakistan | | |
|---|---|---|---|---|---|---|---|---|---|
|  | Mean | SD | N | Mean | SD | N | Mean | SD | N |
| Return migrant | 0.03 | 0.17 | 44,909 | 0.09 | 0.29 | 15,846 | 0.01 | 0.11 | 109,367 |
| | | | | | | | | | |
| ***Demographics*** | | | | | | | | | |
| Male (in the full sample) | 0.48 | 0.50 | 93,690 | 0.44 | 0.50 | 36,993 | 0.49 | 0.50 | 224,492 |
| Age | 36.5 | 10.7 | 44,909 | 36.9 | 11.3 | 15,846 | 35.5 | 11.0 | 109,367 |
| Age: 20-29 | 0.31 | 0.46 | 44,909 | 0.33 | 0.47 | 15,846 | 0.36 | 0.48 | 109,367 |
| Age: 30-39 | 0.31 | 0.46 | 44,909 | 0.26 | 0.44 | 15,846 | 0.27 | 0.44 | 109,367 |
| Age: 40-49 | 0.23 | 0.42 | 44,909 | 0.23 | 0.42 | 15,846 | 0.22 | 0.41 | 109,367 |
| Age: 50-59 | 0.16 | 0.37 | 44,909 | 0.18 | 0.38 | 15,846 | 0.15 | 0.36 | 109,367 |
| Years of education | 5.5 | 5.0 | 44,775 | 7.2 | 5.0 | 15,846 | 6.5 | 5.6 | 109,367 |
| Illiterate | 0.32 | 0.46 | 44,775 | 0.20 | 0.40 | 15,846 | 0.34 | 0.47 | 109,367 |
| Primary | 0.25 | 0.43 | 44,775 | 0.19 | 0.39 | 15,846 | 0.15 | 0.36 | 109,367 |
| Lower secondary | 0.21 | 0.41 | 44,775 | 0.16 | 0.37 | 15,846 | 0.14 | 0.34 | 109,367 |
| Higher secondary | 0.15 | 0.36 | 44,775 | 0.36 | 0.48 | 15,846 | 0.26 | 0.44 | 109,367 |
| Tertiary | 0.07 | 0.25 | 44,775 | 0.09 | 0.29 | 15,846 | 0.11 | 0.31 | 109,367 |
| | | | | | | | | | |
| ***Household information*** | | | | | | | | | |
| Married | 0.84 | 0.37 | 44,909 | 0.83 | 0.38 | 15,846 | 0.75 | 0.43 | 109,367 |
| Head of household | 0.74 | 0.44 | 44,909 | 0.60 | 0.49 | 15,846 | 0.60 | 0.49 | 109,367 |
| Household size | 4.6 | 1.7 | 44,909 | 5.4 | 2.8 | 15,846 | 7.1 | 3.5 | 109,367 |
| Number of dependents | 1.5 | 1.2 | 44,909 | 1.7 | 1.6 | 15,846 | 2.8 | 2.4 | 109,367 |
| Current migrants in HH. | 0.05 | 0.21 | 44,909 | 0.14 | 0.35 | 15,846 | - | - | - |
| Rural | 0.92 | 0.28 | 44,909 | 0.36 | 0.48 | 15,846 | 0.60 | 0.49 | 109,367 |
| | | | | | | | | | |
| ***Employment status*** | | | | | | | | | |
| Labor participant rate | 0.89 | 0.31 | 44,909 | 0.68 | 0.46 | 15,846 | 0.93 | 0.26 | 109,367 |
| Employment rate | 0.87 | 0.33 | 44,909 | 0.62 | 0.48 | 15,846 | 0.91 | 0.29 | 109,367 |
| Unemployment rate | 0.02 | 0.15 | 40,150 | 0.09 | 0.28 | 10,423 | 0.02 | 0.14 | 101,662 |
| Weekly working hours | 54.7 | 18.9 | 39,239 | 48.9 | 14.8 | 9,185 | 51.0 | 12.0 | 99,139 |
| Monthly wage (LCU) | 11,128 | 12,010 | 27,417 | 17,188 | 10,541 | 5,314 | 20,493 | 20,704 | 44,543 |
| Self-employed in agr. | 0.15 | 0.36 | 38,923 | 0.07 | 0.26 | 9,324 | 0.12 | 0.33 | 99,613 |
| Self-employed in non-agr. | 0.17 | 0.37 | 38,923 | 0.26 | 0.44 | 9,324 | 0.25 | 0.43 | 99,613 |
| Waged worker | 0.68 | 0.47 | 38,923 | 0.67 | 0.47 | 9,324 | 0.62 | 0.48 | 99,613 |
| Industry: agriculture | 0.35 | 0.48 | 38,923 | 0.14 | 0.35 | 9,324 | 0.28 | 0.45 | 99,613 |
| Industry: manufacture | 0.18 | 0.39 | 38,923 | 0.16 | 0.37 | 9,324 | 0.16 | 0.37 | 99,613 |
| Industry: construction | 0.07 | 0.26 | 38,923 | 0.22 | 0.41 | 9,324 | 0.10 | 0.30 | 99,613 |
| Industry: retail/hotel | 0.13 | 0.34 | 38,923 | 0.15 | 0.36 | 9,324 | 0.19 | 0.39 | 99,613 |
| Industry: others | 0.26 | 0.44 | 38,923 | 0.32 | 0.47 | 9,324 | 0.27 | 0.44 | 99,613 |

*Source:* Bangladesh HIES 2016-17; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18.
*Note:* Sample weights are applied to summary statistics.

Figure A1: Propensity to emigrate by educational attainment, males 18-59

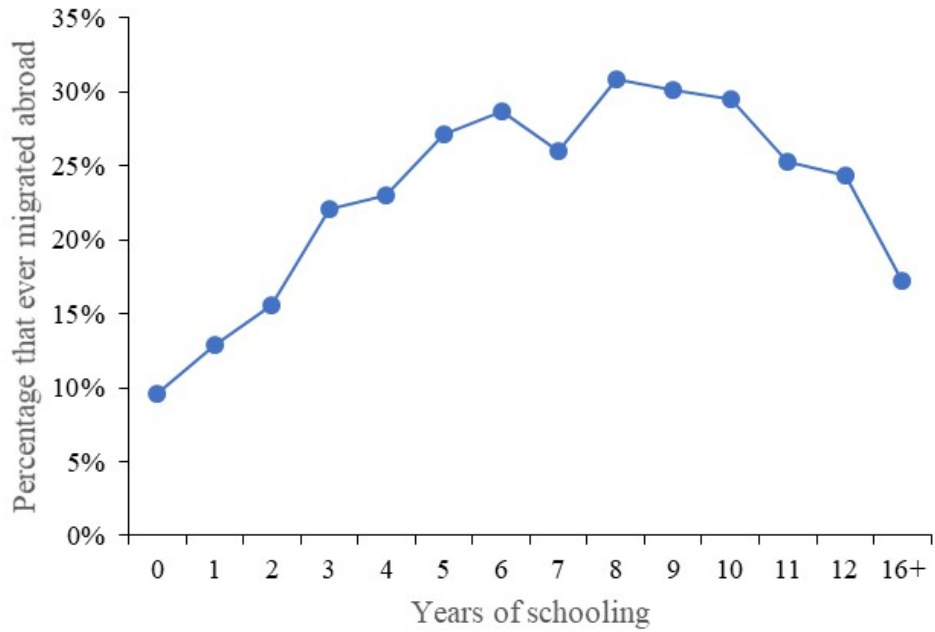Panel A: Bangladesh
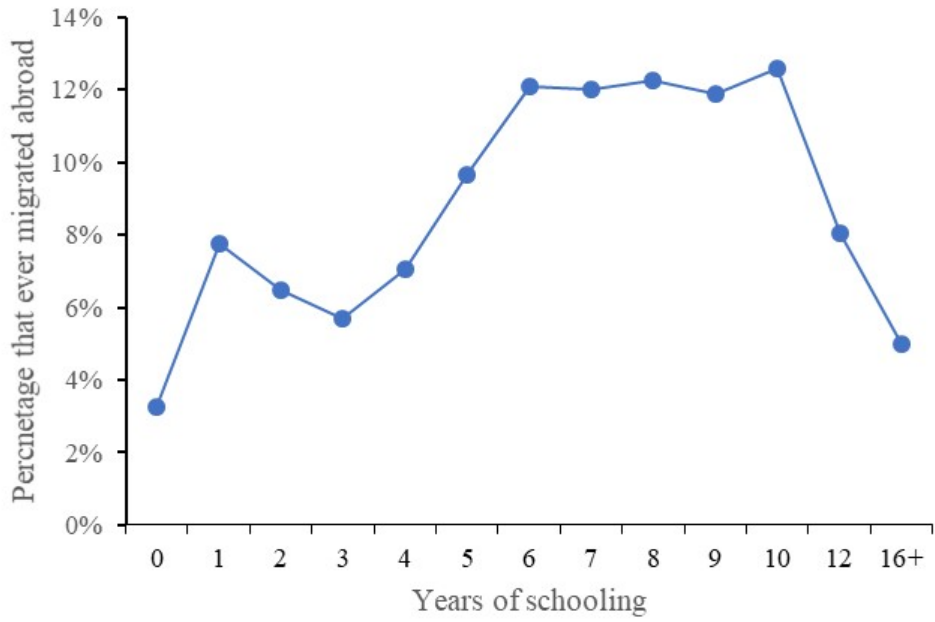


Panel B: Nepal

Table A2: Selection into emigration overseas, Probit regression, males aged 20-59

|  | (1) | (2) | (3) |
|---|---|---|---|
|  | Bangladesh | Nepal | Pakistan |
| Dependent var. | Return migrant | Return migrant | Return migrant |
| *Age category (age 20-29 as the reference group)* | | | |
| Age: 30-39 | 0.014*** | 0.015*** | 0.004*** |
|  | (0.002) | (0.005) | (0.001) |
| Age: 40-49 | 0.018*** | -0.042*** | 0.006*** |
|  | (0.003) | (0.006) | (0.001) |
| Age: 50-59 | 0.009*** | -0.110*** | 0.011*** |
|  | (0.003) | (0.008) | (0.001) |
| *Education level (illiterate as the reference group)* | | | |
| Education: Primary | 0.011*** | 0.050*** | 0.004*** |
|  | (0.002) | (0.008) | (0.001) |
| Education: Lower secondary | 0.023*** | 0.082*** | 0.008*** |
|  | (0.002) | (0.007) | (0.001) |
| Education: Higher secondary | 0.022*** | 0.061*** | 0.005*** |
|  | (0.002) | (0.007) | (0.001) |
| Education: Tertiary | 0.007** | -0.019* | 0.001 |
|  | (0.003) | (0.011) | (0.001) |
| Rural | 0.008** | 0.011*** | 0.001 |
|  | (0.004) | (0.004) | (0.001) |
| Married | -0.002 | 0.044*** | 0.008*** |
|  | (0.003) | (0.006) | (0.001) |
| Head of household | -0.014*** | -0.017*** | -0.002 |
|  | (0.003) | (0.005) | (0.001) |
| Household size | -0.001 | -0.006*** | 0.001*** |
|  | (0.001) | (0.001) | (0.000) |
| Number of dependents | 0.002** | -0.003 | -0.000 |
|  | (0.001) | (0.002) | (0.000) |
| Observations | 44775 | 15846 | 109367 |

*Note:* Robust standard errors in parentheses. Marginal effects in the Probit model are reported. Data source: Bangladesh HIES 2016-17; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table A3: Logit/Multinomial logit regressions: occupational choice, *returnees* only

| Dependent var./Outcome | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bangladesh | | | | Nepal | | | | Pakistan | | | |
| | Logit | Mlogit | | | Logit | Mlogit | | | Logit | Mlogit | | |
| | Self-emp. | Waged | SE&agri. | SE&nonagri. | Self-emp. | Waged | SE&agri. | SE&nonagri. | Self-emp. | Waged | SE&agri. | SE&nonagri. |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | -0.01 | 0.01 | 0.03 | -0.03 | 0.08* | -0.08* | 0.06* | 0.02 | 0.11** | -0.09** | 0.02 | 0.07 |
| | (0.03) | (0.03) | (0.02) | (0.03) | (0.05) | (0.04) | (0.03) | (0.04) | (0.05) | (0.04) | (0.05) | (0.05) |
| Age: 40-49 | 0.02 | -0.02 | 0.05** | -0.03 | 0.22*** | -0.20*** | 0.13*** | 0.06 | 0.18*** | -0.16*** | 0.06 | 0.10** |
| | (0.03) | (0.03) | (0.03) | (0.03) | (0.06) | (0.05) | (0.03) | (0.05) | (0.06) | (0.05) | (0.05) | (0.05) |
| Age: 50-59 | -0.01 | 0.01 | 0.05 | -0.05 | 0.12 | -0.10 | 0.13** | -0.03 | 0.32*** | -0.28*** | 0.13*** | 0.15*** |
| | (0.04) | (0.04) | (0.03) | (0.04) | (0.11) | (0.10) | (0.06) | (0.10) | (0.06) | (0.05) | (0.05) | (0.05) |
| *Education level (illiterate as the reference group)* | | | | | | | | | | | | |
| Education: Primary | 0.06** | -0.07*** | -0.04* | 0.10*** | 0.10 | -0.11 | -0.03 | 0.14 | 0.12** | -0.11*** | -0.02 | 0.13*** |
| | (0.03) | (0.03) | (0.02) | (0.03) | (0.09) | (0.09) | (0.05) | (0.09) | (0.05) | (0.04) | (0.03) | (0.04) |
| Education: Lower secondary | 0.08*** | -0.08*** | -0.06*** | 0.14*** | 0.26*** | -0.25*** | 0.02 | 0.24*** | 0.10** | -0.09** | -0.08** | 0.17*** |
| | (0.02) | (0.02) | (0.02) | (0.03) | (0.09) | (0.09) | (0.05) | (0.09) | (0.05) | (0.04) | (0.03) | (0.04) |
| Education: Higher secondary | 0.25*** | -0.25*** | 0.00 | 0.25*** | 0.36*** | -0.34*** | 0.06 | 0.29*** | 0.12*** | -0.11*** | -0.02 | 0.13*** |
| | (0.03) | (0.03) | (0.02) | (0.03) | (0.09) | (0.08) | (0.05) | (0.09) | (0.04) | (0.04) | (0.03) | (0.04) |
| Education: Tertiary | 0.32*** | -0.32*** | -0.01 | 0.33*** | 0.03 | 0.62*** | -1.15*** | 0.53*** | -0.13* | 0.12* | -0.15** | 0.02 |
| | (0.08) | (0.08) | (0.05) | (0.07) | (0.15) | (0.15) | (0.13) | (0.13) | (0.07) | (0.06) | (0.07) | (0.07) |
| Rural | | | | | -0.02 | 0.02 | 0.03 | -0.05 | 0.01 | -0.04 | 0.23*** | -0.18*** |
| | | | | | (0.04) | (0.04) | (0.02) | (0.04) | (0.03) | (0.03) | (0.03) | (0.03) |
| Married | -0.07** | 0.07** | 0.01 | -0.08** | 0.22** | -0.85*** | 1.13*** | -0.28*** | 0.001 | -0.006 | 0.001 | 0.005 |
| | (0.03) | (0.03) | (0.03) | (0.03) | (0.10) | (0.11) | (0.13) | (0.09) | (0.07) | (0.06) | (0.06) | (0.06) |
| Head of household | 0.09*** | -0.09*** | 0.03 | 0.06* | 0.21*** | -0.19*** | 0.03 | 0.16*** | 0.17*** | -0.15*** | 0.08** | 0.07 |
| | (0.03) | (0.03) | (0.02) | (0.03) | (0.05) | (0.05) | (0.03) | (0.05) | (0.05) | (0.04) | (0.04) | (0.04) |
| Household size | 0.01 | -0.01 | 0.00 | 0.01 | 0.01 | -0.01 | 0.00 | 0.01 | -0.01 | 0.01 | -0.00 | -0.01 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) |
| Number of dependents | -0.01 | 0.01 | -0.01 | -0.00 | 0.00 | -0.00 | 0.01 | -0.01 | 0.03** | -0.02** | 0.01 | 0.02 |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) |
| Observations | 3215 | 3215 | 3215 | 3215 | 666 | 666 | 666 | 666 | 1118 | 1118 | 1118 | 1118 |

*Note:* Robust standard errors in parentheses. Marginal effects in the Logit/Multinomial logit model are reported. Emp. is short for Employed and SE is short for Self-employed. Sample is restricted to male *employed return migrants* aged 20-59. Emp. is short for Employed and SE is short for Self-employed. Data source: Bangladesh RMS 2018-19; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

Table A4: Logit/Multinomial logit regressions: occupational choice, *nonmigrants* only

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bangladesh | | | | Nepal | | | | Pakistan | | |
| | Logit | | Mlogit | | Logit | | Mlogit | | Logit | | Mlogit | |
| Dependent var./Outcome | Self-emp. | Waged | SE& agri. | SE& nonagri. | Self-emp. | Waged | SE& agri. | SE& nonagri. | Self-emp. | Waged | SE& agri. | SE& nonagri. |
| *Age category (age 20-29 as the reference group)* | | | | | | | | | | | | |
| Age: 30-39 | 0.07*** | -0.07*** | 0.04*** | 0.03*** | 0.14*** | -0.13*** | 0.02* | 0.12*** | 0.05*** | -0.05*** | 0.02*** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Age: 40-49 | 0.15*** | -0.14*** | 0.09*** | 0.05*** | 0.19*** | -0.18*** | 0.05*** | 0.13*** | 0.09*** | -0.08*** | 0.06*** | 0.02*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Age: 50-59 | 0.21*** | -0.19*** | 0.14*** | 0.05*** | 0.23*** | -0.22*** | 0.08*** | 0.14*** | 0.13*** | -0.11*** | 0.10*** | 0.01* |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.00) | (0.01) |
| *Education level (illterate as the reference group)* | | | | | | | | | | | | |
| Education: Primary | 0.06*** | -0.07*** | 0.00 | 0.07*** | 0.08*** | -0.08*** | 0.00 | 0.07*** | 0.06*** | -0.06*** | -0.02*** | 0.08*** |
| | (0.01) | (0.01) | (0.00) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Lower sec. | 0.12*** | -0.12*** | 0.01** | 0.10*** | 0.14*** | -0.14*** | 0.01 | 0.13*** | 0.09*** | -0.10*** | -0.00 | 0.10*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Higher sec. | 0.09*** | -0.09*** | -0.04*** | 0.12*** | 0.18*** | -0.18*** | 0.00 | 0.18*** | 0.06*** | -0.07*** | -0.01*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Education: Tertiary | -0.10*** | 0.12*** | -0.17*** | 0.05*** | -0.06*** | 0.09*** | -0.13*** | 0.04* | -0.14*** | 0.14*** | -0.12*** | -0.03*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.03) | (0.02) | (0.02) | (0.01) | (0.01) | (0.01) | (0.01) |
| Rural | 0.16*** | -0.32*** | 0.39*** | -0.07*** | -0.03** | 0.03*** | 0.04*** | -0.07*** | -0.01*** | -0.05*** | 0.22*** | -0.17*** |
| | (0.01) | (0.02) | (0.03) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) |
| Married | -0.01 | 0.01 | -0.01 | 0.00 | 0.12*** | -0.12*** | 0.02 | 0.10*** | 0.03*** | -0.03*** | -0.02*** | 0.04*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.02) | (0.02) | (0.01) | (0.02) | (0.01) | (0.01) | (0.00) | (0.00) |
| Head of household | 0.07*** | -0.07*** | 0.02*** | 0.04*** | 0.10*** | -0.10*** | 0.03*** | 0.06*** | 0.20*** | -0.20*** | 0.11*** | 0.08*** |
| | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.01) | (0.00) | (0.00) |
| Household size | 0.03*** | -0.03*** | 0.01*** | 0.02*** | 0.01** | -0.01** | 0.00 | 0.01** | 0.01*** | -0.01*** | 0.00* | 0.00*** |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Number of dependents | -0.01*** | 0.01*** | -0.01*** | -0.01** | -0.01 | 0.00 | 0.01* | -0.01** | 0.00*** | -0.00*** | 0.00*** | 0.00 |
| | (0.00) | (0.00) | (0.00) | (0.00) | (0.01) | (0.01) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) | (0.00) |
| Observations | 38244 | 38244 | 38244 | 38244 | 8793 | 8793 | 8793 | 8793 | 98495 | 98495 | 98495 | 98495 |

*Note:* Robust standard errors in parentheses. Marginal effects of Logit/Multinomial logit model are reported. Sample is restricted to male *employed nonmigrants* aged 20-59. Emp. is short for Employed and SE is short for Self-employed. Data source: Bangladesh HIES 2016-17; Nepal LFS 2017-18; Pakistan LFS 2014-15 and 2017-18. * p>0.1, ** p>0.05, *** p>0.01.

43