WPS6166

Policy Research Working Paper 6166

Internal Migration in Egypt

Levels, Determinants, Wages, and Likelihood of Employment

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The World Bank
Middle East and North Africa Region
Poverty Reduction and Economic Management Unit
August 2012

Policy Research Working Paper 6166

Abstract

This paper describes stylized facts about internal migration and the labor force in Egypt, and shows how internal migration in the country is low compared with international standards. Using aggregate labor force survey data, the paper shows how individuals migrate to governorates with higher wages. With a Mincerian equation, the analysis finds that migrants earn premiums with respect to non-migrants, except for those migrants with low education levels. The aggregate labor statistics reveal lower unemployment rates among migrants, a phenomenon that is verified by an employment equation. According to the econometric results, migrants are more likely to be employed, even after controlling for other observable individual characteristics. Finally, the paper estimates a Probit model for the decision to migrate, finding that more educated individuals are more likely to migrate, agricultural workers have a lower probability of migrating, and individuals from governorates in which food production for own consumption is higher are less likely to migrate. These results suggest that low educational attainment and the "food problem", which ties resources to food production to meet subsistence requirements, are at the root of low migration in Egypt.

This paper is a product of the Poverty Reduction and Economic Management Unit, Middle East and North Africa Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at sherrera@worldbank.org and kmohamed@worldbank.org.

Internal migration in Egypt: Levels, determinants, wages, and likelihood of employment

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JEL Classification: R23, J61

Keywords: Egypt, Internal Migration, employment, wages

Sector Board: POV

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Introduction

Although Egypt (pop. 83 million in 2011) experienced striking economic growth alongside a variety of developmental improvements from 2004 till 2010, spatial inequality and poverty persist. Egyptians in urban and Lower Egypt enjoy higher living standards than those in rural and Upper Egypt, yet internal migration rates are surprisingly low compared to other countries.

This paper offers three explanations for the low migration rates: 1) low educational level, 2) labor is tied up in agricultural activity either as paid workers or unpaid family workers, and 3) rural households' ability to raise a portion of their food offsetting the impact of soaring food prices and reducing the incentive to migrate. The paper also finds two telling characteristics of internal migrants: 1) they are more likely to find employment than non-migrants; and 2) they earn higher wages, in particular the more educated individuals.

Literature Review

All existing studies address the issue of internal migration in Egypt without, however, suggesting why the rates are comparatively low:

Wahba, "An Overview of Internal and International Migration in Egypt" (2007) used the Egypt Labor Market Panel Survey (ELMPS 06) to demonstrate that while internal migration increased in 1998 -2006, the rate remained very low. The author notes that both rural-to- urban and urban-to- rural migration increased in that period as did commuting patterns.

Zohry, "The Development Impact of Internal Migration: Findings from Egypt" (2009) discussed the main motivations behind internal and international migration in Egypt drawing on field work in two governorates (Cairo and Beni Suief). Zohry suggested that migrants were more often forced to move by dire economic necessity rather than the wish to seek a better living situation.

Stylized Facts

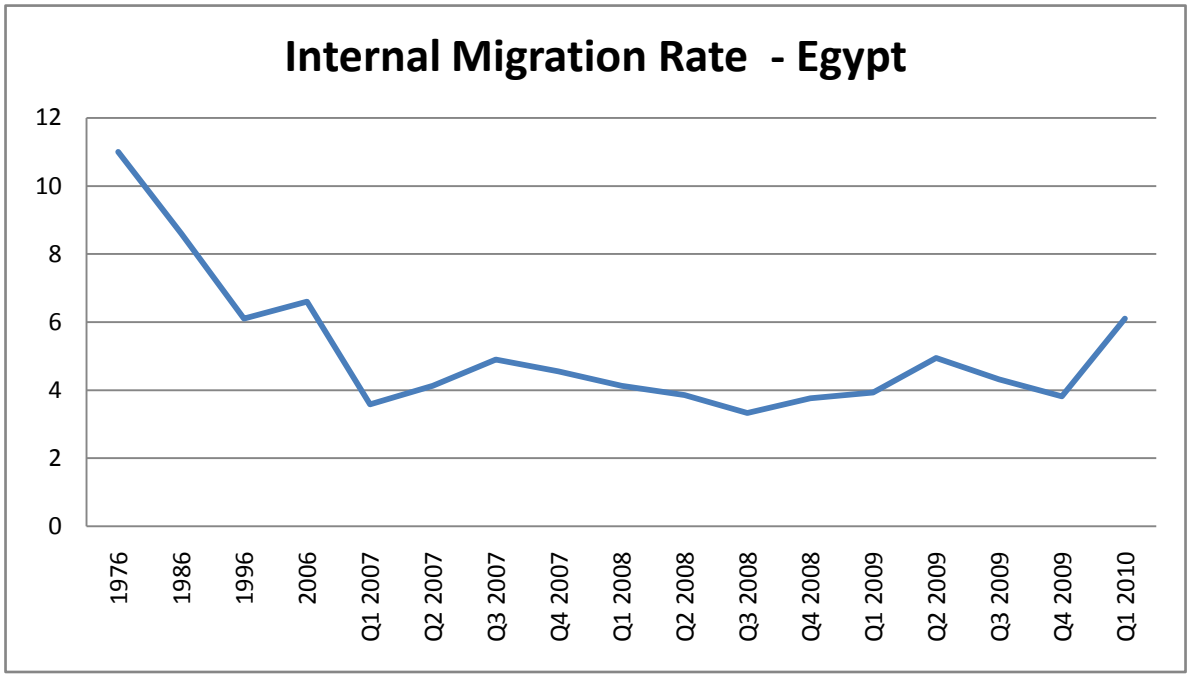
Data

This study used the Labor Force Survey conducted by the Central Agency for Public Mobilization and Statistics (CAPMAS) for the first quarter of year 2010. The survey has over 60 questions, clustered in three sections: 1) demographic and professional status (28 questions); 2) employed characteristics (26 questions); and 3) unemployed characteristics (5 questions). The survey has 88,000 respondents.

An internal migrant is defined as an individual who has left the governorate of residence since birth in order to live in another region/governorate.[3] The internal migration rate is calculated as a ratio of the number of migrants to that of the total population.

Although Egypt's economy is in a transitional phase, internal migration has lessened rather than increased. Internal migration rates declined during the 1970s, but stabilized since the mid-2000s, oscillating around 4% between 2007 and 2009, and reaching 6.1 percent in Q1 2010 (see Figure 1).

Figure 1 – Internal Migration Rate in Egypt

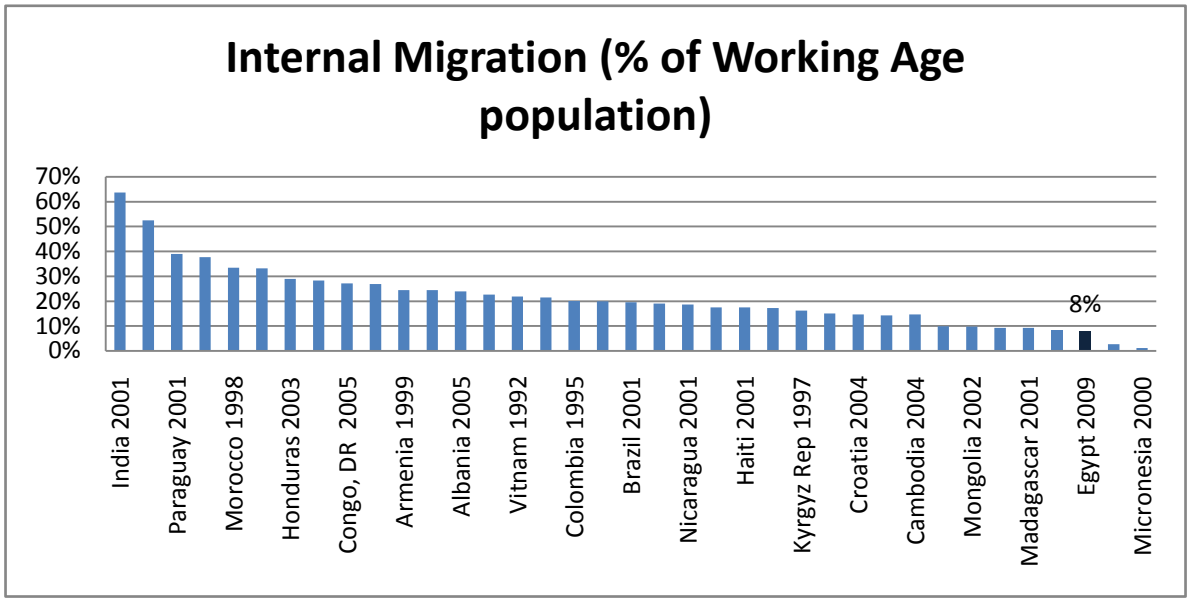


Source: CAPMAS and authors' calculations using Labor Force Survey

Egypt's internal migration rates have not only declined over time, they are low by international standards. The world average internal migration rate as a share of working-age population is around 15 percent, while in Egypt it is 8 percent (see Figure 2).

[3] Egypt is divided into 28 governorates.

Figure 2- Internal Migration Rate by Country



Sources: World Development Report 2010; Egypt: Authors' calculations using Labor Force Survey 2009; India: Bahgat, Ram B. 2009.

Men and women show similar migration rates, with the rate of migration among males (6 percent) slightly lower than that of females (6.2 percent) (see Tables A1 and A2 in the appendix). However, the reasons for migration greatly differ between men women, as described later in the paper.

Direction of Migration

Whether from urban or rural areas, most migrants prefer cities and towns as destinations. Rural migrants have a somewhat higher tendency to choose a rural locality (18.2 percent) compared to urban migrants (13.5 percent). In other words, urban migrants have a higher preference for cities and towns (86.5 percent) than rural migrants (81.7percent; Ssee Table 1).

Table 1 – Direction of Migration – Urban/Rural (classified according to place of origin)

	Current Location		
Previous Location	Urban	Rural	Total
Urban	86.5	13.5	100
Rural	81.7	18.3	100
Total	84.6	15.4	100

Source: Authors' calculations using Labor Force Survey

Sixty-one percent of migrants currently residing in cities and towns came from other urban areas, while 47.8 percent of migrants living in rural areas came from the countryside (see Table 2).

Table 2 – Direction of Migration - Urban/Rural (classified according to destination)

	Current location		
Previous Location	Urban	Rural	Total
Urban	61.0	52.2	59.6
Rural	39.0	47.8	40.4
Total	100	100	100

Source: Authors' calculations using Labor Force Survey

Migration by Region

We considered seven regions in Egypt: 1) Cairo governorate; 2) urban Lower Egypt, including three metropolitan governorates (Alexandria, Port Said and Suez); 3) rural Lower Egypt; 4) urban Upper Egypt including urban Giza; 5) rural Upper Egypt (including rural Giza); 6) urban Frontier governorates; and 7) rural Frontier governorates.

Lower Egypt is the preferred destination for migrants (64 percent), followed by Cairo (17 percent), as shown in Table 3. The majority of migrants from Cairo (70 percent) chose Lower Egypt as a destination, as did 46.5 percent of people migrating from Upper Egypt. Additionally 74.9 percent of migrants from Lower Egypt moved to different localities in the same region.

Direction of Migration

Table 3 – Direction of Migration- Region and Urban/Rural (classified according to origin)

				Current Region				
Previous Region	Cairo	Lower Urban	Lower Rural	Upper Urban	Upper Rural	Frontier Urban	Frontier Rural	Total
Cairo	3.3	54.8	15.5	20.5	4.5	1.3	0.1	100
Lower Urban	26.5	45.1	15.7	6.3	1.4	4.2	0.7	100
Lower Rural	9.5	60.7	24.9	2.9	0.5	1.2	0.3	100
Upper Urban	30.7	34.9	6.7	18.9	4.1	4.6	0.1	100
Upper Rural	20.6	41.9	10.3	15.2	6.4	4.6	1.1	100
Frontier Urban	16.9	12.7	4.2	7.0	5.6	49.3	4.2	100
Frontier Rural	10.5	26.3	31.6	0.0	0.0	5.3	26.3	100
Total	17.0	48.4	15.6	11.8	3.1	3.5	0.6	100

Source: Authors' calculations using Labor Force Survey

Most migrants now living in Cairo were born either in Upper Egypt (49.1 percent) or Lower Egypt (45.4 percent), as shown in Table 4. Migrants to Lower Egypt arrive mainly from other governorates in Lower Egypt (53.75 percent). The majority of migrants now living in Upper Egypt came from either the same region (48.5 percent) or from Cairo (34.1 percent).[4]

Table 4 – Direction of Migration – Region and Urban/Rural (classified according to destination)

	Current Region							
Previous Region	Cairo	Lower Urban	Lower Rural	Upper Urban	Upper Rural	Frontier Urban	Frontier Rural	Total
Cairo	4.0	23.0	20.1	35.3	29.8	7.6	3.1	20.3
Lower Urban	30.8	18.4	19.9	10.6	9.4	23.4	25.0	19.8
Lower Rural	14.7	32.8	41.7	6.4	4.1	9.1	15.6	26.2
Upper Urban	31.1	12.4	7.4	27.7	23.4	22.3	3.1	17.3
Upper Rural	18.0	12.9	9.8	19.2	31.0	19.3	28.1	14.9
Frontier Urban	1.3	0.3	0.3	0.8	2.3	17.8	9.4	1.3
Frontier Rural	0.2	0.2	0.7	0.0	0.0	0.5	15.6	0.3
Total	100	100	100	100	100	100	100	100

Source: Authors' calculations using Labor Force Survey

Migrants now residing in Cairo came mainly from urban areas in either Lower (30.8 percent) or Upper (31 percent) Egypt. Aside from those now in Cairo, the majority of migrants stayed within their region, for example 32.7 percent of those living in Urban Lower Egypt came from different governorates in Urban Lower Egypt. Almost half (48.4 percent) of all migrants from all regions reside in Lower Urban Egypt. (See tables 3 & 4.)

Urban governorates - except Cairo - absorb the highest inflows of migrants, followed by Frontier governorates (South Sinai and Red Sea) where tourism offers employment possibilities (Table 5).

[4] The high migration rate from Cairo to urban Upper Egypt is due to the inclusion of urban Giza, which is part of Greater Cairo, within the urban Upper Egypt category.

Table 5– Net Migration Flows by Governorate

Governorate	Net Migration Flows	Governorate	Net Migration Flows
Port Said	36.5%	Beni Suief	-1.7%
Suez	35.7%	Cairo	-2.4%
Red Sea	19.4%	Luxor	-2.4%
6 October	18.2%	Fayoum	-3.5%
Ismailia	17.4%	Beheira	-4.0%
North Sinai	9.5%	Gharbeyya	-4.8%
Qalubia	8.8%	Aswan	-4.8%
Giza	8.6%	Dakahlia	-4.9%
Alexandria	7.2%	Minya	-4.9%
Helwan	6.2%	Qena	-5.0%
Matrouh	4.6%	Menoufia	-5.1%
New Valley	1.6%	Sharqia	-5.4%
Kafr el-Sheikh	0.3%	Assyut	-6.0%
South Sinai	0.0%	Sohag	-6.0%
		Damietta	-7.2%

Source: Authors' calculations using Labor Force Survey

Urban governorates, new cities, Lower Egypt and Frontier governorates are the destinations for most migrants, the majority of whom originated in Cairo and Upper Egypt governorates.

Reasons for Migration

The LFS asks respondents the reasons for migrating, and allows several possible responses: for work, for education, for marriage, to accompany others, or other reasons. Table 6 presents the distribution of migrants, by gender, according to the reason for migrating. The majority of internal migrants (40.4 percent) change localities to accompany someone. Marriage is the reason behind 27.3 percent of migrations, followed by employment (23.36 percent).

While most men migrate to work (45.5 percent) or accompany a migrant (32.2 percent), women migrate because of marriage (45.3 percent) or to accompany a migrant (48.6 percent).

Table 6 – Reasons for Internal Migration by Gender

Reason for Migration	Male	Female	Total
For Work Only	45.4	1.0	23.4
Education	1.7	0.7	1.2
Marriage	9.5	45.8	27.6
Accompany	32.3	48.7	40.4
Others	11.1	3.9	7.5
Total	100	100	100

Source: Authors' calculations using Labor Force Survey

Most migrants (40 percent), regardless of their origins and destinations, migrate to accompany someone. Marriage is the second most frequent reason for migration in any direction; with the exception of rural to urban migration where 26.6 percent migrants move to seek work.

Table 7 – Direction of Migration and Reasons

	Direction of Migration			
Reason of Migration	Urban-Urban	Urban-Rural	Rural - Urban	Rural - Rural
For work only	18.8	16.3	26.7	17.5
Education	1.3	0.3	0.7	
Marriage	33.3	33.9	23.4	28.1
Accompany	40.9	40.2	42.1	45.2
Others	5.7	9.5	7.2	9.2
Total	100	100	100	100

Source: Authors' calculations using Labor Force Survey

Most men migrate either to work or accompany another migrant (more than one-third each). Employment is the reason behind migration from rural to urban localities (53 percent) as well as from one rural area to another. Women mostly migrate because of marriage or to accompany a migrant. The percentage that migrates for work is negligible (see Tables A3 and A4 in the appendix).

Internal Migration – Labor Mobility

Those who migrate to work are mostly males (97.8% of migrants to work are males while 2.2% are females), and the distribution of these migrants by level of education is multimodal (Table 8): the biggest fraction is composed by illiterate workers (26%) and starts decreasing gradually with the level of attainment until it reaches the technical secondary level (25%), and then the university level at 17%.

Table 8 – Educational Attainment of Migrants (for work only)

Education level	Percent
Illiterate	26.1
Read & write	13.0
Less than Intermediate level	10.2
General Secondary	2.7
Technical Secondary	25.3
Above Intermediate level	4.4
University	17.1
Above university	1.2

Source: Authors' calculations using Labor Force Survey

The preferred destinations for those who migrate to work are Lower Egypt (56.6 percent), followed by Cairo (22.8 percent). Those who left Cairo for work reasons went largely to Lower Egypt (70.8 percent) or Upper Egypt (19.4 percent). Lower Egypt was also the prime destination for migrants from Upper Egypt (41.4 percent), followed by Cairo (30.5 percent).

Table 9- Direction of Migration (for work only) – Regions (classified according to origin)

	Current Region				
Previous location	Cairo	Lower Egypt	Upper Egypt	Frontier	Total
Cairo	2.9	70.9	19.4	6.8	100
Lower Egypt	20.5	69.3	5.6	4.6	100
Upper Egypt	30.6	41.5	21.2	6.8	100
Frontier	14.8	14.8	11.1	59.3	100
Total	22.9	56.6	13.5	7.1	100

Source: Authors' calculations using Labor Force Survey

The majority of those migrating to Cairo for work came from Upper Egypt (55.3 percent) and Lower Egypt (41.9 percent). Migrants from Lower and Upper Egypt tend to change localities within their home region.

Table 10- Direction of Migration (for work only) – Regions (classified according to destination)

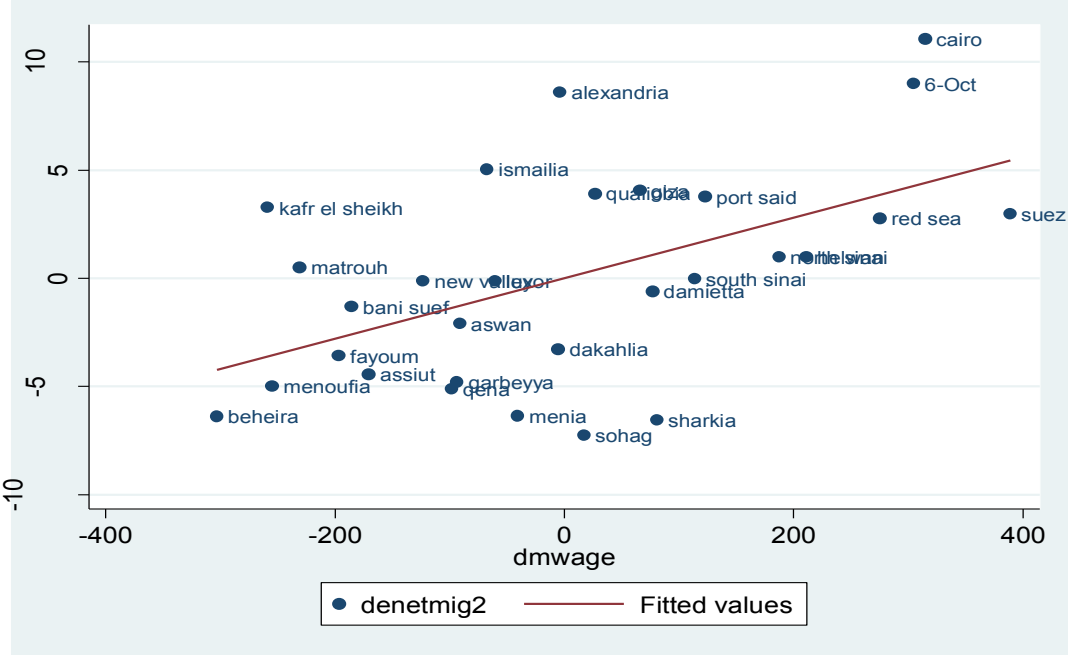
	Current Region				
Previous location	Cairo	Lower Egypt	Upper Egypt	Frontier	Total
Cairo	1.2	11.7	13.4	9.0	9.3
Lower Egypt	41.9	57.4	19.5	30.8	46.8
Upper Egypt	55.3	30.4	65.1	39.7	41.4
Frontier	1.6	0.6	2.0	20.5	2.4
Total	100	100	100	100	100

Source: Authors' calculations using Labor Force Survey

Wages and Internal Migration

There is a positive correlation between governorates with higher net migration inflows and higher average monthly wages in these governorates. The relation is more obvious when the migration rates are calculated using only those who migrate to work only (i.e. discarding those who migrate for marriage, or studying). Figure 3 shows the relationship between demeaned net migration to work against demeaned monthly wages by governorate.

Figure 3 – Demeaned Wages and Demeaned Migrants (for work only)



Source: Authors' calculations using Labor Force Survey

Do migrants earn higher wages?

Migrants receive, on average, slightly higher monthly wages (EGP1133.) than non-migrants (1033.EGP). Migrants' wage premium compared to non-migrants increases with educational attainment (see Table 11).

Table 11- Mean Wages (in EGP) by Educational Level for Migrants and Non-migrants

Education level	Non-migrants	Migrants
Illiterate	953	853
Read & Write	955	1222
Less than Intermediate	865	807
General Secondary	1005	877
Tech. Secondary	990	976
Above Intermediate	977	1030
University	1275	1422
Above university	2385	4909

An OLS model (where the dependent variable is log hourly wage) controlling for levels of education and introducing a migration dummy, reveals that migrants receive a 4.7 percent higher wage premium compared to non-migrants (see Table 12). Introducing age or experience

to this model renders the migrant dummy insignificant. One explanation could be the remarkably high age (and experience) profiles to migrants compared to non-migrants, as migrants' average age is 41.5 years compared to 25 years for non-migrants, and average migrant experience is around 28 years compared to 18 years for non-migrants.

Table 12 – Wages and Migration

VARIABLES	ln_hrwage
Read/Write	-0.0730***
	(0.0214)
Below Intermediate	-0.105***
	(0.0205)
Gen. Secondary	-0.0699
	(0.0443)
Tech. Secondary	-0.0399**
	(0.0165)
Above Intermediate	0.0703***
	(0.0268)
University	0.150***
	(0.0192)
Above University	0.839***
	(0.0664)
Male	0.281***
	(0.0148)
Formal Labor	0.106***
	(0.0118)
Migrant	0.0473***
	(0.0178)
Constant	1.046***
	(0.0195)
Observations	16,652
R-squared	0.047

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

We further ran another simple wage equation model (OLS) with log hourly wage as the dependent variable, controlling for levels of education and introducing interactive dummies of migration with each level of education reveals that migrants with higher levels of education receive higher wage premiums compared to non-migrants (see Table 13). A summary of the results is given in the appendix.

Table 13 – Wages and Migration

VARIABLES	ln_hrwage
Read/Write	-0.000343
	(0.0215)
Below Intermediate	0.0122
	(0.0208)
Gen. Secondary	0.0669
	(0.0455)
Tech. Secondary	0.0812***
	(0.0166)
Above Intermediate	0.181***
	(0.0271)
University	0.270***
	(0.0191)
Above University	0.871***
	(0.0710)
male	0.235***
	(0.0151)
Male mig	-0.148***
	(0.0337)
age	0.0281***
	(0.00273)
age2	-0.000166***
	(3.53e-05)
Public sec	0.200***
	(0.0240)
Private sec	0.159***
	(0.0133)
Other sec	-0.0959
	(0.0857)
Read/Write mig	-0.123*
	(0.0679)
Below Intermediate mig	-0.0354
	(0.0624)
Gen. Secondary mig	-0.117
	(0.130)
Tech. Secondary mig	0.108***
	(0.0404)
Above Intermediate mig	0.138*
	(0.0716)
University mig	0.270***
	(0.0409)
Above University mig	0.434***
	(0.161)
Constant	0.172***
	(0.0544)
Observations	16,652
R-squared	0.106

Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

Reasons for Low Migration Rates

Three stylized facts presented below suggest three interrelated reasons for Egypt's reduced internal migration rates. The first is low educational attainment, as migration rates tend to increase with level of education. Second, labor is absorbed by low-productivity agricultural activities, which relates to the third reason for low migration, that of households producing significant portions on their total food consumption, in what has been labled the "food problem" (Gollin, Parente and Rogerson, 2008).

Migration and Educational Attainment

Migration rates increase with educational attainment (Table 14). The correlation may reflect both the larger numbers of workers in lower educational levels, and the greater tendency of highly-educated individuals to migrate. Migration rates among those with the least educational attainment (from illiterate to technical secondary) are low, with a maximum of 8.3 percent for graduates of technical secondary schools. As educational attainment increases, migration rates spike to reach more than 20 percent among migrants possessing post-graduate degrees.

Table 14 – Migration Rate by Educational Attainment

Education Level	Non-Migrants	Migrants	Total
Less than 6 years	99.2	0.8	100
Illiterate	91.9	8.1	100
Read & Write	94.4	5.6	100
Less than intermediate	94.6	5.4	100
General Secondary	93.1	6.9	100
Tech. Secondary	91.7	8.3	100
Above Intermediate	88.8	11.2	100
University	87.7	12.3	100
Above University	78.9	21.1	100
Total	93.8	6.2	100

Source: Authors' calculations using Labor Force Survey

Most migrants have had little education. Around 25 percent are illiterate, and 51.4 percent received less than intermediate level schooling. It is worth noting however, that a significant share of migrants (15.5 percent) possess college degrees.

Table 15 – Educational Attainment of Migrants and Non-migrants

Education level	Non-Migrants	Migrants	Total
Less than 6 years	22.8	2.7	21.6
Illiterate	19.6	26.2	20.0
Read & Write	12.6	11.4	12.6
Less than Intermediate	16.0	13.9	15.9
General Secondary	3.6	4.1	3.7
Tech. Secondary	15.9	21.9	16.3
Above Intermediate	2.0	3.8	2.1
University	7.3	15.5	7.8
Above University	0.2	0.6	0.2
Total	100	100	100

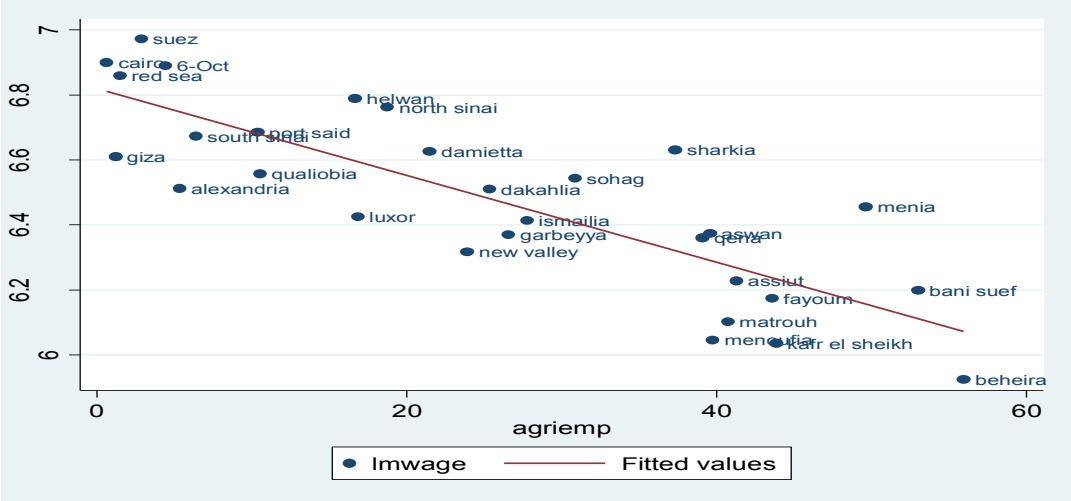
Source: Authors' calculations using Labor Force Survey

Agricultural Sector Involvement

The second stylized fact that can explain Egypt's low internal migration rate is involvement in agricultural activities that ties people to the land, often as unpaid family workers. Agricultural workers have lower migration rates than workers with other occupations (see Table 16).

Agricultural activities are typically characterized by low productivity (output per input) and lower wages (see Figure 4) than in other sectors. Using the share of agriculture in total employment as a proxy for productivity, as in Gollin, Parente and Rogerson (2008), it can be seen that governorates with high shares of agriculture, and hence lower productivity, are associated with lower wages.

Figure 4- Wages and Share of Agricultural Sector Employment by Governorate



Source: Authors' calculations using Labor Force Survey

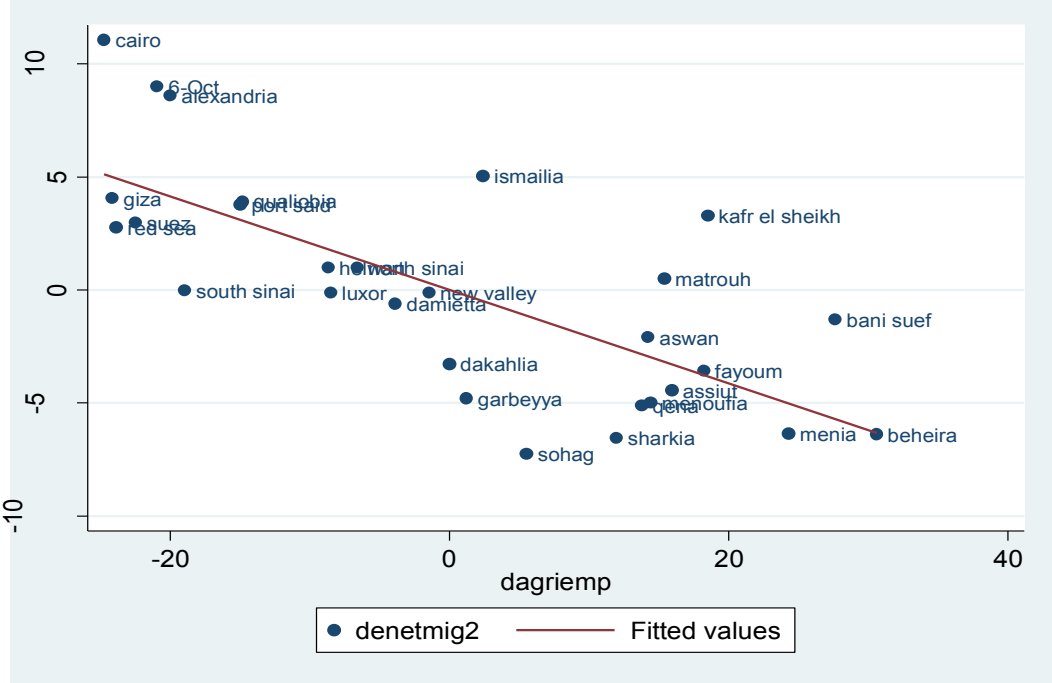
Table 16 – Migration Rate by Economic Activity

Economic Activity	Non-Migrants	Migrants	Total
Agriculture, Forestry	97.3	2.7	100
Mining and Quarrying	84.5	15.5	100
Manufacturing	89.7	10.3	100
Electricity, Gas, Steel	78.0	22.0	100
Water supply, Sewage	85.7	14.3	100
Construction	92.9	7.1	100
Wholesale and Retail	89.6	10.4	100
Transportation and Storage	89.5	10.5	100
Hotels, Accommodation, Food and restaurants	90.2	9.9	100
Information, Telecommunications	84.3	15.7	100
Financial, Insurance	87.4	12.6	100
Real Estate	92.3	7.7	100
Professional, Scientific	89.1	10.9	100
Administrative and Support Services	84.2	15.8	100
Public Administration	88.4	11.7	100
Education	90.4	9.6	100
Health and Social Work	91.1	8.9	100
Arts, Entertainment	87.8	12.2	100
Total	91.8	8.2	100

Source: Authors' calculations using Labor Force Survey

Figure 5 shows the relationship between demeaned net migration flows (to work) and demeaned agricultural employment for each governorate. Governorates with high migration rates have a lower share of agricultural employment.

Figure 5 – Demeaned Migration for Work and Demeaned Share of Agriculture Employment by Governorate

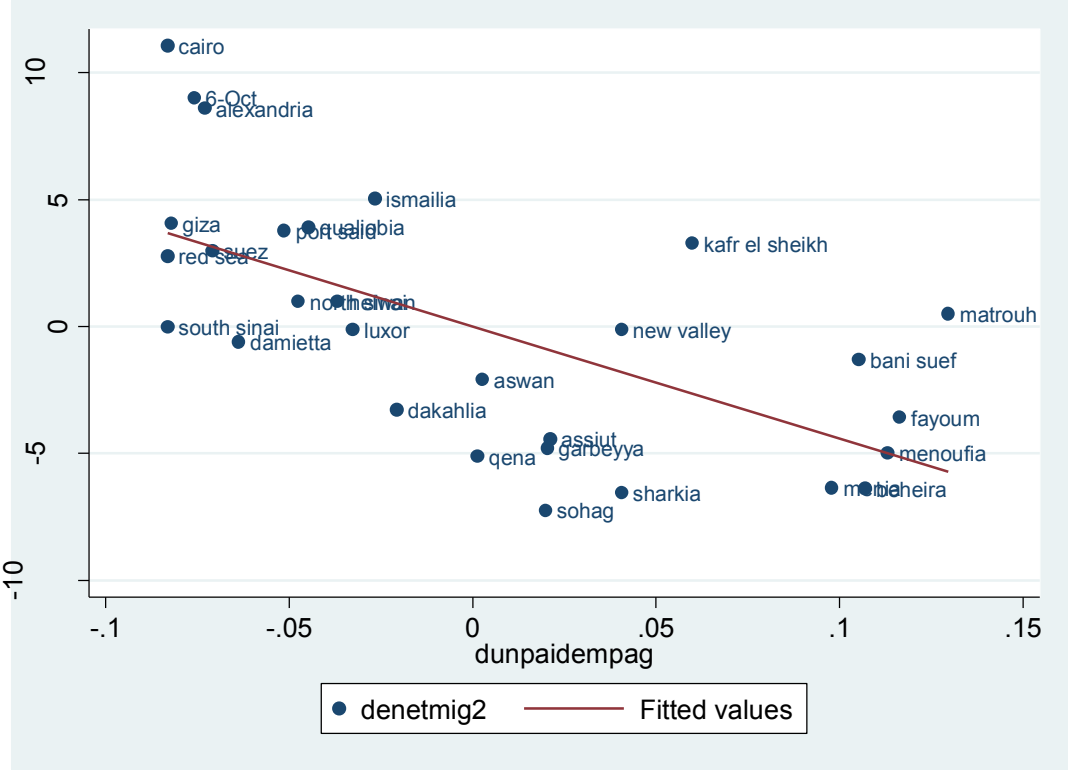


Source: Authors' calculations using Labor Force Survey

Internal migration is low in governorates with a high share of agricultural employment. Agricultural workers generally earn a low wage throughout Egypt and may be unqualified for other jobs, reducing the motivation to migrate. Additionally, unpaid family workers earn non-pecuniary benefits aside from the food they help raise (including proximity to family and the accompanying help-networks, shared rents, often more living space, cleaner air) making them reluctant to incur the additional costs of migrating to other governorates.

Figure 6 shows the negative correlation between demeaned net migration rate (to work) and demeaned share of unpaid family workers by governorate.

Figure 6 – Demeaned Net Migration Flows for Work Only and Demeaned Share of Unpaid Family Workers by Governorate



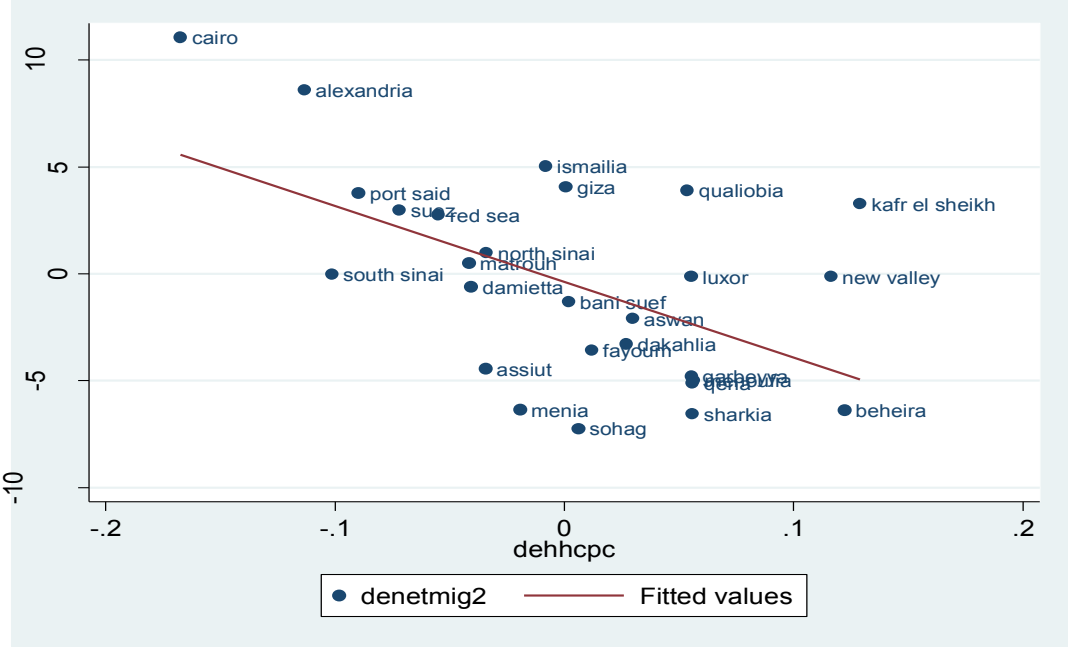
Source: Authors' calculations using Labor Force Survey

Household Food Production for Consumption

Migrants are usually motivated by a better living standard and a higher income to offset the impact of inflation and soaring food prices. Many Egyptian households produce much of their own food, reducing the incentive to migrate.

A ratio (constructed with HIECS 2005) of household food consumption from its own production over total household food consumption, plotted against net migration (to work) rates, yielded a negative correlation. Governorates where households rely on their own food production tend to have lower migration rates (see Figure 7). The ability to purchase food at low prices or low opportunity cost reduces the likelihood of migration.

Figure 7- Demeaned Household Subsistence Consumption and Demeaned Net Migration for Work Only



Source: Authors' calculations using Labor Force Survey

The Model

We ran a probit model where the dependent variable is a binary taking '1' for the individual who migrated and '0' for those who did not. The independent variables are a dummy for male; regional dummies (urban areas omitted); Lower Egypt, Upper Egypt, and Frontier governorates; education level dummies (illiterate is omitted); age (a continuous variable); dummy if the individual is working in agriculture sector (agrisec); dummy if the individual is unpaid family worker (unpaidfw); governorate average for share of household food consumption from its own production (hhcpc); and GDP per capita of each governorate.

Data and Results

We used the Labor Market Survey data conducted by the Central Agency of Public Mobilization and Statistics (CAPMAS). In the regression we used the cross-section data for the first quarter of calendar year 2010.The regression results confirm the earlier analysis that individuals with higher levels of education have a higher tendency to migrate. The likelihood of migration increases with higher levels of education, except for above intermediate and university graduates.

Migrants prefer to reside in metropolitan governorates, Lower Egypt and frontier governorates rather than Upper Egypt. People migrate to governorates with higher GDP per capita and wages.

Workers in agriculture and unpaid family workers have a lower tendency to migrate. Both have negative and significant signs (-0.16 and -0.18, respectively).

Governorates with high household food consumption from its own production have lower tendency of migration.

Table 17 – Probit Model – Internal Migration decision

VARIABLES	mig
Male	-0.0351**
	(0.0158)
Urban area	0.680***
	(0.0190)
Lower Egypt	-0.164***
	(0.0494)
Upper Egypt	-0.412***
	(0.0423)
frontier	0.240***
	(0.0542)
married	0.397***
	(0.0191)
Read & write	0.112***
	(0.0266)
Below Intermediate	0.119***
	(0.0247)
General Secondary	0.184***
	(0.0410)
Tech. Secondary	0.162***
	(0.0224)
Above Intermediate	0.128***
	(0.0444)
University	0.111***
	(0.0264)
Above University	0.286**
	(0.122)
age	0.0160***
	(0.000474)
agrisec	-0.164***
	(0.0374)
unpaidfw	-0.188***
	(0.0680)
hhcpc	-0.958***
	(0.239)
logrgdp	0.305***
	(0.100)
Constant	-5.151***
	(0.888)
Observations	87,998

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 18 – Probit Model – Internal Migration for Work Only

We ran the same model for those who migrated to work. The dependent variable is a binary which takes '1' if the person migrated to work and '0' otherwise. The results concur with the previous model.

VARIABLES	migwrk
Male	1.458***
	(0.0642)
Urban area	0.421***
	(0.0361)
Lower Egypt	-0.205**
	(0.0915)
Upper Egypt	-0.357***
	(0.0783)
frontier	0.469***
	(0.0922)
married	0.601***
	(0.0443)
Read & write	-0.00687
	(0.0490)
Below Intermediate	-0.115**
	(0.0519)
Gen. Secondary	-0.0353
	(0.0926)
Tech. Secondary	0.174***
	(0.0416)
Above Intermediate	0.0662
	(0.0758)
University	0.0264
	(0.0475)
Above University	0.396**
	(0.164)
age	0.0188***
	(0.000975)
agrisec	-0.0794
	(0.0518)
unpaidfw	-0.381*
	(0.205)
hhcpc	-0.956**
	(0.437)
logrgdp	-0.0941
	(0.180)
Constant	-3.592**
	(1.601)
Observations	87,998

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Migration and Unemployment

Unemployment is lower among migrants (6.2 percent) than non-migrants (9.5 percent) and lower still among those who migrated for work (2.6 percent). What is striking is that unemployment rates among migrants and migrants for work are consistently lower in destination governorates with the highest migration inflows (Tables 19 and 20), and even those experiencing high unemployment, such as Port Said with 25% unemployment rate. This might suggest that migrants, especially those migrated to work, have skills that enable them to find jobs.

Furthermore, migrants earn higher wages (after controlling for education level) compared to non-migrants. This may be due to migrant's matching their skills to the demand for jobs. It also reflects the significance of labor mobility and internal migration as means of achieving higher living standards.

Table 19 – Unemployment Rates of Non-migrants, Migrants and Migrants for Work

	Overall	Non-migrants	Migrants	Migrants for work
2008	9.9	10.2	3.6	0.2
2009	9.4	9.7	5.1	1.1
2010	9.3	9.5	6.2	2.6

Source: Authors' calculations using Labor Force Survey

Table 20 - Unemployment Rates in Governorates with Highest Net Migration Inflows

Unemployment rate	Overall	Non-migrants	Migrants	Migrated for Work
Port Said	25	41.82	8.28	0
Ismailia	10.4	11.95	7.8	1.59
6 October	10.2	9.91	11.04	8.51
Red Sea	6.1	14.29	0	0
Suez	11.6	22.88	3.13	0

Source: Authors' calculations using Labor Force Survey

Table 21 - Unemployment Rate for Governorates with Highest Net migration for Work Inflows

Unemployment rate	Overall	Non-migrants	Migrants	Migrated to work
Cairo	13.4	14.9	5.79	3.6
6th of October	10.2	9.9	11	8.5
Alexandria	11.6	12.5	4.6	0
Ismalia	10.4	11.9	7.8	1.5
Qalubia	7.8	8.8	3.3	0

Source: Authors' calculations using Labor Force Survey

To further explore migrants' employability we ran a probit model for employment ('1' if the person is employed and '0' otherwise). The explanatory variables are educational attainment

(dummies for each level of education, where illiterate is omitted), male dummy, regional dummies, age, age squared and a dummy for internal migrants.

The results, summarized in Table 22, confirm previous conjectures in the presentation of the stylized facts. The probability of being employed decreases with higher educational attainment, which concurs with higher unemployment rates found among highly-educated individuals. Males are more likely to find employment than females. Unemployment in rural areas is lower than urban areas. Probability of employment increases with age. Most importantly, migrants have a higher probability of being employed than non-migrants even after controlling for education, regions, age and gender (see Table 22).

Table 22 – Probit Model – Employment and Migration

VARIABLES	Employed
Read& write	0.0996
	(0.0787)
Below Intermediate	-0.168**
	(0.0662)
Gen Secondary	-0.739***
	(0.101)
Tech. Secondary	-0.933***
	(0.0456)
Above Intermediate	-1.039***
	(0.0644)
University	-1.090***
	(0.0484)
Above University	-0.819***
	(0.166)
male	0.916***
	(0.0251)
Urban area	-0.293***
	(0.0288)
Lower Egypt	0.0843**
	(0.0343)
Upper Egypt	0.186***
	(0.0361)
frontier	0.419***
	(0.102)
age	0.126***
	(0.00629)
age2	-0.00118***
	(8.56e-05)
mig	0.152***
	(0.0501)
Constant	-1.160***
	(0.113)
Observations	29,475

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Conclusions and Direction for Further Work

Given Egypt's economic growth and the regional disparity in living standards, we would expect high levels of internal migration and labor mobility to equalize returns on economic benefits. Migrants have a higher probability of employment even in governorates with high unemployment rates, in addition to earning higher wages compared to non-migrants. However, internal migration rates in Egypt were low in periods of economic growth compared to international rates.

In this paper we offered three explanations to low internal migration rate. First is the prevailing low level of educational attainment. Second, labor is tied up in low productivity agricultural activity. The third reason concerns rural households' ability to produce a significant portion of their food needs and/or offer their members other non-pecuniary benefits, thus reducing the motivation to migrate. Given inflated commodity prices, rent and transportation costs, internal migration, unless a job is secured at the outset, is unaffordable.

Other factors beyond those analyzed and quantified in this report also contribute to low migration rates. For instance, the lack of land tenure security originated by inadequate land titling inhibits small farmers from renting their plots, which would liberate resources for non-agriculture activities or commercial agriculture. Also, the lack of affordable housing in urban centers imposes costs on labor mobility, as well as road congestion. These factors are discussed elsewhere (World Bank 2012). Social factors may also contribute to low migration rates. Although unsupported by data these include attachment to family and related help-networks (including access to small loans from a communal savings pool with benefits rotating among members and support in frequent cases of ill health); the common wisdom that urban areas are already oversaturated with the unemployed; the lack of affordable housing in urban areas except in overcrowded slums lacking basic services and the fact that while a marginal improvement in wages may allow some small amount to be saved or sent home to help family, this is perceived as less valuable than a physical presence, for example to care for children and the elderly while others work. Finally, jobs are often found through extended family/friend/neighborhood networks, another reason for staying home (closer to the source of potential jobs).

Appendix

Table A1 – Internal Migration by Gender

	Male	Female	Total
Non-Migrants	51.1	48.8	100
Migrants	50	49.6	100
Total	51.1	48.8	100

Source: Authors' calculations using Labor Force Survey

Table A2- Gender Migration

	Male	Female	Total
Non-Migrants	93.9	93.7	93.8
Migrants	6.0	6.2	6.1
Total	100	100	100

Source: Authors' calculations using Labor Force Survey

Table A3 – Direction of Migration and Reasons for Migration - Males

Males	Direction of Migration			
Reason of Migration	Urban-Urban	Urban-Rural	Rural - Urban	Rural - Rural
For work only	38.5	32.9	53.0	39.5
Education	2.3	0.5	1.0	
Marriage	15.8	12.3	4.0	4.1
Divorce/Widowed	0.1			
Accompany	34.2	36.9	34.0	41.8
Others	9.2	17.5	8.0	14.6
Total	100	100	100	100

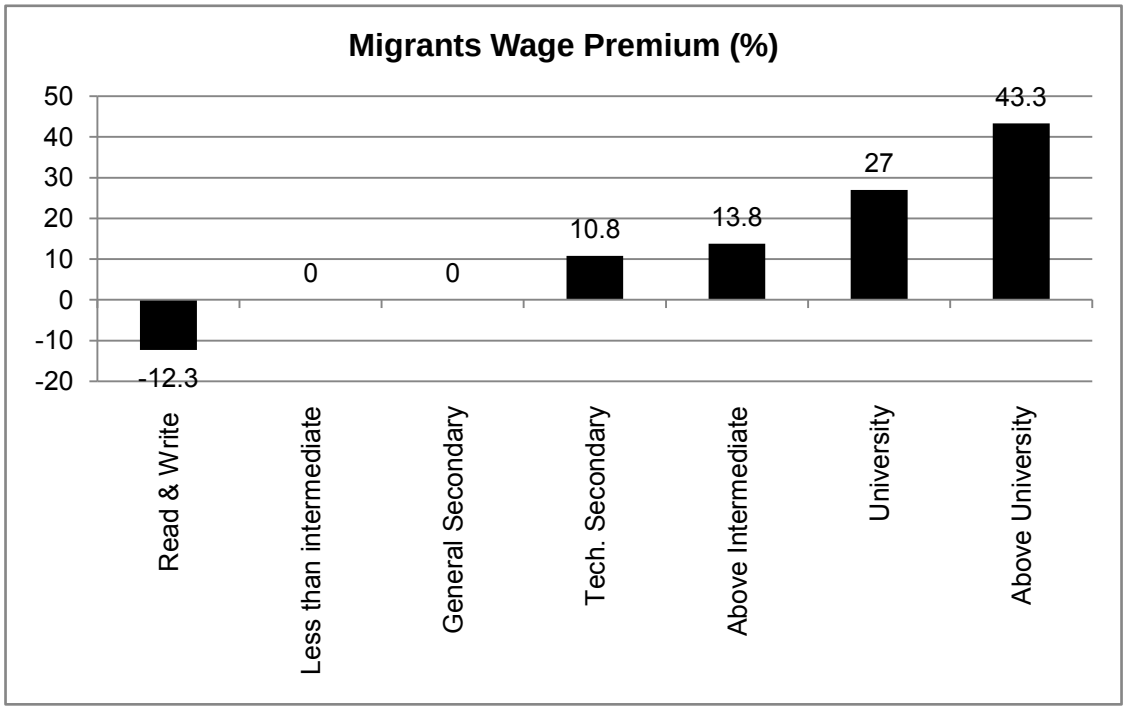
Source: Authors' calculations using Labor Force Survey

Table A4 – Direction of Migration and Reason for Migration - Females

Females	Direction of Migration			
Reason of Migration	Urban-Urban	Urban-Rural	Rural - Urban	Rural - Rural
For work only	0.9	0.5	1.6	
Education	0.5		0.5	
Marriage	48.3	53.9	41.9	47.2
Divorce/Widowed	0.8	0.5	0.1	
Accompany	47.1	43.3	49.9	48.0
Others	2.5	1.8	6.0	4.8
Total	100	100	100	100

Source: Authors' calculations using Labor Force Survey

Graph A1 – Migrants wage premium



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