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Exploring the Socio-Economic Drivers of Youth Unemployment in the Gurage Zone, Ethiopia

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Abstract
Youth unemployment remains a significant socio-economic challenge in Ethiopia, particularly in the Gurage Zone, which faces economic, educational, and gender disparities. This study investigates the factors contributing to youth unemployment in the region using a mixed-methods approach. A total of 400 youth respondents were selected through stratified random sampling, with data collected from structured questionnaires, key informant interviews, and focus group discussions. Of the respondents, 46.3% were male, 53.7% female, with the majority (71.1%) aged between 25–29 years. A significant portion (56.75%) was migrants, and 73.3% were single. Education was found to be a crucial factor in employment prospects, with 47% holding a degree or higher, but skill mismatches with labor market demands hindered stable employment. Economic conditions, such as inflation and limited job creation, were perceived as major contributors to unemployment (mean = 4.12). Rural-urban migration was also seen as exacerbating unemployment, particularly for females, with 31.3% highlighting migration's impact on employment prospects (mean = 3.42). Gender disparities were significant, with females facing greater challenges in securing stable employment due to societal expectations and limited opportunities. The study emphasizes the need for gender-sensitive policies, better alignment between education and labor market needs, and improved access to financial resources. Targeted interventions in vocational training and education are crucial to addressing the youth unemployment crisis in the Gurage Zone.

Keywords: Youth Unemployment, Education, Gender Disparities, Gurage Zone, Migration, Socio-economic Factors
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1. Introduction

Youth unemployment is a significant issue impacting many countries worldwide. Different organizations define "youth" in various ways. For instance, the United Nations (UN), the International Labour Organization (ILO), and the World Bank consider youth to be individuals aged between 15 and 24 years. In contrast, the African Union (AU) adopts a broader age range, defining youth as individuals between 15 and 35 years old. Ethiopia's National Youth Policy (NYPE 2004) defines youth as individuals aged 15 to 29 years. For the purposes of this study, youth unemployment is defined as the condition of individuals who are not employed, are available for work, and are actively seeking employment, as outlined by the (ILO 2011).

Youth unemployment represents a critical socio-economic challenge for many developing countries, including Ethiopia. Its implications extend beyond the individual level, affecting both national and local development. Studies have shown that high youth unemployment leads to increased dependency ratios, exacerbates poverty, and contributes to social unrest (World Bank 2020, Tesfaye & Mulat 2019). These factors hinder economic growth and stability, making it essential for governments to address youth unemployment through targeted policies and interventions.

Ethiopia's youth unemployment rates have shown fluctuating trends, influenced by factors such as demographic growth, urbanization, and economic transformation (CSA, 2022). In the Gurage Zone, these trends are further

shaped by local dynamics, including rural-to-urban migration, traditional land tenure systems, and socio-cultural expectations (GZA, 2024). As a country with a rapidly growing population, Ethiopia requires strategic workforce management to optimize its labor potential and ensure economic stability. Employment levels serve as critical indicators of economic performance, and analyzing these trends provides valuable insights into labor market dynamics and the effectiveness of policies such as the Growth and Transformation Plan (GTP II). It also offers an understanding of Ethiopia's progress toward achieving the Sustainable Development Goals (SDGs) (Quarterly Economic Profile, 2022).

Labor force surveys provide crucial data for understanding Ethiopia's employment landscape. Key metrics, such as the employment-to-population ratio (EPR), offer valuable insights into labor market participation and its contribution to economic growth (ILO, 2019). Between 2016 and 2022, Ethiopia experienced notable fluctuations in youth unemployment rates. While the overall unemployment rate remained relatively stable, youth unemployment consistently exceeded it, highlighting the unique challenges faced by this demographic. For example, youth unemployment rose from 24% in 2016 to 27% in 2022, reflecting ongoing barriers to job creation and limited employment opportunities for young people (Ethiopian Statistics Service, 2024) (see table 1).

Table 1 illustrates the trends in youth unemployment rates relative to total unemployment rates in Ethiopia from 2016 to 2022.

Year	Total Unemployment Rate (%)	Youth Unemployment Rate (%)
2016	18%	24%
2018	18.5%	25%
2020	18%	26%
2021	19%	24%
2022	21%	27%

Source: Ethiopian Statistics Service, 2024
Note, youth unemployment consistently surpassed total unemployment, highlighting the disproportionate burden experienced by young people.

The analysis of regional unemployment variations in February 2022 reveals significant disparities. Dire Dawa City Administration reported the highest unemployment rate at 23.8%, followed by Addis Ababa (22.7%), Amhara (20.2%), and Oromia (19.9%), all surpassing the national average. Urban unemployment, particularly among youth, remains a critical challenge, reflecting broader structural and economic issues. In 2022, the urban unemployment rate stood at 21%, with youth comprising a substantial proportion of the unemployed (Quarterly Economic Profile, 2022).

Understanding the trends of youth unemployment is crucial for developing effective policy responses and strategic development plans. The Gurage Zone, located in Central Ethiopia, is characterized by its distinct socio-economic and cultural features. While the region is known for its entrepreneurial spirit and high rates of labor migration, it continues to face significant challenges in addressing youth unemployment. Despite available opportunities in agriculture, trade, and small-scale industries, youth unemployment remains prevalent due to factors such as limited access to education, insufficient training opportunities, and structural economic barriers (Tegegne & Alemayehu, 2020). These dynamics position the Gurage Zone as a representative example of the broader youth unemployment crisis in Ethiopia.

The Gurage Zone reflects Ethiopia’s broader youth unemployment challenges while also exhibiting unique regional dynamics. High unemployment rates in towns like Butajira and Wolkite highlight significant disparities in job availability. The region’s youth face challenges such as limited industrialization, unequal access to education, and restricted financial resources. Unemployment rates vary considerably across different towns, showcasing localized disparities. For instance, Butajira reports the highest unemployment figure, with 9,359 individuals unemployed, while Wolkite has a comparatively low rate of 1,188. Other towns, such as Sodo-Gurage and Meskan, report unemployment figures of 2,242 and 188, respectively. These variations are influenced by factors such as industry concentration and regional policies, contributing to the structural barriers that hinder effective youth labor market integration (Ethiopian Statistics Service, 2024).

Gender disparities further exacerbate the issue, with female youth facing higher unemployment rates than their male counterparts. In 2022, the unemployment rate for female youth reached 33.6%, compared to 17.5% for males. This gender gap is rooted in cultural norms, occupational segregation, and limited access to education and

resources. Addressing these disparities requires the implementation of gender-sensitive policies that dismantle systemic barriers to women's participation in the labor market (ILO, 2019).

Educational attainment also plays a crucial role in youth unemployment. While education is generally linked to better employment prospects, a mismatch between educational outcomes and labor market demands results in many graduates being either unemployed or underemployed. Furthermore, rural-to-urban migration exacerbates urban youth unemployment, as young migrants often lack the skills required for available urban jobs (Mekonnen & Kassahun, 2022).

In contrast to macro-level studies that focus on trends and statistics, this research seeks to understand how youth in the Gurage Zone navigate the challenges of unemployment. By examining factors such as demographics and socio-economic backgrounds, the study explores their lived experiences, strategies, and perceptions. Gaining insights into these dimensions is crucial for designing targeted, effective employment policies that address the specific needs of young people in the region (Mains, 2012; Cole, 2005).

2. Method and data

2.1. Description of the Study Area and Setting

This study focuses on the Gurage Zone in Central Ethiopia, a region grappling with significant socio-economic challenges, including high poverty rates, elevated youth unemployment, and limited access to essential services and financial support. Unemployment rates vary across towns within the zone. For example, Wolkite reports 1,188 unemployed individuals, while Butajira has a much higher figure, with 9,359 unemployed. This disparity underscores the uneven distribution of job opportunities across the region. Other towns, such as Sodo-Gurage and Meskan, report unemployment figures of 2,242 and 188, respectively. These variations reflect local economic conditions, shaped by factors such as industry concentration and regional policies (GZA, 2024).
The Gurage Zone is bordered by several other regions. To the southeast, it borders the Hadiya and Yem Zones, while to the northwest; it adjoins the Kebena Special Woreda. The Oromia Region lies to the north and east, and to the southeast, it shares a border with Silt'e. Wolkite serves as the administrative center, while Butajira is the largest city in the zone.

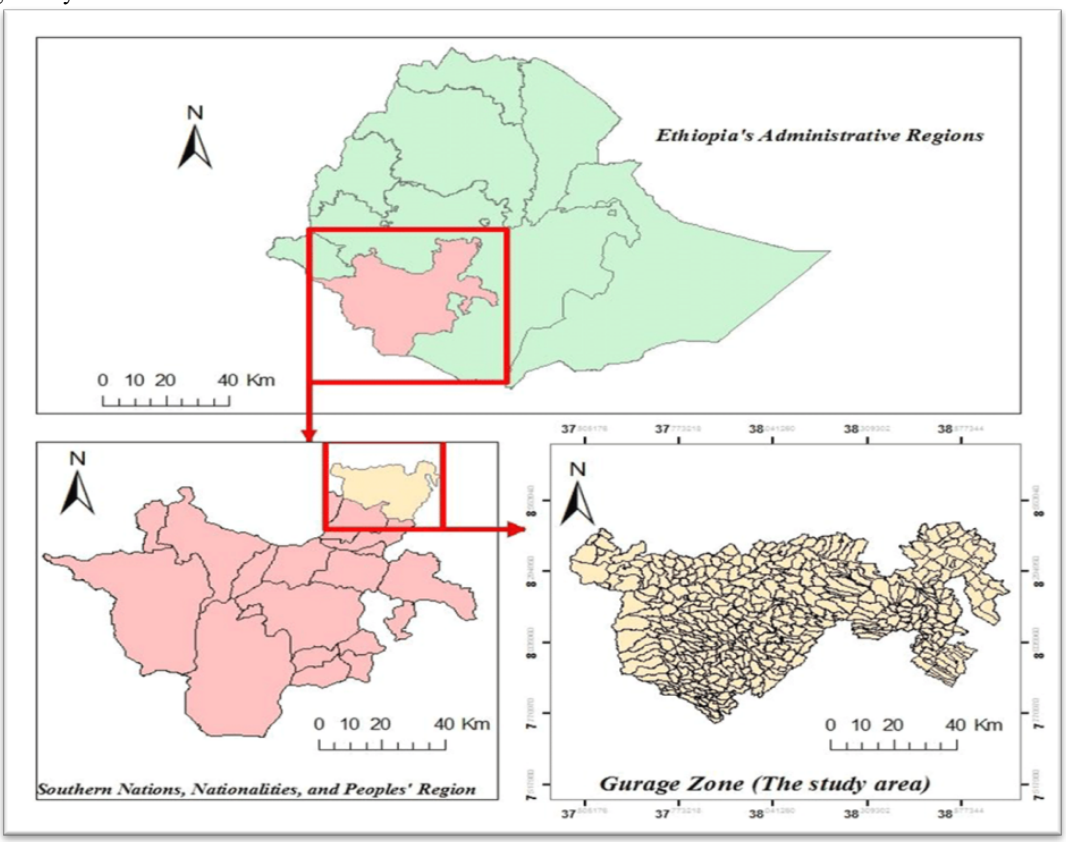


Figure 1: map of the study area: *Source: Google Maps*

2.3. Research Philosophy

This study adopts a pragmatic research philosophy, combining both positivist (quantitative) and interpretivist (qualitative) approaches. Pragmatism focuses on addressing real-world problems and finding practical solutions, making it particularly well-suited for investigating youth unemployment in the Gurage Zone. By integrating theory with practice, this approach provides a deeper, more comprehensive and actionable understanding of the issue.

2.4. Research Approach

This study adopts a mixed-methods approach using a concurrent triangulation design, in which quantitative and qualitative data were collected simultaneously. This design facilitated cross-validation of findings, thereby enhancing the reliability and validity of the study. Quantitative data provided statistical insights into the relationships between demographic and socio-economic factors influencing youth unemployment in the Gurage Zone, while qualitative data offered deeper insights through personal experiences and contextual analysis. The integration of both data types ensured a comprehensive and balanced perspective on the issue (Creswell & Plano Clark, 2018).

2.5. Study Design

This study employed a descriptive and explanatory research design to investigate the trends in youth unemployment. The descriptive component focused on analyzing the socio-economic and demographic characteristics of unemployed youth, while the explanatory component explored causal relationships between the contributing factors. A cross-sectional approach was used to collect data at a single point in time, providing a snapshot of the current conditions and enabling a detailed analysis of the issue in the study area.

2.6. Data Types and Sources

The study utilized both primary and secondary data. Primary data were collected through structured questionnaires, key informant interviews, and focus group discussions (FGDs). Secondary data were sourced from government reports, academic journals, and other published materials, providing background context and supporting statistical information.

2.7. Data Collection Methods

2.7.1. Survey Design

A structured questionnaire was administered to 400 youth, including both unemployed and employed respondents. The questionnaire included closed-ended, open-ended, and Likert scale items, enabling both quantitative assessment and qualitative insights into the characteristics of youth unemployment, as well as potential solutions.

2.7.2. Interviews

Key informant interviews were conducted with purposively selected individuals, including graduate students, kebele leaders, parents, civil servants, town officials, microfinance agents, and entrepreneurs. These flexible, open-ended discussions provided valuable insights into the demographic and socio-economic characteristics of youth unemployment (see Table 2, 2024, Key Informants).

Table.2: Key Informants and Sampling Technique for Qualitative Data Collection

Name of the areas	Table 1 Key information						Sample technique	
	Gut. students	Kebele leader	Parents	Civil servants	town expert$ university	Micro-finance	Small-scale entrepreneur	Purposely, because more information about youth unemployment
	M$F	M	M =4 F =4	M =2 F=2	M=2 F=2	M =2 F=2	M =2 F =2	
Buee	4	1	2	1	2	1	1	
Gubra	4	1	2	1	2	1	1	
Butajira	4	1	2	1	2	1	1	
Wolkithe	4	1	2	1	2	1	1	
Total	16	4	8	4	8	4	4	48

Note: M= Male F= Female
Authors' design (2025)

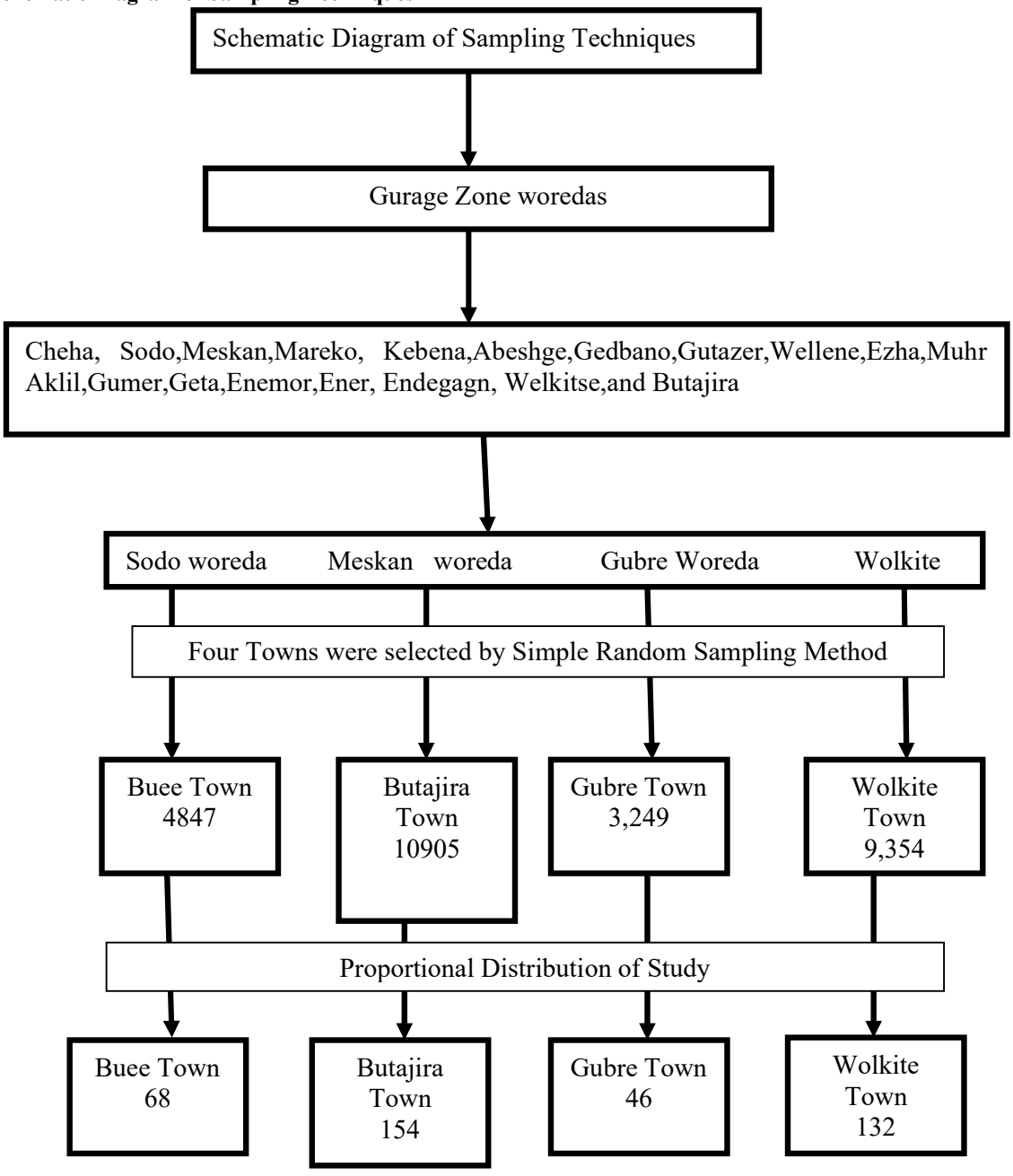
2.7.3. Focus Group Discussions (FGDs)

The study organized four focus group discussions, each lasting 45 to 60 minutes, with six participants per group, total 24 individuals. Participants were purposively selected to ensure diversity in age, gender, education, and socio-economic background. The discussions facilitated open dialogue and the exchange of diverse perspectives, generating valuable qualitative data. These insights provided a deeper understanding of the social, economic, and political factors influencing youth unemployment and complemented the findings from the surveys and interviews.

2.8. Sampling Techniques

A multi-stage sampling strategy combining both non-probability and probability methods was employed to obtain a diverse and representative sample from the Gurage Zone. Initially, the Gurage-zone was purposively selected for its socio-economic relevance. In the second stage, four woredas (Sodo, Meskan, Wolkite, and Gubre) were randomly selected. The third stage involved cluster sampling to identify four major towns based on population size and logistical feasibility. Finally, simple random sampling was used within each enumeration area to ensure proportional representation. This approach minimized bias and strengthened the validity of the study findings.

2.8.1. Schematic Diagram of Sampling Techniques



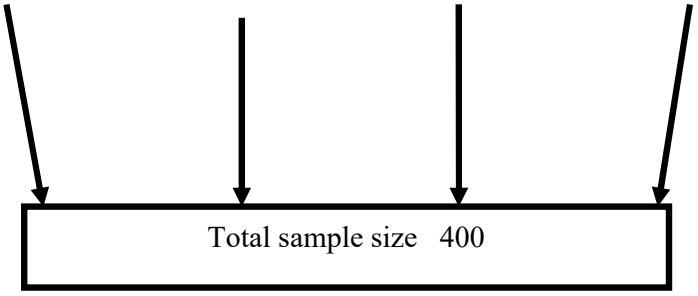


Figure.2 List of Gurage Zone Towns and Sampling Procedure
Source: Authors' design (2025)

2.9. Sample Size Determination

The sample size was calculated using Kothari's (2004) formula for finite populations, which factors in the specified confidence level and margin of error. A 95% confidence level and a 5% margin of error were adopted, standard benchmarks for social science research. The target population consisted of 28,355 economically active youth in the Gurage Zone.

The formula is: $n = \frac{Z^2}{e^2} \frac{p.q.N}{(N-1)+Z^2 P.Q}$

Where:

- n = required sample size
- Z = z-value (1.96 for 95% confidence)
- p = estimated proportion (0.5)
- q = 1 - p (0.5)
- e = margin of error (0.05)
- N = population size (28,355)

Plugging in the values: $n = \frac{1.96^2}{0.5^2} \frac{0.5.0.5.28355}{(28355-1)+1.96^2 0.5.0.5}$

$$n = \frac{27,232.1426}{71.9454}$$

n≈379

To mitigate potential response error, a 10% adjustment was applied to the initial sample size of 379, yielding a revised target of 417 unemployed and employed respondents. However, data collection resulted in a final sample of 400 respondents, which is slightly below the target. This minor shortfall leads to a marginal increase in the margin of error but remains within statistically acceptable limits. The achieved sample size is deemed sufficient for maintaining the study's statistical power and ensuring robust and generalizable findings.

2.10. Method of Data Analysis

2.10.1. Quantitative Data Analysis

The study applied both descriptive and inferential statistical techniques to analyze youth unemployment in the Gurage Zone. Descriptive statistics (frequencies, percentages mean and standard deviation) provided an overview of key variables. Inferential methods, including significance testing using p-values, were used to explore relationships between employment status and socio-economic factors, revealing patterns beyond surface-level data.

2.10.2. Qualitative Data Analysis

The qualitative analysis offered an in-depth exploration of the contextual and experiential aspects of youth unemployment, which quantitative methods alone could not capture. Through thematic analysis of interviews and Focus Group Discussions (FGDs), recurring patterns were identified, enhancing the understanding of the socio-economic, political, and personal consequences of youth unemployment. These insights provided nuanced explanations that complemented and enriched the broader statistical findings.

2.11. Pre-Testing of Survey Questions

The survey questionnaire was pre-tested with a small sample to assess clarity, neutrality, and effectiveness before full data collection. This process helped identify ambiguities or potential biases in the question wording. Feedback from the pre-test led to necessary adjustments, enhancing question clarity and ensuring accurate measurement of youth unemployment consequences in the Gurage Zone.

2.12. Reliability and Validity Testing

The survey instrument underwent thorough reliability and validity testing. Internal consistency was evaluated using Cronbach's alpha, confirming that items within each construct measured the same concept.

2.13. Research Ethics

This study adhered to core ethical principles, including respect for persons, beneficence, and justice, to protect participant welfare and ensure data integrity. Informed consent was obtained from all participants, ensuring voluntary participation, confidentiality, and the right to withdraw at any time. The study minimized risks while maximizing benefits, in line with ethical standards. Data were anonymized and securely stored to protect privacy. Ethical approval was obtained from the relevant institutional review board, ensuring compliance with established ethical guidelines.

3. Results

Youth unemployment remains a critical issue in Ethiopia, particularly in the Gurage Zone, where socio-economic challenges such as poverty, limited access to education, and insufficient job opportunities are widespread. This study seeks to identify the key factors influencing youth unemployment and examine the extent to which gender affects these trends. The findings aim to inform targeted interventions that could enhance employment opportunities for young people in the region.

3.1. Demographic and Socio-Economic Characteristics of Respondents

The demographic and socio-economic profiles of the respondents reveal a diverse population with distinct trends. Of the total respondents, 46.3% are male and 53.7% are female, with the majority falling within the 25–29 age group. A significant proportion (56.75%) are migrants, and 73.3% have never been married, indicating a predominantly young, single, and slightly female-dominated population with a notable share of migrants.

Regarding education, 47.0% of respondents hold a first degree or higher, while 26.3% have completed secondary education. However, there are disparities in parental education levels, with 46.1% of mothers being illiterate compared to 26.5% of fathers. In terms of household income, 48.8% of respondents come from households earning less than 500 units of currency per month, and 43.5% live in households with 4 to 7 members. Access to credit and vocational training is limited, with 57.5% of respondents reporting no access to credit and 70.5% lacking any vocational training. These characteristics highlight the diverse educational backgrounds, income variability, and limited access to essential resources like credit and training, all of which may affect employment outcomes and economic mobility.

The employment data reveals significant challenges within the labor market. A majority of respondents (60%) are currently unemployed, while 40% are employed. Among those employed, 31.2% hold temporary jobs, and 68.8% are underemployed. These findings reflect a high unemployment rate and considerable underemployment, exacerbated by the predominance of temporary employment. These socio-economic conditions contribute to job dissatisfaction and financial insecurity among the youth, potentially prompting them to seek alternative opportunities, such as migration or entrepreneurship.

3.3. Trends of Youth Unemployment and Influential Variables

The discriminant analysis highlights the key variables influencing youth unemployment trends across gender groups in the Gurage Zone. This analysis identifies both differences and commonalities in the socio-economic and demographic characteristics that impact employment outcomes (see Table 3).

Table 3: Discriminant Analysis Group Statistics (male and female)

Variable	Male Mean	Male Std. Deviation	Female Mean	Female Std. Deviation
EDL	4.8541	1.39693	4.6093	1.53948
FI	1.8649	1.07244	1.8279	0.96826
HS	1.9189	0.73641	1.9581	0.76312
AC	1.5459	0.49924	1.6000	0.49104
TWE	1.4270	0.49599	1.4093	0.49285
Mgs	1.3946	0.49009	1.4651	0.49995
WPW	1.2757	0.44807	1.3442	0.47621
RT	1.2595	0.43953	1.3256	0.46969
Ag	2.3514	0.74514	2.1535	0.77921
FEDL	2.5027	1.14742	2.4930	1.24881
MEDL	2.2000	1.44011	2.1442	1.27252
Ms	1.3568	0.76063	1.4837	0.96599
ES	1.6703	0.47139	1.5395	0.49960

Source: SPSS output based on **Field Survey, 2025**

Table 3: The data reveals several gender-related patterns across various variables. The data highlights several gender-related patterns that influence youth unemployment in the Gurage Zone. Education Level (EDL) emerges as the highest-ranking variable for both males (mean of 4.8541) and females (mean of 4.6093), underscoring the significant role of education in shaping employment prospects. The low standard deviations (1.39693 for males and 1.53948 for females) suggest that educational attainment is relatively consistent within each gender group. However, the higher education level among males may provide them with a slight advantage in securing stable employment, which could reduce their vulnerability to unemployment.

Family Income (FI) follows closely, with males reporting a mean of 1.8649 and females 1.8279. The greater variability in family income for males (standard deviation of 1.07244) suggests that male respondents experience a wider range of economic conditions, which may influence their access to employment opportunities. Conversely, females, with a slightly lower mean and less income variability, might face more uniform, but potentially lower, financial resources, limiting their capacity to access opportunities for higher-paying or more stable employment.

In terms of Household Size (HS), the means for both genders (1.9189 for males and 1.9581 for females) are quite similar, reflecting comparable living conditions. However, the modest variations in household size, coupled with the relatively low standard deviations, imply that both genders are likely to face similar pressures when it comes to family responsibilities, which could affect their job search and employment outcomes. Larger households may place additional economic strain on youth, potentially limiting job opportunities and contributing to unemployment or underemployment.

Access to Credit (AC) shows that females have slightly better access to credit (mean of 1.6000) compared to males (mean of 1.5459), with both groups having similar levels of variability. This better access to financial resources could provide females with more opportunities to start businesses or invest in skills training, which may help reduce their unemployment rates. However, the overall limited access to credit for both genders (with means near the lower end of the scale) suggests that a lack of financial resources remains a significant barrier to economic mobility.

Both Time Worked in Employment (TWE) and Workplace Proximity (WPW) are quite similar for both genders, with very small differences in means. Males (1.4270) and females (1.4093) spend comparable amounts of time working, with low standard deviations (around 0.49), indicating stable working hours across both groups. This consistency in work hours could reflect the presence of temporary or part-time work arrangements, contributing to underemployment rather than full-time employment, a major driver of youth unemployment.

The higher mean for Migration Status (Mgs) among females (1.4651) compared to males (1.3946) suggests that migration is a significant coping strategy for young people, especially females, who may seek better employment opportunities elsewhere. While migration could provide economic relief, it may also indicate a lack of local employment opportunities, exacerbating the issue of youth unemployment.

Receive for Training (RT), where females (mean of 1.3256) report more frequent trainings in employment than males (1.2595), reveals a dynamic labor market where youth may be shifting between temporary, unstable jobs, leading to higher unemployment rates. These trainings could reflect dissatisfaction with the quality of available jobs, prompting young people to search for better opportunities or even migrate.

Age (Ag) data shows that males are slightly older on average (mean of 2.3514), with a higher standard deviation, suggesting a more varied age distribution. Older youth may face different challenges than younger youth, such as family obligations or increased competition for jobs, which could affect their unemployment rates.

In terms of Parental Education Levels, both Father's Education Level (FEDL) and Mother's Education Level (MEDL) show similar means for both genders, suggesting that parental educational attainment might not drastically affect gender-specific employment outcomes. However, the variability in parental education (as indicated by the standard deviations) may still play a role in shaping educational and employment opportunities for youth.

Marital Status (Ms) shows that females (mean of 1.4837) are slightly more likely to be married compared to males (1.3568). This marital status difference may influence employment choices, as married individuals may face additional household responsibilities, potentially reducing their job mobility and increasing the likelihood of unemployment or underemployment.

Finally, Employment Status (ES) shows that males (mean of 1.6703) have a higher mean than females (1.5395), with a more consistent employment status for males (lower standard deviation). This suggests that males might experience relatively more stable employment, though the overall figures still indicate a high level of underemployment, contributing to persistent youth unemployment in the region.

3.4. Discussion of Box's M Test Results

The results of Box's M test for equality of covariance matrices, presented in Table 4, provide insights into the assumption of homogeneity of covariance in the discriminant analysis. The null hypothesis tested by Box's M is that the covariance matrices across the groups are equal. The test evaluates whether there are any significant differences in the covariance structures of the groups (see Table 4).

Table 4: Box's M Test Results

Test	Value
Box's M	116.212
F (Approx.)	1.066
Degrees of Freedom (df1)	105
Degrees of Freedom (df2)	471,710.728
Significance (Sig.)	0.303 Tests null hypothesis of equal population covariance matrices

Source: SPSS output based on **Field Survey, 2025**

In table 4 indicate that, the significance value of 0.303 exceeds the conventional threshold of 0.05, indicating that we fail to reject the null hypothesis. This suggests that there is no significant evidence to support the idea that the covariance matrices of the groups differ. Therefore, we conclude that the assumption of equal population covariance matrices holds for the discriminant analysis. In practical terms, the failure to reject the null hypothesis means that the covariance structures of the groups being analyzed are similar, supporting the assumption of homogeneity of variance-covariance. This is a crucial assumption in discriminant analysis. As a result, the findings from the discriminant analysis can be interpreted with confidence, as the covariance between the groups is not significantly different, ensuring the analysis is based on a solid statistical foundation.

3.5. Canonical Discriminant Functions

Canonical discriminant function analysis was conducted to examine the relationship between the independent variables and the grouping variable. The results, presented in Table 5, highlight the eigenvalues and canonical correlations for the discriminant function included in the analysis.

Table 5. Eigenvalues and Canonical Correlations

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	0.076	100.0	100.0	0.265

Source: SPSS output based on **Field Survey, 2025**

Note: Only the first canonical discriminant function was included in the analysis.

Table 5 shows that the canonical discriminant function analysis reveals limited explanatory power, with an eigenvalue of 0.076, indicating that the function explains only a modest portion of the variance in the dependent variable. The canonical correlation of 0.265 reflects a weak to moderate relationship between the discriminant function and the grouping variable, accounting for only a small fraction of the variance. These results emphasize the need for further exploration of additional factors that may influence the grouping variable.

3.6. Wilks' Lambda Test Results

The Wilks' Lambda test was performed to assess the effectiveness of the discriminant function in distinguishing between groups based on the independent variables. The results are presented in Table 6)

Table 6: Wilks' Lambda Test Results

Test of Function(s)	Wilks' Lambda	Chi-Square	df	Sig.
1	0.930	28.543	14	0.012

Source: SPSS output based on **Field Survey, 2025**

Table 6 shows that the results reveal a Wilks' Lambda value of 0.930, indicating that 93% of the variance in the discriminant function is not explained by group differences, leaving only approximately 7% as explained variance. A lower Wilks' Lambda value typically signals stronger group differentiation, but the value of 0.930, being close to 1, suggests relatively weak distinctions between the groups. Despite the modest variance

explained, the test is statistically significant (p = 0.012), implying that the observed differences between the groups are unlikely to have occurred by chance. These findings suggest that while the discriminant function identifies some differences between the groups, the overall distinction is minimal and may warrant further investigation using additional variables or refined measures.

3.7. Standardized Canonical Discriminant Function Coefficients

The standardized canonical discriminant function coefficients offer insight into the relative importance of each independent variable in distinguishing group membership. Variables with larger absolute values make stronger contributions, while the sign of the coefficient indicates the direction of the relationship. Table 7 summarizes the standardized coefficients for Function 1, highlighting the variables most relevant to group differentiation.

Table 7: Standardized Canonical Discriminant Function Coefficients

Variable	Function 1
ES	0.604
Age	0.494
TWE	0.196
ELR	0.176
MEDL	0.110
WPW	-0.445
MST	-0.321
RT	-0.279
HS	-0.233
Mgs	-0.183
FI	-0.205
AC	0.092
FEDL	-0.011

Source: SPSS output based on **Field Survey, 2025**

In table 7 show that , the analysis of Function 1 coefficients reveals that various socio-economic and demographic factors play significant roles in differentiating youth unemployment, with noticeable gender differences. Employment Status (ES) has the highest positive coefficient (0.604), indicating that individuals with higher employment status are less likely to be unemployed. However, gender disparities may influence this variable, as males often have greater access to stable, full-time employment, while females may face greater challenges in securing such jobs due to systemic barriers. Age, with a coefficient of 0.494, also has a strong positive impact, suggesting that older individuals are more likely to be employed, although gender differences may exist, with males typically benefiting more from accumulated work experience and opportunities. Types of Work Engagement (TWE), with a coefficient of 0.196, shows a moderate positive effect, meaning individuals who have worked longer are more likely to belong to the target group. However, females may experience more part-time or temporary work, which could increase their risk of unemployment. Similarly, Employment Level of Responsibility (ELR), with a coefficient of 0.176, implies that individuals with higher job responsibilities are more likely to belong to the target group, but gendered barriers such as the glass ceiling effect may limit females' access to higher-responsibility positions, which could impact their employment stability. Mother's Education Level (MEDL), with a coefficient of 0.110, suggests that individuals with more educated mothers are more likely to be employed, potentially benefiting females more, as they may receive additional support and educational opportunities from their mothers.

On the other hand, several variables show negative relationships with group membership, highlighting factors that contribute to higher unemployment risks. Work per Week (WPW), with the strongest negative coefficient of -0.445, indicates that individuals who work fewer hours or have more irregular work patterns are more likely to be unemployed. Gender differences in work patterns may make females more vulnerable to underemployment, especially in part-time or flexible jobs. Marital Status (MST) and Received Training (RT), with coefficients of -0.321 and -0.279, respectively, also have negative contributions, suggesting that married individuals and those without formal training are more likely to belong to the target group. Females may be particularly affected by marital status, as they are often the primary caregivers, limiting their employment opportunities. Household Size (HS), with a coefficient of -0.233, suggests that individuals from larger households are more likely to experience unemployment, likely due to added family responsibilities, which could disproportionately affect females. Migration Status (Mgs) and Family Income (FI), with coefficients of -0.183 and -0.205, respectively, reflect negative relationships, suggesting that migrants and individuals from lower-income households are more likely to experience unemployment. Females may be particularly disadvantaged in these categories, as migration often

results in fewer job opportunities for women, and lower family income can limit access to education or job-related resources.

3.8 Perception of Respondents on Trends of Youth Unemployment

This study examines the patterns and underlying factors contributing to youth unemployment in the Gurage Zone, Ethiopia. By analyzing these trends, the research highlights how factors such as economic dynamics, gender disparities, educational attainment, migration, and other socio-economic variables affect youth employment prospects over time. The findings offer valuable insights that form the basis for policy recommendations aimed at addressing the persistent issue of youth unemployment in the region.

Table 8: Trends of Youth Unemployment in the Gurage Zone, Ethiopia

Question	Very low	Low	Moderate	High	Very high	Mean	Std. Deviation
In your view, to what extent have recent economic trends influenced the prevalence of youth unemployment?	2.8% (11)	7.2% (29)	15.5% (62)	24.0% (96)	50.5% (202)	4.12	1.08
How would you rate the overall level of unemployment in the Gurage Zone?	1.3% (5)	5.5% (22)	14.2% (57)	56.5% (226)	22.3% (89)	3.93	0.83
To what extent does the level of education influence unemployment patterns among youth in the Gurage Zone?	5.8% (23)	12.8% (51)	22.0% (88)	33.3% (133)	26.3% (105)	3.615	1.17
To what extent does rural-urban migration contribute to youth unemployment and gender-related differences in the Gurage Zone?	7.5% (30)	20.0% (80)	18.5% (74)	31.3% (125)	22.8% (91)	3.417	1.24
To what extent does gender influence youth unemployment in the Gurage Zone?	7.0% (28)	16.8% (67)	32.5% (130)	28.0% (112)	15.8% (63)	3.28	1.13
To what extent are there differences in the types of jobs preferred by unemployed youth in the Gurage Zone based on gender?	7.5% (30)	19.8% (79)	39.5% (158)	20.5% (82)	12.8% (51)	3.11	1.10

Source: SPSS output based on **Field Survey, 2025**

The table 8 presents the respondents' perceptions on various factors influencing youth unemployment in the Gurage Zone, Ethiopia, highlighting the relative importance of economic trends, education, and migration, gender, and job preferences.

Recent Economic Trends and Youth Unemployment: The highest mean score of **4.12** indicates that respondents overwhelmingly perceive recent economic trends as the most significant factor influencing youth unemployment. This suggests that economic conditions, such as inflation, job market constraints, and economic growth rates, are critical drivers of unemployment among youth in the region. The majority of respondents (50.5%) consider this factor to have a very high influence, underscoring the importance of economic dynamics in shaping employment prospects.

Overall Level of Unemployment in the Gurage Zone: With a mean score of **3.93**, this question reflects the respondents' views on the severity of unemployment in the region. A significant portion (56.5%) rated the unemployment level as high, indicating widespread concern about the extent of joblessness in the zone. This high perceived unemployment further emphasizes the need for targeted interventions to improve employment opportunities for young people.

Influence of Education on Youth Unemployment: The mean score of **3.615** suggests that education plays a substantial role in shaping youth unemployment patterns. A third of the respondents (33.3%) indicated that education has a high influence, while 26.3% rated it as very high. This reflects the critical role that education and skill development play in improving employability and addressing the high levels of youth unemployment in the area.

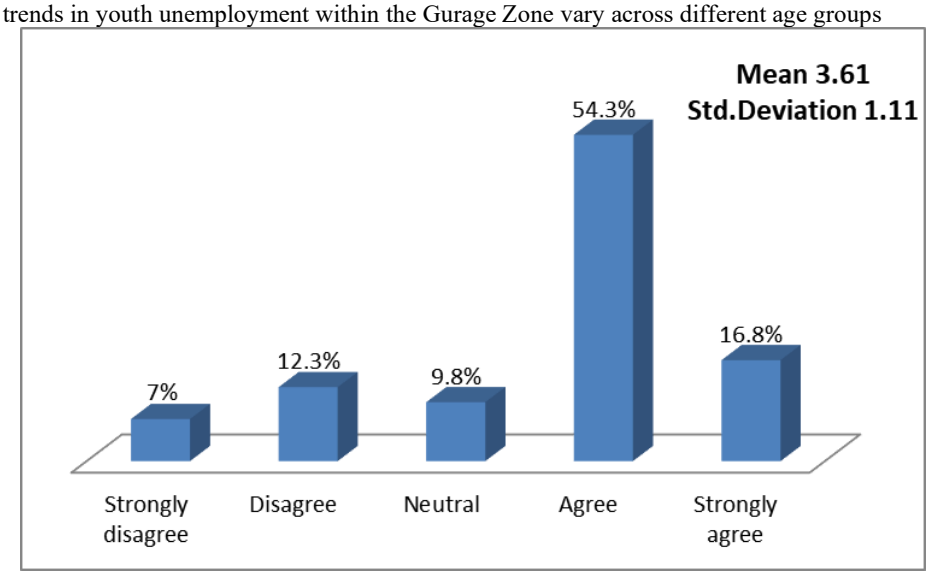
Rural-Urban Migration and Youth Unemployment: With a mean score of **3.417**, rural-urban migration is also considered an important factor contributing to youth unemployment, particularly in terms of gender-related differences. Many respondents (31.3%) perceived migration as having a high influence on unemployment, suggesting that the movement of youth from rural areas to urban centers, in search of better opportunities, is a key driver of joblessness. Additionally, migration may be disproportionately affecting young women, further exacerbating gender-based employment disparities.

Gender Influence on Youth Unemployment: The mean score of **3.28** suggests that gender is a significant, though somewhat less influential, factor in youth unemployment. While a sizable portion of respondents (32.5%) viewed gender as having a moderate influence, 28% of respondents felt it had a high influence on unemployment. This highlights the gender disparities in employment opportunities, where females may face additional barriers, such as societal expectations or limited access to certain job sectors.

Differences in Job Preferences by Gender: With the lowest mean score of **3.11**, the question regarding gender-based differences in job preferences among unemployed youth reflects a more moderate perception. Although 39.5% of respondents viewed this factor as moderately influential, fewer respondents (20.5%) considered it to have a high influence. This suggests that while gender may play a role in shaping job preferences, it is not viewed as a primary determinant in youth unemployment compared to other factors such as education and economic conditions.

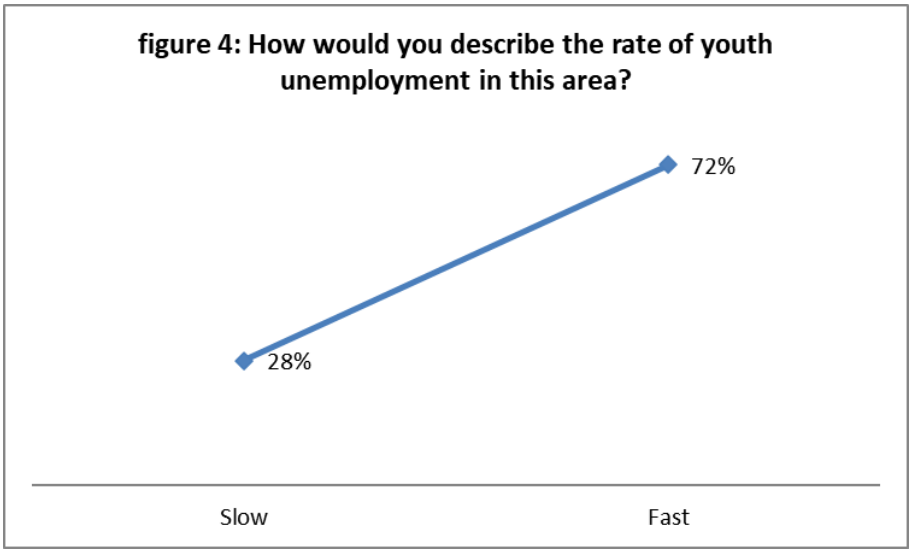
Youth Unemployment Trends across Age Groups in the Gurage Zone

Figure 3: trends in youth unemployment within the Gurage Zone vary across different age groups



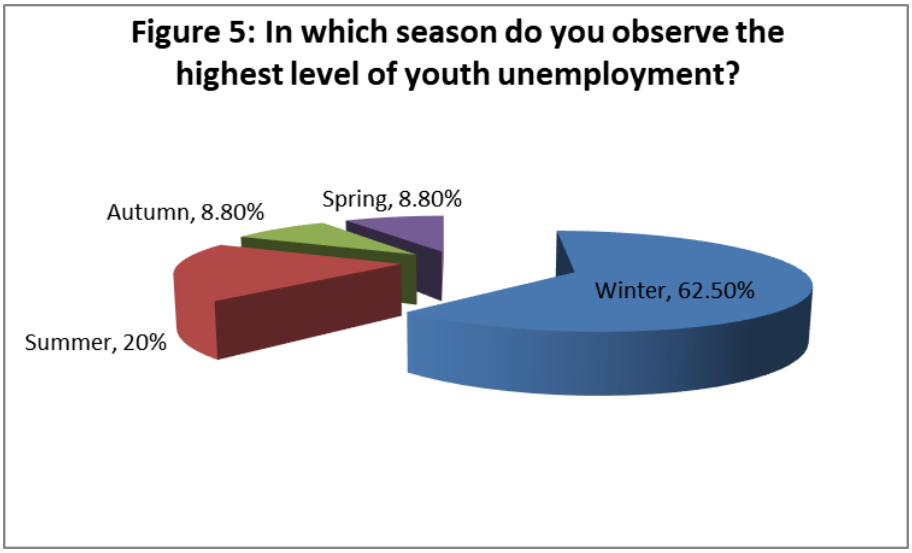
Source: SPSS output based on **Field Survey, 2025**

The data in **Figure 3** shows that the majority of respondents (71.1%) agree that youth unemployment trends in the Gurage Zone differ across age groups, with 16.8% strongly agreeing. A smaller proportion (19.3%) disagrees, and 9.8% remain neutral. The mean score of **3.61** indicates general agreement, while the standard deviation of **1.11** suggests some variability in responses. This indicates that most respondents view age as a significant factor influencing youth unemployment trends. However, the variation in responses implies that other socio-economic and cultural factors may also play a role in shaping these trends.



Source: SPSS output based on **Field Survey, 2025**

The results from **Figure 4** indicate that the majority of respondents (72.0%) perceive the rate of youth unemployment in the Gurage Zone as increasing rapidly, suggesting a widespread belief that the unemployment situation is deteriorating quickly. In contrast, 28.0% of respondents view the unemployment rate as rising more slowly, indicating a less urgent perception of the issue. Overall, these findings reflect a broader concern that youth unemployment is intensifying, particularly in regions with limited economic opportunities or a mismatch between the labor force and available jobs.



Source: SPSS output based on **Field Survey, 2025**

The results from **Figure 5** show that the majority of respondents (62.5%) identify winter as the season with the highest level of youth unemployment in the Gurage Zone. A smaller proportion (20.0%) chose summer, while autumn and spring each accounted for 8.8% of responses. These findings align with seasonal employment trends observed in other regions, where unemployment typically increases during colder months due to reduced agricultural activity, limited seasonal work, and fewer opportunities in outdoor sectors such as construction and tourism. The predominance of responses pointing to winter as the peak period suggests that youth in the Gurage Zone may be especially vulnerable to job loss during this season.

4. Discussion

The analysis of Types of Work Experience (TWE) revealed minimal gender differences, with males (M = 1.4270, SD = 0.49599) and females (M = 1.4093, SD = 0.49285) exhibiting nearly identical levels of work engagement. This parity suggests that both genders face similar challenges in securing stable or diverse work opportunities. These findings align with the principle of non-discrimination in work participation and imply that youth unemployment in the Gurage Zone may be characterized by temporary or insecure employment for both genders (Canadian Human Rights Commission, 2021; Council of Europe, 2024).

Regarding Work per Week (WPW), females reported working slightly more hours (M = 1.3442, SD = 0.47621) compared to males (M = 1.2757, SD = 0.44807). This marginal difference may reflect gendered roles in household and community responsibilities, where women are often expected to take on additional economic duties. Despite the slight variation in work hours, the comparable variability between genders suggests that both face similar demands regarding work duration. However, societal expectations may result in women experiencing a greater intensity of work (Smith, 2023; Johnson & Lee, 2021).

The analysis of Age (Ag) showed that males (M = 2.3514, SD = 0.74514) tend to be older than females (M = 2.1535, SD = 0.77921), with greater age variability among males. This pattern reflects broader socio-cultural factors, where older males may have accumulated more work experience. The higher variability in age among males suggests a wider range of employment experiences. These findings align with prior studies that highlight the gendered nature of employment opportunities and the economic pressures influencing age-related employment trends (Feingold, 1992; Maccoby & Jacklin, 1974).

In terms of Marital Status (Ms), females (M = 1.4837, SD = 0.96599) reported higher rates of marriage or relationship status compared to males (M = 1.3568, SD = 0.76063), with more variability observed among females. This finding reflects societal norms that impose different expectations on women, which may influence their workforce participation. Marital status could be a significant socio-economic factor affecting women's employment opportunities, as they often face additional barriers, including family responsibilities, limiting their availability for work (Lammers et al., 2011; Guo & Breiger, 2013).

Regarding Migration Status (Mgs), females reported slightly higher migration rates (M = 1.4651, SD = 0.49995) than males (M = 1.3946, SD = 0.49009). This finding aligns with global migration trends, where women tend to migrate more for family-related reasons, while men typically migrate for economic opportunities. This gendered migration differentiation may contribute to higher migration scores for females, reflecting broader social and economic factors influencing migration patterns (Massey, 1993; Donato et al., 2006; UN Women, 2021).

The analysis of Household Size (HS) showed that females (M = 1.9581, SD = 0.76312) generally belong to slightly larger households than males (M = 1.9189, SD = 0.73641). While the difference is minimal, it may reflect cultural or socio-economic factors that place women in extended family structures. Larger households could imply a higher economic burden on women, potentially affecting their work participation and economic opportunities (Raghavan & Pachauri, 2003; DeWeerdt, 2005).

In terms of Educational Level (EDL), males (M = 4.8541, SD = 1.39693) reported slightly higher educational attainment than females (M = 4.6093, SD = 1.53948), with greater variability among females. This suggests that, although efforts to close the gender gap in education continue, females still face socio-cultural and economic barriers to education, limiting their employment prospects (Gage, 2004; UNESCO, 2020). The broader variability among females may indicate progress, with some women achieving higher levels of education than before.

The analysis of Mother's Educational Level (MEDL) revealed that males (M = 2.2000, SD = 1.44011) reported slightly higher maternal education levels than females (M = 2.1442, SD = 1.27252), with a larger standard deviation among males, indicating more variation in maternal education. This may reflect socio-economic factors influencing maternal education differently across genders, showcasing broader gender-based disparities in education (Nielsen, 2017; Shavit & Blossfeld, 2015).

In terms of Father's Educational Level (FEDL), both males (M = 2.5027, SD = 1.14742) and females (M = 2.4930, SD = 1.24881) reported similar educational levels, though greater variability in the male group suggests socio-economic disparities in access to education for fathers, which may impact their children's educational and employment opportunities (Hoffman, 2007; Lee & Hoffer, 2017).

Regarding Access to Credit (AC), females (M = 1.6000, SD = 0.49104) reported slightly better access to credit than males (M = 1.5459, SD = 0.49924). This may reflect gender-targeted financial inclusion initiatives, although women continue to face barriers to accessing credit, such as lower financial autonomy and limited collateral access, affecting their entrepreneurial opportunities (Karlan & Zinman, 2011; Giné et al., 2008).

The analysis of Received Training (RT) indicated that females (M = 1.3256, SD = 0.46969) reported receiving slightly more training than males (M = 1.2595, SD = 0.43953). This suggests that women may have marginally better access to skills training programs, though gendered barriers still exist in the labor market, limiting the effectiveness of such programs in addressing unemployment (Harkness et al., 2012; Kabeer, 2005).

Regarding Family Income (FI), males (M = 1.8649, SD = 1.07244) reported slightly higher family incomes than females (M = 1.8279, SD = 0.96826). The greater income variability among males may reflect broader structural inequalities in the job market, where men have better access to higher-paying formal employment opportunities (Blumberg, 2005; Blackden & Bhanu, 1999).

The analysis of Employment Status (ES) revealed that males (M = 1.6703, SD = 0.47139) exhibited higher employment rates than females (M = 1.5395, SD = 0.49960), aligning with global trends where men typically have better access to formal employment opportunities, particularly in higher-paying sectors. The similar variability across genders suggests that both face similar challenges, including structural issues such as discrimination, occupational segregation, and unequal access to resources, which continue to shape gendered employment outcomes (ILO, 2019; Klasen, 2018; World Bank, 2020).

These findings underscore the interconnected economic, social, and educational factors influencing youth unemployment in the Gurage Zone. The significant role of economic conditions in shaping youth unemployment is consistent with previous studies linking economic downturns and slow industrial development to rising unemployment rates among youth (Smith & Johnson, 2021; Brown & Williams, 2022). The findings also emphasize the need for targeted interventions to address structural inequalities and improve employment prospects for both genders. Moreover, education, migration, and gender-specific barriers were found to be crucial determinants, highlighting the need for a holistic approach to tackling youth unemployment in the region.

The results from Table 6 and the respondents' perceptions of high unemployment emphasize that structural economic issues, including the lack of industrial development and job opportunities, are key barriers to youth employment in the Gurage Zone. These findings align with broader literature that highlights the relationship between economic stagnation and rising unemployment, especially among young people (Smith & Johnson, 2021; Brown & Williams, 2022).

Education also plays a pivotal role in shaping youth employment prospects, with respondents acknowledging its importance in improving employability. However, the significant variability in responses indicates that barriers to accessing quality education, such as skill mismatches and limited opportunities in the labor market, continue to hinder the effectiveness of education in tackling youth unemployment. These findings resonate with studies by Mekonnen & Kassahun (2022) and others that emphasize the gap between educational attainment and the skills required by the labor market.

Gender, while recognized as a factor, does not appear to have as dominant an influence on youth unemployment in this study compared to economic or educational factors. However, the significant variability in gender-related responses suggests that societal norms, including gendered roles and expectations, still impact women's participation in the workforce. This is consistent with broader literature on gender and employment, which highlights structural barriers, such as discrimination and occupational segregation, that continue to shape gendered employment outcomes (ILO, 2019; Klasen, 2018; World Bank, 2020).

Migration, particularly rural-urban migration, is another significant contributor to youth unemployment, as reflected in the perceptions of respondents in the Gurage Zone. The competition for limited job opportunities in urban areas exacerbates the unemployment situation, particularly for youth who often migrate in search of better prospects. These findings are consistent with broader trends in Ethiopia and other countries, where migration both contributes to and is a consequence of unemployment (Getachew, 2020).

The data from Figures 5, 6, and 7 further underscore the complex perceptions of youth unemployment in the Gurage Zone, revealing the impact of age, seasonal fluctuations, and the urgency perceived in addressing the issue. The significant influence of age on unemployment trends indicates that younger populations are

particularly vulnerable; a finding that aligns with existing literature on age-related employment challenges (Choudhry & Sala, 2013; Bayrak & Tatli, 2016). Additionally, the identification of winter as the peak season for unemployment highlights the seasonal nature of employment in the region, especially within agriculture and related sectors, where work opportunities fluctuate depending on the time of year.

4.1 Strengths and Limitations

The strength of this study on youth unemployment trends in the Gurage Zone lies in its comprehensive analysis of various economic, educational, and socio-cultural factors that influence unemployment. By examining key variables such as gender, education, migration status, household income, and access to training, the study provides an in-depth understanding of how these factors interact and shape youth unemployment. This multifaceted approach offers valuable insights into labor market dynamics, particularly with regard to gender differences in employment status and work engagement, making the findings significant for exploring the gendered dimensions of unemployment.

However, there are several limitations to this study. First, the cross-sectional design limits the ability to establish causality. While the study identifies correlations between the variables, it cannot definitively infer cause-and-effect relationships. Additionally, while gender is a central focus, other potentially influential factors—such as ethnicity, rural versus urban living conditions, and regional disparities within the Gurage Zone—were not fully explored. Furthermore, the reliance on self-reported data introduces the potential for bias, as respondents' perceptions and reporting of unemployment and work experiences may not fully capture the complexities of the labor market.

4.2 Implications for Research and Practical Applications

Future research should focus on longitudinal studies to investigate the long-term effects of education and skills training programs on youth unemployment, particularly their alignment with the labor market's evolving demands. Exploring the specific barriers women face in securing stable employment, despite having access to training, would offer valuable insights into gender-specific challenges in the labor market. Furthermore, examining migration patterns, especially the impact of rural-urban migration on youth unemployment, could help provide a broader understanding of the socio-economic forces influencing employment prospects.

From a practical perspective, the study suggests that policymakers should prioritize designing education and skills development programs that directly address local labor market needs. Interventions aimed at tackling youth unemployment should also focus on gender-specific challenges, such as improving resource access for women and addressing societal norms that influence their workforce participation. Additionally, addressing migration-related issues—particularly the competition for urban jobs—could help alleviate pressure on urban labor markets and create a more balanced distribution of employment opportunities.

5. Conclusions

The trends of youth unemployment in the Gurage Zone are shaped by a complex interplay of socio-economic and demographic factors. While gender does not emerge as the most significant determinant of youth unemployment, other factors such as education, migration, household income, and access to training play a crucial role in shaping employment outcomes. The study emphasizes that structural economic issues, including limited industrial development and insufficient job opportunities, are major contributors to youth unemployment. Furthermore, the variability in education levels and access to training underscores the need for targeted interventions to bridge the gap between educational attainment and employability. To effectively reduce youth unemployment in the Gurage Zone, policymakers should focus on equitable policies, enhancing educational systems, and increasing access to training and financial resources.

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Conflict of Interest

The researcher declares that there are no conflicts of interest that could have influenced the study's design, data collection, analysis, or reporting.

Ethical Statement

This study was approved by the College of Health Sciences/Ayder Comprehensive Specialised Hospital Institutional Review Board (MU-IRB) under approval number **MU-IRB 2253/2024**. Informed consent was obtained from all participants before data collection.

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