

**Estimates of Workers Commuting from Rural to Urban and Urban to  
Rural India: A Note**

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# **Estimates of Workers Commuting from Rural to Urban and Urban to Rural India: A Note**

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## **Abstract**

*We provide estimates of workers residing in rural (urban) India and commuting to urban (rural) areas for work. The estimates are based on National Sample Survey Organisation's survey of Employment and Unemployment (2009-10). In 2009-10, a total number of 8.05 million workers not engaged in agriculture commuted from rural to urban areas for work while 4.37 million workers not engaged in agriculture commuted from urban to rural areas for work. We argue that the size of the rural and urban labour force should be adjusted to account for the workers who commute to a location different from their usual place of residence.*

## **Keywords:**

Rural Urban Movement of Workers

## **JEL Code:**

R23, J61, C80

## **Acknowledgements:**

## **Estimates of Workers Commuting from Rural to Urban and Urban to Rural India: A Note**

The level of urbanization and the factors contributing to urbanization in India has been discussed by at least two recent articles (Bhagat 2011, Kundu 2011). At the same time, the release of numbers from National Sample Survey Organisation's (NSSO) survey of Employment and Unemployment (2009-10) sparked a discussion on implications of estimates of India's workforce. Irrespective of whether the debate is based on Census numbers or NSSO estimates, an issue that has typically slipped under the radar relates to the workforce that resides in rural areas and commutes to urban areas and vice versa.

A possible reason for this is that these people are not migrants. In India, the size of the workforce is estimated by place of residence and not place of work. However, it is only logical if the rural resident who works in urban areas is counted as part of urban workforce and not as part of rural workforce. Similarly, adjustment needs to be made to account for urban residents reporting that their place of work is a rural area.

Estimates of the commuting worker can be generated by using a very relevant piece of information available from NSSO's survey of Employment and Unemployment. The NSSO survey has information on residence (rural, urban) and workplace (rural, urban, no fixed place) of workers. This information is available for workers engaged in non-agricultural activities, i.e. for persons employed in industry groups 012, 014, 015 and NIC divisions 02 – 99.

So what does the NSSO 2009-10 data say about the commuting worker? In 2009-10, a total number of 8.05 million workers not engaged in agriculture commuted from rural to urban areas for work while 4.37 million workers not engaged in agriculture commuted from urban to rural areas for work (Table 1). Thus a total of 12.42 million non-agricultural workers commuted across the rural urban boundary, in one direction or the other, for work.

These numbers need to be taken into account when arriving at the estimates of rural and urban workforce. Typically, the size of the rural (urban) workforce is set equal to the number of workers living in rural (urban) areas. Mohanan (2008) is the only paper that is devoted to the issue of commuting worker in India and adjusting the size of rural and urban workforce for the year 2004-05 to reflect the commuting worker. Other than this paper, there is little available in the literature on the commuting worker. In addition to those who commute between rural-urban or urban-rural, there exists another group, i.e. those without fixed place of work. Over 5 million rural and 7 million urban residents report that they do not have a fixed place of work (Table 1).

If one were to ignore the workers with no place of work, then for the year 2009-10, the urban workforce needs to be adjusted upwards by 3.68 million (8.05 million rural-urban commuters less 4.37 million urban rural commuters) and the rural workforce will have to be adjusted downwards by a similar magnitude. This number is lower than the adjustment arrived at by Mohanan (2008) who revised the urban workforce upwards by 5.29 million for the year 2004-05.

A comparison of the share of commuting workers in rural and urban workforce based on the NSSO's two recent rounds of survey of Employment and Unemployment (Sixty-Sixth Round: July 2009 – June 2010 and Sixty-First Round: July 2004 – June 2005) reveals the following picture. Among rural residents, the proportion of workers working in rural areas increased from 80 percent in 2004-05 to 87 percent in 2009-10. Among urban residents, the proportion of workers without a fixed workplace increased by 4 percentage points to 8 percent (Figure 1).

### **Characteristics of the Commuter Worker**

The median age of the rural-urban commuter is 32 years and that of the worker commuting from urban to rural is 35 years. Nearly 11 percent of workers commuting from rural-urban are women while 13 percent of urban-rural commuters are women.

Among the rural residents commuting to urban areas, 40 percent worked as regular salaried/ wage employees while 36 percent were engaged in other types of work, not related to household enterprise. Among the urban residents commuting to rural areas, 49 percent worked as regular salaried / wage employees while 15 percent were engaged in other types of work, not related to household enterprise. Combining both rural and urban residents who cross the rural urban border for work, 48 percent worked as regular salaried/ wage employees. Among the rural-urban (urban-rural) commuters, 12 (15) percent work in government / public sector and 8 (11) percent in public or private limited companies respectively. Hence, this give further credence to the idea of commuting worker.

An alternative way to slice the data would be to look at the occupation of the individuals. Among the rural-urban commuters 33 percent are engaged in *Elementary Occupations*<sup>1</sup>, 25 percent in *Craft and Related Trades*<sup>2</sup>, and 12

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<sup>1</sup> **Elementary occupations** consist of simple and routine tasks which mainly require the use of handheld tools and often some physical effort. Most occupations in this division require skill at the first skill level.

<sup>2</sup> **Craft and related trades workers** apply their specific knowledge and skills in the fields of mining and construction, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work as well as produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods. The work is carried out by hand and by hand powered and other tools, which are used to reduce the amount of physical effort and time required for specific tasks, as well as to improve the quality of the products. The tasks call for an

percent in *Service Workers and Shop and Market Sales*<sup>3</sup>. The definition of each of these occupations is given in the footnote. These definitions are from the Occupational Descriptions available as part of Revised Indian National Classification of Occupations - 2004. Based on the definitions, it is apparent that a third of the rural-urban commuters have very low skill levels. In contrast, 25 percent of the urban-rural commuters are officials, manager or professionals and hence have higher skill levels. The occupation profile gets mirrored in the educational attainment of the commuting workers. Among rural-urban commuters engaged in Elementary Occupations, 38 percent are not literate, 11 percent have not finished primary school, 20 percent have completed middle and secondary school respectively.

Nearly 31 percent of rural-urban commuters are engaged in construction, 20.5 percent in manufacturing, 12 percent in wholesale and retail trade and nearly 10 percent in transport, storage and communication. The industrial distribution of workers commuting from urban to rural areas is slightly different. Nearly 28 percent are engaged in wholesale and retail trade, less than 15 percent in construction and nearly 24 percent in manufacturing (Table 3). Among rural-urban commuters without a fixed workplace, 30 percent, 15 percent and 29 percent are engaged in construction, wholesale and retail trade, and transport storage and communications sectors respectively. These three sectors also dominate when one examines the distribution of sector of activity among those commuting from urban to rural areas. The fact that the above mentioned sectors are attracting workers should not come as a surprise. These sectors have been growing at a brisk pace that last 5 years. After all the construction sector grew at 7 percent in 2009-10, manufacturing grew at 8.8 percent while trade, hotels, transport and communication grew at 9.7 percent.

### **The Sub-National Picture**

For the year 2009-10, a disaggregation of the number of commuter workers by state reveals patterns that fit popular perceptions. The states adjoining the National Capital Territory of Delhi, i.e. Punjab, Haryana, Rajasthan, Uttar Pradesh have a large number of rural residents reporting working in urban areas. Focus on the A disaggregated analysis suggests that the NSS regions adjoining National Capital Territory of Delhi from these four states have a sizable number of workers reporting living in rural but working in urban areas. These four states account for nearly 35 percent of the workers (all India) living in rural areas but working in urban areas. The data

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understanding of all stages of the production process, the materials and tools used, and the nature and purpose of the final product. Most occupations in this division require skills at second skill level.

<sup>3</sup> ***Service workers and shop and market sales workers*** provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or they pose as models for artistic creation and display, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets. Most occupations in this division require skills at the second skill level.

does suggest interesting commuting dynamics (rural-urban and urban-rural) in these four states and these need to be explored in detail in the future. The four southern states - Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu - account for nearly 25 percent of such workers while Maharashtra and Gujarat account 11 percent of workers living in rural but working in urban areas. These averages are not surprising since these states not only have higher level of urban population but also sizable urban centers that would attract the commuter worker.

Individuals might be inclined to live in rural areas to take advantage of lower cost of living, in particular housing. The four southern states account for 27 percent of urban residents working in rural areas while the share of Maharashtra and Gujarat is 16 percent. Thus the movement of workers across the rural-urban or urban-rural corridor is in the urbanized states of India or where large urban centers act as magnets.

### **Size of Peri-Urban India**

Given the dichotomous definition of rural and urban areas followed in India, there exist no estimates of population or workers living in peripheral urban (peri-urban) areas. Literally, the word refers to an area around a city or town. At best, estimates of population residing in peri-urban areas can be inferred from Census of India. Even then these estimates are far from precise. Despite the data deficit and without precisely defining what constitutes a peri-urban area, discussions typically veer towards abject living conditions or people living in these areas.

Conceptually, a peri-urban area is rural in nature, with diverse land use and some or many of its residents commuting to work in the nearby urban area. One can use this concept in conjunction with NSSO data. On the not so unreasonable assumption that people do not travel inordinately long distance for work, the estimate of workers commuting from rural to urban areas provide the size of workers living in the peri-urban areas. A total of 31.99 million individuals, accounting for 4.3 percent of India's rural population, live in households where one or more worker commutes from rural to urban areas<sup>4</sup>. This provides a lower bound estimate of the total population living in peri-urban India. This is a lower bound since there are households living in peri-urban (rural) areas who do not have any member commuting to urban areas for work. Given that information on these households is not available in the NSSO data, what we are estimating as peri-urban population is a lower bound. It should be noted that Mohanan does not advance the numbers on those commuting from rural to urban areas for work as an estimate of the peri-urban population. Though he does state, "This excess movement of rural

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<sup>4</sup> A total of 15.44 million individuals accounting for 5.5 percent of India's urban population live in a household where at least one member commutes from urban to rural area for work.

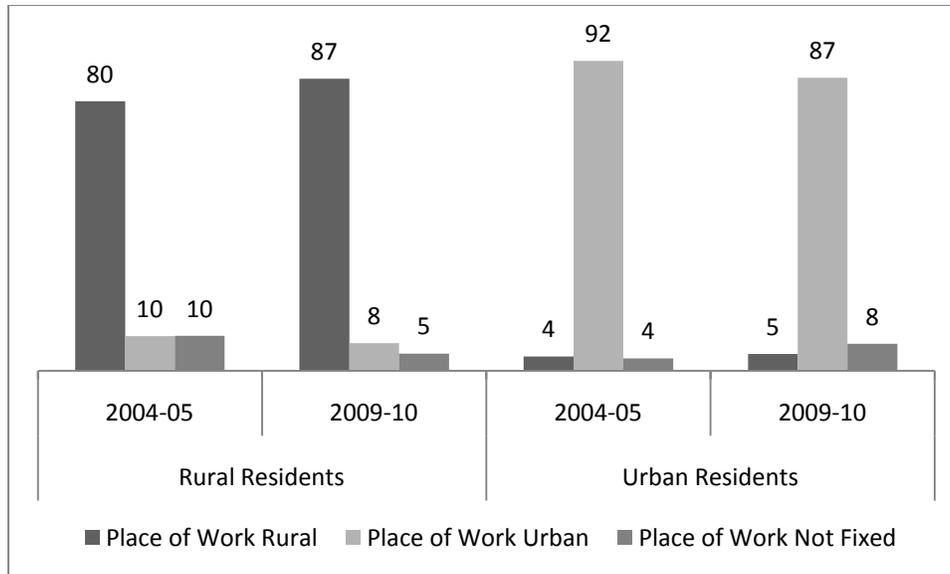
workers to urban areas is somewhat reinforced by the daily picture of over-crowded trains and buses bringing people to the cities and towns from the surrounding areas, sometimes called the floating population” (p.61).

### **Policy Implications**

In the year 2001, of the 5,161 towns in India, the four southern states along with Maharashtra and Gujarat accounted for 2091 towns. Of the 384 urban agglomerations, these states accounted for 161 urban agglomerations. Hence it is not surprising that along with the states adjoining the National Capital Territory of Delhi, the above mentioned states account for bulk of rural-urban and urban-rural commuters. In this decade, three factors could lead to a steady stream of commuter workers. The first factor is an increase in the number of towns from 5,161 in 2001 to 7,935 towns in 2011. It is possible in many of the small towns the flow of workers would be from urban to rural. Second, an expansion in construction, manufacturing and the wholesale and retail trade sectors, will boost the phenomenon. The third factor is greater transport linkages between rural and urban India. The fact is that eventually 640 districts of India, the 5,924 sub-districts, the 7,935 towns and 6,40,867 villages spread across 35 states and union territories will be inter-linked. The dynamics between the rural and urban areas will be different across the towns and villages of India. Hence it will be incorrect to focus only focus on urban engines of growth. What the NSSO data reveals is the size of the rural urban linkage. Hence, it is important to undertake rural and urban planning within an integrated framework.

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**Figure 1: Distribution of Workers by Place of Work: Rural and Urban Residents (2004-05 and 2009-10)**

**Table 1: Workers\* by Usual Place of Residence and Place of Work**

Residence	Place of Work			Total
	Rural	Urban	Not Fixed	
Rural	85,556,220	8,050,036	5,035,493	98,641,749
Urban	4,370,678	76,947,337	7,177,731	88,495,746

\* Workers working in industry groups 012, 014, 015 and NIC divisions 02 - 99  
The figures in brackets are the row percentages.

**Table 2: Estimates of the Commuting Worker**

	<b>Rural Residents</b>				<b>Urban Residents</b>			
	<b>Place of Work</b>				<b>Place of Work</b>			
	<b>Rural</b>	<b>Urban</b>	<b>Not Fixed</b>	<b>Total</b>	<b>Rural</b>	<b>Urban</b>	<b>Not Fixed</b>	<b>Total</b>
Jammu & Kashmir	955,987	130,665	22,714	1,109,366	24,085	515,090	44,778	583,953
Himachal Pradesh	1,025,764	62,234	57,970	1,145,968	14,995	140,518	8,622	164,135
Punjab	1,659,704	579,270	101,287	2,340,261	81,449	2,263,595	267,693	2,612,737
Chandigarh	29,626	20,986	2,467	53,079	5,240	232,448	14,131	251,819
Uttaranchal	897,741	25,313	12,131	935,185	10,802	622,925	48,624	682,351
Haryana	2,034,019	668,028	184,278	2,886,325	58,728	2,053,102	191,015	2,302,845
Delhi	169,563	49,864	0	219,427	171,865	3,275,204	200,533	3,647,602
Rajasthan	6,347,802	448,659	241,135	7,037,596	422,243	3,490,693	312,996	4,225,932
Uttar Pradesh	13,511,122	1,107,226	1,070,842	15,689,190	565,528	7,933,283	869,907	9,368,718
Bihar	4,886,388	316,541	399,528	5,602,457	257,043	1,158,352	202,871	1,618,266
Sikkim	87,689	4,766	4,279	96,734	12	20,787	3,691	24,490
Arunachal Pradesh	58,506	4,197	376	63,079	6,980	37,375	1,145	45,500
Nagaland	63,817	4,221	1,226	69,264	5,873	47,928	5,097	58,898
Manipur	201,115	13,760	6,243	221,118	6,215	109,140	8,018	123,373
Mizoram	33,310	0	231	33,541	1,958	72,270	7,174	81,402
Tripura	523,280	15,681	29,234	568,195	7,829	154,921	14,077	176,827
Meghalaya	244,755	6,731	4,582	256,068	3,436	114,203	12,996	130,635
Assam	2,188,259	117,218	138,721	2,444,198	61,240	664,996	54,722	780,958
West Bengal	7,439,266	765,118	540,171	8,744,555	258,024	5,410,562	500,250	6,168,836
Jharkhand	2,214,613	276,250	490,070	2,980,933	43,075	1,036,080	205,330	1,284,485
Orissa	3,744,855	140,004	168,060	4,052,919	133,202	1,251,632	167,749	1,552,583
Chhattisgarh	944,077	136,064	93,815	1,173,956	52,077	1,015,166	95,715	1,162,958
Madhya Pradesh	3,114,202	280,726	53,685	3,448,613	276,531	3,463,135	311,880	4,051,546
Gujarat	3,700,080	443,161	170,807	4,314,048	183,672	6,323,188	622,992	7,129,852
Daman & Diu	21,756	3	788	22,547	0	22,697	5,343	28,040
Dadra Nagar Haveli	23,558	150	0	23,708	0	20,781	1,345	22,126
Maharashtra	5,335,175	429,371	160,574	5,925,120	524,054	12,664,355	836,076	14,024,485
Andhra Pradesh	8,623,130	398,231	360,619	9,381,980	314,956	6,361,025	645,666	7,321,647
Karnataka	3,785,337	298,042	224,096	4,307,475	371,071	5,500,332	459,986	6,331,389
Goa	227,893	31,810	11,879	271,582	5,025	112,176	15,985	133,186
Lakshadweep	6,859	0	1,285	8,144	15	6,876	707	7,598
Kerala	4,965,128	648,568	245,357	5,859,053	180,219	2,144,935	277,502	2,602,656
Tamil Nadu	6,363,828	610,700	233,769	7,208,297	314,218	8,426,329	751,060	9,491,607
Pondicherry	77,809	13,349	2,759	93,917	7,933	235,649	10,233	253,815
Andaman & Nicobar Islands	50,207	3,129	515	53,851	1,085	45,589	1,822	48,496
<b>All India</b>	<b>85,556,220</b>	<b>8,050,036</b>	<b>5,035,493</b>	<b>98,641,749</b>	<b>4,370,678</b>	<b>76,947,337</b>	<b>7,177,731</b>	<b>88,495,746</b>

**Table 3: Industrial Distribution of Workers**

NIC Groups	Rural Residents Working in Urban Areas	Urban Residents Working in Rural Areas
D	20.59	23.74
F	30.87	14.69
G	12.02	27.73
I	9.96	7.24
K	1.32	3.14
L	7.91	4.27
M	4.79	6.46
N	2.01	1.54
O	2.54	3.42
Others	7.99	7.77
<b>Total</b>	<b>100</b>	<b>100</b>

D: Manufacturing, F: Construction, G: Wholesale and retail trade ; repair of motor vehicles, motorcycles and personal and household goods, I: Transport, storage and communication, K: Real estate, renting and business activities, L: Public administration and defence; compulsory social security, M: Education, N: Health and social work, O: Other community, social and personal service activities