

The well-being of internal migrants and their children in destination districts in Vietnam: A microeconomic analysis, 2015

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This paper investigates the impact of internal migration on the well-being of migrants and their children in destination areas in Vietnam using the 2015 National Internal Migration Survey. Vietnam is a transition economy with rapid industrialization, which has booted the flow of migration from rural to urban areas. To rule out time-invariant factors, which may affect the estimation results, the model regressions control for district-level fixed effects, industry-level fixed effects, and age fixed effects. The authors show that migrants work longer and are less likely to have an employment contract and health insurance than nonmigrants. Although migrants are more likely to drink alcohol, they do not seem to be heavy drinkers. Meanwhile, migrant children aged 5–18 are 6.5% more likely to drop out of school than nonmigrant children. Long-term migrants have better working conditions, such as shorter working hours, verbal employment contracts, and social and health insurance. Female migrants are less likely to find a job than male migrants, and educated migrants find it easier to get a job and earn better income than uneducated migrants. The findings suggest that governments should design specific policies for internal migrants, such as integration and social protection measures, to help them overcome the difficulties they encounter.

Keywords:

internal migration,
well-being,
health,
school dropout,
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Introduction

According to the new economics and theory of migration, migration is considered a collective decision not only of individuals but also of their families, and better income is the main incentive for migration (Stark–Taylor 1991, Stark 1991, Maulana–Aginta 2022). As a result, a large body of migration research has investigated whether migrants are truly better off once they migrate (Borjas et al. 1992, Fasani et al. 2020, Hakim et al. 2023, Kundu–Sarangi 2007, Lokshin et al. 2010, Lucas 2016, Rontos et al. 2022).

Microlevel studies have often examined the effect of migration in terms of economic aspects, such as pay gains (Lokshin et al. 2010, Yankow 2003), poverty status (Haan 1997, Kuschminder et al. 2018, Lokshin et al. 2010, Nguyen et al. 2011) and quality of employment (Kundu–Sarangi 2007, Lersch 2016).

While migrants may benefit in some respects, such as greater income (Fasani et al. 2020), they and their family members may suffer in others, such as a lack of relationships (Nisic–Petermann 2013, Nowok et al. 2013) or inequality in access to formal employment and essential services in their new destination areas (Shaokang et al. 2002, Stan 2015, Wu 2002). As migrants build a composite assessment of the benefits of relocating, an evaluation of both economic and noneconomic effects has the advantage of showing gains and losses as a consequence of migration (Kratz 2020). Walther et al. (2020) study the wellbeing of refugees in Germany between 2013 and 2016; however, this study does not consider the wellbeing of internal migrants. This study will fill this gap in the literature. The overall wellbeing not only includes the income of workers but is also related to health and life satisfaction. There are two main reasons why analyzing overall wellbeing as a result of migration is critical: First, such an analysis can help potential migrants understand the costs and benefits of migration. Second, it shows the effectiveness of policy interventions aimed at promoting the positive effects of migration and reducing its costs for migrants.

Similar to previous postcommunist countries (Horváth 2016), Vietnam has seen a rapid transformation in mobility over the past three decades. According to the 2015 National Internal Migration Survey, internal migrants in Vietnam make up a substantial number of people, accounting for 13.6% of the total population (GSO–UNPF 2016). Consequently, a growing body of literature has investigated the impact of internal migration on the well-being of migrants and their households.¹ While most research has looked at the effect of migration on family members in sending areas, little is known about the effects of internal migration on health, welfare and children's school dropout rates in destination areas. A better understanding of the role of migration in the wellbeing of migrants and their family members in destination areas

¹ For instance, some studies have analyzed livelihood diversification for rural households (Nguyen et al. 2013) or poverty reduction and household income (Nguyen–Vu 2018), while others have examined how migrant parents affect the wellbeing of their children (Nguyen 2016).

is of great importance to policy-makers as well as academics (Deshingkar 2005, GSO–UNPF 2016).

Using Vietnam as a case study, we investigate the well-being of migrants and their children in destination districts using the 2015 National Internal Migration Survey. Specifically, two main issues are examined: (i) What are the income, working conditions, and health status of migrants? and (ii) What is the status of their children dropping out of school? Our study has several strong points. *First*, unlike most previous studies focusing on migrant-sending areas, our study examines the income, working conditions, and health of migrants at their destination. Little is known about whether the income of migrants is better or worse than that of nonmigrants at their destinations. Do migrants and nonmigrants at these locations have similar working conditions and health status? Answering these questions allows us to gain a better understanding of the lives of migrants in their new homes. *Second*, this study evaluates whether migrant children are more likely to drop out of school. Disconnecting migrants from grandparents and relatives and lack of familiarity with the new community may diminish the care children receive, leading to their dropping out of school. *Finally*, we use a rigorous method to compare the interest outcomes of migrants and nonmigrants by controlling for birth year, industry-level, and district-level fixed effects. This method allows us to rule out significant confounding factors that may affect our results.

Our findings show that migrants work longer, are less likely to have employment contracts and are less likely to have health insurance than nonmigrants. However, there is no difference in income between migrants and nonmigrants. Furthermore, we find no evidence of a difference between migrants and nonmigrants in their self-reported health at their destination. We show that being a migrant increases the probability of drinking alcohol by 2.6%, but migrants do not seem to be heavy drinkers and are less likely to drink every day than nonmigrants.

Moreover, migrant children aged 5–18 are 7.5% more likely to drop out of school than nonmigrant children. Not surprisingly, being a migrant increases the probability of renting a house by 28.7% compared with nonmigrants. Heterogeneity analysis provides us with interesting results. Long-term migrants show a decrease in their work hours over the past 7 days by 0.48 hours, a 1.1% lower probability of having a verbal employment contract, a 1.3% greater probability of having social insurance and are 2.8% more likely to have health insurance. Female migrants are less likely to have a job than male migrants. Unskilled or uneducated migrants are less likely to have a job and earn worse income than skilled or educated migrants. Finally, we find that educated migrants are less likely to smoke than those who are uneducated.

Our paper is organized as follows: literature review, country context, data and method, empirical results, concluding remarks, policy implications and limitations.

Literature review

Throughout human history, there have been numerous streams of migrants intent on bettering their lives (Bailey 2001). A large body of literature on migration has investigated and analyzed the various channels through which migration affects the well-being of migrants and their households. Stark (1991) finds that migrants play an important role as financial insurance. When a credit and insurance market is not available, remittances help households overcome credit and liquidity constraints to achieve the transition from family to commercial production and to improve productivity. Remittances are also considered a household insurance policy in the event of a crop failure or other adverse shock (Yang–Choi 2007, Yang 2008, Groger–Zylberberg 2016). Using a Republic of Georgia household survey, Gerber–Torosyan (2013) illustrate how remittances increase household economic welfare and support the formation of social capital by raising the amount of money that households give as gifts to other households. Similarly, Zhu–Luo (2010) use a 2002 household survey of a mountainous area of Hubei Province to evaluate the effect of rural-to-urban migration on rural poverty and inequality. Their findings suggest that migration improves rural income.

Previous studies have also examined the effects of migration on children’s health and that of the elderly left behind. Living with migrant parents has adverse consequences for children’s health and education, and long exposure leads to a decline in children’s after-school study time and delays their grade progression (Meng–Yamauchi 2017, Meyerhoefer–Chen 2011). Likewise, it has been shown that in migrant households, girls are more engaged in housework and children’s work hours increase (Antman 2011, McKenzie–Rapoport 2011). The migration of children leads to their poorer self-reported health and increases the likelihood of elderly parents suffering from stroke or heart attack (Antman 2010).

In contrast, Kuhn et al. (2011) show that migrant children experience a reduced risk of negative health outcomes and a decrease in mortality, and Lu (2013) finds that migration has a positive effect on the nutritional status of adults left behind. However, Abas et al. (2009) and Böhme et al. (2015) find no empirical evidence of the relationship between children’s migration and the depression of elderly parents left behind. Likewise, Gibson et al. (2011) find no significant effect from the migration of household members on the physical health of older adults, including BMI, waist-to-hip ratio, and mental health, while Adhikari et al. (2011) report mixed results on the association between the health of the elderly left behind and children’s migration.

Turning to the literature on Vietnam’s situation, Brauw–Harigaya (2007) show that seasonal migration increases expenditure per capita and reduces poverty. Nguyen–Vu (2018) emphasize that households, some of whose members have migrated and send remittances, tend to work less than people in other households, and the prosperity of these households increases, mainly due to remittances. Meanwhile, Nguyen et al.

(2013) show that migration is a livelihood strategy that enables rural households to cope with agricultural and economic shocks and has a positive effect on income growth. Likewise, Niimi et al. (2009) indicate that remittances are sent back to the household of origin as part of an insurance mechanism to reduce economic uncertainty. Distinguishing estimates of work migration and nonwork migration, the panel econometric evidence from Nguyen et al. (2011) finds that both are positively associated with the per capita expenditure of migrant-sending households. Migration may have adverse consequences for children left behind. Specifically, Nguyen (2016) similarly demonstrates the negative effect of parental migration on the health of children and their cognitive ability test scores. However, using data from a convenience sampling approach, the results from multiple linear regression analysis by Nguyen et al. (2022) find no difference in school problems between children left behind and those who were not.

Numerous studies also evaluate the well-being, income, health, working and living conditions of migrants at their destinations. Akay et al. (2011) quantified the factors that affect the subjective well-being of migrants in China. Their ordered probit regression analysis finds that the well-being of migrants depends positively on the length of the migration period, the quality of working conditions, and the existence of community ties. Using a probit regression model with cross-sectional data, a recent study by Wang et al. (2022) revealed that migrants in China have a 10% lower probability of receiving insurance reimbursement than nonmigrants. Lu (2010) examines the link between rural–urban migration and health using a dynamic and fixed effect logistic model with longitudinal data for 1997–2000 in Indonesia. Lu (2010) finds that rural–urban labor migration is positively associated with the risk of psychological disorder as measured by depressive symptoms, largely a result of family disruption. The impact was particularly strong for migrants moving alone and was negligible for migrants moving with family members. Green et al. (2015) employ the British Household Panel Survey (2006–2008) with a coarsened exact matching method to analyze the association between internal migration and health. Although they found evidence of an overall significant positive impact of migration on health, once the effect was disaggregated by location and destination, the result disappeared. The results from the t test and binominal test by Adamtey et al. (2015) revealed in Ghana that while internal migrants earn a higher income and have better access to education after migration, they are more likely to experience poor working conditions and housing. Other evidence using fixed effect estimators also indicates that rural workers significantly improve their economic well-being after migrating to urban areas. Specifically, migration improves their nonfood consumption by approximately 150% in Ethiopia (de Brauw et al. 2018).

In Vietnam, a few studies have recently investigated the well-being of internal migrants at their destinations. For instance, Pham et al. (2019) conducted a cross-sectional study of approximately 290 Vietnamese workers in three industrial areas in Hanoi and Bac Ninh. Self-reported health status was measured and compared between migrant and local workers. Using a generalized linear model to estimate factors affecting the well-being of migrants, they found that migrants experience more health problems than local workers. Another cross-sectional study in four provinces of Vietnam by Do et al. (2021) investigated the differences in housing and working conditions for local and migrant workers. The authors employ an ordinary least squares (OLS) model with migration as the variable of interest and the outcome variables being satisfaction levels with housing and working conditions and income level, while a poisson model is used to estimate the effect of migration on the number of hazardous working conditions. Their multiple regression analysis reveals that migrants earn a lower income level and suffer more hazardous working conditions than local workers. Another study by Dang (2021) analyzed the migration and social inclusion of ethnic minority youth groups in industrial zones. His research reveals that most ethnic youth groups are manual, unskilled workers with low levels of education and skills, which act as barriers preventing them from decent work and higher income in industrial zones.

The literature shows that in Vietnam, a few studies have analyzed the impact of internal migration on the well-being of migrants at their destinations. However, most of these studies use primary data with a case study in some industrial zones or specific provinces. While these findings are useful and valid in a specific context, they may not generalize to the whole population of migrants in Vietnam. To the best of our knowledge, no study has used secondary data from the 2015 National Internal Migration Survey, which is a better national representative. More importantly, there is limited evidence, both in Vietnam and elsewhere, for the impact of internal migration on the children of migrants at their destinations. The gap in the literature and the significance of the topic have motivated us to conduct the current study. Specifically, we test two main hypotheses. The first is whether there is a difference in income, working conditions, and health status between migrants and local workers. Second, there is a difference in educational outcomes between the children of migrants and those of local residents.

Data and methods

Country context

In the 1980s, the Vietnamese government prohibited migration from rural to urban areas, particularly to large cities such as Hanoi, Haiphong, and Ho Chi Minh City, and instead arranged a migration program from densely to less densely populated areas.

Interprovincial migrants who migrated between 1984 and 1989 accounted for 2% of people aged five and over (CCSC 1991). In the five years preceding the 1999 census, over 4.5 million Vietnamese changed their place of residence (rural commune or urban ward) (Dang et al. 2003). Since 1986, Vietnam has transitioned from a centrally planned to a market economy, following economic liberalization policies, which expanded economic opportunities and created a pool of unemployed rural laborers willing and able to migrate to urban regions in pursuit of work (Anh 1999). In particular, the barrier to movement has substantially lost its effectiveness at restricting migration since the Vietnamese government removed the link between household registration and access to essential commodities (GSO–UNPF 2016). At the same time, rapid industrialization has encouraged the migration of people from rural to urban areas. The social networks generated by a rising number of rural people migrating to cities, many of them on a temporary basis, have boosted the flow from rural to urban areas (GSO–UNPF 2016). Over 200,000 spontaneous migrants were believed to be living in Hanoi in 1997, with 800,000 in Ho Chi Minh City (COSA 1998). According to the 2015 National Internal Migration Survey, migrants accounted for 13.6% of the Vietnamese population. From over 1 million in 1999 to 1.7 million in 2009, the interdistrict migrant population increased by more than half (GSO–UNPF 2016).

Data and descriptive statistics

This study uses the 2015 National Internal Migration Survey, carried out by the General Statistics Office. The survey was conducted in 20 provinces and cities, including the two largest cities of Hanoi and Ho Chi Minh, and represents the six socioeconomic regions of Vietnam. This is a unique survey providing a mass of information on internal migration in Vietnam. It covers 18,131 households and provides information such as age, relationship, gender, marital status, education, and a household's housing and living conditions. It also includes individual questionnaires on migrants and nonmigrants aged 15–59. Information concerning migration includes three types of migration: immigration, returning migration and short-term migration. The individual questionnaires on migrants and nonmigrants include 4,969 and 3,000 observations, respectively.

In this survey, migrants are defined as people moving from one district to another in the same province in the five years before the survey and who satisfy one of the following three conditions. They (i) have lived at their current residence for one month or more; (ii) have lived at their current residence for less than one month but intend to reside for one month or more; and (iii) have lived at their current residence for less than one month but within the past 1 year have moved from their permanent residence to another district to earn a living, with a cumulative total of one month or more.

Table 1

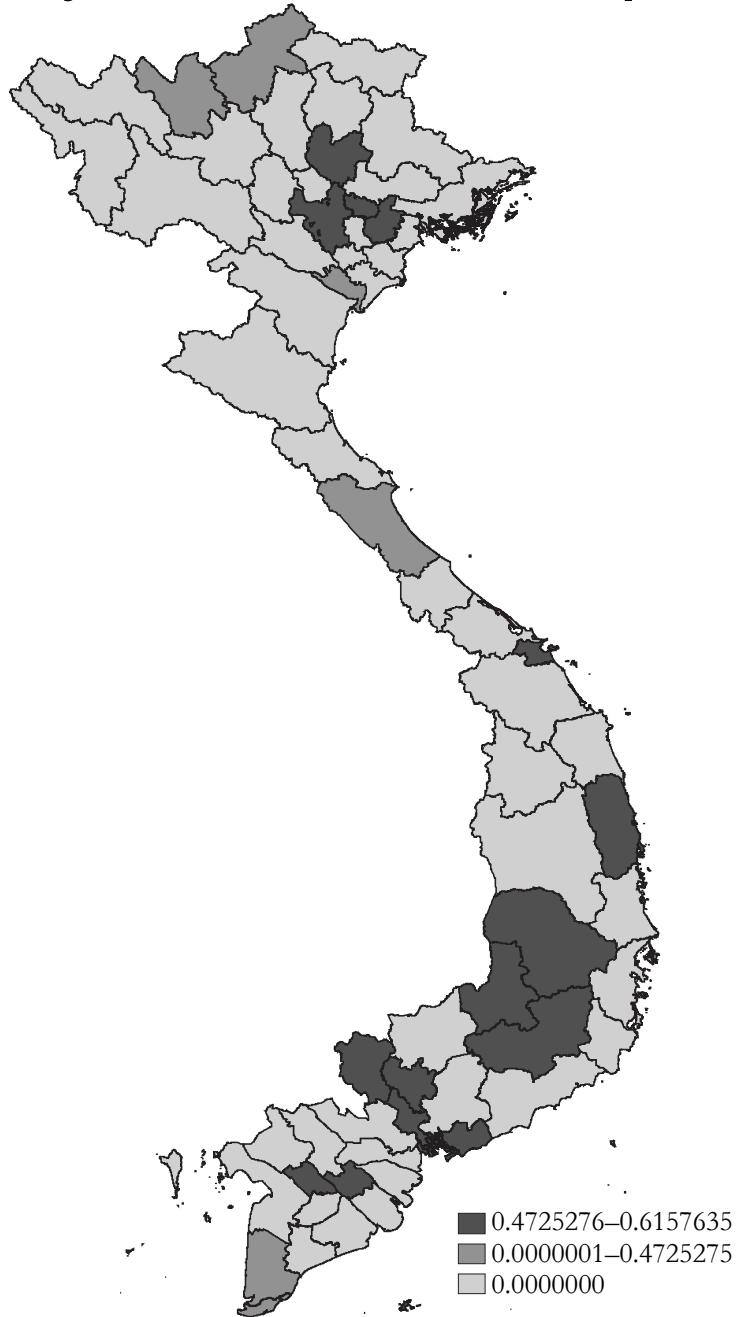
Descriptive statistics in Vietnam, 2015

Variable	Nonmigrant	Migrant
Gender	0.41	0.41
Kinh or Hoa ethnic group	0.93	0.90
Primary education	0.17	0.11
Lower secondary education	0.29	0.17
Upper secondary education	0.20	0.38
Vocational education or above	0.26	0.28
Reads newspaper at least once a week	0.57	0.70
Watches television at least once a week	0.97	0.76

For our purposes, a migrant is defined as a person who has moved from another district. Migrant children are children with their parents who are migrants. Table 1 reports the descriptive statistics of nonmigrants and migrants. The percentage of male nonmigrants accounted for 41%, similar to the percentage of male migrants. The percentage of nonmigrants belonging to the Kinh or Hoa ethnic groups is slightly higher than that of migrants belonging to these groups. Specifically, the percentage of Kinh or Hoa nonmigrants is 93% compared to 90% for migrants.

The percentage of nonmigrants completing primary education (17%) and lower secondary education (29%) is higher than that of migrants, at 11% and 17%, respectively. However, the percentage of migrants completing upper secondary education is greater than that of nonmigrants. Additionally, the percentage of migrants completing vocational education or above (28%) is higher than that of nonmigrants (26%). This result suggests that migrants are better educated as they compete with nonmigrants in the labor market. Interestingly, the percentage of migrants reading newspapers at least once a week (70%) is higher than that of nonmigrants (57%), while the percentage of migrants and nonmigrants watching television at least once per week is 76% and 97%, respectively.

Figure 1
Internal migration across mainland districts in Vietnam's provinces, 2015



Source: authors' calculation from the 2015 National Internal Migration Survey.

Econometric methods

Comparing migrants and nonmigrants may lead to biased analysis. For example, the income of migrants differs from that of nonmigrants in one district because the two groups may work in different industries or belong to different age groups. An individual would earn higher wages in a district where there is a higher demand for labor. Additionally, since emerging industries need more labor, these industries pay more for workers. To remove this selection bias, we use data on individuals who migrated from different districts but who work in markets with similar characteristics. The study controls for district-level fixed effects, industry-level fixed effects, and age fixed effects. Our approach is to compare migrants and nonmigrants who work in labor markets with similar characteristics within a district in a given industry and are of similar ages in the places they have moved to but differ depending on whether they are migrants or native to the area. Specifically, to investigate the wellbeing and health of migrants in their new homes, our model specification will be as follows:

$$Y_{ijk} = \beta_1 + \beta_2 M_i + \beta_3 X_{ijk} + \beta_4 D_{age} + v_j + n_k + \varepsilon_{ijk} \quad (1)$$

where Y_{ijk} is the interest outcome, namely, the monthly income, health and school dropout of children, of individual i working in industry j in district k . M_i is the dummy for migrant, which equals 1 if an individual moved from another district and 0 otherwise. X_{ijk} is the characteristics of individual i working in industry j and living in district k , including dummies for gender, Kinh or Hoa ethnic group, for completing primary education, lower secondary education, upper secondary education, vocational education, for reading a newspaper at least once a week, for watching TV at least once a week, and a dummy for urban area. v_j is industry-level fixed effects, and n_k is district-level fixed effects. All standard errors are clustered at the district level.²

Forgeard et al. (2011) find that well-being is best understood as a multidimensional phenomenon that may be measured using a variety of subjective and objective measures. The European Union defines well-being, including material living conditions, leisure, social interactions, economic and physical safety, governance and basic rights, and natural and living environments [1]. Organisation for Economic Co-operation and Development (OECD) measures well-being using a variety of indicators: income and wealth, jobs and earnings, housing health status, work and life, education and skills, social connections, engagement and governance, environmental quality, and personal security. The Human Development Index (UNDP 1990) measures human well-being not only via money but also through direct indicators taken from all domains that contribute to life quality. Based on these definitions of well-being, we construct a variety of measures of well-being in this study. Specifically, the variable on the dummy for work is equal to 1 if an individual worked for more than one hour to earn wages in the last 7 days and 0 otherwise. The dependent variable on work hours is the total actual hours that an individual worked at all jobs over the

² For ease of interpretation, we use a linear probability model for the dichotomous dependent variable.

past 7 days. The income variable is the log of average income per month during the last 12 months. We use the type of employment contract, social insurance and health insurance to proxy for the work environment. There are five types of employment contracts: 1 for unlimited contract; 2 for 1–3 year contract; 3 for a 3–12 month contract; 4 for a contract of under 3 months; and 5 for verbal agreement. We utilize a dummy for verbal agreement or no contract, which is equal to 1 if an individual worked on the basis of a verbal agreement or without an employment contract and 0 otherwise. The dummy for social insurance is equal to 1 if a worker had social insurance and 0 otherwise. The dummy for health insurance is equal to 1 if a worker had health insurance and 0 otherwise.

Health is measured by rating the health status of respondents and comparing it with that of others of the same age. The survey asks the question: “How would you rate your own health?” The answers are 1. Very good; 2. Good; 3. Fair; 4. Weak; 5. Very weak. The other question is “How would you compare your health to others of your age?” The answers are as follows: 1. Much better; 2. Better; 3. About the same; 4. Worse; 5. Much worse. Based on this information, we construct two measures of health: i) A dummy for one’s own health, equal to 1 if an individual’s health is very good or good, 0 otherwise; ii) A dummy for good health compared with that of others, equal to 1 if an individual’s health is better or much better than the health of other people of the same age, 0 otherwise. In addition, we use a dummy for health checks, equal to 1 if an individual has had a health check in the past three months and 0 otherwise.

We also measure the other health issues of migrants. We use a dummy for “current smoker”, which is equal to 1 if an individual smokes cigarettes or tobacco and 0 otherwise. Meanwhile, the survey asks the question: How would you rate yourself as a smoker? The answer includes the following: 1. Heavy; 2. Average; 3. Light. This allows us to construct the status of heavy smokers. Specifically, we establish a dummy for heavy smoking, which is equal to 1 if an individual smokes heavily and 0 otherwise. Drinking alcohol is also a health issue. To examine the effect of migration on alcohol consumption, we utilize a dummy for drinking alcohol, which is equal to 1 if an individual drinks beer or alcohol and 0 otherwise. We also use two other measures for drinking alcohol. These are a dummy for drinking alcohol every day and a dummy for drinking alcohol every day or several times per week.

In this study, we define the variable on school dropouts as children aged 5–18 who live with their migrant parents and have dropped out of school. To measure the rent of migrants, we use a dummy for rent that is equal to 1 if an individual rents a house and 0 otherwise.

Empirical results and discussion

Well-being of migrants

Table 2 reports the estimation results, which show that the dummy variable for work is not statistically significant. This means that there is no difference between migrants and nonmigrants in the probability of finding a job. Being a migrant is positively associated with work hours. Migrant status increases work hours over the past 7 days by 1.68 (Column 2). Although migrants work longer hours than nonmigrants, there is no difference in income between the two groups (Column 3). Being a migrant increases the probability of working without an employment contract or on the basis of a verbal agreement by 7.7% compared with nonmigrants (Column 4). Migration is negatively associated with the dummy for social insurance, and the estimates are statistically significant at the 12% level (Column 5). Migrant status is negative and statistically significant for the dummy for health insurance.

Table 2

The impact of migration on welfare in Vietnam, 2015

Denomination	Dummy for work	Work hours	Log of income	Dummy for verbal agreement or no contract	Dummy for social insurance	Dummy for health insurance
	(1)	(2)	(3)	(4)	(5)	(6)
Migration	0.005 (0.015)	1.684*** (0.561)	0.021 (0.026)	0.077*** (0.014)	-0.023 (0.014)	-0.061*** (0.016)
<i>N</i>	6,756	4,983	4,867	4,987	4,987	4,987
adj. <i>R</i> ²	0.269	0.203	0.375	0.318	0.578	0.240

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. Columns 2 to 6 add industry-level fixed effects. All standard errors are clustered at the district level.

As a robustness check, we remove all the characteristics for individuals and rerun the regressions of Table 2. The results are quantitatively similar. The results are reported in Table A1 of the Appendix. All these results show that the wellbeing of migrants is inferior to that of nonmigrants. Migrants work longer hours, have no employment contract and are less likely to have health insurance.³ Hesketh et al. (2008) confirm the long work hours of internal migrants in China. They also show

³ According to the 2006 Law on Social Insurance, which came into effect in 2007, workers with employment contracts of indefinite term or a term of 3 months or longer are allowed to participate in the compulsory social and health insurance scheme. This suggests that workers without an employment contract or with a contract of less than 3 months cannot participate in the compulsory insurance scheme.

that internal migrants earn less than permanent residents in urban areas, whereas we find no evidence of a difference in income between migrants and nonmigrants. Our findings on health insurance are consistent with a study by Ekman–Bales (2008), who find that migrants without local permanent resident registration often account for a large proportion of those without health insurance in Vietnam. In addition, temporary migrants in Vietnam tend to use health care services in destination cities less than nonmigrants do (Demombynes–Vu 2016).

Internal migrants may benefit from better health care at their new location. However, those who are healthier are more likely to migrate. Previous studies provide mixed results on the relationship between internal migration and health. For instance, Lin et al. (2016) demonstrate that stress regarding acculturation has a negative impact on the health of internal migrants. Anglewicz et al. (2017) find no evidence of differences in physical or mental health between migrants and nonmigrants. Moreover, Dodd et al. (2017) show that internal migration can result in an improvement, a decline, or no change in health. It is of interest, therefore, to examine the effect of migration on migrants’ health compared with that of local people. In practice, it is not easy to evaluate the health of migrants because health includes multidimensional aspects. As a result, this study uses various indicators to reflect migrant health issues.

Table 3 provides the estimation results on health. Migration does not have any significant impact on the health of migrants, and the results are robust for three measures of health (Columns 1 to 3). These findings are consistent with those of Zhang et al. (2015), who show that internal migration has no significant impact on a person’s psychological health status in China. Without controlling for the characteristics of individuals, the estimates of migration remain unaltered. The results are provided in Table A2 of the Appendix.

Table 3

The impact of migration on health in Vietnam, 2015

Denomination	Dummy for own health	Dummy for good health compared with others	Dummy for health checks in the last three months
	(1)	(2)	(3)
Migration	0.020 (0.015)	0.015 (0.014)	–0.015 (0.017)
N	4,987	4,987	4,987
adj. R ²	0.155	0.066	0.082

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

Now, we investigate other health issues. Migrants live far from their hometown and may feel homesick, which may result in smoking or drinking to relieve stress. Table 4 provides the estimation results for other health issues, including smoking and drinking alcohol. We find that the results are not statistically significant either for the dummy for current smoking or the dummy for heavy smoking (Columns 1 and 2). Considering alcohol consumption, migrants are 2.6% more likely to drink. However, migrants seem not to be heavy drinkers. Migrants are less likely to drink every day than nonmigrants and are less likely to drink every day or several times per week than nonmigrants. Migrant status decreases the probability of drinking every day by 1.3% (Column 4) and drinking every day or several times per week by 2.3% (Column 5).⁴ Without controlling for the characteristics of individuals, the estimation results are similar, except for the dummy for current smoking (Table A3 of the Appendix). Specifically, migrant status is positively associated with being a current smoker.

Table 4

The impact of migration on other health issues in Vietnam, 2015

Denomination	Dummy for current smoker	Dummy for heavy smoking	Dummy for drinking alcohol	Dummy for drinking every day	Dummy for drinking every day or several times per week
	(1)	(2)	(3)	(4)	(5)
Migration	0.018 (0.012)	0.001 (0.005)	0.026** (0.012)	-0.013** (0.006)	-0.023** (0.011)
<i>N</i>	4,987	4,987	4,987	4,987	4,987
adj. <i>R</i> ²	0.354	0.065	0.492	0.059	0.174

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

Well-being of children

Students who change schools frequently are more likely to drop out of high school (South et al. 2007). Social capital plays a critical role in the school attainment of migrant children. Migrant children who experience disruption in socially structured community relationships due to migration issues are at increased odds of dropping out of school (Goksen–Cemalcilar 2010). In addition, due to the permanent household registration policy in Vietnam, internal migrants do not have the same rights and benefits in education as nonmigrants – local permanently registered

⁴ Tong et al. (2012) show that Mexicans with a migrant in their family or previous migration experience smoke fewer cigarettes per day than do US-born Mexican Americans.

residents. Household registration policy in Vietnam prevents children registered as residents in one commune from studying in another. All these factors indicate that migrant children are more likely to drop out of school.

Table 5 shows that migration is positively related to school dropout, and the result is statistically significant at the 1% level. Migrant children aged 5–18 are 7.5% more likely to drop out of school than nonmigrant children (Column 1). The estimation result is very similar when we remove individual characteristics (see Column 1 of Table A4 of the Appendix).

This finding is consistent with previous studies on Vietnam. For instance, based on the 2009 Census data, the General Statistics Office (2011) demonstrates that migrant children are much less likely to attend primary and secondary schools than nonmigrant children. Moreover, a study by the World Bank (2014) reveals that migrant children aged 11–18 are 40% less likely to be in school if they do not have permanent registration at their current place of residence. The main reason is that migrants have to pay twice as much in educational costs as nonmigrants. Oxfam and ActionAid (2012) also report that migrants with permanent rural registration are charged higher fees than nonmigrants, and the annual school fees in Hanoi and Ho Chi Minh City can be greater than the salary of a construction worker, leading to their children dropping out of school.

Table 5

The impact of migration on school dropout rate and rent in Vietnam, 2015

Denomination	Dummy for school dropout	Dummy for rent
	(1)	(3)
Migration	0.075*** (0.021)	0.287*** (0.021)
N	1,686	4,987
adj. R ²	0.227	0.451

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

Obviously, moving from one district to another increases the likelihood of migrants renting a house. We find that a migrant is 28.7% more likely to rent a house than nonmigrants (Column 2). The result remains unchanged when we remove individual characteristics (see Table A4, Column 2 in the Appendix). This suggests that migrants have lower living standards than nonmigrants.

Heterogeneity analyses

To deepen our insight into migration, we carry out a heterogeneity analysis. Migration may have varying effects on different groups of migrants. We interact the dummy for migration with years of migration, dummy for male, dummy for young people and dummy for completion of upper secondary education or above.

Table 6 presents the heterogeneity of migration on welfare. Panel A indicates that migrants with more years of migration reduced their number of work hours over the past 7 days by 0.48, are 1.1% less likely to lack an employment contract, are 1.3% more likely to have social insurance and 2.8% more likely to have health insurance (Columns 2, 4–6). The result on the interaction between migration and years of migration is not statistically significant for the dummy for work and log of income (Columns 1 and 3). Panel B suggests that male migrants are less likely to have a job than females. Male migrants has higher probability of having a job by 8.3% than female migrants (Column 1). Meanwhile, male migrants are 0.4% more likely to have no employment contract than female migrants (Column 4).

Vietnam is among the top textile, garment and clothing producing and exporting countries in the world. These industries are labor intensive and need more female workers, and for this reason, we observe that female migrants have better opportunities in the labor market than males. Panel C shows the interaction between migration and the dummy for young people. The dummy for young people is equal to 1 if individuals are between the ages of 15 and 35 and 0 if between the ages of 36–59. The estimation results on the interaction between migration and the dummy for young people are not statistically significant for any dependent variables, except for the dummy for health insurance. Younger migrants are 22.8% less likely to have health insurance than older migrants (Column 6).

It is also of interest to examine the difference between migrants with high and low levels of education. In other words, we can analyze the welfare of unskilled and skilled migrants. People with a lower level of education are usually unskilled workers, whereas those with a higher level of education are skilled workers. We generate a dummy for the completion of upper secondary education or above. Panel D provides the estimates of the interaction between migration and the dummy for the completion of upper secondary education or above. These estimates are statistically significant at the 1% level for the dummy for work, work hours, log of income, and the dummy for having no employment contract. Migrants with upper secondary education or above are 5.4% more likely to have a job than migrants with lower secondary education or below (Column 1). Furthermore, the work hours of migrants with upper secondary education or above is 11.1% lower than the work hours and income of migrants with lower secondary education or below (Column 2), while income of migrants with upper secondary education or above is 24.8% higher than income of migrants with lower secondary education or below. Furthermore, migrants with upper secondary education or above are less likely to have no employment contract by

21.2% compared with migrants with lower secondary education or below, suggesting that educated migrants are more likely to work in formal sectors.

Table 7 presents the heterogeneity of migration on health. Panel A shows that there is no significant association between long-term migrant status and current health condition (Columns 1 and 2). Migrants who have lived in the country for a longer period of time are more likely to have had health checks in the last three months. The estimation results on the interaction between migration and the dummy for male are reported in Panel B. The estimates are not statistically significant for any dependent variables. We find that young migrants have better health status than old migrants; however, young migrants have a higher probability of having health checks than old migrants (Panel C). Finally, Panel D indicates that for migrants with upper secondary education or above, there is no significant impact on health.

Now, we investigate the heterogeneity of migration on other health issues, including smoking and drinking. The estimation results are presented in Table 8. Panel A shows the estimates of the interaction between migration and years of migration. Migrants who have lived in the country for longer have a significant influence on the probability of individuals drinking every day or several times per week. An increase by one year as a migrant boosts the probability of migrants drinking every day or several times per week by 0.9%. The magnitude of this effect is quite small. Men are more likely to smoke and drink, so we do not report the interaction between migration and the dummy for males.⁵ Panel C shows that the estimation results for the interaction between migration and the dummy for the completion of upper secondary education or above are negative and statistically significant for the dummy for being a current smoker at the 1% level. Migrants with upper secondary education or higher are 14.4% less likely to smoke than those with lower education (Column 1). However, the results are not statistically significant for the dummy for heavy smoking, the dummy for drinking alcohol, the dummy for drinking every day, or the dummy for drinking every day or several times per week.

⁵ The percentage of female migrants smoking is very small, accounting for 0.55%. Although the percentage of female migrants drinking alcohol is 15.8%, the percentage of female migrants drinking alcohol every day is only 0.34%, it is minuscule.

Table 6

Heterogeneity of migration on welfare in Vietnam, 2015

Denomination	Dummy for work	Work hours	Log of income	Dummy for verbal agreement or no contract	Dummy for social insurance	Dummy for health insurance
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Interact with years of migration						
Interaction between migration and years of migration	–0.006 (0.007)	–0.480** (0.211)	0.002 (0.009)	–0.011* (0.005)	0.013** (0.005)	0.028*** (0.007)
Migration	0.023 (0.026)	3.075*** (0.759)	0.017 (0.040)	0.108*** (0.024)	–0.060** (0.024)	–0.143*** (0.029)
adj. R ²	0.269	0.204	0.375	0.318	0.579	0.244
Panel B. Interaction with gender						
Interaction between migration and dummy for male	–0.070*** (0.023)	0.927 (0.797)	–0.034 (0.037)	0.040** (0.017)	–0.016 (0.018)	–0.010 (0.026)
Migration	0.033* (0.017)	1.264* (0.712)	0.037 (0.029)	0.059*** (0.015)	–0.015 (0.015)	–0.057*** (0.018)
Dummy for male	0.153*** (0.015)	0.604 (0.633)	0.188*** (0.032)	0.015 (0.013)	–0.013 (0.013)	–0.036* (0.019)
adj. R ²	0.270	0.203	0.375	0.318	0.578	0.240
Panel C. Interaction with dummy for young age						
Interaction between migration and dummy for young people	0.016 (0.028)	–1.508 (0.977)	–0.039 (0.043)	–0.039 (0.028)	–0.034 (0.024)	0.067** (0.033)
Migration	–0.005 (0.024)	2.582*** (0.828)	0.044 (0.039)	0.100*** (0.023)	–0.002 (0.019)	–0.101*** (0.026)
Dummy for young people	–0.164* (0.092)	0.409 (4.735)	–0.177 (0.209)	0.226 (0.177)	–0.075 (0.084)	–0.295* (0.168)
adj. R ²	0.269	0.204	0.375	0.318	0.578	0.241
Panel D. Interaction with dummy for completion of upper secondary education or above						
Interaction between migration and dummy for upper secondary education or above	–0.097*** (0.021)	–2.631*** (0.794)	–0.118*** (0.041)	–0.073*** (0.021)	–0.007 (0.022)	0.048 (0.030)
Migration	0.055*** (0.020)	3.016*** (0.676)	0.081** (0.035)	0.114*** (0.020)	–0.019 (0.018)	–0.085*** (0.024)
Dummy for upper secondary education or above	0.151*** (0.026)	2.520** (1.218)	0.366*** (0.059)	–0.139*** (0.034)	0.183*** (0.027)	0.186*** (0.043)
adj. R ²	0.271	0.205	0.377	0.320	0.578	0.241
N	6,756	4,983	4,867	4,987	4,987	4,987

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. Columns 2 to 6 add industry-level fixed effects. All standard errors are clustered at the district level.

Table 7

Heterogeneity of migration on health in Vietnam, 2015

Denomination	Dummy for own health	Dummy for good health compared with others	Dummy for health checks in the last three months
	(1)	(2)	(3)
Panel A. Interaction with years of migration			
Interaction between migration and years of migration	-0.008 (0.006)	-0.003 (0.006)	0.010 (0.006)
Migration	0.044* (0.023)	0.025 (0.020)	-0.043* (0.024)
adj. R ²	0.155	0.066	0.082
Panel B. Interaction with gender			
Interaction between migration and dummy for male	0.030 (0.022)	0.026 (0.021)	-0.029 (0.021)
Migration	0.007 (0.018)	0.003 (0.016)	-0.002 (0.021)
adj. R ²	4,987	4,987	4,987
adj. R ²	0.155	0.066	0.082
Panel C. Interaction with dummy for young age			
Interaction between migration and dummy for young people	-0.062* (0.033)	-0.022 (0.026)	0.058* (0.031)
Migration	0.056** (0.024)	0.028 (0.022)	-0.049** (0.023)
Dummy for young people	0.502*** (0.153)	0.032 (0.168)	-0.340*** (0.094)
adj. R ²	4,987	4,987	4,987
adj. R ²	0.156	0.066	0.082
Panel D. Interaction with dummy for completion of upper school or above			
Interaction between migration and dummy for upper secondary education completion or above	-0.023 (0.026)	-0.031 (0.027)	0.002 (0.027)
Migration	0.032 (0.021)	0.031 (0.023)	-0.016 (0.017)
Dummy for upper secondary education completion or above	0.084** (0.034)	0.011 (0.034)	0.239*** (0.034)
adj. R ²	0.155	0.066	0.082
N	4,987	4,987	4,987

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

Table 8

Heterogeneity of migration on other health issues in Vietnam, 2015

Denomination	Dummy for current smoker	Dummy for heavy smoking	Dummy for drinking alcohol	Dummy for drinking every day	Dummy for drinking every day or several times per week
	(1)	(2)	(3)	(4)	(5)
Panel A. Interact with years of migration					
Interaction between migration and years of migration	–0.001 (0.004)	0.000 (0.002)	0.007 (0.005)	0.001 (0.002)	0.009** (0.004)
Migration	0.022 (0.017)	0.000 (0.007)	0.007 (0.019)	–0.017** (0.008)	–0.048*** (0.014)
adj. R ²	0.354	0.064	0.492	0.059	0.175
Panel B. Interaction with dummy for young age					
Interaction between migration and dummy for young people	–0.015 (0.023)	–0.005 (0.012)	–0.007 (0.025)	0.009 (0.012)	0.007 (0.017)
Migration	0.027 (0.017)	0.004 (0.010)	0.030* (0.017)	–0.018* (0.011)	–0.027* (0.016)
Dummy for young people	–0.281** (0.110)	–0.075 (0.047)	–0.250 (0.195)	–0.067 (0.044)	–0.133* (0.071)
adj. R ²	0.354	0.065	0.492	0.059	0.174
Panel C. Interaction with dummy for completion of upper school or above					
Interaction between migration and dummy for upper secondary education or above	–0.057*** (0.020)	–0.003 (0.010)	–0.025 (0.024)	0.006 (0.010)	–0.008 (0.019)
Migration	0.047*** (0.014)	0.003 (0.009)	0.039** (0.016)	–0.016** (0.008)	–0.019 (0.015)
Dummy for upper secondary education or above	–0.087*** (0.026)	–0.016 (0.017)	0.086*** (0.028)	–0.002 (0.012)	0.010 (0.019)
adj. R ²	0.355	0.065	0.492	0.059	0.174
N	4,987	4,987	4,987	4,987	4,987

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions control for the dummy for gender, for Kinh or Hoa ethnic group, for completion of primary education, lower secondary education, upper secondary education, vocational education or above, for reading a newspaper at least once a week, for watching TV at least once a week, and the dummy for urban area. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

Summary of findings, policy implications and limitations

Summary of main findings

This study is the first attempt to uncover the economic and general well-being of migrants and their children in destination areas in Vietnam. Our study contributes to the literature in several ways. First, in contrast to the majority of other research that mostly looked at migrant-sending regions, our study looks at the wages, working conditions, and health of migrants in their destinations. Second, the current study is

the first to assess whether children of migrants have higher dropout rates than those of local residents. Third, by adjusting for birth year, industry-level, and district-level fixed effects, our regression analysis rigorously compares the well-being of migrants and nonmigrants using a rigorous methodology. Using this technique, we can eliminate significant confounding variables that could make our results misleading. The main findings can be summarized as follows.

Whereas approximately 59% of migrants have better salaries at their current place of residence than at their place of origin, our study shows that migrants work longer hours than nonmigrants. This finding is consistent with Hesketh et al. (2008), who detail the long work hours of internal migrants in China. Meanwhile, migrant status increases the probability of working without an employment contract and lowers the probability of having health insurance compared with nonmigrants. This suggests that migrants are disadvantaged in their work conditions compared with nonmigrants.

Migrants may have better health than nonmigrants due to a selection effect. Specifically, those who are healthier are more likely to migrate. However, we find no evidence to support this hypothesis. The health status of working migrants at their new location is similar to that of nonmigrants, and even numerous years as migrants have no significant effect on migrant health. Although migrants are 2.6% more likely to drink alcohol, they do not appear to be heavy drinkers, and migrants are less likely to drink every day than nonmigrants. In addition, children aged 5–8 living in a migrant family are more likely to drop out of school than nonmigrant children. Not surprisingly, compared with nonmigrants, migrants are 28.7% more likely to rent a house.

Years of migration may affect the life of migrants in destination areas. First, migrants may not be familiar with their new place of residence or work. This means that individuals with more years as migrants may have a better life. Our results show that long-term migrants reduce their hours of work over the past 7 days by 0.48 hours, are 1.1% less likely to have a verbal employment contract, are 1.3% more likely to have social insurance and are 2.8% more likely to have health insurance.

Regarding gender issues, female migrants are less likely to have a job than male migrants. We also find that unskilled migrants or uneducated migrants are less likely to have a job and earn worse income than skilled or educated migrants. Finally, we find that educated migrants are less likely to smoke than uneducated migrants.

Policy implications and limitations

Our research findings offer some useful policy implications by providing insight into the welfare and health of internal migrants in Vietnam. This suggests that to support internal migrants by removing the barriers they face, policy-makers should establish specific policies, such as integration and social protection policies for migrants. The

household registration policy should be abolished because it restricts the movement of rural migrants to urban areas and is linked with access to local welfare.

We acknowledge that our study has certain limitations. If migration has a short-term influence on well-being, the extent of the effect is dependent on the time point of research. The dynamic relationship between migration and well-being can only be assessed using longitudinal data. Furthermore, using cross-sectional data, our study was unable to account for unobservable factors that may affect both migration and its returns. For instance, weather conditions may affect both the decision on migration that a household can make and their economic well-being (Nguyen 2023). This suggests that when longitudinal data become available, future research should account for potential migrant self-selection.

The dataset is available upon request.

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Appendix

Table A1

The impact of migration on welfare in Vietnam, 2015 (without controlling for characteristics of individuals)

Denomination	Dummy for work	Work hours	Log of income	Dummy for verbal agreement or no contract	Dummy for social insurance	Dummy for health insurance
	(1)	(2)	(3)	(4)	(5)	(6)
Migration	0.008 (0.015)	1.720*** (0.575)	0.022 (0.027)	0.079*** (0.015)	-0.022 (0.015)	-0.059*** (0.017)
<i>N</i>	6,756	4,983	4,867	4,987	4,987	4,987
adj. <i>R</i> ²	0.245	0.199	0.347	0.308	0.571	0.222

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions also control for birth year fixed effects and district-level fixed effects. Columns 2–6 add industry-level fixed effects. All standard errors are clustered at the district level.

Table A2

The impact of migration on health in Vietnam, 2015 (without controlling for characteristics of individuals)

Denomination	Dummy for own health	Dummy for good health compared with others	Dummy for health checks in the last three months
	(1)	(2)	(3)
Migration	0.023 (0.015)	0.018 (0.013)	-0.021 (0.017)
<i>N</i>	4,987	4,987	4,987
adj. <i>R</i> ²	0.136	0.060	0.049

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions also control for birth year fixed effects and district-level effects. All standard errors are clustered at the district level.

Table A3

**The impact of migration on other health issues in Vietnam, 2015
(without controlling for characteristics of individuals)**

Denomination	Dummy for current smoker	Dummy for heavy smoking	Dummy for drinking alcohol	Dummy for drinking every day	Dummy for drinking every day or several times per week
	(1)	(2)	(3)	(4)	(5)
Migration	0.034** (0.014)	0.003 (0.005)	0.052*** (0.016)	–0.011** (0.005)	–0.019* (0.011)
N	4,987	4,987	4,987	4,987	4,987
adj. R ²	0.034	0.032	0.036	0.032	0.071

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions also control for birth year fixed effects and district-level and industry-level fixed effects. All standard errors are clustered at the district level.

Table A4

**The impact of migration on school dropout rate and rent in Vietnam, 2015
(without controlling for characteristics of individuals)**

Denomination	Dummy for school dropout	Dummy for rent
	(1)	(2)
Migration	0.081*** (0.026)	0.314*** (0.022)
N	1,686	4,987
adj. R ²	0.155	0.412

Notes: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All regressions also control for birth year fixed effects and district-level fixed effects. All standard errors are clustered at the district level.

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