Agriculture Employment in India:An Update

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Key insights

1. The share of India's prime working-age population (20-59 years) employed in agriculture and allied sectors has fallen to around 23% in 2018-19 compared to 40% in 2004-05.

2. Only around 14% of young Indians (20-29 years) now work in agriculture.

3. The agriculture workforce is getting older with the average age of farm workers increasing to nearly 40 years in 2018-19 from 36.6 years in 2004-05.

4. In Kerala, Punjab, and Haryana, less than 15% of the prime working-age population is directly employed in agriculture.

5. The decline in the agricultural employment share of the prime work-age population is accompanied by an increase in women leaving the labour market.

6. While states such as Punjab, Bihar, Odisha, and Tamil Nadu have raised industrial employment (including the construction sector), the share of prime working-age adults in the industrial sector has declined in Maharashtra and Rajasthan.

7. The southern states of Karnataka, Tamil Nadu and Kerala have seen the highest increase in the share of the prime working-age population employed in the service sector.

8. Uttar Pradesh, India's most populous state has been the worst performer in terms of its ability to absorb its workforce in the non-farm sectors.

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India's excessive dependence on farm employment has been much discussed. The number often quoted is that about 40% of total employment in India continues to be in agriculture when the sector accounts for only about 18% of the economy. How do we reconcile this with the reports we often hear of shortages of farm labour? What is the true extent of dependence on agriculture and how does it vary according to the age groups and among the key Indian states?

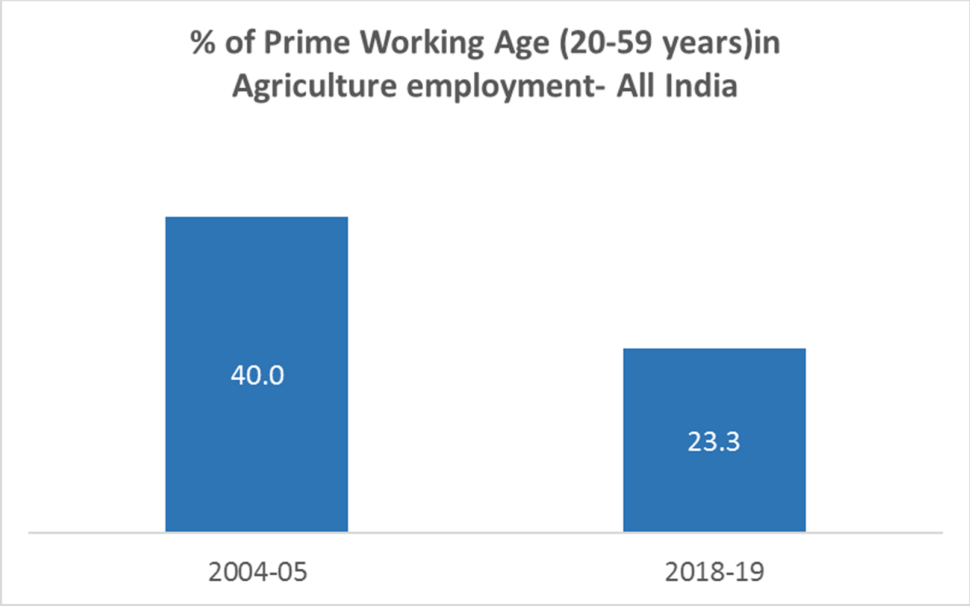
In this report using the estimates derived from the unit-level data from the Employment and Unemployment Survey (EUS) of 2004-05 and the Periodic Labour Force Survey (PLFS) for 2018-19[2] by the National Sample Survey Organisation (NSSO), we highlight some crucial facts about employment in agriculture and allied sectors that seem to have gone unnoticed in the ongoing public discourse about agriculture in India. We restrict our analysis to the age group of 20 to 59 years which we define as the prime working age, even though in rural areas, people report as working on farms well into their advanced ages. Unlike older workers, the farm workers in the working-age group are expected to move into an alternative job if the opportunity cost of working on farms rises. It is, therefore, important to

[2] To assess the volume and structure of employment and unemployment, eight comprehensive quinquennial surveys on employment and unemployment situation (EUS) in India have been carried out by NSSO since 1972-73. Since 2017-18, in order to have quarterly estimates of levels and changes in labour force indicators, NSSO has been conducting Periodic Labour Force surveys. There are minor differences in the sampling design and survey methodology of PLFS vis-à-vis earlier EUS, the details of which are available at the this link. PLFS report itself compares their estimates with the earlier rounds of EUS.

separately analyse the labour market outcomes for the working-age population. Also, we exclude the age group of 15 to 19 years which is generally considered as a part of the working age group, since with the rising education levels, a significant proportion of those are in education.

Fact 1: Not even 1 in 4 Indians of the prime working-age group are in farm employment

Graph 1

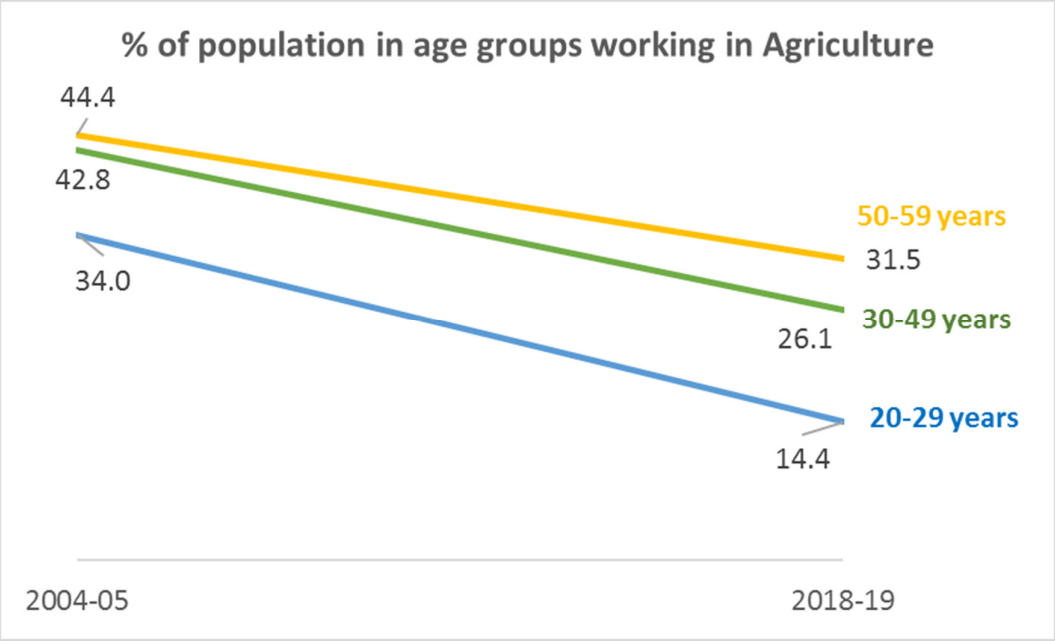


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

If we consider India's prime working-age population (20-59 years) and estimate the proportion working in agriculture, then a dramatic reduction of working-age people engaged in agriculture is noticeable. This share has fallen to 23.3% in 2018-19 from 40% in 2004-05 (Graph 1). If we consider only rural India, the share of working-age adults employed in agriculture and allied sectors has fallen to 33.2% in 2018-19 from 53.7% in 2004-05.

Fact 2: Only 1 in 7 of young Indian adults (20-29 years) work in agriculture

Graph 2

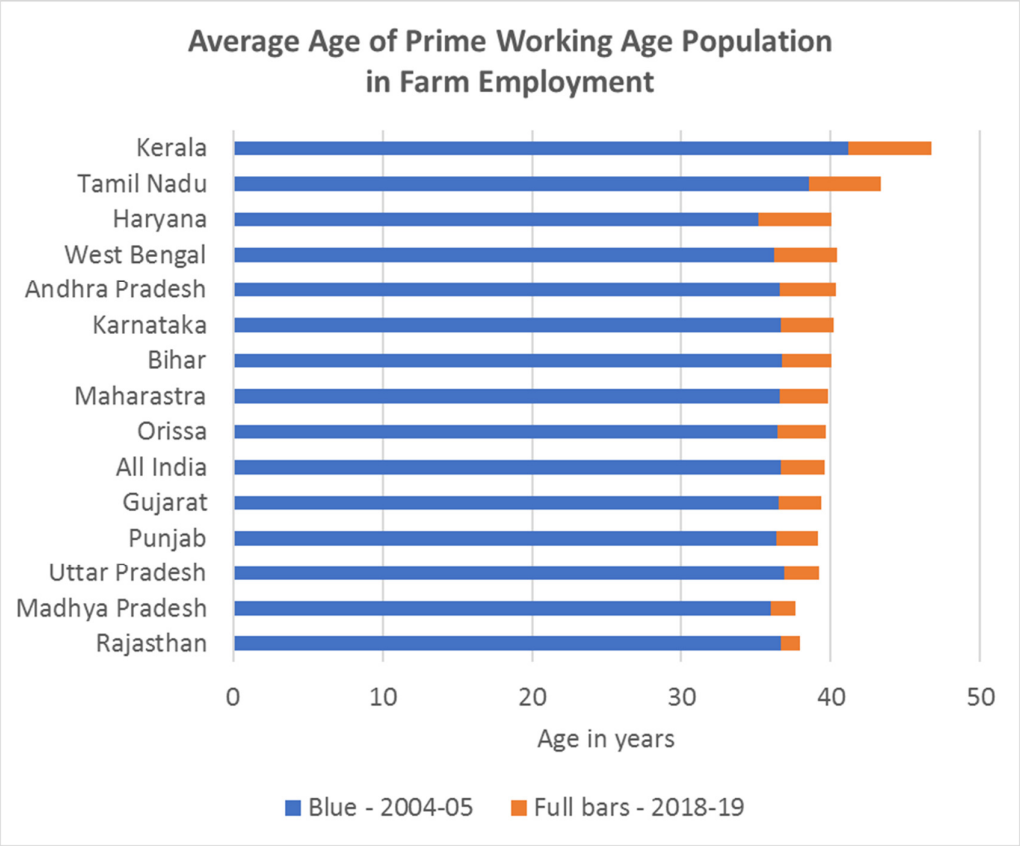


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

There is an even sharper decline in the share of young adults (20-29 years) who work in agriculture. Our estimates show that only about 14.4% of young adults were working in agriculture in 2018-19 compared to 34% in 2004-05 (Graph 2). A decline of young people in agriculture work partly explains the incidents of the shortage of agriculture labour that are often reported in media.

Fact 3: The agriculture workforce is getting older and would necessitate faster mechanisation

Graph 3

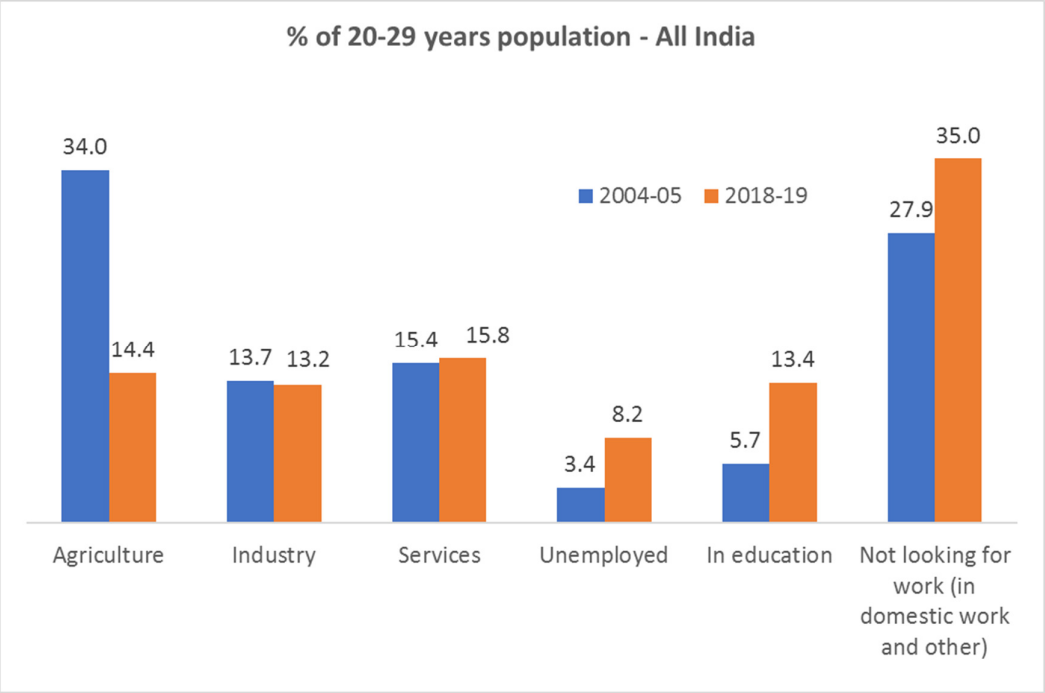


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

The average age of agriculture workers was 46.7 and 43.4 years in Kerala and Tamil Nadu respectively in 2018-19, the highest among major Indian states. Going ahead, as the agriculture workforce ages, the mechanisation of Indian agriculture would become even more important and would require consolidation of small landholdings to make it viable.

Fact 4: The proportion of young adults in education has more than doubled since 2004-05 and so also the unemployed.

Graph 4

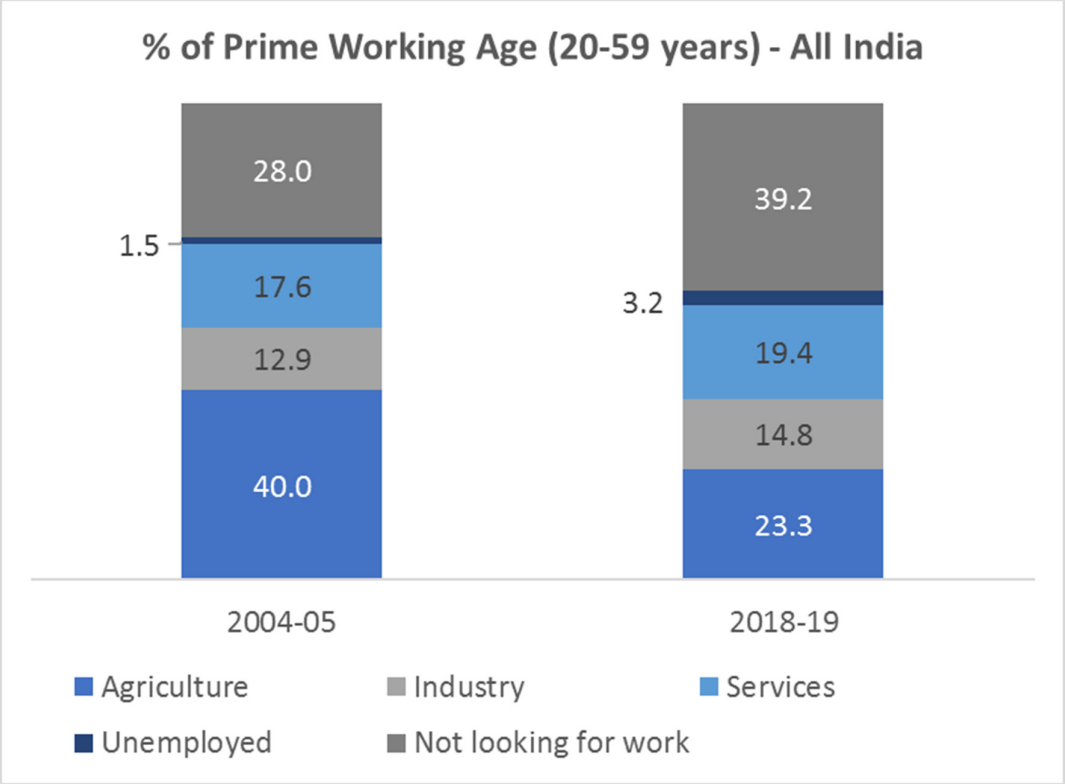


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

The reduction in the share of agriculture employment among young Indians has been accompanied by a rise in those who report being in education (13.4% in 2018-19). While the share of unemployed and those staying out of the labour force, mainly women, has also increased by 5% and 7% respectively, the proportion of young adults employed in industry and services has remained stagnant. Among the major states, the share of youth not looking for work due to education, domestic work or other reasons is the highest in states such as Bihar and Uttar Pradesh at 60% and 57% respectively while it is the lowest for states like Tamil Nadu, Andhra Pradesh and Chattisgarh at around 40%.

Fact 5: A decline in the share of prime working-age adults in agricultural employment has been accompanied by an increase in the share of out of the labour force adults.

Graph 5

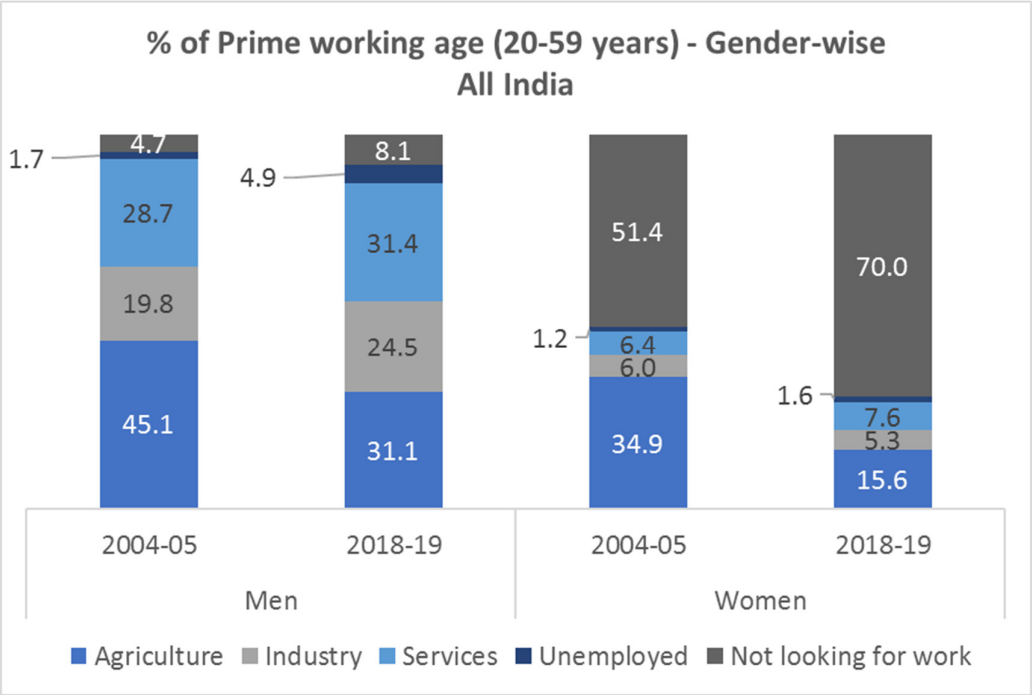


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

The decline in agricultural employment share of the prime working-age population has been accompanied by the increase in the share, mainly of women, who no longer look for paid work. There has been only a marginal increase in the share of working age people who are employed in industry (1.9%) and services (1.8%).

Fact 6: Gender divide in the work status among India's working-age population has widened

Graph 6

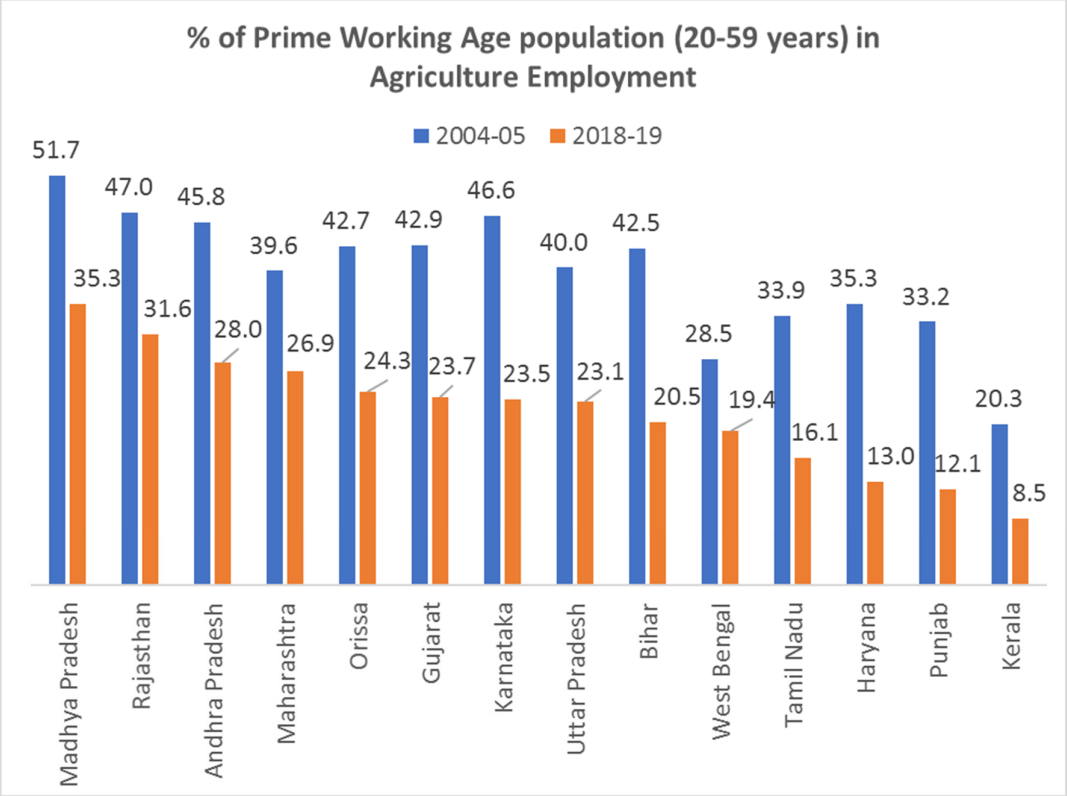


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

There has been an increase in the share of working-age men employed in industry and services since 2004-05. Among the working-age women, however, the share of women out of the labour force has risen to 70%, resulting in a loss of a large part of India's demographic dividend. It is believed that women have dropped out of work because family incomes have gone up since 2004-05 and the prevailing cultural norms lead to women withdrawing from paid work due to their rising family status, especially in rural areas.

Fact 7: In Kerala, Punjab, and Haryana less than 15% of the prime working-age population is directly employed in agriculture

Graph 7

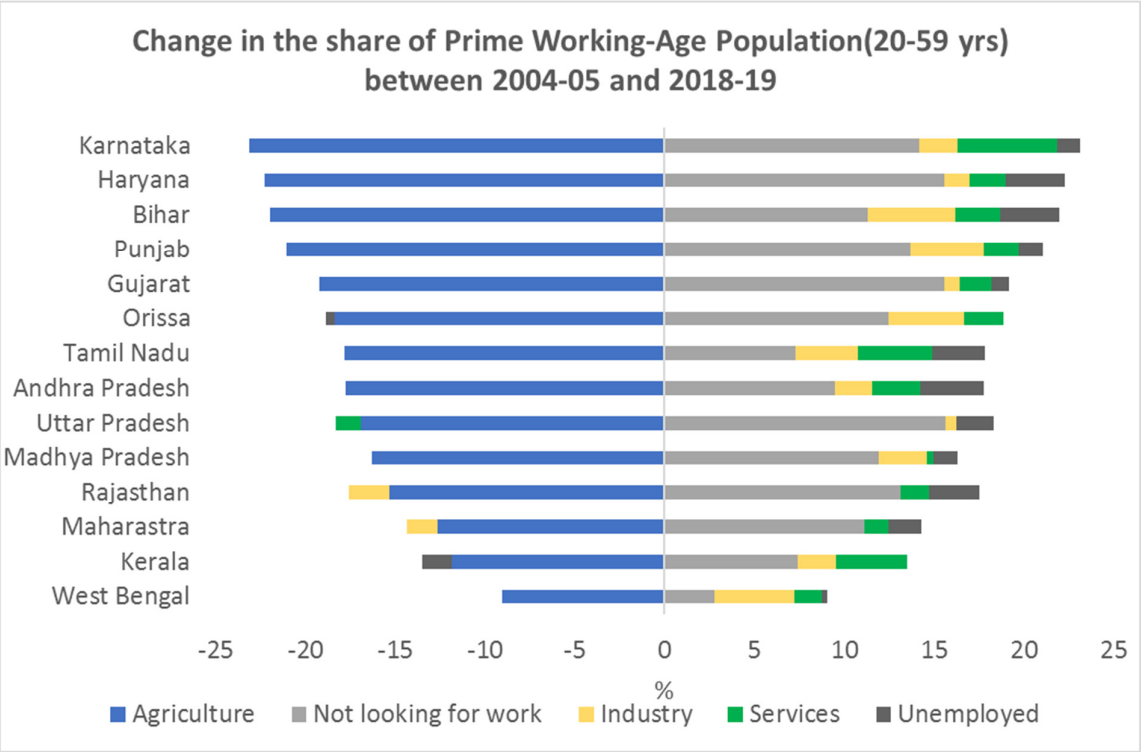


Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

Among large Indian states, there is a significant variation in terms of the share of the prime working-age population engaged in agriculture, although across the board, there has been a sharp reduction over the years. At one extreme, only 8.5% of the prime working-age population in Kerala was working in agriculture in 2018-19 while at the other extreme, the state of Madhya Pradesh had the same ratio at 35%. Punjab, Haryana and Tamil Nadu are among the other states where less than 1 in 5 prime working-age people are engaged in agriculture.

Fact 8: The success in raising non-agriculture employment has varied across the states

Graph 8



Source: Authors' estimates based on EUS (2004-05) and PLFS (2018-19)

Among India's major states, Bihar, Punjab, Orissa, West Bengal and Tamil Nadu have seen an increase in industrial employment, party driven by the construction sector. The southern states of Kerala, Tamil Nadu and Karnataka have witnessed the highest increase in the share of employment in services since 2004-05. Finally, the largest increase in the working-age population leaving the labour market has been in the three relatively prosperous states – Gujarat, Haryana, Karnataka, and more worryingly in a relatively poor state of Uttar Pradesh. Uttar Pradesh, India's largest state by population has also seen only a marginal rise in industrial employment and a decline in the proportion of the working-age population employed in the service sector since 2004-05.

In sum, a decline in the share of working-age adults employed in agriculture over time is a natural progression with the faster growth of the non-farm sectors in India. This, however, also means that the requirement of mechanisation of Indian agriculture is set to improve, but the fragmented farm sizes in India may pose a problem going ahead. Further, it is important to create productive non-farm jobs for young adults with rising education levels and enable women to enter the workforce if India is to reap the benefits of its demographic dividend. Finally, the vast regional variability in the employment outcomes should be a matter of concern for the country.