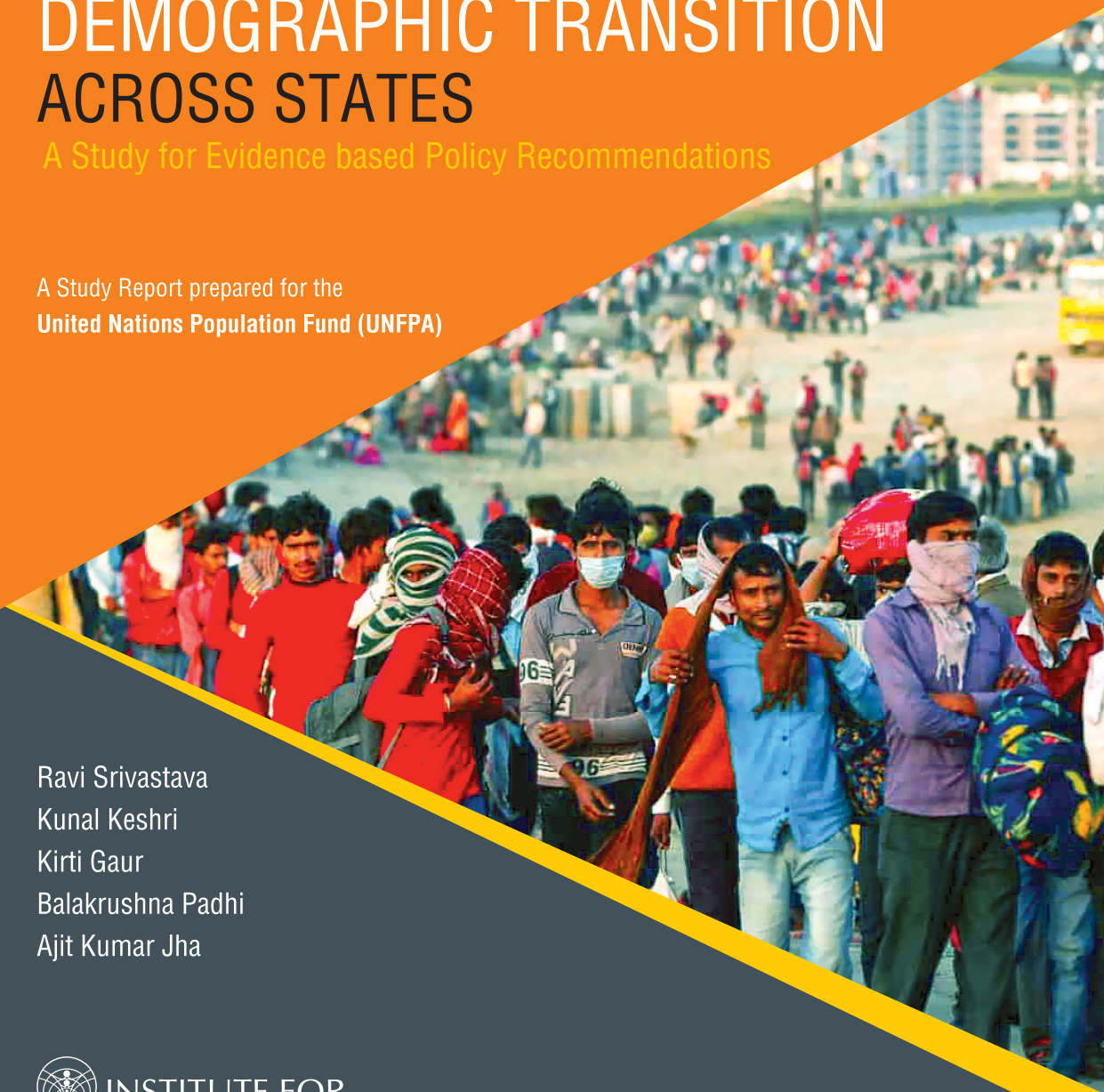
INTERNAL MIGRATION IN INDIA AND THE IMPACT OF UNEVEN REGIONAL DEVELOPMENT & DEMOGRAPHIC TRANSITION ACROSS STATES

A Study for Evidence based Policy Recommendations

A Study Report prepared for the
United Nations Population Fund (UNFPA)



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Foreword

Internal migration in India is closely linked to the pace and pattern of demographic changes and differentiated development of rural and urban areas, which affect the supply and demand for labour in different regions. India's 2011 population and housing census shows a large increase in migrant population from 309.4 million in 2001 to 449.9 million in 2011. Across state boundaries, the number went from 41.17 million to 54.26 million over the corresponding period. Most inter-state migration is from north-central, eastern regions to western-southern regions.

The present Study, sponsored by the United Nations Population Fund (UNFPA), analyses the relationship between the pattern of migration and the pattern of development, looking at both demographic and economic variables. The Study shows a distinct pattern between the characteristics of short-term seasonal migration and those of long-term migration, even as originating states remain largely the same for both. A closer look at State policies from Odisha, Jharkhand, and Kerala shows that states have tended to focus on modal migration tendencies – short-term out-migration in the case of Odisha and Jharkhand, and in-migration in the case of Kerala. It was found that all three studied States have in place policies and programmes to address vulnerabilities of migrants to different degrees of efficacity and success.

When the Study was first commissioned, COVID was not part of the equation. But the impact of measures to manage COVID19 on migrant labourers necessitated a quick review and its inclusion in this Study. The impact of the lockdown in India is equal and acutely felt by migrants of all categories, whether seasonal, long-term or circular labourers. It exposed, perhaps for the first time, the full magnitude of labour migration and the nature of different types of migration. COVID19 has

also served the opportune purpose of bringing to sharp focus the inadequacy, or rather incompleteness, of existing policies intended to protect migrants.

I take this opportunity to congratulate the Institute for Human Development (IHD) and its distinguished team of researchers for this Study. As usual with any study, we anticipate that it will resonate with some, while found wanting by others, exposing areas needing further research. Most importantly, both IHD and UNFPA believe and hope that the Study will stimulate scientific and policy level discussions for a greater understanding of the trends and pattern of internal migration in India. Few countries in the World can boast the ability to draw from within itself, the labour needed to fill the needs of its different regions, in all its vibrant diversity and differential of development. This reflection will hopefully result in improved policies that will, on the one hand, open avenues for better protection of migrants and, on the other hand, better synergies between sending and receiving states, and a maximization of this wealth of energy within the Country itself, thus reaping the ever elusive demographic dividend.

Argentina Matavel Piccin

UNFPA Representative India and
Country Director Bhutan

Preface and Acknowledgements

This study has been carried out with the support of the United Nations Population Fund (UNFPA). I am grateful to Venkatesh Srinivasan and Devender Singh for proposing that I prepare a report analysing the recent pattern of internal migration in India, and linking it with the uneven pattern of economic development and employment growth, in the context of differential demographic transition in India.

After the Corona/COVID-19 pandemic broke out, the issue of labour migration in India has assumed centre-stage and has been mainstreamed in policy discussions in India for the first time. The need for a comprehensive policy for labour migrants is more apparent now than ever before. Given that there is a huge and growing appetite among all stakeholders to understand the contours of internal labour migration in India, we approached the UNFPA with the request that the study report be published under the aegis of the Institute of Human Development. I am very grateful to the UNFPA for giving this permission so that the results of this study can be publicly disseminated. I am particularly grateful to Ms. Argentina Matavel Piccin, UNFPA Representative, for writing the foreword for this publication.

At the time of the preparation of the report, the detailed migration tables from the 2011 Census, as well as the Periodic Labour Force Survey Report for 2017-18 were not available. The non-availability of the migration tables from the 2011 Census was a major disappointment for the research team, which had to base its analysis on the provisional D5 tables which were then available.

Even with this limitation, the study broke new ground by analyzing all available sources of migration, both from the Census and the National Sample Surveys. It provided an assessment of the contribution of rural-urban migration to urbanization during 2001-11. It also provided a detailed analysis of short-term circular migration using data from the National Sample Surveys and the India Human Development Surveys (IHDS). In part II,

the study took explicit account of labour force changes and the influence of labour force along with other economic variables, such as GSDP per capita and average wages, on inter-state migration based on NSSO-EUS and other datasets. Further, by projecting labour force growth across education groups and age groups, it provided a more nuanced understanding of the labour market segments which could be involved in inter-state migration as well throwing new light on the possibilities of demographic dividend. The final chapter of the report analyses migration related policies in three states (Kerala, Jharkhand and Odisha) and concludes the need for a comprehensive and coordinated migration policy between Centre and States. The study thus provides a comprehensive analysis of the trends and patterns of different types of migration in India. It further situates internal migration in the context of demographic changes and the nature of uneven development. It finally provides a perspective on migration policy from the perspective of states. These findings can readily feed into an understanding of migration and policy responses urgently required in the Corona/COVID-19 pandemic and post-pandemic period.

In the preparation of this report we also received help and co-operation of a number of individuals and institutions. We are grateful to the then Chief Secretary of Jharkhand, Mr. Sudhir Kumar, and his colleagues for discussing pertinent issues relating to migration in Jharkhand and for sharing data and information. I am further grateful to Dr. Shri Ranjan, former IAS, and Regional Director, of IHD, Ranchi, his colleague Ashwani Kumar and to members of civil society organisations in Ranchi for discussing the state of migration and migration policy in Jharkhand with me. I am also grateful to Hemant Bajaj and Laetitia Mukhim of UNFPA for the excellent administrative support during the execution of the study. Last, but not least, I am grateful to Dr. Alakh N. Sharma, Director, Institute for Human Development (IHD), and Ms. Priyanka Tyagi, Senior Manager (Programme, Administration, and Communication), IHD for the support given for the publication of this study.

The first major part of the study analysing migration trends and patterns from available data sets has been carried out by Dr. Kunal Keshri (Assistant Professor, Govind Ballabh Pant Social Science Institute, Prayagraj) and Dr. Kirti Gaur (ICSSR Post-Doctoral Fellow at GBPSSI, Prayagraj). The second part of the study which analyses and projects till 2031, labour force, employment, unemployment across states, along with other economic variables such as GSDP, GSDP per capita, and wages, has been carried out by me, along with Balakrushna Padhi (Economist, CEFT, UNICEF, Xavier University, Bhubaneswar), and Dr. Ajit Kumar Jha (Assistant Professor, Institute for Studies in Industrial Development, New Delhi). The entire study has been carried out under my coordination and direction.

I must add that the UNFPA and the IHD do not bear any responsibility for the analysis and views expressed in this report.

Ravi Srivastava
May 2020

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CHAPTER **1**

Introduction

The links between migration and development are long recognised in development theories and literature. Migration *policy* is a relatively new area of focus. At the global level, migration has been impelled by a combination of economic, political, and demographic factors. In the first decade of this century, two influential reports dealt with migration and policies, albeit with different perspectives (World Bank 2009, UNDP 2009). In the last decade, international migration became a critical issue in policies and politics across Europe and America. In India, however, the focus on migration remained peripheral. Although international migration and policies received some attention, the focus on internal migration languished, because of a persistent belief that internal migration in India is low compared to other countries such as China. A major focus of studies emerged on understanding why migration, particularly inter-state migration, was so low in India (Kone et al. 2017)? These were countered by other studies which argued that conventional migration studies in India failed to take into account seasonal/circular migration, which was large, growing, and predominantly inter-state (Srivastava 2011a, 2012a).

With the spread of the Corona/COVID-19 pandemic in almost all the countries, there is a renewed focus on migrants and migrants' rights across the globe. The migrant workers comprise 164 million, which is 4.7% of the global labour pool (ILO, 2020). In India, a complete lock-down was imposed to contain the spread of the pandemic. This led to a cessation of economic activities, throwing informal workers out of jobs. The impact was felt most by circular labour migrants working in the informal economy. In the last few weeks, the country has grappled with the magnitude of the migrant crisis, as millions of circular migrants have attempted to leave destination areas and return to the source states and villages. It has now become clear that there was insufficient knowledge about migration to guide policy.

As we look beyond the present pandemic, there will be a great need to understand the nature and magnitude of migration in India, as well as its determinants. Just as the magnitude and nature of migration was inadequately understood before the pandemic, there is also a similar lack of understanding on what will follow now as migration gets reversed in large measure for the circular migrants. It needs to be understood that the immanent forces underlying migration are structural, and not purely voluntary, and these structural features are embedded in the nature of development and the demographic structure across regions in India.

The aim of this study is to analyse patterns of migration on the basis of available data, and to examine the influence of the uneven pattern of development and the variation in demographic regimes across states in India on the trends and patterns of internal migration. A key variable explored in this paper is labour force and its growth. Labour force, its growth, and structure in states are not only considered to be an important influence on migration, along with other developmental variables, it is also key to understand the nature of the demographic dividend in the years to come. The study focuses mainly on trends in inter-state and rural-urban migration in India. Since migration is already a major part of inflows/outflows of population from states and sectors in India, we also try and understand how states have been responding to inward or outward migration through appropriate policies and programmes.

1.1. Understanding and Interpreting Migration Trends

The first main part of this study is devoted to analyse the trends and pattern of migration in India since 1991.

Till recently, there were two major sources of data on migration, the Census and the National Sample Survey (NSS). The decennial population Census and the quinquennial migration surveys conducted by the NSS are the two important sources of migration data in India. The Census, which is the most important source of migration data captures stable / permanent migration, is important, but a large number of labour migrants are temporary, and these migrants are not readily enumerated in the Census. The recent rounds of the NSS (since 1999-2000) have a module which covers short-term migration out-flows. This study seeks to analyse both short-term (seasonal) and long-term migration.

In Census, the information on place of birth (POB) was being collected since 1872 and has continued in all the censuses till date. However, it has various limitations, as it provides only lifetime migration and does not capture return

migrants. Recognizing the constraints of POB, the Census of India has since 1971 also begun to collect migration data on the basis of place of last residence (POLR), which is the definition of migration used in this study. Question on 'Reason for migration' was introduced since 1981. As per the census definition, if the POB/POLR is different from the place of enumeration (POE), the person is classified as migrant (RGI 2001). Districts are the lowest unit for which migration data are available in the Census (Bhagat 2014). It is to be noted that the census data on migration is almost two decades old; for the census 2011 only provisional migration data was available in public domain at the time of preparation of this report, and final migration data was still awaited. Moreover, concerns have been raised regarding the comparability of the provisional 2011 data with earlier Census data (Kundu 2018). Hence, analysis of Census data over the 2001-2011 data needs to be interpreted with this caveat.

The NSS also uses the POLR definition to define a migrant as a person whose place of enumeration is different from his/ her last usual place of residence (UPR). In both the sources, POLR/last UPR is the place where the person stayed continuously for at least six months immediately prior to moving to the place (village/ town) of enumeration with the exception of new-born infants (RGI 2001; Nayyar & Kim 2018; Srivastava 2012a). The 49th round conducted in 1993, 55th Round conducted in 1999–2000 and the 64th round held in 2007–2008 also provided information on migration by Monthly Per capita Consumer Expenditure (MPCE) in addition to other household characteristics (NSSO 1993; 2001; 2010). Data of the NSS is also a decade old. This is an obvious limitation. Given this limitation, we have analysed the trends as per the available sources.

Apart from the Census and the NSS, the third data source which contains detailed information on non-resident members and remittances, and seasonal migration, is the India Human Development Survey (IHDS). Two waves of this survey have been conducted. The first round was conducted in the year 2004-05 and second round, which is probably the latest nationally representative migration survey, was conducted in 2011-12. It is a unique and appropriate dataset to study the stock of migration at two time periods. However, it is to be underscored that IHDS provides information on the 'non-resident members' and not the 'migrants'. The non-resident members of household, were identified through household responses to the following questions: (a) Does any woman/man in the household has a *husband / wife* who lives outside the household? (b) Is there any household member who has *children studying* outside the household? (c) Do any children under age 15 in the

household have *parents* who live outside the household? (d) Is there any *other* family member who sends money to his household / receives it on a regular basis (Desai et al. 2007; 2015)?

As implicit in the two major data sources (the Census and the NSS), definition of migrants has two important components, 'minimum duration of stay at the place of destination' and 'crossing of administrative boundaries'. The IHDS has two definitional issues, first it lacks the information on the duration of stay at the place of destination or time since the person has moved out. Second, it also includes the persons who have not crossed the administrative boundaries. In other words, persons who locally move in the same village, town or city are also included. We have tried to correct for this, by excluding non-resident members who have moved in the same village/town/city, thereby making it comparable in this respect with the other two sources of migration data. Our definition also excludes non-resident members who have migrated to abroad and those who have migrated to another state in the same village (wrongly classified). It is to be noted that IHDS data provides information on out-migrants only. Also, it does not contain information on the destination state of migrants.

This part of the study has been organised into seven chapters including the concluding chapter.

Chapter 2 carries out a trend analysis of migration flow and stock. Migration flow is proxied by inter-censal migration using the PoLR definition, which is common between the Census and the NSS. First section provides the trend analysis of life-time (stock) and as well as inter-censal (flow) of internal migration for the three Census rounds at the State level using 1991, 2001, and the provisional 2011 Census data. In the second section, a similar analysis is carried out using the unit level data of 49th (1993), 55th (1999-2000) and 64th (2007-08) rounds of National Sample Survey (NSS). Analysis has been done separately for overall migration flow and labour migration flow for these three time periods.

Chapter 3 estimates the net inter-state migration using 2001 and 2011 age data by Census Survival Ratio method to identify the new pool centres as well as destinations. State-wise age and sex data for the year 2001 and 2011 from Census of India has been used for this analysis. The difference between the enumerated population at the second census and the survivors of the population enumerated at the first census is the estimate of net migration of the area. The survival ratio is calculated from the two censuses. Net migration, positive or negative in a state, expresses the gaining or losing of the population by the state.

Chapter 4 uses the IHDS data sets for the year 2004-05 and 2011-12 to estimate the magnitude and prevalence of households with non-residents members and non-resident members, along with their characteristics across states and compares these estimates and characteristics across time. As mentioned earlier, non-resident members who have moved in the same village/town/city are excluded. Our definition also excludes non-resident members who have migrated abroad and those who have migrated to another state in the same village (wrongly classified).

The above chapters are devoted to analysing data on permanent/semi-permanent migration which are captured by these three sources (Census, NSS and IHDS). A strong case has been made in the literature to distinguish between permanent migration, semi-permanent or long-term circular migration, and short duration seasonal/circular migration (Srivastava 1998; 2011a;, 2012a). The pandemic crisis has brought into focus both long-term circular and short-term circular migration, the former being mostly captured in Census/NSS data. Chapter 5 of this study is devoted to an analysis of seasonal labour migrants (short duration circular migrants). It is evident from the available literature that there is a widespread occurrence of temporary/ seasonal labour migration for employment in developing countries (Brauw 2007; Deshingkar and Farrington 2009; Keshri and Bhagat 2013; Yang and Guo 1999; Srivastava 1998, 2011a, 2012a; Srivastava and Pandey 2017). Temporary labour migration, often used interchangeably with circular, seasonal, short-term and spontaneous migration, has been a subject of much discourse (Keshri and Bhagat 2012 Srivastava 2012a). It is a sort of mobility where the economic activity of a person is moved but not the usual residence (Bilsborrow et al. 1984). If individuals migrate leaving their families, land and property in the area of origin, they may do so with the intention of returning to the place of usual residence. This is more likely to happen if the individuals have precarious jobs in the destination areas or if the cost of permanent relocation is high relative to its benefits (Srivastava 2012a). An important group of circular migrants consists of seasonal migrants, those who combine activities in several places according to seasonal labour requirements. In official data sources, six months is generally used as the maximum duration of a temporary move since otherwise a person is classified at the new place of residence (Mberu 2006; Pham and Hill 2008; Srivastava and Sasikumar 2003, Srivastava 2011a).

The census of India does not collect information on the seasonal or short-term circular migration. The NSS has tried to capture the short-term migration through specific questions since 1999-00. In the 64th round of the NSS (2007-

08) each household was asked whether any person who had stayed away from the village/town for a period of one month or more but less than six months during the last 365 days for employment or in search of employment. A similar definition was adopted for the 55th Round (1999-00) but the minimum staying away period was taken as two months. However, the NSS has been criticized for underestimating seasonal and or short-term circular migration. The two main reasons cited are, first the circular migration cycle can be longer than six months and second, many times, entire households and not individuals participate in seasonal migration (Srivastava 2012a). Even so, the NSS data yields valuable insights into the characteristics of these short duration migrants, their source states, and their industry at destination.

The IHDS 2011-12 has now also become another source for studying and estimating seasonal labour migration. The IHDS asks its respondents "Have you or any member of your household left to find seasonal/short term work during last five years and returned to live here?" Unlike the Census and the NSS, the IHDS captures short-term/seasonal migrants who may be away for more than six months. But those seasonal migrants who went to find seasonal/short-term work but did not return are not captured. Compared to the NSS, the IHDS definition of workers migrating seasonally for work is wider and some authors are of the view that it is more accurate in capturing circular migrants (Nayyar & Kim 2018).

This chapter consists of two major sections; the former is related to estimation, prevalence and pattern of seasonal labour migration while the later deals with the background characteristics of seasonal labour migration. In this chapter both these data sources have been used to analyse estimates of seasonal migration by state and the characteristics of such migrants.

Chapter 6 in this part of the study is devoted to analysis of the urbanization trends. In this chapter, data from three Censuses 1991, 2001 and 2011 have been used (RGI 1991; 2001;2010). It analyses the state-wise trends of urbanization using Urban-rural population growth differential method. It further assesses the contribution of net rural-urban migration in urban population growth. This has been calculated using two approaches, first approach uses net rural-urban migration during two censuses and the other approach uses inter-censal (0-9 years duration) net rural urban migration at a particular census.

Finally, chapter 7 which is the concluding chapter of this part of the study summarises the main results of the analysis carried out in Part 1.

1.2. Unequal Development and Variations in Demographic Structure across States as Drivers of Migration

Part 2 of this study is devoted to analysing indicators of unequal development which are likely to have an influence on migration, with a focus on inter-state migration. While chapter 8 focuses on examining these indicators across time, projecting some crucial indicators till 2031, chapter 9 examines the influence of these variables on inter-state migration using an extended gravity model.

1.2.1 Labour Force as a Key variable for interpreting both demographic opportunity and inter-state labour supply and demand

In chapter 8, the study carries out a detailed exercise projecting labour force participation in India across states till 1931. An earlier exercise of a similar nature was earlier carried out by the NCEUS (2009). The rationale for carrying out this detailed exercise and its significance for this study needs some justification. The influence of population on migration is readily understood and is captured by the gravity models (discussed later). Recently, the importance of demographic regimes and transition on providing a window of opportunity through the so-called demographic dividend, and the influence of the changing demographic structure on migration has been emphasised.

In a recent study carried out for the UNFPA (Kulkarni 2017), the nature of the demographic dividend for India has been analysed in detail on the basis of population forecasts. As the study points out, India has nearly completed transition to low fertility and is about to enter the last stage of demographic transition. The analyses of economic growth in countries that experienced rapid fertility decline, mostly in East Asia, has shown that the resultant increase in share of working age population and decline in the share of the dependent population has increased the possibility of higher savings and investment rates (Bloom and Williamson 1998). This link between changes in demographic structure and economic benefit has also been labelled as 'demographic dividend' or 'demographic bonus' (Bloom et al. 2003). The period during which the share of working age population remains high (and by implication the dependency ratio remains low) is hence called the 'window of demographic opportunity'. As Kulkarni (2017) points out, this window of demographic opportunity is actually a potential dividend which is to be harvested by making an efficient utilisation of the availability of a large share of population being in working ages.

Demographic dividend depends on the age structure of the population. For most purposes the 15 to 59 age population may be taken to be the working age population (Kulkarni, 2017, Saad, 2009), although with development, the working age may more realistically be taken as 20-64. Kulkarni (2017) argues that the share of the 15-59 year population at 60 percent (or a dependency ratio of two-third) may be considered as low enough to give a demographic dividend. He shows that for India, the dependency ratio was 75 percent in 2001 but fell to 65 percent by 2011 so that India can be said to have already been in a position to derive the dividend before 2011. The dependency ratio is projected to fall further, to 55 percent by 2021 and remain around that level for about 20 years. However, after 2041, the dependency ratio would rise and the dividend would not be as large. Moreover, by 2061, the ratio would rise above the critical 67 percent point and the dividend would no longer be available (Kulkarni 2017).

The trends in the dependency ratio vary across states. Kulkarni (2017) shows that states ahead in demographic transition had begun to derive dividend before 2001 or did so soon after 2001. Tamil Nadu, Kerala, Delhi, Karnataka, Andhra Pradesh, and Gujarat had ratios below 67 percent in 2001 and were followed by Himachal Pradesh, West Bengal, Punjab, and Maharashtra. By 2011, the ratios in these states had fallen below 60 percent. But in most of these states, the dependency ratio will rise above two thirds before 2051. Kerala and Tamil Nadu will lose the dividend before 2040 whereas the rest will do so around the mid-2040s. On the other hand, some of the states lagging in the transition process (Odisha, Haryana, Assam, Chhattisgarh and Uttarakhand) had also begun to gain dividend by 2011. Finally, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Bihar, which lag further behind, would take little longer but by 2021 the dependency ratio would be below two thirds in all the states.

Further, Kulkarni (2017) cites Saad (2009) who has identified three stages of demographic dividend: Dividend 1: dependency ratio above two thirds and declining, Dividend 2: dependency ratio below two thirds and declining, and Dividend 3: dependency ratio below two thirds but increasing. During the first phase, the population is yet to begin to gain the dividend but is moving towards it (dependency ratio declining but above two thirds). During the second phase, the dividend is available and increasing (dependency ratio declining); in this phase, the window of opportunity has opened and is widening. In the third phase, the dividend is still being derived but it is now falling (dependency ratio is rising). Kulkarni (2017) calls it the 'waning' phase, the window is gradually closing. Once the dependency ratio

goes above the critical level, the third phase has ended and one could say that the window is closed.

Kulkarni has further used this framework to identify the periods of the three phases of dividend for India and large states have been identified (ibid.). He notes that a consequence of the staggered dividend is that for India as a whole, the dependency ratio will not be very low and will not fall below 54 percent. Thus, while India will certainly get dividend, the intensity will not be as large as for China. But although the dividend for India will not be very large, it will spread over fifty years, till after the middle of this century.

The pattern and degree of India's dividend has economic and political implications. First, for India as such, the dividend will not be very high at any time. On the other hand, it is considered to spread over a long time, phases II and III together will cover about 50 years, which is an advantage. In order to harvest the dividend attained by a favourable age structure, it is essential to provide employment to the large population in working ages. This is not easy to do if there is a spike in the size of this population. However, if the rise is moderate, the economy would be in a better position to efficiently employ the potential labour force. India is favourably placed in this aspect and can make the best of the situation which will last long. For individual states, the intensity of dividend is considered to be large since many will reach a dependency ratio of 50 percent and some even lower. Thus, these states could gain a huge dividend for some time. But at that time some others states will not be in the same phase. *However, the share of the working age population provides only a window of opportunity – which can be turned into a dividend only if labour supply rates and employment can be maintained and if the productivity of employed labour is high enough.*

There is naturally a clear link between the emerging structure of population and inter-state as well as rural-urban migration. Kulkarni (2017) notes that states leading in transition will begin to gain dividend early and the relatively high population in working ages in the high dividend states, if not absorbed in them, can migrate to states that are not drawing high dividend at the time. On the other hand, after some time, when the states leading in transition begin to lose dividend, the lagging states get dividend and the high working age population in the latter can migrate to the former states.

Further, Kulkarni notes that while most of the discussion on demographic dividend revolves around the *share* of the working age population, it is the *size* of working population which plays a central role when labour migration is the issue.

As the working age population in one region begins to decline, it would tend to attract labour migrants from regions where the working population is continuing to grow. Of the 628 million growth during 2001-2061, over 400 million will be in the six north-central states of Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Jharkhand and Chhattisgarh; Uttar Pradesh and Bihar together contributing 270 million. The four southern states will contribute just over 50 million. His estimates show that the size of working age population is increasing initially in all the states except Kerala, but decline is projected to begin before 2041 in many states. These are the states leading in the transition: Tamil Nadu, Punjab, West Bengal, Maharashtra, Andhra Pradesh & Telangana, and Karnataka. Some other states will follow soon. However, the size is projected to increase in states such as Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh, and Jharkhand beyond 2041 and into the 2050s. In principle, these states can meet the labour deficit in regions which are experiencing declines in working age population. But the ability to make the best of the staggered nature of dividend depends on how smoothly inter-spatial surpluses/deficits in labour supply/demand can be adjusted through migration.

Finally, Kulkarni also notes that a rise in labour force will inevitably contribute to rural-to-urban migration as there is limited scope for labour absorption in the primary sector (ibid.).

It can easily be seen that the demographic dividend argument operates through the influence which the changes in demographic structure has on the employment-population ratio. Other things remaining the same, a rise in the share of the productive age population will increase the employment-population ratio and reduce the dependency ratio. Over time, with population ageing, the window for development available through the higher employment-population ratio will decline.

The employment population ratio itself operates through the limits set by the willingness and ability of any section of the population to participate in the labour force, given by the Labour Force Participation Rate (LFPR). The LFPR is influenced by the demographic structure, and along with it, by a host of socio-cultural and economic (income growth and policy related) variables. On the other hand, employment is determined by the magnitude and nature of growth.

In countries like India, for the most part, labour force growth and employment growth are closely related. This is because, in a low-income economy, workers will try and find some work in order meet subsistence, and divergence between labour force participation and employment is more likely to occur among the better-off.

Because, labour force size and structure move quite synchronously with employment, we can treat labour force and the LFPR as more proximate variables determining the opportunity window and also exercising influence on inter-state and rural-urban migration through labour supply and demand. For this reason, labour force size, structure and growth has been projected and analysed in this study till 2031.

In order to understand the growth of labour supply at the state level, we have estimated the labour force in 1993-94, 1999-00, 2004-05 and 2011-12. We have used two different methods to project the labour force and the LFPR state-wise for 2016, 2021, 2026 and 2031. The first method uses the average of the period-wise compound rates of growth of labour force which is then used to estimate the projected labour force. In the second method, the population projections prepared by Kulkarni (2017) and the ratio method used by NCEUS (2009) to project the labour force. The method uses the state-wise, age group wise, and education level wise labour force participation ratios across the NSS rounds to project the labour force for the future years. It allows us to estimate the state-wise labour force by sex, age group and education level, and hence is able to also project the human capital of the projected labour force. These figures are then analysed by us in the chapter.

1.2.2 Other indicators of Unequal Development influencing migration

In order to estimate the demand for workers at the state level, we have prepared estimates of employment elasticity. This has involved estimating GDP growth for different periods along with employment growth. We have used 1993-94, 1999-00, 2004-05 and 2011-12 as benchmark years as the year 2004-05 does not give reliable estimates (employment growth becomes negative for a few states between 2004-05 and 2011-12).

We have also used projected employment and labour force figures project unemployment and unemployment rates till 2031.

We have also estimated the GSDP per capita and wages across the different states since income and wage differences are likely to be one of the significant drivers of migration across states.

1.2.3 Modelling Inter-state Migration

As in evident from the discussion in the earlier chapter, this study explores the influence of the uneven demographic structure and economic development on migration in India. In chapter 9, we analyse the determinants of inter-state migration

by extending gravity-based models of migration which are popularly used to predict migration flows. Since only the provisional D4 table of migration from the 2011 Census is available currently, and since this data does not allow us to empirically determine inter-state migration flows, we have used the NSSO 49th, 55th and 64th migration rounds for 1992-93, 1999-00 and 2007-08 in this study to examine the determinants of migration using an extended Migration Gravity model. In the two main variants of the model considered, we have used population in the origin and destination states in one variant and labour force in the second variant. Along with these various macro and microeconomic data sets were taken from different sources to examine various determinants of inter-state migration. The analysis has been done for major 18 states and combined north-eastern states excluding Assam. Details of the analysis carried out are given in chapter 9.

1.3 Policy issues

The final chapter in this study is devoted to migration policy in selected states. Srivastava (2011a, 2012a) has pointed out that there is absence of a systematic policy in India on internal migration. This has come to the fore during the recent pandemic. But there has been a greater focus on migration in states. As part of this study, we have focussed on state level responses to migration through case studies of selected states (Kerala, Jharkhand, and Odisha).

As shown in part 1 of this report, each state has both migration outflows and inflows. We find, however, that states have focused either on out-migration or in-migration and that too in a very limited fashion. In this study, we analyze state level policy by focusing on a few states – Odisha, Jharkhand and Kerala. Each of these states is characterised by a modal type of migration. Odisha and Jharkhand are considered to be outmigrating states (for seasonal migrants), while Kerala has emerged as a major in-migrating states, drawing migrants from distant states in the East and North-east. The study of Jharkhand was carried out by us through interviews and an analysis of policy documents, while secondary sources were used for Kerala and Odisha.

In conclusion, this study can be expected to contribute to a better understanding of the patterns of migration, both long-term and short-term circular, determinants of migration, and policy gaps. This will help in forging a stronger link between internal migration, the welfare of migrants, and more inclusive development.

Part 1

Internal Migration in India: Its Trends and Pattern Since 1991

CHAPTER 2

Trend Analysis of Migration Flow and Stock

2.1 Introduction

Migration is the third important component of demographic change after fertility and mortality. However, the measurement of migration is not as simple as the later two due to its complex nature. In the preparation of population estimates and projection for a nation or a region we need to analyze the trend and pattern of migration. First section of this chapter provides the trend of life-time (stock) and as well as intercensal (flow) of internal migration for the last three decades. Migrants of all durations are defined as lifetime migrants since the time of their move is not known (Premi 1990). On the other hand, intercensal migrants are the migrants who have migrated within the duration of 0-9 years. For the analysis of first section we have utilized the last three rounds of Census data, information on the place of last residence along with the duration since migration have been used (RGI 1991; 2001; and 2011). In the second section the unit level data of 49th (1993), 55th (1999-2000) and 64th (2007-08) rounds of National Sample Survey (NSS) of India has been used (NSSO 1993; 2001; 2010).

2.2 Data and Methods

The three rounds of Census data have been used. For the trend of life-time migration all duration migration data has been used while for the inter-censal analysis, those migrants who have migrated in the last 10 years duration have been used. It must be noted that for the year 2011 provisional migration data has been used, which is the only available data in public domain. It does not provide separate information for the internal migration, i.e. the migration includes international in-migrants to

the country. To make the results comparable with the migration data of census 1991 and 2001, analysis has included international in-migrants for 1991 and 2001. It is noteworthy that census could not been carried out during 1991 in Jammu & Kashmir, therefore, this state has been excluded from the trend analysis. Trend analysis has been done for total population as well as rural and urban areas separately. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for Census 2001 and Census 2011. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

In the second section we aimed to carry out a trend analysis of the migration flows for the last 10 years duration (0-9 years) using the three rounds of NSS data with reference periods, namely 1983-1993 for NSS data conducted in 1993, 1989-1999 for NSS data conducted in 1999-2000 and 1997-2007 for NSS data conducted in 2007-2008. The NSS covered a sample of 119,403 households in 49th round, 120,578 households in 55th round and 125,578 households in the 64th round through its employment & unemployment schedules (NSSO 1998; 2001; 2010). The definition of migration remained same throughout these rounds. A household member, whose last usual place of residence[1], anytime in the past, differ from the present place of enumeration is considered *a permanent migrant* and if the person has stated any one of the employment related reasons[2] as his reason for migration then he/she is considered a *labour migrant*.

Analysis has been done separately for overall migration flow and labour migration flow for these three time periods. All the States and Union Territories (UTs) have been included in the analysis. Like we did for Census, the newly created states (created after 2000) Chhattisgarh, Jharkhand and Uttarakhand have been merged with their respective mother states Madhya Pradesh, Bihar and Uttar Pradesh for the period 2007-2008 (64th round) so that comparative analysis can be possible with earlier rounds. Except Assam, all the North-Eastern states (Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) have been clubbed. The gross migration figures have been estimated using NSS multipliers for the all migrants and labour migrants separately.

To present the gross migration and bilateral flow (inflow and outflow) we have used circular migration plots. These help in facilitating effective and simultaneous

1. Usual place of residence is defined in the NSS as a place (village/town) where the persons had stayed continuously for a period of six months or more.

2. Employment related reasons: In search of employment, in search of better employment, business, to take up employment/better employment, transfer of service/contract, proximity of work.

presentation of origin and destination migration flows and express the volume of movement through the width of the flow and its direction through the color of the origin. For presenting the trend analysis of inter-state net-migration, graphs and GIS maps have been used. Statistical package *Stata 12* has been used for the survey data analysis. Circular migration plots have been prepared by using *R 3.5.1*. Arc GIS 10.1 has been used to prepare GIS maps to show the state-wise net-migration.

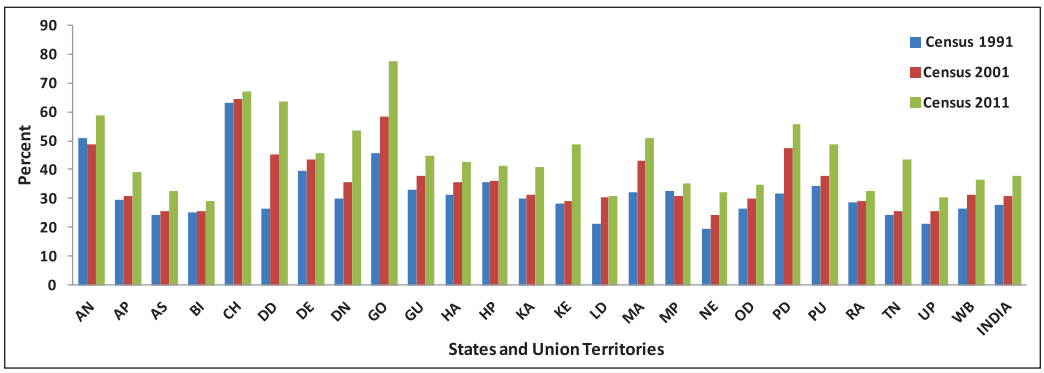
2.3 Results

2.3.1 Trend of Life-time and Inter-censal Migration Rate during 1991-2011

2.3.1.1 Overall Life-time and Inter-censal Migration Rate

By place of last residence 232 million persons are reported as migrants as per census 1991, which increases to 312 million in 2001 and 450 million in 2011 (excluding Jammu & Kashmir and including international immigrants) in India (Census of India, 1991, 2001, 2011). Results shown in Figure 2.1 suggest that overall life-time migration rate has increased at a low pace from 27.7 per cent in 1991 to 30.7 per cent in 2001 while it is comparatively higher (37.6 per cent) in 2011 (appendix Table A 2.1).

Figure 2.1: State-wise trend of Life-time migration rates for Total Population, India, Census of India, 1991, 2001 and 2011



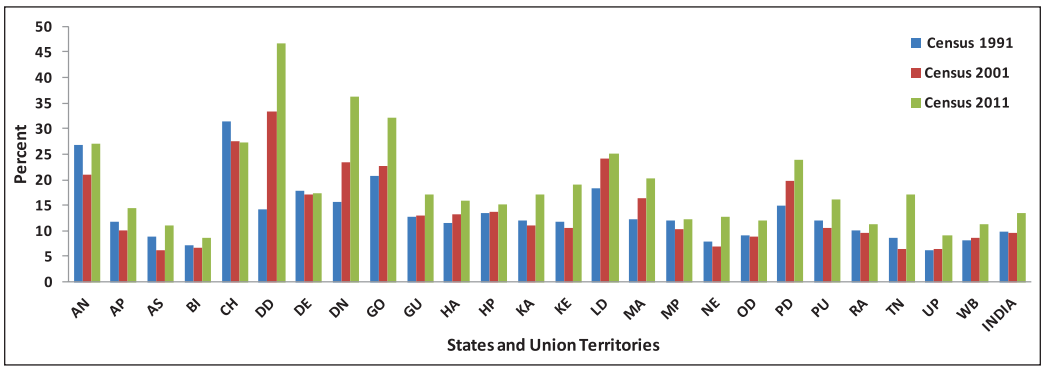
Source: Table D2, D Series, Census 1991; Table D5, D Series, Census 2001; Table D5, D Series, Census 2011, Census of India

Notes:

1. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for Census 2001 and Census 2011.
3. Jammu & Kashmir has been excluded from the trend analysis as there was no census in 1991 in the state.
4. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
5. Total population has been considered for the analysis (migrants include international in-migrants)

In major states, rate of life time migration stock is found to be higher in Maharashtra, Punjab, Haryana, Karnataka and Gujarat and increased gradually during the three decades. Taking the cognizance of inter-censal migration rate it is observed that overall it first declines slightly from 9.8 per cent in 1991 to 9.6 per cent in 2001 but then increases steeply to 13.4 per cent (Figure 2.2). Most of the states and union territories (UTs) experiences a similar trend i.e. first a decline during 2001 and then an increase in the latest census (2011) except the UT of Chandigarh, which see a steady decline during 1991-2011. In the UT of Delhi there is first a decline from 17.8 per cent in 1991 to 17.0 per cent in 2001 and then a slight increase with 17.4 per cent in 2011. Interestingly, inter-censal migration rate shot up in recent decade in some of the states like Maharashtra, Goa, Tamil Nadu and Karnataka.

Figure 2.2: State-wise trend of Inter-censal migration rates for Total Population, India, Census of India, 1991, 2001 and 2011



Source: Same as Figure 2.1

Note: 1. 0-9 years of migration duration has been used for inter-censal analysis.

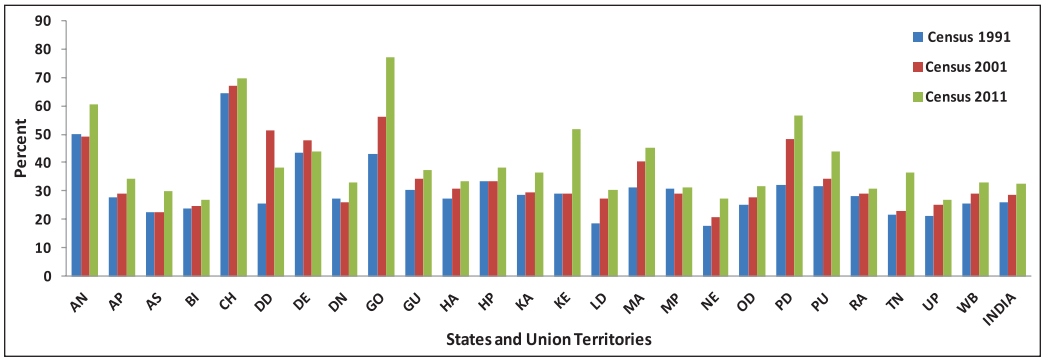
2. Other notes are same as Figure 2.1

2.3.1.2 Life-time and Inter-censal Migration Rate in Rural Areas

Results related to life time migration for rural areas suggest that at all India level life time migration rate increases from 26.1 per cent in 1991, 28.5 per cent in 2001 to 32.7 per cent in 2011 (Figure 2.3 and appendix Table A 2.1). In most of the major states and UTs gradual increase has been observed in the migration rate except Kerala and Madhya Pradesh. In Kerala it is almost constant at 29 per cent for initial two decades but suddenly rise to 52 per cent in the latest decade while in Madhya Pradesh (including Chhattisgarh) it declines from 10.6 per cent in 1991 to 9.2 per cent in 2001 and further increases to 10.3 per cent in 2011.

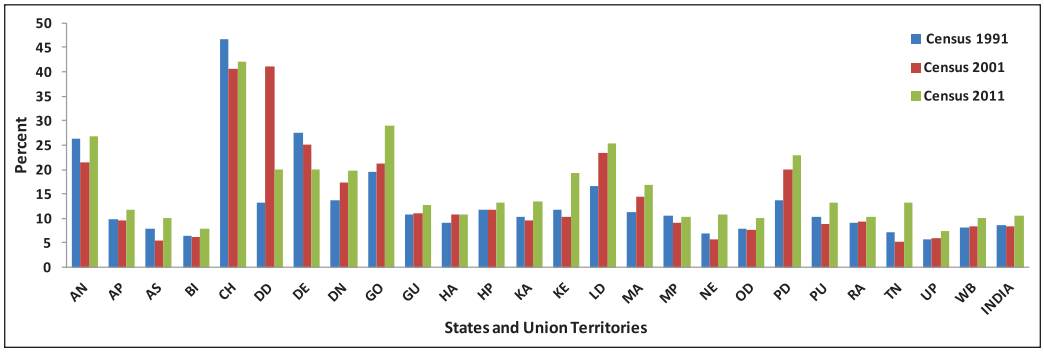
Inter-censal migration rate for all India has increased from almost eight per cent in the initial two decades to 11 per cent in the latest decade. Except Delhi most of the major states observed increase in inter-censal migration rate from 1991-2011 (Figure 2.4). In rural areas of Delhi there is a sharp decline in migration rate from 27.6 per cent in 1991, 25.1 in 2001 and 20.1 in 2011. Importantly, increase in migration rate is very steep in Goa, Kerala and Tamil Nadu during the last decade.

Figure 2.3: State-wise trend of Life-time migration rates for rural population, India, Census of India, 1991, 2001 and 2011



Source: Same as Figure 2.1
Note: Other notes are same as Figure 2.1

Figure 2.4: State-wise trend of Inter-censal migration rates for Rural Population, India, Census of India, 1991, 2001 and 2011



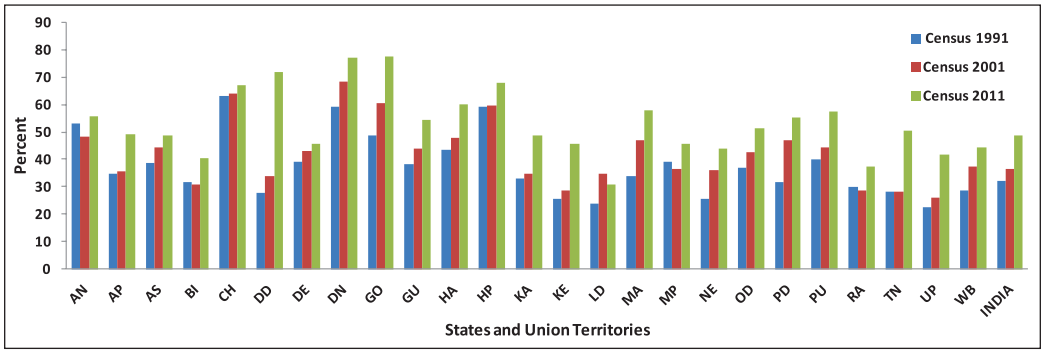
Source: Same as Figure 2.1
Note: 1. 0-9 years of migration duration has been used for inter-censal analysis.
2. Other notes are same as Figure 2.1

2.3.1.3 Life-time and Inter-censal Migration Rate in Urban Areas

Figure 2.5 and 2.6 presents the stock and flow of migration rate during the last three decades for urban areas (appendix Table A 2.1). Results suggest that the share

of migrants has increased from one third of population (32.3 per cent) in 1991 to almost half of population (48.6 per cent) in 2011 as far as the urban areas are concerned. State-wise life-time migration rate for India has increased in almost all the major states during the last three decades. Only Rajasthan has been an exception where migration rate has declined from 30.1 per cent in 1991 to 28.4 per cent in 2001 but again rise steeply to 37.5 per cent in 2011. Inter-censal migration rate results are quite interesting as trend are mixed. For instance, many states experience first decline in the migration rate during 1991 to 2001 and then increase in the latest decade. Its good examples are Andhra Pradesh, Assam, Bihar, Delhi, Himachal Pradesh, Karnataka, Kerala, Odisha, Punjab, Rajasthan and Uttar Pradesh. On the other hand Goa, Gujarat, Haryana, Maharashtra and West Bengal experiences gradual increase in the inter-censal migration rates.

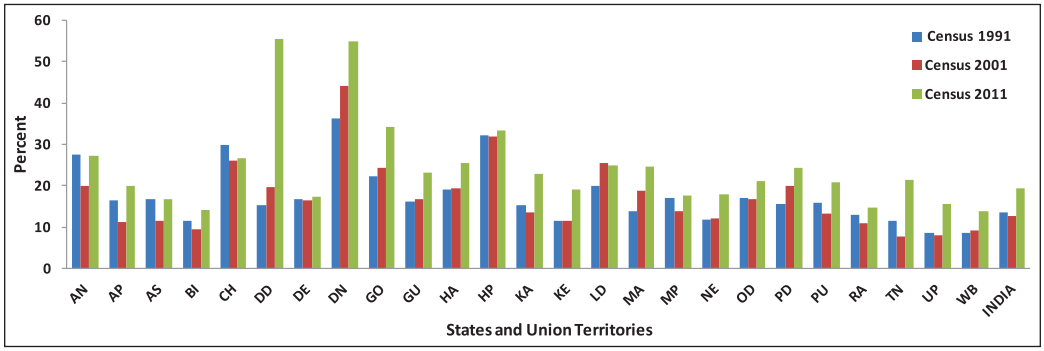
Figure 2.5: State-wise trend of Life-time migration rates for Urban Population, India, Census of India, 1991, 2001 and 2011



Source: Same as Figure 2.1

Note: Other notes are same as Figure 2.1

Figure 2.6: State-wise trend of Inter-censal migration rates for Urban Population, India, Census of India, 1991, 2001 and 2011



Source: Same as Figure 2.1

Note:
1. 0-9 years of migration duration has been used for inter-censal analysis.
2. Other notes are same as Figure 2.1

2.3.2 Trend analysis of migration flow during 1993, 1999-2000 and 2007-2008 using the National Sample Survey Data

2.3.2.1 Inter-state Gross and Net-migration flow

Figure 2.7 shows the migration flow during last 10 years from reference year 1993 in states and UTs. It is clearly visible that a major volume of migrants coming out from Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan during this period. On the other hand main receivers are Maharashtra, Delhi, Haryana and Madhya Pradesh. Uttar Pradesh is the largest origin state of inter-state migrants (1.8 million) and migrants are destined from here to Delhi, Maharashtra and Madhya Pradesh. Interestingly, for the period of 1999-2000 after Uttar Pradesh (2.3 million migrants) and Bihar, Maharashtra is the third largest sender of migrants (Figure 2.8). However, Maharashtra is still the largest receiver. Notably, Union Territory of Delhi became one of the important out migrating states during 1999-2000 (appendix Table A 2.2).

Bilateral flow of Migrants between States and Union Territories (UTs) of India shown by Circular Plot, (0-9 year duration), National Sample Survey, 1993, 1999-2000, 2007-2008

Figure 2.7

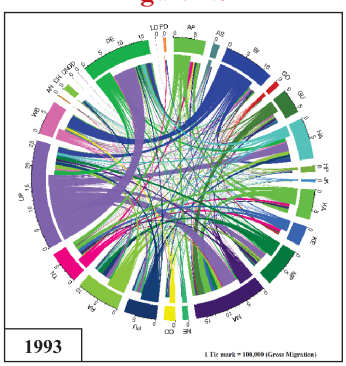


Figure 2.8

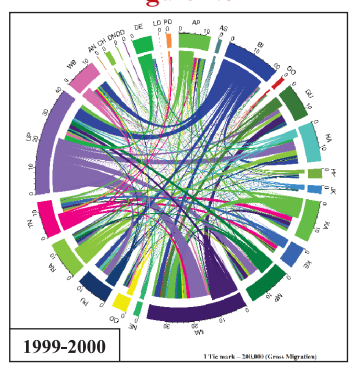
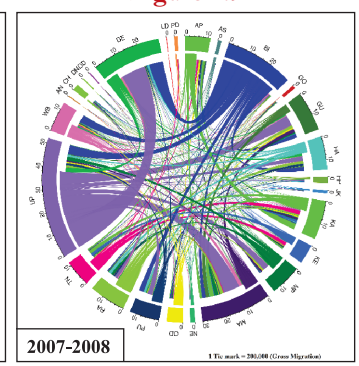


Figure 2.9



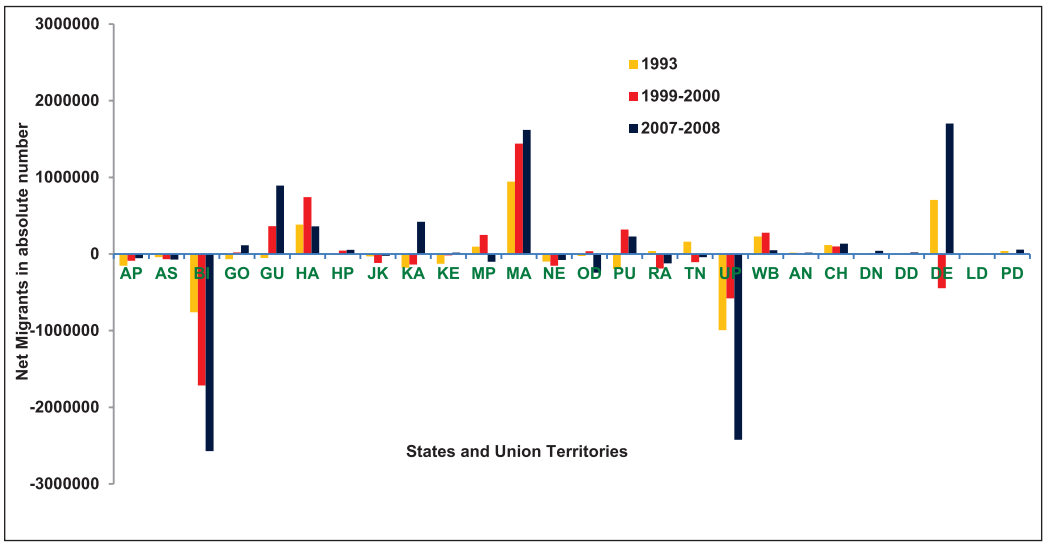
Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. Instructions to read Circular plot: Each State and UT is assigned a color (TN: Red) and flow have the same color as the origin. There is less gap at origin and large gap at destination. Width of flow lines indicates size of migration flow. Each tic mark represents gross migration (defined for each plot separately)
2. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.
3. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Furthermore, we could visualize from Figure 2.9 that volume of migration from Uttar Pradesh again increases to almost 3.8 million and major receivers of this volume were Delhi, Maharashtra, Madhya Pradesh and Gujarat during the latest survey period (2007-2008). Gujarat has emerged as one the largest receivers of inter-state migrants with 1.2 million migrants after Maharashtra and Delhi in this period.

Figure 2.10: Inter-state net-migration trend (all migrants) (0-9 year duration), NSSO, 1993, 1999-2000 and 2007-2008



Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Negative sign represents negative net migration (out-migration) from concerned States or UTs
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Trend of Net Inter-state migration in India, NSS, 1993, 1999-2000, 2007-2008

Figure 2.11

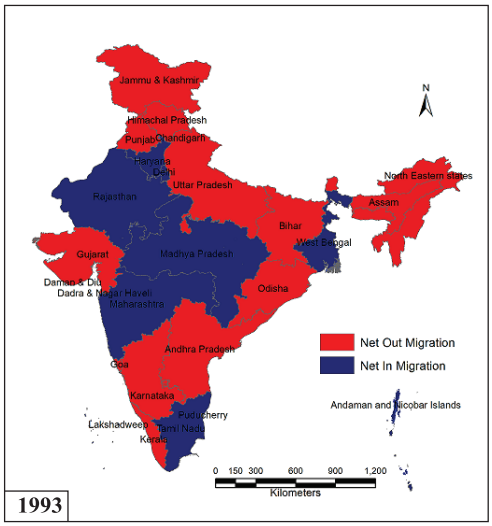


Figure 2.12

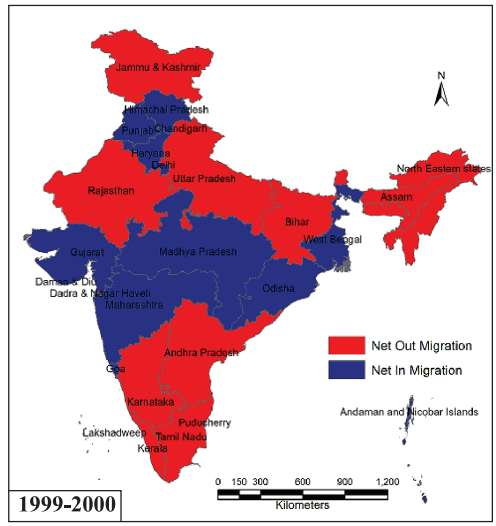
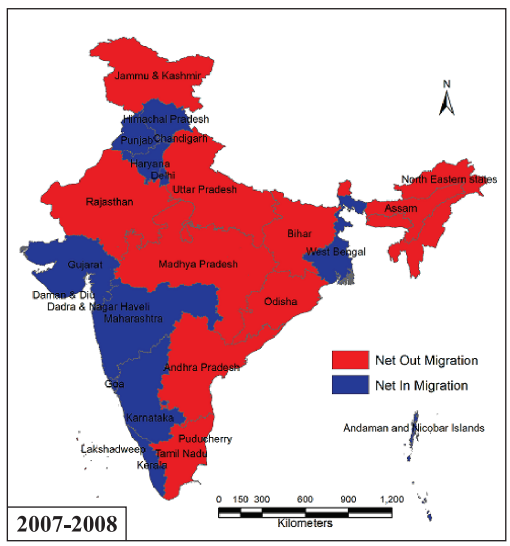


Figure 2.13



Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:
1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.

Figures 2.10, 2.11, 2.12 and 2.13 present the trend of inter-state net migration (difference between inflow and outflow) during the three time periods (1993, 1999-2000 and 2007-2008) for the migration duration of 0-9 years (Appendix Table A

2.3). A secular positive increase (higher in-migration than out-migration) could be observed only for Maharashtra during the last one and half decade while similar but negative trend of higher net out-migration has been found in Bihar. Net-out migration from Uttar Pradesh first increases during 1993, then declines slightly in the second reference period of 1999-2000 and steeply increases in the latest period of 2007-2008. States like Punjab, Gujarat, Goa, Karnataka, and Kerala are earlier net out-migrating states but they have become net receivers in the course of time. On the other hand Madhya Pradesh, Odisha and Rajasthan are showing reverse trend of becoming out-migrating states. West Bengal is still a receiver state; however, volume of net- in migration has become negligible in the last reference year. Union territory of Delhi shows a strange pattern of first positive net-in migration, then negative and again in the third reference period (2007-2008) it has become a receiver state.

2.3.2.2 Inter-state Gross and Net-migration Labour Migration flow

Figure 2.14 presents the pattern of bilateral flows of employment related migration (labour migration) for the last 10 years from the reference year 1993. A huge volume of outflow of labour could be observed from Uttar Pradesh (0.65 million) and Bihar (0.46 million). Rajasthan, Kerala and Karnataka are also major senders of labour to other states during this period. Prominent receivers are Maharashtra, Delhi, Haryana, West Bengal and Gujarat (appendix Table A 2.4). This flow pattern has slightly been changed as far as receiving states are concerned during 1999-2000, for example Delhi and West Bengal are no more major receivers of labour migrants (Figure 2.15). Uttar Pradesh remains the largest exporter of labour (0.85 million) but Bihar (0.75 million) is not far behind. These are followed by Rajasthan, Tamil Nadu, Kerala and Madhya Pradesh in terms of volume. Maharashtra, Punjab, Gujarat and Haryana are still the major receivers (appendix Table A 2.4). During the latest reference year (2007-2008) pattern changes greatly as shown by Figure 2.16. As expected the volume of labour out-migration exceeded one million from Uttar Pradesh (1.6 million) and Bihar (1.2 million) (appendix Table A 2.4). Other major senders are Rajasthan, Madhya Pradesh and West Bengal. Labour exodus from Uttar Pradesh destined to Maharashtra, Delhi and Gujarat. Delhi became the first choice of migrants from Bihar followed by Punjab and Haryana. Delhi, Gujarat and Karnataka emerged in this period as major receivers which shows the shift in the migration pattern from last round.

Figures 2.17, 2.18, 2.19 and 2.20 present the trend of inter-state net labour migration (difference between inflow and outflow) during the three time periods

(1993, 1999-2000 and 2007-2008) for the migration duration of 0-9 years (Appendix Table A 2.5). We observe consistent rise in the net out-migration of labour from Uttar Pradesh and Bihar, however, the rise from second round to current round is drastic. An out-migration pattern is also noticed from Assam, Kerala, Odisha and Rajasthan. However, there is a consistent decline in the net volume from Kerala which may be attributed to the recent trend of replacement migration. Furthermore, steady increase in the net in-migration could be observed in Maharashtra, and Gujarat. It increased in Haryana and Punjab also but trend lacks consistency. Karnataka is net sender during 1993 but became net- receiver during the latest reference period (2007-2008). West Bengal has become a net sender in the last one and half decade while Delhi became a major receiver in the latest round.

Bilateral flow of labour migrants between States and Union Territories (UTs) of India shown by Circular Plot, (0-9 year duration), National Sample Survey, 1993, 1999-2000, 2007-2008

Figure 2.14

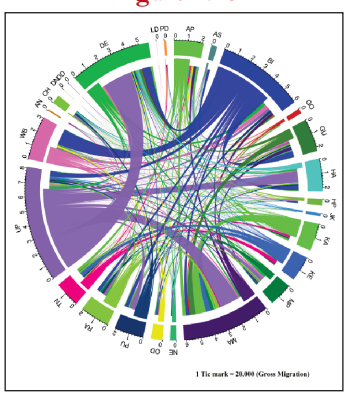


Figure 2.15

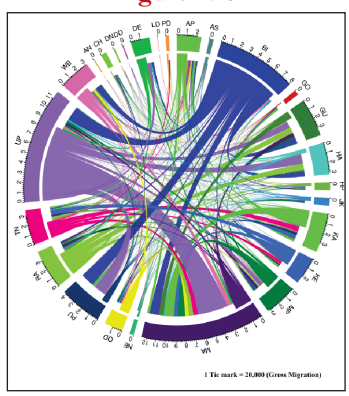
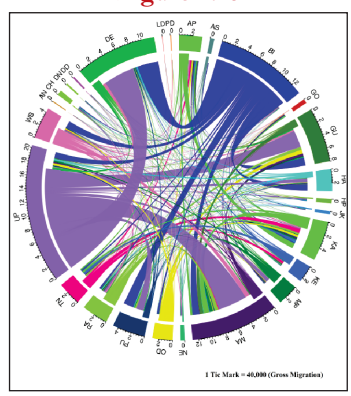


Figure 2.16

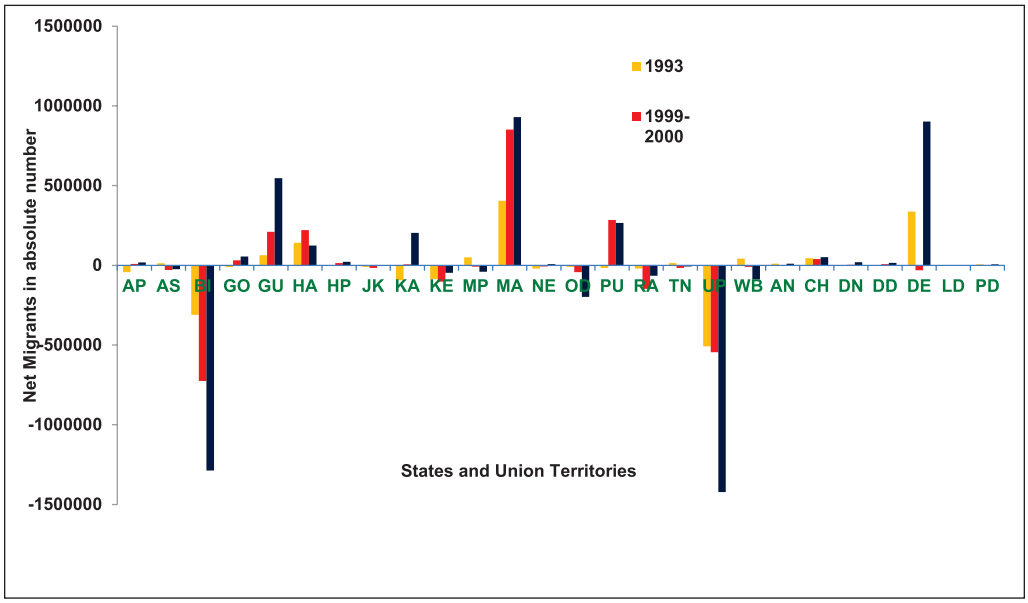


Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. Instructions to read Circular plot: Each State and UT is assigned a color (TN: Red) and flow have the same color as the origin. There is less gap at origin and large gap at destination. Width of flow lines indicates size of migration flow. Each tic mark represents gross migration (defined for each plot separately)
2. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.
3. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)
5. Labour Migration: People migrated due to Employment related reasons (In search of employment, in search of better employment, business, to take up employment/better employment, transfer of service/ contract, proximity of work).

Figure 2.17: Inter-state net-migration trend (labour migrants) (0-9 year duration), NSSO, 1993, 1999-2000 and 2007-2008



Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Negative sign represents negative net migration (out-migration) from concerned States or UTs
4. Labour Migration: People migrated due to Employment related reasons (In search of employment, in search of better employment, business, to take up employment/better employment, transfer of service/contract, proximity of work).
5. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Trend of Net Inter-state Labour migration in India, NSS, 1993, 1999-2000, 2007-2008

Figure 2.18

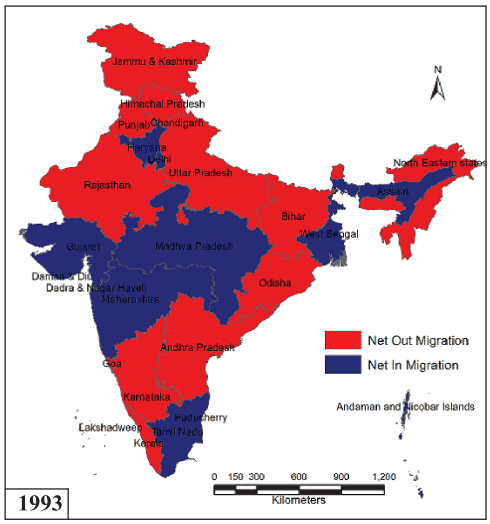


Figure 2.19

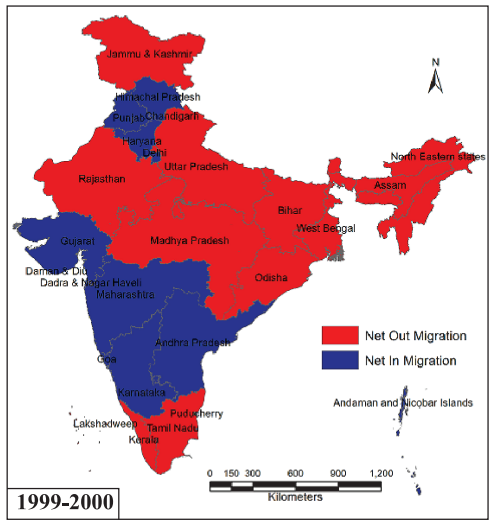
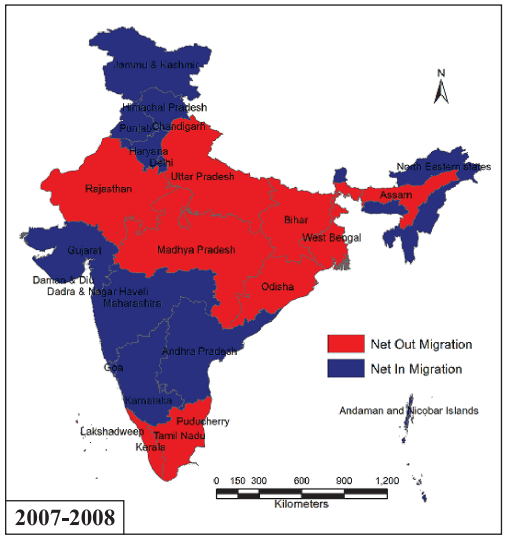


Figure 2.20



Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Labour Migration: People migrated due to Employment related reasons (In search of employment, in search of better employment, business, to take up employment/better employment, transfer of service/contract, proximity of work).

CHAPTER 3

Estimation of Net Migration Using 2001 and 2011 Age Data by Census Survival Ratio Method

3.1 Introduction

In the absence of direct data on migration some indirect estimation techniques are used to estimate the inter-state migration. Census Survival Ratio (CSR) Method is one of them. The basic information required for this method is the number of persons classified by age, sex and place of residence as enumerated in each area at the two consecutive censuses and a set of survival ratios which can be applied to the population of the first census in order to estimate the survivors at the second census.

3.2 Data and Methodology

State-wise age and sex data for the year 2001 and 2011 from Census of India has been used for this analysis (RGI 2001; 2011). The difference between the enumerated population at the second census and the survivors of the population enumerated at the first census is the estimate of net migration of the area. The survival ratio is calculated from the two censuses. The census-survival ratios (CSRs) represent the ratio of the numbers in the same national cohort at the successive censuses (Pathak and Ram 1998; Zachariah 1962). It is simply the ratio of the population aged $x+n$ at a given census to the population aged x at the earlier census taken n years earlier. CSRs are computed for a nation as a whole for a closed population. The ratio is then multiplied by the population aged x in each component area at

the first census, and the expected survivors are subtracted from the corresponding population enumerated at the second census to yield estimates of net migration.

Net migration among survivors of persons aged x for area i:

$$\text{Net Mi (x)} = P_{i,x+n,t+n} - \frac{P_{x+n,t+n}}{P_{x,t}} \times P_{i,x,t}$$

where, $P_{i,x,t}$= Population in the ith area in a particular age group x at the first census (time t)

$P_{i,x+n,t+n}$ = Corresponding population in the ith area n years older at the second census (time t+n)

$P_{x+n,t+n}$ and $P_{x,t}$ = Corresponding population of the country as a whole in the two successive censuses (time t and $t+n$ respectively).

Net Mi (x) = Estimate of net migration in the ith area in a particular age group.

The sum of net migration of all areas adds up to zero for each age group. This is always true whatever be the nature of error in the age data or survival ratios and this is one of the important features of CSR method. The CSR method tends to correct for systematic errors in the age data and thus compensates for some of the effects of such errors. The census survival ratio for some of the ages or age groups may be more than unity and the same has to be applied for all other ages or age groups. The age group 0-4 years, for example, may be disproportionately under enumerated. It often happens that this cohort is better enumerated in a later census and the number is found to be large than would be expected on the basis of any reasonable estimate of change due to mortality. The CSRs of this cohort sometimes have values greater than unity. Such ratios do not give accurate measures of survivorship, but they do tend to incorporate net census errors in the expected population and to that extent provide a better estimate of net migration. These differentials in the completeness of enumeration of a cohort t successive censuses cause CSR to fluctuate than to follow the smoothly descending pattern of life table survival ratios. This feature of CSR method is one of the advantages over Life table survival ratio method (LTSR).

Assumptions

(i) The national population is closed, i.e., enters only by births and left by deaths, unaffected by international migration.

(ii) The specific mortality rates the same for each areal unit as for the nation, i.e., survival ratios by age same for each areal unit as for the nation.

(iii) The ratio of the degree of completeness of enumeration in any age-sex group in each areal unit (i.e., the proportion that the enumeration population in any age-sex group bears to the true population) to that of the nation is the same for the same cohort in both the censuses [for details see Pathak and Ram, 1998].

3.3 Results

Results of indirect estimation using CSR method suggest that net inter-censal out-migration is highest from Uttar Pradesh (4.0 million) followed by Bihar (2.8 million) and Andhra Pradesh (1.1 million) (Table 3.1). Kerala, Assam, Jharkhand, Rajasthan, Odisha and Madhya Pradesh are also net out-migrating states. On the other hand, net inter-censal in-migration is highest in the Tamil Nadu (3.5 million), followed by Maharashtra (2.3 million), Karnataka (1.2 million) and Gujarat (1.0 million). Other major states which are gaining more migrants than sending during the inter-censal period are Delhi, Punjab, Chhattisgarh, Haryana and West Bengal.

It is observed that Uttar Pradesh which is an out-migrating state experiences out-migration in every age group except 10-14, 35-39, 60-64 and 80+ years. In Bihar, which is the second dominant out-migrating state, net inter-censal out-migration is prominent in the 15-24, 40-59 and 70-80+ age groups. In Andhra Pradesh, people mostly out-migrate in the 15-19, 30-59 and 70-80+ age groups. Similarly, in Kerala, Assam and Nagaland there is out-migration in most of the age-groups. Contrastingly, in Rajasthan and Madhya Pradesh a net influx is visible in mid age groups and 70+ age groups. In Odisha, there is a net out-migration in 15-49 years age group (except 25-29 year age group) and 65-79 and 80+ age groups. In Tamil Nadu and Chhattisgarh, out-migration is mostly in the older ages while in all other ages there is a net influx. An out-migration in the 35-49 age groups and 75+ age groups is seen in Maharashtra although the numbers are not big.

Table 3.1: Inter-censal Net-migration using Census Survival Ratio Method, Census 2001-2011

Age group	AN	AP	ARP	AS	BI	CH	CG	DN	DD	DE	GO	GU
10-14	-4071	169915	13732	-153812	695394	-1730	-63365	-348	-651	-7440	-13761	-181193
15-19	1044	-341804	3638	-316333	-2554235	19704	125416	9084	12919	209338	13005	528704
20-24	2528	338027	4243	-64936	-1809544	39338	64267	23984	26111	369282	23635	717217
25-29	2814	128454	11831	173142	395559	15846	102482	19679	15291	223276	6100	33097
30-34	-2068	-262173	16259	45077	814904	-11381	165341	3961	-480	26424	-14307	-5705
35-39	-4666	-394218	-425	-103160	427257	-11341	108747	-387	-835	-67671	-15171	29332
40-44	-1157	-86979	3173	-98097	-246913	-4016	72396	620	496	-29230	-6127	-21572
45-49	-1332	-334188	-4550	-101536	-213544	-1043	76210	774	405	-21283	2403	107962
50-54	-847	-175627	-1758	-12939	-343536	-1777	27955	390	355	-25094	3929	44534
55-59	-1958	-232172	-8794	-86425	-61652	-3949	8224	75	331	-5574	3103	55853
60-64	-2645	44864	-10670	-92710	217227	-9580	-26833	-18	-183	9983	-5099	-178378
65-69	-2871	149974	-7710	-69546	109540	-5425	-50414	-650	-452	-24756	-3853	-121821
70-74	-437	-112402	-3315	-17572	-89160	535	-24154	-275	-14	8714	-539	-5940
75-79	66	-2426	-398	6254	-81090	1189	-20847	-205	97	11060	3406	23996
80+	91	-46778	486	-2072	-107618	640	-18731	70	1	9484	-291	44578
Total	-15510	-1157531	15743	-894666	-2847411	27010	546693	56754	53392	686513	-3567	1070664

Table 3.1 continued...

Age group	HA	HP	JK	JH	KA	KE	LD	MP	MA	MAN	MEG	MIZ
10-14	-63362	-33876	256023	175712	-202191	-499748	-1774	-289499	-719775	67106	-7380	-4151
15-19	213670	58888	23185	-461803	490776	220833	-599	-175226	1018264	58839	9500	12439
20-24	172697	14628	-53458	-327278	499881	-229	-990	-206162	972444	51067	171	14702
25-29	-51577	-44955	-74672	123106	325596	-416094	-337	28858	462048	29656	-1485	2535
30-34	-38218	-29078	48526	185589	-124202	-489622	-124	114258	55005	1368	-2988	-4092
35-39	-6981	-10200	32303	63269	22932	-263911	123	101092	-140482	578	-13224	-8515
40-44	32263	23580	34179	-47343	99961	-41762	358	-26500	-13895	15744	1370	-514
45-49	4030	32152	-18587	-28919	60040	170690	185	55158	-111917	17190	-10291	1228
50-54	-9493	39582	-5669	-61205	6756	210331	422	38852	36688	17377	-2404	2857
55-59	36751	16767	-38404	-32822	-98342	151972	215	45665	134442	8126	-14787	1200
60-64	194678	-13880	-27587	852	-111654	-65131	-320	40813	94777	-8885	-14955	-7387
65-69	86426	-21760	-39652	-46268	158075	-79131	-600	-19180	521205	-6708	-5475	-3113
70-74	32283	9031	13798	-29990	14770	12861	-189	9488	236832	652	-3755	459
75-79	-9187	15620	11373	-18196	80122	80916	48	9396	-164376	4696	416	2018
80+	-252264	12518	21540	-24400	4991	1829	-15	49453	-10874	2121	566	433
Total	341716	69016	182899	-529697	1227512	-1006195	-3597	-223535	2370388	258926	-64719	10098

Table 3.1 continued...

Age group	NAG	OD	PD	PU	RA	SI	TN	TRI	UP	UK	WB
10-14	23186	54651	4053	25589	-310651	4119	51424	3878	971489	37400	5107
15-19	-12273	-186435	23742	321649	-264226	5911	993697	16939	-339655	117793	143615
20-24	-48406	-15443	24554	249318	-36846	3334	1045619	-33	-2333129	-5894	245301
25-29	-92384	436	19388	-122628	-207352	437	406052	652	-1656827	-130791	272768
30-34	-57272	-45650	14648	-192144	35178	-2227	89739	16472	-183903	-34568	-132546
35-39	-38610	-121804	8956	3374	50889	-4904	-412	-5388	520881	26775	-184202
40-44	-10608	-1279	10566	63046	8657	-1633	492285	1619	-315560	33061	59814
45-49	-20179	-18321	10059	64199	95577	-2666	369410	-11214	-211377	23748	19526
50-54	-17760	31969	8910	-7457	86798	-331	370152	11365	-497540	14232	209985
55-59	-28656	33898	8426	-12859	23376	-771	119609	-6792	-17754	8250	-4577
60-64	-25217	90385	3844	74636	-57116	-3867	-117735	-12260	213843	10764	-204556
65-69	-13769	-51266	-609	129155	-30466	-1032	-267552	-4050	-77787	-8611	-189852
70-74	-4569	-2705	2539	46006	66640	253	-24384	1470	-164003	3221	23849
75-79	796	6751	3243	-16394	19514	977	69355	5263	-104993	6867	54672
80+	-689	-51594	1019	18761	22142	-6955	-60466	-1490	97688	5505	7969
Total	-346411	-276406	143338	644249	-497887	-9357	3536792	16433	-4098626	107753	326873

Source: Authors calculations using C14 (5 year age data) of Census of India 2001 and 2011.

Notes:

1. As per the assumptions International migration has been considered zero.
2. Authors tried to estimate net-migration separately for rural and urban areas as well as for males and females but results were not consistent, therefore, not presented.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Arunachal Pradesh (ARP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli, (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Lakshadweep (LD), Madhya Pradesh (MP), Maharashtra (MA), Manipur (MAN), Meghalaya (ME), Mizoram (MIZ), Nagaland (NAG), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Sikkim (SI), Tamil Nadu (TN), Tripura (TRI), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)

CHAPTER **4**

Estimation and Characteristics of Non-resident Members and their Households

4.1 Introduction

The ability to migrate is influenced by a range of individual and household characteristics. Internal migrants may differ in their education, income level, age, caste, religion etc. This chapter tries to estimate the absolute number of non-resident member households and non-resident members in India and its states. In addition, the socio-economic characteristics that influences migration is also presented.

4.2 Data

The India Human Development Survey (IHDS) was jointly organized by University of Maryland and the National Council of Applied Economic Research (NCAER), New Delhi. The survey instruments were translated into 13 Indian languages and were administered by local interviewers using face-to-face interviews.

IHDS-I is a nationally representative survey of 41,554 households conducted during 2004-05 in 1503 villages and 971 urban neighbourhoods across India. In 2011-12, IHDS-II re-interviewed 83 per cent of these households as well as split households (if located within the same village or town) to trace changes in their lives. With an additional replacement sample of 2,134 households, IHDS –II has a sample size of 42,152 households. These households are spread across 33 States and Union Territories (excluding Andaman/Nicobar and Lakshadweep), 384 districts, 1,420 villages and 1,042 urban blocks located in 276 towns and cities. The IHDS-I

sample consists of 27,010 rural and 13,126 urban households. The rural sample was drawn using stratified random sampling and contains 13,900 rural households who were interviewed in 1993-94 in a previous survey by NCAER and 28,428 new households. The urban sample was a stratified sample of towns and cities within states (or groups of states) selected by probability proportional to population (PPP). Of the 612 districts in India in 2001, 382 are included in IHDS-I. Few IHDS-I households had to be replaced in some urban areas where interviewers were unable to locate the former households (Desai et al. 2007; Desai et al. 2015).

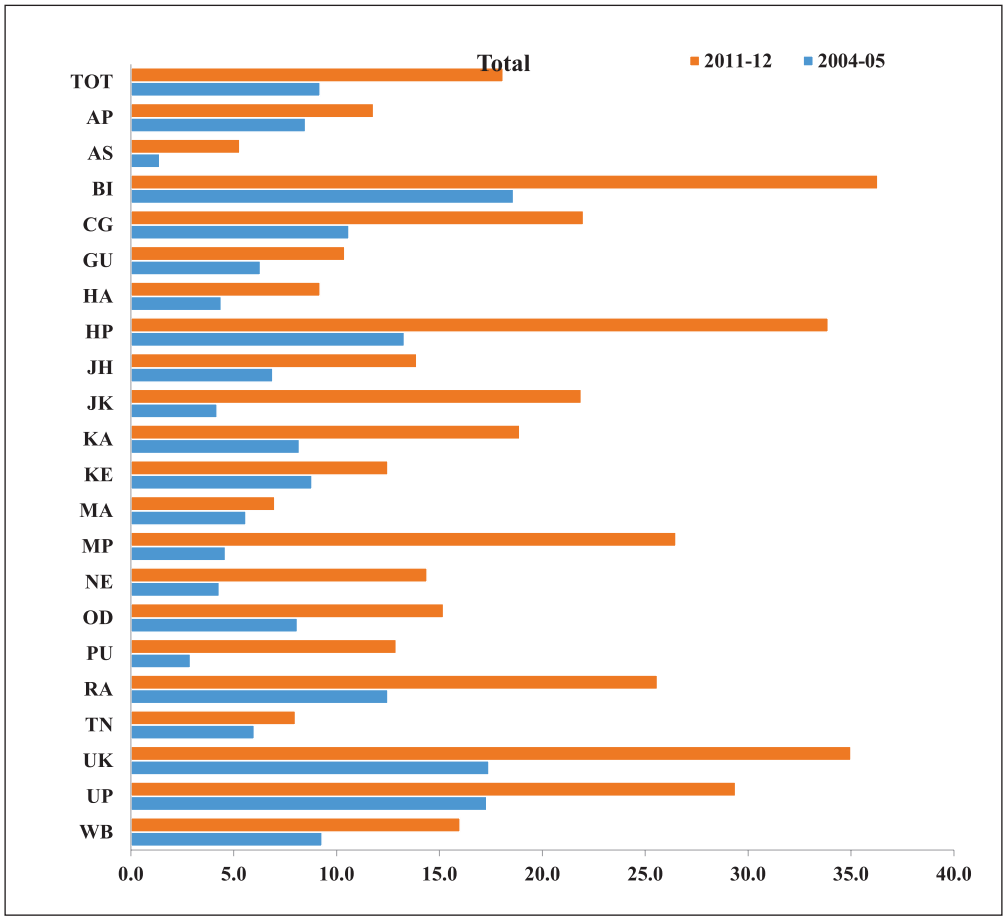
4.3 Results

4.3.1 Households having one or more non-resident members: Household profile

The IHDS, which defines non-resident members as the stock estimates that 9.2 percent of households had at least one non-resident member in 2004-05. This share is almost doubled (18%) in 2011-2012 (Figure 4.1 & Appendix Table A 4.1). The percentage of households having at least one non-resident member is considerably high in rural compared to urban areas with an increase of almost twice over the period in both the areas (Figure 4.2 and Figure 4.3).

In both the rounds, states like Bihar, Uttarakhand, Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Rajasthan and Chhattisgarh have a higher proportion of households that have at least one migrant member. Interestingly, the households having at least one migrant member have increased considerably in Madhya Pradesh (from 4.6% to 26.5%) and Himachal Pradesh (13.3% to 33.9%) over the seven years time period. The states like Maharashtra, Tamil Nadu, Andhra Pradesh, Pondicherry and Kerala observe an increase of less than 4%. More or less similar pattern is observed in rural and urban areas. Results suggest that except Uttarakhand and Himachal Pradesh, a higher prevalence of non-resident member households are in poorer states.

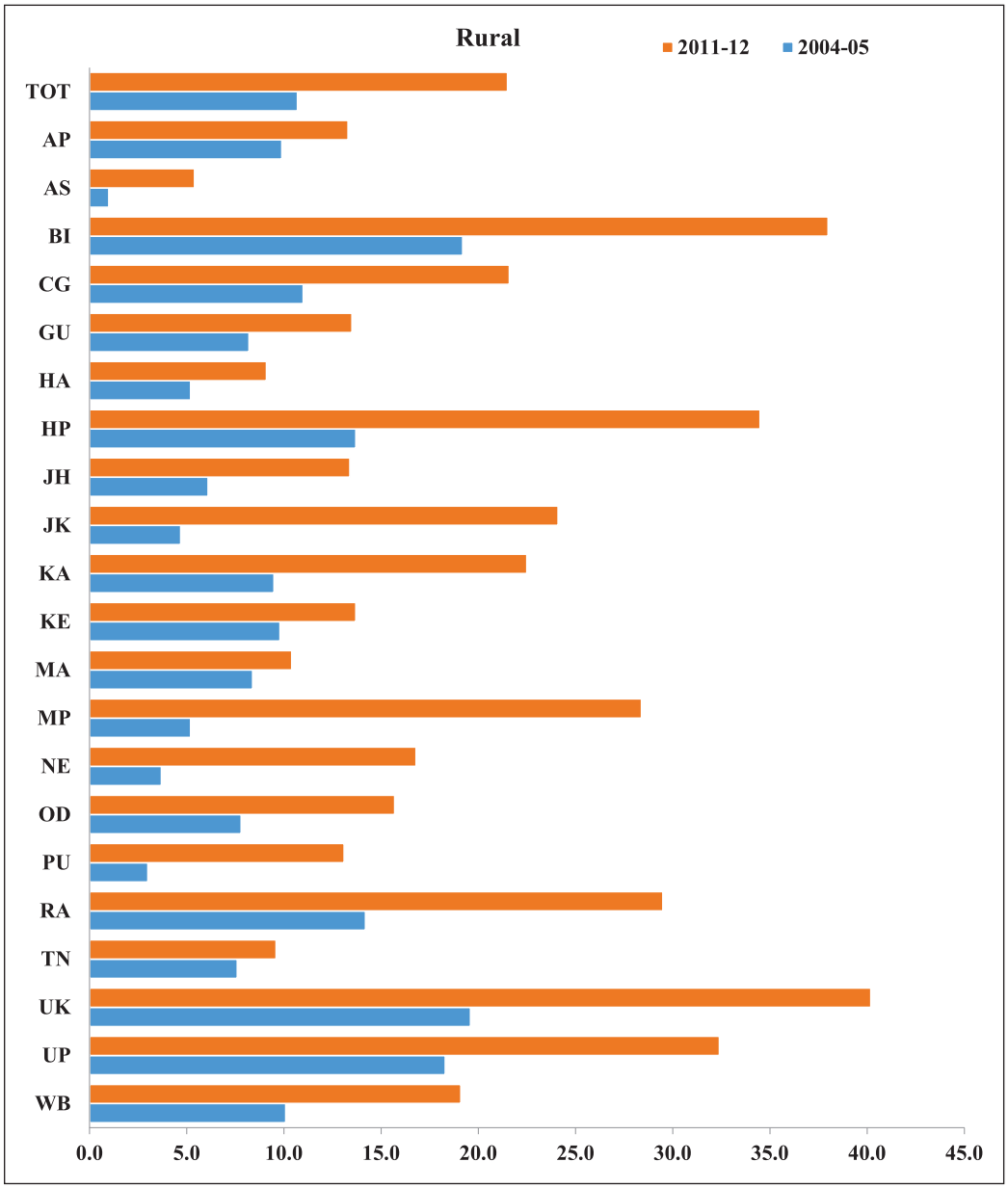
Figure 4.1: Percentage of households having one or more non-resident members according to states, IHDS, 2004-05 and 2011-12.



Notes:

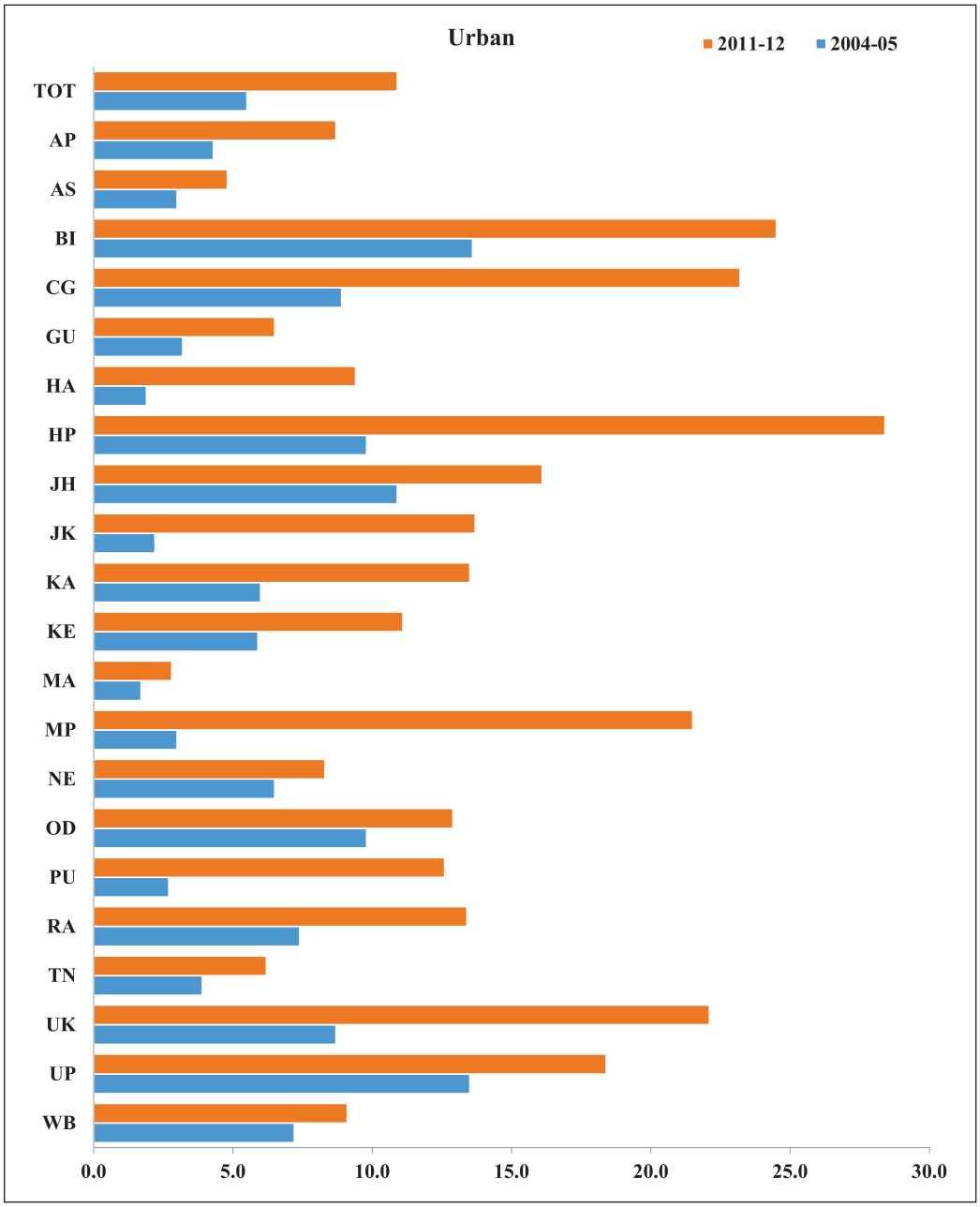
1. One or more non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).
2. North Eastern states include Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chhatisgarh (CG), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jharkhand (JH), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Maharashtra (MA), Madhya Pradesh (MP), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttarakhand (UK), Uttar Pradesh (UP), West Bengal (WB)
4. For better illustration only the major states have been shown in the graph (full table is provided in Appendix, Table A 4.1).
5. Sample for IHDS 1 (2004-05) N=41, 554 households; 3, 375 households having one or more non-resident members; IHDS 2 (2011-12) N=42, 152 households; 7,427 households having one or more non-resident members;

Figure 4.2: Percentage of rural households (place of origin) having one or more non-resident member according to states, IHDS, 2004-05 and 2011-12.



Notes: 1. Same as notes 1, 2, 3 and 4 of Figure 4.1

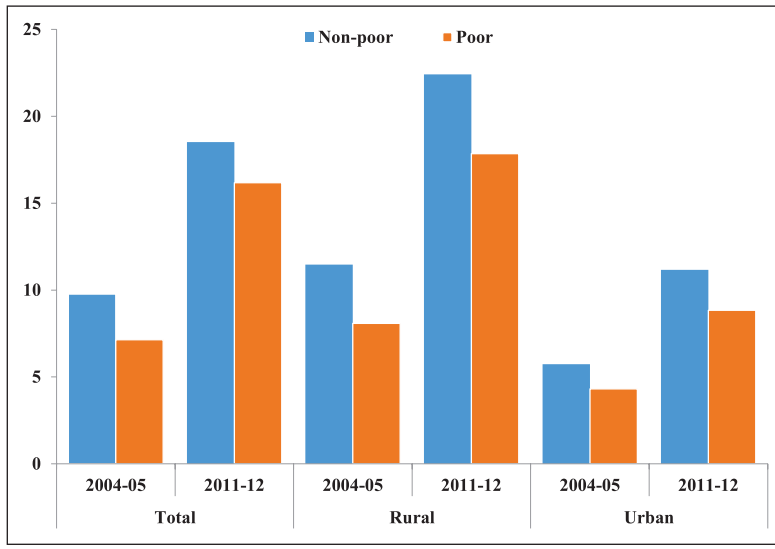
Figure 4.3: **Percentage of urban households (place of origin) having one or more non-resident member according to states, IHDS, 2004-05 and 2011-12.**



Notes: 1. Same as notes 1, 2, 3 and 4 of Figure 4.1

A large proportion of households belonging to the higher socio-economic strata of society have at least one non-resident member (Figure 4.4-Figure 4.6). To elabourate in 2004-05, 9.8 percent non-poor compared to 7.1 percent poor households have at least one migrant member. Similarly, in 2011-12, 18.5 percent non-poor compared to 16.2 percent poor households have at least one non-resident member. Further, a higher proportion of Brahmin households followed by Other Backward Classes (OBCs) have at least one non-migrant member. It is to be underscored that OBCs and others (includes forward caste and others) have more or less similar proportion of non-resident member households with least mobility from SCs/STs household. A higher proportion of Hindu households have non-resident members followed by Muslims and others. The religion wise differentials are large in rural areas compared to urban areas.

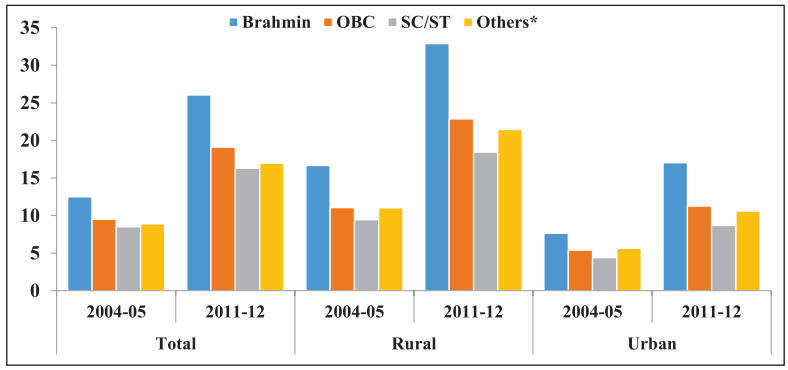
Figure 4.4: Percentage of households having one or more non-resident members according to poverty status by place of residence, IHDS, 2004-05 and 2011-12.



Note:

1. Same as note 1 of Figure 4.1
2. For the first round of IHDS, household poverty is based on the monthly consumption per capita and the official planning commission poverty line as of 2004-05, while in IHDS 2 it is calculated based on the monthly consumption per capita and the Tendulkar poverty line, 2012

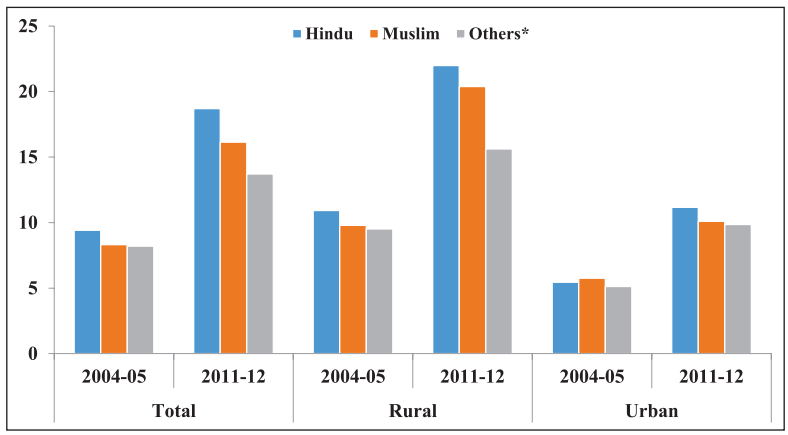
Figure 4.5: Percentage of households having one or more non-resident members according to social groups, IHDS, 2004-05 and 2011-12



Note: 1. 1. Same as note 1 of Figure 4.1

2. Others* include forward caste and others

Figure 4.6: Percentage of households having one or more non-resident members according to religion by place of residence, IHDS, 2004-05 and 2011-12

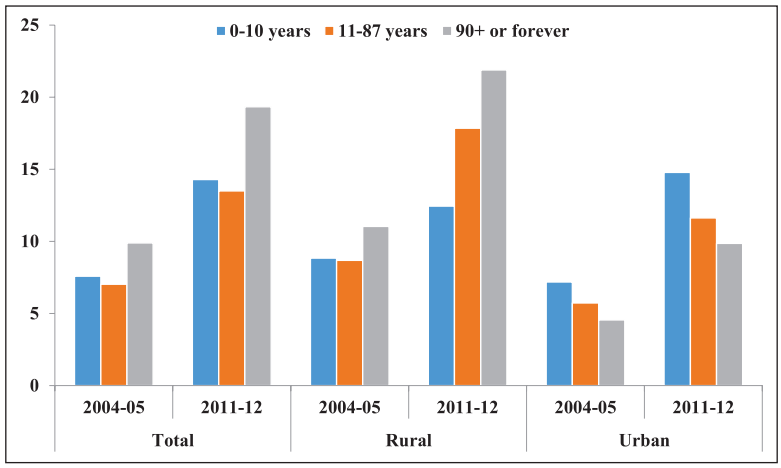


Note: 1. 1. Same as note 1 of Figure 4.1

2. Others* include Christian, Sikh, Budhist, Jain, Tribals, others and none

Overall, the permanent households (residing for more than 99 years or forever at the current place of residence) have higher proportion of at least one non-resident member household compared to those who have recently migrated (0-10 years) or migrated 11-87 years back (Figure 4.7). However, the pattern is opposite for urban areas where recently migrated households have higher proportion of at least one non-resident member compared to rural areas where the proportion is higher among permanent households.

Figure 4.7: Percentage of households having one or more non-resident members according to years since family/household is residing at the place of residence by place of residence, IHDS, 2004-05 and 2011-12



Notes: 1. Same as note 1 of Figure 4.1

4.3.2 Non-resident Members' Profile

4.3.2.1 Non-resident Members by Place of Destination

The absolute number of non-resident members is estimated to be over 300 million in 2011-12, it is almost 3 times the estimated 105 million migrants in 2004-05 (Table 4.1(a) and 4.1(b)). Although the precise place of destination of the migrant is not available in IHDS, but it tells whether the migrants have moved to rural, urban and metro of same state or another state. In 2004-05, a large number of persons migrate to metros of other state (35 million) followed by same state rural areas (29 million). This pattern has changed over the course of time and it is found that in 2011-12, a large number of persons migrate to urban areas of the same state (73 million) followed by metro (70 million) and urban areas of another state (68 million). In both the rounds, a substantial number of persons migrate to metro of other state (35 million in 2004-05 and 70 million in 2011-12), whereas, a lesser number of persons migrate to rural areas of other state (2 million in 2004-05 and 14 million in 2011-12). State-wise figure shows that in both the rounds, Uttar Pradesh (30 million in 2004-05 and 89 million in 2011-12), Bihar (12 million 2004-05 and 44 million in 2011-12), Rajasthan (7 million in 2004-05 and 24 million in 2011-12) and West Bengal (7 million in 2004-05 and 15 million in 2011-12) sends the highest number of migrants. Compared to other states, a substantial increase has been observed in Madhya Pradesh and Karnataka over the successive surveys.

Table 4.1(a): Estimates of non-resident member according to place of destination by states, IHDS, 2004-05

States	SSR	SSU	SSM	ASR	ASU	ASM	Total
AP	1,420,550	2,392,259	1,512,061	51,748	39,862	700,964	6,117,444
AS	0	174,653	108,820	4,541	51,067	22,703	361,784
BI	1,317,149	736,709	886,808	23,356	919,145	8,793,580	12,676,747
CG	2,574,075	801,969	286,107	105,624	7,904	422,698	4,198,377
CH	0	0	0	0	0	0	0
DD	0	0	0	0	880	0	880
DE	0	0	0	168,893	2,468	53,083	224,444
DN	6,372	0	0	4,280	0	1,116	11,768
GO	1,720	13,541	0	5,600	0	0	20,861
GU	3,724,377	489,082	881,904	108,251	29,197	135,461	5,368,272
HA	304,189	131,143	23,860	14,847	78,276	270,599	822,914
HP	213,076	96,412	24,291	97,278	198,662	204,688	834,407
JH	485,744	574,200	140,141	389,444	531,713	403,413	2,524,655
JK	138,790	47,070	108,170	24,121	80,787	34,735	433,673
KA	1,902,410	938,644	891,823	50,650	191,355	426,484	4,401,366
KE	322,080	436,409	477,046	51,421	199,469	1,068,245	2,554,670
MA	1,941,207	1,087,572	1,999,802	63,373	114,852	178,815	5,385,621
MP	1,177,261	481,607	290,584	69,201	143,285	518,764	2,680,702
NE	231,747	193,217	62,651	0	30,280	187,542	705,437
OD	826,410	918,952	405,399	52,627	200,483	689,268	3,093,139
PD	0	0	0	0	30,342	20,938	51,280
PU	48,775	49,753	89,539	51,111	39,179	378,991	657,348
RA	2,468,116	947,782	1,009,704	117,918	694,876	2,584,729	7,823,125
TN	409,648	930,659	872,409	46,523	259,139	288,067	2,806,445
UK	299,467	339,226	409,289	99,050	532,930	1,904,651	3,584,613
UP	5,870,101	3,526,215	3,669,051	721,329	1,890,467	15,045,074	30,722,237
WB	3,352,804	1,727,448	677,482	518,645	533,060	1,067,603	7,877,042
TOT	29,036,068	17,034,522	14,826,941	2,839,831	6,799,678	35,402,211	105,939,251

Notes:

1. Non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).
2. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)
3. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), same state metro (SSM), another state rural (ASR), another state urban (ASU), and another state metro (ASM)
4. North Eastern states include Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
5. N=3, 873 non-resident members

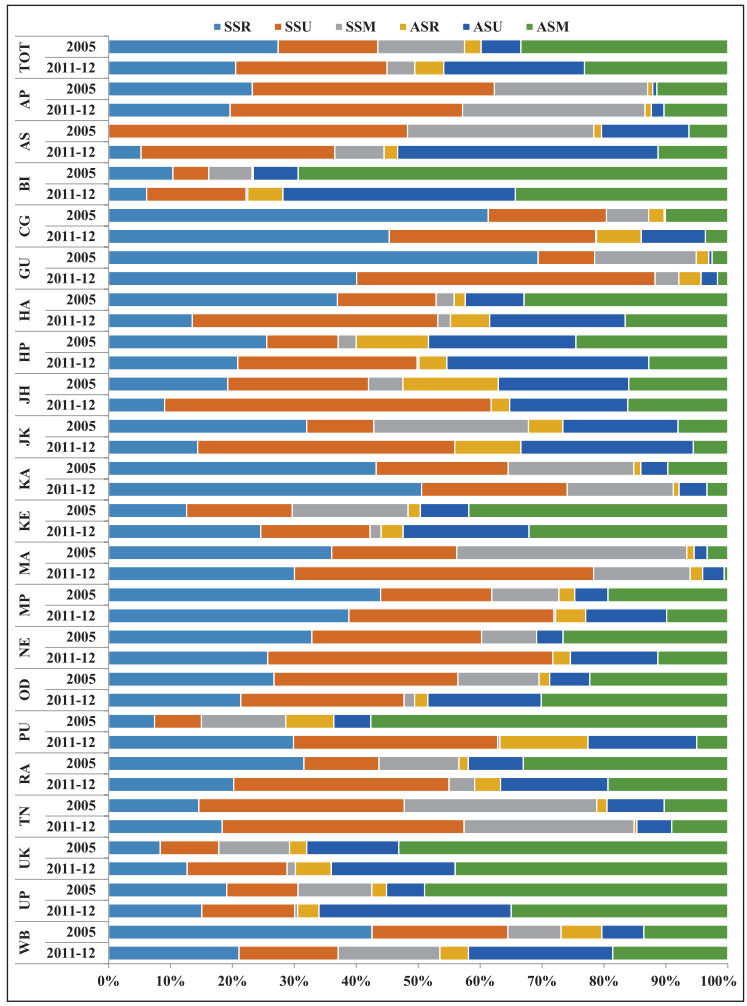
Table 4.1(b): Estimates of non-resident member according to place of destination by states, IHDS, 2011-12

States	SSR	SSU	SSM	ASR	ASU	ASM	Total
AP	1,962,644	3,747,034	2,944,165	99,462	207,201	1,026,411	9,986,917
AS	92,729	554,204	140,900	38,526	744,650	198,966	1,769,975
BI	2,750,031	7,212,360	114,638	2,547,315	16,813,425	15,376,042	44,813,811
CG	4,643,389	3,410,972	14,250	740,640	1,060,550	369,845	10,239,646
CH	0	46,992	7,832	78,320	70,488	39,160	242,792
DD	2,644	0	0	0	0	0	2,644
DE	110,200	22,040	114,608	1,714,712	665,180	193,952	2,820,692
DN	13,908	12,572	0	0	3,592	0	30,072
GO	0	0	0	0	0	2,028	2,028
GU	2,648,425	3,187,568	254,624	236,959	174,092	110,821	6,612,489
HA	296,484	869,532	44,503	139,141	480,440	362,939	2,193,039
HP	612,316	849,737	8,449	132,673	956,724	374,178	2,934,077
JH	711,310	4,147,272	0	231,973	1,501,463	1,268,289	7,860,307
JK	514,073	1,483,805	0	381,440	995,688	198,355	3,573,361
KA	8,116,195	3,779,058	2,750,932	150,225	724,379	538,675	16,059,464
KE	957,448	687,615	69,736	138,032	791,636	1,249,100	3,893,567
MA	2,301,041	3,700,702	1,195,499	154,355	266,709	44,450	7,662,756
MP	9,057,320	7,717,999	63,720	1,134,536	3,047,410	2,306,864	23,327,849
NE	669,626	1,199,567	0	74,324	368,342	294,228	2,606,087
OD	1,664,648	2,053,791	130,210	169,154	1,425,382	2,344,782	7,787,967
PD	6,486	0	0	0	0	98,880	105,366
PU	1,124,350	1,240,782	15,148	535,642	660,632	188,955	3,765,509
RA	4,876,491	8,387,073	993,393	1,012,950	4,189,238	4,662,101	24,121,246
TN	1,047,136	2,228,187	1,565,363	25,124	321,419	515,924	5,703,153
UK	1,149,486	1,461,828	120,204	525,101	1,811,838	3,983,210	9,051,667
UP	13,532,928	13,472,263	434,853	3,117,131	27,887,651	31,415,028	89,859,854
WB	3,288,881	2,498,220	2,560,255	715,944	3,633,046	2,898,898	15,595,244
TOT	62,150,189	73,971,173	13,543,282	14,093,679	68,801,175	70,062,081	302,621,579

Notes: 1. Same as note 1, 2, 3, and 4 of Table 4.1(a)

2. N=10, 406 non-resident members

Figure 4.8: Percentage of non-resident member according to place of destination by states, IHDS, 2004-05 and 2011-12



Notes:

1. Non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).
2. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chhatisgarh (CG), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jharkhand (JH), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Maharashtra (MA), Madhya Pradesh (MP), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttarakhand (UK), Uttar Pradesh (UP), West Bengal (WB)
3. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), same state metro (SSM), another state rural (ASR), another state urban (ASU), and another state metro (ASM)
4. North Eastern states include Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
5. For better illustration only the major states have been shown in the graph (full table is provided in Annexure, Table A 4.2).

The graphical presentation of percentage distribution of internal migrants according to place of destination is shown in Figure 4.8. In 2004-05, one-third of the migrants move to metros of another state while in 2011-12 the flow of non-resident members is more or less equally distributed in rural and urban areas of same state and urban and metro of another state. Less than five percent of non-resident members move to metro of same state and rural areas of another state. Non-resident members from developed states like Tamil Nadu, Maharashtra, Andhra Pradesh, Gujarat and Karnataka usually make intra-state move. Further, non-resident members from Bihar, Uttar Pradesh, Jharkhand, Odisha, Uttarakhand, Haryana, and West Bengal mostly move to urban and metro of another state. Inter-state migration from Kerala especially to urban and metros is worth noting.

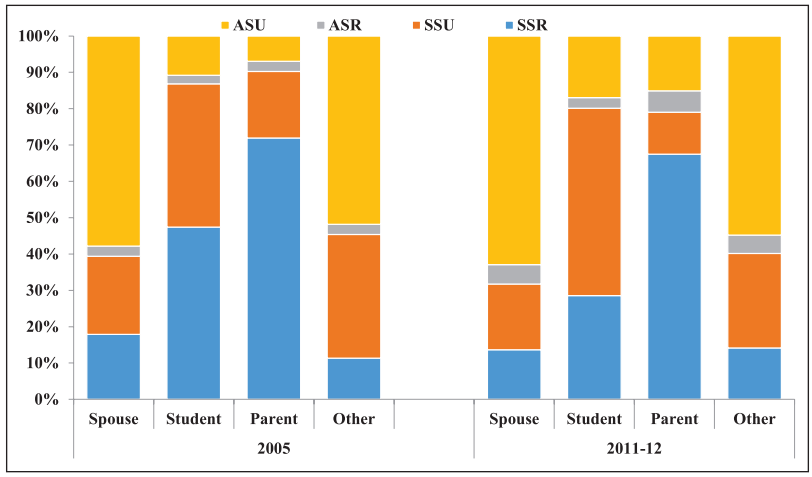
4.3.2.2 Non-resident Members by Type of Migrant

Results suggest that, in both the rounds, spouse and other non-resident members mostly (more than 50%) make interstate move to urban areas. Parents, on the hand, largely move to rural areas of same state (Figure 4.9). It is interesting to note that, earlier (in 2004-05) students' mobility was majorly confined to rural areas within the state, however, over the years, this pattern has been changed. It is found that, the more than half of the students (51.6%) move to within states urban areas and also the percentage of student migration in urban areas of another state has been almost doubled (7% to 16.9%). Disaggregated results by sex show that, more females make intrastate move to rural areas while more males make interstate state move to urban areas. To elabourate, a large proportion of husbands migrate to urban areas of other state, whereas, wives mostly migrate to rural areas of same state (Table 4.2). A similar type of pattern is evident for other migrants in both the rounds.

4.3.2.3 Non-resident Members by Educational Attainment

With the increase in education, within state and outside state rural migration declines, while, within state urban migration increases in both the rounds (Figure 4.10). In 2004-05, lesser educated persons mostly migrate to rural areas of same state; however, in 2011-12 this percentage has declined. Sex-wise results throw light on the fact that, educated men and women (graduate and above) usually make intrastate move to urban areas (Table 4.3). Moreover, women with fewer years of schooling mostly make short distance move i.e. intra state in rural areas, contrastingly, fewer educated men make interstate move in urban areas.

Figure 4.9: Percentage of non-resident members according to type of migrant by place of destination, IHDS, 2004-05 and 2011-12



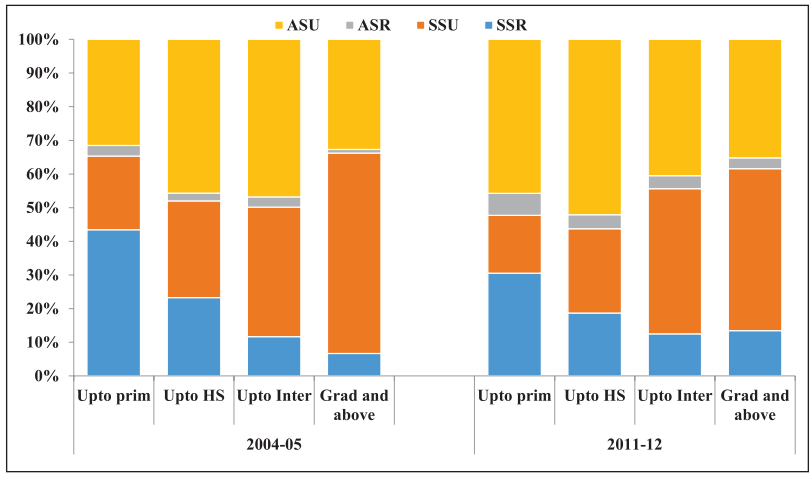
Notes: 1. Non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).
2. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU).

Table 4.2: Percentage of non-resident members according to type of migrant by place of destination and sex, IHDS, 2004-05 and 2011-12

Type of migrant	2004-05				2011-12			
	SSR	SSU	ASR	ASU	SSR	SSU	ASR	ASU
Male								
Spouse	10.3	23.2	1.7	64.7	10.4	18.0	4.9	66.7
Student	41.1	41.6	3.0	14.3	24.7	53.5	2.5	19.4
Parent	67.9	20.2	3.6	8.3	66.2	12.3	5.7	15.8
Other	10.2	33.6	2.4	53.8	11.9	25.7	4.7	57.8
Total	19.9	30.7	2.3	47.1	16.3	27.9	4.4	51.5
Female								
Spouse	77.0	8.5	10.8	3.7	61.0	19.4	11.4	8.2
Student	58.6	35.4	1.4	4.6	37.3	47.3	4.0	11.4
Parent	79.0	15.0	1.3	4.7	69.9	10.2	6.1	13.9
Other	25.7	40.5	8.6	25.2	34.9	29.6	8.3	27.1
Total	61.3	27.4	4.2	7.1	44.4	34.4	6.3	15.0

Notes: Same as Figure 4.9

Figure 4.10: Percentage of non-resident members according to education by place of destination, IHDS, 2004-05 and 2011-12



Notes: Same as Figure 4.9

Table 4.3: Percentage of non-resident members according to education by place of destination, IHDS, 2004-05 and 2011-12

Education	2004-05				2011-12			
	SSR	SSU	ASR	ASU	SSR	SSU	ASR	ASU
Male								
Up to primary	33.2	22.2	3.4	41.2	23.7	16.7	5.5	54.2
Up to high school	17.3	27.9	2.2	52.6	14.0	24.2	4.1	57.7
Up to Inter	10.9	37.1	2.9	49.1	11.3	40.3	3.9	44.6
Graduation and above	6.6	57.5	1.2	34.8	13.5	46.6	3.5	36.5
Total	18.1	32.6	2.4	46.9	16.2	28.0	4.4	51.4
Female								
Up to primary	71.2	21.1	2.4	5.3	58.1	19.2	10.5	12.1
Up to high school	59.7	33.2	3.2	3.8	52.4	30.7	4.3	12.6
Up to Inter	20.2	52.5	4.9	22.4	20.5	61.5	3.8	14.2
Graduation and above	7.4	77.5	0.0	15.2	13.5	56.5	1.9	28.1
Total	56.5	33.8	2.8	7.0	44.4	34.3	6.3	15.0

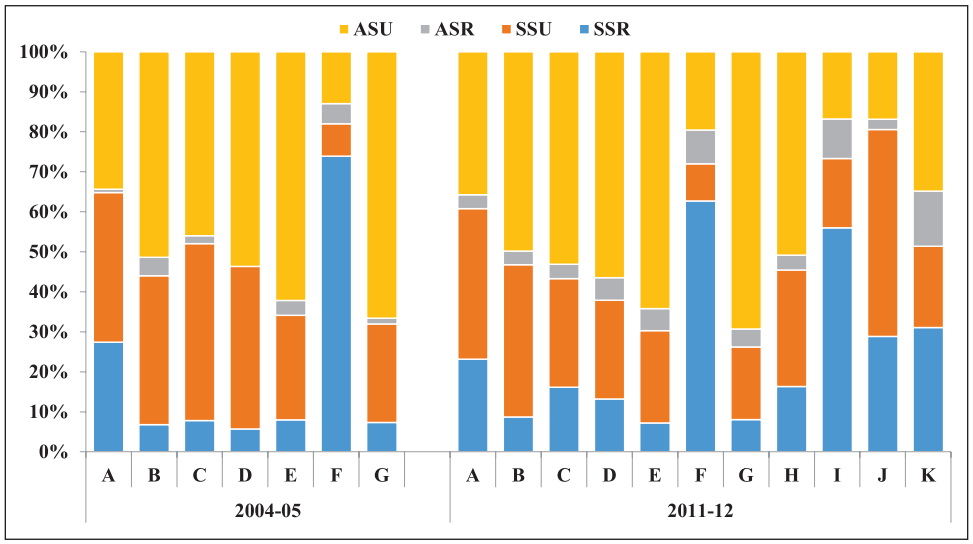
Notes: Same as Figure 4.9

4.3.2.4 Non-resident Members by Occupation

Except 'professional, technical and related jobs' and 'farmers/fisherman, hunters, loggers and related workers' around 50 percent or more non-resident members make an interstate move to urban areas (Figure 4.11). On the other hand, 'farmers/fisherman, hunters, loggers and related workers' mainly make interstate move in

rural areas (73.9% in 2004-05 and 62.7% in 2011-12) while 'professionals, technical and related workers' migrate to interstate and intrastate urban areas equally (around one-third in both the rounds) followed by intrastate rural migration (around one-fourth in both the rounds). The information on the other categories such as 'unidentifiable occupation', 'housewife, 'student/too young', and 'out of labour force' is available only for the year 2011-12. It is found that housewives dominate the same state rural categories while those who are in unidentifiable jobs mainly move to urban areas of another state. A similar pattern is evident for both the rounds except that over the years a lower percentage of people engaged in 'clerical and related work' and 'sale work' migrate to intrastate urban areas whereas all other categories of destination including interstate and intrastate rural areas see a substantial increase. A gender differential is evident across all the occupational categories (Table 4.4).

Figure 4.11: Percentage of non-resident members according to occupation by place of destination, IHDS, 2004-05 and 2011-12



Notes:

1. Same as Figure 4.9
2. A "Professions, Technical and Related Workers; B "Administrative, Executive and Managerial Workers" C "Clerical and Related Workers" D "Sale workers" E "Service workers" F "Farmers/fisherman, hunters, loggers and related workers" G "Production, Transport and Labourers" H "Unidentifiable occ" I "Housewife" J "Student/too young" K "Out of labour force";
3. Few categories are not available in IHDS 1 (2004-05)

Table 4.4: Percentage of non-resident member according to occupation by place of destination and sex, IHDS, 2004-05 and 2011-12

Occupation	2004-05				2011-12			
	SSR	SSU	ASR	ASU	SSR	SSU	ASR	ASU
				Male				
A	25.4	37.8	0.6	36.2	19.0	37.2	3.1	40.8
B	5.7	36.8	4.7	52.8	8.8	37.6	3.6	50.0
C	6.0	45.4	2.1	46.6	16.4	26.0	3.6	54.0
D	5.7	40.2	0.0	54.1	12.6	23.7	5.8	57.9
E	7.5	24.5	3.9	64.1	6.3	23.2	5.8	64.7
F	71.3	8.5	5.5	14.8	60.6	9.4	8.8	21.3
G	6.9	24.5	1.3	67.3	7.3	18.0	4.6	70.1
H	NA				15.4	28.6	3.2	52.8
I					32.6	32.4	10.2	24.9
J					25.4	53.3	2.1	19.2
K					24.7	24.3	11.0	40.1
Total	14.7	26.4	2.1	56.8	16.1	28.0	4.4	51.5
				Female				
A	42.0	34.6	2.8	20.6	39.5	39.7	5.1	15.8
B	49.0	51.0	0.0	0.0	6.7	47.2	0.0	46.1
C	49.8	17.8	0.0	32.4	8.8	57.8	3.0	30.4
D	9.4	90.6	0.0	0.0	35.1	57.2	0.0	7.7
E	13.9	46.1	1.1	38.8	28.1	19.5	0.3	52.2
F	89.1	5.6	2.9	2.4	87.4	7.7	4.5	0.5
G	28.3	33.9	9.3	28.5	48.6	24.6	2.3	24.6
H	NA				33.2	40.5	12.2	14.1
I					57.5	16.3	9.9	16.3
J					37.0	47.9	3.8	11.4
K					49.2	8.9	21.9	20.0
Total	46.8	28.8	3.4	21.0	44.4	34.5	6.2	15.0

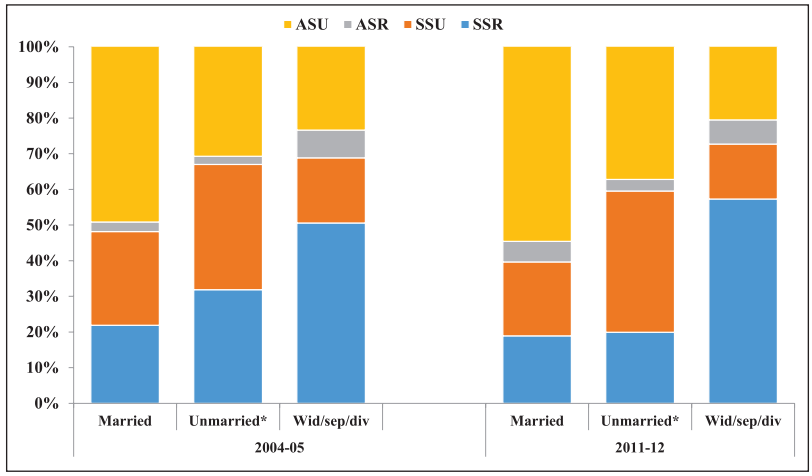
Notes: Same as Figure 4.11

4.3.2.5 Non-resident Members by Marital Status

Around half of the married non-resident members (49.1% in 2004-05 and 54.6 in 2011-12) move to urban areas of other state whereas widowed, separated or divorced migrants dominate the same state rural category (50.6% in 2004-05 and 57.3% in 2011-12) (Figure 4.12). In 2004-05, unmarried migrants are more or less equally distributed among the three dominant places; however, in 2011-12 a shift from intrastate rural areas to intrastate and interstate urban areas is seen. Sex-wise results show that as compared to males a higher proportion of females move to rural

areas of other state (Table 4.5). In 2004-05, females mostly move to rural areas of same state while in the later years pattern is shifting to other places of destination especially among married females. Among widowed/divorced/separated men a major proportion in 2011-12 are moving to same state rural areas which earlier (in 2004-05) was distributed over the different places of destination.

Figure 4.12: Percentage of non-resident member according to marital status by place of destination, IHDS, 2004-05 and 2011-12.



Notes: 1. Same as Figure 4.9

2. *Unmarried includes married but *gauna* not performed

Table 4.5: Percentage of non-resident member according to marital status by place of destination and sex, IHDS, 2004-05 and 2011-12.

Marital status	2004-05				2011-12			
	SSR	SSU	ASR	ASU	SSR	SSU	ASR	ASU
Male								
Married	16.1	27.6	2.0	54.3	15.5	20.8	5.3	58.5
Unmarried*	23.8	35.1	2.6	38.5	15.7	38.1	3.1	43.2
Widowed/sep/div	39.9	21.2	5.8	33.1	50.1	16.1	5.6	28.2
Total	19.9	30.7	2.3	47.1	16.2	27.9	4.4	51.5
Female								
Married	68.8	15.3	8.3	7.6	49.7	20.5	10.1	19.8
Unmarried*	57.2	35.3	1.4	6.2	37.6	46.1	3.7	12.6
Widowed/sep/div	63.4	14.8	10.2	11.7	66.3	14.5	8.2	11.0
Total	61.3	27.4	4.2	7.1	44.4	34.4	6.3	15.0

Notes: Same as Figure 4.2

4.3.3 Remittances Sent to Non-resident Members and Received by Non-resident Household

The remittances sent or received cannot be compared over the years because of the different categories used in the two rounds; still a picture may be presented at two different points of time. In 2004-05, it is seen that majority of the non-resident members except students send remittances to their household (Table 4.6). On the other hand, an exhaustive categorization at the later round provides a complete scenario and it is found that 53.8 per cent of the non-resident members send remittances, while one-fourth (24%) receive and one-fifth (21%) neither receive nor send remittances to their household. A meager (1.1%) both receive and send remittances. In contrast to the earlier round it is seen that three-fourth of the students (76.8%) receive remittances whereas another 20% neither receive nor send remittances. A major share of spouse (80%) and other non-resident members (67.9%) compared to parent (26.7%) and students (3.3%) send remittances to the household. Contrarily, a higher proportion of parents (67.1%) neither send nor receive remittances. Results disaggregated by sex show that in 2004-05 majority of male send remittances (66.7%) while it is other way round for female non-resident members. In 2011-12, a large proportion of males send remittances (61.1%) while females either receive remittances (44.4%) or neither send nor receive it (42.3%). Students irrespective of the sex receive remittances, with male being on the higher side (79.5 males and 70.8 females).

As shown in the Table 4.7, remittances (in rupees) received during the last year has increased substantially over the years. Among those who receives money from the household, for spouse and other non-resident members it has increased to almost twice but for students it has increased to almost thrice. Similarly, among those who send money to the household has also increased except students. It is to be noted that the amount sent is higher than the amount received by migrant.

Table 4.6: Percentage of non-resident members according to type of non-resident member by remittances sent/received, IHDS, 2004-05 and 2011-12

Type of migrant	2004-05		2011-12			
	Received by non-resident member	Sent by non-resident member	Received by non-resident member	Sent by non-resident member	Both	None
			Total			
Spouse	23.5	76.5	4.5	80.8	0.7	14.0
Student	95.3	4.7	76.8	3.3	0.3	19.6
Parent	2.6	97.4	6.1	26.7	0.2	67.1
Other	19.2	80.8	8.4	67.9	2.2	21.6
Total	38.0	62.0	24.0	53.8	1.1	21.1
						Male
Spouse	22.3	77.8	3.1	85.5	0.8	10.7
Student	94.5	5.5	79.5	4.3	0.3	15.9
Parent	0.0	100.0	8.2	36.0	0.3	55.6
Other	18.9	81.1	6.9	70.7	2.2	20.2
Total	33.3	66.7	20.3	61.1	1.2	17.3
			Female			
Spouse	71.3	28.7	27.2	8.6	0.5	63.7
Student	97.1	2.9	70.8	0.9	0.2	28.1
Parent	10.2	89.8	2.2	10.1	0.0	87.6
Other	22.6	77.4	22.5	41.5	1.6	34.3
Total	74.0	26.0	44.4	12.8	0.6	42.3

Notes: 1. Non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).

2. In IHDS1 (2004-05) sent/received remittances is a dichotomous variable unlike IHDS 2 (2011-12) where it has four categories

Table 4.7: Average rupees sent or received by non-resident member according to the type of migrant, IHDS, 2004-05 and 2011-12

Type of migrant	2004-05					2011-12				
	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max	Obs
Rs. Received by non-resident members										
Spouse	13,821	12934	600	120000	120	25,489	28610	300	225000	182
Student	10,466	18954	20	300000	681	31,185	49260	100	850000	2346
Parents	2,989	3872	500	6000	2	3,933	3930	500	30000	30
Other	8,513	8556	150	100000	176	16220	27084	300	500000	528
Rs. Sent by non-resident members										
Spouse	19,821	19392	400	190000	655	37,402	45536	5	800000	1914
Student	16,764	20406	200	100000	44	15,840	20019	200	150000	96
Parents	4,827	9432	200	60000	40	9,429	11695	300	80000	174
Other	10,827	14054	100	150000	1051	23,062	32582	200	500000	3055

Note: Same as Table 4.6

CHAPTER **5**

Estimation, Prevalence and Characteristics of Seasonal Labour Migrants (Circular Migrants)

5.1 Introduction

It is evident from the available literature that there is a widespread occurrence of temporary/ seasonal labour migration for employment in developing countries (Brauw, 2007; Deshingkar and Farrington, 2009; Keshri and Bhagat, 2013; Yang and Guo, 1999). Temporary labour migration, often used interchangeably with circular, seasonal, short-term and spontaneous migration, has been a subject of much discourse. It is a sort of mobility where the economic activity of a person is moved but not the usual residence (Bilsborrow et al., 1984). If individuals migrate leaving their families, land and property in the area of origin, they may do so with the intention of returning to the place of usual residence. This is more likely to happen if the individuals have precarious jobs in the destination areas or if the cost of permanent relocation is high relative to its benefits (Srivastava 2012a). An important group of circular migrants consists of seasonal migrants, those who combine activities in several places according to seasonal labour requirements. Six months is generally used as the maximum duration of a temporary move (Mberu, 2006; Pham and Hill, 2008; Srivastava and Sasikumar, 2003).

This chapter consists of two major sections; first is related to estimation, prevalence and pattern of seasonal labour migration while the other deals with the background characteristics of seasonal labour migration. We have also tried to

compare these domains of seasonal labour migration using IHDS (2011-12) and the NSS (2007-08) as far as possible.

5.2 Data

This chapter uses India Human Development Survey (IHDS) conducted in 2011-12 and 64th round of National Sample Survey (NSS) conducted in 2007-08 for estimating the number, prevalence and characteristics of seasonal migrants. The NSS has tried to capture the short-term migration by asking whether any person who had stayed away from the village/town for a period of 1 month or more but less than 6 months during the last 365 days for employment or in search of employment. Apart from this, information on the number of spells (staying away from a village or town for 15 days or more was termed a spell), destination stayed at during the longest spell (such as, the same district, the same state but another district, another state, another country and so on) were collected. On the other hand, IHDS asks "Have you or any member of your household left to find seasonal/short term work during last five years/one year and returned to live here?" Seasonal labour migrant in last five years and one year both are computed, so as to make it comparable with the NSS which gives information for the last one year only. It is to be noted that the first round of IHDS conducted in 2004-05 did not collect information on seasonal migrants.

5.3 Results

5.3.1 Estimation, prevalence and pattern of seasonal labour migration

5.3.1.1 Estimation and prevalence of seasonal labour migration

Overall the share of seasonal migrants in the total population is less than 2 percent. It is even lesser in urban areas (0.5%) than rural areas (2.5%) (Figure 5.1 & Appendix Table A 5.1). Yet, the absolute number of short term migrants in last five years is estimated over 22 million with 20 million in rural and 1 million in urban areas (Table 5.1). Out of this, 13.16 million persons migrated seasonally in the last one year with 12 million in rural areas and 850 thousand in urban areas (Table 5.2). These figures were not much different if we look at the one year estimation based on the NSS data (2007-2008) and total seasonal migrants were almost 13.49 million (Table 5.3).

Table 5.1: Estimates of seasonal labour migrants (last five years) according to place of origin by states, IHDS, 2011-12

States	Rural	Urban	Total
AP	2,015,974	121,650	2,137,624
AS	410,409	6,774	417,183
BI	3,382,065	270,692	3,652,757
CG	888,341	28,825	917,166
CH	NA	11,748	11,748
DD	1,599	NA	1,599
DE	0	44,080	44,080
DN	0	0	0
GO	0	0	0
GU	896,587	55,512	952,099
HA	61,608	4,408	66,016
HP	28,765	2,184	30,949
JH	556,304	34,928	591,232
JK	121,252	9,225	130,477
KA	896,112	222,874	1,118,986
KE	60,108	8,872	68,980
MA	1,427,923	19,184	1,447,107
MP	2,147,222	132,595	2,279,817
NE	29,374	17,150	46,524
OD	675,438	30,899	706,337
PD	0	8,240	8,240
PU	75,301	15,664	90,965
RA	1,317,705	53,354	1,371,059
TN	545,673	164,800	710,473
UK	83,022	6,467	89,489
UP	3,097,450	291,015	3,388,465
WB	1,793,127	150,176	1,943,303
TOT	20,511,359	1,711,316	22,222,675

Notes:
1. Seasonal labour migrants exclude those who have migrated to abroad
2. Place of residence refers to seasonal migrant's place of origin.
3. North Eastern states*: Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)

State-wise results related to last five years of seasonal migration suggest that Bihar followed by Madhya Pradesh, Chhatisgarh, Andhra Pradesh, West Bengal and Rajasthan (more than 2.0 percent) have a higher share of seasonal migrants. In

urban areas Bihar has exceptionally higher prevalence of seasonal migrants (2.4%) while in all other states it is less than 1%. In rural areas it is higher in Madhya Pradesh followed by Bihar, Andhra Pradesh, Chhatisgarh, West Begal, Gujarat, and Rajasthan (more than 2.5%). Figure 5.2 & Appendix Table A 5.2 presents the percentage distribution of seasonal labour migrants (last five years) according to place of origin by states. It is found that in all the states except Kerala, Punjab, Karnataka, Tamil Nadu, and North Eastern states a major share of seasonal labour migrants (more than 90%) is from rural areas.

Table 5.2: Estimates of seasonal labour migrants (last one year) according to place of origin by states, IHDS, 2011-12

States	Rural	Urban	Total
AP	1,049,489	64,880	1,114,369
AS	154,342	3,387	157,729
BI	2,299,915	135,346	2,435,261
CG	555,478	17,295	572,773
CH	0	0	0
DD	1,291	0	1,291
DE	0	35,264	35,264
DN	0	0	0
GO	0	0	0
GU	672,402	41,634	714,036
HA	41,223	0	41,223
HP	13,308	1,638	14,946
JH	299,845	30,562	330,407
JK	90,152	7,380	97,532
KA	329,851	113,808	443,659
KE	19,414	0	19,414
MA	1,152,498	19,184	1,171,682
MP	1,460,089	74,945	1,535,034
NE	2,213	8,942	11,155
OD	452,348	14,045	466,393
PD	0	0	0
PU	46,724	11,748	58,472
RA	758,422	41,921	800,343
TN	273,667	41,200	314,867
UK	49,105	0	49,105
UP	1,852,893	129,340	1,982,233
WB	743,170	57,760	800,930
TOT	12,317,839	850,279	13,168,118

Notes: Same as Table 5.1

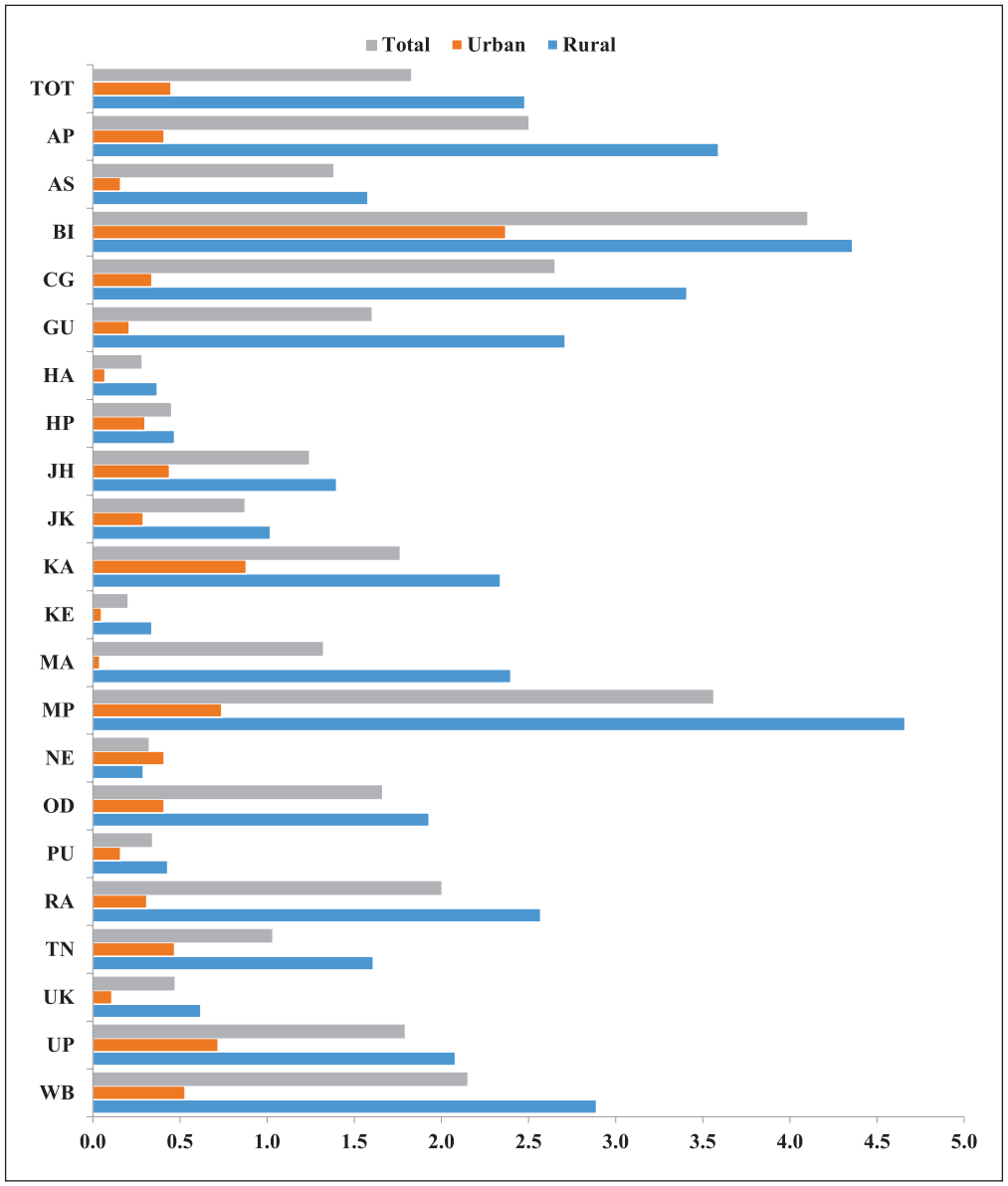
Table 5.3: Estimates of seasonal labour migrants (last one year) according to place of origin by states, NSS, 2007-08

States	Rural	Urban	Total
AN	1,203	279	1,482
AP	748,305	33,295	781,600
AS	262,716	31,541	294,257
BI	2,039,223	53,787	2,093,010
CG	320,163	9,152	329,315
CH	0	36	36
DD	1,263	18	1,281
DE	2,161	21,736	23,897
DN	21	37	58
GO	2,559	2,325	4,884
GU	1,058,930	88,602	1,147,532
HA	63,726	8,785	72,511
HP	28,828	598	29,426
JH	535,969	3,608	539,577
JK	91,737	10,937	102,674
KA	369,264	68,428	437,692
KE	99,855	14,156	114,011
LD	137	33	170
MA	664,550	62,703	727,253
MP	1,185,971	76,010	1,261,981
NE	80,870	21,287	102,157
OD	416,809	20,959	437,768
PD	3,856	1,183	5,039
PU	110,627	13,312	123,939
RA	678,942	56,913	735,855
TN	395,761	175,511	571,272
UP	1,849,305	115,213	1,964,518
UK	27,847	2,878	30,725
WB	1,458,381	100,720	1,559,101
TOT	12,498,979	994,042	13,493,021

Notes:

1. Place of residence refers to seasonal migrant's place of origin.
2. North Eastern states*: Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
3. Acronyms of States and Union Territories: Andaman and Nicobar (AN), Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Lakshadweep (LD), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)

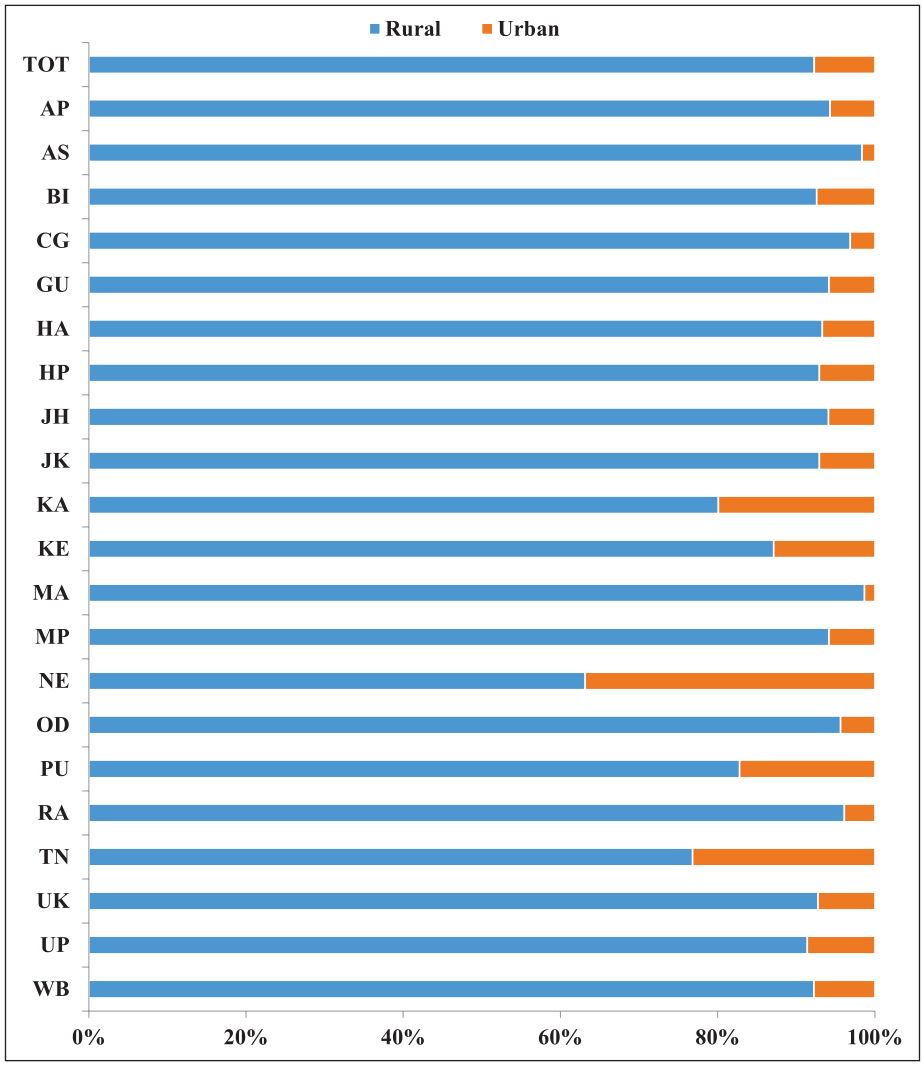
Figure 5.1: Percentage (Prevalence) of seasonal labour migrants (last five years) according to place of origin by states, IHDS, 2011-12



Notes:

1. Same as notes 1,2 and 3 of Table 5.1
2. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chhatisgarh (CG), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jharkhand (JH), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Maharashtra (MA), Madhya Pradesh (MP), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttarakhand (UK), Uttar Pradesh (UP), West Bengal (WB)
3. For better illustration only the major states have been shown in the graph (full table is provided in Appendix, Table A 5.1).

Figure 5.2: Percentage distribution of seasonal labour migrants (last five years) according to place of origin by states, IHDS, 2011-12



Notes: Same as notes 1 and 2 of Figure 5.1.

6. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)
7. For better illustration only the major states have been shown in the graph (full table is provided in Apeendix, Table A 5.2).

5.3.1.2 Pattern of Seasonal Labour Migration by Place of Destination

Percentage distribution of seasonal labour migrants in the last five years according to place of destination is presented in Table 5.4. Seasonal labour migrants those moving to urban areas of other state is estimated to be around 8 million (39.8%),

5 million seasonal migrants move to urban areas of same state (24.3%), 4 million (21.5%) and 3 million migrate to the rural areas of intra and interstate respectively (Appendix Table A 5.3 and Figure 5.3). The pattern of seasonal labour migrants in the last one year follows a little different pattern. For instance, around 5 million (39.1%) migrants move to urban areas of another state, followed by 3 million (23.4) to rural areas of same state, 2.8 million (21.4) to urban areas of same state and 2.1 million (16.2%) to rural areas of another state (Table 5.5 and Figure 5.4). Almost similar pattern is observed from the NSS (2007-2008) except comparatively higher percent in the same state urban destination (Table 5.6 and Figure 5.5).

Table 5.4: Estimates of seasonal labour migrants (last five years) according to type of place of destination by states, IHDS, 2011-12

States	SSR	SSU	ASR	ASU	Total
AP	693,516	1,141,531	103,847	198,730	2,137,624
AS	142,297	60,880	139,949	74,057	417,183
BI	129,876	172,243	1,000,056	2,350,582	3,652,757
CG	195,768	189,853	174,478	357,067	917,166
CH	0	0	0	11,748	11,748
DD	450	1,149	0	0	1,599
DE	0	4,408	26,448	13,224	44,080
DN	0	0	0	0	0
GO	0	0	0	0	0
GU	481,879	412,980	6,939	50,301	952,099
HA	15,573	6,349	17,238	26,856	66,016
HP	7,999	10,903	2,563	9,484	30,949
JH	63,794	79,824	137,142	310,472	591,232
JK	8,906	20,830	40,110	60,631	130,477
KA	318,573	600,047	82,546	117,820	1,118,986
KE	6,104	40,501	17,939	4,436	68,980
MA	1,080,902	223,472	106,000	36,733	1,447,107
MP	323,623	531,718	311,058	1,113,418	2,279,817
NE	16,032	12,740	5,089	12,663	46,524
OD	128,353	146,970	15,671	408,792	699,786
PD	0	0	8,240	0	8,240
PU	17,687	17,260	25,795	30,223	90,965
RA	389,966	364,231	154,660	462,202	1,371,059
TN	221,155	364,572	8,954	115,792	710,473
UK	9,788	23,406	0	56,295	89,489
UP	222,779	436,783	740,687	1,988,216	3,388,465
WB	295,751	536,988	78,038	1,032,526	1,943,303
TOT	4,770,771	5,399,638	3,203,447	8,842,268	22,216,124

Notes: 1. Same as note 1, 3, and 4 of Table 5.1

2. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)

Results related to pattern of seasonal labour migration (last five years) according to type of place of destination by states suggest that the most of the states from eastern, northern and central India have a higher proportion of other state urban areas migrants. On the other hand, more than half of the seasonal migrants from Daman & Diu and other south Indian states like Kerala, Karnataka, Andhra Pradesh and Tamil Nadu move to urban areas of same state. The states like Andhra Pradesh, Assam, North eastern states; Gujarat and Maharashtra have a higher percentage of migrants that move to rural areas of same state (Figure 5.3 & Appendix Table A 5.3).

Table 5.5: Estimates of seasonal labour migrants (last one year) according to type of place of destination by states, IHDS, 2011-12

States	SSR	SSU	ASR	ASU	Total
AP	318,057	621,074	86,201	89,037	1,114,369
AS	27,053	28,111	61,423	41,142	157,729
BI	86,307	113,314	717,333	1,518,307	2,435,261
CG	111,616	120,295	113,107	227,755	572,773
DD	450	841	0	0	1,291
DE	0	0	26,448	8,816	35,264
GU	365,012	314,377	6,939	27,708	714,036
HA	15,573	2,558	11,845	11,247	41,223
HP	3,919	4,086	2,563	4,378	14,946
JH	48,766	22,607	137,142	121,892	330,407
JK	8,906	8,448	26,740	53,438	97,532
KA	110,640	267,889	18,148	46,982	443,659
KE	0	19,414	0	0	19,414
MA	974,013	95,891	78,954	22,824	1,171,682
MP	215,703	339,766	244,772	734,793	1,535,034
NE	2,213	5,195	0	3,747	11,155
OD	107,055	84,146	0	275,192	466,393
PU	13,665	14,320	20,385	10,102	58,472
RA	215,395	214,284	83,042	287,622	800,343
TN	163,948	92,918	4,982	53,019	314,867
UK	9,788	0	0	39,317	49,105
UP	155,003	235,323	458,613	1,133,294	1,982,233
WB	128,353	209,646	27,426	435,505	800,930
TOT	3,081,435	2,814,503	2,126,063	5,146,117	13,168,118

Notes: 1. Same as Table 5.4

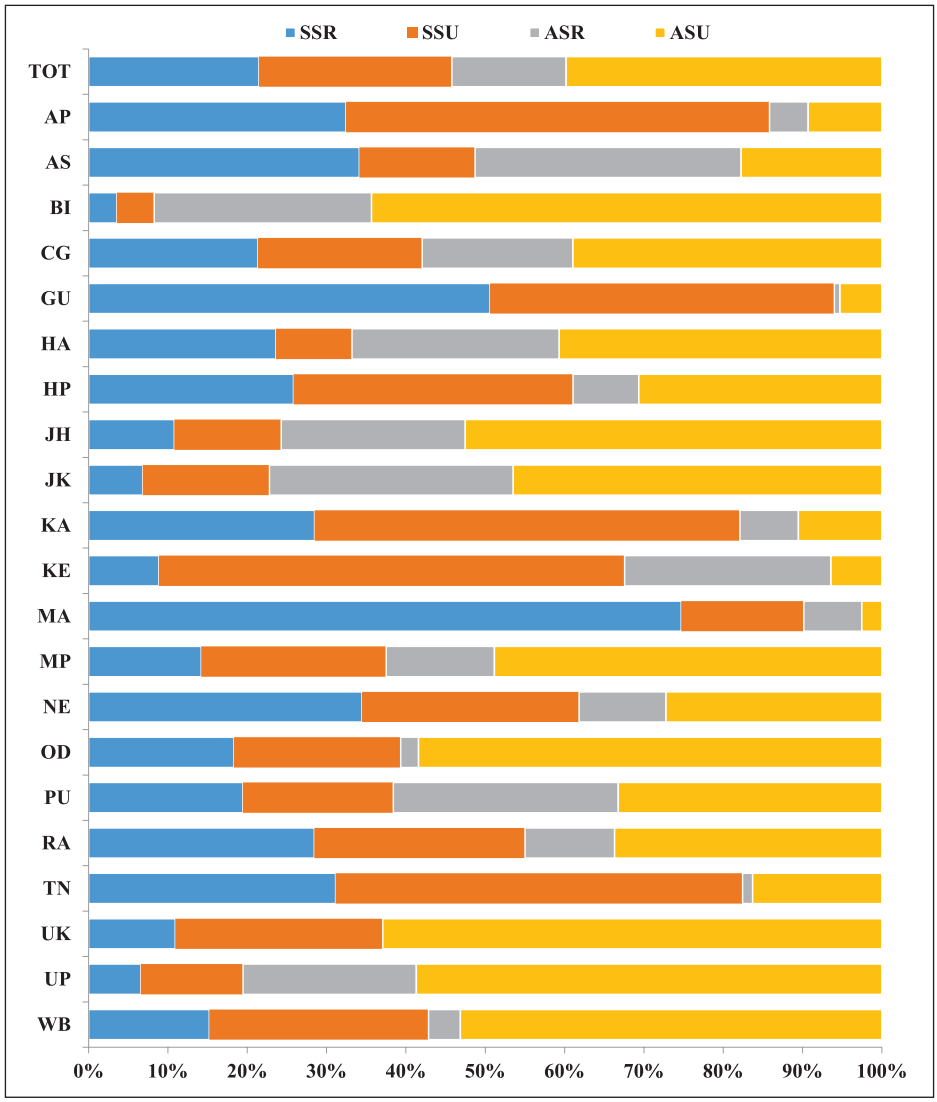
Table 5.6: Estimates of seasonal labour migrants (last one year) according to type of place of destination by states, NSS, 2007-08

States	SSR	SSU	ASR	ASU	Total
AN	1,240	242	0	0	1,482
AP	346,652	268,107	32,855	133,986	781,600
AS	56,095	185,994	16,655	35,513	294,257
BI	129,194	246,333	227,963	1,489,520	2,093,010
CG	38,179	91,950	17,875	181,311	329,315
CH	0	0	0	36	36
DD	208	0	24	1,049	1,281
DE	2,617	19,424	0	1,856	23,897
DN	0	0	37	21	58
GO	1,847	955	1,539	543	4,884
GU	547,240	564,136	30,252	5,904	1,147,532
HA	27,349	13,866	16,779	14,517	72,511
HP	9,795	11,213	3,304	5,114	29,426
JH	35,133	102,450	166,374	235,620	539,577
JK	11,462	48,879	1,201	41,132	102,674
KA	132,322	203,134	9,866	92,370	437,692
KE	42,511	54,958	4,645	11,897	114,011
LD	94	33	43	0	170
MA	400,856	201,115	72,943	52,339	727,253
MP	342,535	416,765	70,873	431,808	1,261,981
NE	29,730	58,065	4,869	9,493	102,157
OD	90,615	151,716	92,419	103,018	437,768
PD	1,151	1,697	1,479	712	5,039
PU	53,796	5,052	60,068	5,023	123,939
RA	162,266	226,326	109,364	237,899	735,855
TN	120,222	294,758	36,639	119,653	571,272
UK	3,340	7,936	3,594	15,855	30,725
UP	190,259	582,056	93,347	1,098,856	1,964,518
WB	380,470	506,878	109,332	562,421	1,559,101
TOT	3,157,178	4,264,038	1,184,339	4,887,466	13,493,021

Notes:

1. North Eastern states*: Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
2. Acronyms of States and Union Territories: Andaman and Nicobar (AN), Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Lakshadweep (LD), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)
3. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)

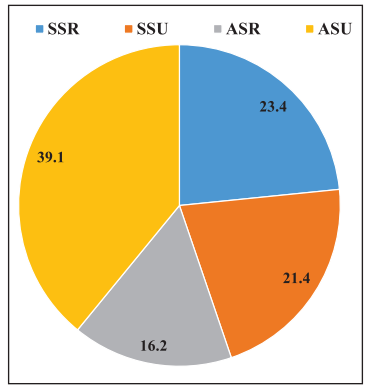
Figure 5.3: Percent distribution of seasonal labour migrants (last five years) according to type of place of destination by states, IHDS, 2011-12



Notes:

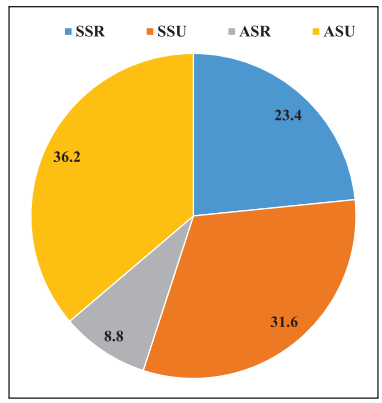
1. Seasonal labour migrants exclude those who have migrated to abroad
2. North Eastern states*: Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chhatisgarh (CG), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jharkhand (JH), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Maharashtra (MA), Madhya Pradesh (MP), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttarakhand (UK), Uttar Pradesh (UP), West Bengal (WB)
4. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)
5. For better illustration only the major states have been shown in the graph (full table is provided in Appendix, Table A 5.3).

Figure 5.4: Percent distribution of seasonal labour migrants (last one year) according to type of place of destination, IHDS, 2011-12



Notes: 1. Same as notes 1 and 4 of Figure 5.3

Figure 5.5: Percent distribution of seasonal labour migrants (last one year) according to type of place of destination, NSS, 2007-08



Notes: 1. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)

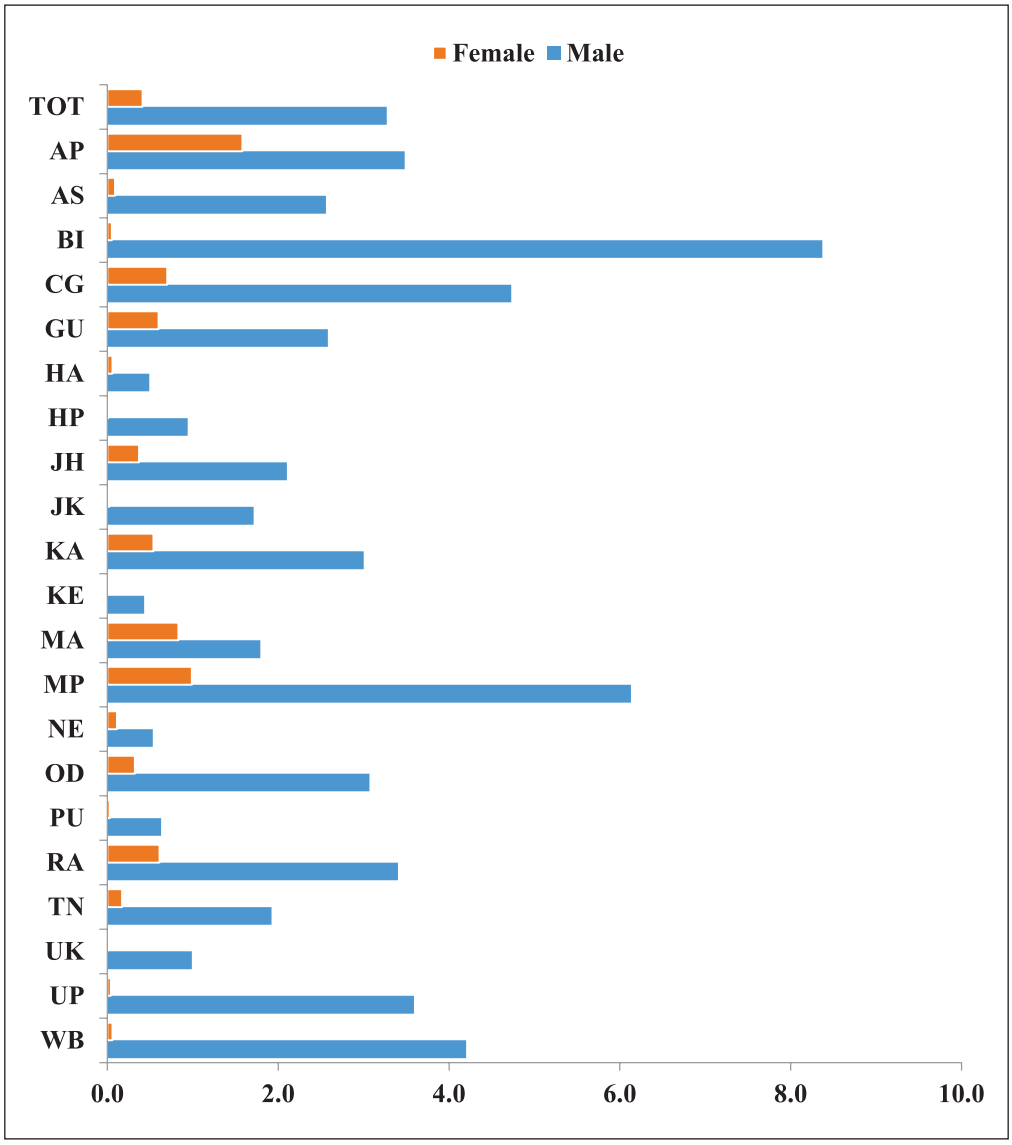
5.3.2 Seasonal Labour Migration by Background Characteristics

5.3.2.1 Seasonal Labour Migration by Sex

Results suggest a skewed prevalence of seasonal labour migrants towards males. Three percent males compared to 0.4 percent females and 1.9 percent males compared to 0.3 percent females migrate seasonally in the last five year and one year respectively. (Figure 5.6, Appendix Table A 5.4 and figure 5.7). A similar pattern is observed using NSS data. Female seasonal migration is higher in the states of Andhra Pradesh and Madhya Pradesh (1% or more) while among males is higher in

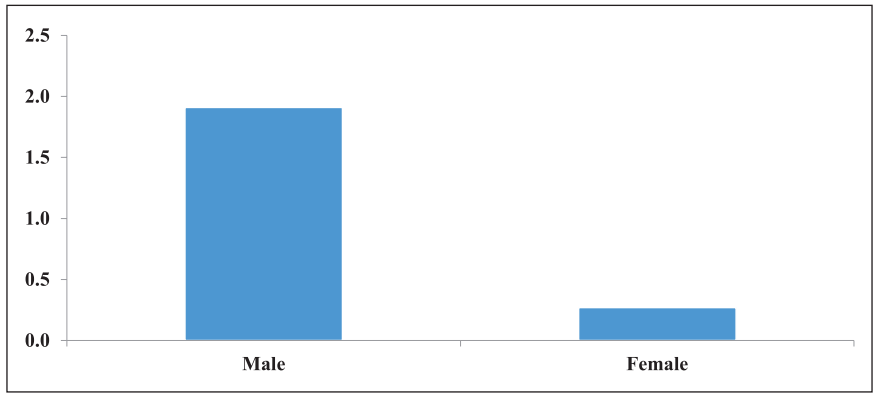
the states of Bihar, Madhya Pradesh, Chhattisgarh, Daman and Diu, West Bengal, Uttar Pradesh, Andhra Pradesh and Rajasthan (more than national average).

Figure 5.6: Percentage (Prevalence) of seasonal labour migrants (last five years) according to sex by states, IHDS, 2011-12



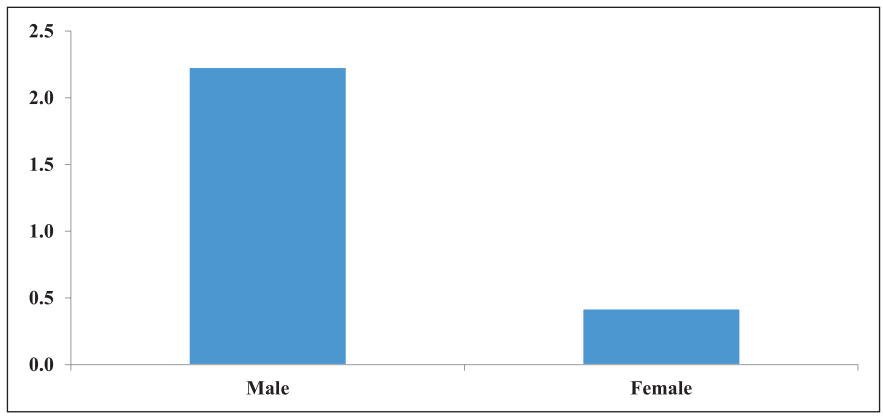
Notes:
1. Same as notes 1,2 and 3 of Figure 5.3
2. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table A 5.4).

Figure 5.7: Percentage (Prevalence) of seasonal labour migrants (last one year) according to sex, IHDS, 2011-12



Notes: 1. Same as notes 1,2 and 3 of Figure 5.3

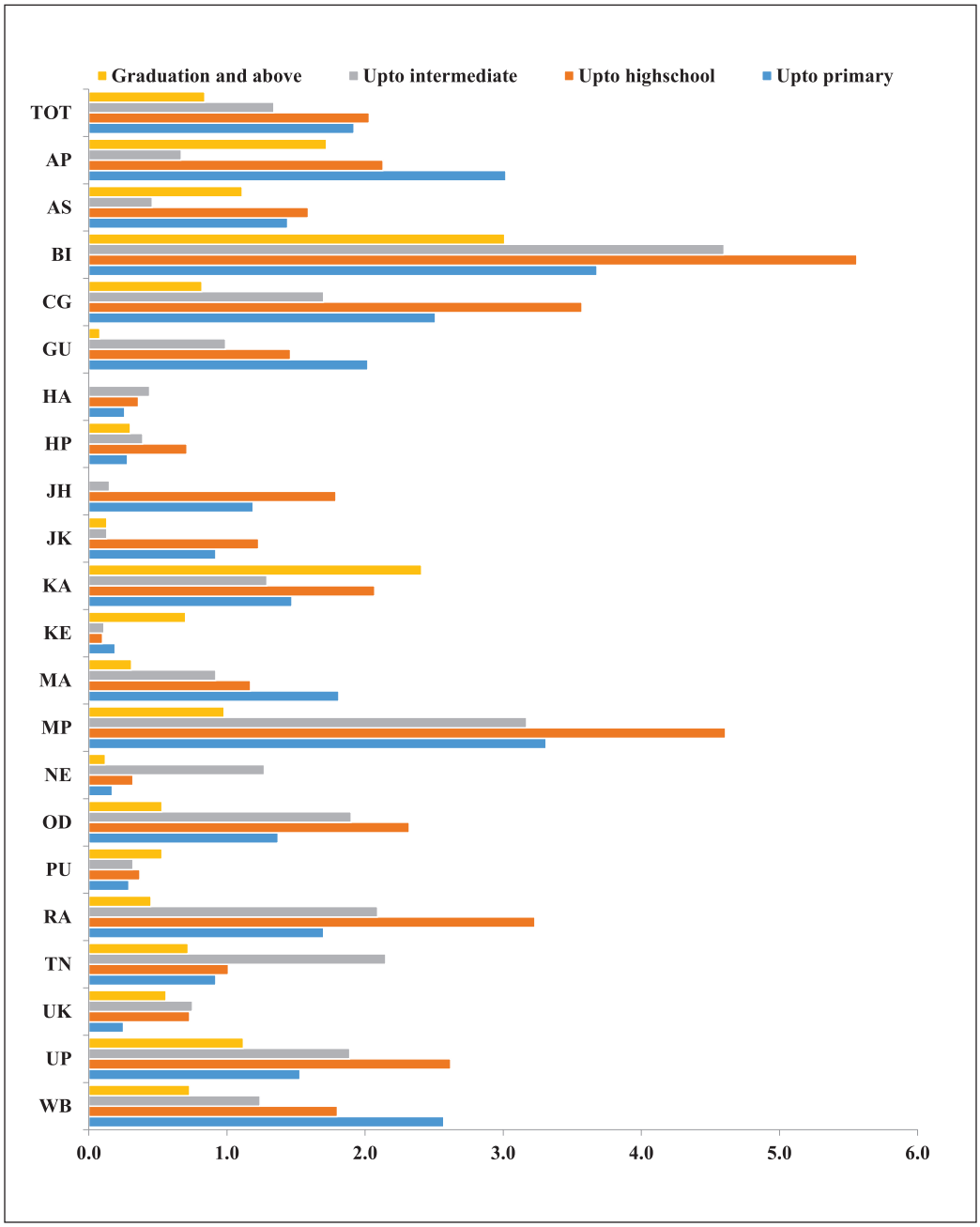
Figure 5.8: Percentage (Prevalence) of seasonal labour migrants (last one year) according to sex, NSS, 2007-08



5.3.2.2 Seasonal Labour Migrants by Educational Attainment

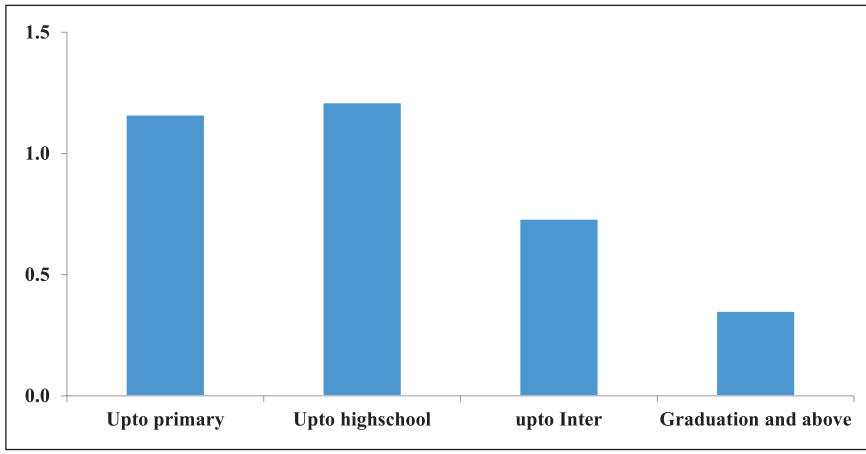
The percentage of seasonal labour migration is inversely proportion to the education attainment of migrants. In the last five years, it is around 2 percent among migrants having education up to high school and declines to 0.8 percent among migrants having graduation and above level of education (Figure 5.9 and figure 5.10). Similarly, in the last one year, it is 1.2 percent among migrants having education up to high school and declines to 0.4 percent among migrants having graduation and above level of education. The results from NSS also follow a similar pattern (Figure 5.11). An inverse relationship is observed in most of the states.

Figure 5.9: Percentage (Prevalence) of seasonal labour migrants (last five years) according to education by states, IHDS, 2011-12



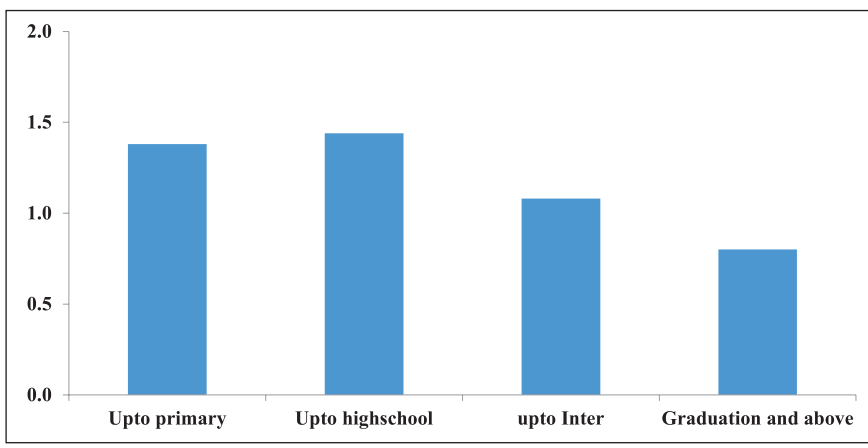
Notes:
1. Same as notes 1,2 and 3 of Figure 5.3
2. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table 5.5).

Figure 5.10: Percentage (Prevalence) of seasonal labour migrants (last one year) according to education, IHDS, 2011-12



Notes: 1. Same as note 1 of Figure 5.3

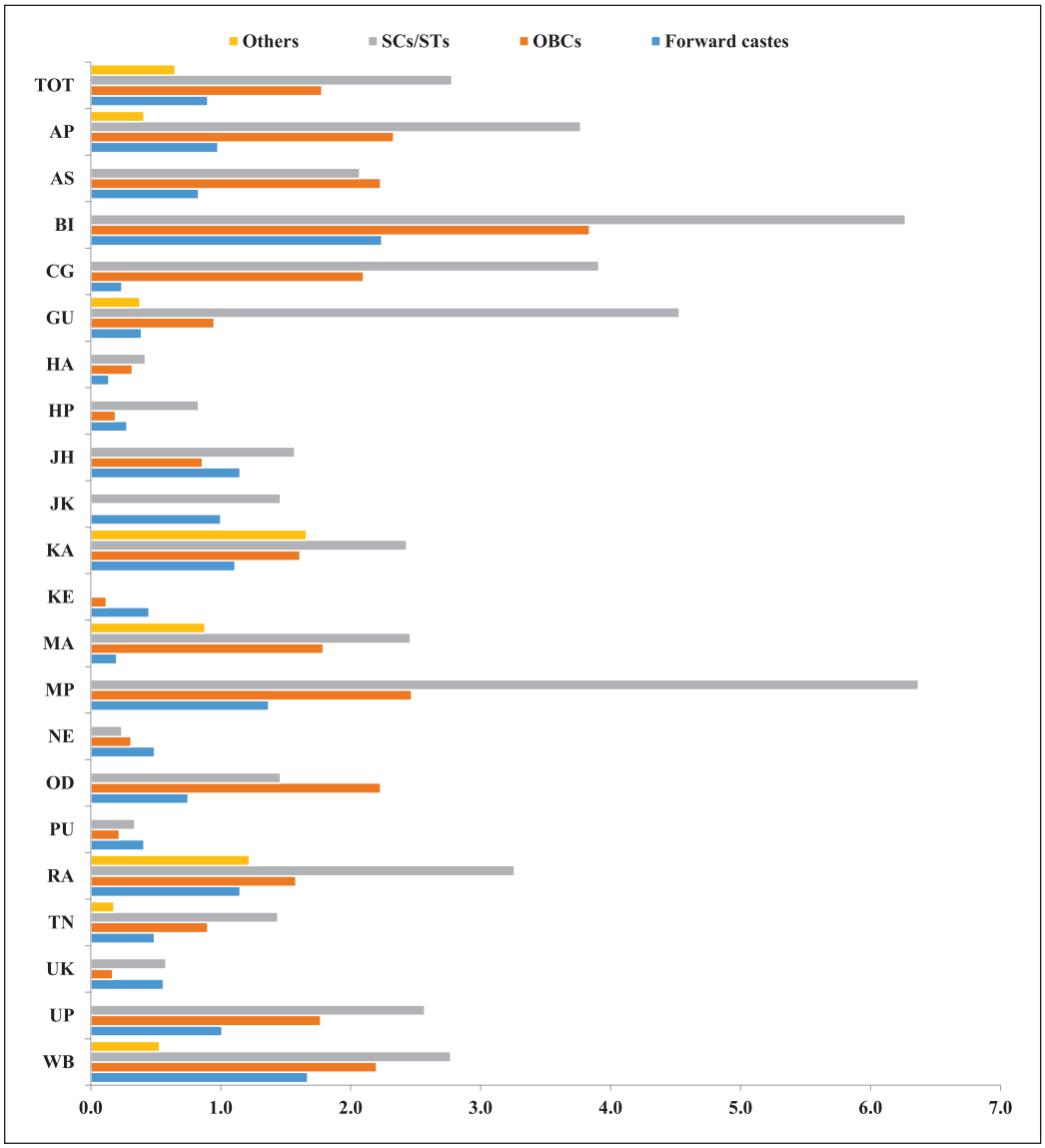
Figure 5.11: Percentage (Prevalence) of seasonal labour migrants (last one year) according to education, NSS, 2007-08



5.3.2.3 Seasonal Labour Migrants by Social Groups

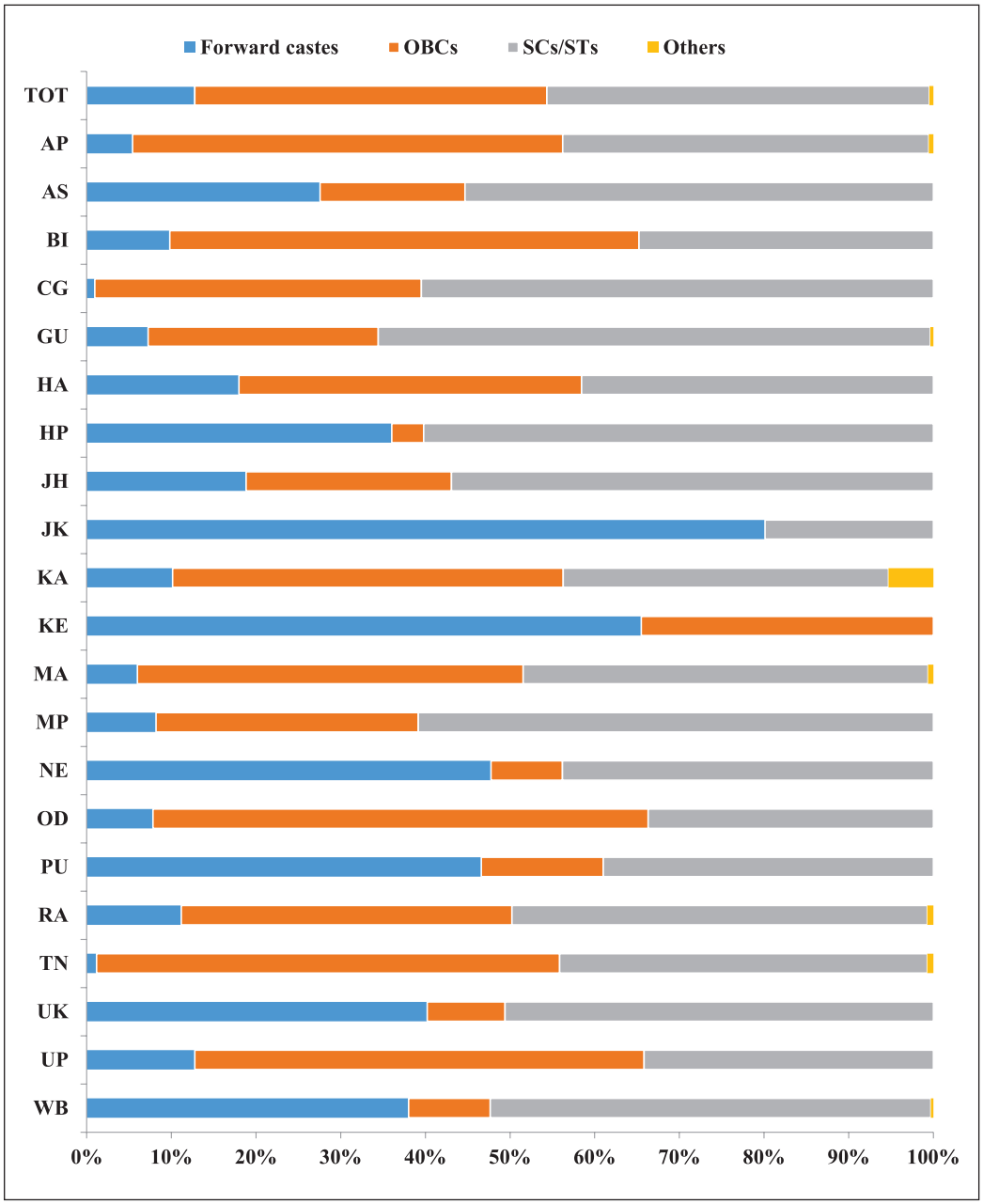
A higher prevalence of seasonal migration in the last five years is found among Scheduled Castes (SCs)/Scheduled Tribes (STs) (2.8%) followed by Other Backward Castes (OBCs) (1.8%) and forward castes (0.9%). A similar pattern is evident for seasonal migration in the last one year (Figure 5.12, Appendix Table A 5.6 and Figure 5.14). Though the categories of social groups are not strictly same in NSS still the pattern and prevalence of seasonal migrants in the two different sources of data is more or less similar.

Figure 5.12: Percentage (Prevalence) of seasonal labour migrants (last five years) according to Social group by states, IHDS, 2011-12



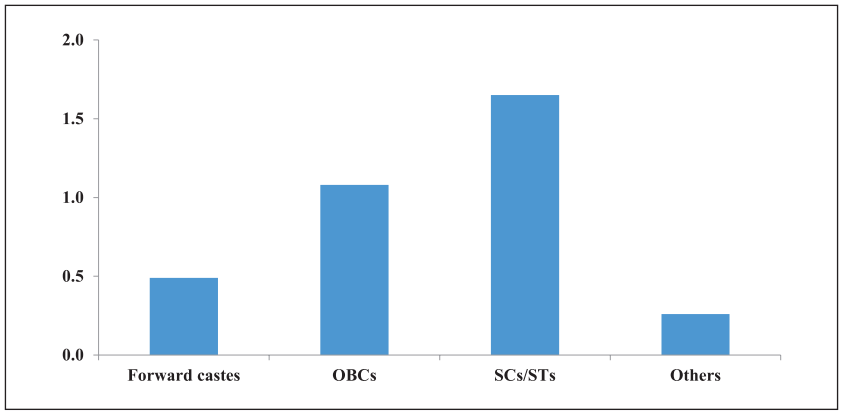
Notes:
1. Same as notes 1,2 and 3 of Figure 5.3.
2. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table 5.6).

Figure 5.13: Percentage distribution of seasonal labour migrants (last five years) according to Social group by states, IHDS, 2011-12



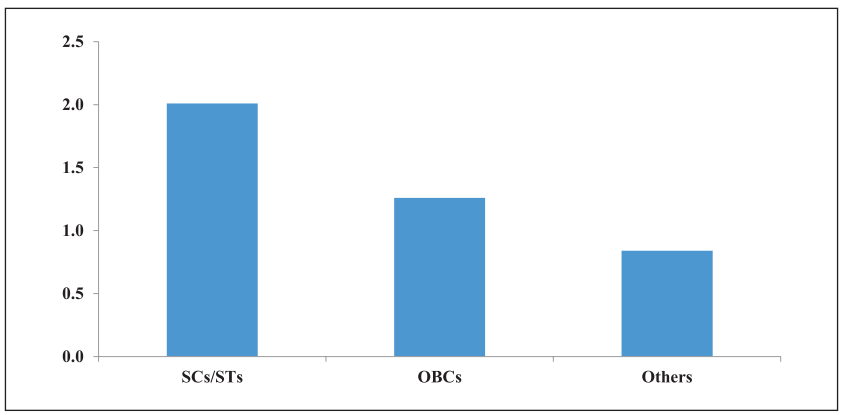
Notes:
1. Same as notes 1,2 and 3 of Figure 5.3
2. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table 5.7).

Figure 5.14: Percentage (Prevalence) of seasonal labour migrants (last one year) according to Social groups, IHDS, 2011-12



Notes: 1. Same as Note 1 of Figure 5.3

Figure 5.15: Percentage (Prevalence) of seasonal labour migrants (last one year) according to Social group, NSS, 2007-08

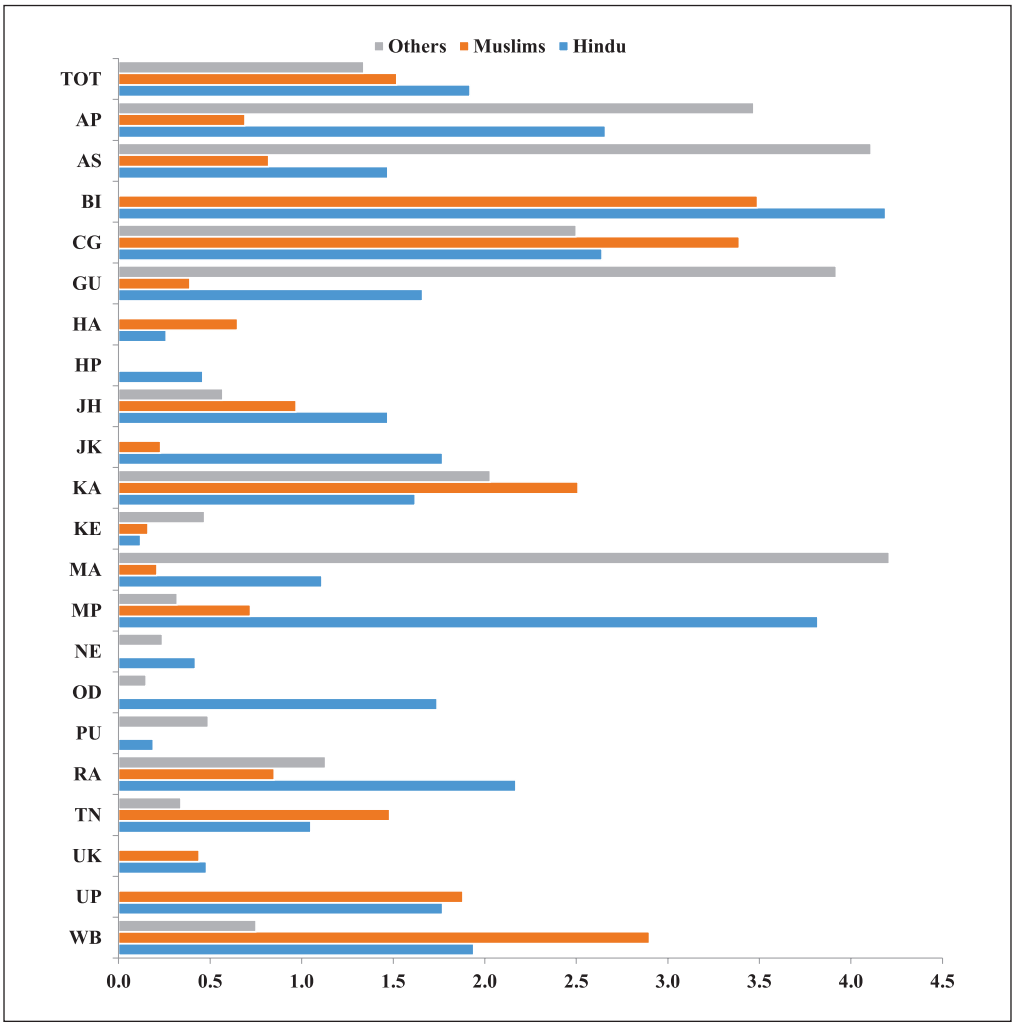


Interestingly, proportion of migration in the last five years from forward caste is highest in Jammu and Kashmir (80.1%) followed by Kerala (65.5%), North Eastern States (47.8%), Punjab (46.6%), Uttarakhand (40.2%), West Bengal (38.0%), Himachal Pradesh (36.0%) and Assam (27.6%) (Figure 5.13). Further, in Odisha (58.5%), Bihar (55.4%), Tamil Nadu (54.7%), Uttar Pradesh (53.1%) and Andhra Pradesh (50.8%) more than half of the migrants are from Other Backward Classes (OBCs). Whereas, the percentage of SC/ST migrants are higher in Delhi (77.8%), Gujarat (65.2%), Madhya Pradesh (60.9%), Chhatisgarh (60.5%), Himachal Pradesh (60.2%), Jharkhand (56.9%), Assam (55.3%), West Bengal (52.0%), West Bengal (52.0%), Uttarakhand (50.6%) (Figure 5.13 & Appendix Table A 5.7).

5.3.2.4 Seasonal Labour Migrants by Religion

Religion-wise prevalence of seasonal migration does not show much variation at national level (Figure 5.16 - 5.18). State-wise results, however, shows some variation. For instance, states like West Bengal, Karnataka, Chhatisgarh and Tamil Nadu have more Muslim migrants compared to Hindus and others, whereas, other states mostly have a higher proportion of Hindu migrants.

Figure 5.16: Percentage (Prevalence) of seasonal labour migrants (last five years) according to Religion by states, IHDS, 2011-12



Notes:
1. Same as notes 1,2 and 3 of Figure 5.3
2. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table 5.8).

Figure 5.17: Percentage (Prevalence) of seasonal labour migrants (last one year) according to Religion, IHDS, 2011-12

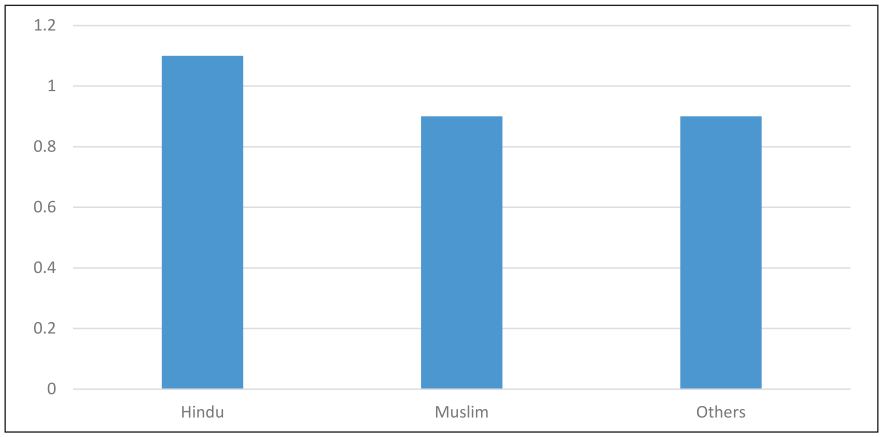
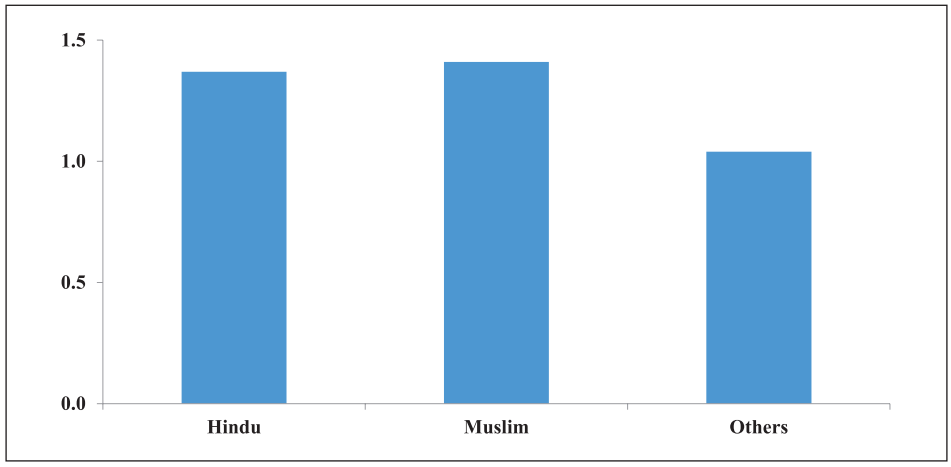


Figure 5.18: Percentage (Prevalence) of seasonal labour migrants (last one year) according to Religion, NSS, 2007-08

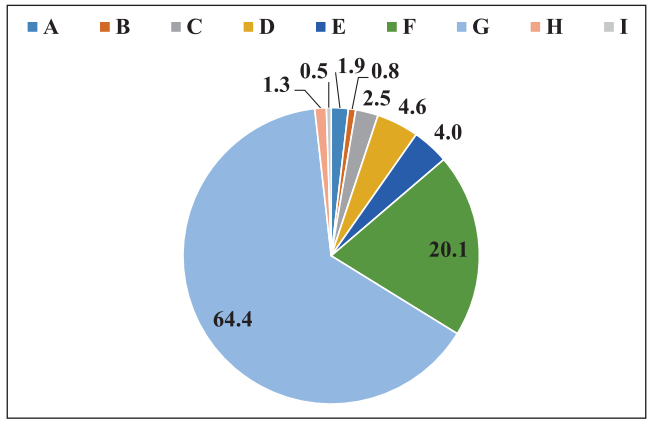


Notes: 1. Same as note 1 of Figure 5.3

5.3.2.5 Seasonal Labour Migrants by Occupation

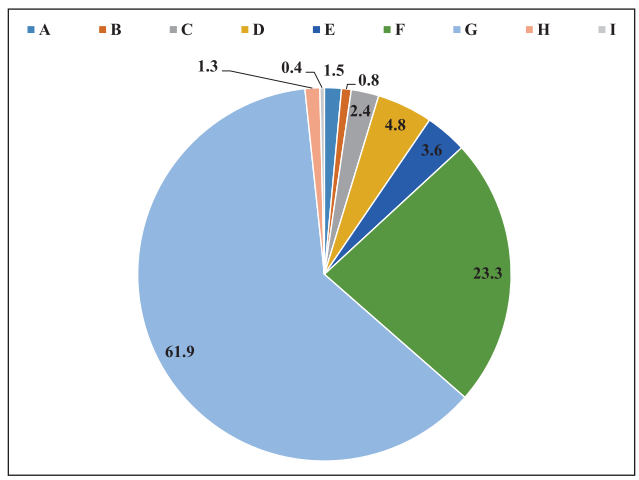
Percentage distribution of seasonal migrants in last five years and last one year according to occupation is presented in figure 5.19 and figure 5.20. Persons engaged in 'production, transport and labour work' constitutes the largest category of seasonal migrants (more than 60%) followed by 'farmers, fisherman, hunter, loggers and related workers' which is the second most common category (more than 20%).

Figure 5.19: Percent distribution of seasonal labour migrants (last five years) according to occupation, IHDS, 2011-12



Notes: 1. Same as Note 1 of Figure 5.3
2. A "Professions, Technical and Related Workers; B "Administrative, Executive and Managerial Workers" C "Clerical and Related Workers" D "Sale workers" E "Service workers" F "Farmers/fisherman, hunters, loggers and related workers" G "Production, Transport and Labourers" H "Unidentifiable occ" I "Housewives, Student/too young, and Out of labour force"

Figure 5.20: Percent distribution of seasonal labour migrants (last one year) according to occupation, IHDS, 2011-12



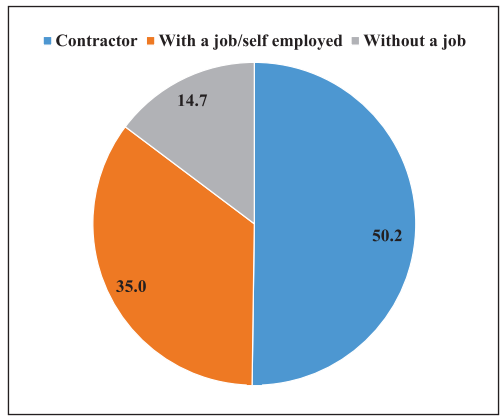
Notes: Same as Figure 5.19

5.3.2.6 Seasonal Labour Migrants by Middlemen

Seasonal migration flows appear to be mediated by contractors and middlemen who perform critical function of sourcing and recruiting workers. Around half of all seasonal migrants migrated through the contractor while another 35.0 percent

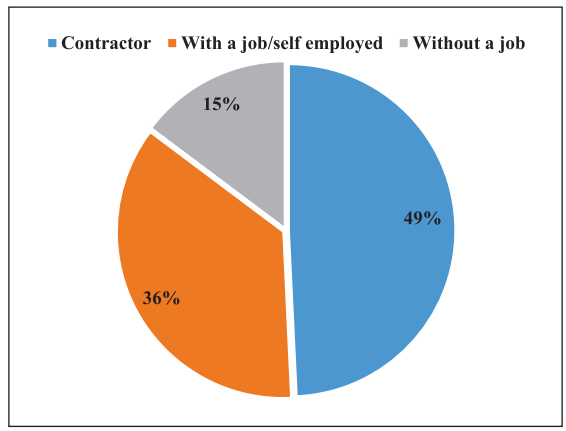
migrated with a job and 14.7 percent with a job. More or less similar pattern is found in last one year (Figure 5.21 and figure 5.22). More than 50 per cent of seasonal migrants engaged in sales work and 'production, transport and labourer related works' are migrated through a contractor (Figure 5.23 and figure 5.24). While, a majority of migrants engaged in 'professional, technical and related works' and unidentifiable occupation move with a job or are self employed.

Figure 5.21: Percent distribution of seasonal labour migrants (last five years) according to middlemen (migrated through), IHDS, 2011-12



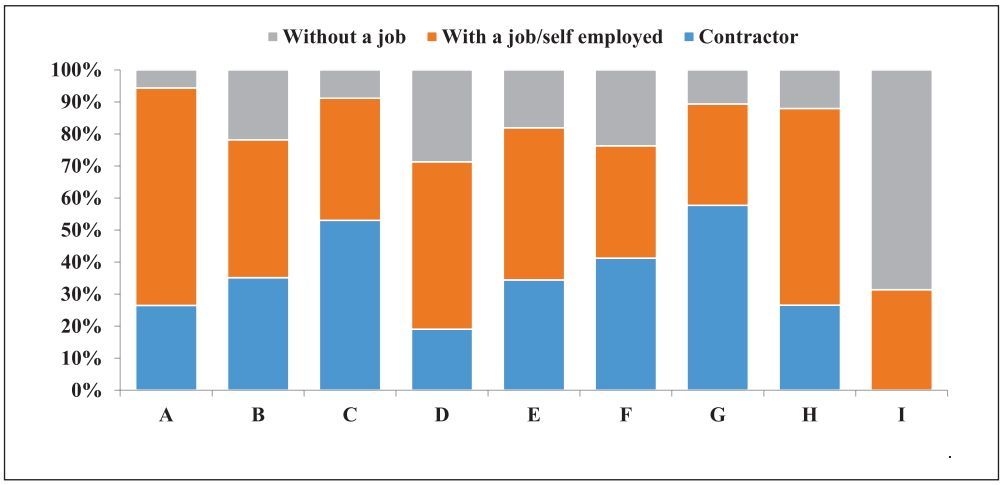
Notes: 1. Same as Note 1 of Figure 5.3

Figure 5.22: Percent distribution of seasonal labour migrants (last one year) according to middlemen (migrated through), IHDS, 2011-12



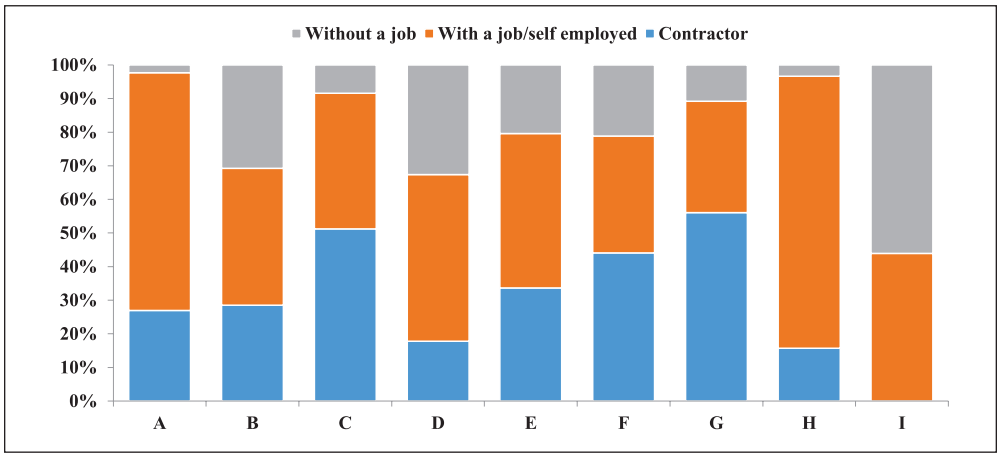
Notes: 1. Same as Note 1 of Figure 5.3

Figure 5.23: Percentage of seasonal labour migrants (last five years) migrated through middlemen according to occupation, IHDS, 2011-12



Notes: Same as Figure 5.19

Figure 5.24: Percentage of seasonal labour migrants (last one year) migrated through middlemen according to occupation, IHDS, 2011-12

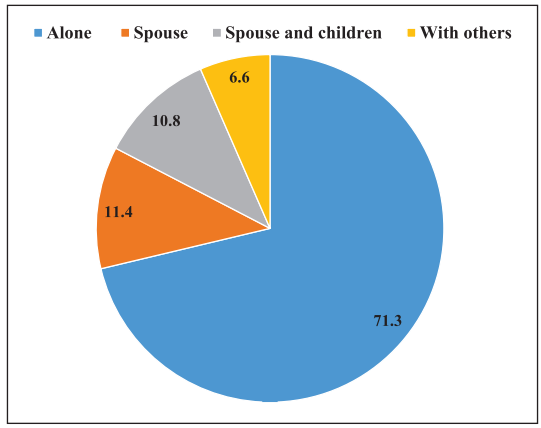


Notes: Same as Figure 5.19

5.3.2.7 Seasonal labour migrants by accompanied with

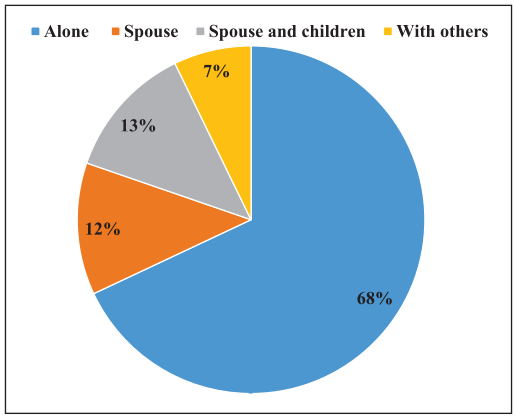
Around 70 percent of seasonal migrants move alone whereas10-13 percent move with spouse or spouse and children both (Figure 5.25 and Figure 5.26). Less than 10 percent migrate with others. This pattern has rarely changed in the last few years.

Figure 5.25: Percentage of seasonal labour migrants (last five years) accompanied with, IHDS, 2011-12



Notes: 1. Same as note 1 of Figure 5.3

Figure 5.26: Percentage of seasonal labour migrants (last one year) migrated with, IHDS, 2011-12



Notes: 1. Same as note 1 of Figure 5.3

CHAPTER 6

Trends of Urbanization

6.1 Introduction

The increasing share of population living in urban areas is termed as urbanization (United Nations, 2014). The increase in urban population can be due to three factors, natural increase in urban areas, reclassification of rural areas as urban, and net rural to urban migration. With the declining fertility, internal migration which is commonly called rural-urban migration is likely to account for an increasing share of urbanization. Rapid overall population growth often overlaps with rapid urbanization, especially fast urban population growth. For better management of these transitions, it is imperative to understand them.

This chapter consists of two sections: first being the trend analysis of urban-rural growth differentials and second deals with the trend analysis of contribution of rural-urban migration in urban population increase.

6.2 Data

In this chapter, data from three Censuses 1991, 2001 and 2011 have been used. For the first section, urban-rural population growth differentials method has been used to analyze the state-wise trend of urbanization. In the second section, contribution of rural-urban migration in the urban population increase has been calculated using two approaches, first approach uses net rural-urban migration during two censuses and the other approach uses inter-censal (0-9 years duration) net rural urban migration at a particular census [for details refer data of chapter 2].

6.3 Results

6.3.1 Urban-rural Growth Differentials

Urban rural growth differentials method has been used to analyze state-wise trend of urbanization. The average growth rate of the urban population was 2.73 percent during 1991-2001, which slightly accelerated to 2.76 percent during 2001-2011 (Table 6.1). The rural population growth rate on the other hand has declined from 1.65 percent during 1991-2001 to 1.15 percent in 2001-2011. However, for positive increase in urbanization the urban-rural population growth differential is critical because urban population growth needs to be higher than the rural population growth rate. It is found that urban-rural growth differentials increased from 1.1 percent per annum during 1991-2001 to 1.6 percent per annum during 2001-2011. At the state level, the pattern of urbanization is very diverse, but economically advanced states more or less mostly show higher level of urbanization. For instance, the urban-rural growth differentials is more than national average in Tamil Nadu (1.75%), West Bengal (1.86%), Karnataka (2.03%), Gujarat (2.19%), Haryana (2.75%), Andhra Pradesh (2.87%), North Eastern states (3.14%), Kerala (9.56%), and Delhi (10.51%). Conversely, economically less developed states like Himachal Pradesh (0.26%), Rajasthan (0.81%), Bihar (0.85%), Madhya Pradesh (0.87%) and Uttar Pradesh (0.96%) has a urban-rural growth differential of less than one percent per annum. It is to be underscored that the urban-rural population growth differential is a result of the difference in the natural increase (births-deaths) between rural and urban areas, net rural-urban classification and net rural-to-urban migration.

The urban-rural population growth differentials has declined from 1991-2001 to 2001-2011 in Tamil Nadu, Himachal Pradesh, Dadra and Nagar Haveli, Assam, Andaman and Nicobar Island, Punjab, Maharashtra, Pondicherry, Odisha and Madhya Pradesh. However, in other 15 states and north eastern states (combined) the urban-rural population growth differential has increased during 1991-2001 and 2001-2011. The major states which show an increase are Uttar Pradesh, Rajasthan, Haryana, Karnataka, Bihar, Gujarat, West Bengal, Andhra Pradesh and Kerala.

Table 6.1: Urban-rural population growth differentials according to states, Census 1991-2001 and 2001-2011.

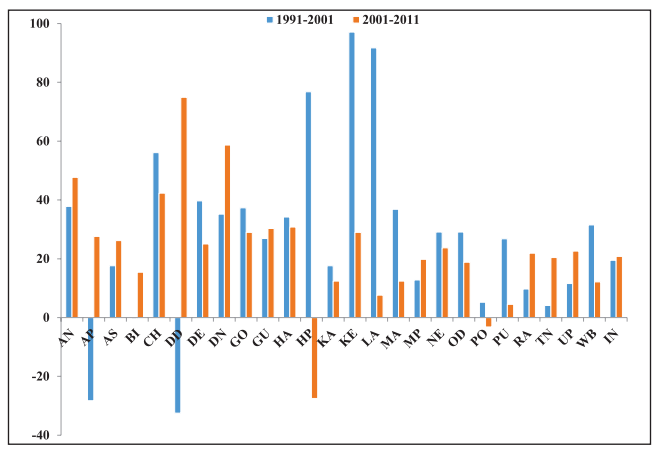
Census Year	Annual Exponential Rural Growth Rate	Annual Exponential Urban Growth Rate	Urban-Rural Population Growth Differentials
India			
1991-2001	1.65	2.73	1.08
2001-2011	1.15	2.76	1.61
Andaman & Nicobar Islands			
1991-2001	1.54	4.38	2.84
2001-2011	-0.12	2.11	2.23
Andhra Pradesh			
1991-2001	1.31	1.51	0.21
2001-2011	0.17	3.05	2.87
Assam			
1991-2001	1.53	3.24	1.71
2001-2011	1.44	2.46	1.02
Bihar			
1991-2001	2.39	2.57	0.18
2001-2011	2.09	2.94	0.85
Chandigarh			
1991-2001	3.31	3.39	0.09
2001-2011	-11.56	2.39	13.95
Daman & Diu			
1991-2001	6.24	1.88	-4.36
2001-2011	-5.13	11.60	16.72
Delhi			
1991-2001	-0.05	4.21	4.25
2001-2011	-8.13	2.38	10.51
Dadra & Nagar Haveli			
1991-2001	2.94	14.60	11.66
2001-2011	0.74	11.58	10.83
Goa			
1991-2001	-0.19	3.35	3.54
2001-2011	-2.05	3.02	5.07
Gujarat			
1991-2001	1.59	2.84	1.25
2001-2011	0.89	3.07	2.19
Haryana			
1991-2001	1.92	4.11	2.19
2001-2011	0.94	3.69	2.75
Himachal Pradesh			
1991-2001	1.49	2.82	1.33
2001-2011	1.19	1.45	0.26

Census Year	Annual Exponential Rural Growth Rate	Annual Exponential Urban Growth Rate	Urban-Rural Population Growth Differentials
Karnataka			
1991-2001	1.16	2.56	1.40
2001-2011	0.71	2.74	2.03
Kerala			
1991-2001	0.96	0.74	-0.22
2001-2011	-3.00	6.56	9.56
Lakshadweep			
1991-2001	3.99	-0.77	-4.76
2001-2011	-8.68	6.24	14.92
Maharashtra			
1991-2001	1.42	2.97	1.55
2001-2011	0.99	2.12	1.14
Madhya Pradesh			
1991-2001	1.83	2.73	0.90
2001-2011	1.68	2.55	0.87
North Eastern states			
1991-2001	2.28	3.15	0.88
2001-2011	1.00	4.14	3.14
Odisha			
1991-2001	1.32	2.64	1.33
2001-2011	1.11	2.39	1.27
Pondicherry			
1991-2001	1.13	2.27	1.13
2001-2011	1.93	2.74	0.80
Punjab			
1991-2001	1.19	3.21	2.02
2001-2011	0.75	2.30	1.55
Rajasthan			
1991-2001	2.43	2.72	0.29
2001-2011	1.74	2.55	0.81
Tamil Nadu			
1991-2001	-0.52	3.65	4.17
2001-2011	0.64	2.39	1.75
Uttar Pradesh			
1991-2001	2.13	2.85	0.72
2001-2011	1.63	2.58	0.96
West Bengal			
1991-2001	1.57	1.81	0.25
2001-2011	0.74	2.60	1.86

6.3.2 Contribution of net rural-urban migration in urban population increase

Figure 6.1 provides the percent contribution of net rural-urban migration in urban population increase during 1991-2001 and 2001-2011 using Census data. It is seen that one fifth of the increase in urban population is due to net rural-urban migration. At national level, a slight increase in the contribution is visible from 19.5% in 1991-2001 to 20.8% in 2001-2011. State-wise figures, however, reveal a wide range of disparity. Among major states, during 2001-2011, the contribution of net rural-urban migration in urban population increase is more than 15 percent in Bihar (15.4%), Odisha (18.8%), Madhya Pradesh (19.8%), Tamil Nadu (20.4%), Rajasthan (21.9%), Uttar Pradesh (22.6%), North Eastern states (23.7%), Assam (26.2%), Andhra Pradesh (27.6%), Kerala (29.0%), Gujarat (30.3%) and Haryana (30.8%). During the last two censuses this percentage has surged substantially not only in the northern states like Madhya Pradesh, Uttar Pradesh, Rajasthan, and Bihar but also in the Southern states like Tamil Nadu and Andhra Pradesh. On the other hand, it has declined in Himachal Pradesh, Kerala, Maharashtra, Punjab, West Bengal, Delhi and Odisha. A wide difference in the results using two approaches is visible (Appendix Table A 6.1). This suggests that there is a huge misreporting in the duration of residence at the place of residence.

Figure 6.1: Net increase in rural-urban migration to urban population increase, 1991-2001 and 2001-2011 (%)



Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for 2001 and 2011.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)
4. For better illustration only the major states have been shown in the graph (full table is provided in Appendix Table A 6.1).

CHAPTER **7**

Part 1: Summary and Conclusions

In most of the major states and UTs gradual increase in the life time migration rate is observed with exceptions of Kerala and Madhya Pradesh. On the other hand inter-censal migration rate for all India has increased from almost eight per cent in the initial two decades to 11 per cent in the latest decade. Except Delhi most of the major states observed increase in inter-censal migration rate from 1991- 2011. It is important to note that increase in migration rate was very steep in Goa, Kerala and Tamil Nadu during the last decade.

Observing gross inter-state flow it is clearly visible that initially major volume of migrants came from Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan during 10 years preceding Survey conducted in 1993. On the other hand main receivers were Maharashtra, Delhi, Haryana and Madhya Pradesh. During the latest survey round (2007-08) Uttar Pradesh remained still the major out migrating state while major receivers states were Delhi, Maharashtra, Gujarat and Madhya Pradesh in this period. Net migration related results suggest that states like Punjab, Gujarat, Goa, Karnataka, and Kerala were earlier net out-migrating states but they have become net receivers in the course of time. On the other hand Madhya Pradesh, Odisha and Rajasthan are showing reverse trend of becoming out-migrating states. West Bengal is still a receiver state; however, volume of net- in migration has become negligible in the last reference year. Union territory of Delhi shows a strange pattern of positive net-in migration during 1993, then negative (out migration) during 1999-2000 and again in the third reference period (2007-2008) it has become a big receiver of migrants. It may be ascertained to the boundary changes in the UTs during last one and half decades.

Considering employment related migration (labour migration), results are quite different. A huge volume of outflow of labour could be observed from Uttar Pradesh (0.65 million) and Bihar (0.46 million) during the first survey round (1993) and Rajasthan, Kerala and Karnataka are also major senders of labour to other states during this period. Prominent receivers are Maharashtra, Delhi, Haryana, West Bengal and Gujarat. This flow pattern has greatly changed over the period of time as far as receiving states are concerned. Labour exodus from Uttar Pradesh is destined to Maharashtra, Delhi and Gujarat. Delhi, Gujarat and Karnataka emerged in this period as major receivers which shows the shift in the migration pattern from last round. Importantly, We observe consistent rise in the net out-migration of labour from Uttar Pradesh and Bihar, however, the rise in former from last round to current round is drastic. An out-migration pattern is also noticed from Assam, Kerala, Odisha and Rajasthan. However, there is a consistent decline in the net volume from Kerala which may be attributed to the recent trend of replacement migration (Anand, 2017). Furthermore, steady increase in the net in-migration could be observed in Maharashtra, and Gujarat. Karnataka is net sender during 1993 but became net- receiver during the latest reference period (2007-2008). West Bengal has become a net sender in the last one and half decade while Delhi became a major receiver of migrant labour in the latest round.

Results related to indirect estimation using Census Survival Ratio (CSR) method are in correspondence with results of the NSS for the year 2007-08. The lesser developed states Uttar Pradesh, Bihar are the net out-migrating states. Results are in tune with the NSS results as far as in-migrating states are concerned; only exception is the Tamil Nadu which turned out to be the largest receiver of migrants during 2007-2008.

Results from IHDS data suggest that households having at least one non-resident member has increased to almost double in seven years time period. Non-resident member households are more in rural than urban areas, also an increase in both the areas is visible over time. Economically less developed states like Bihar, Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Rajasthan and Chhattisgarh have more non-resident member households. Contrarily, economically better off states like Maharashtra, Tamil Nadu, Andhra Pradesh, Pondicherry and Kerala have comparatively lesser non-resident member households. Also the increase over the years is less in these states compared to the aforementioned less developed states.

It is noteworthy that households belonging to the higher socio-economic strata of the society have at least one non-resident member. A clear pattern of migration from north to south can be observed with the findings.

Earlier people were mostly attracted to the metros of another state, however, over the course of time an increase in the move to urban areas of same or another state is found. Very few people move to the rural areas of another state. Interestingly, people from economically developed states like Tamil Nadu, Maharashtra, Andhra Pradesh, Gujarat and Karnataka mostly make within state move. Contrastingly, people from less developed states like Bihar, Uttar Pradesh, Jharkhand, Odisha, Uttarakhand, Haryana and West Bengal move to another state. Interstate migration from, Kerala, especially to urban and metros is worth mentioning. A stark gender differences in the place of destination is visible with females mostly making a within state move and males generally making a move to urban areas. Interestingly, in the later years students irrespective of the gender move to urban areas which earlier were generally moving to rural areas within the states. Educated men and women usually make within state move to urban areas whereas lesser educated men move to urban areas of another state and lesser educated women mainly move to rural areas of the same state. With the exception of those engaged in 'professional, technical and related jobs' and 'farmers, fisherman, hunters, loggers and related workers' almost half of the persons engaged in other jobs move to urban areas of another state.

Majority of the spouses and other migrants send remittances to their family. Students irrespective of the gender receive remittances sent by their households whereas a higher percentage of parents neither send nor receive remittances. Except students, a gender divide is visible across all the other categories. It is worth mentioning that the remittances (in rupees) received or sent has increased substantially over the year.

Results related to the prevalence and patterns of seasonal migration suggest that seasonal labour migration is more of a rural phenomenon. All the major central northern and eastern states have comparatively higher prevalence of seasonal labour migration considering the duration of the last five years. Almost 22 million people have migrated seasonally during this period, if we consider the one-year period then number declines to 13.2 million which is quite close to the NSS figure of 2007-08. Males, lower educated persons and those from the lower social strata (SCs/STs) are more prone to migrate seasonally. Seasonal labour migrants generally migrate alone.

Results related to urban-rural population growth differentials suggest that the average growth rate of the urban population increased from 2.73 percent in 1991-2001 to 2.76 percent in 2001-2011 while rural population growth has declined from 1.65 percent to 1.15 percent. Economically advanced states more or less exhibit a higher level of urbanization; on the other hand economically, lesser advanced states have lower level of urbanization.

The contribution of rural-urban migration in urban population increase has surged slightly from 19.5 percent in 1991-2001 to 20.8 percent in 2001-2011. State-wise figure, however, reveals a wide range of disparity. The contribution of rural-urban migration is more than one-fifth in Tamil Nadu, Rajasthan, Uttar Pradesh, North Eastern states, Assam, Andhra Pradesh, Kerala, Gujarat and Haryana.

Part 2

Unequal Development and Its Influence on Migration

CHAPTER **8**

Characteristics of Uneven Regional Development

In this chapter, we have explored the behaviour of some key economic variables over the period 1993-94 to 2011-12 across states and have also projected these variables for the period up to 2031. This provides an insight into the pattern of uneven development across states and how this might influence the pattern of inter-state migration. In the next section, we explore the influence of these and other variables on the pattern of inter-state migration over the 1992-93 to 2007-08 period for which migration data is available from the National Sample Survey.

Demographic variables are considered to exercise an important influence on migration. However, as explained earlier in chapter 1, in this study, we see the labour force as a more proximate influence on migration since labour force is a direct determinant of labour supply / demand. Labour force, and changed therein is influenced by the population and its structure but also by other economic and behavioral variables, the nature of which may change over time. Thus, we have examined labour force and its growth, and projected the same for the future years. Apart from aggregate labour force, we have also projected labour force changes by age group, and further still, we have also projected the education attainment of the labour force by age group. This has been done recognizing that education attainment of the labour force is a key determinant of the human capital quality of the labour force and also of the level of participation of men and women in the labour force.

Economic growth may be considered to have an influence on employment growth and the relationship between them is given by employment elasticity. This

is analysed next across states. Following this, we project the unemployment rate for future years to assess whether the supply of workers outstrips their effective demand for workers in any systematic way.

Per capita income (GSDP), being a proxy for the level of living in a state, has an independent influence on migration and we therefore analyse whether the per capita incomes have converged /diverged across the states.

Finally, since wage differentials can also have an important influence on migration, this section analyses wage behaviour across the states for different time periods.

The following section carries out a multivariate (regression analysis to examine the determine the determinants of inter-state migration in India.

8.1 Labour Force and the Labour Force Participation Rate

Since migration comprises the movements of population, population and its dynamics has naturally been the focus of migration studies. At the same time, the decision to move most often depends on an economic calculus, although also deeply influenced by other factors – social, psychological, ecological, and political. This brings labour market dynamics to the centre-stage leading to a spatial analysis of labour markets.

The supply side of labour in any region is constituted by the number of people who are willing to work i.e. willing to join the labour force. This number is influenced, first and foremost, by the size and structure of the population and in the first instance, population in the working age group is a proxy for labour force. However, population ceases to be a good proxy if there are significant variations in labour force participation rates, given the population size and structure.

A perusal of 15 plus labour force participation rate (LFPR) across countries shows that it varies from a low 40s to a high 80s. World Bank indicators based on ILOSTAT data base (updated till September 2018) show significant variations even at the global regional level (ILOSTAT 2018). For 2018, the LFPR for 15 plus population (as percentage of population in the age group) ranged from 48.26 in Middle-east and North Africa, to 54.51 in South Asia, 59.09 in Europe and Central Asia, 61.97 in North America, 64.1 in Latin America and the Caribbean, 67.62 in East Asia and the Pacific, and 68.35 in Sub-Saharan Africa. There are naturally larger variations in LFPR across countries. Within South Asia, India's LFPR was

53.65. These variations in LFPR are not only determined by demographic structure and transition but also by various behavioral, growth-related, and policy variables. This explains the fact that countries in Europe and North America which well into demographic transition still have higher LFPR than South Asia.

The variations in aggregate LFPR are largely due to the variations in the LFPR (15 plus age group) of women which shows much larger variation across countries. ILO modeled estimates across 193 countries for 2018 show that the female LFPR varies from 5.82 to 86.01 with a coefficient of variation of 30.27. On the other hand, male (15 +) LFPR varies from 38.74 to 94.66 across countries with a coefficient of variation of 12.50.

The specific reasons for the low LFPR are not a subject of this paper which is mainly concerned with the pattern of variation and its future projections. Just as much as the LFPR varies regionally, the growth rate of the labour force across time also varies. Again, an important driver of the growth of labour force is the changing demographic structure and the growth of persons in the working age group. But other socio-economic influences also play an important role in the growth of the labour force over time.

In order to understand how the growth of labour force will change across time in India, this paper has used two alternative methods (See Methodological Note in Annexure).

First, it has used the annualized average compound growth rate of labour force over the successive NSS Employment rounds for 1993-94, 1999-00, 2004-05, and 2011-12 to project the labour force in 2016-17, 2021-22, 2026-27 and 2031-32. These, and the projected population estimates by Kulkarni (2017), have then been used to compute the projected LFPRs.

Second, it has updated an exercise carried out by the National Commission for Enterprises in the Unorganised Sector (NCEUS 2009). The NCEUS carried out the exercise of projecting the labour force on the basis of state-wise population projections by age and sex prepared independently for the Commission from Census figures up to 2001 as well as labour force characteristics available from the Employment-Unemployment Surveys up to 2004-05 (61st Round). Currently, the NSS Employment round results for 2011-12 are now available and an updated state-wise population projection by age and sex has been prepared for the UNFPA by Professor Kulkarni. It is, therefore, now possible to update and modify the

NCEUS results. It may be mentioned that this methodology first projects the LFPR based on past trends and then uses the population forecast to estimate the projected labour force.

This paper uses the NCEUS methodology for projecting the estimated labour force participation rate, by age groups for 2016, 2021, 2026 and 2031. The NCEUS methodology computes the average annual rate of change in LFPR over the successive rounds (in this case the four NSS rounds) and uses tis rate of change to project the LFPR. The LFPR and the projected population can then be used to project the state-wise labour force, by sex.

It may be observed that apart from providing a better basis for understanding one of the drivers of migration viz. labour force and its growth across states, these estimates have been used to provide projections of a key labour force characteristic viz. education. Thus, these estimates provide a clearer basis of understanding the possible sources of demographic dividend across Indian states.

8.1.1 Existing Labour Force, LFPR, and Growth Rate of LFPR

The estimates of labour force, labour force participation rate, and growth rate of labour force between 1993-94 and 2011-12 is given in Appendix Tables A8.1.1.1 and A8.1.1.2. At the national level, the labour force (all ages) increased from 380 million in 1993-94 to 406.9 million in 1999-00, and 482.3 million in 2011-12. Thus, the labour force increased annually at the rate of 4.5 million between 1993-4 and 1999-0 and by 6.28 million annually between 1999-0 and 2011-2. Period-wise, the growth rate of labour force increased from 1.14 percent to 1.43 percent. However, the LFPR for all ages declined from 42.5 percent in 1993-4 to 40.48 percent in 1999-00 and 39.2 percent in 2011-12. This shows that dependency ratios have been rising rather than falling right up to 2011-12.

Across large undivided states, the LFPR was the lowest in Bihar (27.84) in 2011-12, followed by Uttar Pradesh (34.08 %), Assam (34.95), which are late population transition rates, but also Haryana (35.02 %). At the other end, the LFPR in Himachal Pradesh (52.7 %) was nearly twice as high as Bihar, followed by Andhra Pradesh (47.9 %), Tamil Nadu (45.21 %), Maharashtra (43.67 %) and Karnataka (42.85 %). The growth rate of LF during 1999-00 and 2011-12 was the lowest in Tamil Nadu (0.13 %) and Kerala (0.14%) while it was highest in Himachal Pradesh (3.01%), West Bengal (2.17%) and Haryana (2.05%).

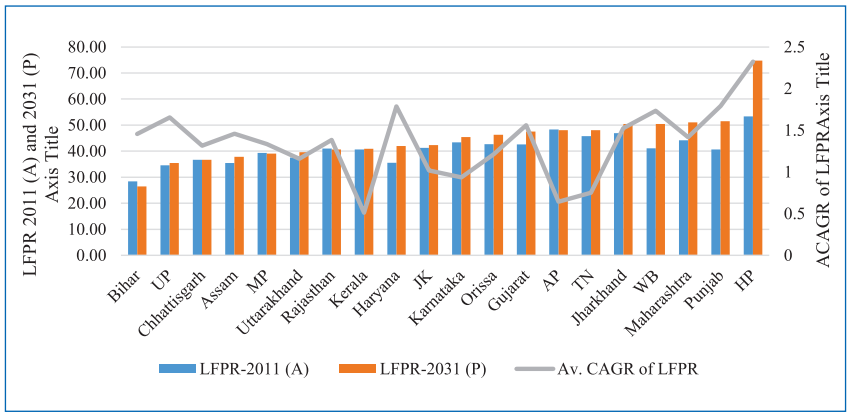
8.1.2 Labour Force Projections up to 2031

As mentioned above, labour force projections have been made using two alternative methods. Detailed tables for the state level projections of the labour force (all ages and for the 15-59 year age group) are given in Appendix Tables A8.1.2.1 to A8.1.2.8. The discussion which follows is based on labour force projections for all ages only.

Projections based on Annual Average Compound Rates of Growth

The annualized average compound rate of growth of the labour force over 1993/94 to 2011/12 at the national level for states and all India is given in Appendix Table A8.1.1.2. The national level growth rate is 1.34 percent. For the states, the average rate of growth of the labour force ranges from 2.32 percent in Himachal Pradesh, 1.79 percent in Punjab and Haryana, and 1.73 percent in West Bengal at the higher end to 0.51 percent in Kerala, 0.64 percent in Andhra Pradesh and Telangana, 0.76 percent in Tamil Nadu and 0.94 percent in Karnataka at the lower end.

Figure 8.1: LFPR 2011, 2031 and Average CAGR of LF



At the national level, the LFPR is projected to increase from 39.83 percent in 2011 to 40.1 percent in 2021 and 41.78 percent in 2031. Several states show an increase in LFPR between 2011 and 2031. These include: Assam 35.41% in 2011, 36.09% in 2021; and 37.7% in 2031; Gujarat 42.57% in 2011, 44.19% in 2021, and 47.56% in 2031; Haryana 35.58% in 2011; 37.94% in 2021 and 41.99% in 2031; Himachal 43.39% in 2011, 62.37% in 2021 and 74.74% in 2031; Karnataka 43.39% in 2011, 43.67% in 2021; and 45.45% in 2031; Maharashtra 44.21% in 2011; 46.81% in 2021; and 51.07% in 2031; Odisha 42.71% in 2011; 43.91% in 2021, and 46.31% in 2031; Punjab 40.61% in 2011, 45.05% in 2021, and 51.45% in 2031; Tamil Nadu

45.77% in 2011, 46.20% in 2021, and 48.09% in 2031; West Bengal 41.09% in 2011; 45.02% in 2021, and 50.45% in 2031. On the other hand, the following states show a stagnant or declining LFPR: Andhra and Telangana, Bihar, Kerala, Madhya Pradesh, Rajasthan and Uttar Pradesh – along with the divided states of Uttarakhand and Chhattisgarh). Bihar, MP, Rajasthan, and Uttar Pradesh are late transition states, and they continue to show rising dependency rates right up to 1931. Figure 8.1 shows the state-wise LFPR for 2011 and 2031 as well as the average compound growth rate of labour force between 2011 and 2031.

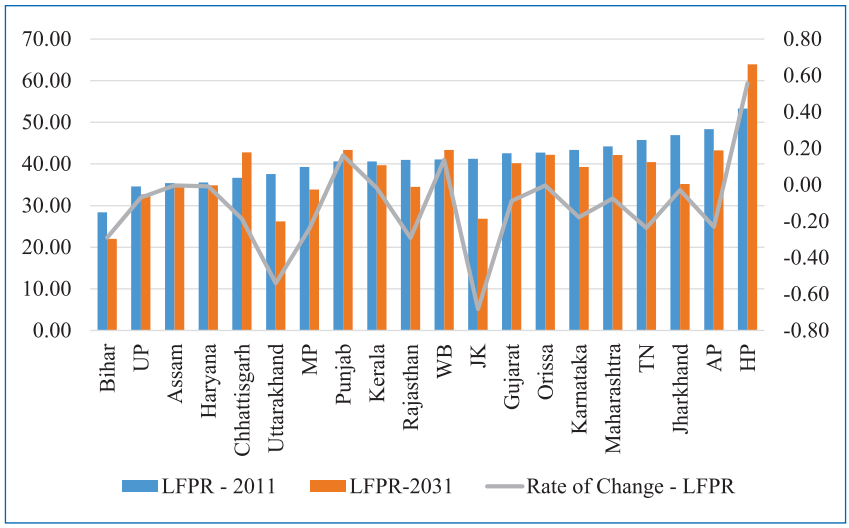
Overall these projections show the labour force increasing from 482.29 million in 2011 to 550.76 million in 2021 (6,84 million annually between 2011 and 2021) and 628.04 million in 2031 (7.73 million per year between 2021 and 2031).

Projections based on NCEUS Methodology

As explained earlier, the NCEUS methodology uses a computed average rate of change in LFPR to project the LFPR for future years. The detailed methodology is explained in the Methodology Note (Anenxure). This rate of change is given in Table A8.1.1.2. At the All India level, the average annual rate of change of LFPR was -0.13 percent.

The projections show that there will continue to be wide variations across states both in the LFPR and the growth rate of labour force. The changes between 2011 and 2031 are summarized in Figure 8.2. Only three states (Himachal, Punjab and West Bengal) showed a positive rate of change, while all others showed a negative rate of change. The highest average rates of decline in LFPR were in Jammu and Kashmir, Uttarakhand, Bihar, Rajasthan, and Uttar Pradesh. By 2031-32, the LFPR in Bihar will continue to be the lowest (20.03 %), followed by Uttarakhand (26.21%), Jammu and Kashmir (26.87 %), Uttar Pradesh (32.68 %), and MP (33.87 %). The states with the highest projected LFPR in 1931 are HP with an estimated LFPR of 63.93, followed by West Bengal and Punjab (43.38%), Chhattisgarh (42.80%), Odisha (42.19%), and Maharashtra (42.16 %). Most states with low LFPRs are in the Centre and Eastern regions, whereas those with high LFPRs are in the South, West and North-west regions of the country. As per these projections, the gap between the states with the highest LFPR (Himachal) and lowest LFPR (Bihar) will increase between 2011 and 2031. As per these projections, the falling LFPR does not reflect a potential dividend across most states, except a handful which show a rising LFPR.

Figure 8.2: Annual Rate of Change in LFPR & LFPR 2011, 2031 (NCEUS Method



The projected labour force as per the NCEUS methodology is much less than the labour force projections using the annualized compound growth rate method. The total labour force (all ages) will increase to 521.7 million in 2021 and 552.5 million in 2031. The annual estimated increase in labour force will be 4.62 million during 2011-12 to 2021-2 and only 3.08 million between 2021 and 2031. In the 15 to 59 working age group, the total labour force will rise from 426.75 million in 2011-12 to 477.55 million in 2021-22 and 488.67 million by 2031-32 or by 5.08 million annually during 2011-12 to 2021-22 and only 1.11 million annually between 2021-22 and 2031-32.

Conclusion

In this section of the paper, we have focused on spatial and temporal variations in participation in the labour force as a key component of labour market dynamics on the supply side. The LFPR varies across Indian states, mainly, as is also the case globally, due to variations in female FLPR. This variation, which is due to socio-economic factors, is not explored here. But it can be seen that LFPR tends to higher in states with a higher level of economic activity, among other things. Given the LFPR, it's growth can be determined by population dynamics and other socio-economic factors. We find that our projections suggest wide variations in labour force growth across states and regions of the country.

In chapter 1, we noted that Kulkarni (2017) has provided the following criteria for identifying the population dividend: first, a sixty percent share of the population

in the productive age group of 15 to 59, or a dependency ratio of less than two-third. Second, a declining dependency ratio, in phase 1 from above two thirds to two-third; in phase 2, dependency ratio below two thirds and declining, and finally, dependency ratio below two thirds but increasing. As per the population age structure, Kerala, Tamil Nadu, AP, Gujarat and Karnataka were already in Phase 2 by 2001 and would enter Phase 3 between 2015 till about 2021. States like Punjab, West Bengal, Maharashtra, Odisha, Haryana, Assam and Chhattisgarh would enter Phase 2 between 2001 and 2011, and states experiencing demographic transition (Uttarakhand, UP, J&K, MP, Rajasthan, Jharkhand, and Bihar) would enter Phase 2 between 2011 and 2015. In other words, all states would experience declining dependency ratios after 2001, and although some states would start experiencing a rise after 2015, these ratios would still remain below two-third (this would apply only to early transition states, while all most others would continue to experience a decline till 2021 and the slowest transitioning states (UP, MP, Jharkhand, Rajasthan, Bihar) the dependency ratio would decline till 2031. However, using LFPR to define dependency ratios, the state-wise picture is quite different. The all India LFPR declined to below 400 as did the LFPR for most of the late transitioning states. After 2011, the two methods of LF / LFPR projections give different results, but both do not give the same picture of a dividend as the population share. The NCEUS method based projections show a decline in all India LFPR as well as that of most states and the LFPR for the late transitioning states, as well as a few other states (Haryana, Karnataka, Kerala) remain below 400 even in 2031. The alternative projection methodology based on averaged compound growth rate of LF shows an improvement in LFPR for most states, but still the LFPR of most late transitioning states remains below 40 (i.e. by this estimate, they would be considered to be in Phase 1).

8.1.3 Age Group-wise Labour Force Projections

The five-year age group-wise labour projection by two methods used in this study is given in Appendix Table A8.1.3.1. The age pyramids for the labour force using the two different methods is given in the figures which follow (see Appendix). Table A8.1.3.2 gives the state-wise share of the labour force in the age groups 15 to 24 and 25 to 34 from 2011 to 2031. The summary table 8.1 provides age group wise labour force projections focusing on the youth segment. It shows that the labour force will increase for all older age groups (25 plus) between 2011-12 and 2031-32, and by implication, will decline for the younger age groups.

Table 8.1: Labour Force by Broad Age Groups – 2011-12 to 2031-32, All India

Age Group	Projected LF-NCEUS Method					Projected LF-Compound Average Method				
	2011-12	2016-17	2021-22	2026-27	2031-32	2011-12	2016-17	2021-22	2026-27	2031-32
Labour Force in million										
15-24	82.83	81.47	74.17	62.22	50.10	82.83	81.98	81.33	80.86	80.55
15-29	146.43	150.54	147.46	137.63	121.48	146.43	149.50	152.99	156.93	161.30
15-59	441.76	455.06	482.47	501.47	510.77	441.76	477.97	518.48	563.74	614.28
15 +	478.31	493.95	525.14	549.45	564.83	478.31	518.51	563.45	613.64	669.66
Youth Labour Force as % of Total Labour Force in 15 to 59 Year Age Group										
15-24	18.75	17.90	15.37	12.41	9.81	18.75	17.15	15.69	14.34	13.11
15-29	33.15	33.08	30.56	27.44	23.78	33.15	31.28	29.51	27.84	26.26
Youth Labour Force as % of Total Labour Force in 15 +Year Age Group										
15-24	17.32	16.49	14.12	11.32	8.87	17.32	15.81	14.43	13.18	12.03
15-29	30.61	30.48	28.08	25.05	21.51	30.61	28.83	27.15	25.57	24.09

NCEUS Method

The labour force in the 10-14 age group will decline from 3.90 million to nil in 2031-32 as per projected trends. For the 15 to 19 year age group also, the total projected labour force will decline from 28.73 million in 2011-12 to only 4.58 million in 2031-32. In the 20-24 year age group, the labour force is projected to decline from 54.10 million in 2011 to 45.52 million in 2031 (Appendix Table 8.1.3.1). Table 8.1 shows that the total labour force in both the 15 to 24 segment and the 15 to 29 segments (broad youth) will decline over the years as per this projection. In the 15 to 24-year segment, the youth labour force will decline from 82.83 million in 2011-12 to 74.17 million in 2021 and 50.1 million in 2031. In the 15 to 29 youth segment, the labour force will decline from 146.43 million in 2011 to 147.47 million in 2021 and to 121.47 in 1931.

As percentage of the 15 to 59 year labour force, the 15 to 24 year youth labour force will decline from 18.75 percent in 2011 to 9.81 percent in 2031, while the share of the 15 to 29 year youth segment in the 15 to 59 year labour force will decline from 33.15 to 23.78 over the corresponding period.

Average Compound Growth Rate Method

Projections made with this method show a faster rate of growth of labour force. However, a decline in labour force in the 15 to 24 year old segment is still registered – from 82.83 million in 2011 to 81.33 million in 2021 and 80.55 million in 2031. However, the broader youth segment shows an increase in labour force from 146.43 million in 2011 to 153 million in 2021 and 161.3 million in 2031. But as percentage

share in the 15 to 59 labour force, both these segments show a decrease over the years with the share of the 15 to 24 segment in labour force declining from 18.75 percent in 2011 to 13.11 percent in 2031, and the 15 to 29 year segment declining from 33.15 percent to 26.26 percent.

Table 8.2 gives the share of 15 to 24 year age group and 15 to 34 year age group in different states in 2011, 2021 and 2031. Projections show a decline in the 15 to 24 year group in the labour force in all states. Even for the 15 to 34 year age group, its share in the labour force is set to decline as per existing trends. While some states will experience a decline between 2011 and 2021 and a further decline between 2021 and 2031, other states will experience this decline after 2031. Kerala will experience the minimum decline in the share of the 15 to 34 year age group in labour force – its share will rise from 36.37 to 37.35 in 2021 and then decline to 35.65 in 2031.

Table 8.2: Projected Percentage Share in Total Labour Force (NCEUS Method)

State	15 to 24 years			15 to 34 years		
	2011	2021	2031	2011	2021	2031
Andhra Pradesh + Telangana	15.2	8.43	2.68	42.39	40.67	27.05
Assam	15.46	15.11	9.86	42.96	44.07	33.87
Bihar	16.46	16.59	9.49	41.67	42.35	37.19
Chhattisgarh	15.56	12.56	6.57	42.97	43.37	33.06
Gujarat	19.28	16.85	13.01	46.34	46.25	37.51
Haryana	16.9	9.85	3.91	46.76	44.97	32.6
Himachal Pradesh	13.51	8.19	4.66	38.46	38.22	29.37
Jammu and Kashmir	16.95	11.55	2.75	44.05	46.39	39.47
Jharkhand	16.78	16.3	10.73	43.2	43.23	37.46
Karnataka	16.59	9.8	4.57	42.92	41.81	28.77
Kerala	11.56	10.57	8.48	36.37	37.35	35.65
Madhya Pradesh	17.74	12.89	7.01	45.34	43.7	34
Maharashtra	15.87	12.72	7.72	43.51	44.14	35.92
Orissa	17.69	18.68	14.5	40.36	44.72	35.62
Punjab	18.92	15.11	10.54	46.37	45.72	39.05
Rajasthan	19.9	11.82	5.66	46.01	42.77	32.23
Tamil Nadu	13.29	11.41	5.06	39.3	42.33	31.29
Uttar Pradesh	21.36	15.19	10.83	44.53	41.56	33.09
Uttarakhand	13.87	8.45	0.03	38.73	44.8	34.86
West Bengal	17.63	16.42	11.9	44.12	46.31	39.4

Source: NSSO EUS

Thus, labour force participation provide a different picture of the share of youth workers in the coming years, with the labour force ageing and not becoming younger at the aggregate All India level and indeed also in all states.

8.1.4 Labour Force by Education Level

Over time, the share of the labour force with higher levels of education can be expected to increase, while the share of the illiterates and those with very low levels of education will go down. Appendix Tables A8.1.4.1 to A8.1.4.20 provide details of the projected labour force by age group and education level at the All India level and by States. The methodology of projection is given in the note on Methodology to this chapter in the Appendix.

Table 8.3 below shows the percentage share of labour force by education level for different age groups. At the aggregate level, for the entire labour force, the percentage with less than primary level of education will decline from 29.82 in 2011 to 9.06 in 2031. The percentage of labour force with below middle level education will decline from 43.57 in 2011 to 33.15 in 2031. On the other hand, the percentage of the labour force with secondary and higher education will increase from 30.01 to 44.93.

While some improvement in education attainment will take place in all age groups, the improvement is more marked for younger age groups which are experiencing higher enrollments and retention. In the 15 to 24 and 15 to 34 year age group in the labour force, the percentage of the labour force with less than primary education is set to decline to zero by 2031. In the 15 to 24 year age group, the percentage with secondary of higher education will increase from 34.12 in 2011 to 47.15. In the 25 to 34 year age group, this percentage will increase from 38.05 in 2011 to 55.20 in 2031.

Table 8.3: All India : Projected Labour Force (%) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	37.52	51.17	11.22	0.09	0.00	100.00
	15 to 24	14.77	27.61	23.51	25.05	9.06	100.00
	25 to 34	21.11	21.69	19.16	22.35	15.70	100.00
	35 to 59	35.74	23.17	13.81	16.41	10.87	100.00
	60 to 69	55.09	22.42	8.44	9.52	4.53	100.00
	70 and above	56.96	24.83	6.18	7.52	4.50	100.00
	Total	29.82	23.75	16.42	18.76	11.25	100.00

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2016	0 to 14	30.27	56.38	13.33	0.00	0.02	100.00
	15 to 24	8.00	28.27	25.34	27.57	10.82	100.00
	25 to 34	14.68	21.53	21.00	24.64	18.14	100.00
	35 to 59	31.15	23.38	15.07	17.96	12.45	100.00
	60 to 69	51.79	22.14	9.51	11.12	5.44	100.00
	70 and above	54.53	24.42	6.55	8.95	5.54	100.00
	Total	24.61	23.83	17.82	20.64	13.09	100.00
2021	**0 to 14**						
	15 to 24	1.23	28.94	27.17	30.08	12.58	100.00
	25 to 34	8.26	21.38	22.84	26.94	20.58	100.00
	35 to 59	26.56	23.58	16.33	19.50	14.03	100.00
	60 to 69	48.49	21.86	10.59	12.73	6.34	100.00
	70 and above	52.10	24.02	6.92	10.37	6.58	100.00
	Total	19.40	23.91	19.23	22.53	14.93	100.00
2026	**0 to 14**						
	15 to 24	0.00	29.60	29.00	32.60	14.34	100.00
	25 to 34	1.83	21.23	24.68	29.23	23.02	100.00
	35 to 59	21.96	23.79	17.59	21.05	15.61	100.00
	60 to 69	45.20	21.57	11.66	14.33	7.24	100.00
	70 and above	49.66	23.61	7.30	11.80	7.63	100.00
	Total	16.50	23.99	20.64	24.41	16.77	100.00
2031	**0 to 14**						
	15 to 24	0.00	30.27	30.83	35.12	16.10	100.00
	25 to 34	0.00	21.08	26.52	31.53	25.47	100.00
	35 to 59	17.37	24.00	18.85	22.60	17.19	100.00
	60 to 69	41.90	21.29	12.73	15.94	8.14	100.00
	70 and above	47.23	23.21	7.67	13.23	8.67	100.00
	Total	8.97	24.08	22.04	26.29	18.61	100.00

Source: NSSO EUS

The inter-state changes in the share of the labour force (15 to 59 years) with secondary or higher education is given in Table 8.4. While all states are expected to register an improvement in this share between 2011 and 2031, some states show a comparatively small improvement. These include West Bengal, Bihar, UP, Chhattisgarh and Madhya Pradesh. By 2031, apart from Delhi where nearly three-quarter of the workforce will be educated up to the secondary level at least, more than three=fifth of the workforce will be educated up this level in Kerala, Chhattisgarh, and Himachal Pradesh. More than half the workforce will be similarly

educated in Karnataka, Punjab, Tamil Nadu, Maharashtra and Uttarakhand. On the other hand, even by 2031, several states – Chhattisgarh, Rajasthan, West Bengal, Bihar, MP, and UP will still have a third or less of their labour force with at least a secondary level of education.

It is the inter-state differences in educational attainment of the labour force which is of greater significance, both in view of the fact that the late transition states will find it difficult to exploit the demographic dividend, if it at all exists, at the upper ends of the labour market, and demand for skilled and unskilled labour across states (and hence inter-state migration) will be influenced by the availability and supply of labour with different characteristics. The state-wise educational attainment of the labour force is given in Table 8.4.

Table 8.4: Projected Education Attainment of Labour Force, 2031 (%)

State	< primary	Primary	Middle	Sec/HS	Grad & above	Total
AP + Telangana	21.81	17.13	16.21	25.98	18.86	100
Assam	0.84	35.93	30.55	29.58	9.97	100
Bihar	13.38	30.15	18.10	28.00	10.37	100
Gujarat	7.76	22.86	27.35	25.82	16.21	100
Haryana	4.11	20.28	13.22	38.44	32.34	100
HP	4.43	32.92	7.89	57.61	19.93	100
Karnataka	1.81	20.27	19.70	32.49	25.73	100
Kerala	0.31	1.73	34.53	27.56	40.93	100
Maharashtra	8.74	32.41	23.54	20.66	14.65	100
MP	5.83	15.88	25.55	35.49	23.46	100
Odisha	3.89	25.59	38.32	20.28	11.90	100
Punjab	3.39	25.94	13.40	41.59	15.67	100
Rajasthan	21.56	27.51	19.26	16.96	14.70	100
Tamil Nadu	2.59	22.82	21.72	25.73	27.14	100
Uttar Pradesh	21.03	22.60	20.45	21.88	14.05	100
West Bengal	13.00	36.87	17.55	18.13	14.45	100
Uttarakhand	0.00	20.25	32.23	35.95	19.92	100
Jharkhand	9.47	33.52	16.58	26.65	13.78	100
Chhatisgarh	8.90	45.73	26.89	19.87	10.91	100
J & K	22.90	2.85	33.43	24.82	16.01	100
India	8.97	24.08	22.04	26.29	18.61	100

Source: NSSO EUS

By 2031, the share of the labour force with secondary or higher educational attainment would exceed 50 percent in several states – and crossing more than two-third in three states. In Himachal 77.54 percent of the labour force would have secondary of higher attainment, followed by Haryana (70.77), Kerala (68.49), Mahrahstra (58.95), Karnataka (58.22), Punjab (57.26) and Tamil Nadu (52.88). While three of these states are in the North and North-west, the others are in the Southern region.

At the other end, the share of the labour force with less than middle level education would still exceed two-fifth in several states. These include West Bengal where this share would be almost half (49.88), Rajasthan (49.07), Chhatisgarh (45.73), Uttar Pradesh (43.63), Bihar (43.53), and Madhya Pradesh (41.15). With the exception of West Bengal, the other states have the tag of BIMARU states are in the Centre and East of the country. By 2031, Kerala would have the unique distinction of having its entire labour force with at least a middle level of education.

We have focused in this section on the human capital characteristics. It can be seen that there are significant variations in both the stock of human capital and the improvements therein, across states. The projections in this study suggest that several states with high growth rates of labour supply show very small rates of improvement in the stock of human capital in the period under study.

8.2 Growth in GSDP, Employment, and Employment Elasticity

Based on the growth in output (GDP) and employment, we have estimated the employment elasticity figures (aggregate and sectoral) for the different sub-periods 1993-94 to 1999-00, 1999-00 to 2011-12, and the overall period viz. 1993-94 to 2011-12.

For the entire period (1994-2012), the aggregate employment elasticity is 0.19. Table 8.5 provides the summary results for Income Growth, employment growth and employment elasticity between 1994 and 2012 for different sectors and industry divisions. The detailed state-wise tables are given in the Appendix (A8.2.1 TO A8.2.32). Two sectors – agriculture and mining show negative employment elasticities over the period (-0.09 and -0.02 respectively). The elasticity of employment for non-agriculture over this period is 0.42, and for industry, it is 0.52. This is mainly driven by the employment elasticity of the construction sector (1.0) in which employment has also grown at the rate 8.19 percent annually . The employment elasticity for services is 0.37 and for manufacturing it is 0.27.

Table 8.5: Income Growth, employment growth and employment elasticity between 1994 and 2012

Sector/ Industry	GSDP Growth	Employment Growth	Emp. Elasticity
Aggregate	7.12	1.39	0.19
Agriculture	3.17	-0.28	-0.09
Non-agriculture	8.20	3.45	0.42
Industry	7.44	3.84	0.52
Services	8.61	3.14	0.36
Mining	4.56	-0.09	-0.02
Manufacturing	7.78	2.06	0.26
Construction	8.17	8.19	1.0
Electricity	6.22	0.54	0.09
Transpt., Storage & Communication	8.66	3.19	0.37
Trade & Hotels	11.15	3.89	0.35
Finance & Real estate	8.99	7.14	0.79
Public Admin. & Others	6.76	1.96	0.29

Source: CSO, NSSO-EUS

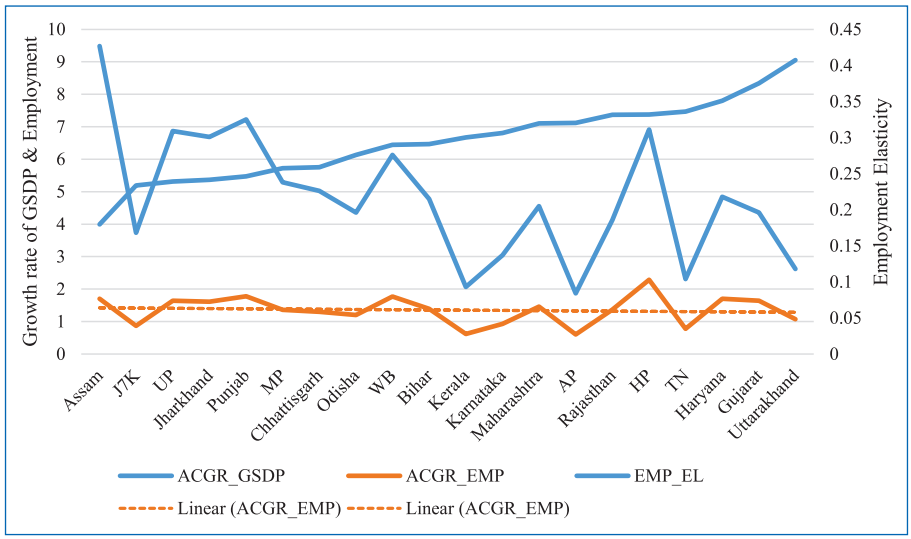
We have summarized the state level growth of GSDP, employment and elasticities in Figure 8.3. The states are ordered by the growth rate of GSDP over 1994 and 2012. As can be seen there is no systematic relationship between GSDP growth and employment growth. In fact, the trend line fitted to the employment growth rate has a slightly negative slope.

Examining the elasticity of employment for the individual states, it is seen that most of the states with low employment elasticity are high income and high growth, Uttarakhand (0.06), Gujarat (0.10), Tamil Nadu (0.16), Haryana (0.21). But several low income states have low employment and below average elasticities 0 UP (0.24), Odisha (0.25), and J & K (0.26). On the other hand, states with the highest employment elasticity are some of the low-income states – Jharkhand (0.63), Chhattisgarh (0.61), Bihar (0.49) and Rajasthan (0.40). But some high income states also show high employment elasticity – Punjab (0.51), Kerala (0.37), Maharashtra and Karnataka (0.37).

Examining the elasticity of employment for the individual states, it is seen that most of the states with low employment elasticity are high income and high growth, Uttarakhand (0.06), Gujarat (0.10), Tamil Nadu (0.16), Haryana (0.21). But several low income states have low employment and below average elasticities 0 UP (0.24), Odisha (0.25), and J & K (0.26). On the other hand, states with the highest employment elasticity are some of the low-income states – Jharkhand (0.63),

Chhattisgarh (0.61), Bihar (0.49) and Rajasthan (0.40). But some high income states also show high employment elasticity – Punjab (0.51), Kerala (0.37), Maharashtra nd Karnataka (0.37).

Figure 8.3: Growth of GSDP, Employment, & Employment Elasticity, 1994-2012

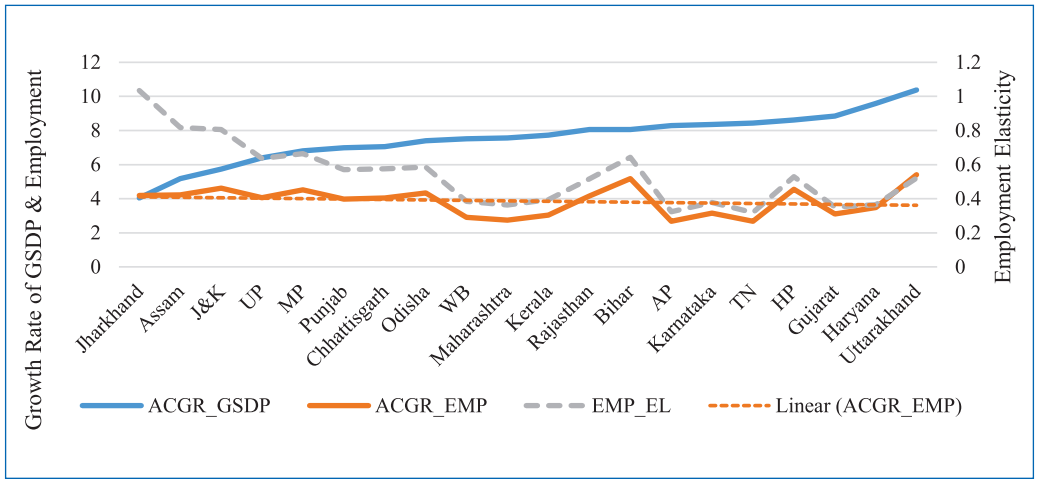


Source: NSSO-EUS, CSO-MOSPI

During this period, several states shed agricultural employment. This could possibly account for low aggregate employment elasticity. Thus, one could examine whether these were rapidly growing and rapidly industrializing states. In figure 8.4, we have summarized the results for growth in income and employment and employment elasticity for non-agriculture. However, one again we do not find any relationship between growth in non-agriculture at the state level and employment growth. Most high income – high growth states have low employment elasticity in non-agriculture, notable exceptions being Punjab and Karnataka.

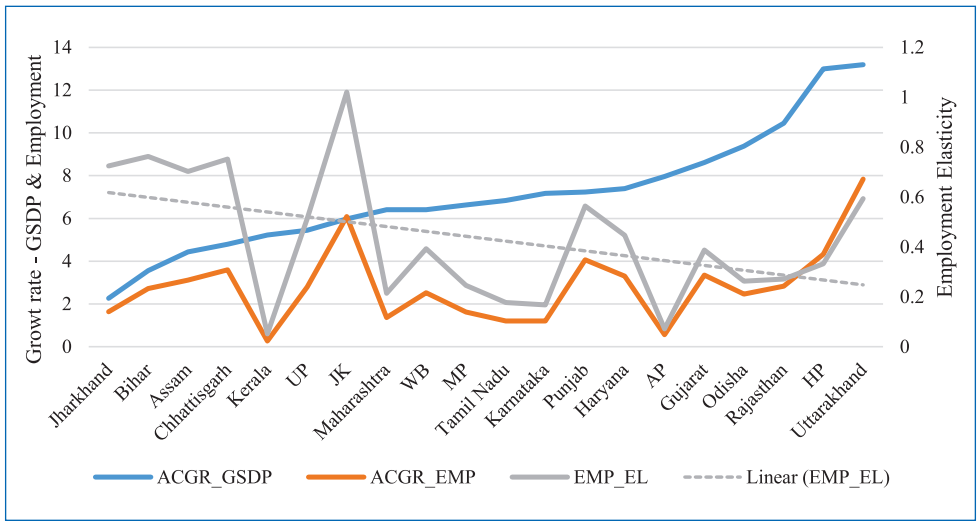
While industry-wise results are given in the Appendix Tables, results for manufacturing ate presented in Figure 8.5. Once again, growth of manufacturing and employment growth rate are not associated and the linear trend line fitted to employment growth has a slightly negative slope. Among states with high growth rate in manufacturing, some states (Gujarat, HP, Uttarakhand) also show higher than average employment elasticity, but other states with high growth rate (Andhra Pradesh, Odisha, Rajasthan) do not show higher than average employment elasticity.

Figure 8.4: Growth of Non-agricultural GSDP, Employment & Employment Elasticity, 1994-2012



Source: NSSO-EUS, CSO-MOSPI

Figure 8.5: Growth of Manufacturing GSDP, Employment, & Employment Elasticity, 1994-2012



Source: NSSO-EUS, CSO-MOSPI

In conclusion, the analysis of income growth, employment growth and employment elasticity across sectors/industry show that income growth may not be a good predictor of employment growth, either at the aggregate level or the sectoral/industry level. Consequently, growth alone may not be a good proxy of employment demand in the states.

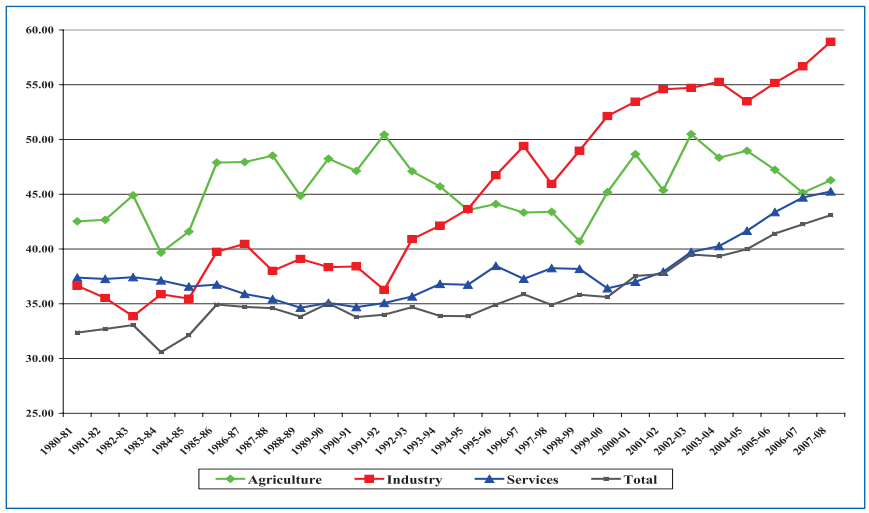
8.3 Variations in GSDP per capita Across States

While we see aggregate growth mainly in terms of its influence on the magnitude and nature of employment in the regional economy, income per capita is a proxy for the average level of living.

Several studies have focused on the trends in disparity between and within states in India. Almost all these studies show increasing disparity in growth performance as well as in per capita incomes overall in the 1990s and beyond. Nonetheless, the position of different states has not remained completely static, and there is upward and downward movement between low and middle income states as well as middle and high income states.

Income data for a period of over a quarter of a century (1980-81 to 2007-08), which also happens to be the period till which migration data is available from the NSS, was analysed by Srivastava (2009). The paper tested the hypothesis of increased divergence between states since the 1990s using unweighted and population weighted coefficient of variation and with an unconditional β-convergence test, carried out for total per capita incomes as well as sectoral incomes from agriculture, industry and the services sector.

Figure 8.6: CV by Sector (Population Weighted)



Source: CSO-MOSPI

The coefficient of variation (population weighted) for per capita income – shows an increase, over this period, with a sharper increase since the mid-1990s (see Figures 8.6). Sectoral GDP per capita trends reveal a more significant story.

There is no trend increase in the CV for agricultural GDP, but industrial GDP and services GDP both show an increase, which is sharper for the industrial sector. Unweighted CV for the industrial sector rose from an average of 35.4 percent during 1980-83 to37.6 percent during 1990-93, 46.1 percent during 2000-03 and 47.3 percent during 2005-08. Prima facie it appears that the faster rate of growth of the Indian economy since 2002-03 is associated with greater concentration of the industrial and services sector in certain states.

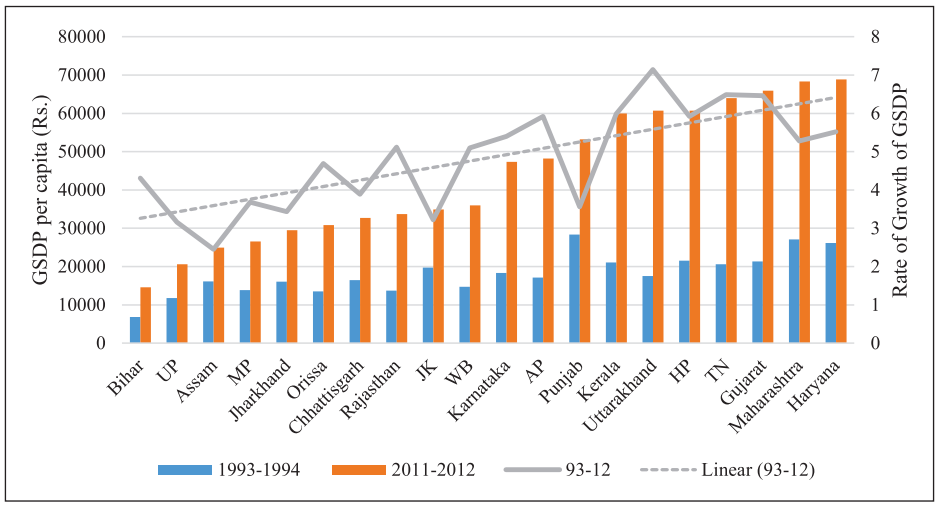
Using the unconditional β-convergence test, the paper found that the β coefficient for per capita income was slightly negative in the first period (1980-81 to 1999-91) at -.09, turned high and positive in the second period (1991-92 to 2007-08) with a value of 1.49 and was positive (0.80) over the entire period (1980-81 to 2007-08) (Table 8.6). The β -convergence tests for per capita sectoral output show a more nuanced picture of spatial pattern of growth over this period, but with all major sectors inequality between states increased after 1991-92 (ibid.).

Table 8.6: Estimated β Coefficients

Year	Total	Agriculture	Industry	Services
1980-81 to 1990-91	0.079	**-2.176**	**-0.266**	**-0.709**
191-92 to 2007-08	1.617	0.205	0.907	0.903
1980-81 to 2007-08	0.810	**-0.786**	**-0.08**	0.008

Source: National Accounts Statistics, own calculations

Figure 8.7: PCGSDP 1993-94, 2012 and Growth rate (2004 prices)



Source: CSO-MOSPI

GSDP per capita has been computed at 2004-05 prices for 1993-94, 1999-00, 2004-05, and 2011-12, and presented along with period -wise growth rates, in Appendix Table A8.3.1. The graphical representation of per capita GSDP in 1993-94 and 2012, and growth rate for the period is also presented in Figure 8.7, This clearly demonstrates the divergence in incomes over the period, with low income states experience lower growth rates.

The Economic Survey (2016-17) has also highlighted the continued divergence in incomes across Indian states. It finds that for the period 2004-2014, per capita income for the states continued to diverge, in contrast to China's performance. The Survey notes that this was despite the fact that some of the low income states (such as Bihar, Madhya Pradesh and Chhattisgarh) showed a pick-up in economic performance and growth rates.

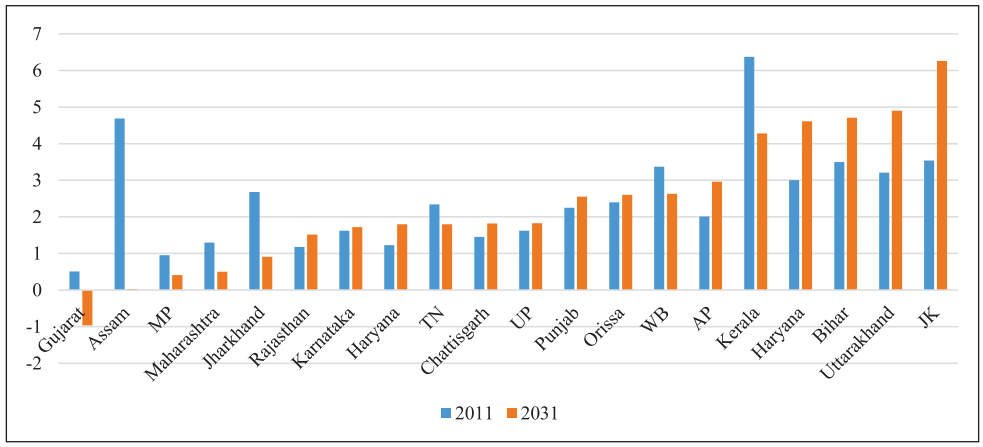
We can expect the continued divergence of average incomes across states to be important drivers of migration, a hypothesis that we test through the multiple regression analysis later in this study.

8.4 Unemployment Rates across States

Does unemployment push workers to migrate? Does excess demand for workers in certain states (proxied by low unemployment rates) create a demand for migrant workers? These questions can be analysed by examining existing and projected unemployment rates across states. The existing unemployment pattern is only partially consistent with the pattern of migration. For example, in 2011, Assam (4.69), Bihar (3.50), West Bengal (3.27), Uttarakhand (3.21), J&K (3.54) and Jharkhand (2.68) have high unemployment rates compared to the national figures (2.23) but on the other hand Rajasthan, UP and MP have low unemployment rates. Among net in-migrating states, while Gujarat, Karnataka and Maharashtra have low unemployment rates, this is not the case with Kerala (with the highest unemployment rate – 6.37 % in 2011), Karnataka or Tamil Nadu.

The annualised average compound growth rate method which has been used to project labour force has also been used to compute an average annual rate of growth of workforce based on the 1993-94, 1999-00, 2004-05 and 2011-12 workforce figures, which has then been used to estimate the workforce figures for 2016, 2021, 2026 and 2031. Unemployment figures and the projected unemployment rate has been projected using the labour force and workforce figures. The estimates are given in Appendix Tables A8.4.1 and A8.4.2. Summary results for 2011 and 2031 are also shown below in Figure 8.8.

Figure 8.8: Unemployment Rate by State, 2011 & 2031 (AACGR Method)



Although the magnitude and ranking of states does show a change in projected unemployment rates, the states with high unemployment rates, will continue to a mix of low income and net-out-migrating states such as J&K, Uttarakhand, and Bihar, along with high income and net in-migrating states such as Kerala, Haryana and Andhra Pradesh. At the other end, along with net in-migrating states like Gujarat, Maharashtra and Karnataka, which show low unemployment rates, states like Assam, Madhya Pradesh and Jharkhand also show low projected unemployment rates in 2031.

8.5 Inter-state Variation in Wages

Along with availability of employment, differentials in wages/earnings are considered to be an important driver of migration. We do not have estimates of earnings of the self-employed and have analysed differential in wages (casual and regular, casual and regular combined) as a proxy for average earnings. This analysis has been carried out for 1993-94, 1999-00, 2004-05 and 2011-12. The detailed results are presented in Tables A8.5.1 to A8.5.6 (Appendix).

Across the time periods, the following general conclusions can be made. First, the ranking between states has changed between the years but the same group of states appear to be in the category of high wage and low wage states. However, surprisingly some high-income states happen to be below the median wage level categories. These states also happen to be net immigrant states. Second, the absolute gap in real wages between states has increased. Third, however, the coefficient of variation between states in the different category of wages has, however, declined over the years. Finally, the coefficient of correlation between initial wages and

growth in wages continues to be positive. These results seem to suggest that wage differences along with other differentials would continue to drive migration.

Casual wage differentials can be expected to be a driver of low skilled workers. Between 1993-94 and 2011-12, state-wise wages and growth rate of real wages between 1993-94 and 2011-12 continue to be highly correlated (r=0.82) but the coefficient of variation in wages has declined from 38.81 in 1993-94 to 28.83 in 2011-12. The real wage gap between low wage and high wage states has increased in absolute terms, although not in relative terms. In 1993-94, the highest casual wage state (Punjab) and lowest casual wage state (Chhatisgarh) was Rs 318.20. In 2011-12, the gap between the lowest wage state (Chhatisgarh) and the highest wage state (Kerala) was 561.8.

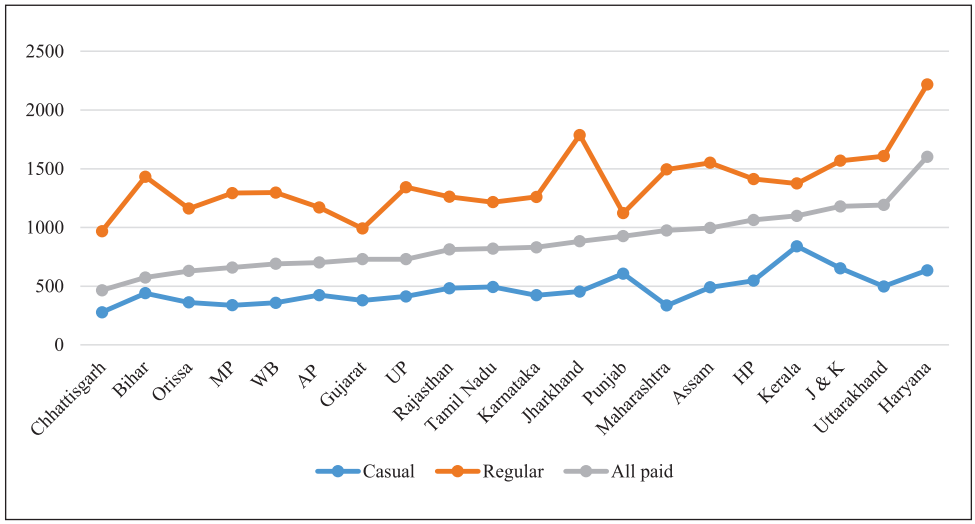
In any time period, real wages of regular wages are much higher than casual wages but unlike casual wages the coefficient of variation in real wages has increased marginally between 1993-94 and 2011-12 (from 18.16 to 20.75). Initial real wages and growth in wages between 1993-94 and 2011-12 are positively correlated by the coefficient of correlation was lower (0.36). The gap between state with the lowest real wage of regular workers and the state with the highest wage (J& K and Madhya Pradesh) was Rs 490 in 1993-94, and the similar gap between the highest wage state and lowest wage state (Haryana and Chhatisgarh) was Rs 1249 in 2011-12.

Real wages of all paid workers (both regular and casual) is a weighted average of the amount of wages and persons receiving such wages and there is a clear shift in the composition of real wages with the growth of the private sector. Overall, gaps are large with the correlation between initial wages in 1993-94 and growth in wages over the next 18 years high and positive (0.70). But the coefficient in variation in average wages has declined from 36.98 in 1993-94 to 29.98 in 2011-12. In 1993-94, the absolute gap in real average wages between J&K and Bihar (highest and lowest wage states) was 653.8. In 2011-2, the gap between the lowest and highest wage states (Haryana and Chhattisgarh) was Rs 1137.20.

The state-wise difference in different categories of real wages (casual, regular, and both together) is summarized in Figure 8.9. The states are ranked by average combined wages, left to right. Average combined wages are more than three times in Haryana compared to Chhatisgarh. Interestingly states such as AP, Gujarat, Tamil Nadu and Karnataka are in the second quintile from bottom (along with Rajasthan, UP, and Jharkhand). Indeed, both average casual and regular wages in Bihar were higher than in Gujarat, but the latter had overall higher wages, due to a higher

proportion of regular workers. Punjab, Haryana, Maharashtra, Kerala, Uttarakhand and J&K have combined wages in the higher quintiles, but Assam also figures in this category due to higher wages. Thus, it appears that although wage differentials are relevant and substantial, they may not always be the determining factor, the availability of employment may be a more important factor, at least in some cases.

Figure 8.9: Real Wages in 2011-12 across States



Source: NSSO-EUS

8.6 Conclusion

This chapter has analysed the various indicators of uneven state level development which also can be considered to exercise an influence on the magnitude and pattern of inter-state migration.

The size of the labour force, its growth rate, and the labour force participation rate across the states in India is a key variable signifying the supply side of labour and its growth. The LFPR is also a proxy for the potential earner ratio (inversely related to the dependency ratio). We have first analysed the past pattern of the labour force growth as well as the LFPR, and then projected these variables till 2031.

The results show that the while labour force grew from 380 million in 1993-94 to 482.3 million in 2011-12 (i.e. by 5.68 million annually), the LFPR declined from 42.5 percent in 1993-94 to 39.2 percent in 2011-12. Only Himachal, Punjab and West Bengal showed an increase in LFPR over the period. All other states, irrespective of the stages of their population transition, showed a decline in LFPR.

The late transition states, which are also the low-income states, had the lowest LFPR at the beginning and the end of the period. The decline, in general however, was smaller for them than for the early transition states such as Kerala and Tamil Nadu which experienced the lowest growth rates of labour force between 1993-94 and 2011-12.

Next, this study has projected Labour force LFPR for the period up to 2031. Two different methods have been used. The first method uses the average annualized compound growth rates of labour force to project it for 2016, 2021, 2026, and 2031. The independently projected population (Kulkarni 2017) is then used to estimate the LFPR for these years the second method computes the annual rate of change in LFPR, using the methodology of NCEUS (2009) and projects the LFPR for 2016, 2021, 2026, and 2021. The projected LFPR is then used with the estimated population from Kulkarni (2017) to estimate the labour force.

The two methods of LF / LFPR projections give different results. The NCEUS method-based projections show a decline in all India LFPR as well as that of most states and the LFPR for the late transitioning states, as well as a few other states (Haryana, Karnataka, Kerala) remain below 400 even in 2031. The alternative projection methodology based on averaged compound growth rate of LF shows an improvement in LFPR for most states, but still the LFPR of most late transitioning states remains below 40 (i.e. by this estimate, they would be considered to be in Phase 1). In general, the declining LFPR, due mainly to the decline in LFPR of rural women, so far offsets any advantage that may have accrued from the uneven demographic transition that is taking place in India.

The labour force have also been made for 2016 to 2031 by age groups. There is a presumption in the literature that the labour force in India is becoming younger. The analysis carried out in this study shows a decline a share of workers in the 15 to 24 year group in the labour force in all states. Even for the 15 to 34 year age group, its share in the labour force is set to decline as per existing trends. While some states will experience a decline between 2011 and 2021 and a further decline between 2021 and 2031, other states will experience this decline after 2021.

The labour force projections across age groups has also been extended to project the changing education attainment of the workforce across age groups and states. This is an important exercise since as the educational attainment of the workforce changes, so does its job seeking behavior. Less educated youth will predominate is low skilled jobs.

By 2031, the share of the labour force with secondary or higher educational attainment would exceed 50 percent in several states – and crossing more than two-third in three states. In Himachal 77.54 percent of the labour force would have secondary of higher attainment, followed by Haryana (70.77), Kerala (68.49), Mahrahstra (58.95), Karnataka (58.22), Punjab (57.26) and Tamil Nadu (52.88). While three of these states are in the North and North-west, the others are in the Southern region.

At the other end, the share of the labour force with less than middle level education would still exceed two-fifth in several states. These include West Bengal where this share would be almost half (49.88), Rajasthan (49.07), Chhatisgarh (45.73), Uttar Pradesh (43.63), Bihar (43.53), and Madhya Pradesh (41.15). With the exception of West Bengal, the other states have the tag of BIMARU states are in the Centre and East of the country. By 2031, Kerala would have the unique distinction of having its entire labour force with at least a middle level of education.

It can be seen that several states with high growth rates of labour supply show very small rates of improvement in the stock of human capital in the period under study. These states would most likely serve as labour pools for low skilled occupations across states.

Our analysis of per capita GSDP across states shows significant variations. Moreover, the analysis shows that not only is there a significant disparity between states in terms of average GSDP, states also continue to diverge i.e. the relative difference between them will continue to grow at present trends.

The study has carried out a detailed industry and sector-wise analysis of sectoral incomes, employment, and employment elasticity. The analysis shows that income growth may not be a good predictor of employment growth, either at the aggregate level or the sectoral/industry level. Consequently, growth alone may not be a good proxy of employment demand in the states. This may also be the case because employment includes all varieties of jobs, including jobs which are very low productivity and distress induced.

Does unemployment push workers to migrate? Does excess demand for workers in certain states (proxied by low unemployment rates) create a demand for migrant workers? These questions can be analysed by examining existing and projected unemployment rates across states. The results of this study do not show

a consistent relationship i.e. in-migrating states do not consistently show lower unemployment compared to out-migrating states. Again, this may be due to the fact that employment does not measure quality employment.

Finally, this chapter inter-state variations in wages (casual, regular, both) across time. There are large inter-state variations. For example, average combined wages are more than three times in Haryana compared to Chhatisgarh. Interestingly, however, states such as AP, Gujarat, Tamil Nadu and Karnataka (all in-migrating states) are in the second quintile from bottom (along with Rajasthan, UP, and Jharkhand). Indeed, both average casual and regular wages in Bihar were higher than in Gujarat, but the latter had overall higher wages, due to a higher proportion of regular workers. Punjab, Haryana, Maharashtra, Kerala, Uttarakhand and J&K have combined wages in the higher quintiles, but Assam also figures in this category due to higher wages. Thus, it appears that although wage differentials are relevant and substantial, they may not always be the determining factor for migration, and the availability of better quality or more employment may be a more important factor.

Since untangling the influence of these and other relevant variables would require multi-variate analysis, we turn next (in chapter 9) to regression-based analysis of the determinants of inter-state migration.

CHAPTER 9

Unequal Development and Inter-State Migration – An Econometric Analysis

9.1 Introduction

This chapter brings together findings based on the regression-based determinants of inter-state migration in India. As in evident from the discussion in the earlier sections, we explore the influence of the uneven demographic structure and economic development on inter-state migration. We do this by extending gravity-based models of migration which are popularly used to predict migration flows. Gravity models provide a tool to understand the economic phenomena relating to movements of goods and services, capital and people[1]. They provide a framework to analyse the determinants of flows between countries; in particular trade, migration or capital. The models assume that flows between two countries are directly proportional to their size (population or GDP) and inversely related to the physical distance between them. The simplest gravity model relates bilateral migration to the relative size of the origin and destination countries and the distance between them. However, there are other factors also that affect the flows. Therefore, the gravity models are extended to incorporate additional migration push and pull factors.

The pioneering work on the use of gravity to model migration patterns goes

1. The Gravity Model of Migration is a model, derived from **Newton's law of gravity**. Newton's law states that: "*Any two bodies attract one another with a force that is proportional to the product of their masses and inversely proportional to the square of the distance between them.*" Further, Tobler's Law of Gravity states that, "*Everything is related to everything else, but near things are more related than distant things.*"

to Ravenstein (1885, 1889) and seminal contribution of Timbergen (1962), while estimating the gravity equation of international trade flows. Further, analysis of Fertig and Schmid, 2000; Karemera et al, 2000; Kim and Cohen, 2010; Grogger and Hanson, 2011; Anderson 2011; Anderson and Wincoop (2003); Poot et al. 2016 and others gave the empirical application of the gravity model from various country level and country-specific studies. One of the recent contributions of Grogger and Hanson, 2011 has also provided the micro foundations in the context of migration analysis. The gravity model has also been enlarged with the addition of various pull and push factors (Clark, Hatton and Williamson, 2002; Gallardo-Sejas et al., 2006; Mayda, 2010). Studies of Santos Silva and Tenreyro (2006) and Martinez-Zarzoso (2013) emphasized the empirical applications of the multiplicative gravity model by taking natural logarithms and to estimate the obtained loglinear model using Ordinary Least Squares (OLS). Study of Sprenger (2013) has analysed the determinants of international migration in the European Union by using Migration gravity model. Using data on migration flows over the period 2000–2009, the paper examines the impact of traditional economic variables such as income and unemployment differentials, geographical and demographic factors. Physical distance is also played an important role in directing international migration within the EU. Ramos and Suriñach (2013) analysed the gravity model of migration between ENC and the EU. This study concludes that the demographic, geographical, social/historical and economic factors are relevant both to explain and to forecast migration patterns. These results also showed that once these different pull and push factors are controlled for migration flows from ENC countries to the rest of the world are higher than they should be according to the model. Study of Ullah (2012) applies the gravity model to investigate panel data of emigrants from Bangladesh to 23 destinations during the period from 1995 to 2009 by using the gravity model from the panel datasets. Empirical results under alternative specifications unveil that economic, demographic, and cultural factors have a significant influence on emigration decision.

A few Indian studies have also emphasized the determinants of inter-state and intra-state migration through extended migration gravity models. Amongst others, the study of Parida and Madheswaran (2012) analysed the aspect of gravity model (both intra- and inter-state aspects) by using census data. Including the gravity model determinates (distance and population), they have also included other explanatory variables for examining migration gravity model. This study found distance has a negative impact on migration and population has a positive impact on inter-

state and intra-state migration in India. Other explanatory variables include wages, PCNSDP, language and other factors on migration. Another World Bank study of Kone et al. (2017), by using census 2001 data, emphasizes various determinates of migration. Other studies such as, Hnatkovska and Lehri (2015); Srivastava and Sasikumar (2003); Srivastava (1998); Lusome, R. and R. Bhagat (2006) and others also emphasized the structure of migration in India from the India Census and NSSO migration datasets. In this study, the theoretical background for the empirical model has been borrowed from the gravity model for India. From the NSSO migration datasets, we have pooled the three-period datasets and accordingly analysed the single equation migration gravity model.

9.2 The Model

Since only the provisional D4 table of migration from the 2011 Census is available currently, and since this data does not allow us to empirically determine inter-state migration flows, we have used the NSSO 49th, 55th and 64th migration rounds for 1992-93, 1999-00 and 2007-08 in this study to examine the determinants of migration using an extended Migration Gravity model. In the two main variants of the model considered here, we have used population in the origin and destination states in one variant and labour force in the second variant. Along with these various macro and microeconomic data sets were taken from different sources to examine various determinants of inter-state migration[2]. As per the objective of this study' the major determinants of intra-state migration has been calculated. The dependent variable in this model is the inter-state migration. This variable has been taken from three migration surveys of India. As per the NSSO migration survey the migrants defined as, "those movements which resulted in change of the usual place of residence (UPR) of the individuals were treated as migration and a household member whose last usual place of residence (UPR) was different from the present place of enumeration was considered a migrant." Based on NSSO migration questionnaire, if the usual place of residence is different from the place of enumeration and migrations has taken place to another state (both in a rural and urban area) considered as inter-state migration. The analysis has done for major 18 states and combined north-eastern states excluding Assam. The regional level consists of 18 major states comprising Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Jammu and Kashmir, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar

2. Details of the variable list has given at the end of this chapter (Anenxure table).

Pradesh and West Bengal in India are taken for the purpose of present analysis. The newly added states such as Uttarakhand, Jharkhand, and Chhattisgarh were added to their parent states Uttar Pradesh, Bihar and Madhya Pradesh, respectively in the 64th migration round of NSSO for analytical purposes. All the diagonal elements come as zero except the combined states, for which each of the diagonal elements categorized as zero in this analysis. In this present analysis, the census adjusted weights were used while estimating the labour force and population parameters.[3] The data for the explanatory variables are taken from CSO-MOSPI (PCI GSDP) and other sources[4].

Hence, the analysis covers inter-state migration between 19 states / spatial units. The migration from parent state to destination state combination has been analysed. For e.g. from Bihar how much migration has occurred to other 18 states and so on. This includes 19*19 equal's 361 inter-state migrants' combinations per round. In this way for three migration rounds we got 361*3 equals 1083 combinations. By using the robust pooled regression analysis from the NSSO cross-sectional migration round, this study has explored various determinants of migration. Various pull and push migration factors as well as demand and supply sides factors which arise from the pattern of uneven growth and development, including the influence of demographic factors on labour force and its growth rate, have been incorporated in the regression analysis. Along with distance and population, the labour force indicator has taken in the model because, as discussed in earlier sections, Labour force and its growth is a key determinant of labour supply/demand, and workers migrate in expectation of better employment opportunities in the destination as compared to the origin is at the core of migration theory. We also took a whole set of other plausible explanatory variables in the extended gravity model representing uneven development of the States. These includes HDI, MPI, Poverty, percentage share of organized employment to total employment etc. After examining the regression results in alternative specifications, in the final specification, we have restricted our analysis to only a sub-set of the variables examined.

3. For details regarding computation of population projection kindly referred to the report no-554, 68th NSSO employment and unemployment survey. The census adjustment has done on the basis of census and NSSO employment data sets. First the Weighted NSSO population figure has estimated from the concerned NSSO employment and unemployment rounds both for rural-urban and male and female differently after that the given figures are divided by the concerned census population figures. After getting the ratios, that are multiplied with the multiplier figures to get the census adjusted weights.

4. See the Appendix for details

The simple version of the gravity model of migration is as follows[5]:

$$M_{ij} = G\frac{P_i^{\alpha} * p_j^{\beta}}{D_{ij}^{\gamma}} \quad \ldots(1)$$

M_{ij} refers to the number of people resident in area j who at an earlier point in time (usually one or five or ten years) resided in area i.

$P_i(P_j)$ refers to the population of i (j) usually measured at the beginning of the period over which migration is measured.

D_{ij} is some measure of distance between i and j and lastly,

α, β are parameters to be estimated and G is a proportionality constant that is context specific (dependent on the geography, time dimension, etc.).

There are also other variants of Gravity model, details of these are not presented in this analysis[6]. The popularity of this simple model was undoubtedly related to the ease with which the model could be estimated by ordinary least squares after a transformation into logarithmic form. The final variables included in the model are log of distance, log of population in the origin and destination (log of Labour Force as well in other models), language dummy, log of PCI NSDP in the Origin, PCI of NSDP in the destination, log of Net Sown Area, percentage of urbanization in the place of destination, percentage share of organized employment to total non-farm employment and lastly the growth rate of labour force both in origin and destination states. We have not taken the wage variables in the final model given the unexpected coefficient signs and the significance parameter of the variable. Details of the combined plausible set of variables given in the appendix.

In our analysis, we took different variants of four models for our analytical purposes. In the first, the dependent variables taken were includes inter-state gross migration flows from the origin to destination for all duration, migration period of up to ten years, and migration period up to five years. Among the independent variables, we included both population in the origin and destination at the aggregate level. In the second model, instead of taking the population, we took the labour force in the origin and destination keeping all other explanatory variables as earlier. In the third model, we took male migration for the three periods, as defined earlier,

5. The analysis and equation specified for migration gravity model follows from Poot et a. (2016)

6. See Anderson J.E. 2010; Greenwood MJ 1997; Parida and Madheswaran 2010; Anderson, J. E. and E. Van Wincoop 2003; Poot, J et al. 2016 and others for details

keeping all other explanatory variables unchanged. Lastly in the final model, we took the labour force (in log form) as explanatory variable, while male migration (for different periods) was the dependent variable. The equations from 2 to equation 5 represent the pooled ordinary Least square (OLS) estimation for inter-state migration. A detailed description of the explanatory variables and their expected signs given in the subsequent sections of the study.

$$lnM_{ij} = \beta_0 + \beta_1 lnD_{ij} + \beta_2 lnPO_i + \beta_3 lnPD_j + \beta_4 LD + \beta_5 lnY_i + \beta_6 lnY_j + \beta_7 lnNSAO_i + \beta_8 UDP_j + \beta_9 UNDP_j + \beta_{10} CAGRLF_i + \beta_{11} CAGRLF_j + \varepsilon_1 \quad ...(2)$$

$$lnM_{ij} = \beta_0 + \beta_1 lnD_{ij} + \beta_2 lnLFO_i + \beta_3 lnLFD_j + \beta_4 LD + \beta_5 lnY_i + \beta_6 lnY_j + \beta_7 lnNSAO_i + \beta_8 UDP_j + \beta_9 UNDP_j + \beta_{10} CAGRLF_i + \beta_{11} CAGRLF_j + \varepsilon_2 lnM_{ij} \quad ...(3)$$

$$= \beta_0 + \beta_1 lnD_{ij} + \beta_2 lnMPO_i + \beta_3 lnMPD_j + \beta_4 LD + \beta_5 lnY_i + \beta_6 lnY_j + \beta_7 lnNSAO_i + \beta_8 UDP_j + \beta_9 UNDP_j + \beta_{10} CAGRLF_i + \beta_{11} CAGRLF_j + \varepsilon_3 \quad ...(4)$$

$$lnM_{ij} = \beta_0 + \beta_1 lnD_{ij} + \beta_2 lnMLFO_i + \beta_3 lnMLFD_j + \beta_4 LD + \beta_5 lnY_i + \beta_6 lnY_j + \beta_7 lnNSAO_i + \beta_8 UDP_j + \beta_9 UNDP_j + \beta_{10} CAGRLF_i + \beta_{11} CAGRLF_j + \quad ...(5)$$

Variables used in the Analysis of Inter-state Migration in India

M_{ij}	Number of migrants whose previous place of residence was state i and whose present place of residence (1993, 1999-00 and 2007-08) was state j by the duration of residence in the destination place (Aggregate as well as 0-5 years and 0-10 years migration).
lnD_{ij}	The physical distance between the capital cities of states in i and j (both origin and destination)
$lnPO_i$	Total log of population of state i (During 1993, 1999-00 and 2007-08)
$lnPD_j$	Total log of population of state j (During 1993, 1999-00 and 2007-08)
$lnLFO_i$	Total log of LF of state i (During 1993, 1999-00 and 2007-08)
$lnLFD_j$	Total log of LF of state j (During 1993, 1999-00 and 2007-08)
lnY_i	Per Capita Net State Domestic Product (NSDP) at Constant 2004-05 Prices for state i (During 1993, 1999-00 and 2007-08)
lnY_j	Per Capita Net State Domestic Product (NSDP) at Constant 2004-05 Prices for state j (During 1993, 1999-00 and 2007-08)
LD	The language dummy takes value 1 for same language in origin and destination states and zero otherwise.
$lnNSAO_i$	Total log of Net Sown area as of rural population share in the Origin (During 1993, 1999-00 and 2007-08)
UDP_j	Total urban population share in the place of destination (During 1993, 1999-00 and 2007-08)
$UNDP_j$	Share of total organized sector employment in total non-farm employment (During 1993, 1999-00 and 2007-08)
$CAGRLF_i$	Labour force growth rate in the place of origin (During 1983 to 93, 1993 to 99 and 1999 to 2008)
$CAGRLF_j$	Labour force growth rate in the place of destination (During 1983 to 93, 1993 to 99 and 1999 to 2008)

9.3 Results

The OLS results have been presented here after checking the robustness and significance of the variables in the estimates, and correction for both heteroscedasticity. Further, possible serial correlation problems in the model also explored as per VIF

estimates. The VIF indicate that the degree of multicollinearity is very low for the selected variables. The R^2 (the measure of goodness of fit) for both the equations are quite reasonable along with high significance levels of F-statistics. Table 9.1 presents the basic summary statistics of the regression variables.

Table 9.1: Summary Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
log_ISM_all	941	9.62	2.17	2.94	14.87
log_ISM 0-5	843	8.93	2.04	2.21	13.92
log_ISM 0-10	891	9.19	2.11	2.21	14.39
log_ISM_Male	910	9.04	2.02	2.56	14.28
log_ISM 0-5_Male	799	8.49	1.89	1.63	13.49
log_ISM 0-10_Male	853	8.69	1.99	1.63	13.89
Log distance	1005	7.23	0.63	4.73	8.22
Log Population Origin	1083	17.44	0.89	15.49	19.10
Log Population destination	1083	17.44	0.89	15.49	19.10
Log LF Origin	1083	16.56	0.89	14.70	18.03
Log LF destination	1083	16.56	0.89	14.70	18.03
Language dummy	1083	0.14	0.35	0.00	1.00
Log PCI NSDP Origin	1083	10.00	0.47	9.01	11.33
Log PCI NSDP Destination	1083	10.00	0.47	9.01	11.33
Log NSA_R_P_Share	1083	5.10	0.58	3.75	6.13
Urbanization Destination (%)	1083	29.46	17.58	8.99	95.33
Organize Employment to NFE (%)	1083	17.32	8.57	4.90	44.76
CAGR LF Origin	1083	1.80	1.08	0.13	5.76
CAGR LF Destination	1083	1.80	1.08	0.13	5.76

The estimated results presented in Table 9.2, with log of population suggest that the gravity variables (population size and distance) are statistically significant (at 1%, 5% and 10% level). The Table shows that, while the population parameter in the destination place has a positive effect on migration, distance has a negative impact of inter-state migration at the aggregate level. The origin population size acts as a push factor for migration, while the size of destination population is a pull factor. Distance is the proxy for all migration costs and has played a negative role in the inter-state migration process in India. It is also statistically significant at one percent level. The language dummy also has a positive effect on migration. The level of per capita NSDP in the origin has a negative impact on migration while the

destination per capita SDP has a positive impact on migration. The coefficients of both origin and destination states' per capita net state domestic product are highly statistically (at 1% level). This finding is similar to Greenwood (1997) and Parida and Madheswaran (2010).

Table 9.2: Inter-state migration estimates (for aggregate population)

Variables	All-Population	All-0-5-Population	All-0-10-Population
	(1)	(2)	(3)
log_distance_new	-1.723***	-1.326***	-1.528***
	(0.0812)	(0.0868)	(0.0840)
log_Population_Origin	0.669***	0.633***	0.709***
	(0.0660)	(0.0729)	(0.0702)
log_Population_Destination	1.026***	0.943***	0.967***
	(0.0772)	(0.0859)	(0.0835)
language_dummy	0.365**	0.500***	0.386**
	(0.155)	(0.159)	(0.160)
log_PCINSDP_New_Origin	-0.404***	-0.251*	-0.289**
	(0.121)	(0.132)	(0.126)
log_PCINSDP_New_Destination	1.066***	0.884***	0.868***
	(0.176)	(0.190)	(0.184)
log_NSA_New_per_Origin	-0.332***	-0.366***	-0.419***
	(0.0767)	(0.0838)	(0.0799)
Urbanization_Destination_Percent	0.0123***	0.0140***	0.0169***
	(0.00458)	(0.00479)	(0.00491)
organise_nonfarm_destination_per	0.00898	0.0130	0.0160*
	(0.00833)	(0.00865)	(0.00860)
CAGR_LF_Origin_Growth	0.142***	0.109**	0.122**
	(0.0485)	(0.0526)	(0.0514)
CAGR_LF_Destination_Growth	-0.143***	-0.210***	-0.190***
	(0.0535)	(0.0574)	(0.0563)
Constant	-13.12***	-14.19***	-13.56***
	(3.541)	(3.751)	(3.690)
Observations	920	822	870
R-squared	0.587	0.517	0.551

Notes: Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The variable measures high economic prosperity which reflects in more activities, services and opportunities for people living in that area. The results suggest that origin income elasticities of migration are less than one (-0.404) whereas the destination income elasticities of migration are greater than one (1.066 in both

the equations). The same analysis has been carried out for 0-5 years and 0-10 years of migration. The results again reflect that the income variable at destination has a positive impact on the level of inter-state migration. The log of net sown area in the origin has a negative impact on the level of inter-state migration (-0.332) (it is statistically significant at one percent level). The level of urbanization in the destination state has a positive impact on migration. The percentage share of organized employment to total non-farm employment is only statistically significant for the 0-5 (10%) and 0-10 (5%) years of migration. As hypothesized, the level of level of labour force growth in the destination state has a negative impact on inter-state migration, while labour force growth in the origin state has positive impact on migration.

Table 9.3 reflects the migration gravity model with introduction of labour force instead of population parameter in the model. After introduction of labour force parameter most of the coefficient variables show a change in the model. Table-3 shows that, while the labour force parameter in the destination place has a positive effect on migration (1.04), the distance has a negative impact of inter-state migration. The origin labour force size acts as a push factor for migration (0.54), while the size of labour force in destination acts as a pull factor. Both origin and destination labour force have played a positive role in the migration process. As per the aggregate level, the distance is the proxy for all migration costs and has a negative influence in inter-state migration. It is also statistically significant at one percent level. The language dummy has a positive effect on migration. The level of per capita NSDP in the origin has a negative impact on migration (log of PCI NSDP -0.39) while in the destination has a positive impact on migration (log of PCI NSDP 1.05). The same analysis has been extended to 0-5 years and 0-10 years of migration. The results again reflect that per capita SDP in the destination state has a positive impact on the level of inter-state migration. The log of net sown area in the origin has a negative impact on the level of inter-state migration (-0.36) (it is statistically significant at one percent level). The coefficient value of urbanization reflects that urbanization in the destination state has a positive impact on migration. The percentage share of organized employment to total non-farm employment is only statistically significant for the 0-5 (10%) and 0-10 (5%) years of migration. While the level of level of labour force growth rate in the destination state has a negative impact on inter-state migration and labour force rate in the origin state has positive impact on migration.

Table 9.3: Inter-state migration estimates (for aggregate Labour force)

Variables	All-LF	All-0-5-LF	All-0-10-LF
	(1)	(2)	(3)
log_distance_new	-1.713***	-1.318***	-1.519***
	(0.0805)	(0.0859)	(0.0837)
log_LF_New_Origin	0.657***	0.619***	0.692***
	(0.0683)	(0.0743)	(0.0719)
log_LF_New_Destination	1.045***	0.969***	0.989***
	(0.0747)	(0.0838)	(0.0812)
language_dummy	0.540***	0.661***	0.563***
	(0.154)	(0.157)	(0.159)
log_PCINSDP_New_Origin	-0.394***	-0.250*	-0.293**
	(0.120)	(0.131)	(0.125)
log_PCINSDP_New_Destination	1.059***	0.884***	0.875***
	(0.171)	(0.185)	(0.180)
log_NSA_New_per_Origin	-0.403***	-0.442***	-0.497***
	(0.0793)	(0.0861)	(0.0824)
Urbanization_Destination_Percent	0.0131***	0.0146***	0.0173***
	(0.00452)	(0.00475)	(0.00489)
organise_nonfarm_destination_per	0.00899	0.0134	0.0161*
	(0.00807)	(0.00839)	(0.00835)
CAGR_LF_Origin_Growth	0.118**	0.0872	0.0996*
	(0.0490)	(0.0530)	(0.0523)
CAGR_LF_Destination_Growth	-0.145***	-0.212***	-0.192***
	(0.0524)	(0.0569)	(0.0555)
Constant	-11.48***	-12.69***	-11.86***
	(3.368)	(3.582)	(3.514)
Observations	920	822	870
R-squared	0.589	0.520	0.552

Notes: Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 9.4 reflects the migration gravity model for the male population at the aggregate level. For the male population the estimates coefficient values are quite different. Table 9.4 shows that, while the population parameter in the destination place has a positive effect for male migration (0.912), the distance has a negative impact of inter-state migration (-1.463). The origin population size acts as a push factor for migration (0.655), while the size of labour force in destination (0.912) is a pull factor for migration. Both origin and destination labour force growth rates are statistically significant with positive and negative signs respectively. The

language dummy is significant and positive factor for male migration for the 0-5 and 0-10 years of migration.

Table 9.4: Inter-state migration estimates (for aggregate male population)

Variables	All-Male	0-5-Male	0-10-Male
	(1)	(2)	(3)
log_distance_new	-1.463***	-1.083***	-1.274***
	(0.0801)	(0.0832)	(0.0820)
log_Population_Origin	0.655***	0.678***	0.726***
	(0.0704)	(0.0724)	(0.0742)
log_Population_Destination	0.912***	0.886***	0.903***
	(0.0712)	(0.0812)	(0.0807)
language_dummy	0.171	0.344**	0.296*
	(0.153)	(0.157)	(0.162)
log_PCINSDP_New_Origin	-0.401***	-0.165	-0.173
	(0.122)	(0.125)	(0.125)
log_PCINSDP_New_Destination	1.014***	0.844***	0.843***
	(0.176)	(0.184)	(0.184)
log_NSA_New_per_Origin	-0.381***	-0.405***	-0.421***
	(0.0781)	(0.0835)	(0.0824)
Urbanization_Destination_Percent	0.0141***	0.0141***	0.0177***
	(0.00439)	(0.00451)	(0.00456)
organise_nonfarm_destination_per	0.0130	0.0165*	0.0186**
	(0.00802)	(0.00870)	(0.00863)
CAGR_LF_Origin_Growth	0.111**	0.0702	0.0907*
	(0.0492)	(0.0533)	(0.0526)
CAGR_LF_Destination_Growth	-0.191***	-0.227***	-0.212***
	(0.0512)	(0.0560)	(0.0551)
Constant	-12.57***	-16.39***	-15.96***
	(3.475)	(3.618)	(3.685)
Observations	889	778	832
R-squared	0.541	0.497	0.512

Notes: Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 9.5 reflects the migration gravity model for the male LF. For the male population the size of the estimated coefficients are quite different. Table 9.5 shows that while the LF parameter in the destination place has a positive effect for male migration (0.937), distance has a negative impact on inter-state migration (-1.455). The origin labour force size acts as a push factor for migration (0.634), while the

size of labour force in destination (0.937) acts aa a pull factor. Both origin and destination labour force growth rates are significant, but exercise a positive and negative influence on inter-state migration respectively. The language dummy is significant and positive factor for male migration.

Table 9.5: Inter-state migration estimates (for aggregate male labour force)

Variables	All-LF-Male	All-LF-0-5-Male	All-LF-0-5-Male
	(1)	(2)	(3)
log_distance_new	-1.455***	-1.079***	-1.268***
	(0.0797)	(0.0826)	(0.0819)
log_LF_New_Origin	0.634***	0.662***	0.708***
	(0.0717)	(0.0735)	(0.0755)
log_LF_New_Destination	0.937***	0.906***	0.922***
	(0.0696)	(0.0786)	(0.0784)
language_dummy	0.333**	0.500***	0.461***
	(0.153)	(0.157)	(0.163)
log_PCINSDP_New_Origin	-0.401***	-0.173	-0.181
	(0.121)	(0.125)	(0.125)
log_PCINSDP_New_Destination	1.023***	0.846***	0.847***
	(0.174)	(0.181)	(0.181)
log_NSA_New_per_Origin	-0.448***	-0.485***	-0.501***
	(0.0804)	(0.0860)	(0.0850)
Urbanization_Destination_Percent	0.0146***	0.0146***	0.0180***
	(0.00433)	(0.00446)	(0.00451)
organise_nonfarm_destination_per	0.0132*	0.0162*	0.0183**
	(0.00779)	(0.00845)	(0.00840)
CAGR_LF_Origin_Growth	0.0873*	0.0476	0.0666
	(0.0497)	(0.0538)	(0.0533)
CAGR_LF_Destination_Growth	-0.190***	-0.226***	-0.211***
	(0.0506)	(0.0556)	(0.0548)
Constant	-11.07***	-14.64***	-14.11***
	(3.342)	(3.465)	(3.538)
Observations	889	778	832
R-squared	0.543	0.499	0.512

Notes: Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

9.4 Conclusion

The pooled regression analysis using inter-state migration data for 1993, 1999-00, and 2007-08 carried out shows that the main gravity model, using population in the origin and destination states, and distance between states provides a good fit for

India. Using the labour force size in place of population also provides a good fit, but does not improve the model. Similarly, using narrower variables for migration (male migration, or more recent migration), also provides a good fit but does not improve the overall results. Per capita GSDP has the expected results – higher per capita income at the origin reduces inter-state migration, while higher GSDP per capita in the destination state, increases inter-state migration. Similarity of language between origin and destination states increases migration. The level of urbanization in the destination state, which is a good proxy for agglomerated economic activity, has a positive effect on inter-state migration. The share of organized sector employment in total non-farm employment also acts as a pull factor for migration. Higher labour force growth rate in the source states have a positive impact on migration, whereas the same in the destination state have a negative impact. These results confirm the role of demographic variables (via labour force growth rates) and economic variables (via income levels, pressure on land, economic activity and organized sector jobs) on inter-state migration in India.

Table-Variable-Lists				Expected Signs		
Sl. No.	Origin (log or %)	Destination (log or %)	Ratio	Origin (log or %)	Destination (log or %)	Ratio (D/O)
GROUP: GRAVITY VARIABLES (Mi/Pi)						
1	Population	Population	Population	+	+	+
2	Distance	Distance	Distance	-		
3	LF	LF	LF	+	+	
GROUP: AVERAGE LIVING STD AND AV EARNING RATIO (Try including both in ratio or origin-destn form. To some extent, GSDP/cap is also substitutable with HDI and MPI)						
4	PCI-NSDP	PCI-NSDP	PCI-NSDP	-	+	+
5	Real-Wage	Real-Wage	Real-Wage	-	+	+
DEPRIVATION / WELL BEING (Incl in Origin, destn form. To some extent MPI is broadest measure, HDI is also substitutable with GDP/cap						
6	HDI	HDI	HDI	-	+	+
7	MPI	MPI	MPI	+	-	+
8	Poverty	Poverty	Poverty	+	-	-
EMPLOYMENT – NON FARM QUALITY (Origin & Destn, or only origin, or only destn. Try all three variables, or 9 or 10 with 11, or just 11)						
9	Urbanization	Urbanization	Urbanization	-	+	
10	Non-Farm-Employ-Percentage	Non-Farm-Employ-Percentage	Non-Farm-Employ-Percentage	-	+	
11	Organi-Employ-Non-Farm-Employ-Percentage	Organi-Employ-Non-Farm-Employ-Percentage	Organi-Employ-Non-Farm-Employ-Percentage	-	+	
PRESSURE ON LAND / RURAL WELL BEING (. Both could be in log form has esimated)						
12	NSA_Rural_Share	NSA_Rural_Share	NSA_Rural_Share	-		
13	Average_Land_Holding	Average_Land_Holding	Average_Land_Holding	-		
LABOUR FORCE PARTICIPATION LEVEL / CHANGE (We don't know how 13 will work out. Lets see)						
14	LF Gr rate			+	-	
15	LFPR			+/-	+/-	

CHAPTER **10**

Policies to Address Migration

10.1 Introduction

Although migration has been an important factor in the changing demographics in India with multi-faceted implications, there is no integrated policy framework addressing these implications. It is, therefore, not surprising that policy and administrative responses are often ad hoc kneejerk reactions restricting migration without taking into account the inexorable development history and large benefits which accrue from migration. The lack of understanding regarding different kinds of migration, nature and magnitude was nowhere more obvious than in the recent policy responses towards the crisis faced by circular migrants after the lockdown which was imposed to contain the pandemic and flatten the curve. In its response to the Supreme Court in one of the petitions filed to seek relief for migrant workers, the government stated figures from the Census of migrants reporting employment as a reason for migration. This showed that the government failed to acknowledge the distinction between permanent migration and circular migration, particularly short duration circular migration, which is not captured in census figures (Srivastava 1998, 2011a, 2012a, Srivastava and Sasikumar 2005). As the migrant crisis escalated, long-term circular migrants also joined other migrants wanting to return to their source villages. It has become obvious that for policy purposes, we need to make a distinction between different types of migrants.

The World Bank has consistently recommended encouraging migration based on its understanding of its beneficial impact on the growth of sending and receiving regions as well as the migrating households (World Bank 2009). In a recent paper (Kone et. al. 2017), it has been argued that the low level of inter-state migration is

due to the barriers constituted by state specific policies restricting entitlements to social protection, education and jobs to state residents. In a different vein, Kundu (2009) and Kundu and Saraswati (2016) have argued that rural-urban migration in India has been restricted due to what is considered to be "exclusionary" urban policies, by which they refer to urban policies raising the costs of urban-relocation for migrants, especially poor migrants. These arguments are important but they are based on census figures which document long-term migrants, not short duration circular migrants whose numbers have been increasing and who follow a different pattern (Srivastava 2011a; 2012a).

Freedom of movement and the right to take up employment anywhere in the country is guaranteed to all citizens under the Indian constitution. However, migratory movements may be considered costly in relation to benefits by potential migrants, on account of social, political, and economic considerations and these costs can depend on a number of variables, including availability of infrastructure and communication, policies instituted by the sending and host regions which curb guaranteed rights, degree of hostility or accommodation by the host communities, presence of the migrant community and social networks at the destinations, and so on. Over time, changes in labour markets with increasing informalisation, and higher costs of obtaining a foothold in urban areas has led to a steady increase in circular migration (Srivastava 2011a, Srivastava 2018). Of course, as shown in the present study, the 2011 Census also shows a significant increase in documented migration, particularly urban migration. Surprisingly, we show in this study that although the rate of urban migration has increased, the net contribution of rural-urban migration has not. This is mainly because urban-urban migration increased significantly over the first decade of this century.

As Srivastava (2011a; 2012a) and Srivastava and Pandey (2017) have shown, there is no integrated policy on (internal) migration in India. This includes both permanent migration and short duration circular migration. But various Commissions and committees have gone into the question. These include the National Commission on Rural Labour (1991), the National Commission on Enterprises in the Unorganised Sector (NCEUS 2007), and the more recent Working Group on Migration (MHUPA, 2017) constituted by the Ministry of Housing and Urban Poverty Alleviation (MHUPA 2017).

The recent Working Group (WG) on Migration report (MHUPA 2017) is probably the most comprehensive policy treatment of the issue of internal migration

in India by an official committee. Apart from building a comprehensive profile of migration in the country, the report has analysed three major dimensions of internal migration. The first is the location of migrants in the labour market structure. Second the issue of social protection and social services. The third is the issue of housing. It must also be noted that this report addresses both permanent migration and seasonal/circular migration.

The Working Group on Migration has emphasised the fact that in addition to general protection under Part III of the Constitution, migrants have specific protection under Articles 15, 16, and 19. Article 19(1) of the Constitution guarantees all citizens the right to move freely throughout the territory of the country, and reside and settle in any part of the country. Article 15 prohibits discrimination on the basis of place of birth, while Article 16 guarantees equality of opportunity for all citizens in matters of public employment, and in particular prohibits the denial of access to public employment on the grounds of place of birth or residence. However administrative requirements in terms of period of residence, language etc. places migrants at a disadvantage in terms of a range of local entitlements including jobs, social protection, and admission to educational institutions.

The report also notes that on matters of social protection, most schemes place the migrants, particularly short duration ones, at a disadvantage. The National Food Security Act, for example, functions through state level identification and local delivery, effectively barring migrants, particularly inter-state ones.

There have indeed been some path-breaking initiatives and efforts taken up by governments as well as civil society organizations alike for the migrant children in India (Srivastava and Dasgupta, 2010). Some of these are also discussed in the WG report. For example the Sarva Siksha Abhiyan, Govt. of India, came up with guidelines to set up 'seasonal hostels' wherein they are provided special training and education, both at the source and the destination states. The RTE Act ensures that children may ensure in any school in their neighbourhood, irrespective of where they reside. Several state governments have used the flexibility and resources provided by the SSA to ensure models of school education for children of migrant families at source, or migrating children at destination (MHUPA 2017). Other examples include the ICDS Program has a mandate to include the migrant children in urban locations and the initiatives of the Ministry of Labour & Employment, Government of India, to promote inter-State MOUs etc. The Rashtriya Swasthya Bima Yojana benefits were also made portable across jurisdictions by introducing a

smart family card and by making benefits accessible through empanelled hospitals anywhere (Srivastava 2012b).

The Working Group on Migration has also outlined some state level initiatives on migration. As mentioned by Srivastava (2011a, 2012b), labour policy and regulation in India is in the domain of concurrent legislation, and social protection policies are in the domain of all three levels of government – central, state and local. In the case of inter-state migration, in most cases, effective policies require coordinated action between the centre and states, and among states, as well as local bodies. This makes migration policy a complex task.

As part of this report a review has been carried out of migration related initiatives in three states viz. Kerala, Jharkhand, and Odisha. Although all states both send out and receive populations/workers, Kerala, which was earlier considered to be a sending out state (both for internal and well as international migrants) is now considered to be a major recipient state, while Jharkhand and Odisha are both considered to be predominantly sending-out states. We should note that the policy framework that has developed in states is entirely in response to seasonal migration, again highlighting the absence of a comprehensive policy framework.

10.2 Kerala

Migration has been an important lifeline for Kerala's economy, with large-scale international and outmigration. Internal migration to Kerala was mainly from the neighbouring states of Tamil Nadu and Karnataka (Peter and Narendran 2017). Since the 1990s, Kerala has been experiencing long-distant migration from Eastern and North-eastern states, stretching to cross-border migration from Bangladesh and Nepal (Peter and Narendran 2017)

Migrant workers have become pervasive in all sectors of Kerala's economy, and unlike the past, these workers come mainly from far-off eastern states – Chhattisgarh, Jharkhand, Bihar, West Bengal, Odisha, Assam and the North-east. Increased migration to Kerala is mainly a result of changing demographics out-migration from Kerala, along with scarcity of workers in many sectors of the state's economy and high wages. The social acceptability of migrant workers is also quite high in the state. On the other, wages and employment are low in the source states.

A study by GIFT (2013) estimated that there were 25 lakh internal migrant workers in the state (approximately 7-8 percent of the state's population). Approximately, 75 percent from five states viz. West Bengal, Bihar, Assam, UP, and

Odisha, with West Bengal contributing the largest share (20 %), followed by Bihar (18.1%), Assam (17.28%), UP (14.8%) and Odisha (6.67 %). The Government of Kerala Economic Review finds that out of the total inter-state migrant workers, 41 per cent are from West Bengal followed by Assam (14 per cent) and Odisha (11 per cent). According to the Review, the distribution of district-wise migrant worker in the State shows that Ernakulam has the highest proportion of 21 per cent followed by Kozhikode and Thrissur.

A study by the Gulati Institute for Finance and Taxation (GIFT) estimates approximately 2,35,000 fresh arrivals each year, and after taking account of returnees, net arrivals each year worked out to 1,82,000. Since of the 87 lakh population in the age group 20-64 years, only about 43 lakh were in the workforce, migrant workers were about 35 percent of the workforce. Construction was the dominant sector, absorbing 60 percent of migrants, followed by manufacturing (8.3 %) and hotels (6.94 %) (Narayana et al. 2013).

The same study (Narayana et al. 2013) found that overall 28.12 percent workers were recruited by contractors while the rest came through social networks. But irrespective of how they were sourced, within Kerala, two-third of the workers were employed by contractors. Several other studies also report that most migrants were recruited through informal channels and arrived in Kerala through information provided by friends and relatives. On the other hand, John (2015) found that in his study 14.5 percent workers were recruited through agents and 27.3 percent through contractors. These conclusions are similar to those reported by Narayana et al. (2013). Agents were active in recruitment from the states of West Bengal and Assam, while contractor recruitment took place mainly from West Bengal and Bihar. The GIFT study also reports an average annual remittance of Rs 70,000 per worker, and a gross total remittance of about Rs 17,500 crores by migrant workers in Kerala, mostly through formal banking channels.

Peter and Narendran (2017), based on extensive qualitative study report that Kerala receives workers mainly from 195 districts across eight states of the country. Apart from the two neighbouring states of Tamil Nadu and Karnataka, these include Jharkhand, Bihar, West Bengal, Odisha, Assam and Uttar Pradesh. Immigrant workers were spread across a number of industries, including construction, hotels, furniture-making, iron and steel, marine fishing, plywood industry, textiles and garments, and fish processing. Industries like hotels, garments and apparel, and sea-food processing preferred female workers while family migration was common in

some sectors and some destinations. In the plantations of Munnar, tribal workers from Jharkhand, Odisha and Chhatisgarh, and Muslim workers from Assam were replacing the (Tamil) workers in the tea plantations and similar changes were occurring across several other industries.

Migrants could not readily access mechanisms to redress their grievances in the absence of legal literacy, and organisational support, and for fear of reprisals (ibid.). Most of the migrant workers did not benefit from the Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 due to nominal implementation of the Act and as many of them were recruited from Kerala by their employer or contractor. Besides, the enforcement of the Act has by and large been nominal across Indian states (Peter and Narendran 2017).

John (2015) notes that most migrant workers had no access to health services, welfare schemes and social security schemes. No ID or registration was issued to the workers by the Government of Kerala. Housing conditions were poor and congested, although most migrants had access to shared toilets.

While several positive measures have been taken for migrants, migrant workers continue to be stigmatised. A heinous crime committed by a migrant worker was specifically mentioned by the Chief Minister as an example of the lawlessness associated with migrants and the need for the police to keep them under close watch. Raids by the Excise Department under the code name, Operation *Bhai*, during 2016 portrayed a negative image of migrant workers. Ad hoc attempts to register workers and issue them identity cards are being undertaken by the police in several districts (Peter and Narendran, 2017).

Migrants have limited access to banking. Without local address proof, banks are known to have hesitated to open new accounts at the destination. Migrants who did not have bank accounts have had challenges in keeping wages in safe custody. Workers used money transfer facilities available through shops. There were informal mechanisms also. Agents collected money at the destination and delivered it at the native place taking a commission. Money was also transferred using someone else's account. Workers in remote location had to forego a day's wages to deposit money through distantly located banks or Cash Deposit Machines, which were also difficult to operate. Workers from Bangladesh transferred the money to West Bengal or Assam through informal channels and then from there to Bangladesh.

Although workers received wages which were higher than those in the source areas, Sarga (2017) notes that in the construction industry, these were lower than the average wages received by local workers and there was also evidence of labour market segmentation, with migrant workers predominantly in less skilled manual jobs.

Policies Addressing Migrants

Kerala is the first State in the country to enact a social security scheme for the migrant workers coming to the state (Basheer 2015). The Scheme has been created under the Building and Construction Workers Welfare Board with an initial corpus created by the Board. Interstate migrant workers (whether self-employed or wage worker) between the ages of 18 and 60 years and with a monthly income of less than ₹ 7500 per month are eligible for enrolment under the scheme. To avail the benefit, a worker needs to register with the scheme. The membership has to be renewed every year by April of that year with an annual contribution of ₹30. The government contributes three times the member's contribution each year.

The scheme provides a registered migrant four benefits: accident/ medical care for up to ₹25,000; in case of death, ₹1 lakh to the family; children's education allowance to members enrolled for more than one year, covering up to two children enrolled in higher classes (beyond Class 10) in government institutions; and terminal benefits of ₹25,000 after five years of work. The scheme also provides for accident / death insurance. When a worker dies, the welfare fund provides for the embalming of the body and air transportation. But the off-take from the scheme has been low. In the first five years, only about 50,000 out of an estimated more than 25 lakh migrants had registered (Basheer 2015). In Ernakulam district which has the largest migrant population in the State, only 8000 workers had joined the scheme and about 500 of them have renewed their membership regularly, which was essential for getting the terminal benefits (Basheer 2015). Apart from the complexity of registering membership and obtaining renewal, the scheme was only open to workers with a monthly income of Rs 7500.Migrant workers were also eligible for enrolment under the Small Plantation Workers' Welfare Fund, but only 16,000 workers had enrolled (Anandan, 2018)

The State launched the Awaz Health Insurance Scheme for Migrant workers which allows medical care up to Rs. 15,000 and accidental/death insurance of Rs.2.5 lakh. Anandan (2018) reports that approximately 2.5 lakh workers had been registered under the scheme against a migrant worker population of 25 to 30 lakh.

In another initiative, the Kerala government in partnership with Bhavanam, a non-profit public sector company has also taken up the construction of dormitory hostels for migrant workers with kitchens and mess facilities. The facility will be available to migrant workers at a monthly rent of Rs 750 o 1000 per month. The first such facility was opened in February 2017 in Palakkad district.

In 2016, the Kerala State Planning Board constituted a working group to formulate recommendations for the welfare of migrant workers under the thirteenth five-year plan (2017-2022). Consultations are under way to formulate a policy to introduce portability of social security benefits.

The state has also introduced interventions in AIDS control, children's education, and other areas, focussed on migrant workers. Targeted Interventions under the Kerala State AIDS Control Society reached out to a segment of the migrant workers with HIV prevention, care and support services in most of the districts. There have been ad hoc efforts by the health systems to reach out to migrant workers given their vulnerability. The Valapattanam Primary Health Centre in Kannur district had a sign board in Hindi. Several public health facilities in Ernakulam district also attempted to reach out to migrants through multilingual messages. In Kozhikode and Ernakulam, the District Medical Offices have been leading such initiatives (Peter and Narendran 2017). The Department of Labour and Skills also organises health camps at major migrant pockets.

The State Literacy Mission is piloting a programme in Perumbavoor with the aim of making the migrant workers in the state literate in Malayalam and Hindi. A few schools in the state have resource teachers, who speak the mother tongue of migrant children, appointed by Sarva Shiksha Abhiyan (SSA). Anandan (2018) reports one of the educated tribal immigrant workers being appointed as a Hindi teacher under the SSA programme. However, getting qualified teachers has been a challenge, especially as they are not paid well. Efforts were also on for sourcing textbooks in Bengali and other languages. The language of instruction is a bigger barrier for older children who have to be enrolled beyond primary classes.

Some non-state initiatives are available to migrant workers. Workers in the construction sector can take work through labour co-operatives (although as non-members) and enjoy comparatively better working and living conditions compared to workers employed under contractors (Sarga, 2017).

To conclude: Long-distance migration to Kerala has increased rapidly in the last few decades. Kerala's demographic structure, its labour market situation, and

relatively high wages serve as important pull factors, along with the fact that the workers face less discrimination inside and outside the labour market. The State has taken a number of steps to ease the situation for labour migrants by launching a welfare scheme, a health insurance scheme, and a housing/hostel scheme, and also targeted steps to provide educational and health facilities. However, most labour migrants are still outside the umbrella of these schemes as well as social security and social protection schemes available to citizens of the state.

10.3 Jharkhand[1]

Jharkhand state was carved out of the erstwhile Bihar state in order to preserve its distinct tribal identity. The ST population of the State is 7.08 million (26.3 % out of a total population of 26.95 million) and 91.6 percent of the ST population is rural. The indigenous population was alienated from lands and forests over centuries and incorporated in the plantation and mining economy of North-eastern and Central India, thus setting up migration streams. Poverty, rain-fed agriculture, and lack of adequate livelihood has pushed the tribal and non-tribal poor to migrate to other states and to urban areas. The state has also experienced the migration of children and single women, often trafficked, sexually exploited, and in conditions of bondage. In recent decades, large numbers of girl children and women migrate to distant states and urban centres through intermediaries and placement agencies. Although the primary impetus for this migration is economic, the children and women are often trafficked and sexually exploited (UNODC 2013, ATSEC 2010, Shakti Vahini 2015).

Discussion with development NGOs revealed a very complex pattern of outmigration, varying across districts, and even Blocks, with migration to diverse sectors – agriculture, mining, construction, plantations, diamond polishing, domestic work, brick-kilns and so on; to varied destinations – from Bihar and West Bengal to the East, to Kerala, Karnataka and Tamil Nadu in the South, and Gujarat and Haryana in the West. Migration, while predominantly male, is also family-based, single women as well as single boy or girl child. Reasons for ou-migration are also complex – ranging – in the case of the girl child – to Naxalism and conflict, to

1. The section on Jharkhand relies on secondary sources, data provided by the State government, and interviews with members of civil society organisations an development NGOs, as well as officials, including a workshop in which several civil society organisations participated organized by the Institute for Human Development, Ranchi, and another meeting with key Government of Jharkhand officials organized by the then Chief Secretary, Jharkhand, held between December 7 to 10, 2018.

domestic violence, and poverty. As already mentioned, trafficking situations co-exist with labour migration, and the former particularly target children and young women.

Being an industrial and mining centre, Jharkhand is also a destination for migrants and some of the larger cities are also expanding rapidly due to migration. There is labour influx in the construction and mining sector from the states of West Bengal and Odisha.

As discussed above, Jharkhand is a sending state for single women and child migrants (both girls and boys), who are vulnerable and are often trafficked into exploitative conditions, including sexual trafficking. Jharkhand also acts as a hub for trafficked women from other states. The Government of Jharkhand, in collaboration with multilateral and other agencies, and NGOs have been taking steps to encourage safe migration and to curb the migration and trafficking of children. Many steps have also been taken on the direction of the courts. Under the direction of the court, the responsibility of various departments (Home, Social Welfare, Women and Child, Rural Development, Labour, education, and Health) have been laid down by the government and coordinated by the DCs at the district level, and Chief Secretary and Chief Minister at the State level. Anti-Human Trafficking Units have been set up in eight districts, Juvenile Police Units (under the Juvenile Justice Act), Child Welfare Committees, and Child Protection Units (under the ICPS) have been set up in all units. Shelter homes are functioning under the government as well as NGOs. However, issues exist regarding proper staffing and infrastructure, sensitization of the staff etc.

Under the Department of Labour, since 2015, a scheme for the identification of inter-state migrant workers, with a focus on migrant women workers, is under way. Migrant workers are issued red and green cards, with personal details, details of employer (if known), and details of contractor (for red card holders). The migration register is also expected to be maintained at the panchayat level. "Labour Mitras" are offered an incentive of Rs100 for the registration of such workers. Under the Scheme migrant workers can received an assistance of up to Rs 150,000 in the case of death or disability. The district administration will also make arrangements for the transportation of the mortal remains of such workers.

Women inter-state migrant workers who are identified are encouraged to return and a rehabilitation package is offered to them. If the women workers are trafficked or are working as forced/bonded labour then the appropriate provisions of law are invoked with the assistance of the authorities in the destination areas. The

rehabilitation comprises skill training, linking with employment assistance and self-help groups (for women workers) as well as other schemes for housing, land, ration card, pension etc. There is a provision for tracking the status of the returnee women workers. A standard operating procedure (SOP) and a livelihood package has been developed for such workers. A special survey of migrant workers was carried out in Gumla, Khunti, Dumka, Lohardaga and Simdega districts with the help of Anganwadi workers and 78,730 interstate migrant workers were identified (67,651 male and 10,879 female). Data provided by the government for eight districts showed that 938 families had been rehabilitated in three districts (Khunti, Gumla, and Ranchi).

The construction sector involves a very large number of intra-state and inter-state migrant workers. The Building & Construction Workers Welfare Act and the counterpart Cess Act is the most important legislation implemented at the State level for regulating the conditions of work and safety in the sector and for providing social security to Building and Construction Workers. The Welfare Board provides fifteen benefits to its members. These include toolkit assistance, cycle assistance, an integrated life-cum-accidents-cum-education insurance benefit scheme providing cover up to 4 lakhs and education expenses for students in Class 9 to 12; wedding assistance; pension of Rs 1000 per month (minimum three years contribution); disability pension; family pension (Rs 500 per month); safety kit assistance; assistance for sewing machines; maternity benefit; skill training; and medical assistance.

The registration fee for a worker is Rs. 10 and the annual contribution is Rs 100. The Welfare Board reported a registration of 750,845 workers up to March 2018, and 78,655 registrations during the first seven months of 2018-19. Between 2014 and October 2018, total cess of Rs. 452.19 crores was collected and a total benefit of 236.82 crores had been received by 19.57 lakh beneficiaries.[2]

Schemes for Unorganised Workers. In a modification of earlier orders issued in 2015, the state has issued a fresh notification in July 2018, and has provided for the registration of unorganized workers and the benefit of the following schemes under the Unorganised Workers Social Security Act, 2008: (i) the Unorganised Workers Insurance Scheme (Prime Minister's Suraksha Bima Yojana and the Prime Minister's Jeevan Jyoti Yojana); (ii) Funeral Scheme (assistance of Rs 15,000 and Rs 25,000 for occupation disease related death); (iii) CM Scholarship Scheme; (iv) Skill Enhancement Scheme; (v) Maternity Benefit Scheme. A total of 9.11,073 workers

2. Data provided by the Department of Labour, Government of Jharkhand.

had registered till March 2018 and an additional 3,52,586 workers registered during April 2018 to October 2018.

10.4 Odisha

Like other states, Odisha experiences both in- and out-migration, and rural-urban migration contributes to the growth of its urban population. A comparison of the 2001 and the provisional 2011 migration rates shows an increase in (in)migration with the total and urban migration rates increasing from 30.03 and 42.41 in 2001 to 34.94 and 42.41 in 2011 respectively. The IHDS survey of 2011, analysed elsewhere in this study, reports that 15.2 percent households in Odisha had one or more non-resident members while the 2007-08 NSS survey reports that 1.7 percent of the population out-migrated seasonally for work.

More than anything else, the state is known to be an important source state for seasonal migrants, although large number of Odiya migrants also migrate for longer periods all over the country.

According to official figures of the State's Department of Labour, compared to 55,000 workers migrating from Odisha in 2007, 1.46 lakh left the state in 2015. While 87,000 seasonal migrant workers left Odisha to other states in 2008, which rose to 1.05 lakh in 2012, 1.2 lakh in 2013 and 1.35 lakh in 2014. Maximum migrants were from the Bolangir district all these years (45000 in 2015). These figures are for registered migrant workers reported by registered contractors under the ISMW, and are known to be gross underestimates (Pradhan, 2016 [3]).

However, estimates of the Migration Information and Resource Centre (MiRC), Aide et Action South Asia, a local non-government organisation, put the number of migrant labourers at five lakhs, mainly drawn from the southern and western districts of the state. As per MiRC, more than 60,000 families, or two lakh people, from the districts of Bolangir, Nuapada, Kalahandi, Boudh, Sonepur and Bargarh go to Andhra Pradesh, Chhattisgarh, Tamil Nadu and Karnataka. Additionally, around 40,000 to 50,000 people find work at the 150 brick kiln units that are located within a 40- kilometre radius of the twin cities of Cuttack and Bhubaneswar. Yet, it's not easy keeping a track of these migrants (ibid.).

3. See for details, Number of migrant labourers from Odisha rise three fold in three years Read more at:http://timesofindia.indiatimes.com/articleshow/55911040.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

A study of Bargarh district found that inter-state migrants are usually engaged in the secondary or tertiary sectors (Majhi et. al 2014). For example, in Tamil Nadu most of them are factory workers, security guards or brick-makers. In Andhra Pradesh their main occupation is brick making, factory work, masonry and industrial work. In Uttar Pradesh, they are mainly factory workers. Those who move to Chhattisgarh are primarily scrap workers, vegetable sellers or hotel boys and in Maharashtra, Gujarat and Madhya Pradesh the migrants are mainly factory workers. However, intra-state migrants who migrate to agricultural rich/ irrigated areas often work in agriculture. For example, migrants moving to Bargarh, Sonepur, Sambalpur work as agricultural labourers while workers in Jharsuguda, Ganjam, Bolangir, Puri, Baleswar, Kordha are mainly employed in construction sector, brick makers and factory workers. In contrast, migrants in Nuapada and Kalahandi are scrap workers. The majority of these migrant families work in the construction sector and brick kilns as unskilled labour.

A large study in coastal and Western Odisha, coordinated by the Centre of Labour and Migration Studies (CMLS 2014) and carried by civil society organisations working with migrant workers, surveyed and analysed data from 99, 523 households. It found that 30.83 per cent of the total households had one or more members migrating for work. This amounted to an estimated 1.53 million migrants from the region – 0.96 million for Coastal Odisha and 0.58 million for Western Odisha.

Within the coastal region, the districts of Kendrapada and Khorda showed a higher percentage of household migration, 47 and 42 percent respectively. The region is also well known for its skilled workers in the construction sector, namely plumbers and masons (CMLS 2014).

Migration from the two study regions of Odisha is predominantly inter-state, though 21 per cent of the total migrants also move within the state to find work. The study found that the two regions show distinctive patterns of migration. For the coastal region, Kerala emerges as the most important destination state, receiving about 24 per cent of the inter-state migrants. One-sixth of the migrants from the region go to Gujarat. The Coastal region also sends sizeable number of migrants to Tamil Nadu, Jammu & Kashmir, Maharashtra and Andhra Pradesh. Small but not insignificant migration streams flow to West Bengal, Himachal Pradesh, Punjab, Karnataka and Delhi. A large number of inter-state migrants from Western Odisha, about 26 per cent, find employment in the neighbouring state of Chhattisgarh; Raipur and Durg districts. Other prominent destinations for inter-state migrants

are Uttar Pradesh and Maharashtra, each receiving about one-fifth of the migrants from the region. About 8 per cent of the inter-state migrants from the western region travel to Hyderabad, Ranga Reddy and Vishakhapatnam districts of Andhra Pradesh, where they get employed as brick makers. Gujarat, Goa and Tamil Nadu are other important destinations.

For both the coastal and western regions, construction sector employs the largest number of migrants, i.e. 42 and 52 per cent respectively. In the construction sector, a large majority of the migrants, about 80 per cent, find employment as unskilled construction workers. Other prominent work sectors for the coastal region are transportation, factories, and the textile sector. Brick-making occupies the second niche in the Western region.

Migration is thus one of the leitmotifs in modern Odisha (Abidi 2015). Young men leave the state's coastal districts like Ganjam to work in textile mills, shipyards and the diamond-polishing shops of Gujarat and Mumbai. Young girls from Sundargarh work as domestic labour in Delhi and elsewhere. People in western Odisha, especially the districts of Kalahandi, Koraput and Bolangir, travel to neighbouring Chhattisgarh to work in its farms, or migrate to the brick kilns in the South (sometimes to the ones in the North as well). Workers from Odisha go to Goa's fishing villages as much as Kerala's construction sites.

Migration for work in the brick-kilns constitutes an important migration sector, especially for workers in the erstwhile KBK (Kalahandi-Bolangir-Koraput region). The region dispatches more than 0.2 million brick-kiln workers to the Southern states alone (Daniel 2014). Migration begins immediately after the festival of Nuakhali and continues till June. Workers take advances from local labour contractors, known as Sardars, who are intermediaries for bigger contractors (usually called Seths). Most studies note that the number of contractors has continued to rise and the Government's efforts to register them has only driven the industry underground. Most seasonal workers recruited by agents are no better than bonded labourers (ibid.).

The exploitation of young girls and women workers in family migration streams has been a cause of concern. A bigger cause of concern is the exploitation of single women migrants. Daniel (2014) notes that according to data available with the Home Department of Odisha, 3,578 women, mostly minor and young girls, remained untraced between 2000 and 2005. Most of the missing cases of women and girls were reported from Sundergarh district where large number of tribal women and

adolescent girls are being trafficked to work as domestic worker and forced into sex trade (Daniel 2014). With the growth of cities and emergence of the middle class, the domestic work sector has attracted women from backward regions (see the section on Jharkhand). Large number of tribal women and adolescent girls were recruited through placement agencies to work as domestic helpers in affluent and middle class families, notably in Delhi. Often the placement agencies forced them into illicit flesh trade and/or cheated or exploited them.

Policies for Labour Migration

The condition under which seasonal migration takes place has been a focus of policy attention in Odisha for several decades. Odisha was the first state in India to formulate its own law – the Dadan Labour (Control and Regulation) Act (ORLA), 1975, an act to protect and safeguard the interests of dadan or 'debt migrants' in the state (). The Act had provisions for creation of a 'registering authority' for registration of agents and workers, compliance with minimum wage and basic labour welfare facilities at the workplace, appointment of a Chief Inspector and other inspectors as well the as appointment of a 'competent authority' for dispute redressal. Taking a cue from the Odisha Dadan Labour Act of 1975, the Ministry of Labour and Employment, Government of India felt the need for a Central Act on similar lines as the ORLA and thus enacted the Inter-State Migrant Workmen Act (ISMWA) in 1979. As a result, the ORLA was nullified on the passage of the new Act.

Odisha has been one of the most active states in implementing the ISMW Act. However, although several thousand contractors and workers are registered each year, these are a fraction of the total contractor based labour migration. This is partly due to the lack of adequate enforcement, under-staffing and poor infrastructure of the District Labour Office in Odisha. More important, however, is the fact that the brunt of implementation of the Act is in the destination states, which have been very tardy in regulating the condition of work of the migrants.

In view of the high percentage of child migration in western districts of Odisha, the State Government initiated a unique programme called 'Residential Care Centre' for retaining and providing education to the seasonal migrant children accompanying their parents. The programme was initiated under the District Primary Education Programme (DPEP) in 2001-01, and resulted in the retention of 3000 children in the hostels. Later the programme was up-scaled and expanded to Nuapada and Bargarh district. The SSA has further built in support to cater to the education

needs of migrant children both at source and destination. In recent years, with the involvement of civil society organisations, education of migrant children at destination has been initiated in Andhra Pradesh and Tamil Nadu.

In order to provide health insurance to the BPL and unorganised workers, the Government of India launched the Rashtriya Swasthya Bima Yojana (RSBY) in 2008. One of the provisions of the insurance programme is to cater to the health insurance of migrant households.

Being concerned about the prevalence of exploitative labour practices including bondage situations in brick manufacturing activities that engage poor and vulnerable migrant workers, the Government of Odisha being initiated discussions with the Government of Andhra Pradesh with facilitation from the Ministry of Labour and Employment (MoLE), Government of India and the ILO to develop a coordination mechanism between the sending and receiving states. The objective of the MoU was to improve access of the brick kiln workers to social security and other entitlements, facilitate safe migration, and make the migrants aware of their rights through coordinated efforts of the two states. A framework for such coordination in the form of a Memorandum of Understanding (MoU) was signed between GoI (MoLE) and State Labour Department of Governments of Odisha and Andhra Pradesh in 2012, with the facilitation of the ILO. Both states have formulated a time-bound and result oriented action plan to benefit migrant workers, especially those working in the brick kilns sector. Subsequent to the signing of MoU, an Inter State Coordination Committee was constituted at Central Level on July 6, 2012, to create a sustainable institutional mechanism to look into the issues of inter-state migration across India.

Following the signing of the MoU, The Department of Labour and ESI has already constituted the State Coordination Cell for Migrant Workers at the office of Labour Commissioner, Odisha and the District Level Facilitation Cells at the district level in the state to track distressed seasonal migrant workers.

In order to track the movement of migrant workers along with information on their employers / contractors / agents etc, Data Collection formats were circulated to the District Labour Officers (DLOs) in the month of October, 2012 to capture data at the G.P. level. The data has been shared with the Dept. of Labour, Andhra Pradesh for necessary action as per the Memorandum of Understanding (MoU) signed between GoI (MoLE) and State Labour Department of Governments of Odisha and Andhra Pradesh. Discussion with ILO, New Delhi has been underway

to develop a Tracking Software to track the Migrant Workers on line who migrate to Andhra Pradesh every year to work in the Brick Kiln sectors.

The concern for hygienic living for the migrant workers of Odisha at Andhra Pradesh has been taken care of by taking initiative to build semi pucca houses for migrants. The Govt. of Andhra Pradesh has agreed to ensure the same and the expenditure for this shall be borne equally by the states of Odisha and Andhra Pradesh.

Seasonal hostels have been opened in the districts of Nuapada, Bolangir and Bargarh of Odisha by the School and Mass Education Dept. for education of the children of Migrant Workers during the seasonal migration.

The Orissa Primary Education Programme Authority (OPEPA) has been sending Odiya Teachers and Odiya Text Books, as per request, for schools in Andhra Pradesh to ensure education at the work sites for the children of Migrant Workers.

In December 2014, the Government of Odisha came out with a comprehensive state action plan for ensuring enforcement, welfare, entitlements and protection of rights of interstate migrant workers moving within and to various states as seasonal workers. A detailed advisory and action plan was issued by Dept of Panchayat Raj on December 17› 2014. The Action Plan details, and builds upon existing initiatives taken by the government.

The plan was laid out for 11 districts of Odisha which are considered as key migration prone district of Odisha. The targeted district includes, Bolangir, Bargarh, Subranapur, Kalahandi, Nuapada, Gajapati, Ganjam, Koraput, Nabarangpur, Rayagada and Khorda. The department of Panchayat Raj has also allocated a budget of Rs.7.5 crores to carry out wide range of initiatives both at the district and state level.

The action plan builds on coordinated action between several State departments. The labour and ESI department, Government of Odisha has been assigned the responsibilities to conduct periodic survey of migrant people in this district to understand various aspects and trend of migration. Voluntary registrations of migrants are proposed to carry out at the panchayat level by PEO, EO, GRS. The government has recommended computerizing the migrants' data and a develop a separate software for the purpose of tracking. Strict implementation of the ISMW Act along with other labour laws has been emphasised. A helpline has been set up to provide support for rescue and repatriation of migrant labourers in crisis from other states. The ESI Department has also determined to provide financial

resources for sending of rescue team to rescue of migrant labourers living in crisis in other states.

The Action plan emphasis to signing of MOU with destination States to protect the migrants workers rights, welfare and social security and establish contacts with various welfare organization at the destination states to create contact points to reach out to migrant labourers.

Strengthening seasonal hostels for children of migrant workers which have been functioning in Odisha under the School and Mass Education department is part of the Action Plan and more such facilities in migration prone regions have been proposed. The Department of Labour & ESI, Govt of Odisha is willing to provide financial support for running of such seasonal hostels.

The action plan also goes on to suggest a range of initiative for the intra-district migrant workers access to basic services, entitlements and running of crèche at the worksite to be aided by the Odisha Labour Welfare Board.

Awareness creation and educating migrant workers about their rights and entitlement has been prioritized in the action plan. Partnership and collaboration with SHG, PRI institution trade unions, NGOs to spread the awareness and labour education has been strongly recommended.

All the 11 targeted districts are also mandated to create a district level monitoring committee under the chairmanship of District Collector has been planned. The term of the committee has been fixed as two years.

At the state level, a State Level Migration Cell has been proposed to be set up with basic minimum infrastructure and financial allocation.

The State Action Plan on addressing the concerns and issues of intra and interstate migrant labourers in Odisha is a welcome step. The Government of Odisha has been under tremendous pressure from rights and legal bodies like NHRC and the Apex Court after number of cases of labour exploitation to act firmly towards reducing distress and protection of rights of inter state migrant workers in Odisha.

Skill training for migrant youth is a huge challenge. Given the large number of migrants of Kendrapada who are engaged in plumbing in destination states , the Government of Odisha has set up the State Institute of Plumbing Technology (SIPT) in Patamudai in Kendrapada district of Odisha in 2010.

The State has been making efforts to improve livelihood security and food security in the source areas, particularly in tribal blocks in order to reduce distress migration. The PDS has been made universal and the grain is being made available to all households at NFSA prices in tribal blocks. In 2012, the Department of Panchayati Raj, Government of Odisha declared 150 days of entitlement under MGNREGA in the high migration pockets of Western Odisha.

The Government of Odisha constituted the Orissa Building and Other Construction Workers Welfare Board in 2004 under the BoCW Act, 1996. To be a beneficiary under the Building & Other Construction Worker (RE&CS) Act, 1996 the worker must be between 18 to 60 years of age, must have worked for at least 90 days in a calendar year, and must have been registered with the District Labour Officer of the area, who is authorized by the Board as the Registering Officer for the purpose. The registered workers and their families are entitled to eleven social security benefits including accidence assistance, death benefit, medical expenses, loans and advances for house construction; financial assistance for house construction; educational assistance for children; assistance for purchase of tools; assistance for funeral expenses; maternity benefit; and marriage assistance. The Government has extended to migrant construction and brick kiln workers but the low enrolment of workers under the BOCW Act is certainly a huge challenge and concern.

There is no doubt that the Government of Odisha has taken a number of steps to reduce vulnerability in labour migration. However, lack of proper coordination between departments, and under-staffing of the District Labour Office, knee-jerk and counter-productive responses by district and police administration end up hurting migrant survival strategies and need to be avoided. The framework of inter-state coordination, of which Odisha and the erstwhile state of Andhra Pradesh have become pioneers needs to be strengthened by the Centre. The BoCW Act is currently the most important welfare provision covering nearly 60 percent of inter-state seasonal migrants. Yet, its implementation is again flawed as it is unable to address issues of registration, mobility and portability.

10.5 Conclusion: Urgent Need for Integrating Migration and Development Policy in India

Migration, which involves the movement of workers – and people – from low productivity and low growth areas/sectors to high growth / high productivity areas/sectors, thereby supporting higher levels of accumulation, has long been seen

as concomitant of the development process. Growth is also driven by economic agglomeration and hence urbanisation. Hence the World Bank has long been an advocate of lowering the barriers to internal migration (World Bank, 2009, Kone et. al. 2017). In a recent paper (Kone et. al. 2017), the existence of these barriers in the form of state specific entitlements linked to long-term residential/domicile status in matters of public jobs, admissions to educational institutions, housing assistance for the poor, and other entitlements have been singled out as creating barriers to migration and consequently low rates of inter-state migration. The Working Group on Migration has also recommended pro-active removal of domicile provisions in state laws relating to work as well as other provisions restricting entitlements to migrants.

The above restrictive provisions apply to migrants whose transfer of residence has occurred within a specified period. However, as shown in this study and in several other papers substantial migration now occurs in the form of seasonal or circular migration which does not involve permanent or semi-permanent transfers of population. These migrants generally pre-dominantly belong to lower socio-economic groups, are situated in more adverse circumstances in the labour market. Seasonal and circular labour migrants need support and facilitation, better labour regulation, civic identity, improved living facilities at destination, and access to social security and social protection programmes of the Central and State government (Srivastava 2011a, 2012 a). Srivastava (2012b) has shown that social security falls within the concurrent domain and social protection is designed, funded, and implemented by governments at all levels – Central, State, and local and hence coordinated action between the various levels of government is involved in order to deal with the disadvantages faced by migrants, especially short duration and seasonal/circular ones.

As argued by the NCEUS (2007), the first prerequisite for access to, and portability of benefits, is a universal registration system for migrant workers and their families. The NCEUS had recommended a smart-card based social security card and a legally mandated universal minimum level of social security for all workers including migrants. The MoLE proposed an implemented a UAN based ID card but the UAN registrations have not been implemented in any vigorous manner. Meanwhile, states have introduced their own registration systems and IDs which has further complicated the issue of portability. For example, the Rajasthan government has introduced the Bhama Shah card which links social protection benefits to local domicile based registration. Under the latest decision by the honourable Supreme

Court, benefits can be linked to Aadhar, which provides a unique ID number backed by bio-metric identification, but this has its own limitations because Aadhar is a system of individual registration prone to costly technical and biometric failures. In fact, the RSBY provided a robust smart card based registration model which was portable and this could have been up-scaled, but due to lack of political and administrative will, this has not been done.

Further, as argued in this paper (ibid.) and also the Working Group on Migration, programmes are more amenable to portability if entitlements of migrant workers are clearly recognised and portability is built in, and schemes are appropriately designed and funded by the Centre. The RSBY can be cited as an example of such portability. School enrolments for migrant children can be considered as an example where clear entitlements have been created for them under the Act which also makes it incumbent for the education system to design appropriately flexible rules to make this possible. The WG has given other examples of registration of migrant workers using unique and smart registration systems on the one hand, and designing of smart social protection systems, on the other.

However, most social protection programmes, even when they are legislated programmes, and principally funded by the Centre, still allow the States to choose beneficiaries, make add-ons and modify designs. Examples of important legislated programmes are the NFSA and the social security entitlements under the Building & Construction Workers' Welfare Act. The Working Group has recommended the route of inter-state MoUs to make benefits available under these programmes. But this route is administratively costly and will not ensure that benefits reach all the potential beneficiaries. It is the Centre's responsibility to step in and harmonise registrations and benefits under the Act by defining a core set of criteria across all states. Other examples of centrally funded social protection programmes which are non-legislated are housing for the poor and pensions. Here again it is the responsibility of the Centre to define eligibility criteria and a core set of benefits.

Learning from the impact of the pandemic on circular migrants, these three elements discussed above, viz. a universal system of smart registration, a set of core social security benefits to which all workers including the circular migrants are entitled, and portability of entitlements, beginning with entitlements provided by the Central government, must form the bedrock of social protection policy for migrant workers.

Another need of the migrants is ease of financial transfers and financial inclusion, so that need for cash savings and transactions can be reduced. Although financial inclusion has improved, migrants have to rely on the banking system and negotiating with the lean facilities available in remote destinations is not always easy. The WG has recommended the steam-lining of the postal money order system, given the wide availability of post offices. The use of the postal department to promote financial inclusion and financial transfers needs to be explored and expedited.

Since more than two decades, NGO supported Migrant Support Centres (with support from States and PRIs) have emerged as a major modality by which the delivery of services and access to social protection programmes in a convergent manner can be facilitated for seasonal / circular migrants. These support centres have worked in a number of areas including registration, issuing ID cards, legal support, access to social protection and social security, financial inclusion, education of migrant children, health, and skill creation and jobs. The DDUGKY which is a skill creation and job placement programme for rural poor youth has developed a component of the programme based on the experience of Ajeevika Bureau, a NGO working primarily in Rajasthan and Gujarat to support these Centres (DDY-GKY, 2015). The WG has commended the Migrant Support model which needs to be studies and replicated outside the few states in which it is being implemented by some NGOs.

Since rural-urban migration is a core issue, and housing and shelter (along with related basic amenities) for migrant workers is an essential requirement, it is a matter of concern that only Kerala among the three study states had made a provision for rental housing for migrant workers, and that too, on a limited scale. The WG has noted that housing is a key area of concern and has recommended that models of rental housing and workers' dormitories, and working women's hostels be explored and built on a large scale with public or public-private resources. It has also recommended the use of the Building & Construction Workers Welfare Funds to make better quality accommodation available to migrant construction workers and the upgradation of basic formal services and upgradation of infrastructure in all settlements.

The case studies of states taken up in this paper were of two states (Jharkhand and Odisha) which are characterised as predominantly out-migrating states, and Kerala, which was earlier an out-migrating state, but is now also considered to be

a major destination state. However, this characterisation, which is based on certain important features of migration in not a complete characterisation. Each of these states has both in-migration and out-migration, of seasonal as well as permanent/ semi-permanent migrants, and also substantial rural-urban migration. However, states have only put in a few policies and programmes in place to deal with some aspects of the dominant characteristics of migration, from, or to their states, there is no integrated policies. Thus, two give two examples, we did not find any evidence that urbanization policies/programmes have factored in rural-urban or inter-state migration. Similarly, the B&CWWA is the single most important welfare provision for construction workers, but none of the states have accommodated in-migrants in the registration and welfare provisions. States like Odisha and Jharkhand have a patchwork approach to register out-migrants but, apart from administrative difficulties, this is only partially workable since many of the benefits are linked to workplace conditions. Kerala, where migrants are an important component of the construction workforce seems to have limited registration to within-state workers and has initiated a separate welfare scheme for migrant workers. It is important for the Centre and States to step in and create a fully coordinated mechanism which ensures portability of registration and benefits for construction workers (including brick kiln and unorganised mining workers.)

We have argued elsewhere that an integrated migration policy must be built on two pillars viz. an inclusive urbanization policy which addresses the needs of migrant workers, and more important, a regional development policy which can help build infrastructure, rural and urban livelihoods, and jobs in the poorer states (Srivastava 2011a; b; 2012a). As discussed in the introductory section, the Bank (World Bank 2009, Kone et al. 2017) has consistently advocated removal of inters-state barriers to migration so that economic agglomeration and growth can be the driver of population flows. While this is an important argument and removing barriers and reducing the costs of migration has to be an important part of policy, it must be recognised that technological changes, changes in the organisation of production, and reduction in the cost of transport and communication, decentralised production opportunities are far more feasible and agglomerated economies no longer work in the same fashion in the post-fordist world. Moreover, movements of large numbers of culturally, ethnically and socially diverse people across regional and state boundaries is associated with other costs, and hence efforts have to be made to strengthen development in regionally poor areas.

To conclude: patchworks of policies and programmes have come into place in states attempting to deal with specific types of migration but these are weak and have restricted impact. An integrated policy framework has not been into place either at the Central level, or in the states. Further, for migration policies to work, a coordination plan of action will be required between the Centre and States. Given the importance of migration to the development process, and the achievement of development goals, this has been a glaring omission thrown into sharp relief as migrants responded to the extreme adversity faced by them under the impact of the lockdown.

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Part 3 Appendices

Table A 2.1: State-wise trend of Life-time migration rates (Overall, rural and urban), India, Census of India, 1991, 2001 and 2011

	Total						Rural						Urban					
	Percentage of migrants			Percentage of intercensal migrants			Percentage of migrants			Percentage of intercensal migrants			Percentage of migrants			Percentage of intercensal migrants		
States/ Uts	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011	1991	2001	2011
AN	50.8	48.9	58.6	26.7	21.0	26.9	50.0	49.3	60.3	26.4	21.5	26.8	53.1	48.1	55.7	27.7	20.0	27.1
AP	29.5	30.8	39.2	11.7	10.0	14.5	27.6	28.9	34.3	9.9	9.5	11.8	34.6	35.7	49.0	16.5	11.4	20.1
AS	24.1	25.5	32.5	8.9	6.3	11.0	22.3	22.7	29.9	8.0	5.5	10.1	38.7	44.2	48.5	16.7	11.6	16.8
BI	24.9	25.4	28.8	7.1	6.7	8.7	23.9	24.6	26.9	6.4	6.3	7.8	31.9	30.6	40.4	11.4	9.6	14.1
CH	63.1	64.3	67.1	31.5	27.5	27.2	64.5	67.2	69.8	46.7	40.7	42.2	62.9	64.0	67.0	29.7	26.0	26.8
DD	26.6	45.0	63.6	14.2	33.3	46.6	25.8	51.4	38.1	13.3	41.0	19.9	27.6	33.8	72.0	15.2	19.7	55.4
DE	39.5	43.4	45.7	17.8	17.0	17.4	43.4	48.0	43.8	27.6	25.1	20.1	39.1	43.1	45.7	16.8	16.4	17.3
DN	30.1	35.6	53.6	15.7	23.5	36.2	27.4	25.8	33.0	13.8	17.4	19.9	59.2	68.5	77.1	36.2	44.0	54.9
GO	45.4	58.3	77.4	20.7	22.7	32.2	43.2	56.0	77.1	19.6	21.1	29.0	48.6	60.5	77.6	22.4	24.4	34.1
GU	33.1	37.9	44.6	12.7	13.1	17.2	30.4	34.3	37.3	10.9	11.0	12.8	38.1	44.0	54.5	16.1	16.7	23.1
HA	31.4	35.8	42.7	11.6	13.3	16.0	27.4	31.0	33.3	9.2	10.8	10.9	43.6	47.7	60.2	19.2	19.4	25.5
HP	35.6	36.1	41.3	13.5	13.6	15.1	33.4	33.5	38.4	11.7	11.7	13.1	59.0	59.7	68.1	32.2	31.8	33.2
KA	29.9	31.3	41.0	11.9	10.9	17.2	28.5	29.5	36.3	10.4	9.6	13.5	32.9	34.8	48.6	15.3	13.5	22.9
KE	28.2	28.9	48.9	11.7	10.6	19.1	29.1	29.0	51.7	11.8	10.3	19.2	25.6	28.5	45.8	11.6	11.4	19.0
LD	21.4	30.5	30.8	18.4	24.3	25.1	18.5	27.2	30.5	16.6	23.3	25.5	23.7	34.6	30.9	19.8	25.4	24.9
MA	32.3	43.1	51.0	12.2	16.3	20.4	31.3	40.2	45.4	11.3	14.4	16.9	33.8	46.9	57.8	13.8	18.9	24.6
MP	32.8	31.0	35.1	12.0	10.4	12.3	30.8	29.1	31.4	10.6	9.2	10.3	39.1	36.4	45.5	16.9	13.9	17.7
NE	19.4	24.1	32.0	8.0	7.0	12.7	17.8	20.8	27.3	7.0	5.6	10.8	25.5	36.1	43.9	11.9	12.2	17.8
OD	26.6	30.0	34.9	9.1	9.0	11.9	25.0	27.9	31.7	7.9	7.6	10.1	37.0	42.4	51.4	17.1	16.6	21.2
PD	31.7	47.3	55.5	15.0	19.9	23.8	32.0	48.4	56.4	13.8	20.0	22.9	31.5	46.8	55.0	15.7	19.9	24.2
PU	34.3	37.7	48.9	12.0	10.5	16.0	31.9	34.4	43.8	10.3	9.0	13.2	40.1	44.2	57.5	16.0	13.4	20.8
RA	28.8	29.0	32.5	10.0	9.6	11.3	28.4	29.2	30.8	9.1	9.3	10.2	30.1	28.4	37.5	13.0	10.9	14.6
TN	24.0	25.4	43.4	8.7	6.3	17.2	21.8	23.1	36.7	7.3	5.2	13.2	28.3	28.2	50.6	11.6	7.8	21.5
UP	21.4	25.4	30.3	6.2	6.4	9.2	21.2	25.2	27.0	5.6	5.9	7.4	22.4	26.0	41.6	8.6	8.1	15.6
WB	26.3	31.3	36.5	8.2	8.7	11.3	25.4	28.9	32.8	8.0	8.5	10.1	28.6	37.4	44.5	8.7	9.2	13.9
INDIA	27.7	30.7	37.6	9.8	9.6	13.4	26.1	28.5	32.7	8.5	8.4	10.6	32.3	36.5	48.6	13.4	12.8	19.5

Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A 2.2: Bilateral flow of migrants between states and Union Territories (UTs) of India (0-9 year duration), National Sample Survey, 1993, 1999-2000, 2007-2008

States	1993			1999-2000			2007-2008		
	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow
AP	309265	463542	772807	557954	645657	1203611	522788	576171	1098959
AS	60939	101636	162575	42105	108986	151091	44395	117609	162004
BI	228200	989292	1217492	154380	1869054	2023434	202438	2772632	2975070
GO	30006	98647	128653	88397	68795	157192	126089	12993	139082
GU	269559	321022	590581	819013	454759	1273772	1297527	404373	1701900
HA	681850	297356	979206	1105069	362575	1467644	892950	533376	1426326
HP	65282	78220	143502	201880	157179	359059	151598	98193	249791
JK	21502	52725	74227	92953	210614	303567	56236	78261	134497
KA	271000	449795	720795	702484	839583	1542067	1051367	630457	1681824
KE	175710	301801	477511	412995	430176	843171	428642	411458	840100
MP	523955	428858	952813	925411	675565	1600976	621369	722467	1343836
MA	1348172	402985	1751157	2602791	1162927	3765718	2319661	699613	3019274
NE	23193	121914	145107	38094	192013	230107	63938	141332	205270
OD	126004	151216	277220	302543	264915	567458	227323	472056	699379
PU	292188	485603	777791	775095	454803	1229898	756552	527726	1284278
RA	538707	499178	1037885	602747	792341	1395088	725707	847168	1572875
TN	468421	307217	775638	630397	737205	1367602	555087	595950	1151037
UP	809714	1803552	2613266	1724261	2302598	4026859	1398554	3821115	5219669
WB	520576	292976	813552	726384	448485	1174869	682885	633006	1315891
AN	24288	5209	29497	15084	9510	24594	28926	11614	40540
CH	135613	18669	154282	150527	51381	201908	205257	70709	275966
DN	2598	171	2769	22803	15149	37952	46100	4986	51086
DD	2647	4577	7224	17800	20467	38267	35006	14349	49355
DE	1177959	471307	1649266	140092	585660	725752	2335962	633371	2969333
LD	1384	364	1748	1019	5494	6513	13982	15346	29328
PD	54201	15101	69302	97429	83816	181245	99367	43375	142742

Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A 2.3: Trend of Net Inter-state migration in India (0-9-year duration), NSS, 1993, 1999-2000, 2007-2008

States	Net Migration		
	1993	1999-2000	2007-2008
AP	-154277	-87703	-53383
AS	-40697	-66881	-73214
BI	-761092	-1714674	-2570194
GO	-68641	19602	113096
GU	-51463	364254	893154
HA	384494	742494	359574
HP	-12938	44701	53405
JK	-31223	-117661	-22025
KA	-178795	-137099	420910
KE	-126091	-17181	17184
MP	95097	249846	-101098
MA	945187	1439864	1620048
NE	-98721	-153919	-77394
OD	-25212	37628	-244733
PU	-193415	320292	228826
RA	39529	-189594	-121461
TN	161204	-106808	-40863
UP	-993838	-578337	-2422561
WB	227600	277899	49879
AN	19079	5574	17312
CH	116944	99146	134548
DN	2427	7654	41114
DD	-1930	-2667	20657
DE	706652	-445568	1702591
LD	1020	-4475	-1364
PD	39100	13613	55992

Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A 2.4: Bilateral flow of labor migrants between States and Union Territories (UTs) of India (0-9 year duration), National Sample Survey, 1993, 1999-2000, 2007-2008

States	1993			1999-2000			2007-2008		
	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow	Total Inflow (Excluding Other Countries)	Total Outflow	Gross migration flow
AP	83134	125790	208924	127357	118996	246353	177986	159589	337575
AS	27171	14076	41247	7240	36348	43588	18289	42823	61112
BI	150760	461231	611991	42958	767932	810890	36757	1323072	1359829
GO	11734	23091	34825	40461	9529	49990	58920	3585	62505
GU	145715	83049	228764	297282	86697	383979	673780	127215	800995
HA	183143	41987	225130	271405	50601	322006	221885	97878	319763
HP	21860	23666	45526	46575	32004	78579	42704	20676	63380
JK	5562	15092	20654	31600	47259	78859	23118	20224	43342
KA	48541	142189	190730	201517	195176	396693	393196	189072	582268
KE	45719	130853	176572	88448	190377	278825	101853	148843	250696
MP	107415	56829	164244	160130	168351	328481	131665	172189	303854
MA	510493	105723	616216	1050287	198514	1248801	1109181	178911	1288092
NE	11733	32042	43775	17172	24541	41713	32992	25491	58483
OD	35066	44942	80008	73172	116051	189223	48772	246145	294917
PU	95532	111350	206882	357348	73340	430688	372701	106930	479631
RA	93601	113517	207118	125566	273042	398608	159508	224943	384451
TN	96195	82619	178814	168911	185244	354155	168295	175542	343837
UP	150030	657730	807760	319233	864493	1183726	307227	1729791	2037018
WB	174390	132274	306664	154232	163937	318169	187662	275892	463554
AN	10172	4	10176	4914	2559	7473	11318	638	11956
CH	53491	8315	61806	48109	8881	56990	61553	10246	71799
DN	812	13	825	9377	6246	15623	21230	2144	23374
DD	373	1199	1572	9150	1370	10520	18809	3657	22466
DE	454563	116738	571301	79721	110793	190514	1047154	145736	1192890
LD	365	92	457	612	1939	2551	878	2567	3445
PD	11179	4338	15517	17969	16526	34495	10015	3649	13664

Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A 2.5: Trend of Net Inter-state labor migration in India (0-9 year duration), NSS, 1993, 1999-2000, 2007-2008

States	Net Migration		
	1993	1999-2000	2007-2008
AP	-42656	8361	18397
AS	13095	-29108	-24534
BI	-310471	-724974	-1286315
GO	-11357	30932	55335
GU	62666	210585	546565
HA	141156	220804	124007
HP	-1806	14571	22028
JK	-9530	-15659	2894
KA	-93648	6341	204124
KE	-85134	-101929	-46990
MP	50586	-8221	-40524
MA	404770	851773	930270
NE	-20309	-7369	7501
OD	-9876	-42879	-197373
PU	-15818	284008	265771
RA	-19916	-147476	-65435
TN	13576	-16333	-7247
UP	-507700	-545260	-1422564
WB	42116	-9705	-88230
AN	10168	2355	10680
CH	45176	39228	51307
DN	799	3131	19086
DD	-826	7780	15152
DE	337825	-31072	901418
LD	273	-1327	-1689
PD	6841	1443	6366

Source: Unit level data of NSS 49th (1993), 55th (1999-2000) and 64th (2007-2008) rounds

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for the 2007-2008.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A 4.1: Percentage of households having one or more non-resident members according to states by place of residence, IHDS, 2005 and 2011-12.

States	2005			2011-12		
	Rural	Urban	Total	Rural	Urban	Total
AP	9.9	4.3	8.5	13.3	8.7	11.8
AS	1.0	3.0	1.4	5.4	4.8	5.3
BI	19.2	13.6	18.6	38.0	24.5	36.3
CH	0.0	0.0	0.0	0.0	17.7	17.7
CG	11.0	8.9	10.6	21.6	23.2	22.0
DN	8.3	0.0	8.3	13.0	0.0	1.8
DD	1.1	0.0	1.1	5.0	0.0	5.0
DE	0.0	2.1	2.0	4.8	11.7	11.6
GO	2.7	0.3	1.0	1.5	0.0	0.2
GU	8.2	3.2	6.3	13.5	6.5	10.4
HA	5.2	1.9	4.4	9.1	9.4	9.2
HP	13.7	9.8	13.3	34.5	28.4	33.9
JK	4.7	2.2	4.2	24.1	13.7	21.9
JH	6.1	10.9	6.9	13.4	16.1	13.9
KA	9.5	6.0	8.2	22.5	13.5	18.9
KE	9.8	5.9	8.8	13.7	11.1	12.5
MP	5.2	3.0	4.6	28.4	21.5	26.5
MA	8.4	1.7	5.6	10.4	2.8	7.0
NE	3.7	6.5	4.3	16.8	8.3	14.4
OD	7.8	9.8	8.1	15.7	12.9	15.2
PD	3.0	4.4	4.1	3.2	8.7	7.6
PU	3.0	2.7	2.9	13.1	12.6	12.9
RA	14.2	7.4	12.5	29.5	13.4	25.6
TN	7.6	3.9	6.0	9.6	6.2	8.0
UP	18.3	13.5	17.3	32.4	18.4	29.4
UK	19.6	8.7	17.4	40.2	22.1	35.0
WB	10.1	7.2	9.3	19.1	9.1	16.0
TOT	10.7	5.5	9.2	21.5	10.9	18.1

Notes:

1. One or more non-resident member excludes, non-resident members who have migrated to abroad, same village/town, and another state in same village (wrongly classified).
2. North Eastern states include Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
3. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chhatisgarh (CG), Chandigarh (CH), Daman and Diu (DD), Delhi (DE), Dadra and Nagar Haveli (DN), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jharkhand (JH), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Maharashtra (MA), Madhya Pradesh (MP), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttarakhand (UK), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)
4. Sample for IHDS 1 (2005) N=41, 554 households; 3, 375 households having one or more non-resident members; IHDS 2 (2011-12) N=42, 152 households; 7,427 households having one or more non-resident members

Table A 4.2: Percentage of non-resident member according to place of destination by states, IHDS, 2004-05 and 2011-12

States	2004-05						2011-12					
	SSR	SSU	SSM	ASR	ASU	ASM	SSR	SSU	SSM	ASR	ASU	ASM
AP	23.2	39.1	24.7	0.9	0.7	11.5	19.7	37.5	29.5	1.0	2.1	10.3
AS	0.0	48.3	30.1	1.3	14.1	6.3	5.2	31.3	8.0	2.2	42.1	11.2
BI	10.4	5.8	7.0	0.2	7.3	69.4	6.1	16.1	0.3	5.7	37.5	34.3
CG	61.3	19.1	6.8	2.5	0.2	10.1	45.4	33.3	0.1	7.2	10.4	3.6
CH	-	-	-	-	-	-	0.0	19.4	3.2	32.3	29.0	16.1
DD	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
DE	0.0	0.0	0.0	75.3	1.1	23.7	3.9	0.8	4.1	60.8	23.6	6.9
DN	54.2	0.0	0.0	36.4	0.0	9.5	46.3	41.8	0.0	0.0	11.9	0.0
GO	8.3	64.9	0.0	26.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
GU	69.4	9.1	16.4	2.0	0.5	2.5	40.1	48.2	3.9	3.6	2.6	1.7
HA	37.0	15.9	2.9	1.8	9.5	32.9	13.5	39.7	2.0	6.3	21.9	16.6
HP	25.5	11.6	2.9	11.7	23.8	24.5	20.9	29.0	0.3	4.5	32.6	12.8
JH	19.2	22.7	5.6	15.4	21.1	16.0	9.1	52.8	0.0	3.0	19.1	16.1
JK	32.0	10.9	24.9	5.6	18.6	8.0	14.4	41.5	0.0	10.7	27.9	5.6
KA	43.2	21.3	20.3	1.2	4.4	9.7	50.5	23.5	17.1	0.9	4.5	3.4
KE	12.6	17.1	18.7	2.0	7.8	41.8	24.6	17.7	1.8	3.6	20.3	32.1
MA	36.0	20.2	37.1	1.2	2.1	3.3	30.0	48.3	15.6	2.0	3.5	0.6
MP	43.9	18.0	10.8	2.6	5.4	19.4	38.8	33.1	0.3	4.9	13.1	9.9
NE	32.9	27.4	8.9	0.0	4.3	26.6	25.7	46.0	0.0	2.9	14.1	11.3
OD	26.7	29.7	13.1	1.7	6.5	22.3	21.4	26.4	1.7	2.2	18.3	30.1
PD	0.0	0.0	0.0	0.0	59.2	40.8	6.2	0.0	0.0	0.0	0.0	93.8
PU	7.4	7.6	13.6	7.8	6.0	57.7	29.9	33.0	0.4	14.2	17.5	5.0
RA	31.6	12.1	12.9	1.5	8.9	33.0	20.2	34.8	4.1	4.2	17.4	19.3
TN	14.6	33.2	31.1	1.7	9.2	10.3	18.4	39.1	27.5	0.4	5.6	9.1
UK	8.4	9.5	11.4	2.8	14.9	53.1	12.7	16.2	1.3	5.8	20.0	44.0
UP	19.1	11.5	11.9	2.4	6.2	49.0	15.1	15.0	0.5	3.5	31.0	35.0
WB	42.6	21.9	8.6	6.6	6.8	13.6	21.1	16.0	16.4	4.6	23.3	18.6
TOT	27.4	16.1	14.0	2.7	6.4	33.4	20.5	24.4	4.5	4.7	22.7	23.2

Notes: 1. Same as notes 1, 2 and 3 of Table A 4.1.

Table A 5.1: Percentage (Prevalence) of seasonal labor migrants according to place of origin by states, IHDS, 2011-12

States	Rural	Urban	Total
AP	3.6	0.4	2.5
AS	1.6	0.2	1.4
BI	4.4	2.4	4.1
CG	3.4	0.3	2.7
CH	-	0.8	0.8
DD	2.7	-	2.7
DE	0.0	0.2	0.2
DN	0.0	0.0	0.0
GO	0.0	0.0	0.0
GU	2.7	0.2	1.6
HA	0.4	0.1	0.3
HP	0.5	0.3	0.5
JH	1.4	0.4	1.2
JK	1.0	0.3	0.9
KA	2.3	0.9	1.8
KE	0.3	0.1	0.2
MA	2.4	0.0	1.3
MP	4.7	0.7	3.6
NE	0.3	0.4	0.3
OD	1.9	0.4	1.7
PD	0.0	0.6	0.4
PU	0.4	0.2	0.3
RA	2.6	0.3	2.0
TN	1.6	0.5	1.0
UK	0.6	0.1	0.5
UP	2.1	0.7	1.8
WB	2.9	0.5	2.2
TOT	2.5	0.5	1.8

Notes:

1. Seasonal labor migrants exclude those who have migrated to abroad
2. Place of residence refers to seasonal migrant's place of origin.
3. North Eastern states*: Arunachal Pradesh, Tripura, Manipur, Meghalaya, Mizoram, Sikkim and Nagaland.
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Chandigarh (CH), Chhatisgarh (CG), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Jharkhand (JH), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Puducherry (PD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), Uttarakhand (UK), West Bengal (WB)

Table A 5.2: Percentage distribution of seasonal labor migrants according to place of origin by states, IHDS, 2011-12

States	Rural	Urban
AP	94.3	5.7
AS	98.4	1.6
BI	92.6	7.4
CG	96.9	3.1
CH	0.0	100.0
DD	100.0	0.0
DE	0.0	100.0
GU	94.2	5.8
HA	93.3	6.7
HP	93.0	7.1
JH	94.1	5.9
JK	92.9	7.1
KA	80.1	19.9
KE	87.1	12.9
MA	98.7	1.3
MP	94.2	5.8
NE	63.1	36.9
OD	95.6	4.4
PD	0.0	100.0
PU	82.8	17.2
RA	96.1	3.9
TN	76.8	23.2
UK	92.8	7.2
UP	91.4	8.6
WB	92.3	7.7
TOT	92.3	7.7

Notes: Same as Appendix Table A 5.1

Table A 5.3: Percent distribution of seasonal labor migrants (last five years) according to type of place of destination by states, IHDS, 2011-12

States	SSR	SSU	ASR	ASU	Total
AP	32.4	53.4	4.9	9.3	100.0
AS	34.1	14.6	33.6	17.8	100.0
BI	3.6	4.7	27.4	64.4	100.0
CG	21.4	20.7	19.0	38.9	100.0
CH	0.0	0.0	0.0	100.0	100.0
DD	28.2	71.8	0.0	0.0	100.0
DE	0.0	10.0	60.0	30.0	100.0
DN	0.0	0.0	0.0	0.0	0.0
GO	0.0	0.0	0.0	0.0	0.0
GU	50.6	43.4	0.7	5.3	100.0
HA	23.6	9.6	26.1	40.7	100.0
HP	25.8	35.2	8.3	30.7	100.0
JH	10.8	13.5	23.2	52.5	100.0
JK	6.8	16.0	30.7	46.5	100.0
KA	28.5	53.6	7.4	10.5	100.0
KE	8.9	58.7	26.0	6.4	100.0
MA	74.7	15.4	7.3	2.5	100.0
MP	14.2	23.3	13.6	48.8	100.0
NE	34.5	27.4	10.9	27.2	100.0
OD	18.3	21.0	2.2	58.4	100.0
PD	0.0	0.0	100.0	0.0	100.0
PU	19.4	19.0	28.4	33.2	100.0
RA	28.4	26.6	11.3	33.7	100.0
TN	31.1	51.3	1.3	16.3	100.0
UK	10.9	26.2	0.0	62.9	100.0
UP	6.6	12.9	21.9	58.7	100.0
WB	15.2	27.6	4.0	53.1	100.0
TOT	21.5	24.3	14.4	39.8	100.0

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

2. Acronyms of place of residence: Same state rural (SSR), same state urban (SSU), another state rural (ASR), another state urban (ASU)

Table A 5.4: Percentage (Prevalence) of seasonal labor migrants (last five years) according to sex by states, IHDS, 2011-12

States	Male	Female
AP	3.5	1.6
AS	2.6	0.1
BI	8.4	0.1
CG	4.7	0.7
CH	1.0	0.6
DD	4.5	0.8
DE	0.3	0.1
DN	0.0	0.0
GO	0.0	0.0
GU	2.6	0.6
HA	0.5	0.1
HP	0.9	0.0
JH	2.1	0.4
JK	1.7	0.0
KA	3.0	0.5
KE	0.4	0.0
MA	1.8	0.8
MP	6.1	1.0
NE	0.5	0.1
OD	3.1	0.3
PD	0.9	0.0
PU	0.6	0.0
RA	3.4	0.6
TN	1.9	0.2
UK	1.0	0.0
UP	3.6	0.0
WB	4.2	0.1
TOT	3.3	0.4

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

Table A 5.5: Percentage (Prevalence) of seasonal labor migrants (last five years) according to education by states, IHDS, 2011-12

States	Up to primary	Up to high school	Up to intermediate	Graduation and above
AP	3.0	2.1	0.7	1.7
AS	1.4	1.6	0.5	1.1
BI	3.7	5.6	4.6	3.0
CG	2.5	3.6	1.7	0.8
CH	0.0	0.0	0.0	2.7
DD	2.6	2.6	5.0	0.0
DE	0.2	0.3	0.0	0.3
DN	0.0	0.0	0.0	0.0
GO	0.0	0.0	0.0	0.0
GU	2.0	1.5	1.0	0.1
HA	0.3	0.4	0.4	0.0
HP	0.3	0.7	0.4	0.3
JH	1.2	1.8	0.2	0.0
JK	0.9	1.2	0.1	0.1
KA	1.5	2.1	1.3	2.4
KE	0.2	0.1	0.1	0.7
MA	1.8	1.2	0.9	0.3
MP	3.3	4.6	3.2	1.0
NE	0.2	0.3	1.3	0.1
OD	1.4	2.3	1.9	0.5
PD	1.5	0.0	0.0	0.0
PU	0.3	0.4	0.3	0.5
RA	1.7	3.2	2.1	0.5
TN	0.9	1.0	2.2	0.7
UK	0.3	0.7	0.8	0.6
UP	1.5	2.6	1.9	1.1
WB	2.6	1.8	1.2	0.7
TOT	1.9	2.0	1.3	0.8

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

Table A 5.6: Percentage (Prevalence) of seasonal labor migrants (last five years) according to Social group by states, IHDS, 2011-12

States	Forward castes	OBCs	SCs/STs	Others
AP	1.0	2.3	3.8	0.4
AS	0.8	2.2	2.1	0.0
BI	2.2	3.8	6.3	-
CG	0.2	2.1	3.9	-
CH	1.4	0.0	0.0	-
DD	2.7	5.1	0.0	-
DE	0.1	0.1	0.5	0.0
DN	0.0	0.0	0.0	0.0
GO	0.0	0.0	0.0	-
GU	0.4	1.0	4.5	0.4
HA	0.1	0.3	0.4	0.0
HP	0.3	0.2	0.8	0.0
JH	1.2	0.9	1.6	-
JK	1.0	0.0	1.5	0.0
KA	1.1	1.6	2.4	1.7
KE	0.5	0.1	0.0	0.0
MA	0.2	1.8	2.5	0.9
MP	1.4	2.5	6.4	-
NE	0.5	0.3	0.2	0.0
OD	0.8	2.2	1.5	0.0
PD	0.0	0.5	0.0	-
PU	0.4	0.2	0.3	-
RA	1.2	1.6	3.3	1.2
TN	0.5	0.9	1.4	0.2
UK	0.6	0.2	0.6	-
UP	1.0	1.8	2.6	0.0
WB	1.7	2.2	2.8	0.5
TOT	0.9	1.8	2.8	0.7

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

Table A 5.7: Percentage distribution of seasonal labor migrants (last five years) according to Social group by states, IHDS, 2011-12

States	Forward castes	OBCs	SCs/STs	Others
AP	5.4	50.8	43.3	0.5
AS	27.6	17.1	55.3	0.0
BI	9.8	55.4	34.8	0.0
CG	0.9	38.6	60.5	0.0
CH	100.0	0.0	0.0	0.0
DD	9.6	90.4	0.0	0.0
DE	11.1	11.1	77.8	0.0
GU	7.2	27.2	65.2	0.4
HA	18.0	40.5	41.6	0.0
HP	36.0	3.8	60.2	0.0
JH	18.8	24.3	56.9	0.0
JK	80.1	0.0	19.9	0.0
KA	10.1	46.2	38.4	5.3
KE	65.5	34.5	0.0	0.0
MA	6.0	45.6	47.8	0.6
MP	8.2	31.0	60.9	0.0
NE	47.8	8.4	43.8	0.0
OD	7.8	58.5	33.7	0.0
PD	0.0	100.0	0.0	0.0
PU	46.6	14.4	39.0	0.0
RA	11.2	39.1	49.1	0.7
TN	1.2	54.7	43.4	0.7
UK	40.2	9.2	50.6	0.0
UP	12.8	53.1	34.2	0.0
WB	38.0	9.7	52.0	0.3
TOT	12.8	41.6	45.2	0.5

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

Table A 5.8: Percentage (Prevalence) of seasonal labor migrants (last five years) according to Religion by states, IHDS, 2011-12

States	Hindu	Muslims	Others
AP	2.7	0.7	3.5
AS	1.5	0.8	4.1
BI	4.2	3.5	0.0
CG	2.6	3.4	2.5
CH	1.1	0.0	0.0
DD	2.4	33.3	
DE	0.2	0.0	0.9
DN	0.0		0.0
GO	0.0	0.0	0.0
GU	1.7	0.4	3.9
HA	0.3	0.7	0.0
HP	0.5	0.0	0.0
JH	1.5	1.0	0.6
JK	1.8	0.2	0.0
KA	1.6	2.5	2.0
KE	0.1	0.2	0.5
MA	1.1	0.2	4.2
MP	3.8	0.7	0.3
NE	0.4	0.0	0.2
OD	1.7	0.0	0.2
PD	0.5	0.0	
PU	0.2	0.0	0.5
RA	2.2	0.9	1.1
TN	1.1	1.5	0.3
UK	0.5	0.4	0.0
UP	1.8	1.9	0.0
WB	1.9	2.9	0.8
TOT	1.9	1.5	1.3

Notes: 1. Same as notes 1,3 and 4 of Appendix Table A 5.1

Table A 6.1: Net increase in rural-urban migration to urban population increase, 1991-2001 and 2001-2011 (%)

States	1991-2001	2001-2011	2001 (0-9 duration of residence)	2011 (0-9 duration of residence)
AN	37.8	47.7	12.5	49.4
AP	-28.3	27.6	25.1	19.6
AS	17.6	26.2	19.1	27
BI	-0.4	15.4	21	19
CH	56.1	42.3	46.2	63.2
DD	-32.5	74.9	-26.4	61.7
DE	39.7	25	29.7	42.7
DN	35.2	58.7	20.5	51.4
GO	37.3	29	8.5	21
GU	26.9	30.3	35.1	35.7
HA	34.2	30.8	26.4	30.8
HP	76.8	-27.5	37.3	31.7
KA	17.6	12.4	20.5	20.9
KE	97.1	29	18.1	11.9
LA	91.7	7.6	57.2	1.6
MA	36.8	12.4	29.8	35.5
MP	12.8	19.8	23.8	23.8
NE	29.1	23.7	17.5	15.6
OD	29.1	18.8	35.4	32.8
PD	5.2	-3.2	12.8	5.8
PU	26.8	4.5	21.3	19.9
RA	9.7	21.9	15.9	18.4
TN	4.1	20.4	5.5	14
UP	11.6	22.6	12.6	19.1
WB	31.5	12.1	17.5	13.7
TOT	19.5	20.8	21.2	22.9

Notes:

1. North-Eastern States include Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura
2. Newly created states, Jharkhand, Chhattisgarh and Uttarakhand were merged with their mother states Bihar, Madhya Pradesh and Uttar Pradesh respectively for 2001 and 2011.
4. Acronyms of States and Union Territories: Andhra Pradesh (AP), Assam (AS), Bihar (BI), Goa (GO), Gujarat (GU), Haryana (HA), Himachal Pradesh (HP), Jammu & Kashmir (JK), Karnataka (KA), Kerala (KE), Madhya Pradesh (MP), Maharashtra (MA), North Eastern States (NE), Odisha (OD), Punjab (PU), Rajasthan (RA), Tamil Nadu (TN), Uttar Pradesh (UP), West Bengal (WB), Andaman and Nicobar Islands (AN), Chandigarh (CH), Dadra & Nagar Haveli (DN), Daman & Diu (DD), Delhi (DE), Lakshadweep (LD), Puducherry (PD)

Table A8.1.1.1: Actual Labour Force - LF & LFPR (All Ages)

	Labour Force (in Millions)				(LFPR per 1000)			
	1993-94	1999-00	2004-05	2011-12	1993-94	1999-00	2004-05	2011-12
Andhra Pradesh + Telangana	36.44	37.20	40.16	40.90	526.89	495.94	507.35	479.01
Assam	8.53	9.41	11.07	11.05	362.33	360.46	390.94	349.51
Bihar	22.78	26.51	28.60	29.54	334.05	325.83	315.96	278.41
Gujarat	19.48	22.16	25.17	25.73	445.03	447.96	464.85	419.29
Haryana	6.59	7.07	9.26	9.02	373.14	344.47	409.45	350.22
Himachal Pradesh	2.43	2.56	3.40	3.66	449.12	429.87	533.44	527.93
Karnataka	22.45	23.58	27.44	26.51	477.04	454.64	491.78	428.51
Kerala	12.38	13.35	14.11	13.57	414.82	423.70	445.92	400.59
Madhya Pradesh	22.50	24.69	28.03	28.53	439.28	420.04	432.74	386.86
Maharashtra	38.60	41.54	48.36	49.69	461.68	439.33	471.74	436.65
Orissa	14.45	15.20	17.95	17.93	437.51	420.30	463.87	422.39
Punjab	8.19	9.56	11.11	11.27	383.94	401.29	434.17	401.64
Rajasthan	21.95	23.08	26.76	28.10	464.77	420.58	439.77	403.36
Tamil Nadu	28.88	29.10	32.23	33.02	503.00	473.34	488.89	452.05
Uttar Pradesh	51.52	55.87	65.87	69.15	363.01	341.82	369.39	340.78
West Bengal	27.53	28.98	33.38	37.51	385.92	368.40	396.56	406.38
Uttarakhand	3.15	2.63	4.05	3.79	488.92	394.61	446.96	370.21
Jharkhand	9.17	9.47	11.93	11.99	377.72	371.41	409.77	357.44
Chhattisgarh	9.57	9.49	10.87	12.09	505.36	462.78	482.72	465.29
Jammu and Kashmir	4.32	4.66	4.46	5.17	514.37	473.60	405.34	405.17
Total	380.07	406.86	466.84	482.29	425.17	404.80	427.05	392.68

Table A8.1.1.2: LF-Growth Calculations (All Ages)

	1993-94 to 1999-00	1999-00 to 2004-05	2004-05 to 2011-12	C. Average Growth	NCEUS Method*
Andhra Pradesh + Telangana	0.342	1.544	0.262	0.645	-0.231
Assam	1.655	3.294	-0.021	1.459	-0.004
Bihar	2.558	1.527	0.461	1.456	-0.290
Gujarat	2.171	2.575	0.317	1.562	-0.088
Haryana	1.169	5.558	-0.378	1.786	-0.008
Himachal Pradesh	0.897	5.783	1.075	2.324	0.557
Karnataka	0.817	3.085	-0.494	0.937	-0.178
Kerala	1.260	1.116	-0.559	0.512	-0.018
Madhya Pradesh	1.563	2.574	0.253	1.334	-0.241
Maharashtra	1.231	3.084	0.388	1.418	-0.075
Orissa	0.839	3.387	-0.018	1.214	-0.003
Punjab	2.607	3.045	0.202	1.793	0.161
Rajasthan	0.837	2.999	0.702	1.385	-0.291
Tamil Nadu	0.127	2.061	0.350	0.751	-0.237
Uttar Pradesh	1.360	3.350	0.696	1.655	-0.070
West Bengal	0.858	2.868	1.677	1.735	0.137
Uttarakhand	-2.921	8.989	-0.939	1.158	-0.540
Jharkhand	0.548	4.721	0.076	1.524	-0.029
Chhattisgarh	-0.142	2.754	1.539	1.316	-0.187
Jammu and Kashmir	1.279	-0.872	2.146	1.019	-0.682
Total	1.141	2.789	0.466	1.336	-0.129

Refers to annual growth rate of LFPR

Table A8.1.2.1: Projected Labour Force - LFPR, LFPR and LF calculations-NCEUS Method (All Ages)

	Total Projected LF (in Millions)					Total Projected LFPR (LFPR per 1000)				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	40.9	41.37	41.91	42.1	41.91	483.62	467.47	455.92	444.38	432.84
Assam	11.05	11.65	12.36	13.02	13.62	354.16	349.29	349.07	348.84	348.62
Bihar	29.54	30.21	31.27	32.2	32.83	283.73	263.9	249.38	234.87	220.36
Gujarat	25.73	26.72	27.91	28.89	29.63	425.73	414.89	410.49	406.09	401.69
Haryana	9.02	9.43	9.92	10.33	10.67	355.84	349.82	349.41	349.01	348.6
Himachal Pradesh	3.66	3.97	4.31	4.64	4.96	533.33	555.79	583.65	611.52	639.38
Karnataka	26.51	26.89	27.37	27.6	27.61	433.9	419.6	410.69	401.78	392.88
Kerala	13.57	13.78	14.12	14.39	14.57	406.18	399.68	398.76	397.84	396.92
Madhya Pradesh	28.53	29.52	30.74	31.69	32.25	392.9	374.83	362.79	350.76	338.73
Maharashtra	49.69	50.94	52.44	53.58	54.36	442.16	432.89	429.13	425.37	421.61
Orissa	17.93	18.62	19.44	20.18	20.79	427.1	422.26	422.13	421.99	421.86
Punjab	11.27	11.83	12.48	13.06	13.55	406.13	409.67	417.7	425.73	433.76
Rajasthan	28.1	29.07	30.23	31.04	31.44	409.93	388.81	374.26	359.71	345.16
Tamil Nadu	33.02	32.94	32.99	32.77	32.28	457.7	440.22	428.4	416.57	404.74
Uttar Pradesh	69.15	73.73	79.32	84.43	88.48	346.1	337.28	333.77	330.26	326.76
West Bengal	37.51	39.36	41.57	43.66	45.5	410.93	413.24	420.09	426.95	433.81
Uttarakhand	3.79	3.66	3.54	3.37	3.16	375.74	343.19	316.17	289.15	262.13
Jharkhand	11.99	9.8	10.39	10.9	11.32	469.46	356.01	354.58	353.16	351.73
Chhattisgarh	12.09	16.25	17.05	17.75	18.32	366.58	455.96	446.63	437.3	427.97
Jammu and Kashmir	5.17	4.88	4.64	4.35	4.02	412.46	371.06	336.94	302.82	268.7
Total	482.29	500.1	521.68	539.51	552.47	398.31	386.25	379.83	373.4	366.98

Table A8.1.2.2: LFPR and LF calculations-Compound Average LF Growth Method (All Ages)

	Total Projected LF (in Millions)					Total Projected LFPR (LFPR per 1000)-LF C. Average Growth				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	40.9	42.24	43.62	45.04	46.51	483.62	477.3	474.55	475.48	480.43
Assam	11.05	11.88	12.77	13.73	14.76	354.16	356.25	360.87	367.98	377.97
Bihar	29.54	31.75	34.13	36.69	39.44	283.73	277.34	272.22	267.57	264.67
Gujarat	25.73	27.8	30.04	32.47	35.08	425.73	431.8	441.87	456.34	475.63
Haryana	9.02	9.86	10.77	11.77	12.85	355.84	365.65	379.4	397.43	419.88
Himachal Pradesh	3.66	4.11	4.61	5.17	5.8	533.33	575.17	623.66	680.36	747.38
Karnataka	26.51	27.77	29.1	30.49	31.94	433.9	433.36	436.71	443.84	454.52
Kerala	13.57	13.92	14.28	14.65	15.03	406.18	403.67	403.29	405.09	409.34
Madhya Pradesh	28.53	30.49	32.58	34.81	37.2	392.9	387.1	384.45	385.36	390.71
Maharashtra	49.69	53.31	57.2	61.37	65.85	442.16	453.04	468.07	487.26	510.67
Orissa	17.93	19.04	20.23	21.48	22.82	427.1	431.77	439.1	449.29	463.05
Punjab	11.27	12.31	13.46	14.71	16.08	406.13	426.45	450.52	479.56	514.54
Rajasthan	28.1	30.1	32.24	34.54	37	409.93	402.63	399.25	400.25	406.15
Tamil Nadu	33.02	34.28	35.59	36.94	38.35	457.7	458.19	462.08	469.57	480.88
Uttar Pradesh	69.15	75.06	81.48	88.45	96.02	346.1	343.37	342.88	345.99	354.6
West Bengal	37.51	40.88	44.55	48.55	52.91	410.93	429.21	450.21	474.76	504.48
Uttarakhand	3.79	4.01	4.25	4.5	4.77	375.74	376.8	380.15	386.22	395.56
Jharkhand	11.99	12.93	13.95	15.05	16.23	469.46	469.95	475.96	487.27	504
Chhattisgarh	12.09	12.91	13.78	14.71	15.71	366.58	362.22	360.99	362.44	366.86
Jammu and Kashmir	5.17	5.44	5.72	6.02	6.34	412.46	413.37	415.83	419.01	422.95
Total	482.29	515.39	550.76	588.55	628.94	398.31	398.06	401	407.35	417.78

Table A8.1.2.3: Projected Labour Force - growth rate of LF CAGR Calculations- NCEUS Method (All Ages)

	CAGR				
	2011-16	2016-21	2021-26	2026-31	2011-31
Andhra Pradesh + Telangana	0.23	0.26	0.09	-0.09	0.12
Assam	1.06	1.18	1.05	0.90	1.05
Bihar	0.45	0.69	0.59	0.39	0.53
Gujarat	0.75	0.88	0.69	0.51	0.71
Haryana	0.89	1.01	0.82	0.65	0.84
Himachal Pradesh	1.62	1.67	1.50	1.32	1.53
Karnataka	0.29	0.35	0.17	0.01	0.20
Kerala	0.31	0.49	0.38	0.26	0.36
Madhya Pradesh	0.68	0.81	0.61	0.35	0.61
Maharashtra	0.50	0.58	0.43	0.29	0.45
Orissa	0.76	0.87	0.74	0.60	0.74
Punjab	0.98	1.07	0.91	0.75	0.93
Rajasthan	0.68	0.78	0.53	0.26	0.56
Tamil Nadu	-0.05	0.03	-0.13	-0.30	-0.11
Uttar Pradesh	1.29	1.47	1.26	0.94	1.24
West Bengal	0.97	1.10	0.99	0.83	0.97
Uttarakhand	-0.71	-0.66	-0.95	-1.28	-0.90
Jharkhand	-3.96	1.18	0.97	0.76	-0.29
Chhattisgarh	6.09	0.97	0.81	0.64	2.10
Jammu and Kashmir	-1.14	-1.03	-1.27	-1.55	-1.25
Total	0.73	0.85	0.67	0.48	0.68

Table A8.1.2.4: Actual Labour Force - LF & LFPR (15-59 Age)

	Labour Force (in Millions)				(LFPR per 1000)			
	1993-94	1999-00	2004-05	2011-12	1993-94	1999-00	2004-05	2011-12
Andhra Pradesh + Telangana	32.10	33.42	37.00	37.25	777.62	743.85	740.02	663.54
Assam	8.07	8.83	10.48	10.56	569.20	569.70	607.82	514.10
Bihar	20.34	23.85	26.00	27.06	546.36	567.69	549.51	446.34
Gujarat	18.25	20.49	23.87	24.02	692.68	686.82	702.86	604.40
Haryana	6.03	6.60	8.66	8.43	647.73	578.16	643.92	509.39
Himachal Pradesh	2.13	2.34	3.01	3.24	724.50	644.57	776.94	726.26
Karnataka	20.02	21.48	25.58	24.68	720.05	683.69	706.61	595.71
Kerala	11.16	12.10	12.81	12.18	599.42	607.59	636.13	568.85
Madhya Pradesh	20.38	22.26	25.79	26.23	718.20	691.66	699.45	586.03
Maharashtra	35.12	38.03	44.10	45.83	713.71	678.37	695.22	620.77
Orissa	12.99	13.79	16.47	16.25	671.08	658.33	697.63	615.88
Punjab	7.50	8.64	10.23	10.28	602.21	621.88	649.08	566.29
Rajasthan	19.16	20.51	24.29	25.56	748.08	704.37	728.20	616.30
Tamil Nadu	25.97	26.71	29.87	30.17	728.52	678.03	700.14	627.58
Uttar Pradesh	44.99	49.48	58.15	61.53	607.05	589.32	617.32	542.14
West Bengal	25.34	26.85	30.89	34.50	607.91	576.93	586.89	578.01
Uttarakhand	2.75	2.36	3.60	3.51	759.84	635.73	684.93	573.90
Jharkhand	8.29	8.76	11.07	11.04	613.28	606.80	652.64	554.77
Chhattisgarh	8.67	8.76	10.04	11.35	785.32	760.67	752.68	707.40
Jammu and Kashmir	3.67	4.14	4.01	4.74	751.37	707.35	588.47	574.35
Total	341.61	369.49	427.98	441.76	666.89	643.34	660.52	580.24

Table A8.1.2.5: LF-Growth Calculations (15-59 Age)

	1993-94 to 1999-00	1999-00 to 2004-05	2004-05 to 2011-12	C. Average Growth	NCEUS Method
Andhra Pradesh + Telangana	0.674	2.059	0.095	0.834	-0.577
Assam	1.526	3.480	0.112	1.519	-0.189
Bihar	2.690	1.741	0.569	1.602	-0.494
Gujarat	1.949	3.095	0.089	1.544	-0.395
Haryana	1.537	5.577	-0.393	1.909	-0.589
Himachal Pradesh	1.531	5.194	1.040	2.358	0.197
Karnataka	1.176	3.554	-0.510	1.181	-0.577
Kerala	1.359	1.142	-0.725	0.488	-0.085
Madhya Pradesh	1.483	2.988	0.241	1.418	-0.636
Maharashtra	1.335	3.006	0.552	1.494	-0.439
Orissa	0.998	3.619	-0.194	1.262	-0.198
Punjab	2.372	3.437	0.069	1.772	-0.104
Rajasthan	1.146	3.439	0.729	1.621	-0.617
Tamil Nadu	0.469	2.265	0.145	0.842	-0.479
Uttar Pradesh	1.598	3.281	0.811	1.759	-0.270
West Bengal	0.972	2.842	1.591	1.732	-0.148
Uttarakhand	-2.516	8.800	-0.338	1.474	-0.890
Jharkhand	0.911	4.799	-0.038	1.622	-0.196
Chhattisgarh	0.167	2.783	1.757	1.512	-0.406
Jammu and Kashmir	1.997	-0.601	2.401	1.433	-1.104
Total	1.316	2.983	0.454	1.444	-0.399

Table A8.1.2.6: Projected Labour Force - All Ages; LFPR, LFPR and LF calculations-NCEUS Method (15-59 Age)

	Total Projected LF (in Millions)					Total Projected LFPR (LFPR per 1000)-NCEUS				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	37.25	37.18	37.38	36.5	35.11	685.58	634.67	605.8	576.94	548.07
Assam	10.56	10.68	11.48	12.03	12.27	557.22	504.64	495.17	485.7	476.23
Bihar	27.06	27.5	29.98	31.68	32	486.24	421.64	396.94	372.24	347.54
Gujarat	24.02	24.32	25.09	25.32	25.23	630.25	584.67	564.95	545.22	525.5
Haryana	8.43	8.3	8.42	8.3	8.01	538.98	479.95	450.52	421.08	391.64
Himachal Pradesh	3.24	3.45	3.67	3.83	3.9	740.42	736.11	745.97	755.82	765.68
Karnataka	24.68	23.92	23.91	23.34	22.39	629.22	566.85	537.98	509.12	480.26
Kerala	12.18	12.51	12.69	12.71	12.5	570.52	564.62	560.38	556.15	551.91
Madhya Pradesh	26.23	26.75	27.78	28	27.92	612.35	554.25	522.47	490.69	458.91
Maharashtra	45.83	46.13	47.08	47	45.73	643.97	598.84	576.91	554.99	533.06
Orissa	16.25	17.11	17.96	18.41	18.52	625.58	605.97	596.06	586.15	576.24
Punjab	10.28	10.74	11.19	11.35	11.34	579.74	561.11	555.93	550.74	545.56
Rajasthan	25.56	26.61	28.03	28.69	28.93	641.67	585.46	554.62	523.77	492.93
Tamil Nadu	30.17	30.15	29.83	28.89	27.47	635.15	603.64	579.71	555.78	531.84
Uttar Pradesh	61.53	69.21	75.74	79.96	84.22	543.92	528.65	515.16	501.67	488.18
West Bengal	34.5	36.32	37.85	38.45	38.01	588.28	570.61	563.22	555.82	548.42
Uttarakhand	3.51	3.59	3.58	3.45	3.2	580.1	529.39	484.88	440.37	395.85
Jharkhand	11.04	11.75	12.92	13.88	14.41	583.99	544.95	535.13	525.3	515.48
Chhattisgarh	11.35	11.79	12.47	12.85	13.1	736.34	687.11	666.83	646.54	626.25
Jammu and Kashmir	4.74	4.34	4.3	4.12	3.62	639.48	519.14	463.93	408.71	353.5
Total	441.76	456.63	477.55	486.78	488.67	600.66	560.31	540.38	520.46	500.53

Table A8.1.2.7: LFPR and LF calculations-Compound Average LF Growth Method (15-59 Age)

	Total Projected LF (in Millions)					Total Projected LFPR (LFPR per 1000)-LF C. Average Growth				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	37.25	38.83	40.47	42.19	43.98	685.58	662.75	655.88	666.76	686.5
Assam	10.56	11.39	12.28	13.24	14.28	557.22	538.03	529.93	534.69	554.31
Bihar	27.06	29.29	31.72	34.34	37.18	486.24	449.11	419.95	403.41	403.73
Gujarat	24.02	25.93	27.99	30.22	32.63	630.25	623.44	630.32	650.79	679.49
Haryana	8.43	9.26	10.18	11.19	12.3	538.98	535.95	545.06	567.99	601.21
Himachal Pradesh	3.24	3.64	4.09	4.59	5.16	740.42	775.58	829.97	906.48	1012.09
Karnataka	24.68	26.17	27.75	29.43	31.21	629.22	620.1	624.44	642.04	669.58
Kerala	12.18	12.48	12.78	13.1	13.42	570.52	563.08	564.33	572.93	592.5
Madhya Pradesh	26.23	28.15	30.2	32.4	34.77	612.35	583.08	568.04	567.85	571.45
Maharashtra	45.83	49.36	53.16	57.25	61.65	643.97	640.78	651.37	675.96	718.7
Orissa	16.25	17.3	18.42	19.61	20.88	625.58	612.64	611.43	624.23	649.73
Punjab	10.28	11.22	12.25	13.38	14.61	579.74	586.45	608.71	648.85	702.7
Rajasthan	25.56	27.7	30.02	32.53	35.25	641.67	609.4	593.92	593.77	600.67
Tamil Nadu	30.17	31.47	32.81	34.22	35.68	635.15	630.08	637.67	658.23	690.87
Uttar Pradesh	61.53	67.13	73.25	79.92	87.21	543.92	512.77	498.22	501.47	505.48
West Bengal	34.5	37.6	40.97	44.64	48.64	588.28	590.73	609.59	645.35	701.88
Uttarakhand	3.51	3.78	4.07	4.38	4.71	580.1	557.3	550.51	559.23	583.24
Jharkhand	11.04	11.97	12.97	14.06	15.23	583.99	555.25	537.03	532.06	544.97
Chhattisgarh	11.35	12.23	13.18	14.21	15.32	736.34	712.73	705.13	715.1	732.08
Jammu and Kashmir	4.74	5.09	5.46	5.87	6.3	639.48	608.52	589.6	581.33	615.28
Total	441.76	474.59	509.85	547.73	588.43	600.66	582.35	576.93	585.62	602.71

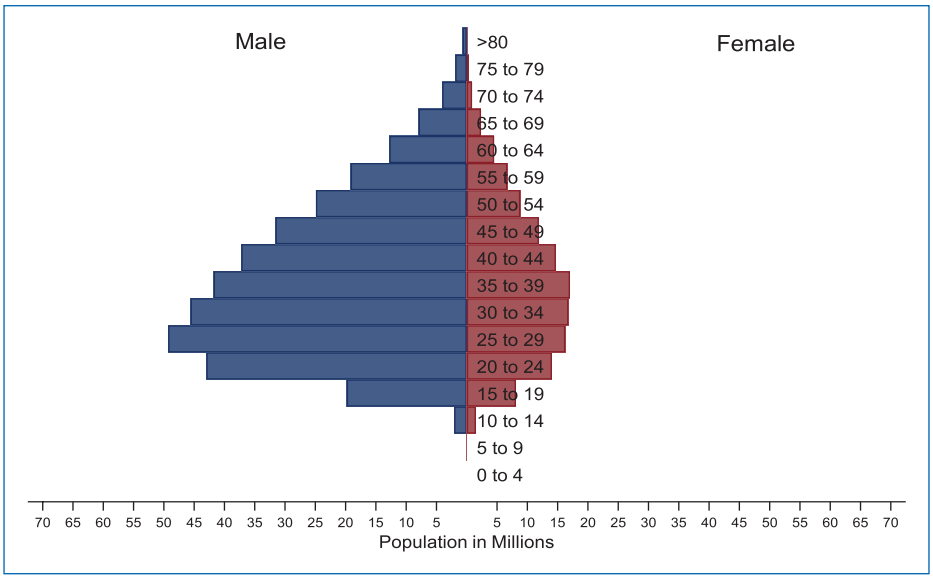
Table A8.1.2.8: Projected Labour Force - growth rate of LF CAGR Calculations- NCEUS Method (15-59 Age)

	CAGR				
	2011-16	2016-21	2021-26	2026-31	2011-31
Andhra Pradesh + Telangana	-0.04	0.11	-0.47	-0.78	-0.30
Assam	0.23	1.44	0.95	0.39	0.75
Bihar	0.33	1.74	1.11	0.20	0.84
Gujarat	0.25	0.63	0.18	-0.07	0.25
Haryana	-0.32	0.29	-0.28	-0.69	-0.25
Himachal Pradesh	1.29	1.25	0.83	0.39	0.94
Karnataka	-0.62	-0.01	-0.48	-0.83	-0.49
Kerala	0.54	0.29	0.03	-0.34	0.13
Madhya Pradesh	0.39	0.75	0.16	-0.06	0.31
Maharashtra	0.13	0.41	-0.03	-0.55	-0.01
Orissa	1.04	0.97	0.51	0.11	0.66
Punjab	0.88	0.83	0.29	-0.03	0.49
Rajasthan	0.81	1.05	0.47	0.16	0.62
Tamil Nadu	-0.02	-0.21	-0.64	-1.00	-0.47
Uttar Pradesh	2.38	1.82	1.09	1.04	1.58
West Bengal	1.03	0.83	0.31	-0.23	0.49
Uttarakhand	0.44	-0.05	-0.77	-1.50	-0.47
Jharkhand	1.24	1.93	1.43	0.75	1.34
Chhattisgarh	0.77	1.12	0.60	0.39	0.72
Jammu and Kashmir	-1.74	-0.19	-0.83	-2.58	-1.34
Total	0.66	0.90	0.38	0.08	0.51

Table A8.1.3.1: Total LF across Age Groups-NCEUS and Compound Average Method (in Millions)

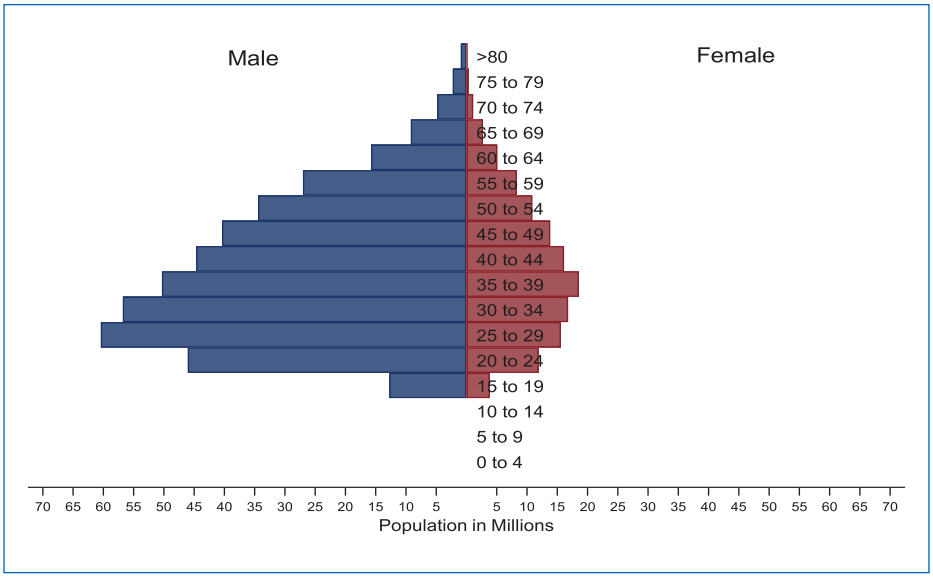
	Projected LF-NCEUS Method					Projected LF-Compound Average Method				
	2011-12	2016-17	2021-22	2026-27	2031-32	2011-12	2016-17	2021-22	2026-27	2031-32
0-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5-9	0.08	0.00	0.00	0.00	0.00	0.08	0.04	0.02	0.01	0.00
10-14	3.90	0.46	0.00	0.00	0.00	3.90	2.86	2.10	1.54	1.13
15-19	28.73	23.70	16.97	10.29	4.58	28.73	26.58	24.59	22.75	21.05
20-24	54.10	57.76	57.20	51.92	45.52	54.10	55.40	56.74	58.10	59.50
25-29	63.60	69.08	73.30	75.41	71.37	63.60	67.51	71.67	76.07	80.75
30-34	62.59	65.48	70.11	74.18	76.08	62.59	67.29	72.33	77.76	83.59
35-39	66.40	61.61	66.47	71.55	76.13	66.40	74.23	82.98	92.76	103.69
40-44	55.39	57.60	61.79	67.01	72.51	55.39	62.56	70.66	79.80	90.14
45-49	50.04	50.73	56.18	60.50	65.87	50.04	56.81	64.50	73.22	83.13
50-54	34.21	39.73	45.58	50.23	53.84	34.21	37.65	41.44	45.62	50.21
55-59	26.70	29.37	34.88	40.35	44.86	26.70	29.94	33.58	37.65	42.22
60-64	19.40	18.13	20.23	23.42	26.36	19.40	21.53	23.90	26.53	29.45
65-69	10.23	11.60	12.30	13.87	16.22	10.23	11.53	12.99	14.65	16.51
70-74	4.73	5.87	6.33	6.51	7.09	4.73	5.08	5.46	5.87	6.30
75-79	1.42	2.33	2.70	2.91	2.98	1.42	1.55	1.71	1.87	2.06
80+	0.78	0.96	1.10	1.27	1.41	0.78	0.84	0.91	0.98	1.06
Total	482.29	500.06	521.60	539.38	552.29	482.29	515.39	550.76	588.56	628.95

Figure A 8.1.1: India Male and Female Labour Force by Age, Year 2011 (NCEUS Method)



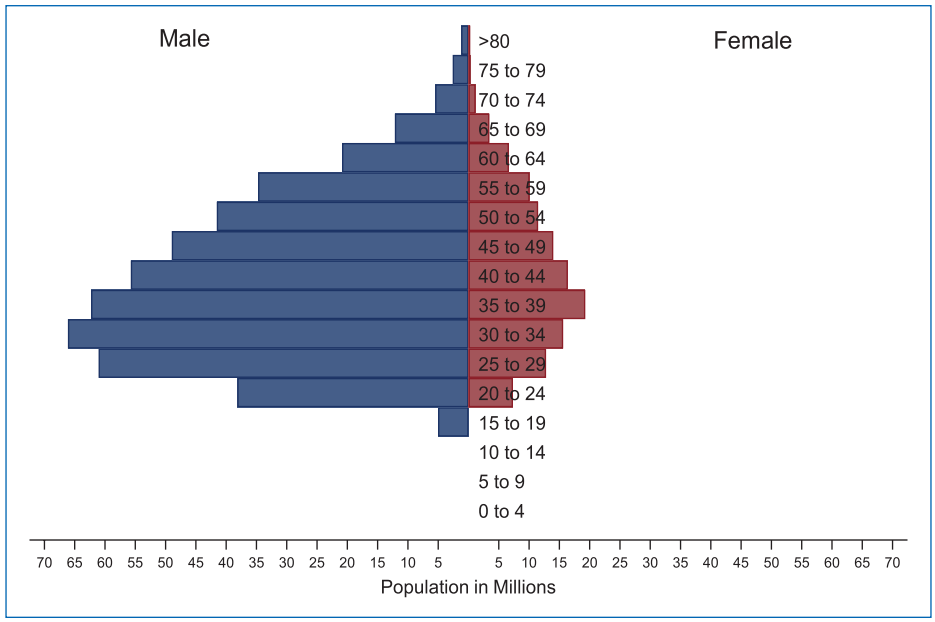
Source: NSSO Employment and Unemployment Round - LF Projection

Figure A 8.1.2: India Male and Female Labour Force by Age, Year 2021 (NCEUS Method)



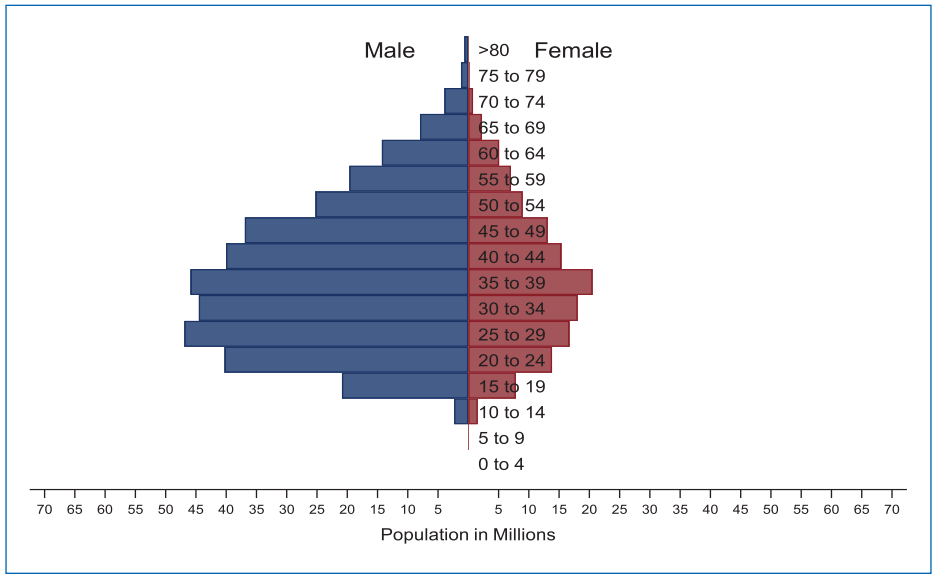
Source: NSSO Employment and Unemployment Round - LF Projection

Figure A 8.1.3: India Male and Female Labour Force by Age, Year 2031 (NCEUS Method)



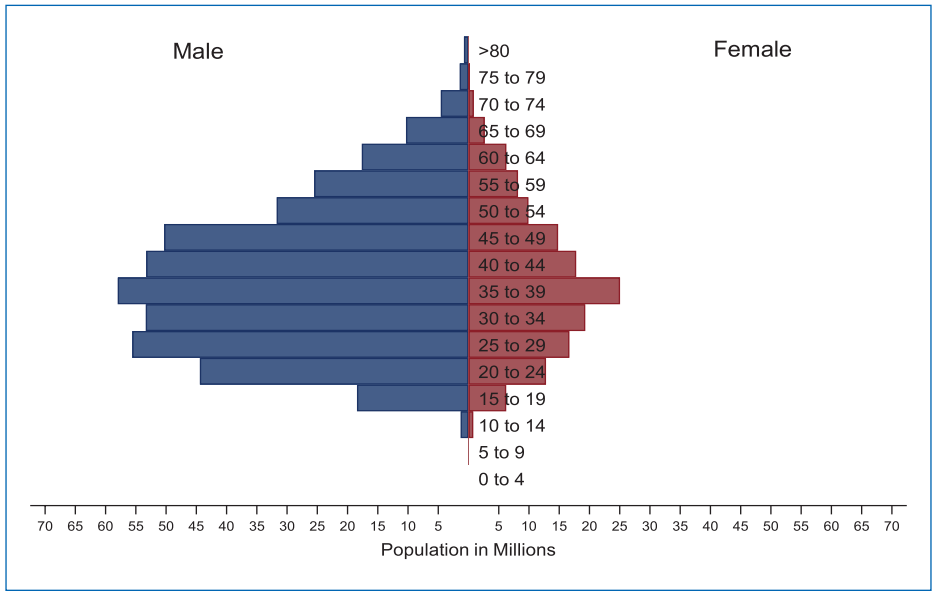
Source: NSSO Employment and Unemployment Round - LF Projection

Figure A 8.1.4: India Male and Female Labour Force by Age, Year 2011 (Compound Average Method)



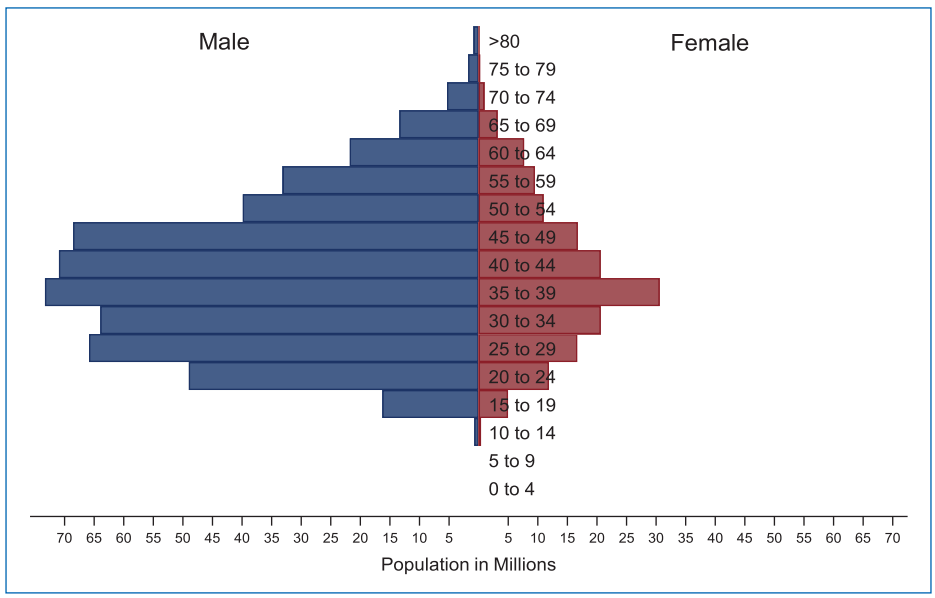
Source: NSSO Employment and Unemployment Round - LF Projection

Figure A 8.1.5: India Male and Female Labour Force by Age, Year 2021 (Compound Average Method)



Source: NSSO Employment and Unemployment Round - LF Projection

Figure A 8.1.6: India Male and Female Labour Force by Age, Year 2031 (Compound Average Method)



Source: NSSO Employment and Unemployment Round - LF Projection

Table A8.1.3.2: Projected Percentage of Labour Force in Age category

	LF Percentage Share for the Age Group (15-24)					LF Percentage Share for the Age Group (15-34)				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	15.20	12.09	8.43	5.15	2.68	42.39	40.67	40.67	31.65	27.05
Assam	15.46	17.30	15.11	12.52	9.86	42.96	44.07	44.07	37.44	33.87
Bihar	16.46	17.92	16.59	13.37	9.49	41.67	42.35	42.35	40.27	37.19
Gujarat	19.28	19.06	16.85	14.63	13.01	46.34	46.25	46.25	40.51	37.51
Haryana	16.90	13.48	9.85	6.60	3.91	46.76	44.97	44.97	37.18	32.60
Himachal Pradesh	13.51	10.45	8.19	6.26	4.66	38.46	38.22	38.22	32.52	29.37
Karnataka	16.59	13.12	9.80	6.94	4.57	42.92	41.81	41.81	32.93	28.77
Kerala	11.56	11.57	10.57	9.57	8.48	36.37	37.35	37.35	36.31	35.65
Madhya Pradesh	17.74	15.87	12.89	9.67	7.01	45.34	43.70	43.70	37.78	34.00
Maharashtra	15.87	15.27	12.72	9.92	7.72	43.51	44.14	44.14	39.18	35.92
Orissa	17.69	20.52	18.68	16.28	14.50	40.36	44.72	44.72	39.15	35.62
Punjab	18.92	17.41	15.11	12.49	10.54	46.37	45.72	45.72	41.83	39.05
Rajasthan	19.90	15.09	11.82	8.43	5.66	46.01	42.77	42.77	36.24	32.23
Tamil Nadu	13.29	14.75	11.41	7.93	5.06	39.30	42.33	42.33	35.46	31.29
Uttar Pradesh	21.36	17.30	15.19	12.71	10.83	44.53	41.56	41.56	36.38	33.09
West Bengal	17.63	18.64	16.42	13.83	11.90	44.12	46.31	46.31	42.21	39.40
Uttarakhand	13.87	12.92	8.45	4.01	0.03	38.73	44.80	44.80	40.13	34.86
Jharkhand	16.78	17.91	16.30	13.67	10.73	43.20	43.23	43.23	40.35	37.46
Chhattisgarh	15.56	15.84	12.56	9.19	6.57	42.97	43.37	43.37	37.09	33.06
Jammu and Kashmir	16.95	14.88	11.55	7.73	2.75	44.05	46.39	46.39	42.03	39.47
Total	17.17	16.17	13.54	10.63	8.35	43.34	43.41	43.41	37.99	34.52

Table A8.1.4.1: All India: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	1.49	2.03	0.45	0.00	0.00	3.97
	15 to 24	12.23	22.87	19.47	20.75	7.51	82.83
	25 to 34	26.64	27.37	24.18	28.20	19.81	126.20
	35 to 59	83.19	53.92	32.15	38.19	25.29	232.74
	60 to 69	16.32	6.64	2.50	2.82	1.34	29.62
	70 and above	3.95	1.72	0.43	0.52	0.31	6.93
	Total	143.81	114.56	79.17	90.48	54.26	482.29
		29.82	23.75	16.42	18.76	11.25	100.00
2016	0 to 14	0.29	0.53	0.13	0.00	0.00	0.95
	15 to 24	6.39	22.59	20.25	22.03	8.65	79.91
	25 to 34	19.77	29.00	28.28	33.18	24.42	134.65
	35 to 59	74.59	55.97	36.09	42.99	29.80	239.44
	60 to 69	15.55	6.65	2.86	3.34	1.63	30.03
	70 and above	5.03	2.25	0.60	0.83	0.51	9.23
	Total	123.06	119.18	89.13	103.23	65.46	500.06
		24.61	23.83	17.82	20.64	13.09	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.87	20.49	19.24	21.30	8.91	70.82
	25 to 34	11.85	30.69	32.78	38.66	29.54	143.52
	35 to 59	70.57	62.67	43.40	51.83	37.28	265.74
	60 to 69	15.86	7.15	3.46	4.16	2.07	32.71
	70 and above	5.36	2.47	0.71	1.07	0.68	10.28
	Total	101.17	124.74	100.30	117.50	77.89	521.60
		19.40	23.91	19.23	22.53	14.93	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	17.22	16.87	18.97	8.34	58.18
	25 to 34	2.75	31.78	36.95	43.76	34.47	149.70
	35 to 59	63.89	69.21	51.17	61.24	45.41	290.91
	60 to 69	16.89	8.06	4.36	5.36	2.71	37.37
	70 and above	5.46	2.60	0.80	1.30	0.84	11.00
	Total	76.52	129.42	111.31	131.66	90.47	539.38
		14.19	23.99	20.64	24.41	16.77	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	14.24	14.51	16.53	7.58	47.06
	25 to 34	0.00	31.09	39.12	46.50	37.56	147.50
	35 to 59	54.66	75.51	59.31	71.11	54.09	314.68
	60 to 69	17.88	9.08	5.43	6.80	3.47	42.67
	70 and above	5.56	2.73	0.90	1.56	1.02	11.77
	Total	49.57	132.97	121.75	145.21	102.80	552.29
		8.97	24.08	22.04	26.29	18.61	100.00

Table A8.1.4.2: AP and Telangana : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.13	0.07	0.04	0.00	0.00	0.24
	15 to 24	0.99	1.29	1.16	1.97	0.80	6.22
	25 to 34	3.36	2.18	1.75	2.27	1.57	11.12
	35 to 59	10.43	3.61	1.51	2.45	1.91	19.91
	60 to 69	2.27	0.36	0.08	0.11	0.06	2.89
	70 and above	0.46	0.06	0.00	0.01	0.01	0.53
	Total	17.63	7.58	4.54	6.81	4.35	40.90
		43.12	18.52	11.10	16.64	10.62	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.31	1.02	1.02	1.84	0.78	4.98
	25 to 34	2.60	2.35	2.14	2.73	1.94	11.76
	35 to 59	10.06	3.74	1.76	2.87	2.37	20.80
	60 to 69	2.22	0.34	0.08	0.13	0.08	2.84
	70 and above	0.71	0.06	-0.01	0.01	0.01	0.79
	Total	15.63	7.52	5.12	7.85	5.25	41.37
		37.79	18.17	12.38	18.98	12.68	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.72	0.81	1.52	0.67	3.60
	25 to 34	1.67	2.42	2.46	3.11	2.25	11.90
	35 to 59	10.30	4.15	2.17	3.55	3.06	23.23
	60 to 69	2.37	0.34	0.08	0.15	0.10	3.05
	70 and above	0.84	0.04	0.00	0.01	0.02	0.90
	Total	13.60	7.47	5.72	8.93	6.18	41.91
		32.46	17.83	13.66	21.31	14.74	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.44	0.55	1.07	0.48	2.25
	25 to 34	0.68	2.39	2.68	3.35	2.46	11.57
	35 to 59	10.21	4.50	2.58	4.25	3.80	25.34
	60 to 69	2.75	0.38	0.10	0.20	0.14	3.55
	70 and above	0.93	0.02	0.00	0.02	0.02	0.95
	Total	11.42	7.36	6.29	9.95	7.07	42.10
		27.14	17.48	14.94	23.65	16.80	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.23	0.31	0.62	0.29	1.18
	25 to 34	0.00	2.25	2.75	3.41	2.53	10.71
	35 to 59	9.73	4.74	2.97	4.90	4.51	26.84
	60 to 69	3.23	0.42	0.12	0.26	0.18	4.21
	70 and above	1.02	0.00	0.00	0.02	0.02	1.01
	Total	9.14	7.18	6.79	10.89	7.90	41.91
		21.81	17.13	16.21	25.98	18.86	100.00

Table A8.1.4.3: Assam: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.01	0.02	0.01	0.00	0.00	0.03
	15 to 24	0.17	0.44	0.53	0.50	0.07	1.71
	25 to 34	0.30	0.97	0.77	0.72	0.27	3.04
	35 to 59	0.99	2.15	1.19	1.07	0.41	5.82
	60 to 69	0.13	0.16	0.06	0.03	0.01	0.39
	70 and above	0.02	0.03	0.01	0.01	0.00	0.07
	Total	1.62	3.77	2.56	2.33	0.76	11.05
		14.69	34.14	23.20	21.12	6.85	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.10	0.45	0.63	0.61	0.09	1.89
	25 to 34	0.13	0.95	0.80	0.76	0.28	2.92
	35 to 59	0.62	2.08	1.24	1.13	0.43	5.51
	60 to 69	0.13	0.23	0.07	0.05	0.01	0.50
	70 and above	0.03	0.05	0.01	0.01	0.00	0.10
	Total	1.11	4.03	2.92	2.71	0.89	11.65
		9.51	34.59	25.04	23.23	7.63	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.02	0.40	0.64	0.63	0.09	1.79
	25 to 34	0.00	1.01	0.88	0.86	0.31	3.02
	35 to 59	0.35	2.42	1.55	1.41	0.55	6.28
	60 to 69	0.13	0.31	0.10	0.07	0.01	0.62
	70 and above	0.03	0.05	0.01	0.01	0.00	0.11
	Total	0.54	4.33	3.32	3.13	1.04	12.36
		4.33	35.03	26.88	25.35	8.41	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.33	0.61	0.61	0.09	1.58
	25 to 34	0.00	1.07	0.97	0.97	0.35	3.14
	35 to 59	0.00	2.75	1.87	1.71	0.67	6.98
	60 to 69	0.11	0.43	0.13	0.10	0.02	0.80
	70 and above	0.03	0.05	0.01	0.01	0.00	0.11
	Total	0.15	4.62	3.74	3.58	1.20	13.02
		1.14	35.48	28.71	27.46	9.19	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.25	0.53	0.54	0.08	1.30
	25 to 34	0.00	1.10	1.04	1.06	0.38	3.17
	35 to 59	0.00	3.07	2.21	2.02	0.80	7.63
	60 to 69	0.08	0.58	0.17	0.14	0.02	0.99
	70 and above	0.03	0.06	0.01	0.01	0.00	0.12
	Total	0.11	4.89	4.16	4.03	1.36	13.62
		0.84	35.93	30.55	29.58	9.97	100.00

Table A8.1.4.4: Bihar: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.16	0.12	0.00	0.00	0.00	0.28
	15 to 24	1.54	1.43	0.78	0.94	0.17	4.86
	25 to 34	2.12	1.50	1.32	1.69	0.81	7.44
	35 to 59	6.06	3.39	1.56	2.65	1.09	14.75
	60 to 69	1.10	0.30	0.18	0.18	0.03	1.79
	70 and above	0.19	0.09	0.03	0.10	0.00	0.41
	Total	11.17	6.82	3.87	5.57	2.11	29.54
		37.82	23.09	13.12	18.85	7.13	100.00
2016	0 to 14	0.08	0.08	0.00	0.00	0.00	0.17
	15 to 24	1.35	1.71	0.91	1.10	0.19	5.25
	25 to 34	1.50	1.53	1.44	1.84	0.85	7.16
	35 to 59	4.97	3.51	1.59	2.85	1.19	14.10
	60 to 69	1.15	0.31	0.22	0.23	0.04	1.94
	70 and above	0.27	0.15	0.06	0.22	0.00	0.70
	Total	9.58	7.51	4.34	6.38	2.40	30.21
		31.71	24.85	14.36	21.13	7.94	100.00
2021	0 to 14	0.02	0.02	0.00	0.00	0.00	0.04
	15 to 24	1.02	1.86	0.97	1.16	0.20	5.21
	25 to 34	1.03	1.74	1.75	2.23	0.99	7.74
	35 to 59	4.61	4.20	1.87	3.52	1.48	15.67
	60 to 69	1.14	0.30	0.26	0.27	0.05	2.01
	70 and above	0.24	0.16	0.07	0.27	0.00	0.74
	Total	8.00	8.32	4.88	7.32	2.74	31.26
		25.60	26.62	15.61	23.42	8.75	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.60	1.74	0.89	1.06	0.17	4.47
	25 to 34	0.52	2.13	2.25	2.86	1.24	9.00
	35 to 59	4.02	4.90	2.15	4.23	1.79	17.08
	60 to 69	1.18	0.31	0.31	0.32	0.06	2.18
	70 and above	0.18	0.16	0.07	0.30	0.00	0.71
	Total	6.28	9.14	5.43	8.28	3.08	32.20
		19.49	28.39	16.85	25.71	9.56	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.25	1.39	0.71	0.84	0.13	3.31
	25 to 34	0.00	2.41	2.65	3.36	1.43	9.67
	35 to 59	3.34	5.76	2.50	5.09	2.16	18.84
	60 to 69	1.27	0.33	0.38	0.40	0.07	2.46
	70 and above	0.12	0.14	0.07	0.30	0.00	0.62
	Total	4.39	9.90	5.94	9.19	3.40	32.83
		13.38	30.15	18.10	28.00	10.37	100.00

Table A8.1.4.5: Gujarat : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.05	0.11	0.04	0.00	0.00	0.20
	15 to 24	0.53	1.79	1.21	1.17	0.26	4.96
	25 to 34	1.07	1.56	1.75	1.60	0.99	6.96
	35 to 59	4.08	3.02	1.56	2.15	1.28	12.09
	60 to 69	0.61	0.32	0.07	0.06	0.08	1.13
	70 and above	0.25	0.09	0.02	0.01	0.01	0.38
	Total	6.59	6.89	4.64	5.00	2.61	25.73
		25.60	26.77	18.05	19.41	10.16	100.00
2016	0 to 14	0.03	0.08	0.03	0.00	0.00	0.14
	15 to 24	0.22	1.83	1.36	1.25	0.31	4.96
	25 to 34	0.69	1.45	2.05	1.77	1.13	7.08
	35 to 59	3.61	2.93	1.73	2.37	1.47	12.11
	60 to 69	0.62	0.33	0.09	0.08	0.10	1.23
	70 and above	0.33	0.12	0.04	0.01	0.02	0.52
	Total	5.65	6.89	5.44	5.61	3.12	26.72
		21.14	25.79	20.37	21.02	11.67	100.00
2021	0 to 14	0.01	0.04	0.02	0.00	0.00	0.08
	15 to 24	0.00	1.71	1.40	1.22	0.33	4.58
	25 to 34	0.29	1.34	2.38	1.96	1.28	7.25
	35 to 59	3.42	3.09	2.08	2.81	1.79	13.20
	60 to 69	0.66	0.37	0.12	0.11	0.14	1.39
	70 and above	0.42	0.16	0.06	0.01	0.03	0.67
	Total	4.66	6.93	6.33	6.31	3.68	27.91
		16.68	24.82	22.70	22.62	13.19	100.00
2026	0 to 14	0.00	0.01	0.01	0.00	0.00	0.02
	15 to 24	0.00	1.55	1.37	1.15	0.34	4.08
	25 to 34	0.00	1.19	2.64	2.10	1.40	7.21
	35 to 59	3.11	3.19	2.42	3.25	2.13	14.10
	60 to 69	0.70	0.40	0.15	0.14	0.18	1.57
	70 and above	0.53	0.21	0.09	0.00	0.05	0.88
	Total	3.53	6.89	7.23	7.00	4.25	28.89
		12.22	23.84	25.02	24.22	14.70	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	1.42	1.34	1.09	0.35	3.67
	25 to 34	0.00	1.00	2.80	2.16	1.47	6.92
	35 to 59	2.68	3.23	2.75	3.66	2.45	14.76
	60 to 69	0.71	0.43	0.18	0.17	0.22	1.72
	70 and above	0.67	0.28	0.14	0.00	0.07	1.16
	Total	2.30	6.77	8.10	7.65	4.80	29.63
		7.76	22.86	27.35	25.82	16.21	100.00

Table A8.1.4.6: Haryana : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.00	0.01	0.00	0.00	0.00	0.01
	15 to 24	0.12	0.41	0.21	0.49	0.30	1.52
	25 to 34	0.30	0.53	0.38	0.87	0.61	2.69
	35 to 59	1.13	0.84	0.47	1.09	0.68	4.21
	60 to 69	0.25	0.10	0.03	0.08	0.03	0.49
	70 and above	0.07	0.01	0.00	0.00	0.00	0.09
	Total	1.88	1.90	1.09	2.53	1.62	9.02
		20.80	21.03	12.10	28.09	17.99	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.01	0.32	0.16	0.41	0.30	1.21
	25 to 34	0.09	0.54	0.42	1.01	0.76	2.82
	35 to 59	0.93	0.89	0.49	1.26	0.82	4.39
	60 to 69	0.19	0.09	0.03	0.08	0.03	0.42
	70 and above	0.09	0.01	0.00	0.01	0.01	0.12
	Total	1.37	1.97	1.17	2.89	2.03	9.43
		14.53	20.84	12.38	30.67	21.58	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.24	0.12	0.33	0.27	0.92
	25 to 34	0.00	0.55	0.46	1.15	0.93	2.94
	35 to 59	0.76	1.01	0.55	1.54	1.04	4.90
	60 to 69	0.16	0.10	0.03	0.09	0.04	0.42
	70 and above	0.09	0.01	0.00	0.01	0.01	0.12
	Total	0.82	2.05	1.26	3.30	2.50	9.92
		8.26	20.65	12.66	33.26	25.16	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.17	0.08	0.23	0.21	0.62
	25 to 34	0.00	0.52	0.48	1.22	1.04	2.89
	35 to 59	0.54	1.13	0.60	1.83	1.28	5.37
	60 to 69	0.15	0.11	0.03	0.12	0.05	0.46
	70 and above	0.07	0.01	0.00	0.01	0.01	0.10
	Total	0.21	2.11	1.34	3.70	2.97	10.33
		1.99	20.47	12.94	35.85	28.75	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.10	0.05	0.14	0.14	0.37
	25 to 34	0.00	0.48	0.47	1.23	1.09	2.69
	35 to 59	0.25	1.22	0.64	2.12	1.52	5.74
	60 to 69	0.13	0.13	0.04	0.15	0.06	0.51
	70 and above	0.06	0.01	0.00	0.01	0.00	0.08
	Total	0.44	2.16	1.41	4.10	3.45	10.67
		4.11	20.28	13.22	38.44	32.34	100.00

Table A8.1.4.7: Himachal Pradesh: Projected Labour Force (in Million) by Age Group and Education Level

	Ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.01	0.09	0.09	0.25	0.06	0.49
	25 to 34	0.06	0.18	0.11	0.42	0.15	0.91
	35 to 59	0.42	0.52	0.21	0.51	0.16	1.83
	60 to 69	0.18	0.07	0.02	0.04	0.01	0.31
	70 and above	0.08	0.02	0.01	0.00	0.00	0.11
	Total	0.75	0.89	0.43	1.22	0.38	3.66
		20.41	24.20	11.71	33.24	10.43	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.07	0.06	0.25	0.06	0.41
	25 to 34	0.00	0.22	0.12	0.60	0.22	1.10
	35 to 59	0.24	0.68	0.23	0.65	0.21	2.00
	60 to 69	0.17	0.09	0.02	0.05	0.01	0.35
	70 and above	0.06	0.02	0.01	0.00	0.00	0.10
	Total	0.43	1.05	0.43	1.56	0.51	3.97
		10.72	26.38	10.76	39.34	12.81	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.05	0.05	0.25	0.06	0.35
	25 to 34	0.00	0.25	0.11	0.75	0.28	1.18
	35 to 59	0.02	0.88	0.26	0.83	0.27	2.26
	60 to 69	0.18	0.12	0.03	0.07	0.02	0.42
	70 and above	0.06	0.02	0.00	0.01	0.01	0.10
	Total	0.04	1.23	0.42	1.96	0.65	4.31
		1.03	28.56	9.80	45.43	15.18	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.03	0.03	0.24	0.06	0.29
	25 to 34	0.00	0.27	0.10	0.88	0.33	1.21
	35 to 59	0.00	1.11	0.28	1.02	0.34	2.51
	60 to 69	0.18	0.17	0.04	0.10	0.03	0.52
	70 and above	0.06	0.02	0.00	0.01	0.01	0.10
	Total	0.24	1.43	0.41	2.39	0.82	4.64
		5.08	30.74	8.85	51.52	17.55	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.02	0.02	0.21	0.06	0.23
	25 to 34	0.00	0.28	0.08	0.98	0.37	1.20
	35 to 59	0.00	1.35	0.30	1.23	0.41	2.72
	60 to 69	0.17	0.22	0.05	0.14	0.04	0.62
	70 and above	0.05	0.02	0.00	0.01	0.01	0.09
	Total	0.22	1.63	0.39	2.86	0.99	4.96
		4.43	32.92	7.89	57.61	19.93	100.00

Table A8.1.4.8: Karnataka : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.04	0.06	0.04	0.00	0.00	0.15
	15 to 24	0.45	0.94	1.12	1.37	0.52	4.40
	25 to 34	1.26	1.10	1.04	2.08	1.50	6.98
	35 to 59	4.54	2.98	1.57	2.32	1.88	13.30
	60 to 69	0.76	0.26	0.11	0.17	0.04	1.34
	70 and above	0.20	0.08	0.01	0.04	0.02	0.35
	Total	7.25	5.42	3.90	5.98	3.97	26.51
		27.36	20.43	14.70	22.55	14.96	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.06	0.74	0.97	1.18	0.49	3.44
	25 to 34	0.70	1.13	1.25	2.53	1.90	7.52
	35 to 59	3.81	3.08	1.66	2.52	2.18	13.25
	60 to 69	0.80	0.25	0.14	0.21	0.05	1.45
	70 and above	0.32	0.12	0.00	0.08	0.04	0.56
	Total	5.64	5.48	4.29	6.73	4.75	26.88
		20.98	20.39	15.95	25.03	17.65	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.57	0.81	0.99	0.44	2.63
	25 to 34	0.04	1.07	1.37	2.80	2.17	7.45
	35 to 59	3.42	3.53	1.94	3.00	2.73	14.62
	60 to 69	0.82	0.23	0.17	0.26	0.06	1.53
	70 and above	0.36	0.12	0.00	0.11	0.05	0.63
	Total	3.99	5.57	4.70	7.53	5.56	27.35
		14.59	20.35	17.20	27.52	20.35	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.41	0.62	0.77	0.36	1.88
	25 to 34	0.00	0.96	1.42	2.92	2.31	7.03
	35 to 59	2.84	3.93	2.20	3.48	3.30	15.76
	60 to 69	0.87	0.22	0.20	0.32	0.07	1.69
	70 and above	0.39	0.12	0.00	0.14	0.06	0.69
	Total	2.26	5.60	5.09	8.27	6.35	27.57
		8.20	20.31	18.45	30.00	23.04	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.27	0.44	0.54	0.26	1.22
	25 to 34	0.00	0.84	1.42	2.94	2.37	6.47
	35 to 59	2.08	4.24	2.42	3.88	3.82	16.45
	60 to 69	0.91	0.20	0.24	0.39	0.08	1.83
	70 and above	0.44	0.13	-0.05	0.17	0.08	0.76
	Total	0.50	5.59	5.43	8.96	7.10	27.58
		1.81	20.27	19.70	32.49	25.73	100.00

Table A8.1.4.9: Kerala: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.00	0.01	0.00	0.00	0.00	0.01
	15 to 24	0.00	0.08	0.42	0.61	0.46	1.57
	25 to 34	0.01	0.27	1.14	0.92	1.02	3.37
	35 to 59	0.27	1.64	2.47	1.57	1.29	7.24
	60 to 69	0.11	0.41	0.28	0.15	0.11	1.06
	70 and above	0.07	0.13	0.05	0.04	0.04	0.32
	Total	0.47	2.53	4.36	3.29	2.92	13.57
		3.43	18.68	32.12	24.24	21.53	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.02	0.36	0.63	0.57	1.58
	25 to 34	0.00	0.06	1.19	0.99	1.30	3.51
	35 to 59	0.16	1.20	2.62	1.64	1.58	7.20
	60 to 69	0.08	0.34	0.31	0.17	0.13	1.02
	70 and above	0.06	0.11	0.05	0.04	0.04	0.31
	Total	0.31	1.87	4.51	3.45	3.63	13.78
		2.22	13.61	32.72	25.07	26.38	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.00	0.27	0.60	0.63	1.45
	25 to 34	0.00	0.00	1.21	1.05	1.56	3.59
	35 to 59	0.05	0.78	2.84	1.75	1.90	7.31
	60 to 69	0.05	0.31	0.36	0.20	0.16	1.08
	70 and above	0.06	0.09	0.06	0.05	0.05	0.31
	Total	0.14	1.20	4.70	3.66	4.41	14.11
		1.02	8.53	33.32	25.90	31.23	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.00	0.18	0.56	0.66	1.31
	25 to 34	0.00	0.00	1.23	1.11	1.83	3.66
	35 to 59	0.00	0.35	3.01	1.84	2.19	7.31
	60 to 69	0.02	0.26	0.42	0.22	0.19	1.11
	70 and above	0.05	0.07	0.06	0.05	0.06	0.30
	Total	0.08	0.50	4.88	3.84	5.19	14.38
		0.53	3.45	33.93	26.73	36.08	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.00	0.11	0.50	0.65	1.13
	25 to 34	0.00	0.00	1.22	1.14	2.05	3.63
	35 to 59	0.00	0.00	3.15	1.90	2.45	7.23
	60 to 69	0.00	0.20	0.46	0.24	0.22	1.11
	70 and above	0.05	0.05	0.06	0.05	0.06	0.26
	Total	0.05	0.25	5.03	4.01	5.96	14.56
		0.31	1.73	34.53	27.56	40.93	100.00

Table A8.1.4.10: Madhya Pradesh : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.03	0.07	0.01	0.00	0.00	0.11
	15 to 24	1.03	1.68	1.22	0.93	0.20	5.06
	25 to 34	2.40	2.23	1.28	1.17	0.80	7.88
	35 to 59	5.22	3.23	1.54	1.94	1.36	13.30
	60 to 69	1.00	0.50	0.10	0.08	0.05	1.73
	70 and above	0.26	0.14	0.03	0.02	0.02	0.47
	Total	9.93	7.86	4.18	4.13	2.44	28.53
		34.79	27.54	14.64	14.48	8.55	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.57	1.76	1.37	1.01	0.23	4.94
	25 to 34	1.89	2.42	1.54	1.32	0.95	8.12
	35 to 59	4.47	3.34	1.77	2.16	1.61	13.35
	60 to 69	0.85	0.50	0.12	0.09	0.06	1.62
	70 and above	0.35	0.20	0.05	0.02	0.04	0.66
	Total	8.35	8.49	4.98	4.73	2.98	29.52
		28.28	28.76	16.86	16.02	10.08	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.12	1.62	1.35	0.95	0.23	4.27
	25 to 34	1.42	2.75	1.90	1.56	1.18	8.80
	35 to 59	4.05	3.76	2.18	2.61	2.02	14.61
	60 to 69	0.83	0.58	0.15	0.11	0.08	1.75
	70 and above	0.40	0.24	0.06	0.03	0.05	0.78
	Total	6.69	9.22	5.87	5.40	3.57	30.74
		21.76	29.98	19.09	17.57	11.60	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	1.34	1.18	0.81	0.21	3.34
	25 to 34	0.85	3.05	2.26	1.78	1.40	9.34
	35 to 59	3.46	4.18	2.62	3.08	2.47	15.80
	60 to 69	0.85	0.72	0.20	0.14	0.11	2.02
	70 and above	0.45	0.27	0.09	0.04	0.07	0.91
	Total	4.83	9.88	6.75	6.06	4.16	31.68
		15.25	31.20	21.31	19.11	13.13	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	1.09	1.00	0.66	0.18	2.55
	25 to 34	0.18	3.16	2.49	1.90	1.54	9.27
	35 to 59	2.74	4.61	3.09	3.59	2.95	16.99
	60 to 69	0.85	0.87	0.25	0.19	0.14	2.30
	70 and above	0.51	0.33	0.12	0.04	0.09	1.09
	Total	2.82	10.45	7.59	6.66	4.72	32.25
		8.74	32.41	23.54	20.66	14.65	100.00

Table A8.1.4.11: Maharashtra : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.06	0.15	0.03	0.00	0.00	0.24
	15 to 24	0.40	1.46	2.43	2.67	0.93	7.88
	25 to 34	1.62	2.22	3.08	4.17	2.64	13.73
	35 to 59	6.44	5.38	4.27	4.98	3.14	24.21
	60 to 69	1.42	0.87	0.21	0.39	0.16	3.05
	70 and above	0.31	0.12	0.05	0.06	0.03	0.57
	Total	10.26	10.20	10.07	12.27	6.90	49.69
		20.64	20.53	20.27	24.69	13.88	100.00
2016	0 to 14	0.01	0.04	0.01	0.00	0.00	0.06
	15 to 24	0.00	1.12	2.19	2.57	0.94	6.75
	25 to 34	0.86	2.04	3.51	4.98	3.30	14.70
	35 to 59	5.39	5.47	4.88	5.65	3.80	25.20
	60 to 69	1.15	0.82	0.19	0.42	0.18	2.75
	70 and above	0.41	0.17	0.08	0.10	0.05	0.81
	Total	7.84	9.86	11.00	13.95	8.29	50.94
		15.39	19.36	21.59	27.39	16.27	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.82	1.91	2.38	0.91	5.63
	25 to 34	0.00	1.72	3.76	5.55	3.80	14.82
	35 to 59	4.54	5.95	5.92	6.80	4.82	28.02
	60 to 69	1.07	0.90	0.21	0.52	0.22	2.92
	70 and above	0.40	0.18	0.09	0.12	0.07	0.86
	Total	5.31	9.54	12.01	15.78	9.79	52.44
		10.13	18.20	22.91	30.09	18.67	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.57	1.61	2.11	0.84	4.53
	25 to 34	0.00	1.33	3.83	5.84	4.12	14.27
	35 to 59	3.36	6.32	6.96	7.95	5.88	30.48
	60 to 69	1.03	1.04	0.23	0.65	0.28	3.24
	70 and above	0.37	0.18	0.10	0.14	0.08	0.87
	Total	2.62	9.13	12.98	17.57	11.28	53.57
		4.88	17.04	24.23	32.79	21.06	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.37	1.28	1.75	0.71	3.44
	25 to 34	0.00	0.94	3.78	5.93	4.28	13.34
	35 to 59	1.87	6.50	7.90	8.97	6.88	32.12
	60 to 69	0.96	1.18	0.26	0.81	0.35	3.56
	70 and above	0.34	0.19	0.11	0.16	0.10	0.90
	Total	3.17	8.63	13.89	19.29	12.75	54.36
		5.83	15.88	25.55	35.49	23.46	100.00

Table A8.1.4.12: Odisha : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.06	0.03	0.05	0.00	0.00	0.14
	15 to 24	0.44	0.84	1.21	0.53	0.15	3.17
	25 to 34	0.97	0.85	1.08	0.71	0.46	4.06
	35 to 59	3.43	2.23	1.78	0.95	0.62	9.01
	60 to 69	0.69	0.40	0.14	0.07	0.01	1.31
	70 and above	0.09	0.10	0.03	0.01	0.00	0.23
	Total	5.68	4.46	4.29	2.26	1.23	17.93
		31.70	24.88	23.90	12.63	6.89	100.00
2016	0 to 14	0.01	0.01	0.02	0.00	0.00	0.04
	15 to 24	0.14	0.95	1.57	0.67	0.19	3.53
	25 to 34	0.67	0.91	1.32	0.89	0.58	4.36
	35 to 59	2.89	2.23	2.02	1.08	0.73	8.96
	60 to 69	0.65	0.42	0.16	0.08	0.01	1.32
	70 and above	0.10	0.11	0.05	0.02	0.00	0.28
	Total	4.61	4.67	5.12	2.71	1.52	18.62
		24.75	25.06	27.51	14.54	8.14	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.93	1.74	0.73	0.21	3.41
	25 to 34	0.30	0.91	1.51	1.03	0.68	4.44
	35 to 59	2.61	2.48	2.51	1.35	0.94	9.88
	60 to 69	0.66	0.48	0.21	0.10	0.02	1.46
	70 and above	0.11	0.13	0.06	0.03	0.01	0.33
	Total	3.46	4.91	6.05	3.20	1.83	19.44
		17.80	25.24	31.11	16.46	9.39	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.87	1.80	0.74	0.21	3.13
	25 to 34	0.00	0.91	1.68	1.17	0.77	4.46
	35 to 59	2.20	2.70	3.01	1.62	1.16	10.70
	60 to 69	0.71	0.58	0.28	0.13	0.02	1.71
	70 and above	0.11	0.14	0.08	0.04	0.01	0.38
	Total	2.19	5.13	7.00	3.71	2.15	20.17
		10.85	25.42	34.72	18.37	10.65	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.80	1.81	0.74	0.21	2.82
	25 to 34	0.00	0.86	1.77	1.24	0.83	4.27
	35 to 59	1.68	2.91	3.54	1.91	1.39	11.43
	60 to 69	0.75	0.69	0.36	0.17	0.03	1.99
	70 and above	0.12	0.16	0.10	0.05	0.01	0.43
	Total	0.81	5.32	7.97	4.22	2.47	20.78
		3.89	25.59	38.32	20.28	11.90	100.00

Table A8.1.4.13: Punjab: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.03	0.02	0.01	0.00	0.00	0.06
	15 to 24	0.20	0.69	0.31	0.76	0.17	2.13
	25 to 34	0.47	0.59	0.42	1.18	0.43	3.09
	35 to 59	1.46	1.14	0.61	1.39	0.45	5.05
	60 to 69	0.41	0.16	0.06	0.13	0.03	0.79
	70 and above	0.08	0.04	0.01	0.01	0.01	0.14
	Total	2.66	2.64	1.41	3.47	1.10	11.27
		23.60	23.41	12.49	30.78	9.73	100.00
2016	0 to 14	0.02	0.01	0.00	0.00	0.00	0.03
	15 to 24	0.06	0.64	0.27	0.70	0.18	1.85
	25 to 34	0.36	0.61	0.46	1.45	0.55	3.44
	35 to 59	1.34	1.34	0.70	1.69	0.56	5.63
	60 to 69	0.39	0.18	0.07	0.16	0.04	0.84
	70 and above	0.09	0.06	0.01	0.01	0.02	0.19
	Total	2.19	2.84	1.50	3.96	1.33	11.83
		18.55	24.04	12.72	33.48	11.21	100.00
2021	0 to 14	0.01	0.01	0.00	0.00	0.00	0.02
	15 to 24	0.00	0.58	0.24	0.64	0.18	1.60
	25 to 34	0.21	0.62	0.48	1.69	0.67	3.68
	35 to 59	1.18	1.58	0.81	2.05	0.69	6.30
	60 to 69	0.40	0.21	0.09	0.21	0.06	0.96
	70 and above	0.08	0.07	0.01	0.01	0.02	0.19
	Total	1.68	3.08	1.62	4.52	1.58	12.48
		13.50	24.67	12.94	36.19	12.70	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.51	0.21	0.57	0.17	1.34
	25 to 34	0.03	0.57	0.47	1.82	0.74	3.64
	35 to 59	0.94	1.83	0.93	2.43	0.83	6.96
	60 to 69	0.42	0.27	0.11	0.28	0.08	1.17
	70 and above	0.07	0.07	0.00	0.01	0.02	0.18
	Total	1.10	3.30	1.72	5.08	1.85	13.06
		8.44	25.31	13.17	38.89	14.18	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.45	0.18	0.50	0.16	1.13
	25 to 34	0.00	0.50	0.43	1.85	0.77	3.42
	35 to 59	0.63	2.07	1.03	2.80	0.96	7.50
	60 to 69	0.43	0.33	0.15	0.36	0.11	1.39
	70 and above	0.05	0.07	0.00	0.01	0.02	0.17
	Total	0.46	3.52	1.82	5.64	2.12	13.55
		3.39	25.94	13.40	41.59	15.67	100.00

Table A8.1.4.14: Rajasthan: Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.09	0.14	0.01	0.00	0.00	0.24
	15 to 24	1.50	1.87	1.07	0.71	0.43	5.59
	25 to 34	2.65	1.72	1.04	0.99	0.92	7.34
	35 to 59	6.54	2.09	1.48	1.40	1.12	12.63
	60 to 69	1.26	0.36	0.13	0.14	0.03	1.93
	70 and above	0.29	0.07	0.01	0.01	0.00	0.38
	Total	12.34	6.26	3.74	3.25	2.51	28.10
		43.91	22.29	13.30	11.58	8.92	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.95	1.85	1.03	0.71	0.46	5.01
	25 to 34	2.50	2.09	1.31	1.24	1.19	8.32
	35 to 59	6.41	2.27	1.80	1.66	1.38	13.52
	60 to 69	1.09	0.35	0.14	0.15	0.03	1.76
	70 and above	0.35	0.09	0.00	0.01	0.01	0.46
	Total	11.14	6.86	4.30	3.76	3.01	29.07
		38.33	23.59	14.79	12.92	10.36	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.47	1.72	0.94	0.66	0.45	4.25
	25 to 34	2.24	2.49	1.62	1.52	1.50	9.38
	35 to 59	6.58	2.59	2.27	2.06	1.76	15.27
	60 to 69	1.19	0.42	0.18	0.20	0.04	2.04
	70 and above	0.37	0.10	0.00	0.01	0.01	0.50
	Total	9.90	7.53	4.92	4.31	3.57	30.22
		32.74	24.90	16.28	14.27	11.81	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.10	1.42	0.76	0.54	0.39	3.22
	25 to 34	1.81	2.87	1.92	1.80	1.81	10.20
	35 to 59	6.68	2.95	2.83	2.53	2.22	17.20
	60 to 69	1.33	0.53	0.25	0.28	0.05	2.45
	70 and above	0.39	0.12	0.00	0.02	0.01	0.53
	Total	8.43	8.13	5.52	4.85	4.12	31.04
		27.15	26.20	17.77	15.62	13.26	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	1.09	0.58	0.42	0.31	2.29
	25 to 34	1.19	3.05	2.09	1.95	2.01	10.28
	35 to 59	6.68	3.36	3.49	3.08	2.75	19.36
	60 to 69	1.48	0.66	0.33	0.38	0.07	2.91
	70 and above	0.42	0.13	0.00	0.02	0.01	0.58
	Total	6.78	8.65	6.06	5.33	4.62	31.44
		21.56	27.51	19.26	16.96	14.70	100.00

Table A8.1.4.15: Tamil Nadu : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.01	0.01	0.01	0.00	0.00	0.04
	15 to 24	0.07	0.84	1.22	1.32	0.94	4.39
	25 to 34	0.77	1.98	1.86	2.04	1.93	8.59
	35 to 59	4.94	5.27	2.25	2.72	2.02	17.20
	60 to 69	1.14	0.54	0.13	0.25	0.06	2.12
	70 and above	0.35	0.23	0.06	0.04	0.01	0.69
	Total	7.29	8.88	5.53	6.36	4.96	33.02
		22.07	26.88	16.75	19.27	15.03	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.56	1.14	1.24	0.98	3.71
	25 to 34	0.14	1.88	2.01	2.18	2.30	8.52
	35 to 59	4.22	5.62	2.50	3.06	2.46	17.87
	60 to 69	1.15	0.51	0.15	0.29	0.07	2.17
	70 and above	0.47	0.29	0.09	0.06	0.02	0.93
	Total	5.66	8.52	5.93	6.88	5.95	32.94
		17.20	25.86	17.99	20.89	18.05	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.31	0.94	1.03	0.89	2.82
	25 to 34	0.00	1.70	2.07	2.24	2.56	8.12
	35 to 59	3.56	6.19	2.87	3.54	3.04	19.19
	60 to 69	1.20	0.50	0.18	0.35	0.08	2.31
	70 and above	0.58	0.33	0.12	0.09	0.03	1.16
	Total	4.07	8.20	6.35	7.42	6.96	32.99
		12.33	24.85	19.23	22.50	21.08	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.14	0.72	0.78	0.72	1.99
	25 to 34	0.00	1.51	2.08	2.23	2.73	7.56
	35 to 59	2.70	6.62	3.18	3.96	3.58	20.03
	60 to 69	1.26	0.48	0.22	0.43	0.10	2.49
	70 and above	0.71	0.37	0.16	0.13	0.05	1.41
	Total	2.44	7.81	6.71	7.90	7.90	32.77
		7.46	23.83	20.47	24.12	24.11	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.04	0.49	0.53	0.52	1.25
	25 to 34	0.00	1.30	2.03	2.16	2.79	6.89
	35 to 59	1.70	6.88	3.42	4.29	4.05	20.34
	60 to 69	1.30	0.45	0.25	0.50	0.12	2.62
	70 and above	0.85	0.41	0.21	0.18	0.06	1.71
	Total	0.84	7.37	7.01	8.31	8.76	32.28
		2.59	22.82	21.72	25.73	27.14	100.00

Table A8.1.4.16: Uttar Pradesh : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.45	0.62	0.12	0.00	0.00	1.19
	15 to 24	3.04	3.92	3.50	3.34	0.98	14.77
	25 to 34	5.08	2.89	2.98	2.96	2.11	16.02
	35 to 59	14.33	5.32	3.74	4.41	2.92	30.73
	60 to 69	3.12	0.74	0.48	0.54	0.24	5.13
	70 and above	0.77	0.29	0.08	0.11	0.06	1.31
	Total	26.80	13.79	10.90	11.36	6.30	69.15
		38.75	19.94	15.76	16.43	9.12	100.00
2016	0 to 14	0.28	0.54	0.10	0.00	0.00	0.91
	15 to 24	2.40	4.67	4.04	3.97	1.27	16.34
	25 to 34	5.11	3.49	3.78	3.70	2.79	18.87
	35 to 59	14.42	5.87	4.47	5.25	3.58	33.60
	60 to 69	2.91	0.72	0.57	0.63	0.28	5.12
	70 and above	1.01	0.41	0.13	0.18	0.09	1.83
	Total	25.30	15.19	12.48	13.12	7.63	73.71
		34.32	20.60	16.93	17.79	10.35	100.00
2021	0 to 14	0.16	0.46	0.08	0.00	0.00	0.71
	15 to 24	1.39	4.82	4.05	4.09	1.41	15.75
	25 to 34	5.04	4.27	4.81	4.66	3.68	22.46
	35 to 59	15.01	6.74	5.53	6.47	4.51	38.26
	60 to 69	2.87	0.75	0.71	0.78	0.34	5.45
	70 and above	1.05	0.46	0.16	0.24	0.12	2.04
	Total	23.70	16.86	14.36	15.19	9.18	79.28
		29.89	21.27	18.11	19.15	11.58	100.00
2026	0 to 14	0.07	0.37	0.06	0.00	0.00	0.51
	15 to 24	0.40	4.46	3.65	3.77	1.38	13.66
	25 to 34	4.54	4.96	5.82	5.57	4.59	25.48
	35 to 59	15.64	7.82	6.87	8.01	5.69	44.04
	60 to 69	3.07	0.84	0.93	1.02	0.44	6.31
	70 and above	1.04	0.49	0.18	0.29	0.15	2.16
	Total	21.48	18.51	16.27	17.31	10.81	84.37
		25.46	21.93	19.28	20.52	12.81	100.00
2031	0 to 14	0.02	0.22	0.04	0.00	0.00	0.28
	15 to 24	-0.37	4.39	3.51	3.70	1.42	12.66
	25 to 34	3.38	5.12	6.23	5.89	5.04	25.66
	35 to 59	16.32	9.19	8.59	10.00	7.22	51.31
	60 to 69	3.38	0.98	1.26	1.38	0.59	7.59
	70 and above	1.01	0.52	0.21	0.35	0.18	2.27
	Total	18.59	19.98	18.08	19.34	12.42	88.40
		21.03	22.60	20.45	21.88	14.05	100.00

Table A8.1.4.17: West Bengal : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.23	0.39	0.05	0.00	0.00	0.68
	15 to 24	0.84	3.00	1.18	1.19	0.41	6.61
	25 to 34	1.92	3.58	1.60	1.48	1.36	9.94
	35 to 59	5.74	5.20	2.69	2.38	1.94	17.95
	60 to 69	0.70	0.56	0.27	0.18	0.18	1.88
	70 and above	0.22	0.13	0.02	0.04	0.05	0.45
	Total	9.65	12.86	5.80	5.27	3.93	37.51
		25.72	34.30	15.46	14.04	10.48	100.00
2016	0 to 14	0.15	0.37	0.05	0.00	0.00	0.57
	15 to 24	0.47	3.18	1.20	1.37	0.46	6.68
	25 to 34	1.54	4.10	1.77	1.72	1.64	10.78
	35 to 59	5.76	5.34	2.96	2.55	2.11	18.72
	60 to 69	0.75	0.59	0.31	0.22	0.24	2.12
	70 and above	0.24	0.13	0.02	0.04	0.06	0.50
	Total	8.87	13.75	6.29	5.93	4.52	39.36
		22.54	34.94	15.98	15.06	11.48	100.00
2021	0 to 14	0.08	0.35	0.05	0.00	0.00	0.48
	15 to 24	0.08	2.98	1.09	1.38	0.45	5.99
	25 to 34	1.08	4.59	1.93	1.95	1.93	11.48
	35 to 59	6.10	5.80	3.43	2.87	2.43	20.63
	60 to 69	0.86	0.67	0.38	0.28	0.34	2.54
	70 and above	0.27	0.13	0.02	0.05	0.09	0.56
	Total	8.05	14.79	6.86	6.69	5.18	41.57
		19.36	35.58	16.50	16.09	12.47	100.00
2026	0 to 14	0.04	0.33	0.05	0.00	0.00	0.42
	15 to 24	0.00	2.67	0.95	1.31	0.42	5.13
	25 to 34	0.51	4.88	2.00	2.10	2.14	11.64
	35 to 59	6.35	6.20	3.92	3.19	2.75	22.40
	60 to 69	0.99	0.76	0.47	0.37	0.48	3.07
	70 and above	0.31	0.13	0.01	0.06	0.12	0.64
	Total	7.06	15.82	7.43	7.47	5.88	43.66
		16.18	36.23	17.03	17.11	13.46	100.00
2031	0 to 14	0.00	0.32	0.05	0.00	0.00	0.37
	15 to 24	0.00	2.30	0.79	1.19	0.37	4.22
	25 to 34	0.00	4.89	1.95	2.12	2.23	11.14
	35 to 59	6.47	6.50	4.37	3.48	3.05	23.86
	60 to 69	1.11	0.84	0.57	0.46	0.63	3.62
	70 and above	0.36	0.13	0.01	0.07	0.16	0.74
	Total	5.91	16.78	7.98	8.25	6.57	45.50
		13.00	36.87	17.55	18.13	14.45	100.00

Table A8.14.18: Uttarakhand : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.00	0.03	0.00	0.00	0.00	0.03
	15 to 24	0.03	0.12	0.12	0.20	0.06	0.53
	25 to 34	0.11	0.18	0.23	0.25	0.17	0.94
	35 to 59	0.54	0.48	0.39	0.36	0.27	2.05
	60 to 69	0.10	0.04	0.02	0.03	0.01	0.20
	70 and above	0.03	0.01	0.00	0.00	0.00	0.04
	Total	0.80	0.87	0.77	0.84	0.51	3.79
		21.16	22.98	20.22	22.19	13.45	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.10	0.12	0.20	0.06	0.47
	25 to 34	0.06	0.19	0.33	0.37	0.22	1.17
	35 to 59	0.34	0.45	0.42	0.37	0.26	1.85
	60 to 69	0.06	0.03	0.02	0.03	0.01	0.15
	70 and above	0.02	0.01	0.00	0.00	0.00	0.03
	Total	0.50	0.82	0.85	0.94	0.55	3.66
		13.79	22.30	23.22	25.63	15.07	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.06	0.08	0.15	0.05	0.31
	25 to 34	0.00	0.18	0.40	0.47	0.25	1.27
	35 to 59	0.21	0.49	0.52	0.45	0.30	1.97
	60 to 69	0.03	0.02	0.01	0.02	0.01	0.09
	70 and above	0.01	0.00	0.00	0.00	0.00	0.01
	Total	0.23	0.76	0.93	1.03	0.59	3.53
		6.41	21.62	26.22	29.07	16.69	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.03	0.04	0.08	0.03	0.14
	25 to 34	0.00	0.15	0.45	0.54	0.27	1.29
	35 to 59	0.06	0.54	0.63	0.53	0.34	2.11
	60 to 69	0.01	0.01	0.00	0.01	0.00	0.03
	70 and above	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.07	0.71	0.98	1.09	0.62	3.37
		1.95	20.93	29.23	32.51	18.30	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.00	0.00	0.00	0.00	0.00
	25 to 34	0.00	0.11	0.45	0.55	0.26	1.19
	35 to 59	0.00	0.58	0.75	0.62	0.38	2.22
	60 to 69	0.00	0.00	0.00	0.00	0.00	0.00
	70 and above	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.64	1.02	1.13	0.63	3.16
		0.00	20.25	32.23	35.95	19.92	100.00

Table A8.1.4.19: Jharkhand : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.09	0.11	0.04	0.00	0.00	0.25
	15 to 24	0.43	0.60	0.41	0.48	0.09	2.01
	25 to 34	0.98	0.64	0.48	0.71	0.35	3.17
	35 to 59	2.44	1.28	0.69	0.89	0.56	5.86
	60 to 69	0.37	0.08	0.04	0.06	0.04	0.59
	70 and above	0.08	0.02	0.00	0.00	0.01	0.12
	Total	4.40	2.74	1.66	2.14	1.05	11.99
		36.69	22.85	13.86	17.87	8.74	100.00
2016	0 to 14	0.05	0.11	0.04	0.00	0.00	0.20
	15 to 24	0.24	0.78	0.51	0.60	0.11	2.24
	25 to 34	0.74	0.70	0.51	0.83	0.40	3.17
	35 to 59	2.22	1.47	0.71	0.99	0.67	6.06
	60 to 69	0.39	0.09	0.04	0.08	0.05	0.66
	70 and above	0.12	0.03	0.01	0.01	0.02	0.19
	Total	3.79	3.24	1.84	2.55	1.27	12.69
		29.88	25.52	14.54	20.06	10.00	100.00
2021	0 to 14	0.02	0.10	0.03	0.00	0.00	0.16
	15 to 24	0.01	0.89	0.56	0.66	0.12	2.24
	25 to 34	0.55	0.83	0.59	1.04	0.49	3.51
	35 to 59	2.19	1.85	0.80	1.22	0.85	6.91
	60 to 69	0.39	0.10	0.04	0.10	0.06	0.70
	70 and above	0.14	0.04	0.02	0.01	0.02	0.24
	Total	3.12	3.81	2.06	3.01	1.52	13.54
		23.08	28.18	15.22	22.26	11.26	100.00
2026	0 to 14	0.00	0.09	0.02	0.00	0.00	0.11
	15 to 24	0.00	0.91	0.56	0.66	0.12	2.05
	25 to 34	0.32	1.01	0.71	1.33	0.62	3.99
	35 to 59	2.06	2.26	0.90	1.47	1.07	7.76
	60 to 69	0.40	0.11	0.05	0.13	0.08	0.77
	70 and above	0.15	0.05	0.04	0.02	0.03	0.29
	Total	2.33	4.42	2.28	3.50	1.79	14.33
		16.28	30.85	15.90	24.45	12.52	100.00
2031	0 to 14	0.00	0.07	0.02	0.00	0.00	0.08
	15 to 24	0.00	0.85	0.51	0.60	0.10	1.71
	25 to 34	0.02	1.16	0.79	1.58	0.73	4.27
	35 to 59	1.88	2.76	1.01	1.76	1.32	8.73
	60 to 69	0.42	0.12	0.05	0.17	0.10	0.86
	70 and above	0.15	0.06	0.05	0.03	0.04	0.33
	Total	1.43	5.05	2.50	4.01	2.07	15.06
		9.47	33.52	16.58	26.65	13.78	100.00

Table A8.1.4.20: Chhattisgarh : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.02	0.04	0.00	0.00	0.00	0.06
	15 to 24	0.23	0.70	0.50	0.41	0.06	1.88
	25 to 34	0.71	1.08	0.68	0.57	0.28	3.31
	35 to 59	2.39	2.06	0.67	0.64	0.38	6.15
	60 to 69	0.33	0.18	0.02	0.04	0.05	0.62
	70 and above	0.03	0.02	0.00	0.00	0.01	0.07
	Total	3.71	4.08	1.87	1.66	0.78	12.09
		30.70	33.72	15.44	13.69	6.45	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.01	0.80	0.61	0.47	0.06	1.95
	25 to 34	0.36	1.20	0.84	0.65	0.34	3.39
	35 to 59	1.94	2.26	0.79	0.71	0.44	6.14
	60 to 69	0.33	0.21	0.02	0.05	0.07	0.68
	70 and above	0.06	0.05	0.00	0.00	0.03	0.15
	Total	2.78	4.61	2.30	1.91	0.95	12.55
		22.17	36.72	18.31	15.24	7.56	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.75	0.60	0.43	0.06	1.66
	25 to 34	0.00	1.41	1.08	0.80	0.42	3.70
	35 to 59	1.67	2.76	1.03	0.87	0.57	6.90
	60 to 69	0.32	0.25	0.02	0.07	0.09	0.76
	70 and above	0.07	0.07	0.00	0.01	0.04	0.19
	Total	1.79	5.20	2.77	2.20	1.14	13.09
		13.65	39.72	21.17	16.78	8.68	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.63	0.53	0.37	0.05	1.29
	25 to 34	0.00	1.60	1.30	0.93	0.50	3.91
	35 to 59	1.29	3.32	1.30	1.06	0.71	7.69
	60 to 69	0.34	0.31	0.03	0.10	0.12	0.90
	70 and above	0.08	0.08	0.00	0.01	0.05	0.22
	Total	0.69	5.77	3.24	2.47	1.32	13.50
		5.12	42.73	24.03	18.33	9.79	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.00	0.51	0.44	0.30	0.04	0.96
	25 to 34	0.00	1.70	1.47	1.01	0.56	3.88
	35 to 59	0.80	3.95	1.61	1.26	0.87	8.49
	60 to 69	0.34	0.38	0.04	0.14	0.17	1.06
	70 and above	0.08	0.09	0.00	0.01	0.07	0.26
	Total	1.23	6.30	3.70	2.74	1.50	13.78
		8.90	45.73	26.89	19.87	10.91	100.00

Table A.8.1.4.21: Jammu & Kashmir : Projected Labour Force (in Million) by Age Group and Education Level

	ages	Illiterate	Primary & Below	Middle	Secondary & Above	Graduation & above	Total
2011	0 to 14	0.01	0.01	0.00	0.00	0.00	0.02
	15 to 24	0.12	0.15	0.26	0.28	0.06	0.88
	25 to 34	0.24	0.22	0.37	0.34	0.23	1.40
	35 to 59	0.81	0.50	0.42	0.48	0.24	2.46
	60 to 69	0.20	0.05	0.03	0.03	0.02	0.32
	70 and above	0.07	0.01	0.00	0.00	0.00	0.09
	Total	1.44	0.95	1.09	1.13	0.55	5.17
		27.93	18.35	21.09	21.92	10.71	100.00
2016	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.10	0.08	0.23	0.22	0.06	0.69
	25 to 34	0.23	0.16	0.46	0.35	0.27	1.46
	35 to 59	0.65	0.42	0.43	0.44	0.23	2.18
	60 to 69	0.14	0.03	0.03	0.02	0.02	0.24
	70 and above	0.06	0.01	0.00	0.00	0.00	0.07
	Total	1.30	0.71	1.18	1.11	0.59	4.88
		26.67	14.48	24.17	22.64	12.03	100.00
2021	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.08	0.03	0.19	0.18	0.05	0.53
	25 to 34	0.21	0.09	0.55	0.36	0.30	1.49
	35 to 59	0.61	0.42	0.51	0.48	0.25	2.29
	60 to 69	0.12	0.03	0.03	0.03	0.02	0.23
	70 and above	0.04	0.01	0.00	0.00	0.00	0.06
	Total	1.18	0.49	1.26	1.08	0.62	4.64
		25.41	10.60	27.26	23.37	13.36	100.00
2026	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.05	0.00	0.13	0.12	0.04	0.34
	25 to 34	0.18	0.01	0.63	0.36	0.33	1.52
	35 to 59	0.55	0.40	0.58	0.51	0.27	2.32
	60 to 69	0.11	0.03	0.03	0.03	0.02	0.22
	70 and above	0.02	0.00	0.00	0.00	0.00	0.03
	Total	1.05	0.29	1.32	1.05	0.64	4.35
		24.16	6.73	30.34	24.09	14.68	100.00
2031	0 to 14	0.00	0.00	0.00	0.00	0.00	0.00
	15 to 24	0.02	0.00	0.05	0.04	0.01	0.11
	25 to 34	0.16	0.00	0.70	0.34	0.36	1.49
	35 to 59	0.47	0.37	0.64	0.52	0.28	2.28
	60 to 69	0.08	0.02	0.03	0.02	0.02	0.17
	70 and above	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.92	0.11	1.35	1.00	0.64	4.02
		22.90	2.85	33.43	24.82	16.01	100.00

Table A8.2.1: Aggregate GSDP (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	1192827.8	1640923.8	2247131.5	4105541.5	5.46	6.49	8.99	7.12
Assam	380791.4	431060.7	533977.1	768436.8	2.09	4.38	5.34	3.99
Bihar	466543.3	591339.3	777811.6	1435600.8	4.03	5.63	9.15	6.47
Gujarat	928224.8	1459557.6	2033730.0	3920577.8	7.84	6.86	9.83	8.34
Haryana	458821.2	647460.3	957951.2	1769169.7	5.91	8.15	9.16	7.80
Himachal Pradesh	116388.8	176223.7	240765.8	419082.2	7.16	6.44	8.24	7.38
Karnataka	865976.2	1346027.5	1667471.4	2827840.0	7.63	4.38	7.84	6.81
Kerala	628534.8	873676.3	1192640.0	2009577.3	5.64	6.42	7.74	6.67
Madhya Pradesh	713572.9	1026343.0	1129268.9	1933503.1	6.25	1.93	7.99	5.72
Maharashtra	2261099.9	3252842.9	4154796.8	7756096.5	6.25	5.02	9.33	7.10
Odisha	446322.5	574280.7	777294.3	1301130.1	4.29	6.24	7.64	6.13
Punjab	603716.0	798410.9	968385.1	1573029.1	4.77	3.94	7.18	5.47
Rajasthan	643799.3	1033372.8	1277456.5	2308592.5	8.21	4.33	8.82	7.37
Tamil Nadu	1189667.7	1748345.5	2190032.2	4332380.3	6.63	4.61	10.24	7.47
Uttar Pradesh	1650231.1	2170872.5	2608406.6	4184041.3	4.68	3.74	6.98	5.31
West Bengal	1052431.4	1589286.6	2086563.6	3234169.8	7.11	5.60	6.46	6.44
Uttarakhand	130048.8	156824.3	247856.7	608795.9	3.17	9.59	13.70	9.05
Jharkhand	365118.8	486380.0	597577.2	935095.1	4.90	4.20	6.61	5.37
Chhattisgarh	306354.7	362880.5	478622.9	834093.7	2.86	5.69	8.26	5.75
Jammu and Kashmir	165707.8	222308.1	273046.2	412030.5	5.02	4.20	6.05	5.19
India (Crores)	1522344.0	2254942.0	2971464.0	5247530.0	6.77	5.67	8.46	7.12

Table A8.2.2: Aggregate Employment (in Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	36.023	36.681	39.589	40.079	0.30	1.54	0.18	0.60
Assam	7.794	8.973	10.719	10.534	2.38	3.62	-0.25	1.70
Bihar	22.245	26.014	28.044	28.503	2.64	1.51	0.23	1.39
Gujarat	19.131	21.967	24.880	25.600	2.33	2.52	0.41	1.64
Haryana	6.489	6.973	9.015	8.751	1.21	5.27	-0.42	1.70
Himachal Pradesh	2.413	2.529	3.330	3.616	0.79	5.65	1.19	2.29
Karnataka	22.113	23.230	27.080	26.080	0.82	3.11	-0.54	0.93
Kerala	11.362	12.202	12.373	12.704	1.20	0.28	0.38	0.62
Madhya Pradesh	22.173	24.471	27.760	28.264	1.66	2.55	0.26	1.36
Maharashtra	37.834	40.329	47.400	49.042	1.07	3.28	0.49	1.46
Odisha	14.116	14.813	16.862	17.496	0.81	2.63	0.53	1.20
Punjab	8.028	9.361	10.645	11.014	2.59	2.60	0.49	1.78
Rajasthan	21.760	22.900	26.446	27.767	0.85	2.92	0.70	1.37
Tamil Nadu	28.067	28.308	31.547	32.250	0.14	2.19	0.32	0.78
Uttar Pradesh	50.779	55.075	65.116	68.028	1.36	3.41	0.63	1.64
West Bengal	26.429	27.767	32.181	36.245	0.83	2.99	1.71	1.77
Uttarakhand	3.095	2.571	3.961	3.668	-3.04	9.02	-1.09	1.07
Jharkhand	8.782	9.105	11.652	11.671	0.60	5.06	0.02	1.61
Chhattisgarh	9.462	9.350	10.753	11.918	-0.20	2.84	1.48	1.30
Jammu and Kashmir	4.271	4.557	4.356	4.990	1.09	-0.90	1.96	0.87
India	371.213	397.551	455.701	471.518	1.15	2.77	0.49	1.34

Table A8.2.3: Employment Elasticity Estimates (Aggregate)

	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.055	0.237	0.020	0.084
Assam	1.138	0.827	-0.047	0.427
Bihar	0.656	0.269	0.025	0.215
Gujarat	0.297	0.368	0.042	0.196
Haryana	0.204	0.646	-0.046	0.218
Himachal Pradesh	0.110	0.878	0.144	0.311
Karnataka	0.108	0.712	-0.068	0.137
Kerala	0.212	0.043	0.049	0.093
Madhya Pradesh	0.265	1.324	0.032	0.238
Maharashtra	0.171	0.655	0.052	0.205
Odisha	0.188	0.421	0.069	0.196
Punjab	0.544	0.662	0.068	0.325
Rajasthan	0.104	0.674	0.079	0.186
Tamil Nadu	0.022	0.475	0.031	0.104
Uttar Pradesh	0.291	0.911	0.090	0.309
West Bengal	0.116	0.535	0.265	0.276
Uttarakhand	-0.959	0.941	-0.080	0.118
Jharkhand	0.123	1.203	0.004	0.301
Chhattisgarh	-0.070	0.498	0.179	0.226
Jammu and Kashmir	0.216	-0.214	0.324	0.168
India	0.170	0.488	0.058	0.188

Table A8.2.4: Sectoral Composition to GSDP-Agriculture (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	40380.5	45584.2	56343.9	77389.8	2.04	4.33	4.64	3.69
Assam	13567.6	13742.6	13655.7	16725.3	0.21	-0.13	2.94	1.18
Bihar	18002.0	19061.5	24529.8	33754.8	0.96	5.17	4.67	3.57
Gujarat	20289.3	23284.4	32706.0	51378.7	2.32	7.03	6.67	5.32
Haryana	17323.0	19444.7	22125.0	29720.2	1.94	2.62	4.31	3.05
Himachal Pradesh	4137.2	4195.1	6133.0	7091.7	0.23	7.89	2.10	3.08
Karnataka	29926.5	37801.8	31189.8	43211.4	3.97	-3.77	4.77	2.13
Kerala	17253.7	19185.5	20843.8	19970.7	1.78	1.67	-0.61	0.82
Madhya Pradesh	27501.4	32192.1	31238.3	45430.3	2.66	-0.60	5.50	2.86
Maharashtra	35827.2	41934.5	44926.6	64065.2	2.66	1.39	5.20	3.29
Odisha	16631.9	16148.3	18257.0	22378.3	-0.49	2.49	2.95	1.67
Punjab	25107.3	28968.7	31612.5	35886.1	2.41	1.76	1.83	2.00
Rajasthan	20112.9	26519.4	32729.9	49088.6	4.72	4.30	5.96	5.08
Tamil Nadu	23920.5	26022.5	24361.8	36672.5	1.41	-1.31	6.02	2.45
Uttar Pradesh	60445.9	73690.6	77570.8	96213.1	3.36	1.03	3.12	2.62
West Bengal	35061.9	44438.4	49935.5	57059.9	4.03	2.36	1.92	2.75
Uttarakhand	4115.8	4725.6	5520.4	6545.6	2.33	3.16	2.46	2.61
Jharkhand	5857.6	7468.9	8916.7	15841.9	4.13	3.61	8.56	5.71
Chhattisgarh	11895.4	10140.9	10159.1	15990.8	-2.62	0.04	6.70	1.74
Jammu and Kashmir	4768.6	6432.3	7661.5	8947.9	5.11	3.56	2.24	3.57
India (Crores)	429981.0	522795.0	565426.0	753832.0	3.31	1.58	4.19	3.17

Table A8.2.5: Sectoral Composition of Employment-Agriculture (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	24.2	24.0	22.7	21.0	-0.13	-1.08	-1.09	-0.77
Assam	5.5	5.4	7.1	5.7	-0.28	5.58	-3.01	0.29
Bihar	17.8	19.9	20.4	17.6	1.85	0.44	-2.08	-0.07
Gujarat	11.3	13.0	13.5	12.0	2.44	0.72	-1.67	0.36
Haryana	3.7	3.7	4.5	3.6	-0.11	4.18	-3.22	-0.13
Himachal Pradesh	1.7	1.8	2.1	2.1	1.00	3.06	-0.13	1.13
Karnataka	14.4	14.5	16.4	12.6	0.08	2.44	-3.62	-0.70
Kerala	5.5	4.7	4.2	2.6	-2.55	-2.34	-6.52	-4.03
Madhya Pradesh	16.8	17.5	18.6	16.3	0.69	1.28	-1.88	-0.15
Maharashtra	22.5	22.7	25.3	24.1	0.16	2.20	-0.71	0.39
Odisha	10.4	10.5	10.5	9.6	0.07	0.10	-1.30	-0.46
Punjab	4.5	5.0	5.1	3.9	1.60	0.40	-3.55	-0.74
Rajasthan	15.1	15.1	16.2	13.8	0.05	1.37	-2.20	-0.46
Tamil Nadu	14.7	13.2	13.4	10.8	-1.88	0.39	-3.05	-1.70
Uttar Pradesh	34.8	35.0	39.3	35.3	0.07	2.40	-1.52	0.10
West Bengal	12.7	12.9	14.5	13.3	0.30	2.25	-1.15	0.28
Uttarakhand	2.3	1.6	2.5	1.7	-5.70	9.11	-5.49	-1.50
Jharkhand	6.0	5.8	6.9	5.8	-0.57	3.82	-2.61	-0.14
Chhattisgarh	7.8	7.5	8.0	8.6	-0.64	1.27	0.96	0.51
Jammu and Kashmir	2.9	2.8	2.3	2.0	-0.88	-3.80	-1.94	-2.10
India	237.6	239.8	257.2	225.5	0.15	1.41	-1.86	-0.28

Table A8.2.6: Sectoral Composition to GSDP-Non-Agriculture (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	796742	1186206	1683692.9	3331643	6.86	7.26	10.24	8.28
Assam	243192	293724	397420.5	601184	3.20	6.23	6.09	5.17
Bihar	273349	399294	532513.9	1098053	6.52	5.93	10.89	8.06
Gujarat	742558	1228461	1706670	3406791	8.75	6.80	10.38	8.84
Haryana	283865	449542	736701	1471968	7.96	10.38	10.39	9.58
Himachal Pradesh	78826	133909	179436.2	348165	9.23	6.03	9.93	8.61
Karnataka	564464	956576	1355573	2395726	9.19	7.22	8.48	8.36
Kerala	474720	688230	984202.5	1809870	6.39	7.42	9.09	7.72
Madhya Pradesh	455015	707919	816885.9	1479200	7.64	2.90	8.85	6.80
Maharashtra	1918900	2830314	3705530.9	7115445	6.69	5.54	9.77	7.57
Odisha	298503	430317	594724.5	1077347	6.29	6.69	8.86	7.40
Punjab	361389	511469	652260.2	1214169	5.96	4.98	9.28	6.98
Rajasthan	452947	777819	950157.3	1817707	9.43	4.08	9.71	8.05
Tamil Nadu	927509	1476672	1946414.4	3965655	8.06	5.68	10.70	8.43
Uttar Pradesh	1059491	1443795	1832699	3221910	5.29	4.89	8.39	6.39
West Bengal	722972	1145977	1587208.4	2663571	7.98	6.73	7.68	7.51
Uttarakhand	94011	112012	192652.7	543340	2.96	11.46	15.97	10.38
Jharkhand	381260	425669	508410	776677	1.85	3.62	6.24	4.05
Chhattisgarh	198245	264158	377032	674186	4.90	7.37	8.66	7.05
Jammu and Kashmir	118301	156146	196431	322552	4.73	4.70	7.34	5.74
India (Crores)	108820	172348	240603.8	449370	7.97	6.90	9.33	8.20

Table A8.2.7: Sectoral Composition of Employment-Non-Agriculture (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	11.869	12.710	16.888	19.052	1.15	5.85	1.74	2.68
Assam	2.300	3.570	3.629	4.812	7.60	0.33	4.11	4.22
Bihar	4.412	6.108	7.691	10.937	5.57	4.72	5.16	5.17
Gujarat	7.855	8.939	11.374	13.595	2.18	4.94	2.58	3.10
Haryana	2.800	3.307	4.515	5.172	2.82	6.42	1.96	3.49
Himachal Pradesh	0.685	0.695	1.198	1.504	0.24	11.50	3.30	4.56
Karnataka	7.680	8.729	10.721	13.439	2.16	4.20	3.28	3.16
Kerala	5.897	7.520	8.213	10.110	4.14	1.78	3.01	3.04
Madhya Pradesh	5.392	6.986	9.131	11.947	4.41	5.50	3.91	4.52
Maharashtra	15.347	17.622	22.084	24.950	2.33	4.62	1.76	2.74
Odisha	3.693	4.346	6.344	7.900	2.75	7.86	3.18	4.34
Punjab	3.503	4.384	5.567	7.072	3.81	4.89	3.48	3.98
Rajasthan	6.696	7.789	10.272	13.925	2.55	5.69	4.44	4.16
Tamil Nadu	13.319	15.144	18.127	21.445	2.16	3.66	2.43	2.68
Uttar Pradesh	15.978	20.122	25.773	32.691	3.92	5.07	3.46	4.06
West Bengal	13.712	14.818	17.709	22.895	1.30	3.63	3.74	2.90
Uttarakhand	0.763	0.931	1.424	1.960	3.39	8.87	4.67	5.41
Jharkhand	2.824	3.347	4.706	5.899	2.87	7.06	3.28	4.19
Chhattisgarh	1.651	1.835	2.747	3.356	1.77	8.41	2.90	4.05
Jammu and Kashmir	1.324	1.762	2.052	2.982	4.87	3.10	5.48	4.62
India	133.634	157.794	198.504	246.016	2.81	4.70	3.11	3.45

Table A8.2.8: Employment Elasticity in Agriculture and Non-Agriculture

	Agriculture				Non-Agriculture			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	-0.062	-0.250	-0.235	-0.208	0.167	0.806	0.170	0.324
Assam	-1.296	-44.026	-1.026	0.243	2.378	0.053	0.675	0.818
Bihar	1.932	0.086	-0.446	-0.019	0.854	0.796	0.474	0.642
Gujarat	1.050	0.103	-0.251	0.068	0.249	0.726	0.249	0.351
Haryana	-0.054	1.599	-0.748	-0.041	0.354	0.618	0.189	0.364
Himachal Pradesh	4.297	0.387	-0.064	0.366	0.026	1.908	0.333	0.529
Karnataka	0.020	-0.647	-0.759	-0.330	0.235	0.581	0.387	0.378
Kerala	-1.427	-1.397	10.702	-4.905	0.648	0.240	0.331	0.394
Madhya Pradesh	0.258	-2.129	-0.341	-0.051	0.577	1.894	0.442	0.665
Maharashtra	0.061	1.585	-0.136	0.119	0.348	0.834	0.180	0.363
Odisha	-0.142	0.039	-0.441	-0.272	0.437	1.176	0.359	0.586
Punjab	0.662	0.229	-1.944	-0.368	0.640	0.982	0.375	0.570
Rajasthan	0.011	0.318	-0.369	-0.090	0.271	1.394	0.457	0.516
Tamil Nadu	-1.327	-0.296	-0.507	-0.696	0.268	0.644	0.227	0.318
Uttar Pradesh	0.022	2.322	-0.487	0.037	0.740	1.039	0.412	0.636
West Bengal	0.075	0.954	-0.596	0.102	0.163	0.539	0.487	0.385
Uttarakhand	-2.446	2.886	-2.229	-0.575	1.143	0.774	0.292	0.521
Jharkhand	-0.138	1.059	-0.305	-0.025	1.549	1.952	0.525	1.035
Chhattisgarh	0.245	35.519	0.144	0.296	0.361	1.140	0.335	0.575
Jammu and Kashmir	-0.172	-1.066	-0.867	-0.590	1.029	0.660	0.747	0.805
India	0.046	0.895	-0.444	-0.088	0.353	0.681	0.333	0.421

Table A8.2.9: Sectoral Composition to GSDP-Industry (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	265492	393232	545573	1037534.4	6.77	6.77	9.62	7.88
Assam	94015	103291	147051	175150	1.58	7.32	2.53	3.54
Bihar	58719.5	86048	107059	285155.8	6.58	4.47	15.02	9.27
Gujarat	371771	610992	813460	1574576.7	8.63	5.89	9.89	8.36
Haryana	134115	204507	315183	508432.1	7.28	9.04	7.07	7.69
Himachal Pradesh	38958.6	68684	92402.1	169582.3	9.91	6.11	9.06	8.53
Karnataka	219815	364226	504888	830516.8	8.78	6.75	7.37	7.67
Kerala	142359	185736	273489	444141.7	4.53	8.05	7.17	6.54
Madhya Pradesh	154253	270809	306581	567574.8	9.83	2.51	9.20	7.55
Maharashtra	763066	1059891	1230220	2280024.7	5.63	3.03	9.21	6.30
Odisha	144803	198290	265217	445157.9	5.38	5.99	7.68	6.44
Punjab	133839	190724	239791	465388.2	6.08	4.69	9.94	7.19
Rajasthan	166193	316047	390374	757387.8	11.31	4.31	9.93	8.83
Tamil Nadu	374208	551380	693126	1324476.6	6.67	4.68	9.69	7.29
Uttar Pradesh	313374	456949	606601	964097.6	6.49	5.83	6.84	6.44
West Bengal	208947	304867	451945	606102.2	6.50	8.19	4.28	6.11
Uttarakhand	29776	29990	69958.4	226099.9	0.12	18.46	18.24	12.26
Jharkhand	196770	282193	311618	373667.3	6.19	2.00	2.63	3.64
Chhattisgarh	107484	137054	212214	363522.1	4.13	9.14	7.99	7.02
Jammu and Kashmir	52841	58426	77080.4	99519.3	1.69	5.70	3.72	3.59
India (Crores)	40684.7	60363	82978.3	148065.7	6.80	6.57	8.62	7.44

Table A8.2.10: Sectoral Composition of Employment-Industry (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	5.21	4.88	6.79	7.82	-1.08	6.80	2.04	2.32
Assam	0.53	0.63	0.81	1.42	3.18	5.09	8.28	5.69
Bihar	1.32	2.24	2.63	4.61	9.20	3.26	8.35	7.22
Gujarat	3.99	3.74	5.56	7.01	-1.07	8.26	3.37	3.25
Haryana	1.10	1.32	2.00	2.42	3.06	8.77	2.76	4.53
Himachal Pradesh	0.30	0.30	0.61	0.82	0.25	15.17	4.38	6.00
Karnataka	3.61	3.51	4.19	5.08	-0.45	3.57	2.80	1.93
Kerala	2.66	3.15	3.34	4.05	2.86	1.14	2.82	2.37
Madhya Pradesh	2.30	2.84	3.87	5.92	3.61	6.33	6.28	5.40
Maharashtra	6.29	6.47	8.60	9.26	0.46	5.87	1.06	2.19
Odisha	1.63	2.10	3.13	3.98	4.33	8.30	3.51	5.11
Punjab	1.34	1.64	2.41	3.47	3.39	7.99	5.34	5.43
Rajasthan	3.59	4.03	5.41	8.27	1.94	6.07	6.24	4.76
Tamil Nadu	6.65	7.12	8.71	10.97	1.15	4.11	3.35	2.83
Uttar Pradesh	6.73	8.41	12.26	17.92	3.80	7.82	5.57	5.61
West Bengal	6.46	6.47	7.38	11.49	0.02	2.69	6.52	3.29
Uttarakhand	0.24	0.39	0.51	0.83	8.16	5.52	7.28	7.09
Jharkhand	1.29	1.61	2.56	3.23	3.79	9.75	3.38	5.28
Chhattisgarh	0.66	0.64	1.13	1.55	-0.52	12.20	4.60	5.01
Jammu and Kashmir	0.54	0.74	0.98	1.50	5.44	5.83	6.22	5.85
India	58.47	64.39	85.43	114.95	1.62	5.82	4.33	3.84

Table A8.2.11: Sectoral Composition to GSDP-Service (Rs.- In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	531249.80	792974.48	1138120.40	2294108.70	6.90	7.49	10.53	8.48
Assam	149176.95	190433.16	250369.60	426034.00	4.15	5.63	7.89	6.02
Bihar	214629.65	313245.95	425454.80	812897.40	6.50	6.31	9.69	7.69
Gujarat	370786.76	617468.48	893210.00	1832214.30	8.87	7.66	10.81	9.29
Haryana	149750.49	245034.55	421518.30	963535.50	8.55	11.46	12.54	10.91
Himachal Pradesh	39867.32	65225.28	87034.10	178582.80	8.55	5.94	10.81	8.71
Karnataka	344649.03	592350.02	850685.40	1565208.90	9.45	7.51	9.10	8.77
Kerala	332360.52	502493.60	710713.50	1365728.30	7.13	7.18	9.78	8.18
Madhya Pradesh	300762.60	437110.25	510305.10	911625.00	6.43	3.14	8.64	6.38
Maharashtra	1155833.08	1770423.21	2475311.40	4835419.80	7.37	6.93	10.04	8.28
Odisha	153699.71	232026.50	329507.10	632188.80	7.11	7.27	9.76	8.18
Punjab	227550.06	320744.19	412468.80	748780.40	5.89	5.16	8.89	6.85
Rajasthan	286754.08	461772.33	559783.40	1060319.20	8.26	3.92	9.55	7.56
Tamil Nadu	553300.62	925292.07	1253288.30	2641178.80	8.95	6.26	11.24	9.09
Uttar Pradesh	746117.12	986845.93	1226098.10	2257812.60	4.77	4.44	9.11	6.37
West Bengal	514024.49	841110.50	1135263.90	2057468.70	8.55	6.18	8.87	8.02
Uttarakhand	64235.38	82022.68	122694.30	317240.50	4.16	8.39	14.53	9.37
Jharkhand	184490.23	143476.49	196792.10	403009.30	-4.10	6.52	10.78	4.64
Chhattisgarh	90760.39	127103.43	164817.80	310663.80	5.77	5.33	9.48	7.09
Jammu and Kashmir	65459.76	97719.76	119350.60	223032.20	6.91	4.08	9.34	7.07
India (Crores)	68135.10	111984.80	157625.50	301304.10	8.63	7.08	9.70	8.61

Table A8.2.12: Sectoral Composition of Employment-Service (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	6.65	7.83	10.10	11.23	2.74	5.24	1.53	2.96
Assam	1.78	2.94	2.82	3.39	8.75	-0.82	2.70	3.74
Bihar	3.09	3.87	5.06	6.33	3.81	5.52	3.24	4.06
Gujarat	3.87	5.20	5.81	6.58	5.06	2.26	1.79	3.01
Haryana	1.70	1.99	2.51	2.75	2.66	4.75	1.30	2.71
Himachal Pradesh	0.39	0.40	0.59	0.68	0.24	8.36	2.12	3.22
Karnataka	4.07	5.21	6.53	8.36	4.23	4.61	3.58	4.08
Kerala	3.24	4.37	4.88	6.06	5.13	2.23	3.15	3.55
Madhya Pradesh	3.09	4.14	5.27	6.03	4.99	4.92	1.95	3.79
Maharashtra	9.05	11.15	13.48	15.69	3.54	3.87	2.19	3.11
Odisha	2.06	2.25	3.22	3.92	1.41	7.44	2.86	3.65
Punjab	2.16	2.74	3.15	3.60	4.07	2.84	1.90	2.89
Rajasthan	3.10	3.76	4.86	5.66	3.24	5.28	2.20	3.40
Tamil Nadu	6.67	8.02	9.41	10.47	3.13	3.25	1.53	2.54
Uttar Pradesh	9.25	11.71	13.51	14.77	4.00	2.91	1.28	2.64
West Bengal	7.25	8.35	10.32	11.40	2.38	4.33	1.43	2.55
Uttarakhand	0.52	0.54	0.92	1.13	0.73	11.02	3.04	4.49
Jharkhand	1.54	1.74	2.15	2.67	2.07	4.30	3.16	3.11
Chhattisgarh	0.99	1.20	1.61	1.80	3.15	6.15	1.60	3.38
Jammu and Kashmir	0.78	1.02	1.07	1.48	4.48	0.92	4.77	3.60
India	75.16	93.40	113.07	131.06	3.69	3.90	2.13	3.14

Table A8.2.13: Employment Elasticity in Industry and Service Sector

	Industry				Service			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	-0.160	1.005	0.212	0.295	0.397	0.699	0.145	0.349
Assam	2.011	0.695	3.273	1.606	2.107	-0.147	0.342	0.621
Bihar	1.399	0.731	0.556	0.779	0.585	0.875	0.334	0.528
Gujarat	-0.124	1.402	0.341	0.388	0.571	0.295	0.166	0.324
Haryana	0.421	0.971	0.390	0.589	0.310	0.414	0.104	0.248
Himachal Pradesh	0.026	2.481	0.484	0.704	0.028	1.407	0.196	0.370
Karnataka	-0.052	0.528	0.380	0.251	0.447	0.615	0.394	0.465
Kerala	0.632	0.141	0.393	0.362	0.719	0.311	0.322	0.434
Madhya Pradesh	0.367	2.519	0.683	0.715	0.776	1.563	0.225	0.594
Maharashtra	0.081	1.939	0.115	0.348	0.480	0.558	0.218	0.375
Odisha	0.804	1.386	0.457	0.793	0.199	1.024	0.293	0.446
Punjab	0.558	1.706	0.538	0.755	0.691	0.551	0.214	0.421
Rajasthan	0.171	1.406	0.628	0.539	0.392	1.346	0.230	0.450
Tamil Nadu	0.172	0.878	0.345	0.387	0.350	0.520	0.137	0.280
Uttar Pradesh	0.586	1.342	0.814	0.870	0.839	0.655	0.141	0.415
West Bengal	0.002	0.328	1.523	0.538	0.279	0.701	0.161	0.319
Uttarakhand	68.421	0.299	0.399	0.578	0.176	1.313	0.209	0.479
Jharkhand	0.612	4.865	1.285	1.451	-0.504	0.659	0.293	0.671
Chhattisgarh	-0.125	1.335	0.575	0.713	0.546	1.153	0.169	0.477
Jammu and Kashmir	3.222	1.023	1.673	1.629	0.648	0.225	0.511	0.510
India	0.238	0.885	0.502	0.516	0.427	0.551	0.220	0.365

Table A8.2.14: Sectoral Composition to GSDP-Sub-Sector of Industry- Mining (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	28779.89	42568.24	62705.70	113686.30	6.74	8.05	8.87	7.93
Assam	39564.31	44988.96	46792.50	43617.20	2.16	0.79	-1.00	0.55
Bihar	444.61	855.42	421.10	1037.50	11.52	-13.22	13.75	5.52
Gujarat	58407.19	60682.09	70260.00	72622.60	0.64	2.97	0.47	1.22
Haryana	977.93	1804.12	1948.00	776.90	10.75	1.55	-12.31	-0.77
Himachal Pradesh	232.44	606.76	643.00	1329.80	17.34	1.17	10.94	10.36
Karnataka	6114.08	8111.85	19257.00	12334.20	4.82	18.88	-6.17	4.45
Kerala	2944.20	3988.15	4577.80	9391.90	5.19	2.80	10.81	6.71
Madhya Pradesh	35704.19	46322.08	54493.40	73495.90	4.43	3.30	4.37	4.09
Maharashtra	16553.87	26682.80	34908.80	41350.00	8.28	5.52	2.45	5.25
Odisha	16642.58	30227.15	58618.60	84477.30	10.46	14.16	5.36	9.50
Punjab	112.77	36.52	218.40	184.50	-17.13	43.00	-2.38	5.31
Rajasthan	12600.99	21416.98	27169.80	98153.50	9.24	4.87	20.14	12.27
Tamil Nadu	9996.98	10423.43	16332.90	20551.80	0.70	9.40	3.34	4.14
Uttar Pradesh	12918.79	23868.14	27394.80	24726.80	10.77	2.79	-1.45	3.80
West Bengal	17521.18	20387.77	28492.10	28731.70	2.56	6.92	0.12	2.82
Uttarakhand	1493.51	1862.19	2989.40	3671.70	3.75	9.93	2.98	5.17
Jharkhand	51594.41	60397.11	65234.30	126589.40	2.66	1.55	9.93	5.18
Chhattisgarh	23108.79	35755.16	53671.50	83383.90	7.55	8.46	6.50	7.39
Jammu and Kashmir	448.03	327.71	284.70	902.60	-5.08	-2.77	17.92	4.51
India (Crores)	4961.10	6790.20	8502.80	11072.50	5.37	4.60	3.84	4.56

Table A8.2.15: Sectoral Composition of Employment-Sub-Sector of Industry- Mining (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.350	0.302	0.489	0.370	-2.41	10.07	-3.88	0.48
Assam	0.065	0.026	0.040	0.073	-14.19	9.18	8.87	1.27
Bihar	0.017	0.054	0.027	0.023	21.68	-12.57	-2.29	2.85
Gujarat	0.080	0.099	0.169	0.130	3.69	11.28	-3.63	2.95
Haryana	0.031	0.054	0.011	0.010	9.71	-26.81	-2.30	-5.11
Himachal Pradesh	0.000	0.000	0.003	0.003	-22.78	103.29	-1.15	20.65
Karnataka	0.262	0.147	0.107	0.084	-9.20	-6.20	-3.35	-6.09
Kerala	0.136	0.165	0.133	0.066	3.24	-4.19	-9.59	-3.81
Madhya Pradesh	0.220	0.161	0.274	0.172	-5.06	11.22	-6.42	-1.07
Maharashtra	0.160	0.079	0.200	0.070	-11.22	20.54	-13.90	-3.44
Odisha	0.165	0.083	0.134	0.096	-10.84	10.02	-4.55	-2.60
Punjab	0.004	0.000	0.007	0.000	-32.06	79.75	-40.97	-4.47
Rajasthan	0.348	0.366	0.288	0.285	0.86	-4.67	-0.19	-1.08
Tamil Nadu	0.098	0.124	0.106	0.188	4.00	-3.19	8.52	3.76
Uttar Pradesh	0.080	0.061	0.129	0.350	-4.35	16.16	15.34	9.01
West Bengal	0.181	0.123	0.148	0.175	-6.24	3.87	2.43	-0.06
Uttarakhand	0.010	0.000	0.000	0.001			16.26	6.32
Jharkhand	0.242	0.260	0.264	0.286	1.19	0.31	1.15	0.93
Chhattisgarh	0.170	0.048	0.068	0.126	-19.11	7.46	9.16	-0.73
Jammu and Kashmir	0.009	0.000	0.010	0.004	-38.50	82.14	-11.96	5.33
India	2.652	2.192	2.639	2.591	-3.13	3.79	-0.26	-0.09

Table A8.2.16: Sectoral Composition to GSDP-Sub-Sector of Industry- Manufacturing (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	146293.69	206540.92	273307.70	577614.90	5.92	5.76	11.28	7.96
Assam	28608.27	33861.53	56214.60	61765.00	2.85	10.67	1.35	4.44
Bihar	37523.65	44873.19	43793.10	69897.60	3.03	-0.49	6.91	3.56
Gujarat	237451.93	418245.74	554430.00	1049934.30	9.89	5.80	9.55	8.62
Haryana	90881.88	143746.22	204545.10	327926.60	7.94	7.31	6.98	7.39
Himachal Pradesh	8311.11	20729.54	27721.00	73885.30	16.45	5.98	15.03	12.99
Karnataka	140494.42	213212.17	305988.70	488609.30	7.20	7.49	6.91	7.17
Kerala	63258.42	90432.87	102205.80	157636.10	6.14	2.48	6.39	5.22
Madhya Pradesh	75496.20	129117.62	125572.90	235711.60	9.36	-0.56	9.41	6.63
Maharashtra	505076.23	728912.39	854761.00	1538361.90	6.30	3.24	8.76	6.41
Odisha	36266.99	55746.66	93697.90	181817.60	7.43	10.94	9.93	9.38
Punjab	90184.24	127082.60	146602.00	313480.80	5.88	2.90	11.47	7.23
Rajasthan	67915.21	147575.64	159767.10	397137.50	13.81	1.60	13.89	10.45
Tamil Nadu	265183.27	356533.36	434326.70	867198.50	5.06	4.03	10.38	6.84
Uttar Pradesh	213756.34	301696.37	351874.50	554108.60	5.91	3.12	6.70	5.44
West Bengal	109130.54	166052.79	232615.80	333622.80	7.25	6.97	5.29	6.41
Uttarakhand	19805.92	15006.35	31555.90	162143.90	-4.52	16.03	26.34	13.19
Jharkhand	113899.32	190015.95	201291.60	166915.10	8.90	1.16	-2.64	2.26
Chhattisgarh	51272.98	55892.50	104792.50	116318.30	1.45	13.40	1.50	4.79
Jammu and Kashmir	10953.32	11117.09	16724.80	30684.50	0.25	8.51	9.06	5.97
India (Crores)	22212.40	33845.80	45322.50	85409.80	7.27	6.01	9.47	7.78

Table A8.2.17: Sectoral Composition of Employment-sub-Sector of Industry- Manufacturing (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	3.73	3.04	4.40	4.06	-3.34	7.67	-1.14	0.57
Assam	0.37	0.40	0.42	0.63	1.40	1.15	5.99	3.12
Bihar	1.06	1.76	1.75	1.69	8.83	-0.12	-0.50	2.72
Gujarat	3.16	2.65	4.30	5.59	-2.90	10.21	3.81	3.35
Haryana	0.69	0.75	1.22	1.22	1.46	10.13	0.01	3.30
Himachal Pradesh	0.11	0.11	0.19	0.23	0.32	10.87	3.09	4.33
Karnataka	2.65	2.43	2.87	3.28	-1.41	3.36	1.91	1.21
Kerala	1.75	1.76	1.81	1.84	0.11	0.54	0.21	0.27
Madhya Pradesh	1.59	1.79	2.31	2.11	2.05	5.17	-1.26	1.63
Maharashtra	4.70	4.53	5.86	5.97	-0.62	5.31	0.25	1.37
Odisha	1.12	1.40	1.92	1.71	3.82	6.53	-1.60	2.46
Punjab	0.92	1.02	1.43	1.88	1.78	6.85	4.05	4.07
Rajasthan	1.56	1.68	2.41	2.56	1.18	7.55	0.87	2.83
Tamil Nadu	5.36	5.42	6.54	6.64	0.18	3.83	0.22	1.21
Uttar Pradesh	5.37	6.28	8.28	8.79	2.63	5.69	0.86	2.79
West Bengal	5.43	5.30	5.68	8.45	-0.42	1.39	5.84	2.52
Uttarakhand	0.09	0.14	0.21	0.36	7.77	7.61	8.06	7.84
Jharkhand	0.68	0.82	1.11	0.90	3.09	6.16	-2.83	1.64
Chhattisgarh	0.31	0.45	0.57	0.59	6.15	5.16	0.31	3.60
Jammu and Kashmir	0.18	0.22	0.55	0.50	3.36	19.80	-1.36	6.09
India	42.23	43.45	55.59	60.83	0.47	5.05	1.30	2.06

Table A8.2.18: Sectoral Composition to GSDP-sub-Sector of Industry- Construction (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	58456.46	92471.80	151934.30	255144.40	7.94	10.44	7.69	8.54
Assam	21970.27	20450.34	34202.60	60923.50	-1.19	10.83	8.60	5.96
Bihar	14255.58	27733.96	51380.90	195734.20	11.73	13.12	21.05	15.74
Gujarat	44836.03	85862.23	130240.00	304369.90	11.44	8.69	12.89	11.24
Haryana	35505.74	47507.05	92567.90	148893.30	4.97	14.27	7.03	8.35
Himachal Pradesh	25125.27	37334.23	46005.00	61689.60	6.82	4.27	4.28	5.12
Karnataka	52533.58	114067.74	142597.10	275544.60	13.79	4.57	9.87	9.70
Kerala	69704.22	77549.48	144876.40	252882.40	1.79	13.31	8.28	7.52
Madhya Pradesh	26322.67	71666.31	93242.30	205395.70	18.17	5.40	11.94	12.20
Maharashtra	192780.40	237919.60	261427.70	555649.70	3.57	1.90	11.37	6.14
Odisha	68947.71	88756.28	80927.20	144787.20	4.30	-1.83	8.67	4.29
Punjab	24886.21	37410.60	63258.70	108385.30	7.03	11.08	8.00	8.53
Rajasthan	56062.65	96549.30	155200.40	223945.40	9.48	9.96	5.38	8.02
Tamil Nadu	69101.62	128909.04	196538.20	419337.50	10.95	8.80	11.43	10.54
Uttar Pradesh	59863.22	101158.84	191486.20	337785.30	9.14	13.61	8.45	10.11
West Bengal	62287.72	90703.06	149399.60	184927.00	6.46	10.50	3.09	6.27
Uttarakhand	7131.82	11606.80	31568.60	51261.90	8.46	22.15	7.17	11.76
Jharkhand	21961.45	23461.33	36192.80	71185.70	1.11	9.06	10.15	6.83
Chhattisgarh	14023.51	21770.54	32742.80	121974.10	7.61	8.50	20.67	12.94
Jammu and Kashmir	30622.51	30339.21	44719.20	50394.20	-0.15	8.07	1.72	2.86
India (Crores)	10109.90	14638.00	22885.50	41518.80	6.36	9.35	8.88	8.17

Table A8.2.19: Sectoral Composition of Employment-sub-Sector of Industry- Construction (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	1.05	1.49	1.85	3.26	5.99	4.44	8.45	6.51
Assam	0.07	0.20	0.30	0.71	18.81	8.86	12.86	13.73
Bihar	0.18	0.40	0.83	2.89	14.31	15.41	19.57	16.66
Gujarat	0.69	0.93	1.02	1.23	5.21	1.78	2.78	3.31
Haryana	0.34	0.45	0.71	1.14	4.54	9.67	6.96	6.91
Himachal Pradesh	0.15	0.17	0.36	0.53	2.93	15.85	5.62	7.56
Karnataka	0.59	0.89	1.14	1.61	7.13	5.10	5.06	5.76
Kerala	0.73	1.19	1.36	2.08	8.45	2.63	6.26	5.98
Madhya Pradesh	0.43	0.85	1.22	3.58	12.19	7.52	16.60	12.61
Maharashtra	1.28	1.70	2.40	3.07	4.89	7.09	3.60	5.00
Odisha	0.30	0.59	1.03	2.10	11.75	11.87	10.69	11.37
Punjab	0.31	0.53	0.87	1.44	9.14	10.50	7.46	8.86
Rajasthan	1.59	1.93	2.58	5.30	3.25	5.99	10.84	6.96
Tamil Nadu	1.09	1.47	1.98	3.98	5.15	6.10	10.47	7.48
Uttar Pradesh	1.12	2.00	3.75	8.64	10.05	13.40	12.68	12.00
West Bengal	0.76	0.94	1.49	2.79	3.46	9.78	9.34	7.50
Uttarakhand	0.13	0.21	0.28	0.45	8.41	5.50	6.86	7.00
Jharkhand	0.32	0.48	1.16	2.03	6.87	19.29	8.28	10.87
Chhattisgarh	0.13	0.14	0.47	0.80	0.84	27.85	7.71	11.01
Jammu and Kashmir	0.29	0.44	0.37	0.95	7.08	-3.52	14.27	6.93
India	12.13	17.58	25.90	49.94	6.39	8.05	9.83	8.19

Table A8.2.20: Sectoral Composition to GSDP-sub-Sector of Industry- Electricity et. al. (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	31962.06	51650.81	57624.80	91088.80	8.33	2.21	6.76	6.02
Assam	3872.14	3990.27	9841.20	8844.30	0.50	19.79	-1.51	5.07
Bihar	6495.65	12585.14	11464.00	18486.50	11.65	-1.85	7.06	6.12
Gujarat	31076.32	46202.17	58530.00	147649.90	6.83	4.84	14.13	9.12
Haryana	6749.40	11449.79	16121.70	30835.30	9.21	7.08	9.71	8.81
Himachal Pradesh	5289.79	10013.18	18033.10	32677.60	11.22	12.49	8.86	10.66
Karnataka	20672.52	28834.42	37044.80	54028.70	5.70	5.14	5.54	5.48
Kerala	6452.61	13765.78	21829.00	24231.30	13.46	9.66	1.50	7.75
Madhya Pradesh	16729.76	23703.06	33272.20	52971.60	5.98	7.02	6.87	6.61
Maharashtra	48655.92	66375.95	79122.00	144663.10	5.31	3.58	9.00	6.27
Odisha	22945.53	23560.39	31973.70	34075.80	0.44	6.30	0.91	2.25
Punjab	18655.50	26194.75	29712.30	43337.60	5.82	2.55	5.54	4.80
Rajasthan	29614.50	50504.98	48236.60	38151.40	9.30	-0.91	-3.30	1.57
Tamil Nadu	29926.21	55513.77	45928.30	17388.80	10.85	-3.72	-12.96	-2.46
Uttar Pradesh	26835.77	30225.60	35845.40	47476.90	2.00	3.47	4.10	3.22
West Bengal	20007.94	27723.37	41437.00	58820.70	5.59	8.37	5.13	6.18
Uttarakhand	1344.71	1514.45	3844.50	9022.40	2.00	20.48	12.96	11.40
Jharkhand	9315.00	8318.58	8899.20	8977.10	-1.87	1.36	0.12	-0.20
Chhattisgarh	19079.02	23635.93	21007.40	41845.80	3.63	-2.33	10.35	4.59
Jammu and Kashmir	10817.11	16642.03	15351.70	17538.00	7.44	-1.60	1.92	2.78
India (Crores)	3401.30	5089.10	6267.50	10064.60	6.95	4.25	7.00	6.22

Table A8.2.21: Sectoral Composition of Employment-Sub-Sector of Industry- Electricity et al. (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.086	0.054	0.052	0.129	-7.50	-0.86	13.97	2.69
Assam	0.023	0.011	0.047	0.004	-11.18	32.76	-30.20	-6.37
Bihar	0.063	0.020	0.024	0.009	-17.16	3.10	-13.47	-10.09
Gujarat	0.064	0.060	0.069	0.058	-0.99	2.98	-2.61	-0.52
Haryana	0.031	0.058	0.057	0.050	11.00	-0.33	-1.93	2.82
Himachal Pradesh	0.037	0.012	0.051	0.050	-16.84	32.88	-0.37	3.37
Karnataka	0.110	0.043	0.067	0.103	-14.52	9.31	6.32	0.21
Kerala	0.041	0.033	0.034	0.072	-3.70	0.80	11.16	3.33
Madhya Pradesh	0.065	0.039	0.062	0.054	-8.09	9.41	-1.77	-0.77
Maharashtra	0.158	0.162	0.142	0.152	0.44	-2.61	0.97	-0.20
Odisha	0.044	0.030	0.045	0.073	-6.44	8.72	7.22	3.08
Punjab	0.105	0.087	0.105	0.143	-3.09	3.84	4.51	1.79
Rajasthan	0.091	0.060	0.131	0.116	-6.72	17.00	-1.71	1.82
Tamil Nadu	0.104	0.109	0.089	0.168	0.82	-4.04	9.59	2.88
Uttar Pradesh	0.148	0.076	0.105	0.136	-10.48	6.65	3.80	-0.17
West Bengal	0.086	0.112	0.068	0.080	4.53	-9.59	2.45	-0.20
Uttarakhand	0.007	0.028	0.017	0.023	25.36	-9.19	3.94	7.43
Jharkhand	0.039	0.048	0.030	0.014	3.57	-9.01	-10.13	-5.25
Chhattisgarh	0.044	0.005	0.019	0.045	-30.00	29.28	13.55	3.40
Jammu and Kashmir	0.052	0.073	0.052	0.052	5.72	-6.78	0.07	0.05
India	1.462	1.165	1.310	1.597	-3.72	2.38	2.87	0.54

Table A8.2.22: Employment Elasticity in Mining and Manufacturing

	Mining				Manufacturing			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	-0.358	1.250	-0.438	0.061	-0.564	1.330	-0.101	0.072
Assam	-6.556	11.626	-8.880	2.296	0.491	0.108	4.427	0.702
Bihar	1.881	0.951	-0.166	0.516	2.919	0.238	-0.073	0.763
Gujarat	5.780	3.792	-7.660	2.414	-0.293	1.760	0.399	0.388
Haryana	0.904	-17.340	0.187	6.593	0.184	1.386	0.001	0.447
Himachal Pradesh	-1.314	88.512	-0.105	1.994	0.019	1.816	0.206	0.333
Karnataka	-1.906	-0.328	0.543	-1.367	-0.196	0.448	0.276	0.168
Kerala	0.625	-1.499	-0.887	-0.568	0.018	0.219	0.033	0.051
Madhya Pradesh	-1.142	3.396	-1.469	-0.261	0.219	-9.318	-0.134	0.246
Maharashtra	-1.355	3.721	-5.676	-0.655	-0.098	1.641	0.029	0.214
Odisha	-1.037	0.707	-0.849	-0.274	0.514	0.596	-0.161	0.263
Punjab	1.872	1.855	17.209	-0.842	0.303	2.363	0.353	0.564
Rajasthan	0.093	-0.958	-0.009	-0.088	0.085	4.717	0.063	0.271
Tamil Nadu	5.720	-0.339	2.553	0.908	0.035	0.952	0.021	0.177
Uttar Pradesh	-0.404	5.784	-10.557	2.369	0.445	1.820	0.128	0.513
West Bengal	-2.440	0.559	20.293	-0.021	-0.058	0.199	1.106	0.393
Uttarakhand	0.000	0.000	5.457	1.224	-1.719	0.475	0.306	0.594
Jharkhand	0.446	0.199	0.116	0.179	0.347	5.314	1.073	0.725
Chhattisgarh	-2.532	0.882	1.410	-0.099	4.244	0.385	0.205	0.752
Jammu and Kashmir	7.580	-29.604	-0.668	1.184	13.569	2.327	-0.151	1.020
India (Crores)	-0.582	0.823	-0.069	-0.020	0.065	0.840	0.137	0.265

Table A8.2.23: Employment Elasticity in Construction and Electricity

	Construction				Electricity			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.754	0.425	1.099	0.763	-0.900	-0.391	2.067	0.448
Assam	-15.835	0.818	1.496	2.306	-22.271	1.656	19.946	-1.256
Bihar	1.220	1.174	0.929	1.058	-1.472	-1.679	-1.906	-1.650
Gujarat	0.456	0.205	0.215	0.295	-0.145	0.615	-0.185	-0.057
Haryana	0.914	0.678	0.991	0.827	1.194	-0.047	-0.199	0.320
Himachal Pradesh	0.429	3.716	1.312	1.476	-1.501	2.633	-0.042	0.317
Karnataka	0.517	1.118	0.513	0.594	-2.545	1.812	1.141	0.038
Kerala	4.709	0.198	0.756	0.796	-0.275	0.083	7.425	0.429
Madhya Pradesh	0.671	1.391	1.390	1.034	-1.354	1.340	-0.258	-0.117
Maharashtra	1.371	3.727	0.317	0.814	0.082	-0.729	0.107	-0.032
Odisha	2.732	-6.489	1.233	2.648	-14.571	1.385	7.903	1.370
Punjab	1.300	0.947	0.932	1.039	-0.531	1.505	0.815	0.373
Rajasthan	0.343	0.602	2.015	0.868	-0.723	-18.579	0.519	1.159
Tamil Nadu	0.470	0.693	0.916	0.710	0.076	1.087	-0.740	-1.172
Uttar Pradesh	1.099	0.985	1.501	1.187	-5.235	1.917	0.927	-0.053
West Bengal	0.535	0.932	3.019	1.196	0.811	-1.146	0.478	-0.032
Uttarakhand	0.995	0.248	0.956	0.595	12.675	-0.449	0.304	0.652
Jharkhand	6.203	2.130	0.816	1.591	-1.909	-6.634	-81.300	26.696
Chhattisgarh	0.110	3.275	0.373	0.851	-8.254	-12.563	1.310	0.742
Jammu and Kashmir	-45.734	-0.436	8.289	2.424	0.768	4.233	0.036	0.018
India	1.005	0.861	1.107	1.002	-0.536	0.559	0.410	0.086

Table A8.2.24: Sectoral Composition to GSDP-Sub-Sector of Service- Transport, Storage and Commu. (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	64420.20	101825.35	177917.30	474474.90	7.93	11.81	15.04	11.77
Assam	21870.83	23712.45	32970.00	71080.50	1.36	6.81	11.60	6.86
Bihar	26792.34	39114.61	46122.10	119666.00	6.51	3.35	14.59	8.77
Gujarat	42696.88	82400.60	143350.00	334552.90	11.58	11.71	12.87	12.12
Haryana	21162.43	38034.70	77532.90	155750.00	10.26	15.31	10.48	11.75
Himachal Pradesh	3437.45	6164.49	11581.50	25704.90	10.22	13.44	12.06	11.83
Karnataka	27818.91	62148.52	115917.10	229987.80	14.34	13.28	10.28	12.47
Kerala	32266.37	62683.15	118337.70	317526.60	11.70	13.55	15.14	13.55
Madhya Pradesh	30475.69	47942.21	66381.30	141496.80	7.84	6.72	11.42	8.92
Maharashtra	129141.19	222055.31	329288.70	779646.10	9.45	8.20	13.10	10.52
Odisha	19283.23	29457.56	58602.20	125902.40	7.32	14.75	11.54	11.02
Punjab	14834.03	32499.01	61574.50	108566.70	13.96	13.63	8.44	11.72
Rajasthan	22270.21	40724.91	69932.10	164710.10	10.58	11.42	13.02	11.76
Tamil Nadu	77430.16	130452.27	203006.50	457334.90	9.08	9.25	12.30	10.38
Uttar Pradesh	90116.14	134022.69	202434.80	408790.50	6.84	8.60	10.56	8.78
West Bengal	79513.27	118594.36	185829.40	349573.20	6.89	9.40	9.45	8.58
Uttarakhand	6658.18	9124.08	16278.40	43173.50	5.39	12.28	14.95	11.02
Jharkhand	19965.07	24450.83	36001.00	82042.20	3.44	8.04	12.49	8.24
Chhattisgarh	10249.17	15932.84	23118.70	56434.20	7.63	7.73	13.60	9.98
Jammu and Kashmir	3794.99	6427.64	10943.40	20991.60	9.18	11.23	9.75	9.97
India (Crores)	19176.30	32688.60	47730.30	84663.00	9.30	7.86	8.53	8.60

Table A8.2.25: Sectoral Composition of Employment-Sub-Sector of Service- Transport, Storage and Commu. (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	3.02	3.16	4.29	4.34	0.78	6.30	0.16	2.07
Assam	0.79	0.97	1.19	1.76	3.49	4.30	5.69	4.57
Bihar	1.55	1.84	2.76	3.31	2.88	8.47	2.60	4.32
Gujarat	1.54	2.34	2.68	3.26	7.21	2.72	2.86	4.27
Haryana	0.66	0.99	1.11	1.04	7.10	2.23	-0.92	2.63
Himachal Pradesh	0.10	0.13	0.20	0.19	3.60	9.56	-0.90	3.51
Karnataka	1.83	2.45	2.94	3.38	5.00	3.69	2.03	3.48
Kerala	1.43	2.04	1.91	2.39	6.12	-1.29	3.24	2.94
Madhya Pradesh	1.18	1.83	2.40	2.73	7.51	5.61	1.85	4.78
Maharashtra	3.59	4.60	5.41	5.78	4.18	3.30	0.96	2.68
Odisha	0.89	1.00	1.49	1.86	2.08	8.24	3.22	4.23
Punjab	1.01	1.27	1.41	1.41	3.82	2.05	0.00	1.84
Rajasthan	1.28	1.54	2.05	2.35	3.24	5.79	1.99	3.46
Tamil Nadu	2.88	3.59	4.03	4.47	3.72	2.34	1.49	2.47
Uttar Pradesh	4.35	5.55	6.68	7.32	4.17	3.77	1.32	2.95
West Bengal	3.02	3.70	4.37	4.58	3.46	3.36	0.68	2.35
Uttarakhand	0.14	0.18	0.37	0.57	4.21	15.52	6.44	8.22
Jharkhand	0.69	0.68	0.96	1.36	-0.36	7.34	5.07	3.89
Chhattisgarh	0.39	0.56	0.71	0.76	6.16	4.82	0.88	3.73
Jammu and Kashmir	0.25	0.31	0.38	0.56	4.18	3.86	5.78	4.71
India	31.93	40.65	49.48	56.15	4.10	4.01	1.82	3.19

Table A8.2.26: Sectoral Composition to GSDP-Sub-Sector of Service- Trade, Hotel and Resturant (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	155228.33	219359.51	304585.10	598994.70	5.93	6.79	10.14	7.81
Assam	56504.63	51604.62	75298.10	106339.10	-1.50	7.85	5.05	3.65
Bihar	66779.31	88465.13	162860.60	318035.80	4.80	12.98	10.03	9.11
Gujarat	115048.66	191019.14	336810.00	764566.80	8.82	12.01	12.42	11.11
Haryana	51091.36	88276.01	154922.30	395765.90	9.54	11.91	14.34	12.06
Himachal Pradesh	9652.02	15622.96	23091.70	44505.40	8.36	8.13	9.83	8.87
Karnataka	92762.27	166775.14	231386.10	375726.10	10.27	6.77	7.17	8.09
Kerala	132009.64	191433.83	238705.60	366842.90	6.39	4.51	6.33	5.85
Madhya Pradesh	104312.07	142487.97	153415.90	235708.70	5.34	1.49	6.33	4.65
Maharashtra	296611.89	452144.23	671557.80	1145092.80	7.28	8.23	7.92	7.79
Odisha	38693.63	50855.16	82981.50	180443.10	4.66	10.29	11.74	8.98
Punjab	68339.40	92849.59	118793.90	182801.70	5.24	5.05	6.35	5.62
Rajasthan	93783.00	148176.07	176095.40	329480.50	7.92	3.51	9.36	7.26
Tamil Nadu	158195.14	268182.31	373607.00	721624.20	9.20	6.86	9.86	8.80
Uttar Pradesh	246020.17	310313.68	338246.00	531435.00	3.95	1.74	6.67	4.39
West Bengal	147218.47	245413.72	327391.50	520597.60	8.89	5.93	6.85	7.28
Uttarakhand	25167.47	27016.75	41956.40	160985.20	1.19	9.20	21.18	11.19
Jharkhand	34024.01	44121.15	60490.90	103401.90	4.43	6.51	7.96	6.38
Chhattisgarh	24046.06	31044.60	40908.20	73770.50	4.35	5.67	8.79	6.44
Jammu and Kashmir	12748.21	16112.99	19094.50	31950.70	3.98	3.45	7.63	5.25
India (Crores)	8291.90	14920.10	25041.70	55563.10	10.29	10.91	12.06	11.15

Table A8.2.27: Sectoral Composition of Employment-Sub-Sector of Service- Trade, Hotel and Restaurant (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.91	1.16	1.82	2.30	4.11	9.51	3.37	5.32
Assam	0.16	0.30	0.39	0.40	11.48	5.22	0.36	5.42
Bihar	0.31	0.48	0.75	0.94	7.30	9.42	3.27	6.32
Gujarat	0.63	0.91	1.03	1.03	6.37	2.52	0.01	2.83
Haryana	0.29	0.30	0.43	0.43	0.39	7.67	-0.02	2.25
Himachal Pradesh	0.07	0.05	0.12	0.13	-6.65	20.44	1.49	4.04
Karnataka	0.47	0.73	1.03	1.24	7.54	7.07	2.65	5.51
Kerala	0.57	0.84	1.00	1.13	6.57	3.46	1.73	3.82
Madhya Pradesh	0.41	0.51	0.58	0.83	3.63	2.78	5.18	4.00
Maharashtra	1.40	2.01	2.24	2.63	6.31	2.18	2.28	3.60
Odisha	0.25	0.27	0.47	0.67	1.83	11.49	5.06	5.77
Punjab	0.28	0.49	0.52	0.57	9.49	1.33	1.37	4.06
Rajasthan	0.49	0.65	0.78	0.97	4.66	3.85	3.18	3.86
Tamil Nadu	1.07	1.37	1.52	1.79	4.26	2.12	2.37	2.93
Uttar Pradesh	1.29	1.75	2.27	2.18	5.25	5.30	-0.54	3.01
West Bengal	1.12	1.54	1.82	1.94	5.44	3.35	0.98	3.12
Uttarakhand	0.05	0.06	0.13	0.19	3.59	14.49	6.44	7.72
Jharkhand	0.23	0.24	0.39	0.43	0.16	10.65	1.47	3.59
Chhattisgarh	0.15	0.20	0.23	0.17	4.74	2.71	-3.97	0.79
Jammu and Kashmir	0.05	0.13	0.19	0.21	18.38	7.41	1.38	8.72
India	10.60	14.49	18.39	21.04	5.34	4.89	1.94	3.89

Table A8.2.28: Sectoral Composition to GSDP-Sub-Sector of Service- Finance and Real Estate (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	161304.23	243162.47	352684.90	743896.70	7.08	7.72	11.25	8.88
Assam	16874.91	26533.36	30848.00	64836.20	7.83	3.06	11.19	7.81
Bihar	33295.83	51507.09	66264.40	148329.10	7.54	5.17	12.20	8.69
Gujarat	130595.49	191729.59	247170.00	463071.10	6.61	5.21	9.38	7.30
Haryana	38088.71	59546.63	114827.60	262628.80	7.73	14.03	12.55	11.35
Himachal Pradesh	10166.89	13349.19	17670.20	38670.30	4.64	5.77	11.84	7.75
Karnataka	128574.39	205442.97	318078.60	656729.70	8.12	9.14	10.91	9.49
Kerala	81850.97	120492.77	190796.00	379572.70	6.66	9.63	10.33	8.91
Madhya Pradesh	76444.76	104874.16	133444.40	277823.00	5.41	4.94	11.04	7.47
Maharashtra	485822.41	686042.03	1006876.40	2165232.90	5.92	7.98	11.56	8.68
Odisha	42555.81	56841.33	75765.70	153442.80	4.94	5.92	10.61	7.42
Punjab	56871.56	80301.53	98744.40	220480.60	5.92	4.22	12.16	7.87
Rajasthan	82014.61	119749.61	152277.00	295677.60	6.51	4.92	9.94	7.41
Tamil Nadu	164651.76	281772.52	388493.60	918997.80	9.37	6.63	13.09	10.06
Uttar Pradesh	211039.24	265128.32	332492.50	723165.00	3.88	4.63	11.74	7.14
West Bengal	100845.91	208628.57	287107.30	582789.80	12.88	6.59	10.64	10.26
Uttarakhand	13831.87	19555.14	25355.60	50179.50	5.94	5.33	10.24	7.44
Jharkhand	13992.41	25374.33	34895.80	83815.00	10.43	6.58	13.34	10.49
Chhattisgarh	25335.97	34064.25	42719.30	89431.40	5.06	4.63	11.13	7.30
Jammu and Kashmir	16482.44	21560.32	26793.60	46141.30	4.58	4.44	8.07	5.90
India (Crores)	20156.80	31499.00	43717.40	94553.40	7.72	6.78	11.65	8.99

Table A8.2.29: Sectoral Composition of Employment-Sub-Sector of Service- Finance and Real Estate (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.28	0.37	0.58	1.02	4.90	9.49	8.45	7.55
Assam	0.03	0.08	0.05	0.15	18.84	-10.78	17.80	10.21
Bihar	0.09	0.14	0.19	0.26	8.86	5.48	4.77	6.33
Gujarat	0.18	0.28	0.35	0.57	7.80	4.57	7.35	6.73
Haryana	0.05	0.08	0.15	0.34	8.93	13.98	11.85	11.47
Himachal Pradesh	0.02	0.01	0.02	0.06	-11.77	19.12	17.57	8.22
Karnataka	0.26	0.39	0.56	1.42	6.80	7.25	14.36	9.87
Kerala	0.18	0.30	0.43	0.73	8.58	7.69	7.85	8.05
Madhya Pradesh	0.13	0.15	0.26	0.46	2.24	11.38	8.47	7.20
Maharashtra	0.73	0.90	1.43	2.19	3.56	9.86	6.27	6.36
Odisha	0.04	0.07	0.17	0.19	10.89	18.34	1.15	9.17
Punjab	0.09	0.12	0.19	0.33	4.70	10.24	8.06	7.55
Rajasthan	0.16	0.21	0.32	0.49	4.32	8.67	6.13	6.23
Tamil Nadu	0.43	0.53	0.98	1.39	3.62	13.26	5.13	6.89
Uttar Pradesh	0.35	0.41	0.63	0.98	2.84	9.08	6.45	5.98
West Bengal	0.36	0.40	0.70	0.99	1.83	11.64	5.12	5.84
Uttarakhand	0.03	0.04	0.04	0.06	5.19	-2.15	4.82	3.01
Jharkhand	0.05	0.06	0.13	0.22	3.95	16.63	7.57	8.88
Chhattisgarh	0.04	0.02	0.06	0.10	-9.46	20.06	7.54	5.35
Jammu and Kashmir	0.03	0.06	0.03	0.06	11.26	-14.16	11.73	4.38
India	3.77	4.90	7.76	12.99	4.48	9.63	7.64	7.14

Table A8.2.30: Sectoral Composition to GSDP-Sub-Sector of Service- Public Ad and Oth. (Rs. In Millions) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	150297.04	228627.15	302933.10	476742.40	7.24	5.79	6.69	6.62
Assam	53926.58	88582.72	111253.50	183778.20	8.62	4.66	7.43	7.06
Bihar	87762.17	134159.12	150207.70	226866.50	7.33	2.29	6.07	5.44
Gujarat	82445.73	152319.14	165880.00	270023.50	10.77	1.72	7.21	6.87
Haryana	39407.98	59177.20	74235.50	149390.80	7.01	4.64	10.51	7.71
Himachal Pradesh	16610.97	30088.64	34690.70	69702.20	10.41	2.89	10.48	8.35
Karnataka	95493.47	157983.39	185303.60	302765.30	8.75	3.24	7.27	6.64
Kerala	86233.55	127883.85	162874.20	301786.10	6.79	4.96	9.21	7.22
Madhya Pradesh	89530.08	141805.91	157063.50	256596.50	7.97	2.06	7.26	6.05
Maharashtra	244257.59	410181.64	467588.50	745448.00	9.02	2.65	6.89	6.42
Odisha	53167.04	94872.44	112157.70	172400.50	10.13	3.40	6.33	6.79
Punjab	87505.08	115094.06	133356.00	236931.40	4.67	2.99	8.56	5.72
Rajasthan	88686.26	153121.75	161478.90	270451.00	9.53	1.07	7.65	6.45
Tamil Nadu	153023.56	244884.96	288181.20	543221.90	8.15	3.31	9.48	7.32
Uttar Pradesh	198941.57	277381.24	352924.80	594422.10	5.70	4.94	7.73	6.28
West Bengal	186446.84	268473.85	334935.70	604508.10	6.27	4.52	8.80	6.77
Uttarakhand	18577.86	26326.70	39103.90	62902.30	5.98	8.23	7.03	7.01
Jharkhand	116508.73	49530.17	65404.40	133750.20	-13.29	5.72	10.76	1.34
Chhattisgarh	31129.20	46061.75	58071.60	91027.70	6.75	4.74	6.63	6.15
Jammu and Kashmir	32434.12	53618.81	62519.10	123948.60	8.74	3.12	10.27	7.77
India (Crores)	20510.10	32877.10	41136.10	66524.60	8.18	4.58	7.11	6.76

Table A8.2.31: Sectoral Composition of Employment-Sub-Sector of Service- Public Ad and Oth. (In Million) and its Growth Rate

	In Millions				CAGR			
	1993-94	1999-00	2004-05	2011-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	2.45	3.14	3.41	3.58	4.20	1.66	0.69	2.13
Assam	0.80	1.59	1.19	1.09	12.03	-5.60	-1.22	1.98
Bihar	1.14	1.41	1.37	1.83	3.57	-0.63	4.25	2.67
Gujarat	1.52	1.67	1.76	1.72	1.60	1.03	-0.29	0.71
Haryana	0.70	0.62	0.82	0.94	-2.08	5.64	2.03	1.66
Himachal Pradesh	0.20	0.21	0.25	0.30	1.11	3.35	2.71	2.36
Karnataka	1.50	1.64	2.01	2.32	1.48	4.16	2.07	2.45
Kerala	1.05	1.19	1.54	1.82	2.08	5.26	2.39	3.08
Madhya Pradesh	1.37	1.65	2.02	2.01	3.24	4.08	-0.10	2.17
Maharashtra	3.34	3.65	4.40	5.09	1.49	3.82	2.10	2.37
Odisha	0.89	0.89	1.08	1.20	0.04	3.85	1.55	1.68
Punjab	0.77	0.87	1.04	1.29	1.94	3.66	3.21	2.91
Rajasthan	1.17	1.36	1.71	1.85	2.46	4.79	1.11	2.58
Tamil Nadu	2.29	2.54	2.88	2.82	1.70	2.59	-0.32	1.16
Uttar Pradesh	3.27	4.00	3.93	4.29	3.39	-0.32	1.24	1.52
West Bengal	2.75	2.70	3.44	3.89	-0.27	4.93	1.75	1.96
Uttarakhand	0.30	0.26	0.39	0.31	-2.36	8.42	-2.88	0.43
Jharkhand	0.56	0.76	0.66	0.65	5.21	-2.97	-0.18	0.84
Chhattisgarh	0.40	0.41	0.61	0.77	0.17	8.39	3.43	3.72
Jammu and Kashmir	0.46	0.52	0.48	0.66	1.99	-1.75	4.69	2.00
India	28.86	33.37	37.44	40.88	2.45	2.33	1.26	1.96

Table A8.2.32: Employment Elasticity in TSC and THR

	Transport Storage and Communication				Trade, Hotel and Restaurant			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.098	0.534	0.011	0.176	0.692	1.401	0.332	0.681
Assam	2.573	0.631	0.491	0.667	-7.652	0.665	0.071	1.486
Bihar	0.442	2.527	0.178	0.493	1.522	0.725	0.326	0.694
Gujarat	0.623	0.232	0.222	0.353	0.723	0.210	0.001	0.254
Haryana	0.692	0.146	-0.088	0.224	0.040	0.644	-0.001	0.187
Himachal Pradesh	0.352	0.712	-0.074	0.297	-0.795	2.514	0.152	0.456
Karnataka	0.349	0.278	0.197	0.279	0.734	1.045	0.369	0.680
Kerala	0.523	-0.095	0.214	0.217	1.029	0.766	0.273	0.654
Madhya Pradesh	0.958	0.834	0.162	0.536	0.681	1.864	0.819	0.859
Maharashtra	0.442	0.402	0.073	0.255	0.867	0.265	0.287	0.461
Odisha	0.284	0.559	0.279	0.384	0.392	1.116	0.431	0.642
Punjab	0.274	0.150	0.000	0.157	1.811	0.263	0.216	0.723
Rajasthan	0.306	0.507	0.153	0.294	0.588	1.095	0.340	0.532
Tamil Nadu	0.410	0.253	0.121	0.238	0.463	0.309	0.241	0.333
Uttar Pradesh	0.609	0.439	0.125	0.336	1.332	3.050	-0.081	0.687
West Bengal	0.502	0.358	0.072	0.274	0.612	0.565	0.143	0.429
Uttarakhand	0.781	1.264	0.431	0.746	3.017	1.575	0.304	0.690
Jharkhand	-0.105	0.912	0.406	0.472	0.037	1.635	0.185	0.562
Chhattisgarh	0.807	0.624	0.064	0.374	1.089	0.477	-0.451	0.122
Jammu and Kashmir	0.455	0.344	0.592	0.472	4.617	2.144	0.181	1.660
India	0.441	0.510	0.214	0.371	0.520	0.448	0.161	0.349

Table A8.2.33: Employment Elasticity in FRE and PAO

	Finance and Real Estate				Public Adm. And Others			
	94-00	00-05	05 to 12	C. Average 94-12	94-00	00-05	05 to 12	C. Average 94-12
Andhra Pradesh + Telangana	0.693	1.229	0.751	0.851	0.580	0.287	0.103	0.321
Assam	2.404	-3.525	1.590	1.306	1.395	-1.201	-0.164	0.281
Bihar	1.175	1.061	0.391	0.728	0.488	-0.274	0.700	0.491
Gujarat	1.180	0.878	0.783	0.922	0.148	0.601	-0.041	0.103
Haryana	1.155	0.996	0.945	1.010	-0.297	1.217	0.193	0.216
Himachal Pradesh	-2.535	3.315	1.484	1.060	0.107	1.161	0.259	0.282
Karnataka	0.837	0.794	1.316	1.040	0.169	1.282	0.285	0.369
Kerala	1.288	0.799	0.760	0.903	0.307	1.062	0.259	0.427
Madhya Pradesh	0.414	2.306	0.767	0.964	0.407	1.976	-0.014	0.359
Maharashtra	0.601	1.237	0.543	0.733	0.165	1.439	0.305	0.370
Odisha	2.202	3.100	0.109	1.237	0.004	1.130	0.245	0.248
Punjab	0.794	2.426	0.663	0.958	0.414	1.223	0.375	0.509
Rajasthan	0.663	1.761	0.617	0.842	0.258	4.485	0.146	0.401
Tamil Nadu	0.386	1.999	0.392	0.685	0.208	0.783	-0.034	0.159
Uttar Pradesh	0.733	1.959	0.549	0.836	0.595	-0.065	0.161	0.243
West Bengal	0.142	1.765	0.481	0.569	-0.043	1.091	0.199	0.290
Uttarakhand	0.874	-0.402	0.471	0.405	-0.395	1.022	-0.410	0.061
Jharkhand	0.379	2.527	0.568	0.847	-0.392	-0.520	-0.017	0.626
Chhattisgarh	-1.871	4.330	0.678	0.733	0.025	1.770	0.517	0.606
Jammu and Kashmir	2.459	-3.187	1.452	0.742	0.228	-0.562	0.457	0.258
India	0.580	1.421	0.656	0.794	0.299	0.508	0.178	0.289

Table A8.3.1: GSDP Per Capita by State (in Rs. at 2004-05 price)

	GSDP Per capita				CAGR			
	1993-1994	1999-2000	2004-2005	2011-2012	93-99	99-05	05 to 12	93-12
Andhra Pradesh + Telangana	17125.5	21755.1	28265.1	48213.7	4.07	5.38	7.93	5.92
Assam	16148.2	16539.2	18993.3	24956.5	0.40	2.81	3.98	2.45
Bihar	6817.52	7426.09	8772.77	14573.9	1.44	3.39	7.52	4.31
Gujarat	21364	29752.3	37803.1	65908.7	5.68	4.91	8.26	6.46
Haryana	26173.5	31767.8	42187.5	68876.8	3.28	5.84	7.25	5.52
Himachal Pradesh	21553.5	29409.8	37001	60727.7	5.32	4.70	7.33	5.92
Karnataka	18353.6	26022.3	30138.5	47304.1	5.99	2.98	6.65	5.40
Kerala	21036	27709.4	36278	59983.8	4.70	5.54	7.45	5.99
Madhya Pradesh	13843.2	17493.8	17448.5	26530.3	3.98	-0.05	6.17	3.68
Maharashtra	27069	34462.5	40508.9	68294.1	4.11	3.29	7.75	5.28
Orissa	13502.4	15885.6	20280.1	30814.2	2.75	5.01	6.16	4.69
Punjab	28347.5	33470.7	37228.4	53195	2.81	2.15	5.23	3.56
Rajasthan	13734.7	18973.5	21055.8	33717.8	5.53	2.10	6.96	5.12
Tamil Nadu	20628.9	28382.2	33998.3	63995.7	5.46	3.68	9.46	6.49
Uttar Pradesh	11784.8	13496.2	14620.6	20628.3	2.29	1.61	5.04	3.16
West Bengal	14691.2	20152.8	24869.1	35940.4	5.41	4.30	5.40	5.10
Uttarakhand	17552.8	18947	27496.9	60715.7	1.28	7.73	11.98	7.14
Jharkhand	16064	18582.6	20847.7	29473.2	2.46	2.33	5.07	3.43
Chhattisgarh	16470.7	17701.5	21462.9	32709.6	1.21	3.93	6.20	3.89
Jammu and Kashmir	19713	22696.1	25477.9	34900.1	2.38	2.34	4.60	3.22
Total	17067	22527	27286	43657	4.73	3.91	6.94	5.36

Table A8.4.1: Total Employment Based on Average Compound Method

	Total Employment (In Million)					CAGR
	2011	2016	2021	2026	2031	2011-31
Andhra Pradesh + Telangana	40.08	41.29	42.53	43.82	45.14	0.60
Assam	10.53	11.46	12.47	13.57	14.76	1.70
Bihar	28.50	30.54	32.73	35.07	37.58	1.39
Gujarat	25.60	27.76	30.11	32.66	35.42	1.64
Haryana	8.75	9.52	10.36	11.27	12.26	1.70
Himachal Pradesh	3.62	4.05	4.54	5.08	5.69	2.29
Karnataka	26.08	27.32	28.61	29.97	31.40	0.93
Kerala	12.70	13.11	13.52	13.95	14.39	0.62
Madhya Pradesh	28.26	30.24	32.36	34.62	37.04	1.36
Maharashtra	49.04	52.72	56.68	60.94	65.52	1.46
Orissa	17.50	18.57	19.72	20.94	22.23	1.20
Punjab	11.01	12.03	13.14	14.35	15.67	1.78
Rajasthan	27.77	29.72	31.81	34.05	36.44	1.37
Tamil Nadu	32.25	33.53	34.85	36.23	37.66	0.78
Uttar Pradesh	68.03	73.81	80.08	86.88	94.26	1.64
West Bengal	36.24	39.57	43.21	47.18	51.52	1.77
Uttarakhand	3.67	3.87	4.08	4.30	4.54	1.07
Jharkhand	11.67	12.64	13.70	14.84	16.08	1.61
Chhattisgarh	11.92	12.71	13.56	14.46	15.42	1.30
Jammu and Kashmir	4.99	5.21	5.44	5.69	5.94	0.87
Total	471.52	504.01	538.75	575.88	615.57	1.34

Table A8.4.2: Total Unemployment and Unemployment Rate based on Average Compound Method

	Total Unemployment (In Millions)					Unemployment Rate				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Andhra Pradesh + Telangana	0.82	0.95	1.08	1.23	1.38	2.01	2.25	2.49	2.72	2.96
Assam	0.52	0.42	0.30	0.17	0.00	4.69	3.54	2.39	1.22	0.03
Bihar	1.03	1.21	1.40	1.62	1.86	3.50	3.80	4.11	4.41	4.71
Gujarat	0.13	0.04	-0.07	-0.19	-0.34	0.51	0.14	-0.22	-0.59	-0.96
Haryana	0.27	0.34	0.41	0.50	0.59	3.00	3.40	3.81	4.21	4.61
Himachal Pradesh	0.04	0.06	0.07	0.09	0.10	1.23	1.37	1.52	1.66	1.80
Karnataka	0.43	0.46	0.49	0.52	0.55	1.62	1.64	1.67	1.70	1.72
Kerala	0.86	0.81	0.76	0.70	0.64	6.37	5.85	5.33	4.81	4.28
Madhya Pradesh	0.27	0.25	0.22	0.19	0.15	0.95	0.82	0.68	0.55	0.41
Maharashtra	0.64	0.59	0.52	0.43	0.33	1.30	1.10	0.90	0.70	0.50
Orissa	0.43	0.47	0.51	0.55	0.59	2.40	2.45	2.50	2.55	2.60
Punjab	0.25	0.29	0.32	0.36	0.41	2.25	2.32	2.40	2.48	2.55
Rajasthan	0.33	0.38	0.44	0.49	0.56	1.18	1.27	1.35	1.43	1.52
Tamil Nadu	0.77	0.75	0.74	0.71	0.69	2.34	2.20	2.07	1.93	1.80
Uttar Pradesh	1.12	1.26	1.41	1.57	1.75	1.62	1.67	1.72	1.78	1.83
West Bengal	1.26	1.30	1.34	1.37	1.39	3.37	3.19	3.00	2.82	2.63
Uttarakhand	0.12	0.15	0.17	0.20	0.23	3.21	3.63	4.06	4.48	4.90
Jharkhand	0.32	0.29	0.25	0.20	0.15	2.68	2.24	1.80	1.36	0.91
Chhattisgarh	0.18	0.20	0.22	0.25	0.29	1.45	1.54	1.63	1.72	1.82
Jammu and Kashmir	0.18	0.23	0.28	0.34	0.40	3.54	4.23	4.91	5.59	6.26
Total	10.77	11.37	12.00	12.67	13.37	2.23	2.21	2.18	2.15	2.13

Table A8.5.1: Regular Workers-Nominal Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	371.5	280.1	359.2	806.3	444.9	727.1	1037.5	652.0	948.1	2443.3	1605.9	2302.9
Assam	412.2	228.3	363.5	765.9	1409.0	917.2	1307.3	682.3	1173.8	3087.1	1883.1	2809.5
Bihar	447.3	335.5	440.4	1063.2	774.9	1036.7	1467.0	937.2	1417.9	3015.8	1720.4	2842.2
Gujarat	404.0	306.7	393.8	795.2	760.8	790.9	1083.4	750.6	1041.6	1932.0	1472.5	1870.9
Haryana	419.0	301.5	408.8	791.0	786.8	790.7	1348.0	987.3	1311.2	4515.3	4115.1	4457.5
Himachal Pradesh	499.2	464.4	495.8	1443.6	1276.4	1421.2	1569.3	1182.7	1490.3	3023.0	1877.4	2782.8
Karnataka	452.5	255.7	418.4	948.7	733.4	910.1	1318.4	862.2	1216.6	2703.7	1963.6	2518.9
Kerala	414.1	320.6	388.8	647.8	466.7	590.6	1140.5	925.3	1060.2	2892.0	2156.9	2618.7
Madhya Pradesh	410.2	274.0	392.2	774.8	666.3	762.2	1059.4	534.5	957.4	2745.5	1778.7	2587.1
Maharashtra	489.4	367.7	469.5	677.1	583.2	664.7	1323.0	1128.3	1286.3	3285.0	2479.1	3129.7
Orissa	410.6	256.3	391.3	914.3	673.4	886.9	1199.0	852.6	1143.2	2374.9	1763.6	2283.7
Punjab	468.8	485.4	470.7	766.1	769.2	766.5	1242.2	1342.0	1258.5	2248.6	2237.2	2246.7
Rajasthan	484.7	433.1	479.1	991.9	837.9	975.6	1148.6	912.3	1119.9	2603.4	2158.4	2538.0
Tamil Nadu	388.9	270.9	363.4	610.6	589.0	605.4	1120.2	659.4	996.8	2402.2	1686.5	2224.0
Uttar Pradesh	459.8	325.9	449.3	862.2	555.6	834.3	1025.7	878.5	1011.7	2759.9	1855.9	2641.2
West Bengal	417.7	270.3	396.6	968.5	607.3	917.7	1216.3	648.5	1096.5	2729.8	1685.0	2470.1
Uttarakhand	542.7	385.8	527.0	1076.5	1015.7	1066.5	1422.1	951.7	1345.5	3165.3	2939.8	3134.0
Jharkhand	627.2	513.4	615.1	1260.4	924.1	1226.4	1753.4	886.6	1623.9	3894.7	2435.8	3687.3
Chhattisgarh	438.2	384.5	433.4	843.0	591.4	809.5	1046.4	498.1	958.9	2076.0	1542.9	1931.3
Jammu and Kashmir	665.4	551.8	649.1	1240.4	1166.3	1233.6	1481.4	1095.5	1444.0	3164.5	2579.7	3078.7
Total	444.9	326.9	427.5	810.3	670.2	787.9	1221.7	866.1	1155.0	2803.9	2096.8	2665.7

Table A8.5.2: Regular workers-Real Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	656.0	493.6	634.0	862.7	474.2	777.5	924.3	580.5	844.6	1242.2	815.0	1170.6
Assam	677.9	374.9	597.7	772.0	1417.2	923.7	1206.7	629.9	1083.5	1704.8	1038.7	1551.2
Bihar	721.7	552.4	711.2	1101.1	803.7	1073.7	1361.5	866.6	1315.6	1521.1	858.0	1432.3
Gujarat	683.9	520.0	666.8	835.5	799.1	831.0	1013.4	701.5	974.3	1023.3	779.9	990.9
Haryana	688.5	485.3	671.0	791.4	766.7	789.7	1140.0	775.7	1102.9	2242.8	2062.7	2216.8
Himachal Pradesh	825.1	782.1	820.9	1521.2	1351.7	1498.4	1417.9	1068.1	1346.4	1534.6	954.2	1412.9
Karnataka	787.4	446.6	728.5	981.1	762.7	941.9	1153.2	754.0	1064.2	1351.0	984.4	1259.5
Kerala	708.1	550.8	665.5	674.6	486.3	615.2	1015.3	821.6	943.0	1518.7	1131.5	1374.7
Madhya Pradesh	654.7	457.1	628.6	839.9	717.9	825.8	990.7	499.0	895.1	1372.5	886.3	1292.8
Maharashtra	886.0	669.3	850.5	740.7	641.5	727.6	1179.0	1007.4	1146.6	1567.2	1185.7	1493.6
Orissa	693.5	433.1	660.9	924.8	688.7	897.9	1109.7	784.9	1057.4	1206.8	901.7	1161.3
Punjab	765.5	807.0	770.1	816.0	823.3	817.1	1106.8	1184.6	1119.5	1121.1	1126.4	1122.0
Rajasthan	799.9	737.5	793.1	1061.2	907.2	1044.8	1034.7	819.5	1008.6	1291.8	1079.9	1260.6
Tamil Nadu	680.3	474.0	635.8	648.4	623.0	642.3	1006.3	592.3	895.4	1313.2	922.1	1215.8
Uttar Pradesh	763.6	559.7	747.5	895.1	578.9	866.3	919.9	787.1	907.3	1403.0	944.6	1342.8
West Bengal	756.4	491.7	718.5	1044.0	655.4	989.4	1100.9	586.7	992.4	1433.1	885.5	1297.0
Uttarakhand	886.1	646.9	862.2	1120.2	1063.4	1110.8	1276.9	852.2	1207.7	1624.8	1499.6	1607.5
Jharkhand	1055.1	861.3	1034.5	1319.8	969.7	1284.3	1643.9	827.7	1522.0	1887.1	1185.0	1787.3
Chhattisgarh	661.0	623.5	657.6	906.3	629.7	869.5	979.0	467.1	897.3	1041.0	770.8	967.7
Jammu and Kashmir	1144.5	966.2	1118.8	1277.0	1203.9	1270.2	1333.1	982.3	1299.2	1610.8	1318.6	1567.9
Total	765.6	570.5	736.9	859.3	709.3	835.3	1100.1	776.1	1039.3	1424.9	1071.1	1355.8

Table A8.5.3: Casual Workers-Nominal Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	119.8	75.1	100.0	255.2	153.5	210.2	281.8	155.1	229.2	1001.3	657.9	852.7
Assam	154.1	108.5	142.2	297.0	206.0	280.0	361.5	303.7	346.0	970.5	675.5	921.2
Bihar	98.9	83.5	94.7	203.4	156.9	191.5	264.0	188.3	247.8	873.7	494.4	838.9
Gujarat	139.2	100.7	125.5	281.2	175.7	247.3	319.4	217.0	284.3	785.5	572.5	722.2
Haryana	208.5	132.5	189.4	384.7	280.1	366.5	456.9	316.2	429.4	1371.3	905.7	1320.0
Himachal Pradesh	225.6	145.1	221.9	424.7	316.4	420.0	514.8	367.9	501.0	1151.3	768.1	1080.5
Karnataka	128.6	76.5	107.4	272.1	162.0	230.1	297.7	165.0	246.5	1018.2	573.9	880.5
Kerala	241.2	135.3	216.2	495.8	278.1	451.2	634.0	311.3	570.6	1763.7	824.5	1577.6
Madhya Pradesh	124.5	88.2	111.0	207.1	152.1	186.2	235.7	165.5	210.8	699.5	538.6	660.2
Maharashtra	130.1	71.0	102.2	261.2	137.1	207.3	306.3	154.1	240.9	878.0	530.5	736.8
Orissa	100.0	68.2	89.9	174.6	124.6	158.3	247.5	159.8	220.4	712.3	494.1	671.0
Punjab	280.1	169.9	266.8	440.2	297.6	428.6	428.6	292.1	415.9	1293.3	771.1	1242.9
Rajasthan	192.9	130.1	178.1	376.2	234.9	348.1	393.6	300.6	374.9	1095.3	674.9	1005.7
Tamil Nadu	143.2	71.8	113.5	325.0	155.2	258.2	350.8	169.4	281.1	1158.8	526.6	933.2
Uttar Pradesh	145.9	87.7	134.3	258.7	159.2	237.9	312.3	187.3	292.2	819.3	496.7	785.9
West Bengal	137.2	87.5	126.4	258.4	178.0	245.1	271.0	188.1	258.3	717.4	515.1	688.7
Uttarakhand	192.4	169.2	190.2	320.3	308.6	318.4	424.2	290.1	404.2	1003.6	510.5	948.6
Jharkhand	144.4	98.4	132.0	226.5	155.3	210.9	297.4	222.1	278.8	919.2	489.2	878.0
Chhattisgarh	104.8	81.2	95.8	171.3	134.4	156.0	228.2	167.9	204.8	579.4	487.0	542.3
Jammu and Kashmir	218.5	203.9	217.4	465.5	380.1	463.3	634.3	384.9	619.3	1302.4	970.0	1286.1
Total	143.1	84.5	123.4	274.4	160.1	238.1	320.0	181.8	277.7	931.3	574.4	843.5

Table A8.5.4: Casual workers -Real Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	201.5	125.3	167.7	265.5	159.0	218.4	255.1	140.8	207.7	498.0	325.8	423.5
Assam	252.6	177.7	233.1	298.5	207.2	281.4	334.1	280.7	319.8	516.3	357.3	489.7
Bihar	143.5	120.3	137.1	197.7	151.7	186.0	237.7	170.0	223.2	457.8	259.7	439.6
Gujarat	233.5	168.7	210.4	296.0	185.1	260.3	296.5	201.2	263.8	411.8	299.5	378.4
Haryana	353.8	224.5	321.4	393.8	286.9	375.2	403.7	281.1	379.8	660.3	433.5	635.3
Himachal Pradesh	360.4	233.3	354.5	434.7	323.7	429.9	466.3	331.3	453.6	582.7	388.6	546.9
Karnataka	206.5	120.5	171.5	270.6	159.8	228.3	263.8	146.7	218.6	488.7	273.1	421.9
Kerala	403.2	225.5	361.3	517.3	290.3	470.8	571.5	282.0	514.6	937.7	439.9	839.1
Madhya Pradesh	136.9	89.0	119.1	212.3	154.2	190.2	223.5	157.3	200.1	357.5	276.5	337.7
Maharashtra	222.8	120.4	174.5	271.8	140.2	214.7	270.0	135.2	212.1	400.5	239.7	335.2
Orissa	168.3	114.8	151.2	170.2	121.3	154.3	233.8	151.2	208.3	383.7	266.4	361.5
Punjab	439.2	265.6	418.2	462.3	311.8	450.1	390.7	266.5	379.2	631.4	375.6	606.7
Rajasthan	294.3	198.9	271.8	387.6	241.1	358.5	358.2	274.0	341.2	525.5	322.5	482.3
Tamil Nadu	244.4	121.6	193.3	337.8	160.5	268.1	311.9	150.3	249.8	614.0	275.6	493.3
Uttar Pradesh	225.6	134.6	207.4	264.9	162.4	243.5	283.4	170.4	265.1	429.9	261.0	412.4
West Bengal	235.9	149.8	217.2	260.1	177.6	246.5	247.5	172.1	235.9	373.0	267.8	358.1
Uttarakhand	291.0	256.5	287.7	328.1	314.0	325.8	385.0	263.3	366.9	525.7	269.2	497.1
Jharkhand	214.8	145.2	196.1	222.0	151.9	206.7	269.6	202.2	253.0	476.0	251.4	454.5
Chhattisgarh	109.5	84.4	100.0	173.5	135.9	157.9	216.8	159.5	194.6	296.0	249.3	277.3
Jammu and Kashmir	353.9	333.2	352.4	473.6	397.0	471.6	573.1	348.7	559.6	659.9	494.1	651.8
Total	228.9	133.4	196.7	280.6	162.8	243.2	290.0	165.0	251.7	475.4	287.5	429.2

Table A8.5.5: All Paid Workers -Nominal Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	206.2	94.2	165.2	448.6	200.3	354.2	557.0	252.6	447.7	1670.4	834.1	1390.7
Assam	265.8	161.0	238.3	527.6	884.3	603.0	781.1	444.6	698.8	1936.6	1347.2	1820.3
Bihar	151.8	91.2	136.8	303.2	180.0	273.8	440.1	233.6	399.1	1152.7	722.7	1110.7
Gujarat	259.4	131.4	225.8	508.6	287.8	454.3	697.4	330.3	605.5	1499.7	909.9	1379.9
Haryana	330.4	179.8	305.7	658.2	492.1	640.6	1045.2	636.1	989.6	3264.4	3067.2	3238.6
Himachal Pradesh	403.2	402.2	403.1	1071.2	1138.3	1078.1	1070.1	966.1	1053.9	2254.2	1463.1	2096.3
Karnataka	263.0	108.3	212.2	540.7	270.0	455.6	666.5	308.2	546.3	1877.4	1178.8	1681.5
Kerala	298.1	204.0	274.8	558.6	383.2	513.9	814.4	663.5	773.7	2243.4	1676.1	2083.2
Madhya Pradesh	238.1	115.2	201.9	419.3	210.1	356.0	551.5	244.7	459.1	1433.2	852.9	1307.2
Maharashtra	336.9	139.0	271.7	536.4	261.7	463.6	884.9	435.9	744.1	2385.7	1249.5	2057.9
Orissa	198.9	91.7	170.2	352.7	167.4	300.0	529.5	266.1	458.3	1287.1	855.0	1211.1
Punjab	371.4	315.3	364.9	636.7	646.9	637.9	881.0	1032.7	901.2	1864.9	1855.9	1863.6
Rajasthan	337.1	214.0	315.2	685.5	431.6	646.2	745.4	498.5	704.4	1765.3	1175.3	1656.2
Tamil Nadu	243.4	113.6	198.2	486.3	323.5	434.9	728.5	346.4	601.6	1768.2	949.9	1516.0
Uttar Pradesh	266.9	129.7	245.3	525.0	250.6	480.8	640.4	406.3	609.5	1467.5	1034.7	1418.6
West Bengal	270.4	151.9	248.6	543.2	331.1	510.2	611.9	396.9	574.2	1370.6	1088.9	1320.0
Uttarakhand	435.7	322.4	424.6	842.2	799.9	835.3	1022.1	703.3	972.0	2339.7	2149.6	2315.3
Jharkhand	311.2	158.8	277.6	570.3	283.6	517.7	796.8	367.5	704.1	1840.8	1292.3	1780.1
Chhattisgarh	221.0	105.3	186.2	386.6	176.7	313.7	508.7	212.5	412.3	1048.0	699.9	920.3
Jammu and Kashmir	507.0	480.3	503.8	903.2	1033.4	911.6	1170.8	913.1	1149.3	2325.7	2262.6	2319.1
Total	271.8	133.4	234.8	525.8	295.5	467.9	717.9	382.0	631.2	1773.2	1150.1	1633.6

Table A8.5.6: All Paid Workers-Real Wages

	1993-94 (50th Round)			1999-00 (55th Round)			2004-05 (61st Round)			2011-12 (68th Round)		
	Male	female	Total	Male	female	Total	Male	Female	Total	Male	Female	Total
Andhra Pradesh + Telangana	357.4	159.5	284.9	475.0	209.6	374.1	498.9	227.0	401.2	843.3	416.7	700.7
Assam	436.7	264.1	391.4	531.4	889.4	607.1	721.2	410.7	645.2	1058.8	736.3	995.1
Bihar	231.2	133.4	207.0	302.6	176.1	272.4	402.2	212.1	364.5	596.3	371.1	574.3
Gujarat	437.9	220.9	380.9	534.7	302.7	477.7	651.2	307.5	565.1	792.7	479.6	729.1
Haryana	547.7	297.4	506.7	661.4	487.6	643.0	889.9	516.8	839.1	1613.2	1530.7	1602.4
Himachal Pradesh	662.0	675.3	663.0	1124.0	1203.8	1132.3	967.4	872.3	952.6	1143.6	743.0	1063.6
Karnataka	447.5	178.4	359.1	552.7	273.9	465.0	585.1	271.5	479.9	928.3	582.7	831.3
Kerala	503.6	346.0	464.5	582.2	399.5	535.7	729.5	591.5	692.3	1184.7	881.9	1099.2
Madhya Pradesh	342.9	142.4	283.9	446.8	217.8	377.6	517.7	230.6	431.2	721.5	431.0	658.4
Maharashtra	604.5	246.2	486.4	582.1	280.2	502.1	787.3	387.5	661.9	1131.3	588.8	974.8
Orissa	335.5	154.5	287.0	352.0	165.5	298.9	493.4	248.5	427.2	668.2	447.0	629.4
Punjab	597.1	515.0	587.5	675.6	690.7	677.4	789.0	914.1	805.6	924.4	931.1	925.3
Rajasthan	544.2	347.9	509.2	726.0	458.4	684.6	673.4	450.5	636.4	866.0	578.0	812.7
Tamil Nadu	422.1	195.6	343.3	513.2	340.0	458.6	652.8	309.9	538.9	956.7	511.5	819.5
Uttar Pradesh	432.9	209.6	397.8	543.1	258.4	497.2	576.1	365.8	548.3	754.9	531.6	729.7
West Bengal	483.0	270.4	443.9	574.5	348.1	539.3	555.2	360.1	521.0	717.0	570.7	690.8
Uttarakhand	704.3	532.7	687.4	874.7	834.7	868.2	919.4	631.1	874.1	1205.1	1099.4	1191.5
Jharkhand	505.0	249.4	448.8	587.1	288.3	532.3	741.0	339.1	654.3	913.1	636.6	882.5
Chhattisgarh	301.8	127.2	249.2	408.4	181.6	329.7	478.1	201.0	387.9	529.3	354.5	465.2
Jammu and Kashmir	864.2	836.0	860.8	927.4	1067.5	936.4	1054.5	819.6	1034.8	1182.4	1156.2	1179.7
Total	457.7	221.5	394.5	552.1	307.9	490.7	647.5	343.8	569.0	902.3	583.8	830.9

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