

# **Internal Labour Migration, Wages and Employment: Evidence from Urban Labour Markets in India**

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## Introduction

- Migration of labour has been, historically, an integral part of the process of development and has been central to theories of long run economic growth and structural transformation (Harris & Todaro, 1970; Johnson, 2002; Lewis, 1954).
- Labour migration enhances productivity and wages through efficient reallocation of labour, for better opportunities across sectors and regions.
- Despite the long run benefits of migration for the economy, migrants are often received with hostility at the destination due to the apprehension of the natives that migration displaces native workers in the job market, increases unemployment and depresses wages.

# Introduction

- Migration has always been a contentious issue, both, nationally and internationally. At the international level, the antipathy towards immigration is reflected in the stricter immigration policies in developed countries like United States of America and United Kingdom.
- Similarly, some developing countries also follow restrictive legal measures to rein in the flow of migrants from one region to another. One such measure is the *hukou* registration system in China, which mandates all residents to register themselves in their place of origin.
- This entitles the registered residents to legal provisions of housing and other amenities. At the same time, it restricts the mobility of labour from region to another.
- In India, though freedom of mobility is ensured under Article 19 of the Constitution of India, migrants face resistance from the natives in the destination for fear of losing jobs and reducing wages of native workers. This has led to anti-migrant sentiments, leading to social unrest and riots as well as growing exploitation of migrants in many states in India (Bhavnani & Lacina, 2015; Rajan, Korra, & Chyrmang, 2011).

# Introduction

- The theoretical model of competitive labour market predicts that inflow of migration should lower the wages of competing workers in the host economy.
- As against the theoretical prediction, a recent literature survey of most influential studies conducted in the last thirty years in industrialized countries have found, on an average, no impact on wages and more or less small negative impact on low skilled native workers (Peri, 2014).
- The empirical literature has focused on immigration to advanced countries from developing countries, with particular attention to low skill migration.
- However, in the context of developing countries, internal migration is – considered to be a much larger scale than international migration (UNDP, 2009).
- Despite such large migration flows within developing countries, the literature on the impact of these flows remains limited.

## **Nativist politics**

- The conflict between migrants and natives has been an issue of debate in India since early seventies. The seminal work in ethno-demographic context has been of Myrion Weiner's 'Sons of Soil' which has demonstrated how accelerated mobility in the context of limited resources in a multi-ethnic society creates conditions for internal migration and also at the same time nurtures ethnic identification and ethnic cohesion which results in anti-migrant sentiments among 'local' people (Weiner, 1978).
- Nevertheless, the anti-migrant sentiment has not only risen because of ethnic, linguistic or regional differences as argued by (Weiner, 1978) but also out of social and economic disparities between 'locals' and migrants (Katzenstein, 1973, 1979).
- These apprehensions against migrants has led to social unrest and riots as well as growing exploitation of migrants in many states in India (Bhavnani & Lacina, 2015; Rajan et al., 2011).

## **State Approach to Migration**

- There have been different indirect policies adopted by Government of India to restrict migration from rural areas, particularly to urban areas (Oberai, 1983).
- There are other long term rural development programmes such as Providing Urban Amenities in Rural Areas (PURA), Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), establishing Medium and Small Scale Industries, thrust on rural non-farm sector along with improved road connectivity and communication facilities, aiming at reducing migration from rural to urban areas.
- The underlying reason for government's apathy towards migration is the apprehension that migration may have adverse effect on infrastructure, environment, land use, housing, and labour market outcomes at the host regions.

## How is internal migration different from immigration?

- Internal migration flows within developing countries is different from immigration to advanced countries in many ways which motivates to conduct such exploration in developing country context.
- **Firstly**, the general debate around the impact of immigration in advanced countries is more focused on the unskilled native workers. It is often assumed that immigration flows are unskilled and the major concern is about the unskilled native workers in advanced countries who have more substitutability to unskilled immigrant workers. However, in Indian case, similar to other developing countries like Kenya (Edward & Hamory, 2009) and Indonesia (Kleemans & Magruder, 2017), migrant workers are more skilled and have better wage advantage than the non-migrant workers (Khan, 2016; 2018).

- Secondly, the internal labour migration is less costly and more mobile than international migration and it may respond quickly to the favorable labour market conditions. Hence may have a more pronounced negative or positive impact on the labour market.
- Thirdly, labour markets in developing countries are segmented into formal and informal labour markets. The institutionally regulated formal labour market, offering stable jobs with higher pay and other social security benefits, co-exist with informal labour market characterized by low pay, casual jobs and flat returns to education. Inflow of migration may have different effect on the workers in these two sectors in terms of change in wages and employment of non-migrant workers.
- Finally, Internal migration is also political issue as much as international migration despite internal migrants sharing the same nationalities.
- Considering these differences, this study examines the impact of labour migration on wage and employment in India.

## Data and Definitions

- *Employment Unemployment and Migration Survey* (NSSO 64<sup>th</sup>; 2007-08).
- A ‘migrant’ refers to an individual whose place of residence, anytime in the past, was different from the place of enumeration.
- The focus of the study is on urban population in the working age group of 15-59 years.
- Employment status of a person is referred to as ‘employed’ according to usual principal Subsidiary status (UPSS) if he/she had pursued gainful economic activity for more than 180 days in a year including gainful activity for a shorter span of 30 days preceding the date of survey.
- Broadly, there are two types of workers – Wage and non-wage workers.
- Wage workers include regular salaried and casual workers and non-wage workers are the self-employed workers.
- Earnings of self-employed workers are not reported in the survey. Therefore, the analysis is restricted to regular salaried and casual workers only for wage analysis.



# Empirical Specification

We use the following equation

$$Y_i = \rho_0 + \rho_1 Mig + \rho_2 X_i + \varepsilon_i$$

- Where  $Y_i$  represents the individual level labour market outcomes such as logarithm of daily wage earnings (continues variable) and work force participation (binary variables) of non-migrant worker ( $i$ ).
- $Mig_i$  is the share of migrants in a district as the main variable of interest.
- $X_i$  is the vector of individual level control variables such as age and its square, level of education and socio-religious group such as Schedule Caste, Schedule Tribes, Other Backward Caste, Muslims and Others (description of the variables are given in table 1).
- The controls at the District level: district unemployment rate, share of population with secondary education and above, per capita district domestic product and the state level dummies.  $\varepsilon_i$  is the error term.
- The estimates may be biased because of the possible endogeneity of the migration variable which might be correlated with the error term.

# Endogeneity and Instrument Variable (IV) approach

- Migrants self-select into the regions with better labour market outcomes such as wages and employment (Altonji & Card, 1991).
- To overcome this problem, the instrument variable is suggested (Card & Lemieux, 2001; Pischke & Velling, 1997).
- Studies have often used historical migration rates as instruments to predict current migrant flow.
- The use of historical migration rate to predict migration flows is justified by the reason that migrants are induced to settle in areas with already high migrant concentrations, due to the presence of networks with individuals of same cultural and linguistic characteristics as themselves.
- We rely on instrument variable approach (IV) by using historical migration rate of 1991 an instrument which determines current migration flows and are unlikely to be correlated with current labour market conditions.

<b>Table 1 Descriptive statistics</b>	<b>Migrants</b>		<b>Non-Migrants</b>	
	Mean	Std. Dev.	Mean	Std. Dev.
<b>Description of the variables used</b>				
<b>Log of daily wages</b>	5.28	0.81	4.96	0.80
<b>Daily wages (in Rs)</b>	294.68	1027.74	203.17	219.25
<b>Age</b>	36.61	11.82	36.49	12.84
<b>Level of Education</b>				
Below Primary and illiterates	0.18	0.38	0.20	0.40
Primary	0.11	0.31	0.13	0.34
Upper Pry. and Middle	0.19	0.39	0.20	0.40
Secondary	0.16	0.37	0.17	0.37
HR. Sec. and Diploma	0.14	0.35	0.12	0.33
Graduate and above	0.22	0.41	0.17	0.38
<b>Socio-Religious group</b>				
All ST	0.03	0.16	0.02	0.16
All SC	0.14	0.34	0.15	0.36
OBC	0.27	0.45	0.32	0.47
Muslim	0.10	0.30	0.18	0.39
Others	0.47	0.50	0.32	0.47
<b>Married</b>	0.77	0.42	0.73	0.44
<b>Region specific variables</b>				
Per capita Gross Domestic District Product (GDDP)	46047.8	17910.5	35747.1	15756.0
Urban unemployment rate	4.41	2.92	4.51	3.96
Share of population with education higher secondary and above	37.63	7.40	32.92	9.09
<b>Own account workers</b>	0.27	0.44	0.38	0.49
<b>Unpaid family work</b>	0.02	0.16	0.09	0.29
<b>Regular workers</b>	0.59	0.49	0.36	0.48
<b>Casual workers</b>	0.11	0.32	0.17	0.37
<b>observations</b>				

Source: 64th round NSSO Unit level data (2007-08)

## Empirical results 1/4

	(1)	(2)
<b>(A). Impact of Migration on Wages</b>		
	<b>OLS</b>	<b>IV</b>
<b>Migrant share(Inmigdist)</b>	<b>0.004***</b>	<b>0.028***</b>
	<b>(0.001)</b>	<b>(0.006)</b>
Constant	1.505***	4.239***
	(0.291)	(0.806)
Observations	17,973	17,973
R-squared	0.542	0.473
F-statistic		198.5
Kleibergen-Paap rk LM statistic		98.87
Kleibergen-Paap rk Wald F statistic		77.92
Hansen J statistic		0
<b>(B). Impact of Migration on Employment</b>		
	<b>Probit</b>	<b>IV-Probit</b>
<b>Migrant share(Inmigdist)</b>	<b>0.000</b>	<b>0.002</b>
	<b>(0.000)</b>	<b>(0.003)</b>
Constant	-1.146***	-0.984***
	(0.157)	(0.291)
Observations	109,968	109,968
First Stage F-Statistic		1042.34
Wald-statistic		22828
Wald test of exogeneity		0.444

Note: Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Dependent variables: Logarithm of daily wages and worker participation as a binary variable. All the regression equations use controls such as education, socio-religious groups, married, age and its square, fourteen broad industries, district unemployment rate, share of population with secondary education and above, per capita district domestic product and state dummies. The district sample size is 502. Instrument variable: The migration rate in a district is instrumented with the rate of migration in 1991.

# Formal and Informal Sector

- Labour markets in developing countries are segmented into formal and informal sector (Fields, 2009).
- The formal sector offers more stable jobs and higher pay with social security benefits covered under labour regulations while in-formal sector is characterised by low or flat returns to education, poor pay, bad working conditions, lack of social security and casual job.
- In India, larger proportions of workers are working in informal sector in urban areas (NCEUS, 2008).
- Regular workers as formal sector workers and Casual workers as informal sector workers.

## Empirical results 2/4

	(3)	(4)	(5)	(6)
	Formal Sector		Informal Sector	
<b>(A). Impact of Migration on Wages</b>				
	<b>OLS</b>	<b>IV</b>	<b>OLS</b>	<b>IV</b>
<b>Migrant share(Inmigdist)</b>	<b>0.003***</b> <b>(0.001)</b>	<b>0.055***</b> <b>(0.015)</b>	<b>0.005***</b> <b>(0.001)</b>	<b>0.005</b> <b>(0.003)</b>
Constant	1.470*** (0.360)	7.658*** (1.932)	2.051*** (0.415)	2.050*** (0.532)
Observations	11,915	11,915	5,933	5,933
R-squared	0.542	0.247	0.316	0.316
F-statistic		100.2		33.52
Kleibergen-Paap rk LM statistic		29.44		124.9
Kleibergen-Paap rk Wald F statistic		25.68		72.91
Hansen J statistic		0		0
<b>B. Impact of Migration on Employment</b>				
	<b>Probit</b>	<b>IV-Probit</b>	<b>Probit</b>	<b>IV-Probit</b>
<b>Migrant share(Inmigdist)</b>	<b>0.001**</b> <b>(0.001)</b>	<b>0.024***</b> <b>(0.004)</b>	<b>-0.001**</b> <b>(0.000)</b>	<b>-0.018***</b> <b>(0.003)</b>
Constant	-4.757*** (0.204)	-2.960*** (0.365)	0.386** (0.166)	-0.892*** (0.311)
Observations	109,968	109,968	109,968	109,968
First Stage F-Statistic		1042.34		1042.34
Wald-statistic		10502		12798
Wald test of exogeneity		36.15		24.12

Note: Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Dependent variables: Logarithm of daily wages and worker participation as a binary variable. All the regression equations use controls such as education, socio-religious groups, married, age and its square, fourteen broad industries, district unemployment rate, share of population with secondary education and above, per capita district domestic product and state dummies. The district sample size is 502. Instrument variable: The migration rate in a district is instrumented with the rate of migration in 1991.

## Empirical results 3/4

### Impact of migration on wage and employment by skill group

	(1)	(2)	(3)	(4)	(5)	(6)
	All Wage Workers		Formal Sector		Informal Sector	
	Low Skill	High Skill	Low Skill	High Skill	Low Skill	High Skill
<b>(A). Impact of Migration on Wages</b>						
<b>Migrant share(Inmigdist)</b>	<b>0.019***</b>	<b>0.035***</b>	<b>0.044***</b>	<b>0.037***</b>	<b>0.001</b>	<b>0.007</b>
	<b>(0.005)</b>	<b>(0.008)</b>	<b>(0.012)</b>	<b>(0.010)</b>	<b>(0.004)</b>	<b>(0.007)</b>
Constant	3.453***	3.015**	7.223***	4.355***	1.738***	-0.022
	(0.633)	(1.179)	(1.573)	(1.352)	(0.493)	(1.305)
Observations	9,704	8,578	4,549	7,819	5,072	723

### B. Impact of Migration on Employment

	All Workers		Formal Sector		Informal Sector	
	Low Skill	High Skill	Low Skill	High Skill	Low Skill	High Skill
<b>Migrant share(Inmigdist)</b>	-0.003	0.014***	0.021***	0.033***	-0.019***	-0.021***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
Constant	-2.401***	-4.035***	-4.727***	-4.250***	-1.310***	-3.187***
	(0.350)	(0.499)	(0.437)	(0.528)	(0.360)	(0.526)
Observations	37,529	33,230	37,529	33,230	37,529	33,230

Note: Robust standard errors in parentheses.\*\*\* p<0.01, \*\* p<0.05, \* p<0.1. Dependent variables: Logarithm of daily wages and worker participation as a binary variable. All the regression equations use controls such as education, socio-religious groups, married, age and its square, fourteen broad industries, district unemployment rate, share of population with secondary education and above, per capita district domestic product and state dummies. The district sample size is 502. Instrument variable: The migration rate in a district is instrumented with the rate of migration in 1991.

## What explains the results?

- Positive wage effect in the formal sector and negative employment effect in informal sector.
- The estimated positive effect of migration on wages are consistent with the studies such as (for Israel-Friedberg, 2001; for USA-Kugler & Yuksel, 2008) and for (UK- Manacorda et al.,2012).
- Friedberg (2001) attributes the positive effect of immigration on native wages to complementarity effect. Complementarity arose because of the immigrants (relatively skilled ) took up jobs in the low skill occupations and Israeli natives were promoted into managerial roles.
- Similar explanations were put forward by Manacorda et al.,(2012) explained the wage increase of natives through downgrading-where natives are paid wages according to marginal product but immigrants are paid less because of allocation of jobs inappropriate to their skills.

These explanations may not hold in Indian case.

- Migrant workers are earning higher wages have relatively higher concentration in the high paying and high skilled occupations pointing to a possible skill shortage in these occupations that are filled by migrant workers.



- In the informal sector, the wages are not affected and employment is adversely affected because non-migrants workers are not willing to work at lower wages, hence withdraw from the labour market. If this argument holds, then migrants would be working at lower wages. But recent evidence suggest that migrants are earning higher wages and have lower unemployment rate than the non-migrant workers (Khan, 2018; Srivastava, 2011)
- The results are substantiated by the field level studies such as Breman (1996) points out that in the major industries in informal sector, local labourers are replaced by migrant labourers as a strategy by entrepreneurs to shift both risk and cost of production on to workers. Migrant workers are also preferred over the surplus 'local' labourer for better labour control (Breman, 1985).
- Parallel circuits of migration with source and destination areas interchanged (Teerink, 1995).
- This indicates there is a preference for migrant workers over local workers in the informal sector possibly for their discipline, motivation and work intensity.

# Robustness check and other results

- The positive wage effect, especially among the high-skilled workers in the formal sector, could be driven by positive shocks on wages due to skill-based technological change and not necessarily by migration.
- The demand for skilled labour has increased due to the high growth rates in the India's GDP experienced after the economic reforms which have been favorable to skilled workers (Azam, 2012; Kijima, 2006) and subsequently pulled skilled migrants to urban centers (Kundu & Saraswati, 2012).
- This boom in employment in the high-skill occupations may have offset any wage depressing effect of migration by increasing the wages of skilled workers through a positive demand shock.
- Most of the emerging occupations that grew both in terms of income and employment were concentrated in the top occupation divisions including managerial, administrative and professional division (Mamgain, 2016).

## Empirical results 2/2

<b>Impact of migration on wages by occupation divisions</b>									
<b>Variables</b>	<b>Div-1</b>	<b>Div-2</b>	<b>Div-3</b>	<b>Div-4</b>	<b>Div-5</b>	<b>Div-6</b>	<b>Div-7</b>	<b>Div-8</b>	<b>Div-9</b>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Inmigdist	0.020	0.010	<b>0.048***</b>	<b>0.024**</b>	<b>0.044***</b>	0.014	<b>0.073***</b>	0.026	0.002
	(0.014)	(0.016)	(0.017)	(0.010)	(0.015)	(0.010)	(0.021)	(0.024)	(0.005)
Observations	519	1,533	1,702	1,829	2,450	194	3,295	1,610	5,067
R-squared	0.561	0.514	0.333	0.329	0.196	0.641	-0.364	0.287	0.319
F-statistic	17.55	20.79	27.20	16.55	31.28	39.57	12.73	14.15	25.17

Note: Robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . Dependent variables: Logarithm of daily wages. All the regression equations use controls such as education, socio-religious groups, married, age and its square, fourteen broad industries, district unemployment rate, share of population with secondary education and above, per capita district domestic product and state dummies. The district sample size is 443. Instrument variable: The migration rate in a district is instrumented with the rate of migration in 1991.

Occupation divisions: **Div. 1 (Legislators, Senior Officials and Managers)**, **Div. 2 (Professionals)**, **Div. 3 (Technicians and Associate Professionals)**, **Div. 4 (Clerks)**, **Div. 5 (Service Workers and Shop & Market Sales Workers)**, **Div. 6 (Skilled Agricultural and Fishery Workers)**, **Div. 7 (Craft and Related Trades Workers)**, **Div. 8 (Plant and Machine Operators & Assemblers)**, **Div. 9 (Elementary Occupations)**.

- Extending the analysis to examine the impact of migration by gender, the estimates show that the results are similar and the impact is not gender specific. However, we find that the positive wage effects are slightly higher for male non-migrant workers than female non-migrant workers and the negative employment effects are higher for male non-migrants than female non-migrant workers.
- In the analysis we have included migrants of all durations. The older migrants may have integrated into the labour market already and the supply shock could have adjusted over the period of time.
- We ran the regression for recent migrants (less than five years of duration) alone and excluding the permanent migrants (more than five years of duration). The estimated results show that the positive wage effect is stronger and have a higher magnitude than the results shown in table 1 and table 2 but the signs are similar across the sectors.
- Secondly, it is suggested in the literature that the migrants do not displace the non-migrant workers but substitute to previous migrants. We did not find any to support the argument in Indian context. We found that recent migrants do not affect the labour market outcomes of permanent migrants.

# Conclusion

- The study provides first evidence of the consequences of migration on wage and employment of non-migrant workers in India. Our finding does not support the popular belief that migrants adversely affect the labour market outcomes of non-migrant workers. However, after disaggregating the results by sectors and skills, we find that positive wage and employment effects are confined to the formal sector. However, the inflow of migration adversely affects the employment of non-migrant workers in the informal sector leaving their wage unaffected. The employment displacing effects of migration on the informal sector workers may have political ramifications as it is found that inflow of migrants increase violence in the destination regions (Bhavnani & Lacina, 2015).
- Given the increasing migration in the recent decade (Government of India, 2017) and the dismal record of employment rate in India (Abraham, 2017), the situation may aggravate as is evident from the growing conflicts between migrants and locals in many states in the recent past.

- Government of India in the 11<sup>th</sup> and 12<sup>th</sup> year plan has recognized the possibility of sustainable inclusive growth through the migration of surplus labour from agriculture to other sectors for productive and gainful employment in the organized or unorganized sector of the economy. However, the main problem remains that nearly half of India's labour force, who are dependent on agricultural sector, are unskilled and lack basic skills to get adjusted in medium and small-scale industries, and rural non-farm sectors, let alone the urban industrial or service sector.
- Their low skill restricts the rural workers from migrating to urban gainful employment, and they instead end up migrating to the urban informal sector.

- The Government should focus on the skill development of surplus rural workers and on devising policies to aid migration so that the benefits of migration reaches larger sections of the population and helps in smooth transition of the rural agricultural workforce to other sectors.
- Future research may focus on the impact of migration on the increasing wage inequalities in India as we found that the migration favours formal sector and particularly high skilled workers in the urban labour markets and displaces workers in the informal sector.