

# Short-term migration, rural workfare programmes, and urban labour markets

Clément Imbert

*Rural policies that affect migration to the cities may have significant impact on urban labour markets. However, there is little empirical evidence on the magnitude of these effects. This column argues that India's rural employment guarantee – the world's largest workfare programme – reduces short-term migration from rural areas. At the same time, it increases wages of urban unskilled workers.*

Rural and urban labour markets in developing countries are integrated by migration flows, which respond to earnings opportunities at origin and destination. This is the core of the celebrated Harris and Todaro (1970) model, which shows how in equilibrium, migration flows equate expected wages between rural and urban areas. One important implication of this model is that changes in rural employment opportunities will also impact urban labour markets via their effect on migration flows. My job market paper (Imbert and Papp 2014a) provides empirical evidence of this mechanism.

We study India's National Rural Employment Guarantee Act (NREGA), which is the world's largest workfare programme. It provides short-term unskilled work on public infrastructure projects in rural areas during the lean season of agriculture. In previous work, we showed that the programme is large enough to change the labour market equilibrium and increase private sector wages in rural areas (Imbert and Papp 2014b). In my job market paper, I estimate the effect of the Rural Employment Act on long-term and short-term migration flows to urban areas, and its spillover effects on urban labour markets.

## Empirical strategy

The empirical set up can be summarised by the four figures below. Let R1 and R2 be two rural areas, and U1 and U2 two urban areas. Red arrows depict rural to urban migration flows. As Figure 1 shows, U1 is closer to R1 so that most migrants from R1 go to U1, and fewer go to U2. Let us now consider what happens when a workfare programme is implemented in R1 and changes migration flows from R1 (Figure 2). The programme impacts both urban labour markets, but affects U1 to a greater extent than U2 (Figure 3). Changes in urban labour markets in turn affect migration flows from R2 (Figure 4).

Figure 1. Rural and urban migration flows: Effect of proximity

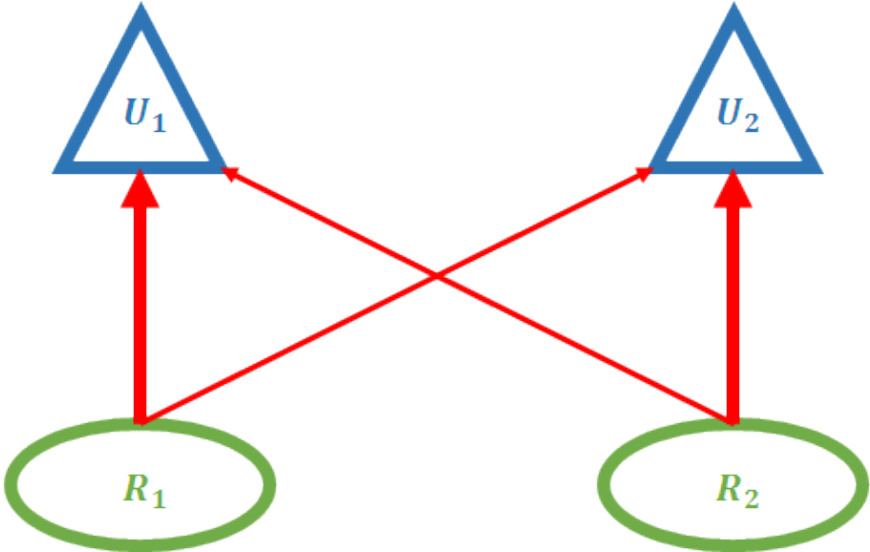
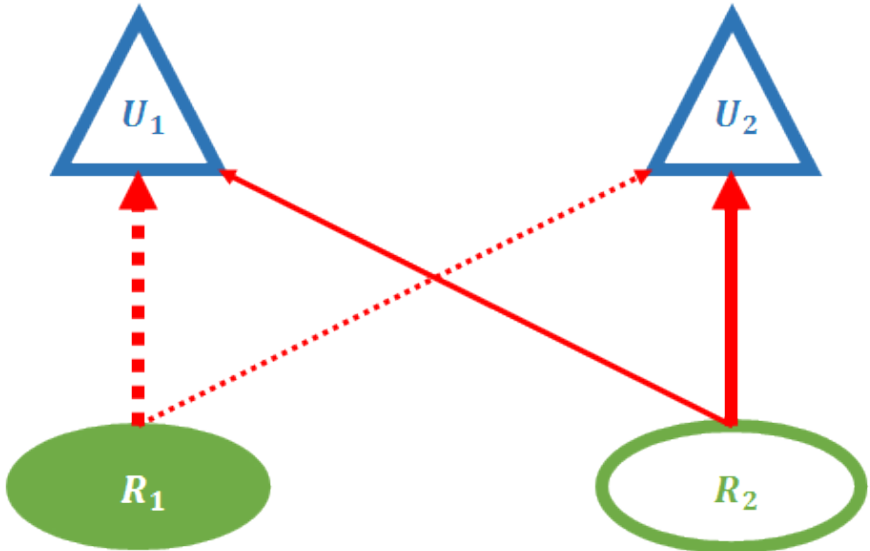
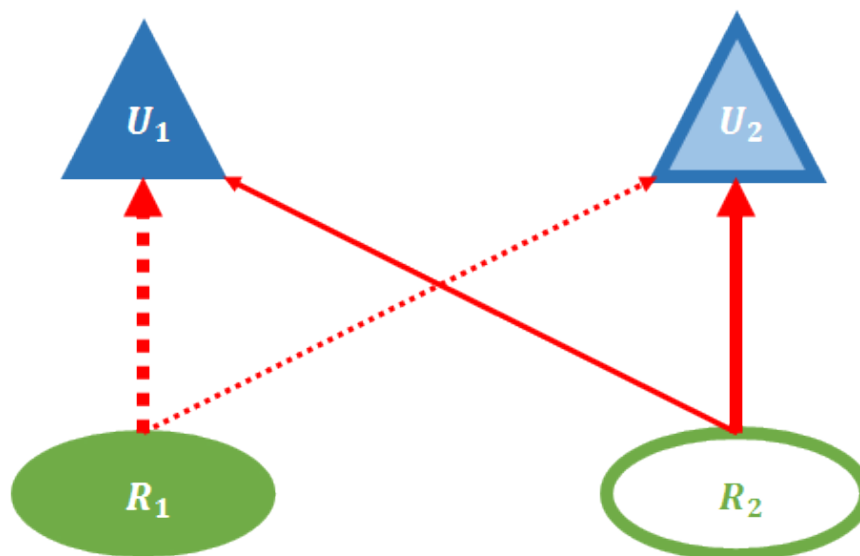


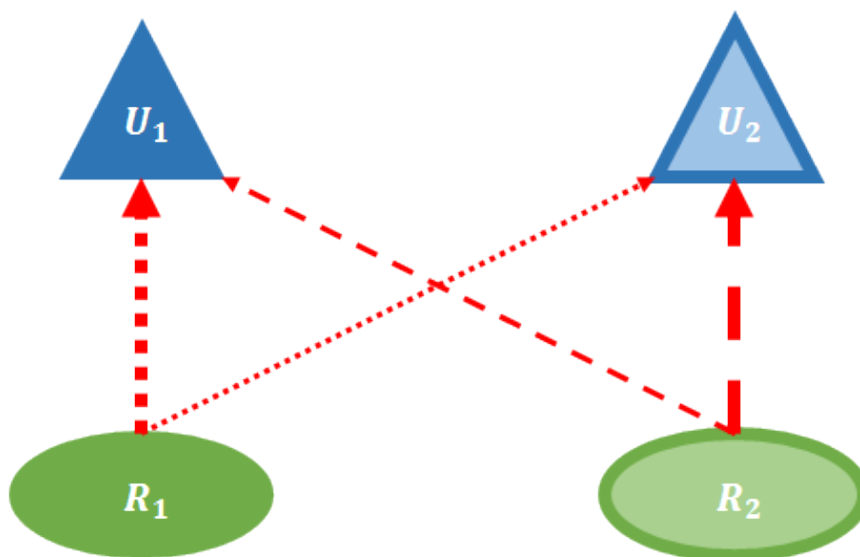
Figure 2. Rural and urban migration flows: A workfare programme implemented



**Figure 3.** Rural and urban migration flows: The programme affects one urban market more



**Figure 4.** Rural and urban migration flows: Changes in urban labour markets in turn affect flows from the rural ones.



Our analysis proceeds in two steps.

- First, we compare long and short-term migration flows from rural areas where the programme employment is provided (R1) and from rural areas where no National Act employment is provided (R2).
- Second, we compare labour market outcomes in cities which attract more migrants from rural areas where the programme is implemented (U1) and in cities which attract more migrants from rural areas without it (U2).

It is similar to a difference-in-differences, except that there is no control group, i.e. every part of the country is affected by the programme in different ways.

## The programme's effect on migration

In the first step, we estimate the effect of the National Rural Employment Guarantee Act on migration. Drawing from nationally representative data from National Sample Survey in 1999-00 and 2007-08, we compare changes in migration in rural districts where the Act was first introduced in states which actively implemented the scheme to other rural districts. We find that short-term migration (adults who spent one to six months away for work during the last year) decreased by 50% in rural districts which received the National Act as compared to other rural districts, but long-term migration did not change.

These results are further confirmed using original survey data collected in 2010 by the RICE institute in 70 villages at the border of three Indian states. As compared to workers living in similar villages just across the border, adults living in the state of Rajasthan work nine more days on National Rural Employment Act public works and are 20% less likely to leave the village for work during the summer months (March-July). By contrast, there is no difference in short-term migration during the rest of the year, when public works are closed. There is no difference in long-term migration across states either.

## The programme's effect on urban labour markets

In the second step, we estimate the effect of the programme on urban labour markets. We first use a gravity model of short-term migration flows to predict separately for each city short-term migration rates from rural areas with National Act work and from rural areas without National Act work. We next show that between 2004-05 and 2007-08, when the programme was first introduced, unskilled wages rose faster in cities which relied on short-term migrants from rural areas with the Rural Act work, and wages rose more slowly in cities which relied on short-term migrants from rural areas without National Act work.

The magnitude of the effect is important. The results suggest that the drop in short-term migration from districts with National Rural Act work increased wages of unskilled workers by 6% more in the average urban centre. Interestingly, the rise in wages was almost entirely offset by an increase in short-term migration in districts without National Act work; the net increase in unskilled wages is 1% in the average urban centre. These effects are not local – they persist after controlling for whether each urban centre is itself located in a district with the programme. Indeed, short-term migrants travel across the whole country.

## Take-aways

My job market paper provides unique evidence on labour reallocation between rural and urban areas of developing countries. It suggests that short-term migration flows are very responsive to changes in earnings opportunities at origin and destination. This contrasts with long-term migration, which in the Indian context remains low despite high urban-rural wage gaps (Munshi and Rosenzweig 2013). In a companion paper, I show that unlike long-term migration which has high fixed costs but high marginal returns, short-term migration has low fixed costs and low returns (Imbert and Papp 2014c).

My job market paper also shows that small changes in short-term migration can have large impacts on urban labour markets. This is because short-term migrants represent a significant fraction of the unskilled labour force in urban areas. Spillover effects on urban areas need to be taken into account in the design of rural-only policies, such as anti-poverty programmes or rural infrastructure projects. Beyond their direct effect on beneficiaries, these programmes have indirect welfare effects, via a change in labour market equilibrium, both in rural and urban areas (Imbert and Papp 2014b).

## References

Harris, J and M P Todaro (1970), "Migration, Unemployment and Development: A Two Sector Analysis", *American Economic Review* 60 (1), 126-142.

Imbert, C and J Papp (2014a), "Short-term Migration, Rural Workfare Programs and Urban Labor Markets: Evidence from India's Employment Guarantee", *Job Market Paper*.

Imbert, C and J Papp (2014b), "Equilibrium effects of Social Programs: Evidence from India's Employment Guarantee", *American Economic Journal: Applied Economics*, forthcoming.

Imbert, C and J Papp (2014c), "Estimating Short-term Migration Costs", Manuscript.

Munshi, K and M Rosenzweig (2013), "Networks and misallocation: Insurance, migration and the rural-urban wage gap".

## About CAGE

Established in January 2010, CAGE is a research centre in the Department of Economics at the University of Warwick. Funded by the Economic and Social Research Council (ESRC), CAGE is carrying out a five year programme of innovative research.

The Centre's research programme is focused on how countries succeed in achieving key economic objectives, such as improving living standards, raising productivity and maintaining international competitiveness, which are central to the economic well-being of their citizens.

CAGE's research analyses the reasons for economic outcomes both in developed economies such as the UK and emerging economies such as China and India. The Centre aims to develop a better understanding of how to promote institutions and policies that are conducive to successful economic performance and endeavours to draw lessons for policy-makers from economic history as well as the contemporary world.



This piece first appeared on Voxeu on 10 January 2015  
<http://voxeu.org/article/short-term-migration-rural-workfare-programmes-and-urban-labour-markets>

**VOX**

Research-based policy analysis and commentary from leading economists

© 2017 The University of Warwick

Published by the Centre for Competitive Advantage in the Global Economy  
Department of Economics, University of Warwick, Coventry CV4 7AL  
[www.warwick.ac.uk/cage](http://www.warwick.ac.uk/cage)

Artwork by Mustard, [www.mustardhot.com](http://www.mustardhot.com)