Rural–Urban Disparities in Female Youth Unemployment in Northeast India: Evidence from PLFS, 2017–18 to 2023–24

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ABSTRACT

Unemployment among female youth remains an important labour-market concern in Northeast India, with considerable differences between rural and urban areas. This paper examines rural–urban disparities in female youth unemployment across the eight Northeastern states using published Periodic Labour Force Survey (PLFS) data from 2017–18 to 2023–24. The methods adopted in the study are descriptive and also comparative analysis has been done to examine interstate and temporal variations. Further, a paired-sample *t*-test was used to assess the statistical significance of rural–urban differences. The study found that unemployment rate among female youth on average was higher in urban areas (35.99 per cent) than in rural areas (21.83 per cent), with an average difference of 14.16 percentage points. This difference is statistically significant ($t = 8.36$, $p < 0.001$). Moreover, a considerable interstate variation is also observed, with Meghalaya recording the largest average rural–urban gap and Manipur is the lowest. The findings suggest that female youth unemployment in Northeast India varies considerably across locations and states, highlighting the need to consider state-specific and rural–urban labour-market conditions in employment strategies.

Keywords: Female youth unemployment; Rural–urban disparity; Northeast India; PLFS; Labour market; Female employment

INTRODUCTION

Youth employment plays a important role in the economic-social development of a country. The developing economies like that of India, where a sizable percentage of the population falls within the group of working-age, the effective utilization of young labourforce is crucial for achieving sustained growth and demographic dividend gains. However, despite improvements in educational attainment and economic expansion, youth unemployment remains an issue for the country. The Periodic Labour Force Survey (PLFS) highlights that youth unemployment (15–29 years) in India is significantly higher than overall unemployment rates, with graduate youth experiencing disproportionately higher joblessness.

Empirical research on youth unemployment in India highlights growing concerns regarding employment absorption capacity (Mitra & Verick, 2013; Sharma, 2022). Their findings reinforce concerns regarding educated unemployment and structural mismatch in the Indian economy. These national-level studies establish that unemployment among educated youth is not a marginal phenomenon but a systemic issue linked to economic transformation and labour market segmentation.

In labour market, gender disparities more or less remain a persistent feature of India's employment scenario. This issue holds significant in case pf Northeast India, where infrastructural bottlenecks and structural constraints influence the economic and employment opportunities (Das & Dutta, 2025; Rani et al., 2026). Despite the changes in long-term employment patterns of female, labour-market for female in the Northeastern states continue to reflect significant socioeconomic and structural constraints (Rani et al., 2026). Though literacy rates have improved considerably in the region over the past decades but employment generation has not kept pace with educated job seekers. However, systematic testing of rural–urban female youth unemployment differences at the aggregated Northeast level using recent PLFS data remains underexplored. While some studies provide valuable insights, most focus on either econometric modeling or specific states.

Comprehensive comparative analysis covering all eight Northeast states with explicit rural–urban female disparity testing remains limited.

In particular, there remains limited comprehensive analysis covering all eight Northeastern states using recent Periodic Labour Force Survey (PLFS) data to examine rural–urban differences in female youth unemployment. Therefore, the present paper examines rural–urban disparities in female youth unemployment in Northeastern states of India using PLFS data for the period 2017–18 to 2023–24. The study further analyses the trends and interstate variations in rural and urban female youth unemployment, it further measures the magnitude of the rural–urban gap, and tests whether the observed difference is statistically significant. These spatial disparities is important for identifying the differentiated labour-market challenges faced by female youth in the region.

REVIEW OF LITERATURE

In general Unemployment and in particular youth unemployment has been studied from different perspectives such as educational attainment, mismatch of skill, absorption in labour market, gender and regional disparities in India. The existing relevant literature shows that unemployment among youth not only influenced by the availability of employment opportunities but by the education, gender, region and socio-economic background. In the case of female youth, rural–urban dimension holds the prominent place, as the pattern and employment are different across rural and urban. In the context of Northeast India, it need particular attention because of the regional diversity in employment structures and labour market conditions. Therefore, following review focuses on three interrelated reviews of literature: female youth unemployment in India, rural–urban dimensions of female employment and unemployment, and empirical evidence from Northeast India.

Female Youth Unemployment in India

Mitra and Verick (2013) studied employment and unemployment among youth of India of age group 15-29 depending on the labour force participation, employment pattern and nature, youth labour market, unemployment using NSS data 2009-10 and the policy implications. It highlighted the labour force participation among the male and female across rural-urban areas and nature of their employment among the youth and other age groups. The women participation in labour and also the social condition depends on the social factors like classes of society (ST, SC, and OBC). It suggests the policies that government should initiate in both urban and rural for skill development and employment of the educated unemployed and disadvantaged youth. Das (2025) using binary logistic regression model identifies the determinants of youth unemployment. Variables like economic status, vocational training, marital status, etc., plays influencing youth unemployment. Therefore, need for considering the social and structural factors in policy formation is very important which will help to eliminate the individual factors associated with youth unemployment in India. The potential gap of education and industrial demand which can be considered as skill mismatch is also highlighted as the factor influencing youth unemployment. Therefore, the study suggests that, issue between demand for and supply of skill need to be combat to reduce the youth unemployment in India.

The study of Abdullah et al. (2023) identifies the divergence between employment aspiration and job availability in the labour market as a key determinant of unemployed youth. The findings shows that female youth had a higher aspirational gap than their male counterparts, and that youth with tertiary education display a greater relative occupational aspiration gap in the labour market. This disparity is attributed to a mismatch between the jobs available in the existing labour market and the employment aspirations of educated youth. The study further observes that the incidence of unemployment rises due to the scarcity of better-quality jobs, which renders job search particularly difficult for young people.Gender disparities in labour market participation remain a persistent feature of India's employment landscape. Klasen and Pieters (2015) attribute stagnation in female labour force participation to structural transformation, social norms, and occupational segregation.

Rural–Urban Dimensions of Female Youth Unemployment

The nature and opportunities of employment structure is different among rural and urban and therefore rural

urban location play an important role in women's labour-market outcomes. Biswas and Banu (2023), in their studies found a substantial differences in women's work participation across rural and urban setting in India. Using Census 2011 and PLFS 2019–20 data, the study found greater workforce participation among rural women than their urban counterparts. The analysis of PLFS 2019–20 further showed, the unemployment rate among women at the national level was 2.6 per cent in rural areas compared with 8.9 per cent in urban areas.

However, lower unemployment rate in rural areas among women may not be indicate more employment opportunities, as many rural women are engaged in agriculture, self-employment and unpaid family work. The India Employment Report 2024 highlights the importance of agriculture, self-employment and unpaid family work which further related to nature of employment associated with recent improvements in women's labour-market indicators, including. Similarly, Ananian and Dellaferrera (2024) show that higher rural employment can coexist with disadvantages in employment quality, wages and labour protection. Thus, rural–urban differences in unemployment rates need to be viewed together with differences in the nature and quality of employment available in the two labour markets.

Sethy (2025) mentioned youth unemployment as a major challenge for socio-economic development, which further worsening stability and integrity in society and nations as well. The study tries to identify the factor for youth unemployment and the employment landscape from the perspective of rural-urban using secondary data. It suggests that youth unemployment is not only due to the insufficient job opportunity but also structural and skill mismatch, systematic barriers to entrepreneurship and finances. The study suggests the strategic policy recommendations in order to tackle the challenges regarding youth unemployment.

Tripathi (2016) studied the employment unemployment situation of India, taking North East as a special reference by using NSS data on employment unemployment in 2011-12. The study found that land ownership raises the probability of self-employment but reduces casual labour, higher general and technical education raises the probability of wage/salaried employment while reducing casual work and self-employment, and rural females have the lowest probability of becoming wage/salaried workers.

Gender disparity in labour market and rural-urban disparity can be observed in the state Shillong, while working population ratio is increasing in rural areas unemployment rate is higher in urban areas (Hynniewta,2022). From the study of employment, unemployment in among the educated youth of Meghalaya it is clear that against the backdrop of increase educational attainment there is decline in the youth working population ratio with an increase in youth unemployment rate in the state of Meghalaya. The study by Lyngdoh (2014) studied about unemployment among women in Shillong reveals that in female unemployment factors like location of job, payment of job, transportation facilities play an important role. Study reveals the main worker population to the total population in the state is decreasing resulting in increasing unemployment among educated.

Elangbam (2018) undertook an analysis of economic growth and structural transformation in the North Eastern Region, evaluating the influence of policy shifts and internal conflicts upon regional development. The study finds that unemployment among educated youth is considerably more severe in Manipur than in India as a whole. Among the employed population, the majority reported less job satisfaction due to less salary and adverse working conditions. Furthermore, female labour force participation was observed to be lower than that of males, and a greater proportion of women with higher education registered with employment exchanges relative to those with lower educational attainment, to engage themselves in formal-sector employment. Although the existing studies provide important evidence on youth unemployment, female labour-force participation and rural–urban employment conditions in Northeast India, the literature spread across states, specific periods and different population groups. The comparative evidence on rural–urban disparities in female youth unemployment covering all eight Northeastern states over recent PLFS rounds remains limited. In particular, the magnitude and statistical significance of rural–urban differences in female youth unemployment have received relatively little attention. The present study attempts to address this gap using PLFS data for 2017–18 to 2023–24.

DATA AND METHOD

Data Source and Coverage

The present study is based on secondary data from the Periodic Labour Force Survey (PLFS) Annual Reports covering seven annual PLFS rounds from 2017–18 to 2023–24 and all eight Northeastern states of India. The study focuses on female youth in the age group of 15–29 years and uses unemployment rates reported separately for rural and urban areas. The unemployment rates used in the study are based on the Usual Principal and Subsidiary Status (UPSS), as reported in the respective PLFS Annual Reports. The state-wise rural and urban unemployment rates for female youth aged 15–29 years were extracted from the tables of each annual PLFS report. For comparability across survey rounds, the study uses the same population category and labour-market indicator throughout the period, namely the unemployment rate according to usual status (ps+ss) for female youth aged 15–29 years, reported separately for rural and urban areas in the respective PLFS Annual Reports. Since the analysis uses published state-level PLFS estimates, unit-level survey data are not used.

Method of Analysis

The analysis used in the study carried out in two stages. First, to examine the pattern of rural and urban female youth unemployment across the Northeastern states during 2017–18 to 2023–24, a descriptive and comparative methods are used. In order to identify temporal and interstate variations, the annual unemployment rates were compared. Further, the mean rural and urban unemployment rates for the seven-year period are calculated separately for each state.

The average unemployment rate for each state is calculated as:

$$\bar{UR}_i = \frac{\sum_{t=1}^{7} UR_{it}}{7}$$

where $\bar{UR}_i$ represents the average unemployment rate of state i, and UR_{it}represents the unemployment rate of that state i in year t and $t = 1,\ldots,7$ for the seven PLFS years The magnitude of rural–urban disparity is measured as the difference between the average urban and rural female youth unemployment rates:

$$Gap_i = \bar{UR}_{Urban,i} - \bar{UR}_{Rural,i}$$

A positive value of the gap indicates that female youth unemployment is higher in urban areas than in rural areas.

Secondly, a paired-sample t-test is used to examine whether the difference between rural and urban female youth unemployment is statistically significant. For this purpose, the rural female youth unemployment rate is paired with the corresponding urban female youth unemployment rate for the same state and the same survey year. Thus, each state-year constitutes one matched pair. With eight Northeastern states observed over seven PLFS rounds from 2017–18 to 2023–24, the analysis consists of 56 paired state-year observations. The paired-sample t-test examines whether the mean difference between these matched rural and urban unemployment rates is statistically different from zero.

For each paired observation, the difference is defined as:

$$D_i = UR_{Urban,i} - UR_{Rural,i}$$

The paired-sample *t*-statistic is calculated as:

$$t = \frac{\bar{D}}{S_D/\sqrt{n}}$$

where $\bar{D}$is the mean of the paired rural–urban differences, $S_D$is the standard deviation of these differences, and $n$is the number of paired observations.

The normality of the paired differences was examined using the Shapiro–Wilk test. The result indicated no significant departure from normality (W = 0.992, p = 0.964), supporting the application of the paired-sample t-test.

The hypotheses tested are:

H_0: There is no statistically significant difference between rural and urban female youth unemployment.

H_1: There is a statistically significant difference between rural and urban female youth unemployment.

The hypotheses are tested at the 5 per cent level of significance ($\alpha = 0.05$).

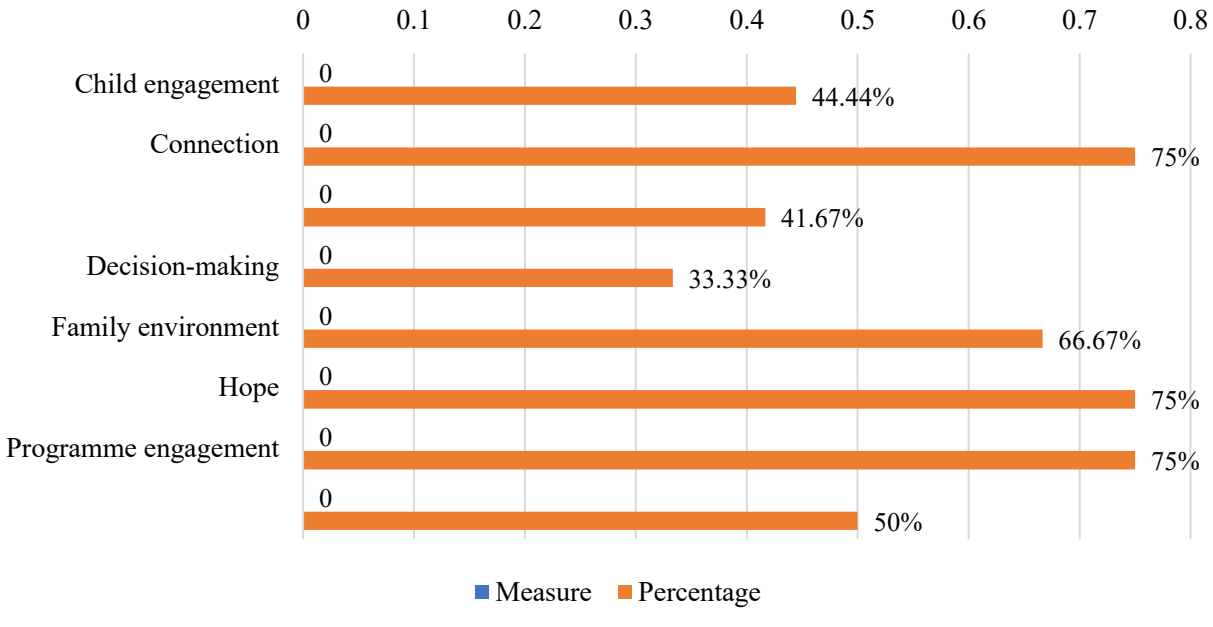
RESULTS AND ANALYSIS

This section discusses about the empirical results on rural–urban disparities in female youth unemployment across the Northeastern states of India. The analysis first examines the pattern of unemployment in rural and urban areas, followed by interstate variations in the magnitude of the rural–urban gap. Finally, the statistical significance of the observed rural–urban difference is examined using the paired-sample t-test.

Trends in Rural and Urban Female Youth Unemployment

This section examines the trends in rural and urban female youth unemployment across the eight Northeastern states during 2017–18 to 2023–24. Table 1 presents the annual unemployment rates, while Figure 1 summarizes the seven-year average unemployment rates for rural and urban female youth across the states.

Figure 1. Average Rural and Urban Female youth Unemployment Rate in Northeastern State, 2017-18 to 2023-24



Source: Authors' calculation based on PLFS Annual Reports 2017-18 to 2023-24

Figure 1 shows the variation in the average rural and urban female youth unemployment rates across the Northeastern states. The urban unemployment is higher compared to rural unemployment in most of the states. The rural–urban difference is particularly large in case of Meghalaya, while Manipur shows almost similar unemployment rates in rural and urban areas. On the other hand, Nagaland records the highest average unemployment rates in both rural and urban areas. Overall, the figure indicates substantial interstate variation in the rural–urban pattern of female youth unemployment.

Table 1. Rural and Urban Female Youth Unemployment Rates in India and Northeast, 2017–18 to 2023–24

State		2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean Difference
	RFU	29.8	38.1	27.5	27	33	9.4	14.3	
Arunachal Pradesh	UFU	48.8	64.2	35.4	43.6	56.2	25.7	53.8	21.23
	RFU	38.5	21.4	31.6	17.4	11.1	10.2	13	
Assam	UFU	30.2	42.5	37.7	45.1	48.3	33.8	36	18.63
	RFU	40.6	47.6	38.7	15.8	38.7	22.3	23.4	
Manipur	UFU	34.5	28.9	33.5	33.2	42.3	21.2	37.1	0.51
	RFU	3.3	8.1	6.7	1.7	7.7	20.8	15.8	
Meghalaya	UFU	25.8	34.4	52.4	27.5	32.2	41.2	44	27.63
	RFU	20.7	25.9	9.5	14.9	26.7	9.9	7	
Mizoram	UFU	49.6	34.3	24.9	14	35.4	23.4	19.6	12.37
	RFU	68.6	58.2	66.7	49.8	23.7	9.9	22.8	
Nagaland	UFU	65.5	68.6	73.3	72.8	53.6	32.2	40.6	15.27
	RFU	15.9	6.6	4.2	1.6	4.1	16	5.1	
Sikkim	UFU	17.9	15.8	8.2	15.8	19.7	10	18.3	7.46
	RFU	23.5	61.5	12.7	11.7	23.5	3.9	4.5	
Tripura	UFU	45.9	60	18.1	21.2	28.4	15.9	23.2	10.2
	RFU	13.6	13.8	10.3	8.2	8.5	7.4	8.2	
All India	UFU	27.2	25.7	24.9	24.9	21.6	21.7	20.1	13.72

Source: Periodic Labour Force Survey Data, Annual report, 2017-18 to 2023-24.

Note: RFU is Rural Female youth unemployment and UFU is Urban Female youth unemployment

Table 1 shows the trends in rural and urban female youth unemployment across the eight Northeastern states during 2017–18 to 2023–24. The data reveals that there is substantial interstate and temporal variations in both rural and urban unemployment. However, urban female youth unemployment generally remained higher than rural unemployment across much of the study period. States with high rural female unemployment are Nagaland and Manipur and lowest are Tripura and Sikkim. These states of Northeast India indicate different unemployment rates among the rural females. Tripura post pandemic performance shows improvement and Meghalaya also follows the same trend.

Manipur has also high unemployment rate among females which fluctuates over the time and no further improvement can be observed throughout that period. The unemployment was ranging around 29 to 35 percent. The peak rate of urban female unemployment is in the year 2021-22 with 42.3 percent and which declines to 21.2 in 2022-23 and again raise to 37.1 percent in 2023-24. On the other hand, Nagaland has highest unemployment rate in case of urban female unemployment too. It ranges between 32.2 percent to 73.3 percent in the given period. The rate of unemployment was highest in period 2019-20 with 73.3 percent, then it further declined to 53.6 percent in 2021-22. Lowest unemployment was in 2022-23 with 32.2 percent and in 2023-24 it raised to 40.6 percent.

Meghalaya recorded with 52.4 percent unemployment in urban in 2019-20, which is highest throughout the period for the state. Apart from that unemployment was ranged between 25.8 percent to 34.4 percent from 2017-18 to 2021-22. Youth unemployment in urban female started increasing again in 2022-23 with 41.2 percent and 44 percent in 2023-24. Therefore, the urban female unemployment trend in Meghalaya is increasing in recent times. Mizoram shows long tern improvement with fluctuations. The rate of

unemployment declined from 20.7 percent in 2017-18 to 9.55 to 2019-20. In 2021-22 there was increase with 26.7 percent. But in 2023-24 it falls to 7 percent. Sikkim rural female unemployment was 15.9 percent in 2017-18 and started declining to 1.6 percent in 2020-21. An increase in the figure observed in 2022-23 with 16 percent but in year 2023-24 it falls to 5.1 percent again. The unemployment rate is low with temporary fluctuations. Tripura has a decline in rural female unemployment. The peak unemployment was in the year 2018-19 with 61.5 percent which declined over the time to 3.9 percent in 2022-23. However, there is a slight rise with 4.5 percent in 2023-24. The unemployment rate shows improvement for the state.

Overall, the trend analysis indicates that rural and urban female youth unemployment not only varies considerably across the Northeastern states but also follows different trajectories within individual states. These variations make it necessary to examine the magnitude of the average rural–urban disparity across states.

State-wise Rural–Urban Disparity

The above table 1 indicates that the difference in the mean of urban and rural female unemployment. Analysis shows that there arises huge difference in the mean of rural female unemployment and urban female unemployment. National level shows 13.72 mean difference between rural and urban female youth unemployment. The state with lowest mean difference is Manipur with 0.51. Other states can be rank on the basis of the mean difference in female unemployment in rural and urban is second place is Sikkim 7.46, Tripura in third place with 10.2, Mizoram (12.37), Nagaland (15.27), Assam has 18.63, Arunachal Pradesh in last second place with 21.23 and lastly Meghalaya with 27.63. Meghalaya has highest rural urban mean difference in female labour market. where, Manipur indicates the female unemployment in both rural and urban areas are going along.

Statistical Significance of Rural–Urban Differences

To determine whether the observed rural–urban difference in female youth unemployment is statistically significant, a paired-sample *t*-test was applied to the 56 paired state-year observations. The results are presented in Table 2.

Table 2. Paired-Sample *t*-Test of Rural–Urban Differences in Female Youth Unemployment

Rural Mean (%)	Urban Mean (%)	Mean Difference (pp)	SD of Difference	*t*	df	*p*-value
21.83	35.99	14.16	12.68	8.36	55	<0.001

Note: Mean difference = Urban − Rural; $N = 56$ paired state-year observations.

Source: Authors' calculations based on PLFS Annual Reports, 2017–18 to 2023–24.

The results show that the mean female youth unemployment rate in urban areas was 35.99 per cent, compared with 21.83 per cent in rural areas, resulting in an average difference of 14.16 percentage points. The paired-sample *t*-test yielded a *t*-value of 8.36 with 55 degrees of freedom, and the difference was statistically significant at the 1 per cent level ($p < 0.001$). Accordingly, the null hypothesis of no significant difference between rural and urban female youth unemployment is rejected.

The statistical result therefore supports the descriptive evidence presented in the preceding sections, confirming that the higher urban female youth unemployment observed across the region represents a systematic rural–urban difference rather than merely a difference in the overall sample means.

DISCUSSION

The findings of the study reveal rural–urban disparity in female youth unemployment across Northeast India. The average female youth unemployment rate during 2017–18 to 2023–24 was higher in urban in compare

with rural areas, and the paired-sample *t*-test shows that this difference is statistically significant. At the same time, the magnitude of the rural–urban gap varies considerably across the eight states. These findings indicate that female youth unemployment in Northeast India needs to be understood not only in terms of the overall availability of employment but also in relation to differences in rural and urban labour-market structures.

Rural Employment Structure and Informality

One possible explanation for the relatively lower unemployment rate among rural female youth is the nature of employment available in rural areas. The study observes that rural labour markets in Northeast India are largely associated with agriculture and allied activities and that women are frequently engaged in informal, unorganised and unpaid work. Thus, a lower measured unemployment rate in rural areas should not necessarily be interpreted as evidence of better employment opportunities or superior labour-market conditions.

This interpretation is consistent with broader evidence on women's employment in India. Biswas and Banu (2023) find considerable rural–urban differences in women's economic participation, with rural women showing greater workforce engagement than their urban counterparts. Similarly, the *India Employment Report 2024* points to increasing participation of rural women in employment while also highlighting their substantial concentration in agriculture and unpaid family work. Therefore, part of the observed rural–urban unemployment difference may be associated with differences in the type and quality of employment available to women rather than simply the quantity of employment opportunities.

The findings of Ananian and Dellaferrera (2024) are also relevant in this context. Their cross-country evidence shows that rural populations may have relatively high employment rates while remaining concentrated in lower-paid and less-protected forms of work. Hence, the lower rural female youth unemployment observed in the present study may coexist with greater informality, unpaid work or relatively weak employment conditions.

Education, Job Aspirations and Limited Formal Employment

A second possible explanation concerns the relationship between education, employment aspirations and the availability of formal-sector jobs. Existing literature identifies educational and skill mismatch as an important structural problem in the region and argues that expansion in educational attainment has not necessarily been accompanied by a corresponding expansion in suitable employment opportunities. It also points to the limited expansion of the private sector and a strong preference among youth for formal-sector and government employment.

This issue may be particularly relevant for understanding high urban female youth unemployment. Urban areas provide greater access to education and expose young women to a wider range of professional and formal employment opportunities. However, when the number and type of available jobs do not correspond to qualifications and employment aspirations, educated young women may remain unemployed while searching or waiting for preferred employment rather than entering available informal or low-quality work.

This interpretation is consistent with the literature reviewed earlier. Mitra and Verick (2013) highlight important differences in youth labour-market outcomes according to education, gender and place of residence. Abdullah et al. (2023) further draw attention to the gap between occupational aspirations and available employment opportunities, particularly among female and tertiary-educated youth. The *India Employment Report 2024* also identifies educated youth unemployment and the difficulty of transition from education to suitable employment as important features of India's youth labour market. Thus, the relatively high urban female youth unemployment found in this study may partly reflect a mismatch between educational attainment, job aspirations and the availability of suitable formal employment.

However, this explanation should be treated cautiously. The present study uses aggregate state-level PLFS unemployment rates and does not directly test the educational qualifications or employment preferences of unemployed female youth. The relationship therefore represents an interpretation supported by existing literature rather than a causal finding of the present analysis.

Gender-Specific and Regional Labour-Market Constraints

Female youth unemployment in Northeast India also needs to be considered within the wider social and regional environment in which women make employment decisions. Further, the available literature identifies household responsibilities, social norms, mobility restrictions and difficulties in accessing workplaces as constraints affecting women's labour-market participation. It further points to transportation and infrastructural constraints, particularly in rural and geographically difficult areas of the region.

These constraints interact with the economic structure of Northeast India. Limited industrialisation, restricted private-sector development and dependence on a relatively narrow formal employment base may reduce the range of suitable employment opportunities available to young women. The study itself identifies limited industrialisation, market accessibility and private investment as important structural constraints on employment generation in the region. Such factors may help explain why female youth unemployment remains high even in urban areas where access to education and labour markets would ordinarily be expected to be greater.

An important finding of the present analysis is that the rural–urban disparity is not uniform across the Northeastern states. Meghalaya records the largest average rural–urban gap, at 27.63 percentage points, whereas Manipur records a gap of only 0.51 percentage points. This contrast is particularly revealing. Meghalaya's relatively low rural unemployment combined with substantially higher urban unemployment produces a large spatial disparity. Manipur, in contrast, records relatively high female youth unemployment in both rural and urban areas, resulting in only a small rural–urban gap. Therefore, a state with a high unemployment rate does not necessarily have a large rural–urban disparity.

The interstate differences also suggest that female youth unemployment in Northeast India cannot be explained by a single regional factor. Differences in economic structure, urbanisation, employment opportunities, educational conditions, accessibility and the nature of rural employment are likely to interact differently across states. The significant overall rural–urban difference identified by the statistical analysis should therefore be interpreted alongside this considerable interstate heterogeneity.

Overall, the findings suggest that the higher urban female youth unemployment observed in Northeast India may reflect the interaction of several labour-market characteristics: greater absorption of rural women into agriculture and informal work, limited availability of suitable formal employment, mismatch between education and employment opportunities, and gender- and region-specific constraints. However, because the analysis is based on published aggregate PLFS estimates, these mechanisms cannot be established causally. Further research using PLFS unit-level data could examine how education, household characteristics, marital status, social group and other individual-level factors influence the rural–urban employment outcomes of female youth.

CONCLUSION

The present study examined rural–urban disparities in female youth unemployment across the Northeastern states of India during 2017–18 to 2023–24 using annual PLFS data. The analysis shows considerable variation in female youth unemployment across rural and urban areas as well as across the eight states. Overall, female youth unemployment was found to be relatively higher in urban areas than in rural areas, although the magnitude of the difference varied considerably across states and over time. This general finding is consistent with the conclusion drawn in the study regarding the rural–urban pattern of female youth unemployment in the region.

The comparative analysis further reveals important interstate differences. Meghalaya recorded the largest average rural–urban disparity, while Manipur recorded the smallest difference. In the case of Manipur, relatively high unemployment in both rural and urban areas resulted in only a small spatial gap. Meghalaya, on the other hand, combined relatively low rural female youth unemployment with substantially higher urban unemployment, resulting in a much wider rural–urban disparity. These contrasting patterns demonstrate that a

high level of unemployment does not necessarily correspond to a large rural–urban unemployment gap. The study similarly identifies the distinctive positions of Manipur and Meghalaya in its concluding analysis.

The statistical analysis confirms that the observed rural–urban difference in female youth unemployment is statistically significant. The result therefore indicates that location constitutes an important dimension of female youth unemployment in Northeast India. At the same time, the substantial differences across states suggest that the problem cannot be understood through a uniform regional explanation. The structure and capacity of state labour markets differ, producing different employment outcomes for young women in rural and urban areas. The study major findings likewise emphasise the significant rural–urban difference and the role of structural characteristics of the regional labour market.

The findings also point towards the importance of the nature of employment available in the two sectors. Rural labour markets in the region are characterised by considerable dependence on agriculture, informal employment and unpaid work, whereas limited industrialisation, restricted private-sector expansion and dependence on formal employment constrain employment opportunities in many parts of the region. Consequently, reducing female youth unemployment requires attention not only to employment generation but also to the type and quality of employment opportunities available to young women in rural and urban areas.

From a policy perspective, the findings suggest that a uniform employment strategy may not adequately address female youth unemployment across Northeast India. Greater attention is required to state-specific and location-specific labour-market conditions, expansion of suitable employment opportunities, skill development linked with labour-market requirements, and improved access to employment for young women. These concerns are broadly consistent with the structural constraints identified in the study, including limited industrialisation, market accessibility and employment opportunities.

Finally, since the analysis is based on published state-level PLFS unemployment rates, the study does not examine individual-level determinants of female youth unemployment. Future research using PLFS unit-level data could investigate how education, skills, household characteristics and other socioeconomic factors are associated with rural–urban differences in female youth unemployment.

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