

Education and Labour market outcomes of India - study of graduates

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Abstract

This report examines graduate unemployment in India, focusing on how education and gender disparities impact the overall employment status of the country. It highlights the gap between the skills graduates acquire and what employers need, contributing to high unemployment. The report discusses how an oversupply of skilled labor leads to wage stagnation and underemployment, and how a mismatch between education and job market demands reduces overall labor force participation. The report also delves on ways in which the demographic dividend affects labor market outcomes in India. In this report we have also described graduate unemployment , labour force participation and workforce participation in different domains of the nation .To back these studies and claims , this report also analyzes the relevant data of the years 2004-05, 2011-12, 2017-18, 2023-24 and also observes the trends in the recent years. Finally, it offers policy recommendations to improve education, promote gender equality, and create targeted employment initiatives to better integrate graduates into the workforce.

1. INTRODUCTION

India, with its youthful population structure, stands at the cusp of a demographic dividend, a phenomenon where the proportion of the working-age population (typically aged 15-64) exceeds the non-working-age population. India is one of the world's youngest countries, having a sizable proportion of its people in working age. According to my most recent training data in September 2021, India's median age would be around 29 years old by 2025-2030, making it one of the world's youngest countries ([Hans.2023](#)). This huge and young workforce offers India a once-in-a-lifetime opportunity to capitalize on its demographic dividend for economic and social growth.

India was supposed to be harnessing its demographic dividend over a long time now, but evidently that has not been the case. The phenomenon of unemployment in India represents one of the most significant challenges in the nation's overall development. Based on the recent reports, In India the unemployment rate is skyrocketing ([ILO,2024](#)). High unemployment rates can significantly impede an economy's potential, as they indicate a considerable underuse of human resources that could otherwise enhance productivity and foster growth.

India's labor market in 2025 showcases a multifaceted interaction of industry trends, variations in gender participation, and differing levels of educational achievement. Moreover, The relation between household factors and unemployment is intricate and varied, influencing not only economic stability but also family dynamics and the well-being of individuals. The labor force participation rate for women has been notably low ([Blundell, Ham,Meghir,1987](#)). Women largely occupy roles in informal sectors, self-employment, and unpaid family work. The magnitude of educated unemployment in India has reached proportions that demand serious attention from policymakers and educational administrators. highlighting the rapid expansion of higher education without corresponding growth in employment opportunities. Major contributing factor to graduate unemployment is the skill mismatch and outdated curriculums ([Das,2025](#)). Also, unemployment within the labor market can profoundly affect wage levels. Prolonged periods of unemployment may lead to a "hysteresis effect" ([Plotnikov ,2014](#)), "wherein individuals who are unemployed experience a decline in their skills, making it progressively more challenging for them to reintegrate into the workforce. India's demographic dividend has significantly impacted its economic growth by presenting both opportunities and challenges. ([Hans,2023](#)). In the recent years, India has experienced changes in multiple domains such as religion, caste and gender ratio. Unemployment , still continuing to be a major issue has slightly reduced since 2004-05. Different states have experienced different amounts of change in these factors but collectively their unemployment rate has decreased and their labour force participation rate has improved.

Addressing these challenges through targeted reforms will be essential for harnessing the demographic dividend effectively and improving overall productivity within the workforce. By promoting balanced economic development, India can unlock the vast potential of its educated youth and drive sustainable progress across the nation.

2. CONTEXT

2.1 Region wise distribution of Graduate in India:

The global youth population, comprising nearly 1.2 billion individuals aged 15 to 24, represents 15.5% of the total population.[\(ILO, 2024\)](#). The challenge of youth employment is significant, as the socioeconomic development and future prospects of young people hinge on their successful transition from education to the workforce. In developing nations, this transition is often obstructed by issues such as poverty and inequality . A primary factor contributing to youth unemployment is the disparity between the growing youth demographic and the sluggish pace of job creation, which limits available employment opportunities. This gap complicates the ability of young individuals to secure jobs, even when they possess higher educational qualifications[\(Das,2025\)](#).The International Labour Organization indicates that young workers are more susceptible to living in working poverty compared to their adult counterparts. Globally, 12% of young people are experiencing extreme poverty, while 15% are classified as living in moderate poverty [\(ILO, 2024\)](#). This youth poverty is attributed to factors such as low-quality jobs, underemployment, insufficient wages, lack of social security, and involvement in the informal economy. The International Labour Organization (ILO) reported that in 2024, 12.8% of youth were unemployed [\(Das,2025\)](#).27.3% of India's overall population falls within the 15-29 age bracket, which translates to approximately 37.14 crore young individuals. In terms of absolute figures, 4.33 crore youth were registered in higher education programs, ranging from undergraduate to doctoral levels, during the academic year 2021-22, representing over 27% of this demographic. The national Gross Enrollment Ratio (GER) for higher education has risen from 29.1% in 2016-17 to 27.3% in 2023-24, with both male and female GERs demonstrating a positive trend. Although GERs differ across various states, the southern region exhibits higher rates compared to others, while northern and central India have experienced notable increases in recent years.[\(AISHE,2021-2022\)](#)

In the academic year 2023-24, Kerala recorded the highest Gross Enrollment Ratio (GER) among all states and Union Territories, achieving a rate of 48.5 percent. Conversely, Bihar reported the lowest GER during the same period, with a figure of 17.9 percent. Notable states and Union Territories with elevated GERs include Delhi at 48.5 percent, Chandigarh at 45.5

percent, and Tamil Nadu at 41.5 percent. In contrast, states and Union Territories with lower GERs comprise Jharkhand at 20.6 percent, Assam at 18.5 percent, and Uttar Pradesh at 19.5 percent.

2.2 How The Demographic Dividend Affect labour market:

India's demographic dividend has profoundly impacted its labour market outcomes and even the whole economic landscape as a whole, presenting both opportunities and challenges. This demographic shift, characterized by a significant increase in the working-age population, has the potential to boost economic growth but also poses challenges such as pressure on wages.

The demographic dividend arises from a decline in fertility rates, leading to fewer dependents and an enlarged workforce. This shift can enhance economic productivity and growth, provided that the workforce is adequately skilled and employed. As the working-age population grows, personal savings increase, which can be channeled into investments, stimulating economic growth. Additionally, a larger workforce contributes to higher consumption levels, driving demand and economic expansion. Despite the demographic dividend, unemployment rates among youth remain high, particularly among educated individuals. This underscores the need for employment-intensive growth strategies. The rise of the gig economy and platform work has introduced new challenges, including precarious employment conditions and lack of social security for many workers. ([Hans, 2023](#))

Another crucial step is encouraging women's participation in the workforce, as it is crucial for maximizing the demographic dividend. In recent years, female labor force participation rates have been declining, posing a significant challenge. ([Ladusingh & Narayana, 2012](#))

2.3 Education System in India

India's higher education system, particularly its college structure, has played a pivotal role in shaping the current employment crisis and the lack of harnessing its demographic dividend. The system permits remarkably low per-student expenditure ([ILO,2024](#)), possibly one of the lowest globally, which has enabled the rapid establishment of new colleges with minimal investment and low recurring costs. While this approach has democratized access to higher education, it has also contributed to quality concerns and employment challenges. The educational system in India

often fails to equip students with the necessary skills for the job market. Many university students lack access to practical training opportunities, which hampers their employability ([Das, 2025](#)). Hence Universal education is critical since the true potential of the demographic dividend can only be realized if the workforce is well-educated and skilled.

The model for universities and colleges in India follows an international template that necessitates the duplication of modern studies across arts, sciences, and commerce in each institution. This proliferation occurs systematically, with each college expanding its offerings to include the latest varieties of courses. The movement of higher education into rural areas, coupled with the establishment of caste- and communally-run colleges, has created considerable excess capacity within almost every university ([Das, 2025](#)).

Furthermore, societal norms and stereotypes can deter youth from pursuing certain professions, limiting their career options and contributing to a lack of interest in available jobs. In many regions, girls face barriers to education due to cultural norms, economic constraints, and safety concerns, leading to lower enrollment and completion rates compared to boys. For instance, in some areas of South Asia, the gender gap in primary education has been persistent, with girls lagging significantly behind boys in access to quality education ([Aslam, Kingdon, and Söderbom, 2008](#)).

Government initiatives, such as the India Digital and the mission of skill India, aim to address these issues by promoting skill development ([Ministry of Labour & Employment, 2022](#)) programs remains to be seen, as the country continues to struggle with a backlog of jobs needed to absorb the annual influx of about 30 million new entrants into the workforce. Moreover, exposure to the industry and internships are essential for improving employability. However, a large number of graduates' lack access to high-quality internships, which restricts their prospects for networking and hands-on learning.

Decision-making within this system operates largely on a laissez-faire basis for both students choosing fields of study and colleges responding to demand. Universities occasionally establish quotas in various fields, but their deterrent effect is minimal. When demand increases, universities typically sanction new quotas, and students simply move to colleges where quotas

are not yet full. ([Das,2025](#)) This pattern of expansion has led to a situation where universities grow until they divide into two institutions, with each new university subsequently expanding to approximate the size of the parent institution at the time of division.

2.4 Gender disparity

While India's demographic dividend is a powerful force that can drive economic growth to greater heights, it also highlights a critical challenge gender disparity in the workforce. ([Blundell, Ham, Meghir,1987](#)) Gender inequality in India continues to pose a substantial obstacle to attaining fair labor market results and fostering economic development. Root causes of this inequality includes discrepancies in education, prevailing cultural norms, and the burden of unpaid caregiving on women.

While the whole population is suffering this extreme crisis and decline, the women are particularly hard hit. They account for the majority of the educated unemployed youths. The gap between the women and men was even higher in urban areas than in rural parts. India has one of the lowest female labor force participation rates in the world ([Blundell, Ham, Meghir,1987](#)). India's female labour force participation rate is notably low. This underutilization of human capital hinders the full exploitation of the demographic dividend. Increasing women's participation could add substantial value to India's GDP, estimates suggest that achieving gender equality could boost GDP by approximately \$700 billion by 2025. ([Richard Blundell, Ham, Meghir,1987](#))

Gender disparities in labor force participation continue to be pronounced on a global scale. For example, the average participation rate of women in the labor force is approximately 47%, whereas that of men stands at 72% ([Abdulkadri, A., John-Aloye,2022](#)) This discrepancy is largely shaped by societal norms concerning women's responsibilities in domestic tasks and caregiving, which frequently limit their capacity to engage in paid work ([Posel and Casale,2019](#)).

Households frequently place a higher value on the education of boys compared to girls, driven by the belief in greater future returns on investment. This bias can create a cycle in which women are left undereducated, resulting in diminished competitiveness in the job market and reinforcing economic inequalities within families ([Posel and Casale,2019](#)). Women face significant barriers

to entering and remaining in the workforce, including unpaid domestic work, societal norms, and wage disparities. Addressing these challenges requires policy interventions that promote education, equal opportunities, and supportive infrastructure. Implementing policies that encourage women's employment, such as flexible work arrangements and childcare support, can help bridge the gender gap. Additionally, fostering a cultural shift towards greater gender equality is essential for creating an environment where women can fully participate in the workforce.

The women employment rate improved during the pandemic after a “significant increase” in subsistence employment. One of the most significant boosts in employment is that for the past six years, the female labour force participation rate has been on the rise, both in urban and rural areas ([Blundell, Ham,Meghir,1987](#)). In recent years, the rural female labour force rose by a considerable amount. This increase indicates a growing contribution of women to rural production and a notable shift towards self-employment. Addressing gender inequalities in the labor market has the potential to greatly enhance India's economic performance. Thus there is an urgent need for policies that promote increased participation of women in the workforce.

2.5 Impact on wages

India's demographic dividend, characterized by a significant increase in the working-age population, presents both opportunities and challenges for the labour market. One of the challenges is the potential impact on wages. As millions of new workers enter the workforce each year, the labour pool expands, leading to increased competition for job openings and increased unemployment. ([Hans,2023](#))Elevated unemployment rates typically place downward pressure on wages. In situations where there is an excess of available labor, employers are able to provide lower wages without the risk of losing prospective employees ([Bernal-Verdugo, Furceri, and Guillaume,2012](#)). Also, this excess of available workers may diminish employers' motivation to increase wages, or they may even lower wages to attract candidates. This finding implies that higher unemployment is associated with diminished wage levels, as workers experience a decline in their bargaining power. For instance, during the 2008 Global Financial Crisis, many countries saw significant unemployment increases, such as the U.S. reaching 10% in October 2009. This period was marked by stagnant real wage growth, as many unemployed

individuals were willing to accept lower-paying jobs. In India, the demographic dividend is expected to peak around 2041, with the working-age population projected to exceed 65% of the total population. However, the country faces a significant challenge in providing productive employment to its growing workforce. The high youth unemployment rate, which was estimated at 10.2% in 2024, ([ILO, 2024](#)) further exacerbates the issue.

Sustained unemployment can result in prolonged wage suppression, particularly affecting vulnerable or less-skilled workers. Furthermore, extended periods of unemployment may lead to a deterioration of workers' skills, rendering them less competitive in the job market, which can further diminish their earning potential. To fully capitalize on the demographic dividend and mitigate the negative impact on wages, India needs to create more jobs at a rate higher than its youth population growth. This requires strategic investments in education, vocational training, and policies that promote entrepreneurship and job creation across various sectors. By doing so, India can ensure that its demographic dividend translates into sustained economic growth and improved labour market outcomes, including more stable and potentially rising wages.

2.6 Reduction in Labor Force Utilization:

Immediate effects of increase in unemployment include reduced aggregate demand as unemployed individuals typically face a reduction in their disposable income. As their financial resources shrink, consumer spending within the economy declines, negatively affecting businesses and multiple sectors. This drop-in demand may lead to further layoffs, thereby sustaining a harmful cycle of underemployment.

It also leads to decreased production capacity as the presence of unemployment directly diminishes productive capabilities. Industries may find it challenging to fulfill demand, or businesses may be compelled to reduce operations or even cease activities due to insufficient labor availability, resulting in an overall decline in economic productivity ([Michaillat, Saez, 2015](#)).

While the immediate consequences of unemployment are clear, long-term unemployment poses a more subtle and intricate challenge, particularly due to the hysteresis effect ([Plotnikov, 2014](#)). This phenomenon describes a scenario in which extended periods of unemployment have

enduring repercussions on individuals' capacity to re-enter the labor market, even when economic conditions improve. Also lengthy unemployment often leads to a decline in skills. When individuals remain out of work for significant durations, their technical, cognitive, or even interpersonal skills may diminish. For instance, a person previously employed in a technical role may find themselves outdated regarding the latest technological developments. Likewise, those who once possessed high motivation and job-specific expertise may suffer a decrease in confidence or capability ([Michaillat, Saez, 2015](#)).

Unemployment has a detrimental effect on the labor market, leading to decreased productivity, lower wages, and increased inequality. To effectively tackle unemployment, it is essential to implement a collaborative approach that encompasses policy initiatives, educational improvements, and economic development strategies.

2.7 Region Wise Distribution of Unemployment in India

In India, the issue of graduate unemployment has been a persistent challenge across different regions of the country. According to the latest Annual Periodic Labour Force Survey data, the estimated unemployment rate (UR) for graduates aged 15 and above in 2024 stood at 13.4%([PLFS, 2024](#)). This statistic reveals that nearly one in seven Indian graduates struggled to secure suitable employment, highlighting the significant barriers encountered by the educated youth in the nation.

2.7 (a) Northern India's Graduate Unemployment

In recent years, the graduate unemployment rate in northern India, which includes states such as Uttar Pradesh, Haryana and Rajasthan, was observed to be higher than the national average. ([Abdullah, Abraham & Jain, 2024](#)). This can be explained by the sheer number of graduates joining the workforce each year and the scarcity of high-quality positions, especially in the private sector. The economy of the state, which is primarily dependent on small-scale businesses and agriculture, has had difficulty creating enough jobs to accommodate the increasing number of young people with formal education. Moreover, things like automation and the worldwide economic downturn are already making the situation more critical. As a result, there are now

fewer work options for an individual. Despite these factors and challenges , few states like Haryana and Uttar Pradesh have shown noteworthy progress as their rates went below the national average with 12.6% and 11% respectively . Moreover Delhi in this matter showed the least graduate unemployment rate of 5.7% closely followed by 5.8% that of Chandigarh ([PLFS,2024](#)). These places have shown better performance in absorbing graduates into their workforce, possibly due to more diverse economic activities or better alignment of education with industry needs. Rajasthan however , failed to show any progress with its rates still as high as 23.1%([PLFS,2024](#)).

2.7 (b)Southern India's Graduate Unemployment

Graduate unemployment rates, while gradually improving in the northern states, remained a significant concern in southern India, encompassing states such as Tamil Nadu, Andhra Pradesh, Telangana, and Kerala. The state's diverse economy, which includes manufacturing, information technology, and service industries, has been more successful in generating job opportunities for recent graduates when compared to certain other states. However, the employment landscape continues to face challenges due to the significant influx of graduates entering the job market annually. In contrast, Andhra Pradesh recorded a 24% graduate unemployment rate in 2024. The high rates of graduate unemployment in the state have been exacerbated by the underdeveloped manufacturing and service sectors. ([Abdullah,Abraham & Jain,2024](#)) In 2024, the unemployment rate among graduates in Telangana stood at 16.6%. ([PLFS,2024](#)) Nevertheless, the state faces ongoing challenges with graduate unemployment due to a lack of opportunities in various other economic sectors. Kerala, a state celebrated for its impressive literacy rates and educational achievements, recorded a graduate unemployment rate of 19.8% in 2024 .In comparison to other regions, the state's economy, predominantly driven by the service sector, has managed to generate a greater number of employment opportunities for new graduates. However, the limited industrial infrastructure and the influx of graduates from various parts of the country have persistently exacerbated the issue of graduate unemployment. ([Das,2025](#))

2.7 (c) Eastern India's Graduate Unemployment

Graduate unemployment rates in the eastern region of India, encompassing states such as Odisha, Bihar, and Jharkhand, were generally above the national average. In 2024, eastern India's graduate unemployment rates remained high due to limited industrial and service sector growth. Bihar recorded the highest rate at 16.6%, the economy of the state, which is mostly based on small-scale industry and agriculture, has not been able to produce enough good jobs to accommodate the increasing number of graduates, followed by Jharkhand (10.4%), Odisha (21.9%), and West Bengal (7.3%) ([PLFS,2024](#)). Government of west bengal is working to bridge the gap between possible skill mismatch between education and industry requirements. Bihar struggles with small-scale industry reliance, while Odisha and Jharkhand face challenges due to mining-dependent economies. The lack of economic diversification and slow job creation remain key issues([Das,2025](#)).

2.7 (d) Western India's Graduate Unemployment

With some areas doing better than others, the graduate unemployment rates were more variable in the western part of India, which includes states like Maharashtra, Gujarat and Rajasthan. Maharashtra, with the highest GDP in India, had a 9.5% graduate unemployment rate. Despite its diverse economy—including manufacturing, IT, and financial services—job prospects remain limited due to the high number of graduates entering the workforce annually. ([PLFS,2024](#)) Gujarat, with a strong industrial base, recorded a 6% graduate unemployment rate. While its manufacturing and service sectors offer opportunities, challenges like the COVID-19 pandemic have impacted job creation. Rajasthan, relying heavily on tourism and agriculture, had the highest rate at 23.1%. One of the main causes of the high levels of graduate unemployment has been the underdeveloped industrial and service sectors ([Abdullah,Abraham & Jain,2024](#)).

2.7 (e) Central India's Graduate Unemployment

Graduate unemployment rates in central India, particularly in Madhya Pradesh and Chhattisgarh, are close to the national average. In 2024, Madhya Pradesh had a 9.3% graduate unemployment rate, largely due to its reliance on small-scale industry and agriculture, with limited industrial and service sector development. ([PLFS,2024](#)) Similarly, Chhattisgarh's rate was 13.3%, driven by an

economy focused on mining and mineral extraction, with insufficient diversification and low investment in industrial and service sectors, exacerbating the issue for its educated population. But the understand the situation and the need for better alignment between education and industry requirements, as well as increased focus on job creation in sectors that can absorb highly educated workers and working continuously to develop the state economy. ([Das,2025](#)).

2.8 Policy Implementations to Address Unemployment

To address unemployment effectively, policymakers can leverage insights from active labour market policies (ALMPs) and associated research. Active labor market policies (ALMPs) refer to a set of strategies designed to decrease unemployment rates and enhance individuals' employability. These strategies encompass public employment services (PES), training initiatives, subsidized job opportunities, and programs focused on the creation of public sector jobs. Active Labor Market Policies (ALMPs) typically demonstrate favorable long-term outcomes regarding employment, particularly for women, although the results differ from one country to another. ([Irandoost,2023](#)) Research indicates that ALMPs contribute to the preservation of skills and motivation among the unemployed, while also aiding in their transition to employment. ALMPs tend to have a more pronounced effect on decreasing unemployment rates among women than among men. Additionally, increasing funding for ALMPs, especially during periods of economic decline, may lead to more significant reductions in unemployment ([Irandoost,2023](#)).

Employment generation coupled with improving employability is the priority of the Government. Accordingly, the Government of India has taken various steps and launched various schemes for generating employment in the country. India needs to implement legislative improvements to address the demographic profile's needs, such as labour laws, ease of doing business, and investment incentives.

The Government of India has announced the Aatmanirbhar Bharat package ([Ministry of Labour & Employment,2022](#)) to provide stimulus to business and to mitigate the adverse impact of COVID19. Under this package, the Government is providing a fiscal stimulus of more than Rs. Twenty-Seven lakh crore. This package comprises various long term schemes/ programs and policies for making the country self-reliant and to create employment opportunities.

Aatmanirbhar Bharat Rojgar Yojana (ABRY) has been launched with effect from 1st October, 2020 as part of Atmanirbhar Bharat package 3.0 to incentivize employers for creation of new employment along with social security benefits and restoration of loss of employment during Covid-19 pandemic. This scheme being implemented through the Employees Provident Fund Organization (EPFO), seeks to reduce the financial burden of the employers and encourages them to hire more workers.

Above these all , the one act that promises the most progress is the NREGA. The objective of the Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) is to improve the livelihood security of rural families throughout the nation by ensuring a minimum of 100 days of guaranteed wage employment each financial year for every rural household whose adult members are willing to engage in unskilled manual labor ([Ministry of Labour & Employment,2022](#)). This initiative acknowledges the necessity of enhancing the livelihood resources of impoverished populations by targeting the most vulnerable groups in rural areas, such as Scheduled Castes, Scheduled Tribes, households led by women, and other marginalized communities.

Pradhan Mantri Mudra Yojana (PMMY) is being implemented by the Government for facilitating self-employment. Under PMMY, collateral free loans up to Rs. 10 lakh, are extended to micro/small business enterprises and to individuals to enable them to set up or expand their business activities ([Ministry of Labour & Employment,2022](#)).

3. ANALYSIS

Now we will do a detailed analysis of unemployment mainly focusing on graduate unemployment. For that we will define three Parameters: Labour Force Participation Rate (LFPR), Work Force Participation Rate (WFPR), Unemployment Rate (UR).

3.1 Labour Force Participation Rate(LFPR) -

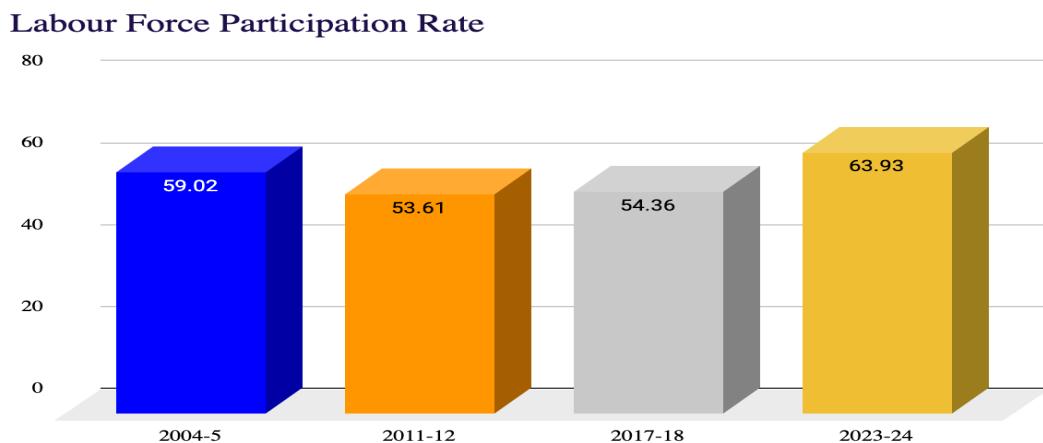
The labour force participation rate is the percentage of the working-age population (typically aged 15 and over) that is either employed or actively looking for work. It measures the active portion of an economy's labor market.

The formula to calculate it is -

$$\text{LFPR} = ((\text{Employed People} + \text{Unemployed People}) / (\text{Total Population})) * 100$$

(a) Trends in Labour Force Participation Rate (2004–2024):

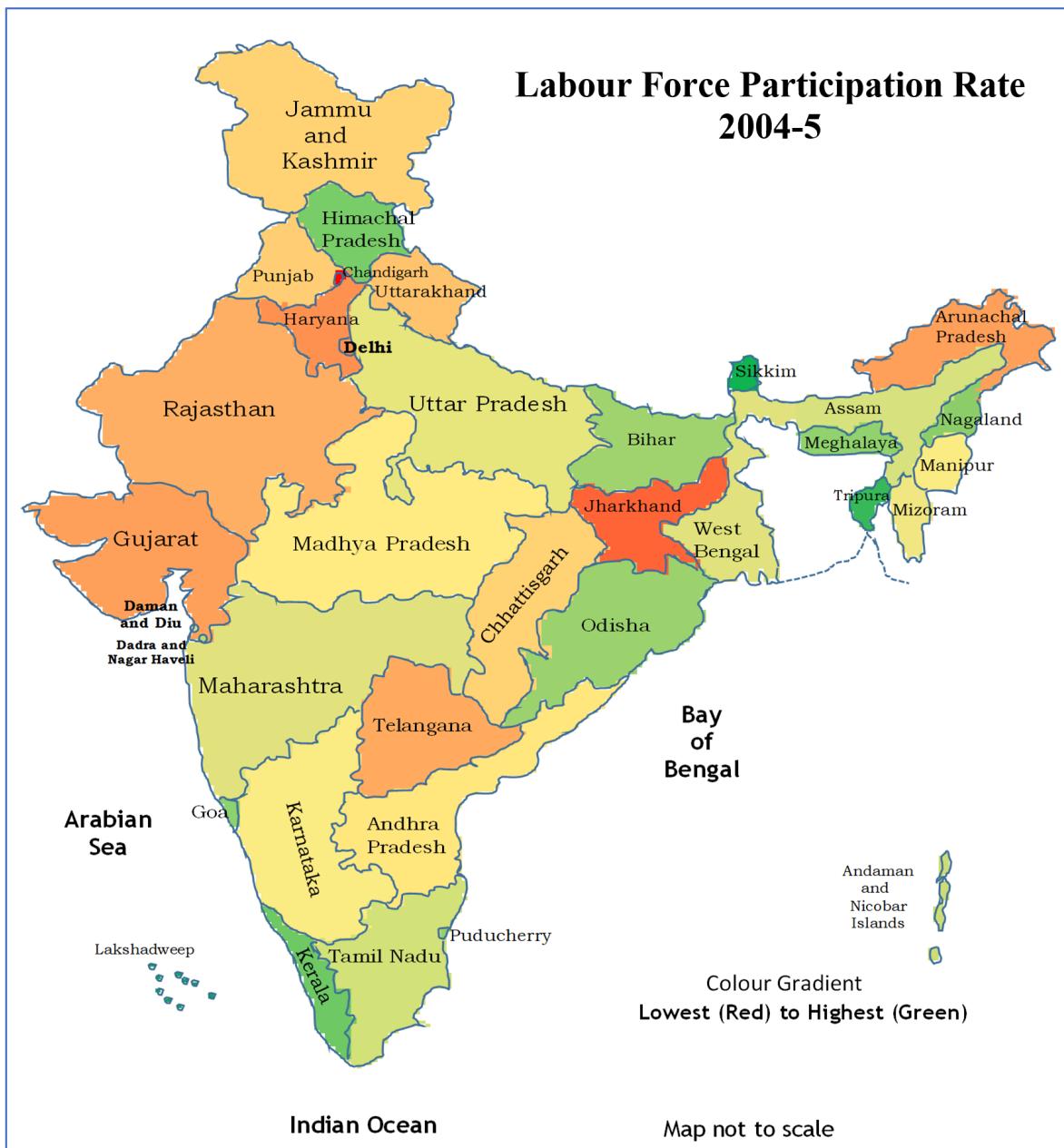
In 2004–05, the LFPR stood at 59.02%, reflecting a relatively high level of engagement in the workforce. This rate dropped to 53.61% in 2011–12, indicating a decline in the number of people working or seeking work. A modest rise followed in 2017–18, with the rate reaching 54.36%. By 2023–24, the LFPR saw a sharp increase to 63.93%, marking the highest rate across all four periods and suggesting stronger economic participation.



(b) State wise analysis Using Heat Maps –

We have analysed the Labour force participation rate of different states using the map model. The colour gradient from red to green effectively visualizes these variations, with green representing the highest and red the lowest participation. Addressing these disparities will be key in shaping inclusive and sustainable economic growth across the nation.

(1) For Year 2004-5 :

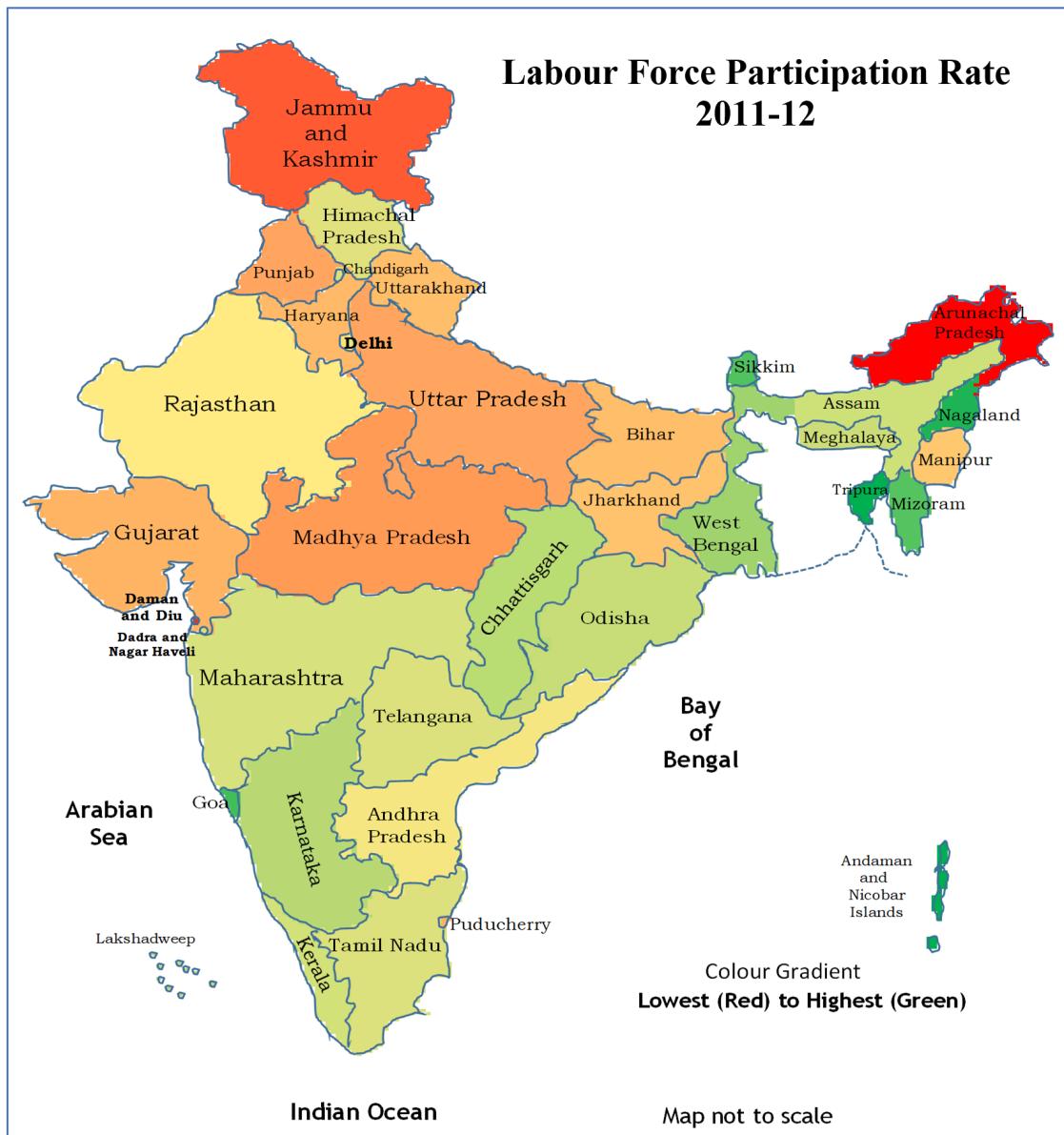


The Labour Force Participation Rate (LFPR) in India for the period of 2004–05 showcases the diverse regional economic conditions of that time. Data indicates that the highest participation rates were found in Union Territories such as Lakshadweep (97.19%), Sikkim (94.92%), and Tripura (88.8%), which are highlighted in deep green on the accompanying map. These elevated figures imply a significant engagement of the working-age population in economic activities, potentially driven by community-based employment opportunities or limited access to formal job markets, leading to increased participation in the informal sector. Southern states, including Kerala (80.1%), Tamil Nadu (64.56%), and Andhra Pradesh (57.25%), exhibited moderate to high LFPRs, suggesting a relatively robust integration of their populations into the labor market. Likewise, northeastern states such as Nagaland (75.14%) and Meghalaya (74.69%) also reported commendable participation rates, likely reflecting a dependence on agriculture and related sectors. Conversely, regions like Chandigarh (37.24%), Jharkhand (46.09%), Delhi (50.05%), and Haryana (50.12%) recorded some of the lowest LFPRs, indicated by shades of red and orange. These statistics may be associated with a combination of urbanization, lower female labor force participation, and structural unemployment issues. In the central and western regions of the country, the LFPR was moderate, with states like Madhya Pradesh (57.62%), Chhattisgarh (55.59%), and Gujarat (51.39%) displaying mid-range values. Notably, Bihar reported a high LFPR of 72.17%, which stands in contrast to its relatively lower figures in more recent years. In summary, the LFPR map for 2004–05 presents a complex picture of labor market participation across India, characterized by significant regional variation.

(2) For Year 2011-12 :

The Labour Force Participation Rate (LFPR) in India for the fiscal year 2011–12 exhibited notable disparities across various states and union territories, highlighting significant differences in workforce engagement. The northeastern states, including Nagaland (86.29%), Tripura (91.09%), Mizoram (77.35%), and Sikkim (78.23%), recorded some of the highest LFPRs, reflecting strong community economic involvement and a traditionally elevated participation rate among women and the elderly in employment activities. Furthermore, Goa (80.31%) and the Andaman & Nicobar Islands (90.63%) also ranked prominently, indicative of favorable employment trends likely driven by the tourism and service industries. In contrast, states such as Arunachal Pradesh (34.18%), Jammu & Kashmir (40.9%), and Daman & Diu (37.77%) reported the lowest LFPRs, suggesting a potential underutilization of human resources or employment

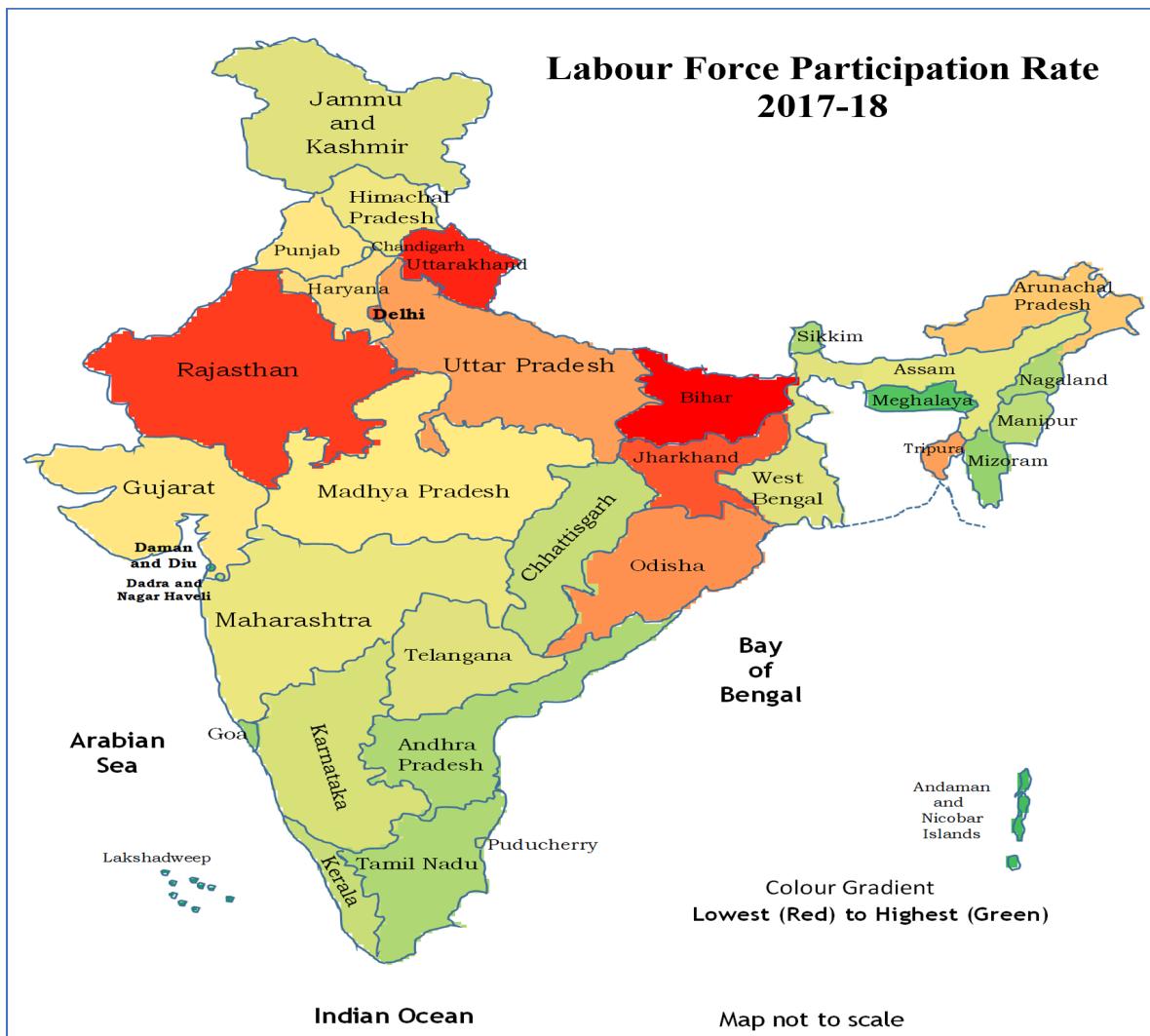
gaps attributed to migration. Several large northern states, including Uttar Pradesh (47.77%), Bihar (47.73%), and Madhya Pradesh (45.24%), displayed moderate to low participation rates, potentially due to challenges such as limited formal employment opportunities and socio-cultural barriers. Even Delhi (53.24%), despite its urbanization, did not reach the national high, indicating deficiencies in formal sector participation. Conversely, southern states like Karnataka (62.04%), Kerala (57.74%), Tamil Nadu (56.41%), and Andhra Pradesh (51.87%) showed mid-to-high LFPRs, reflecting a more equitable engagement across diverse economic sectors.



Overall, the 2011–12 period highlighted regional disparities in labour engagement across India, with smaller states and union territories often outperforming larger, more populous ones, underlining the importance of tailored labour policies and inclusive employment schemes.

(3) For Year 2017-18 :

During the period of 2017-18, the Labour Force Participation Rate (LFPR) in India experienced a significant decrease in various northern and eastern states, indicative of broader economic and social trends. States such as Bihar (42.37%), Uttar Pradesh (44.31%), Rajasthan (45.51%), and Jharkhand (46.97%) reported the lowest LFPRs, as illustrated by the deep red colors on the map. This situation underscores ongoing challenges in job creation, particularly in rural and semi-urban regions.

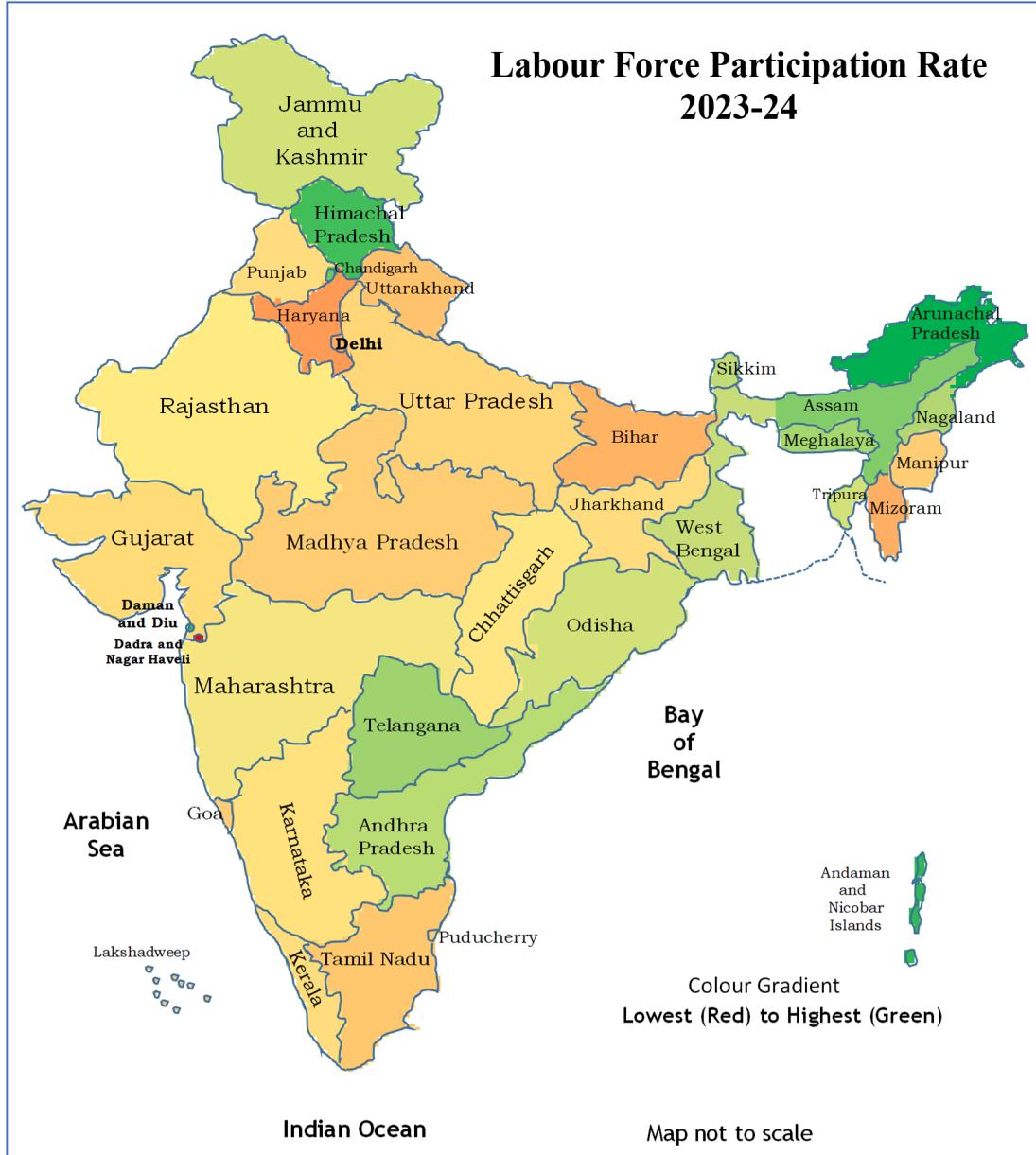


In contrast, areas like Daman & Diu (85.07%), Lakshadweep (92.34%), and the Andaman & Nicobar Islands (82.22%) exhibited notably high participation rates, reflecting stronger local labor involvement. In the northeastern region, Meghalaya (79.51%), Mizoram (69.59%), and Nagaland (66.35%) also demonstrated solid LFPRs, indicating better workforce inclusion compared to other areas of the nation. The southern states presented a more favorable scenario, with Kerala (62.45%), Karnataka (60.69%), and Tamil Nadu (66.44%) showing moderate to high LFPRs. Telangana, while part of the southern region, recorded a slightly lower rate of 59.14%. In summary, the data from 2017-18 reveals a complex landscape, areas of high labor participation in certain Union Territories and northeastern states juxtaposed with concerning lows in the densely populated northern and eastern regions. This disparity highlights the necessity for targeted policy measures to enhance workforce engagement and tackle structural employment challenges throughout India.

(4) For Year 2023-24 :

The Labour Force Participation Rate (LFPR) in India for the fiscal year 2023–24 illustrates a varied landscape across different states and union territories, showcasing significant regional disparities in economic involvement. The accompanying map and data indicate that the northeastern states, notably Arunachal Pradesh (85.89%), Daman & Diu (82.55%), Andaman & Nicobar Islands (82.57%), and Himachal Pradesh (81.31%), display the highest participation rates, represented by deeper green hues. These statistics suggest a robust engagement in economic activities, likely influenced by local employment initiatives, agricultural endeavors, or opportunities within the public sector. Conversely, states such as Haryana (45.26%), Delhi (51.99%), and Mizoram (51.99%) report some of the lowest LFPRs, as denoted by red and orange shades on the map. The diminished rates may stem from various factors, including shifts towards urban lifestyles, a scarcity of formal job opportunities, or reduced participation of women in the labor force.

In the southern region, states like Kerala (65.20%), Tamil Nadu (59.31%), and Karnataka (65.82%) exhibit moderate participation levels, indicating a fair degree of economic engagement despite their relatively advanced development. Likewise, populous states such as Uttar Pradesh (57.35%) and Bihar (53.32%) fall within the middle to lower range, potentially due to demographic pressures and challenges related to rural employment.



3.2.Unemployment Rate (UR)-

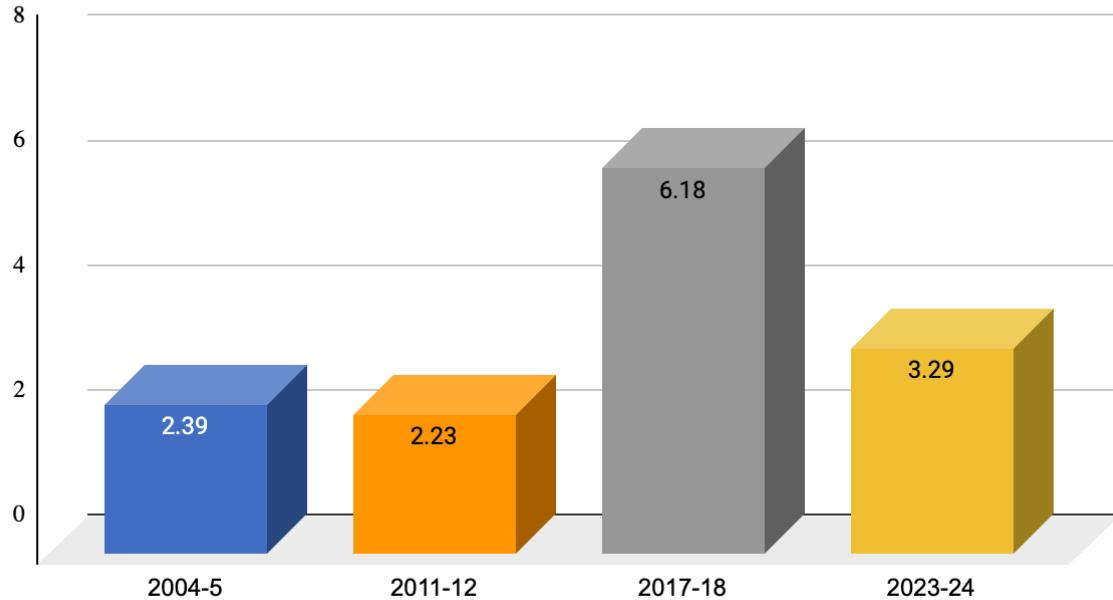
The unemployment rate is the percentage of the labor force that is actively seeking work but is unable to find a job. It is a key indicator of the health of an economy. The formula to calculate it is -

$$\text{Unemployment rate \%} = (\text{unemployed people}/\text{labour force}) * 100.$$

3.2 (a) Trends in Unemployment Rate (2004-2024):

The unemployment rate was low in the earlier years, at 2.39% in 2004–05 and 2.23% in 2011–12. It rose significantly to 6.18% in 2017–18, pointing to a period of increased joblessness. In 2023–24, the rate fell to 3.29%, indicating an improvement in employment levels.

Overall Unemployment Rate



3.3 Workforce Participation Rate (WFPR) -

The workforce participation rate is another term for the labour force participation rate. It refers to the percentage of the working-age population that is either employed or actively seeking employment.

The formula to calculate it is -

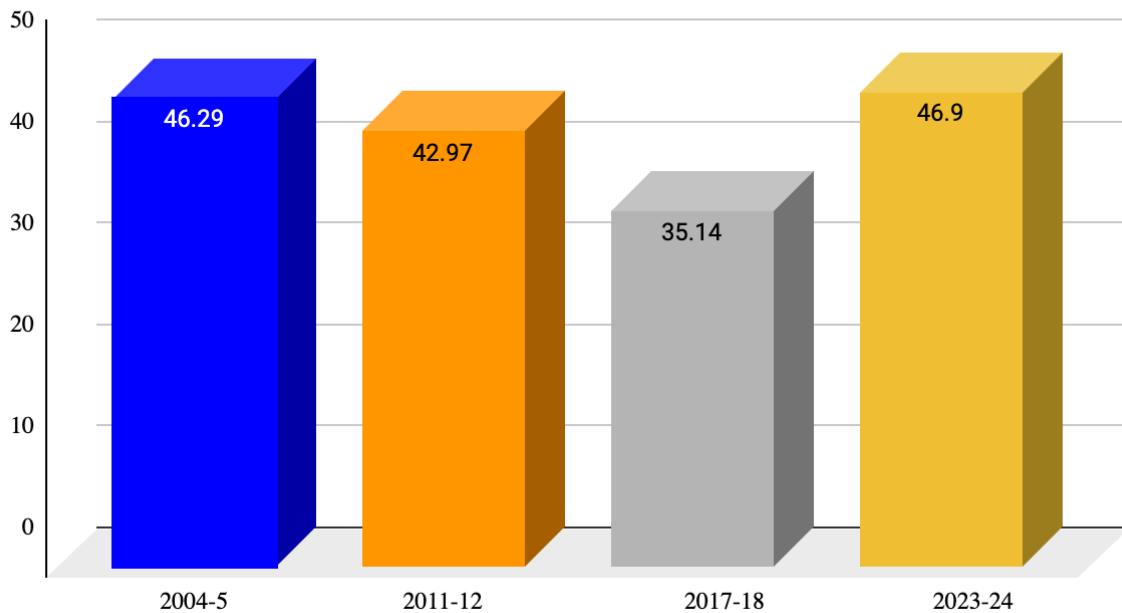
$$\text{WFPR} = ((\text{Total Employed}) / \text{Total Population}) * 100$$

3.3 (a) Trends in Workforce Participation Rate (2004-2024)

In 2004–05, the rate was 46.29%, indicating strong employment levels at that time. It dropped slightly to 42.97% in 2011–12, and then declined more sharply to 35.14% in 2017–18, suggesting fewer people were working during that period. By 2023–24, the rate jumped to 46.9%,

not only recovering but also exceeding the 2004–05 figure, showing a notable improvement in workforce participation.

WORK FORCE PARTICIPATION RATE



Over the two decades, labour force participation initially decreased but later surged, showing renewed workforce engagement. Meanwhile, the unemployment rate remained low until a sharp increase in 2017–18, followed by recovery by 2023–24. Also, after years of decline, workforce participation saw a major turnaround by 2023–24. This rise points to better employment opportunities and stronger economic engagement across the population. Overall, the latest figures reflect a healthier job market with more active participation and reduced unemployment.

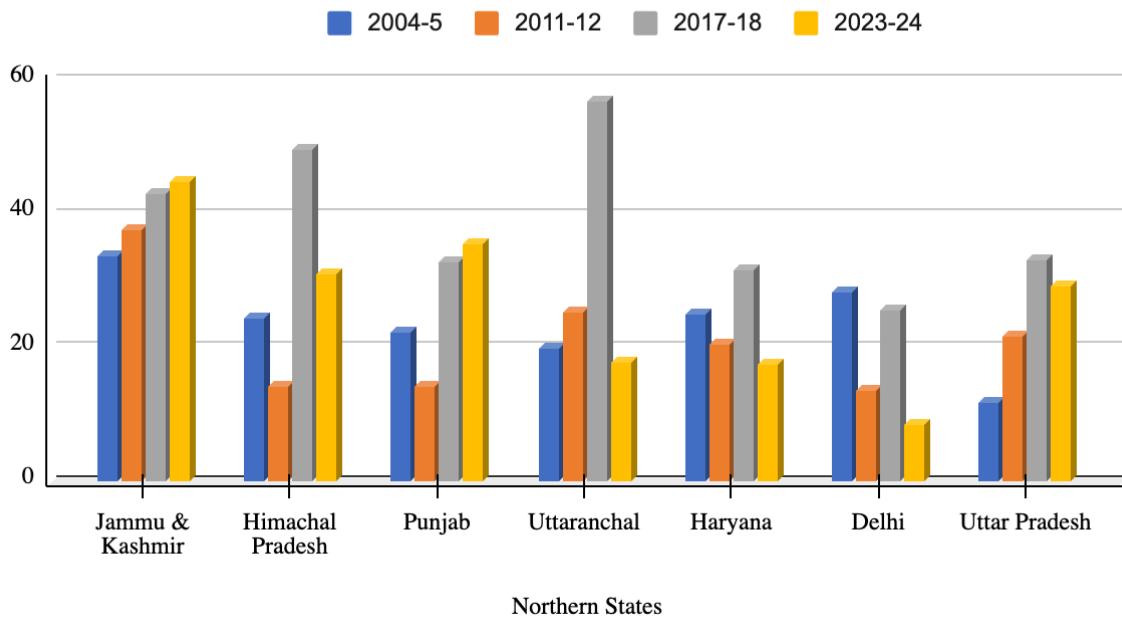
3.4 Graduate Unemployment Trends in Indian States :

(a) Northern States –

In Jammu & Kashmir, the unemployment rate among graduates has consistently remained elevated over the years, gradually increasing to exceed 45% in the period of 2023–24. Himachal Pradesh experienced a decrease in 2011–12; however, it has seen a notable rise in recent years,

reaching approximately 33%. Punjab has also faced a rising trend in graduate unemployment, which has escalated to nearly 35% by 2023–24. Uttarakhand experienced a significant spike in 2017–18, with unemployment peaking at nearly 57%, but has since made a remarkable recovery, falling to below 20% by 2023–24. Haryana has shown a consistent decline, with unemployment rates steadily decreasing from their 2017–18 peak to under 20% in the most recent period. In Delhi, the situation has improved significantly, with the graduate unemployment rate decreasing from around 25% in 2004–05 to roughly 10% in 2023–24. Uttar Pradesh has exhibited an overall upward trend, reaching a peak in 2017–18 and stabilizing around 33% in the current period.

Graduate Unemployment Rate of Northern States



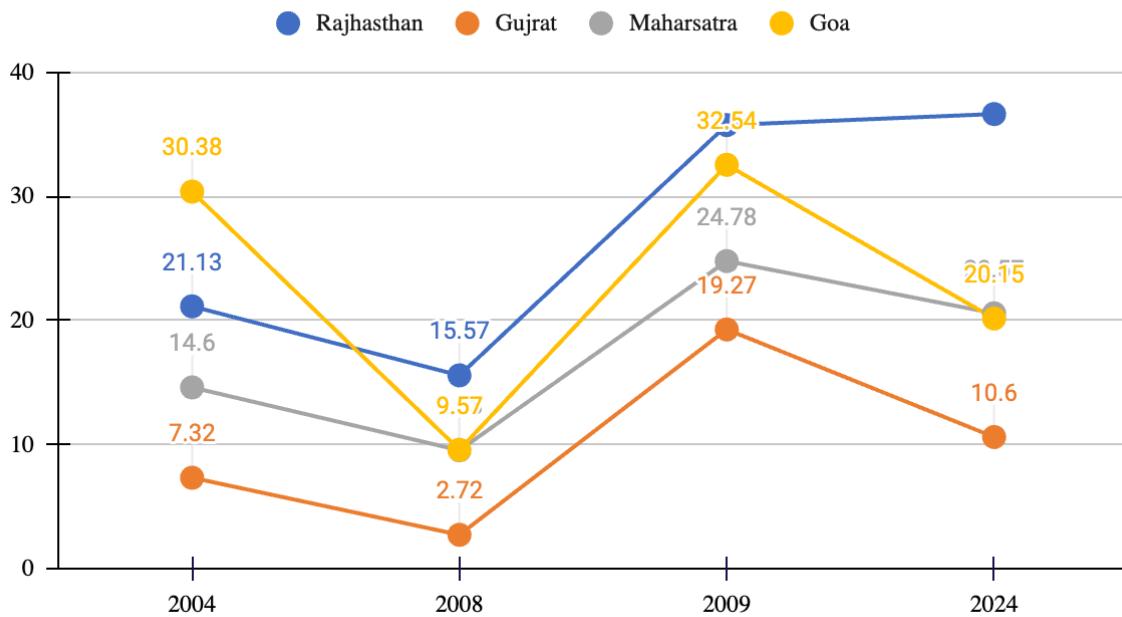
While states like Delhi, Uttarakhand, and Haryana have made progress in reducing graduate unemployment, others like Jammu & Kashmir, Punjab, and Uttar Pradesh continue to face persistent challenges. These differences underline the need for customized employment policies and better alignment between education and the job market.

(b) Western States –

Rajasthan shows a significant increase in unemployment, starting at 21.13%, dipping slightly to 15.57%, and then surging to 35.74%, before settling at 36.09%. This marks the highest

unemployment rate among the western states in the final observed year. Gujarat, by contrast, presents the lowest figures. It begins at 7.32%, drops to 2.72%, then rises to 19.27%, and finally records 10.6%. Though it saw fluctuations, Gujarat consistently maintains lower rates compared to its peers. Maharashtra begins at 14.6%, increases to 24.78%, and ends at 20.15%, showing a moderate but noticeable upward trend. Goa has a sharp spike in its data. It starts at a high 30.38%, drops to 9.57%, peaks again at 32.54%, and then decreases to 26.15%. This erratic pattern suggests economic or policy shifts influencing graduate employment

Graduate Unemployment Rate of Western States

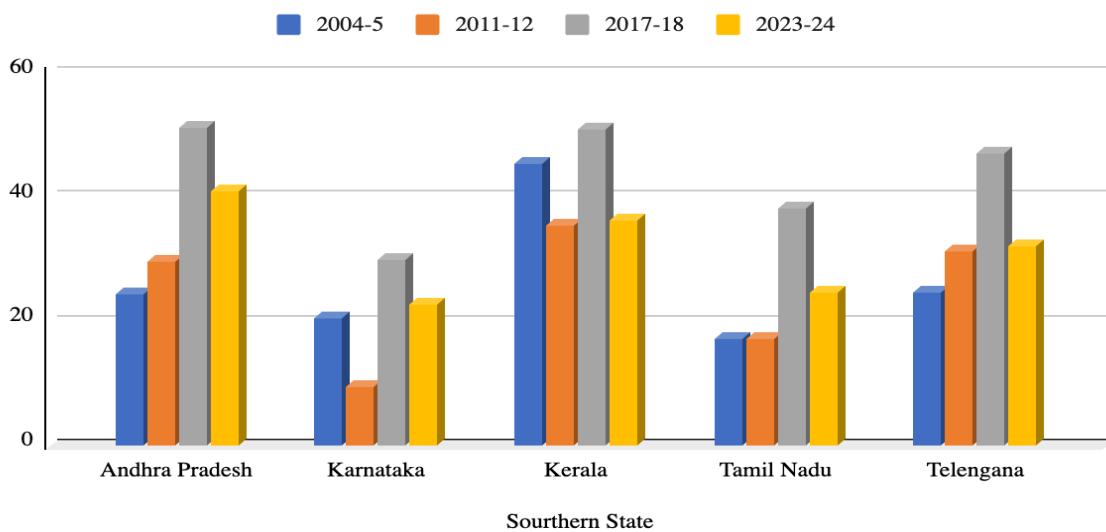


The situation of graduate unemployment in the western region highlights significant differences among states. Rajasthan stands out as a major concern, with its unemployment rate exceeding 36%, indicative of persistent structural challenges in integrating graduates into the workforce. Goa also experiences unpredictable fluctuations, pointing to instability in job availability. Conversely, Gujarat consistently reports the lowest unemployment rates, implying either more robust job creation or more successful initiatives aimed at enhancing graduate employability. Maharashtra presents a moderate scenario, yet it is witnessing a gradual increase in unemployment, which suggests a pressing need for policy reforms. In summary, the western region presents a varied landscape, with certain states facing considerably greater challenges than others.

(c) Southern States –

Andhra Pradesh has experienced persistently high unemployment rates, increasing from 24% in 2004–05 to a peak of 50% in 2017–18, followed by a slight reduction to 41% in 2023–24. In contrast, Karnataka has maintained relatively lower and stable unemployment rates, ranging from 20% to 28%, concluding at 22% in 2023–24. Kerala exhibits one of the highest and most enduring unemployment rates, starting at 44% in 2004–05, reaching a peak of 52% in 2017–18, and only marginally decreasing to 37% in 2023–24. Tamil Nadu shows consistent growth, beginning at 17%, rising to 38% in 2017–18, and then slightly declining to 33%. Similarly, Telangana has seen a significant rise from 24% in 2004–05 to 48% in 2017–18, before experiencing a slight improvement to 36% in 2023–24.

Graduate Unemployment Rate of Sourthern States



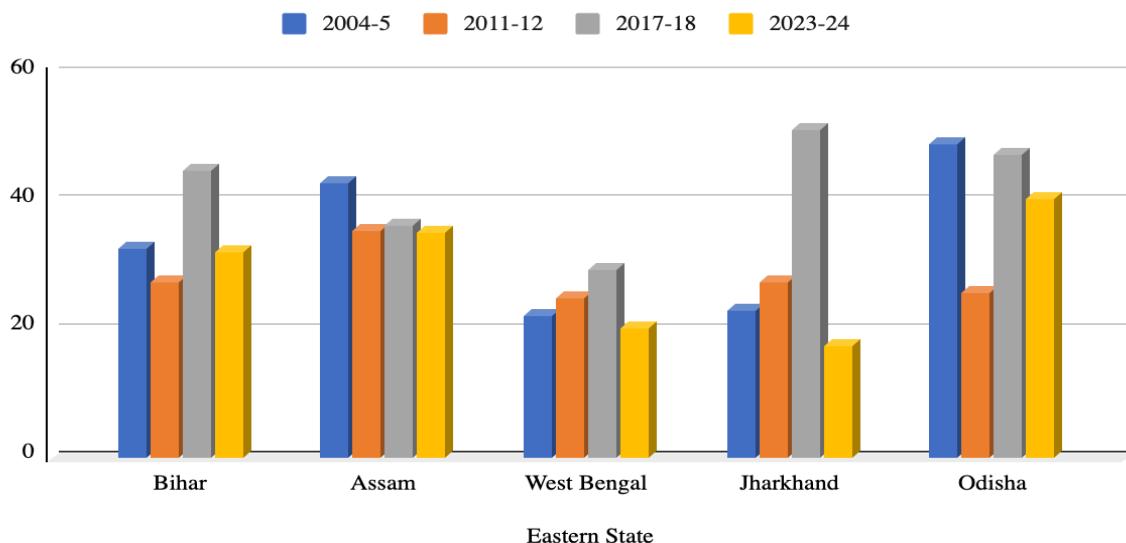
The southern states are experiencing a troubling and consistent trend of elevated graduate unemployment rates. Kerala and Andhra Pradesh lead this issue, each surpassing the 50% threshold at various times, indicating a chronic disconnect between educational outcomes and job availability. Telangana and Tamil Nadu are also witnessing increasing unemployment rates, although Tamil Nadu has shown some recent signs of improvement. In contrast, Karnataka exhibits relatively stable and lower unemployment figures, likely attributed to its robust IT and startup environment. This data reveals a profound, systemic issue in the southern region, where a

well-educated workforce is facing significant challenges in securing appropriate employment, necessitating urgent and tailored strategic interventions.

(d) Eastern States –

In the fiscal year 2004–05, Assam experienced one of the highest initial unemployment rates at 43%. Over the years, this rate gradually decreased, stabilizing at approximately 35% in both 2017–18 and 2023–24, which reflects a slow yet consistent improvement. In contrast, West Bengal performed better than its counterparts, with unemployment rates fluctuating between 22% and 30% over the years, ultimately declining to 20% in 2023–24. This indicates a relatively more stable employability outcome for graduates. Jharkhand presents a concerning trend: it began with a rate of 23%, increased to 28%, and then surged dramatically to 55% in 2017–18, the highest among all eastern states during that time. Nevertheless, it demonstrated a significant recovery in 2023–24, with a reduction to 18%. Odisha also encountered severe unemployment challenges, starting at 47% in 2004–05, decreasing to 27% in 2011–12, peaking again at 46% in 2017–18, and then falling to 40% in 2023–24. Despite some improvement, the current unemployment figures remain elevated.

Graduate Unemployment Rate Eastern States

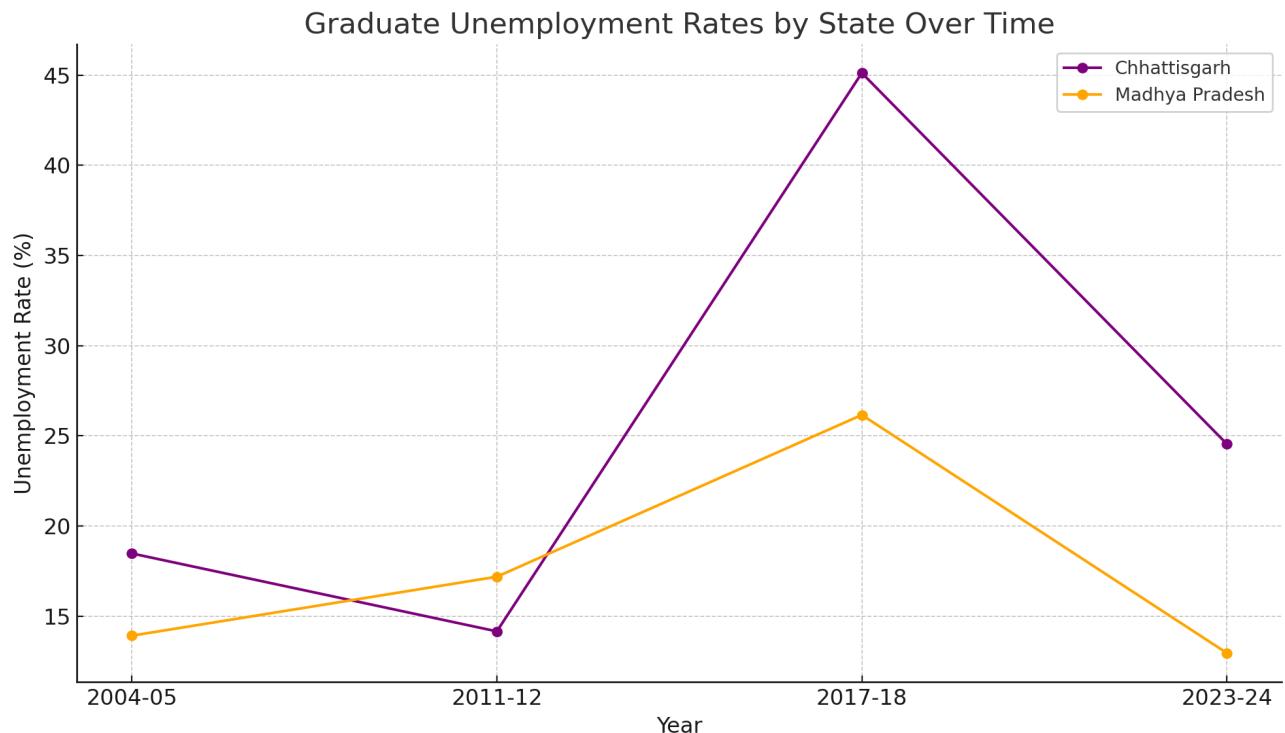


The eastern region shows a mixed and somewhat volatile picture of graduate unemployment. Jharkhand and Odisha reflect extreme fluctuations, with Jharkhand witnessing a dramatic rise

and fall within a span of a decade. Bihar and Assam continue to battle high unemployment rates, although some recent progress is visible. West Bengal, in contrast, maintains a relatively more stable and lower unemployment trend, suggesting better alignment between education and job opportunities. Overall, the eastern states still face significant challenges in graduate job absorption, requiring region-specific development strategies, skill enhancement programs, and robust industry engagement to generate sustainable employment.

(e) Central States –

Chhattisgarh exhibited a variable unemployment trend. In the period of 2004–05, the unemployment rate was recorded at 18%, which subsequently decreased to 14% by 2011–12. However, a dramatic increase occurred in 2017–18, with the rate soaring to around 45%, marking the peak within this dataset. By the year 2023–24, the rate had fallen to 24%, suggesting a partial recovery, yet remaining high in comparison to previous years. In contrast, Madhya Pradesh displayed a more consistent and moderate pattern. The unemployment rate started at 14% in 2004–05, experienced a slight rise to 17% in 2011–12, and further escalated to 27% in 2017–18. By 2023–24, the rate had improved to 13%, indicating a significant reduction and reflecting enhanced employment prospects for graduates in recent times.



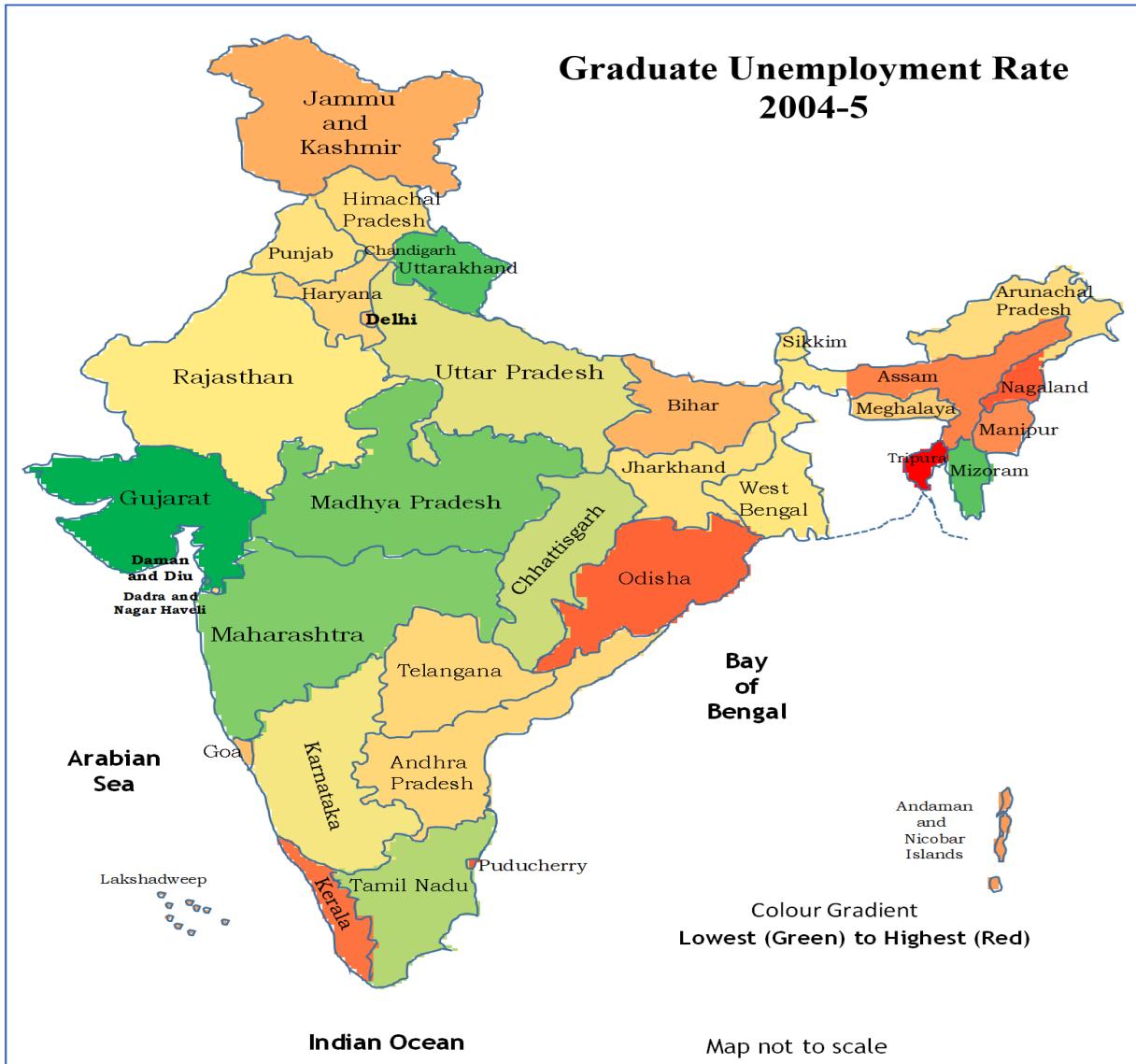
In central India, Chhattisgarh exhibited a fluctuating trend in graduate unemployment, notably experiencing a significant increase during 2017–18, likely attributed to abrupt economic changes or a disconnect between educational outcomes and industry requirements. Although there has been some recovery, the current rate of 24% remains unacceptably high. In contrast, Madhya Pradesh presents a more stable and improving scenario, with graduate unemployment decreasing to 13% in 2023–24, marking the lowest rate among the states examined. This indicates that Madhya Pradesh may have adopted more effective policies or gained from enhanced job market connections in recent years.

3.5 Graduate Unemployment Using Heat Maps –

We have analysed the Graduate Unemployment rate of different states using the map model. The colour gradient from green to red effectively visualizes these variations, with red representing the highest and green the unemployment rate. Addressing these disparities will be key in shaping inclusive and sustainable economic growth across the nation.

(1) For Year 2004-5 :

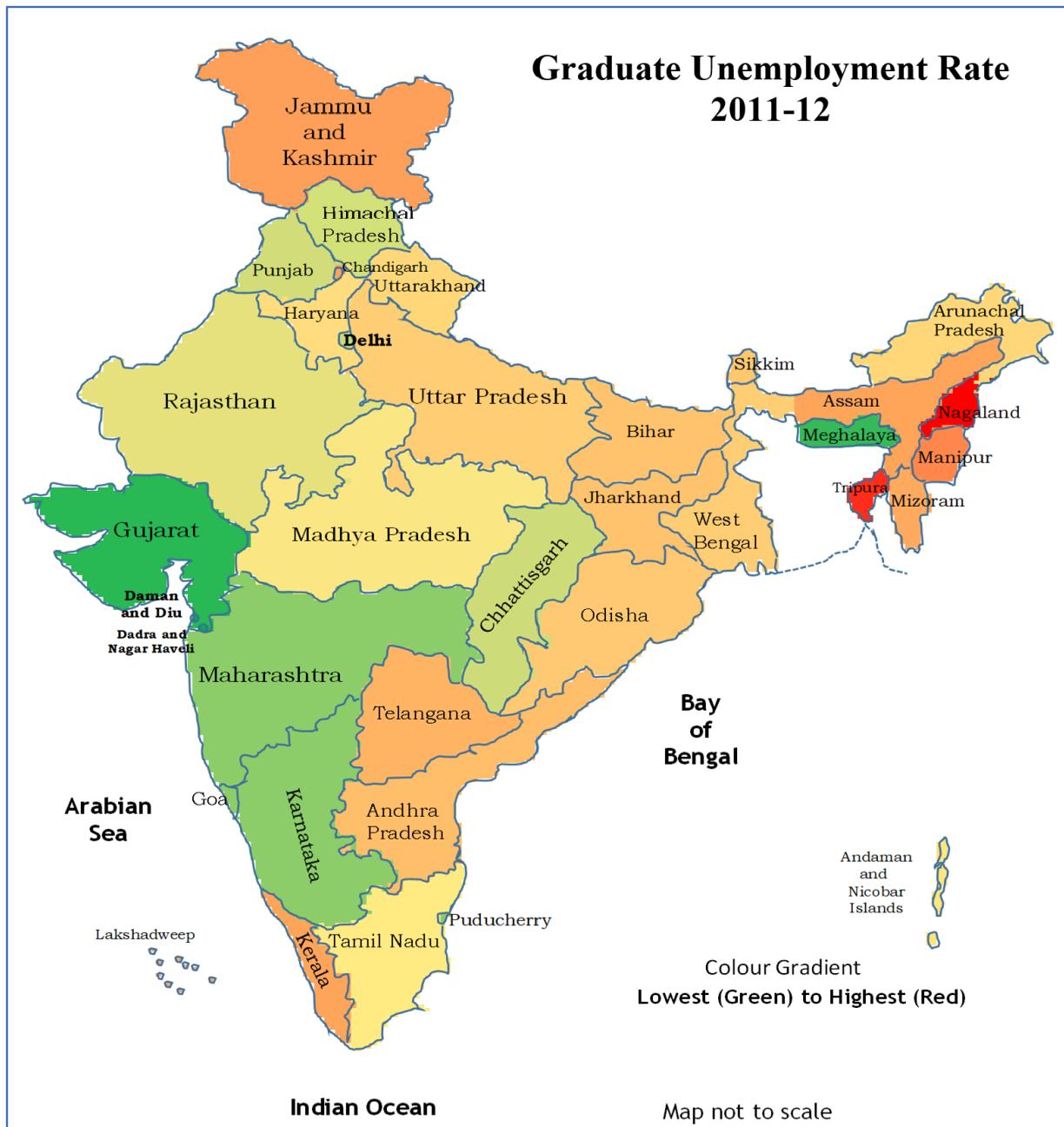
During the period of 2004–05, there were significant regional disparities in graduate unemployment across India. States such as Kerala, Tripura, and Odisha experienced elevated unemployment rates among graduates, suggesting difficulties in generating employment opportunities for the educated population. Conversely, Gujarat, Maharashtra, and Himachal Pradesh reported lower rates of graduate unemployment, indicating more favorable job markets. The majority of other states exhibited moderate unemployment levels, underscoring the necessity for enhanced employability initiatives and regional development strategies.



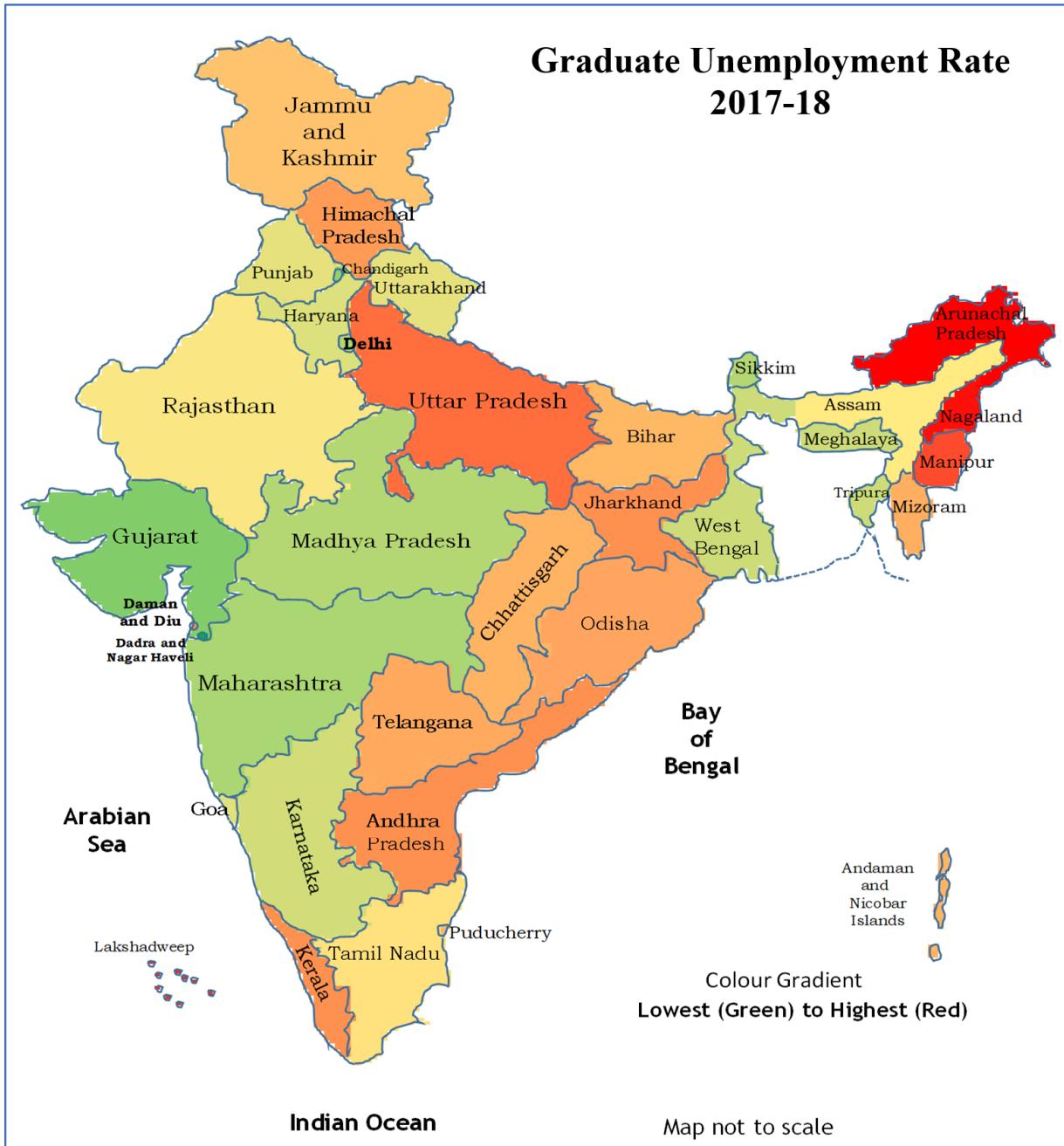
(2) For Year 2011-12 :

The western and southern states, including Gujarat, Maharashtra, and Karnataka, highlighted in green, exhibited the lowest rates of graduate unemployment, suggesting a more favorable job market or economic conditions capable of accommodating educated individuals. Conversely, the northeastern states, especially Nagaland, Tripura, and Manipur, indicated in red, faced the highest graduate unemployment rates, revealing a scarcity of job opportunities despite the level of education attained. Additionally, northern states such as Jammu & Kashmir and Punjab also reported relatively elevated graduate unemployment figures. In contrast, central and eastern

Indian states like Madhya Pradesh, Odisha, and West Bengal showed moderate unemployment levels. This pattern underscores the significant influence of economic development, industrial expansion, and infrastructure on the availability of employment opportunities for graduates across various regions of India during that time.



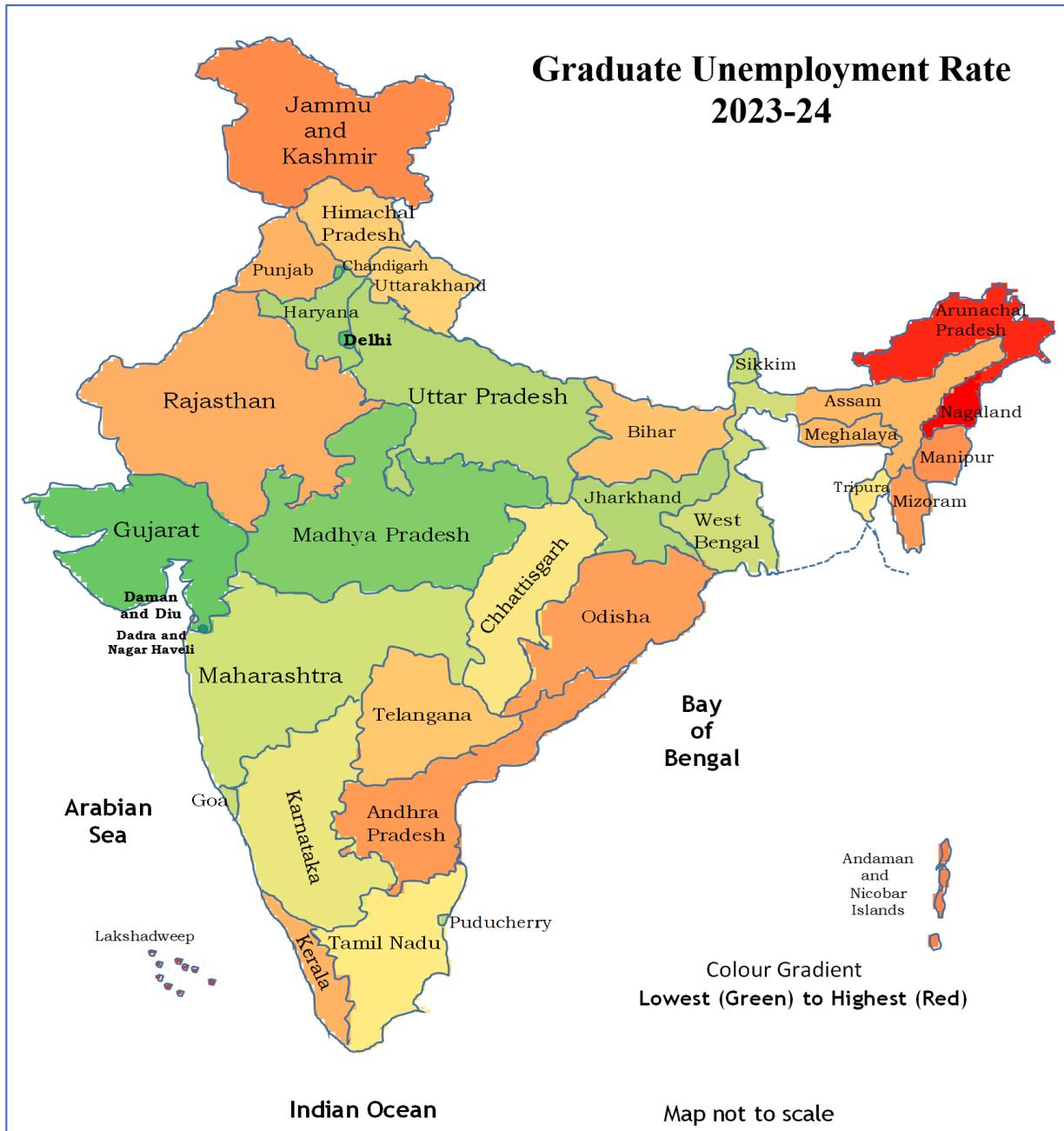
(3) For Year 2017-18 :



In 2017 states such as Gujarat, Maharashtra, and West Bengal, indicated in green, exhibited relatively low unemployment rates among graduates, implying more favorable employment prospects and potentially more robust industrial or service sectors. Conversely, states like Arunachal Pradesh, Delhi, and Uttar Pradesh, highlighted in red and orange, experienced significantly high graduate unemployment, indicating systemic issues in integrating educated

youth into the labor market. This disparity emphasizes the necessity for focused policy measures to close the employment gap and guarantee that higher education leads to substantial job opportunities in all areas.

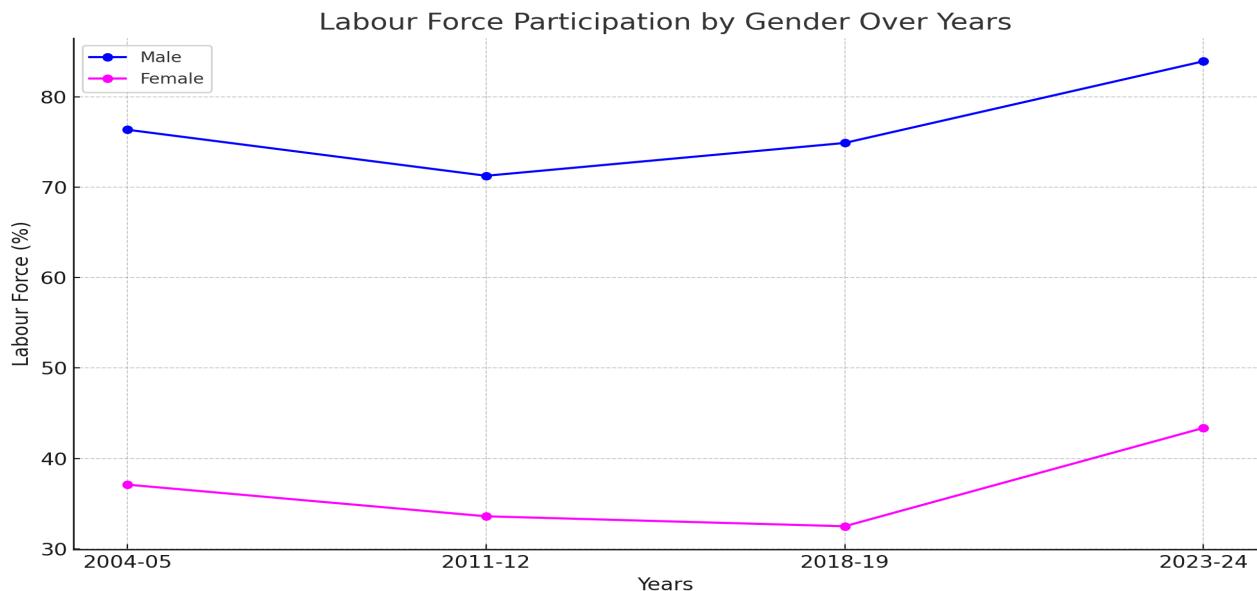
(4) For Year 2023-24 :



The Graduate Unemployment Rate in India for the fiscal year 2023-24 reveals a varied landscape across different states and union territories. States such as Maharashtra, Gujarat, and Madhya Pradesh demonstrate low unemployment rates among graduates, as indicated by green shading, while regions like Arunachal Pradesh, Manipur, and Odisha are marked in red and orange, reflecting persistently high unemployment levels. Compared to previous years, some improvement is observed in states like Delhi and Tamil Nadu, which are now depicted in lighter shades. However, the northeastern region and certain central-eastern states continue to face significant challenges in providing employment opportunities for educated youth. This map underscores the urgent need for inclusive and region-specific strategies to improve graduate employment prospects nationwide.

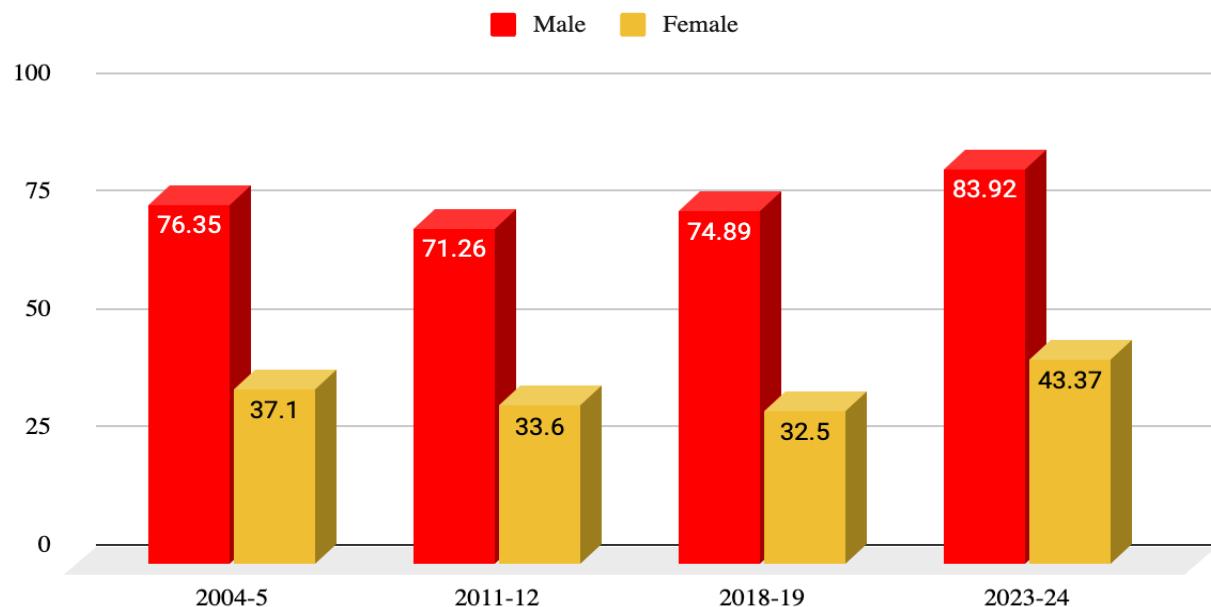
3.5 Labour Force Participation of Graduate Male & Female(2004 to 2024) –

The labour force participation rate (LFPR) for male and female graduates has shown distinct trends over the years, reflecting shifts in employment patterns, gender dynamics, and socio-economic factors. Male graduates have maintained a robust presence in the job market, with a slight decline from 76.35% in 2004–05 to 71.26% in 2011–12, followed by a recovery to 74.89% in 2018–19 and a notable increase to 83.92% in 2023–24. This growth can be attributed to the rapid expansion of the private sector, enhanced entrepreneurial opportunities, and greater job availability in fields such as finance, IT, and construction. Conversely, female graduates initially experienced a downward trend, with the LFPR dropping from 37.1% in 2004–05 to a low of 32.5% in 2018–19. However, the period of 2023–24 marked a significant recovery, as female participation surged to 43.37%, the highest level observed in the last two decades. This encouraging shift could be due to greater access to higher and professional education for women, growth of flexible and remote work options, increased awareness and initiatives around women's economic empowerment, government schemes supporting women in entrepreneurship, STEM, and rural enterprises.



While male graduates continue to dominate labor force participation, the notable rise in female graduate engagement in 2023–24 represents a promising advancement toward gender equality in the workplace. To sustain this momentum, it is crucial to continue enforcing inclusive employment policies, guaranteeing workplace safety, offering child care assistance, and fostering leadership opportunities for women.

Labour Force Participation Rate of Male & Female Graduates



3.6 Graduate Unemployment Rate of Male & Female(2004 to 2024) –

The male graduate unemployment rate was highest in 2017–18 (32.31%), followed by a slight improvement in 2023–24 (23.36%). The rates in 2004–05 and 2011–12 were almost identical and significantly lower than the 2017–18 spike. This suggests a sharp rise in male graduate unemployment post-2011, with partial recovery afterward.

The female graduate unemployment rate remained significantly higher than that of males throughout all the years, peaking in 2017–18 at 42.84%. Although there was a slight decline in 2023–24 (33.16%), the rate still indicates a major gender gap in employment opportunities for graduates. The data highlights the persistent and severe challenge of graduate unemployment among women.

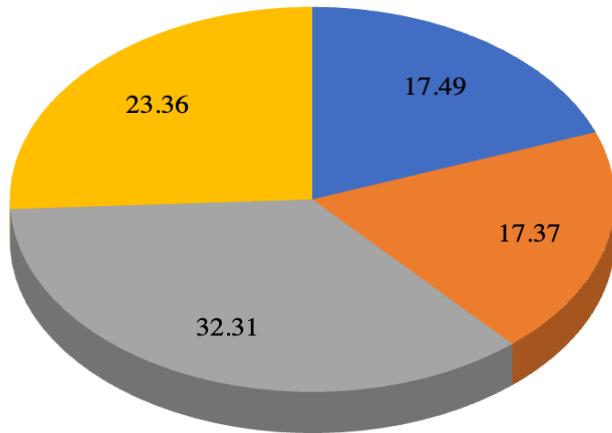


The analysis of graduate unemployment rates across genders reveals a persistent and significant disparity. Female graduates consistently faced higher unemployment rates than their male counterparts in all observed years. This highlights the ongoing gender inequality in employment

opportunities for graduates, emphasizing the urgent need for targeted policies to support women's transition from education to the workforce.

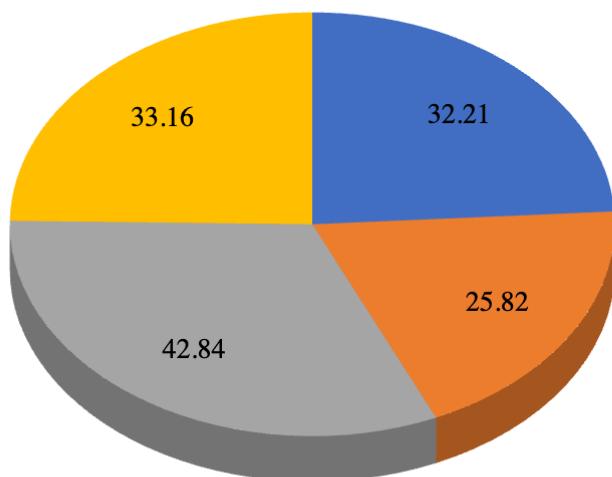
Graduate Unemployment Rate of Male

- 2004-5
- 2011-12
- 2017-18
- 2023-24



Graduate Unemployment Rate of Female

- 2004-5
- 2011-12
- 2017-18
- 2023-24



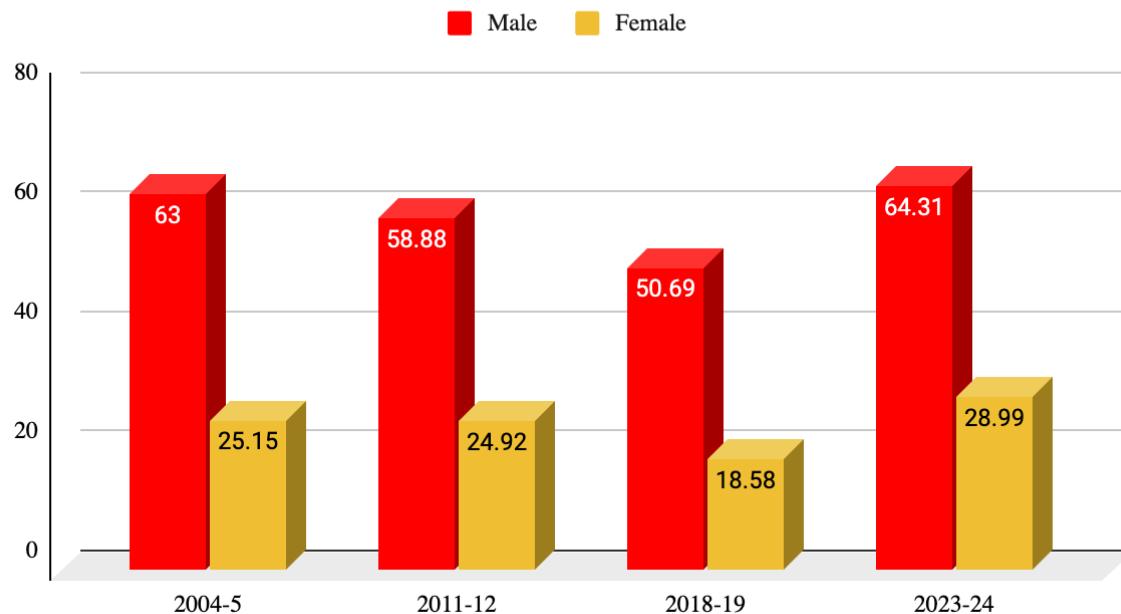
3.7 Work Force Participation of Graduate Male & Female(2004 to 2024) –

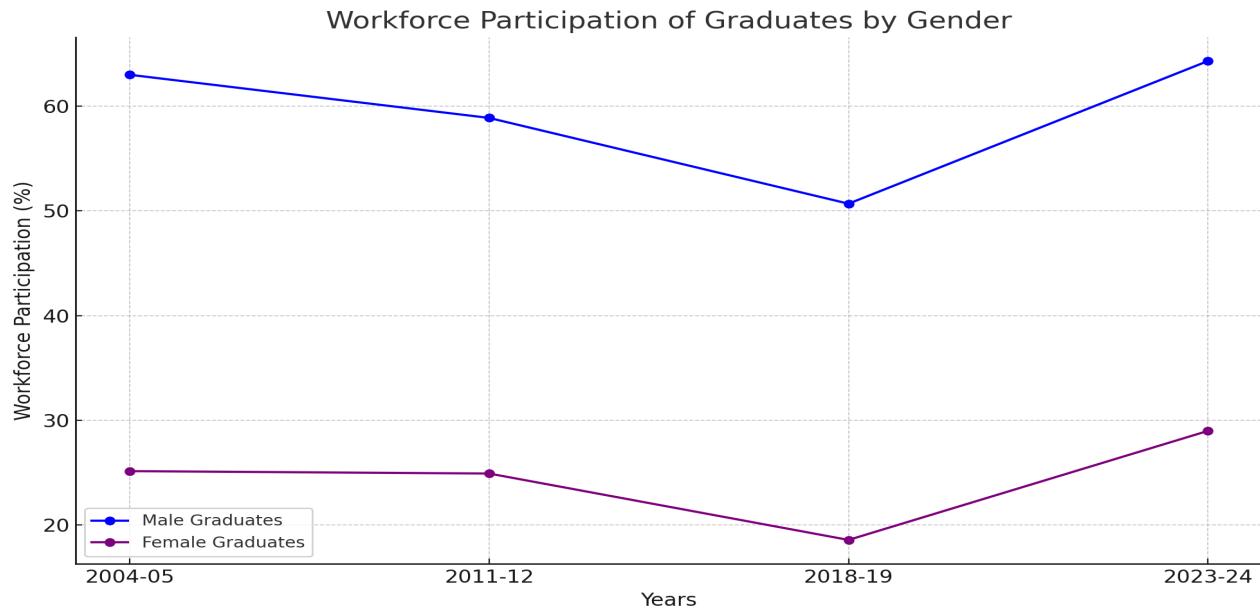
The Workforce Participation Rate (WFPR) reflects the proportion of graduates who are currently employed. It offers a more accurate representation of genuine job involvement, extending beyond mere job-seeking efforts. The male workforce participation rate (WFPR) experienced a modest decrease from 63% during the period of 2004–05 to 50.69% in 2018–19. Nevertheless, in 2023–24, there was a significant rebound, reaching 64.31%, which exceeds the figures recorded in 2004–05. This recovery corresponds with an increase in employment opportunities within the digital economy, construction, and finance sectors.

The female Workforce Participation Rate (WFPR) began at 25.15% during the 2004–05 period, fell to 18.58% in 2018–19, and subsequently rose to 28.99% in 2023–24.

This increase in 2023–24 suggests a greater demand for women graduates, especially in adaptable and knowledge-driven sectors like education, healthcare, information technology, and entrepreneurial ventures. Factors such as increased social awareness, government initiatives, and skills development programs are likely to have significantly contributed to this trend.

Work Force Participation Rate of Male & Female Graduates





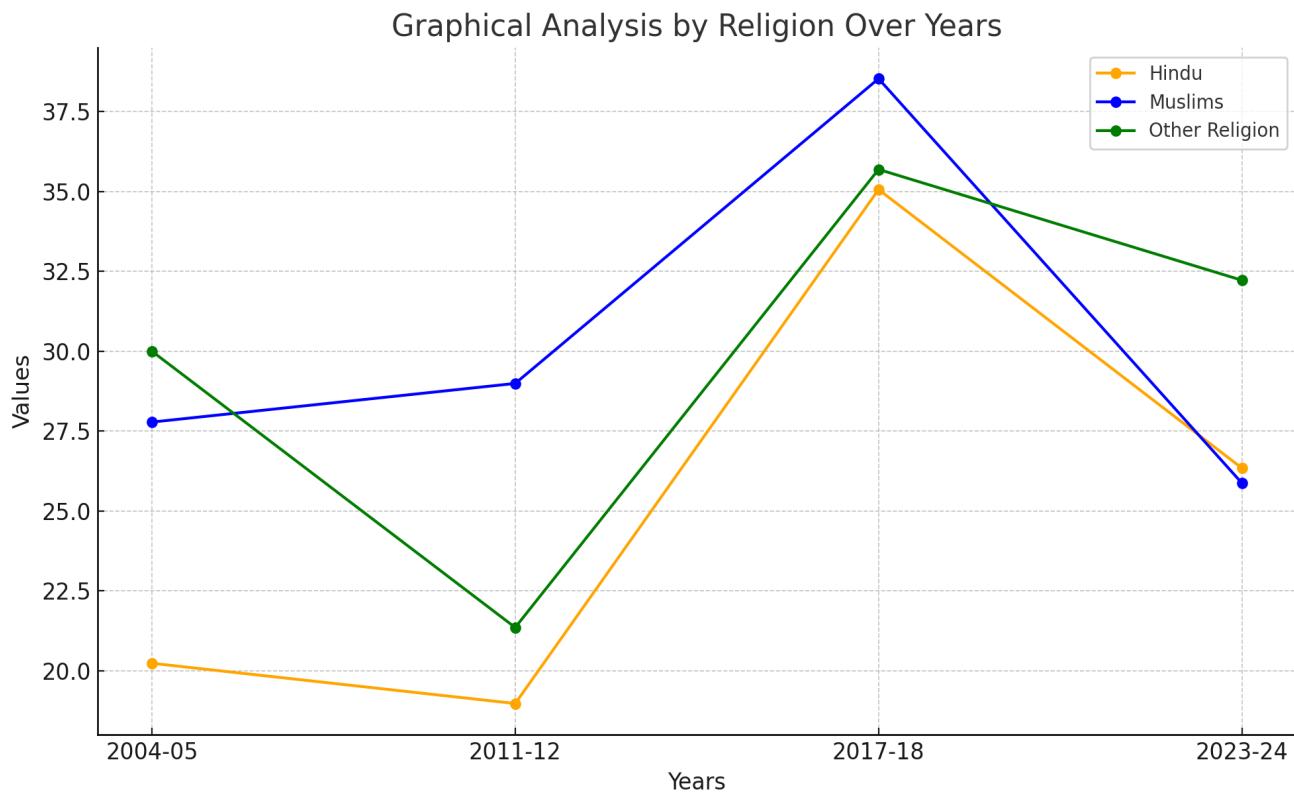
Although female workforce participation still lags behind male counterparts, the closing gap in 2023–24 reflects a positive shift in gender-inclusive employment. Focused efforts on equal opportunity and skill development can further improve these numbers.

3.8 Religion-wise Trend of Graduate Unemployment (2004–05 to 2023–24) –

In 2004–05, Hindus recorded a value of approximately 20.3 percent. Muslims stood slightly higher at around 27.8 percent, while individuals from Other Religions registered the highest figure at 30.1 percent. These initial values suggest that members of Other Religions may have been more affected by the underlying issue being measured. By 2011–12, the value for Hindus declined marginally to 18.9 percent, indicating a slight improvement. Muslims experienced a modest increase to 28.9 percent, continuing an upward trend. Meanwhile, Other Religions saw a notable dip to 21.4 percent, marking a period of relative improvement for this group. A significant shift occurred in 2017–18, where all three groups experienced a sharp increase. Hindus rose steeply to 35 percent, Muslims peaked at 38.6 percent, and Other Religions increased to around 35.7 percent. This surge likely reflects a period of heightened socio-economic challenges that impacted all communities simultaneously, possibly due to external or national-level developments. In 2023–24, a downward trend became apparent. The value for Hindus dropped to 26.6 percent, and Muslims saw a more substantial decline to 25.9 percent—falling below their 2004–05 level. While Other Religions also experienced a reduction,

they remained relatively high at 32.2 percent. Overall, the data reveals dynamic fluctuations over the two-decade period, with a pronounced peak in 2017–18 followed by a partial recovery across all groups. Despite the decline in recent years, the values remain elevated for some, particularly among Other Religions. These trends suggest varying degrees of vulnerability and resilience across religious communities, underscoring the importance of inclusive, group-sensitive policy interventions going forward.

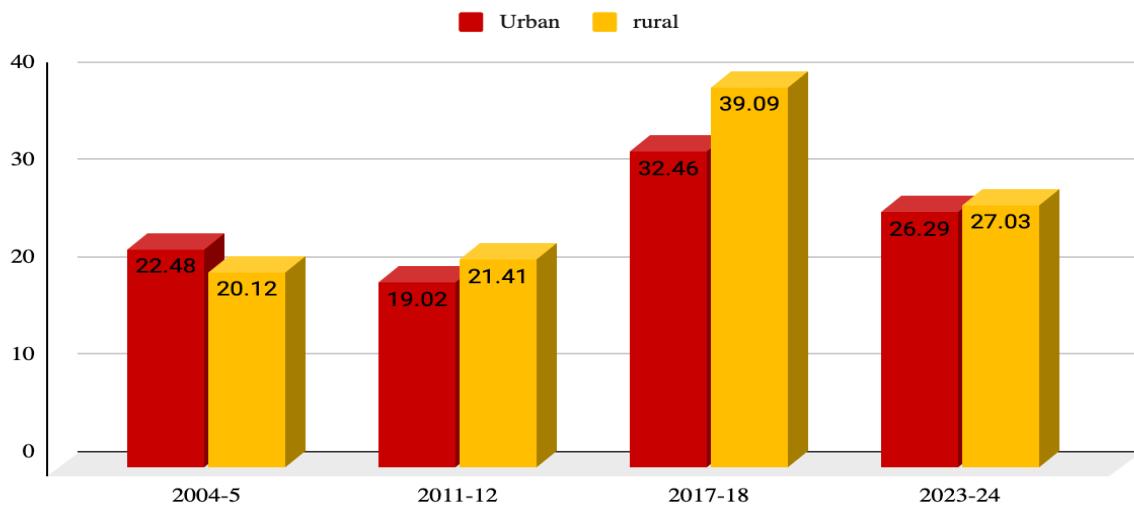
In conclusion, the data reflects notable shifts in values across religious communities over the years, with a significant spike in the year 2017–18 followed by a gradual decline. While recent figures suggest some improvement, the consistently higher values among certain groups—especially those from Other Religions—highlight the need for targeted support and inclusive measures. These patterns emphasize that any long-term solutions must account for the diverse experiences and challenges faced by each community.



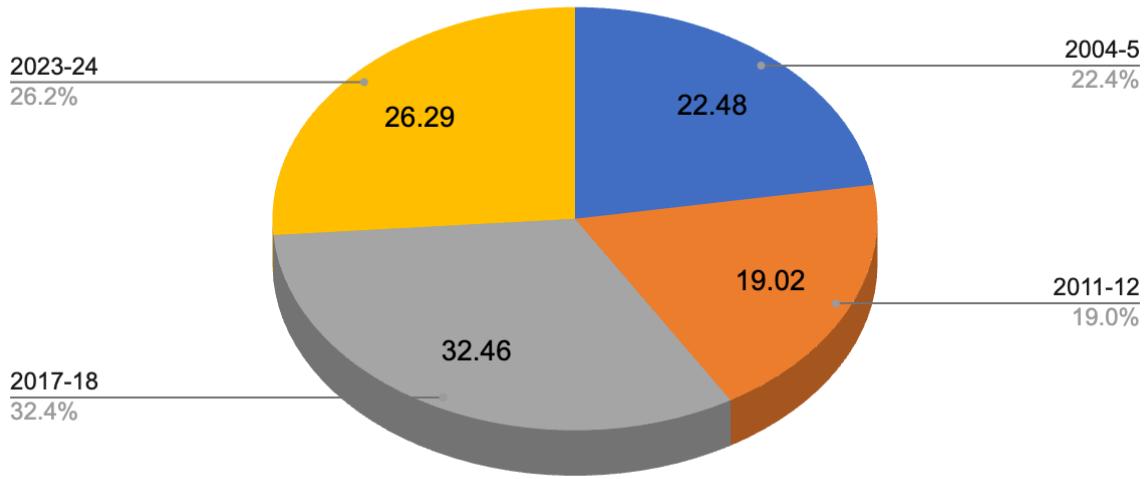
3.9 Sector wise distribution of Graduate Unemployment –

In urban areas, graduate unemployment was recorded at 22.48 percent in 2004–05. This slightly dipped to 19.02 percent by 2011–12, indicating a mild improvement. However, there was a sharp rise to 32.46 percent in 2017–18, which marked the highest unemployment rate for urban graduates in the period under study. By 2023–24, the figure decreased to 26.29 percent, suggesting a partial recovery but still significantly higher than the levels observed in the early 2000s. In contrast, the rural region displayed a somewhat similar trend, though with slightly more pronounced fluctuations. Graduate unemployment was at 20.12 percent in 2004–05 and rose marginally to 21.41 percent in 2011–12. Like urban areas, the rural region witnessed its peak in 2017–18 with a substantial increase to 39.09 percent. The most recent data from 2023–24 shows a decrease to 27.03 percent, which, while an improvement, remains higher than in the earlier years. The 2017–18 period stands out as the peak year for graduate unemployment in both urban and rural regions, with rural areas experiencing particularly severe levels. Although there has been a decline in the following years, the figures remain elevated when compared to the initial levels in 2004–05. This pattern points to ongoing structural challenges in the job market for graduates, particularly in rural settings, and underscores the importance of region-specific employment policies.

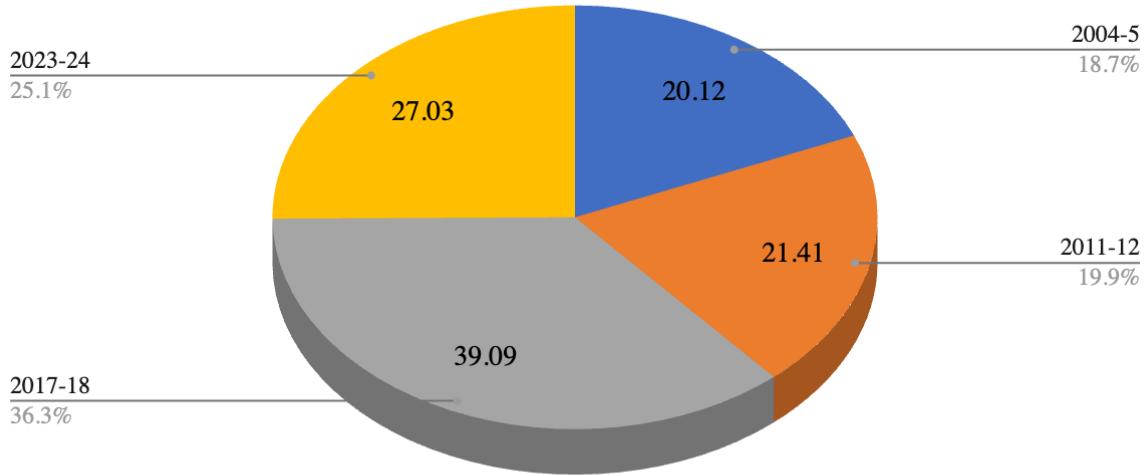
Graduate Unemployment of Urban & Rural areas



Graduate Unemployment of Urban Region



Graduate Unemployment of Rural Region



In conclusion, while both urban and rural regions have seen some reduction in graduate unemployment since the 2017–18 peak, the rates in 2023–24 remain notably higher than those in

the early 2000s. This suggests that although there has been some recovery, the underlying issues affecting graduate employability persist—especially in rural areas—highlighting the need for sustained and targeted interventions in education-to-employment pathways.

3.10 Caste-wise Trend

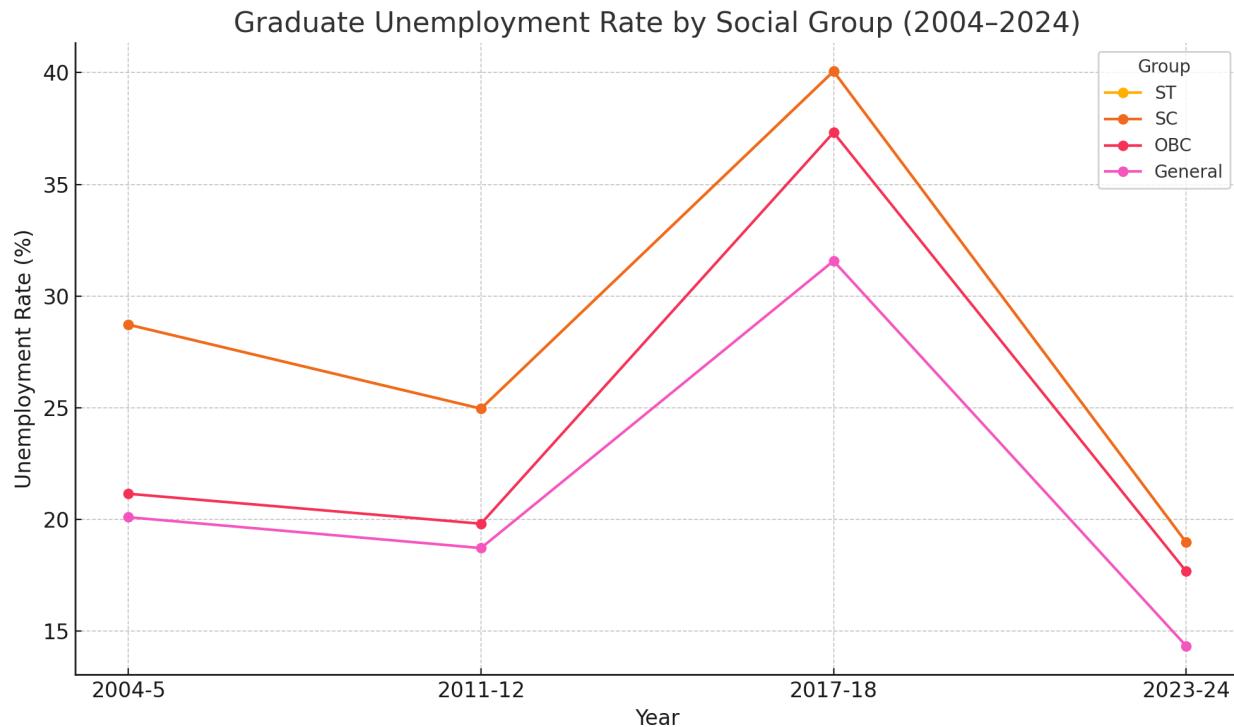
We have analyzed Graduate Unemployment Rate & Labour force participation Rate of different social Groups which includes Schedule Caste (SC), Schedule Tribes (ST), Other Backward Class (OBC), General.

(a) Graduate Unemployment (2004–05 to 2023–24) –

The unemployment trends among graduates from different social groups — ST, SC, OBC, and General — over the period from 2004–05 to 2023–24 reveal significant disparities and evolving patterns. The period of 2004–05 was marked by high initial rates among marginalized groups.

In 2004–05, both Scheduled Tribes (ST) and Scheduled Castes (SC) recorded the highest unemployment rate of 28.72% among graduates. This is substantially higher than OBCs (21.15%) and General category graduates (20.1%), reflecting the early systemic barriers to employment faced by the historically disadvantaged communities. Year of 2011–12 observed a slight Dip in unemployment rate across all groups ST and SC unemployment rates reduced to 24.96%, OBCs dropped to 19.81%, and the General category further to 18.72%. Although the gap remained, this period showed slight improvements likely due to expanded access to higher education and employment schemes.

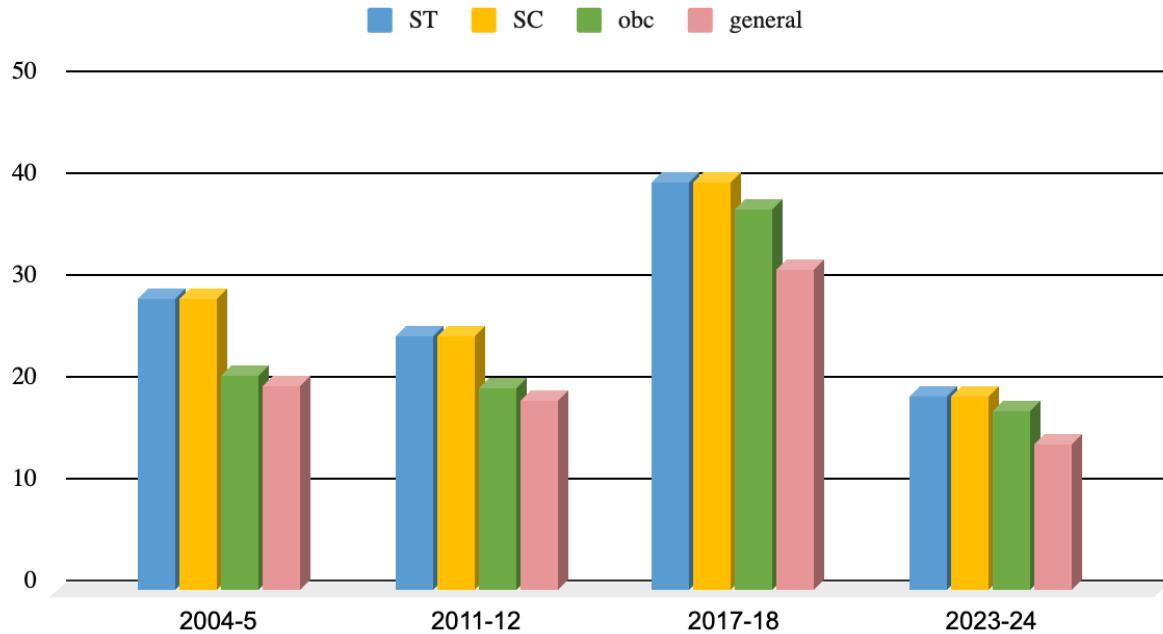
But a dramatic spike in unemployment rates was observed in 2017–18, especially among marginalized groups UR of ST and SC Peaked at a staggering 40.06%, OBC unemployment jumped to 37.32% while for General it rose to 31.57%. This sharp rise may be attributed to structural challenges in the job market, saturation in the public sector, and growing competition in private employment spaces, which disproportionately impacted vulnerable communities.



Surprisingly in the latest data from 2023–24, graduate unemployment has declined sharply. For SC, ST & OBC it comes down to 18.98% 17.68% , whereas for general it was reported to be 14.34%. This recovery indicates improvements in job accessibility, skill development, and perhaps entrepreneurship, but the relative gap remains, highlighting that social equity in graduate employment is still a work in progress.

So we can conclude that analysis of graduate unemployment trends from 2004 to 2024 highlights both progress and persistent inequalities across social groups. While the overall unemployment rates have declined significantly in recent years, historically marginalized communities such as STs and SCs continue to face higher rates compared to the general category. The sharp rise in 2017–18 serves as a reminder of the vulnerability of these groups during times of economic stress. Although recent improvements are encouraging, the data underscores the need for targeted interventions, inclusive policy-making, and equitable opportunities in education and employment to bridge the gap and ensure fair access to livelihoods for all social groups.

Graduate Unemployment Caste Wise



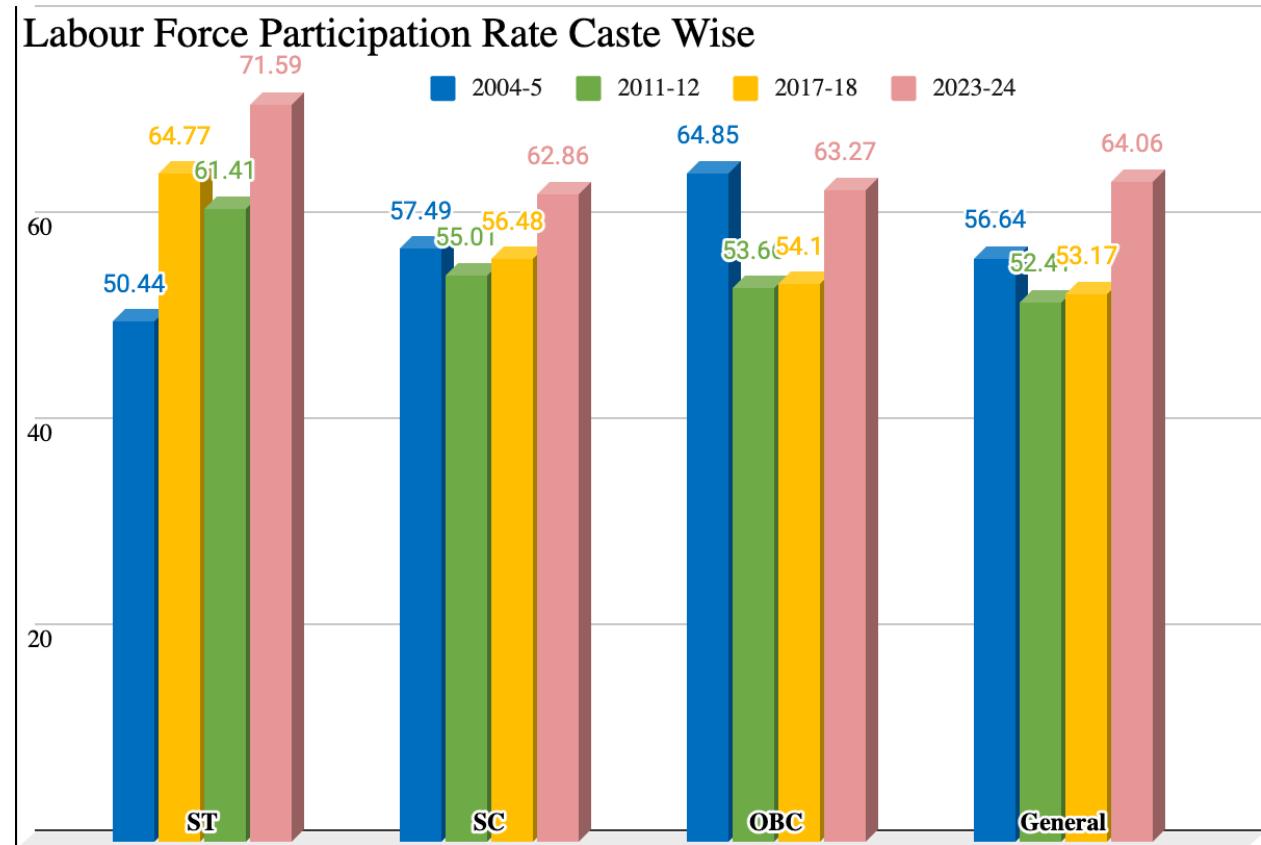
(b) Labour Force Participation Rate (2004-5 to 2023-24)-

The Labour Force Participation Rate (LFPR) among various social groups in India has experienced significant changes over the last twenty years, indicating wider socio-economic transformations and potentially the effects of specific policy measures.

Among the four major social groups which includes Scheduled Tribes (ST), Scheduled Castes (SC), Other Backward Classes (OBC), and General category ,the ST category has shown the most significant rise. From 50.44% in 2004-05, the LFPR for STs climbed steadily to 71.59% by 2023-24, marking a remarkable 21.15 percentage point increase. This could indicate improved employment access and a greater integration of tribal populations into the labour market.The SC category also showed a steady improvement, increasing from 57.49% in 2004-05 to 62.86% in 2023-24. Although the pace was more gradual compared to the ST group, the overall trend reflects a positive shift in labour engagement among this historically marginalized group.

For the OBC group, the labor force participation rate (LFPR) experienced a decrease from 64.85% in 2004-05 to 53.66% in 2011-12. However, it gradually rebounded, reaching 63.27% in 2023-24, almost returning to its original level. This U-shaped pattern may indicate that the initial

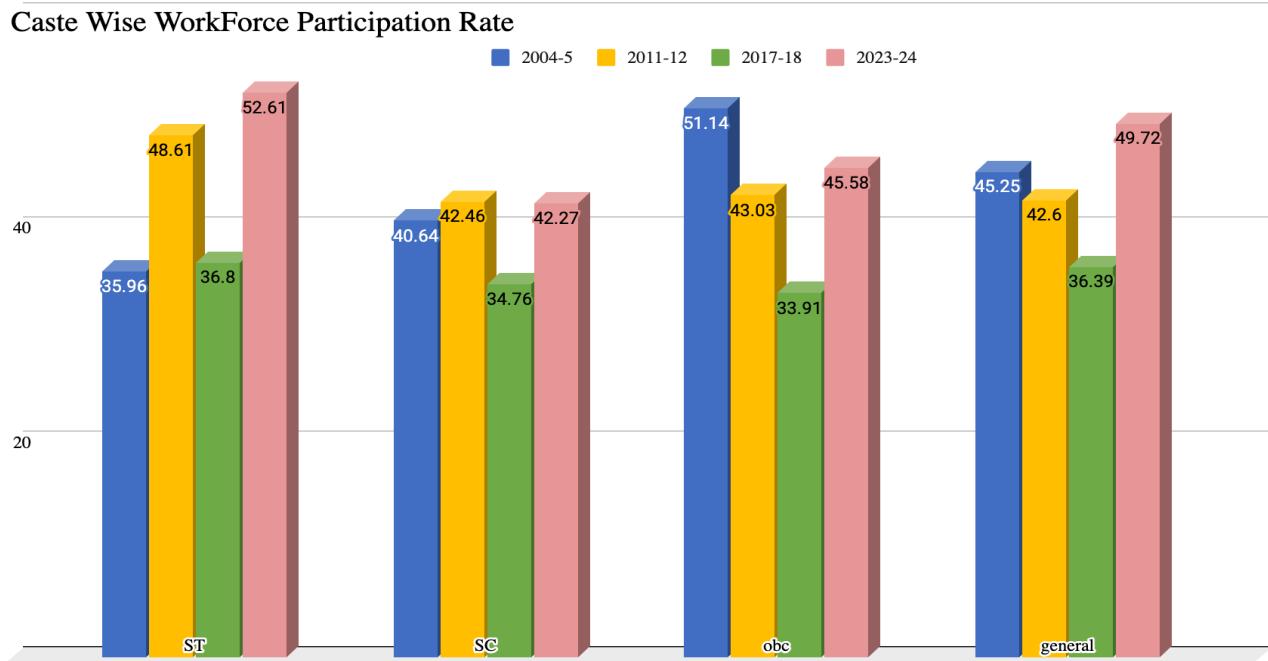
decline was a result of structural changes, followed by improved employment integration in the subsequent decade. The General category displayed a more stable trend with minor fluctuations. Starting at 56.64% in 2004-05, LFPR dipped slightly in the middle years but then increased to 64.06% in 2023-24, indicating a net gain over the two decades.



To bridge these gaps and promote equitable participation in the Labour Force, the government must implement a comprehensive strategy. Enhancing skill development and vocational training specifically designed for youth from Scheduled Castes (SC), Scheduled Tribes (ST), and Other Backward Classes (OBC) can greatly improve their employability. Additionally, creating job opportunities in rural and semi-urban regions, along with improving access to quality education, will further empower these communities. Promoting entrepreneurship through financial assistance and mentorship, alongside rigorous enforcement of anti-discrimination policies in the labor market, can cultivate a more inclusive Labour force. Finally, employing a data-driven methodology for policy formulation and assessment will ensure that initiatives remain effective and attuned to the unique needs of each community.

(c) Work Force Participation Rate (2004-5 to 2023-24) –

Over the past twenty years, the participation rate of the ST category in the workforce has consistently increased, climbing from 35.96% in 2004-05 to 52.61% in 2023-24, which is the highest rate among all categories during this period. The SC category also experienced growth, albeit at a slower pace, rising from 40.64% in 2004-05 to 42.27% in 2023-24, following a decline in 2017-18 to 34.76%. The OBC category initially fell from 51.14% in 2004-05 to 33.91% in 2017-18, but subsequently recovered to 45.58% by 2023-24. Likewise, the General category witnessed a decrease until 2017-18 (36.39%) from its 2004-05 figure of 45.25%, before rebounding to 49.72% in 2023-24. In summary, despite fluctuations in workforce participation over the years, there has been a significant resurgence in recent times (2023-24), especially among the ST and General categories, reflecting a favorable trend in employment inclusion across various social groups.

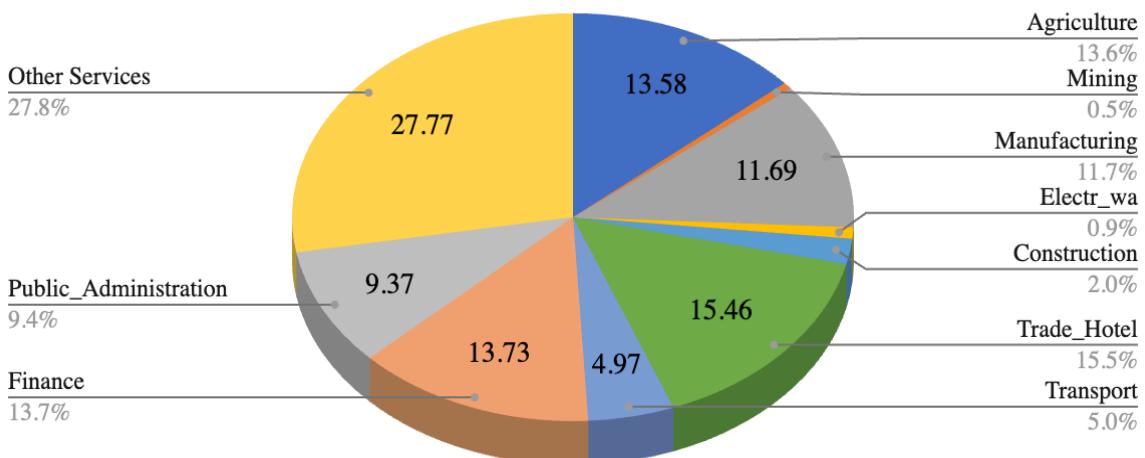


3.11 Distribution of Graduates Employed in Different Sectors –

Major Sectors Employing Graduates Includes Agriculture, Trade & Hotel, Manufacturing, Finance, Public Administration, Transport and Other Services. So By Using Pie charts we have shown the composition of Graduates employed in different sectors from year 2004-5 to 2023-24.

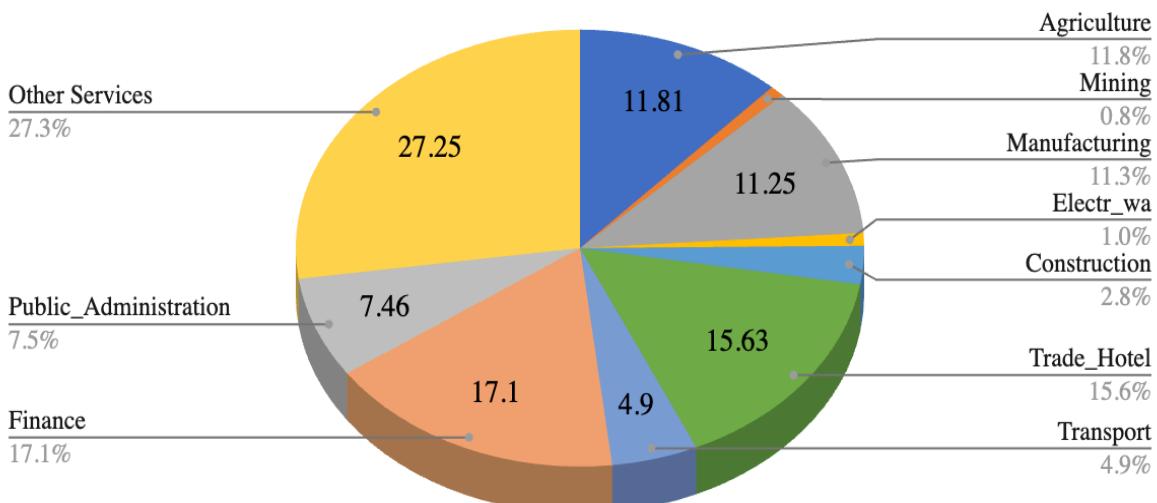
Distribution of Graduates Employed in Different Sectors

Year 2004-5 Statistics



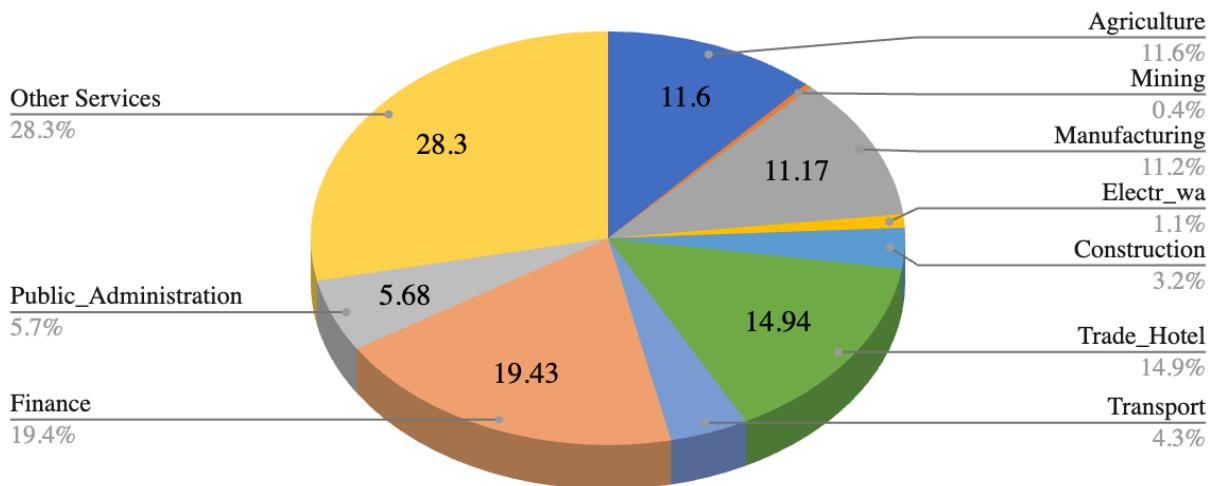
Distribution of Graduates Employed in Different Sectors

Year 2011-12 Statistics



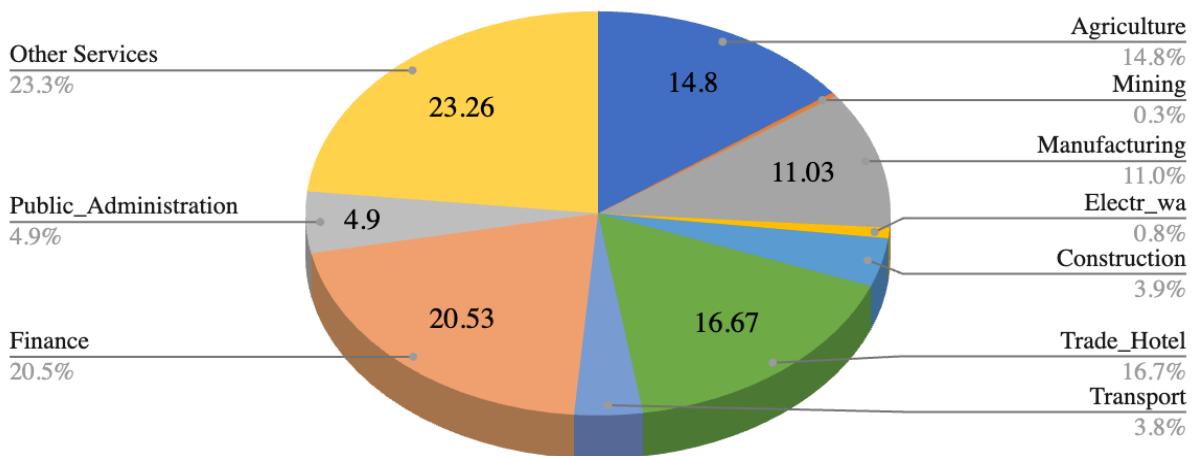
Distribution of Graduates Employed in Different Sectors

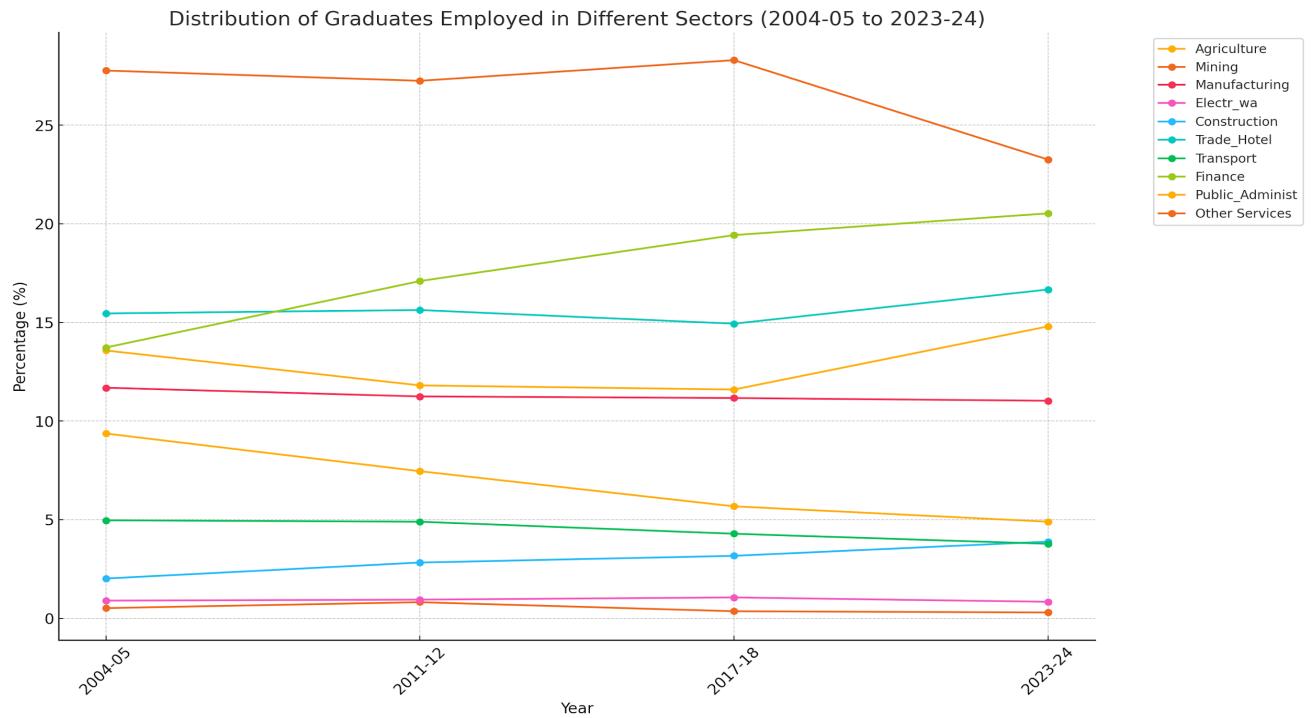
Year 2017-18 Statistics



Distribution of Graduates Employed in Different Sectors

Year 2023-24 Statistics





From the above Graphs we can conclude:

Finance Sector Demonstrated consistent growth from 13.73% in 2004–05 to 20.53% in 2023–24, indicating a robust demand for graduates in finance-related fields. The swift growth of digital payment systems, online banking, and investment platforms has generated new employment opportunities. Government programs such as Jan Dhan Yojana and UPI have stimulated job creation in rural and semi-urban financial services. The Boom in startups, microfinance institutions, and non-banking financial companies (NBFCs) has increased the demand for graduates with financial expertise. As a result, finance continues to be an attractive and rewarding field for graduates, offering competitive salaries and promising career advancement.

Sector related to Construction Experienced a gradual increase from 2.02% to 3.89%, which reflects the expansion of infrastructure. Major government investments in roads, railways, housing, and smart cities increased sector demand. Rapid growth of urban areas drove continuous need for construction professionals and project managers. Moreover schemes like PMAY (Pradhan Mantri Awas Yojana) boosted construction-related employment.

In Trade & Hotel overall growth was noted, rising from 15.46% to 16.67%, pointing to an increase in employment opportunities within the service and hospitality sectors.

Most surprisingly Sector of Agriculture Remarkably recovered in 2023–24 after a previous decline, reaching 14.8%, likely driven by advancements in agri-tech and sustainable farming practices. Growth in Agri-Tech Startups Government Push for Sustainable Farming which includes Policies promoting organic farming, natural farming, created a demand for educated workforce. Moreover Schemes like PM-KUSUM, Digital Agriculture Mission, and FPO promotion helped boost sector engagement.

The Public Administration Sector experienced a notable decrease from 9.37% to 4.9%, likely attributed to a reduction in recruitment within the public sector. Major reasons are Enhanced Opportunities in the Private Sector, As sectors such as Finance, Information Technology, Construction, and Trade continue to expand, graduates are increasingly inclined towards private employment that provides superior salaries, adaptable work settings, and accelerated career advancement, Shrinking Government Recruitments to cut administrative cost.

Sector of Mining and Transport Exhibits a gradual and consistent decline, potentially influenced by automation and environmental considerations.

Stable sectors include Manufacturing(around 11-12%, indicating a steady industrial demand.) & Electricity, water etc Fluctuated slightly but stayed near 1%, showing niche but stable employment. Other Service Remains the leading sector but has seen a decline from 27.77% to 23.26%, suggesting a shift towards a more diversified landscape of graduate employment.

4. CONCLUSION

India's demographic dividend presents a unique opportunity for economic growth and development. However, realizing this potential requires addressing the challenges in the labour market, particularly in skill development and employment generation. The examination of India's 2024 graduate unemployment data demonstrates how complicated and ongoing this issue is. Although the average unemployment rate for recent graduates nationwide was 13.4%, there were notable differences between different states and geographical areas. The differences in regional economies, the availability of quality jobs, the growth of manufacturing and service industries, the migration of graduates from other parts of the country and the religion and caste differences all play a significant role in shaping regional disparities. Unemployment in India is also a detrimental effect on the labor market and its outcomes, leading to decreased productivity, lower wages, and increased inequality. For India to harness its demographic dividend to its maximum potential, a tailored, region-specific approach is essential. This strategy should focus on encouraging entrepreneurship, enhancing skill development opportunities, and supporting the growth of high-potential industries in each state and union territory. By addressing these root causes and promoting balanced economic development, India can unlock the vast potential of its educated youth and drive sustainable progress across the nation.

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