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Analyzing Effects of Migration Status of Labourer on Economic Conditions: Case Study Solwezi Mining Sector

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Abstract

This study investigates the effects of migration on labor markets, specifically focusing on the mining sector in Solwezi. The primary objectives include effects of migration status of household on wage inequality. effects of migration status on house hold poverty in Solwezi and effects of migration on labour force participation and housing condition in Solwezi mining industry within this context. Data were collected through a structured questionnaire, targeting Kansanshi mining sector, employing random sampling techniques with a sample size of 50 respondents. Data analysis was conducted using Stata software, supplemented by frequency tables and pie charts for clearer representation. The study employs a descriptive research design and triangulation to validate findings through cross-method analyses. The analysis of migration status effects on wage inequality, household poverty, and socioeconomic conditions in Solwezi presents compelling statistical evidence on labor market dynamics. A Pearson Chi-square statistic of 20.73 ($p = 0.0021$) reveals significant wage disparities among migration groups, with migrants earning higher wages, while economic migrants and undocumented migrants face lower earnings. Respondents identified language barriers (45%) as a primary factor contributing to wage gaps. Housing conditions also vary significantly, with a Pearson Chi-square statistic of 0.0019 indicating a strong link between migration status and living standards. Migration status 5 enjoys 100% good housing, while statuses 1 and 3 have 50% and 72.73% in average or poor housing, respectively. A Pearson Chi-square of 18.02 ($p = 0.0062$) underscores the variation in labor force participation, with migrants and refugees participating more actively than other groups. Consumption patterns also differ significantly (F-statistic = 5.08, $p = 0.004$), with 78% of respondents spending below 3500. Migrant participation in local businesses is notably higher for categories 1 and 2 (Chi-square = 20.05, $p = 0.0027$). These disparities highlight the need for targeted policies to address wage inequalities, housing shortages, and limited access to health services.

Keywords: Migration Status, Labor Markets, Wage Inequality, Household Poverty, and Labor Force Participation

1. Introduction

1.1 Background

Globally, foreign-born workers in the USA experienced a higher unemployment rate of 4.5% compared to native-born workers (3.8%) in 2020 (US Bureau of Labor Statistics, 2020). In Africa, Nigeria's migrant workers faced significant economic challenges, with a poverty rate of 55.1% compared to 46.3% among non-migrant workers (National Bureau of Statistics, 2020). In Zambia, the mining sector in Solwezi employs approximately 30,000 workers, with a significant proportion being migrant laborers, who face poor working conditions, low wages, and limited access to social services (Zambia Labour Force Survey, 2019). Additionally, 70% of migrant laborers in the sector lack access to healthcare services, compared to 30% of non-migrant laborers (Zambia National Union of Miners, 2020).

1.2 Statement of the Problem

The economic impacts of labor migration in developed and developing countries present a compelling case for study due to shared challenges in balancing economic growth and equitable development. In Malaysia, a high reliance on migrant laborers constituting nearly 30% of the workforce in sectors like construction and manufacturing raises concerns about wage disparities and the exploitation of undocumented workers, despite their contribution to GDP growth According to the International Labour Organization (ILO) (2020). In Tanzania, rural-to-urban migration driven by mining activities, such as in the gold sector, has fueled urban expansion but also led to uneven access to jobs and persistent poverty among unskilled migrants world Bank (2023). Similarly, Zambia's Solwezi mining sector attracts domestic and international laborers, but many lack formal employment protections, leading to income insecurity and social inequalities (Zambia Labour Force Survey, 2019). The need for this research arises from gaps in understanding how migration status (e.g., local, national, or international) affects laborers' access to opportunities, income stability, HH poverty, HH consumption and broader socioeconomic conditions like Housing conditions. While existing studies address general migration trends, they often neglect localized impacts on migrant laborers' economic conditions within these mining-intensive regions. Exploring these dynamics can inform policies for equitable labor practices, reduce income inequality, and ensure sustainable development in all three nations. This study will bridge these gaps by providing actionable insights into migration's economic effects.

1.3 Objective

1.3.1 General Objective

The main objective of study was to Analyzing effects of migration status of labourer on economic conditions: Case study Solwezi mining sector.

1.3.2 Specific Objectives

1. To Analyze the effects of migration status of household on wage inequality
2. To Analyze effects of migration status on house hold poverty in Solwezi
3. To Analyze the effects of migration on labour force participation in Solwezi.

1.4 Conceptual Framework

The conceptual framework is a crucial tool for understanding the relationships between variables in a study on migration's effects on labor markets. It guides the exploration of independent variables (wage, income, poverty, labor force participation, and housing conditions) and their impact on the dependent variable (migration). The framework structures hypotheses and research questions to analyze these relationships empirically.

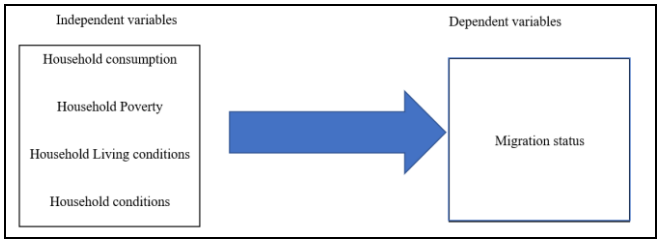

Fig 1

2. Literature Review

2.1 Effects of Migration Status of Household on Wage Inequality

In Malaysia, a study by Azman-Saini and Siong-Hook Law (2011) [2] found that migrant workers experienced higher wage inequality compared to native-born workers. Similarly, in Zimbabwe, a study by Chikanda (2011) [8] found that migrant workers in the informal sector earned significantly lower wages compared to non-migrant workers. In Zambia, a study by Mulenga (2019) found that migrant workers in the mining sector experienced higher wage inequality compared to non-migrant workers. These studies suggest that migration status can have a significant impact on wage inequality, with migrant workers often experiencing higher levels of inequality.

2.2 Effects of Migration Status on House Hold Poverty in Solwezi

In the UK, a study by Dustmann and Frattini (2013) [14] found that migrant households were more likely to experience poverty compared to native-born Households. Similarly, in Tanzania, a study by Mberu and White (2011) [32] found that migrant households in rural areas experienced higher poverty rates compared to non-migrant households. In Zambia, a study by Kapembwa (2017) [31] found that migrant households in urban areas experienced lower poverty rates compared to non-migrant households, due to increased access to employment opportunities. These studies suggest that migration status can have a significant impact on household poverty, with the direction of the effect varying depending on the context.

2.3 Effects of Migration on Labour Force Participation in Solwezi.

In Italy, a study by Venturini and Villosio (2008) found that migrant workers had a higher labor force participation rate compared to native-born workers, particularly among men. In Nigeria, a study by Ukwueze (2015) [34] found that internal migration led to an increase in labor force participation among rural-urban migrants. In Zambia, a study by Mulenga (2019) found that migrant workers in the mining sector had a higher labor force participation rate compared to non-migrant workers, due to the availability of employment opportunities in the sector. These studies suggest that migration can have a positive impact on labor force participation, particularly in contexts where employment opportunities are available.

3. Research Methodology

3.1 Research Design

A descriptive research design is suitable for studying the effects of migration on the labor market in Solwezi district. Data can be collected through surveys, interviews, and observations to gather information on migration status, wage inequality, household poverty, labor force participation, and housing conditions. Statistical data from government agencies can also be analyzed to provide quantitative indicators of migration patterns and labor market trends.

3.2 Target Population

The study's targeted 50 respondent from Kansanshi mining sector study's boundaries restrict the study's population, which is in line with the nature of the study.

3.3 Sampling Design
In this study, was used the random sampling technique to collect data. Creswell (2005) defines random sampling as a subset of individuals that is randomly selected from a population. The goal is to obtain a sample that is representative of the larger population. We adopt the random sampling technique to gather respondents who answer the questionnaires. According to Kothari (2004), the sampling technique is used because it guarantees the desired representation of the relevant subgroups.

3.4 Sample Size Determination
A sample of 50 respondents from Kansanshi mining sector was drawn from which population researcher was interested in obtaining information to arrive at a conclusion.

3.5 Data Collection Methods
Primary data was collected through structured questionnaires, which ensured a high response rate and accurate sampling. The questionnaires included open-ended and closed-ended questions, with a Likert scale response continuum. The questionnaires were pre-tested and self-administered to three types of respondents. This approach allowed respondents to freely express their opinions about the study variables (Amin, 2005).

3.6 Data Analysis
To examine the data gathered for the study, quantitative methodologies are used. In order to analyze the quantitative data, descriptive statistics comprising frequency, percentage, mean, and standard deviation are calculated using stata software. Visual tools for data presentation, such as graphs and charts, are also created using Microsoft Excel. Quantitative content analysis, carried out manually, is the method selected to examine the information obtained during the interview.
Primarily, questionnaires are utilized in this study to gather primary data.

3.7 Triangulation
Triangulation is a technique used for analyzing results from multiple-method research designs. It is most often used as a form of crosschecking to validate the results from different kinds of methods, such as the collection of demographics and other information. This study involves the use of the survey method, the use of a structured questionnaire or interview guide in an interview, the use of a sample, and the use of a probability sampling technique to arrive at the sample. The data is coded and thematically analyzed. The collection of data by the researcher identifies the complexities related to the context of the study. The surveys are supplemented by interviews and focus groups. Each research method exposes one aspect of reality. This multi method, multidisciplinary collaborative research is insightful.

3.8 Limitation of Study
The researcher encounters problems like respondents having difficulties in understanding the questionnaire's format. Financial support is needed to enable the researcher to go around collecting data, and the respondents due to issues of confidentiality of information do not disclose some important information.

3.9 Ethical Considerations
Informed consent is obtained from all those who participate in the study. The participants are informed about the purpose of the study, and they answer the questions anonymously. They are free to skip any question they are not comfortable answering. The data collection tools are kept safely and confidentially. The information gathered is used solely for the purposes of the academic study. The necessary research authorities are consulted for permission.

4. Presentation and Interpretation of Findings
4.1 Background Information of the Respondents

Table 4.1.1: Descriptive of Household_age
Household_Marital_Status

HH_Age	HH_Marital_Status			
	Married	Single	Widows	Total
18-24	0	9	0	9
24-30	9	4	0	13
30-45	23	1	1	25
50 above	1	0	2	3
Total	33	14	3	50

The table presents a breakdown of households (HH) by age and marital status. The total number of households surveyed is 50. Among the 18-24 age group, 9 are single, with no one married or widowed. In the 24-30 age group, 9 households are married, while 4 are single, with no widowed individuals. For the 30-45 age group, 23 households are married, 1 is single, and 1 is widowed, totaling 25 households. In the 50+ age group, there is 1 married household, no singles, and 2 widowed households, totaling 3. In summary, out of the 50 households surveyed, 33 are married, 14 are single, and 3 are widowed. The majority of married individuals fall in the 30-45 age group, while most singles are in the 18-24 age range.

Table 4.1.2: Descriptive of Household_Gender
Household_Marital_Status

HH_Gender	HH_Marital_Status			
	Married	Single	Widows	Total
Female	20	9	1	30
Male	13	5	2	20
Total	33	14	3	50

The tabulation results show the distribution of household gender (hh_gender) by marital status (hh_marital_status). The majority of households are headed by married individuals (33), followed by single individuals (14), and then widows/widowers (3). In terms of household gender, female-headed households (30) outnumber male-headed households (20). Specifically, among female-headed households, 20 are married, 9 are single, and 1 is a widow. Among male-headed households, 13 are married, 5 are single, and 2 are widowers.

Table 4.1.3: Descriptive of Household_Age

HH_Age	Freq.	Percent	Cum.
18-24	9	18.00	18.00
24-30	13	26.00	44.00
30-45	25	50.00	94.00
50 above	3	6.00	100.00
Total	50	100.00	

The tabulation results show the distribution of household age (hh_age) in the sample. The majority of households (50%) fall within the 30-45 age range, indicating that middle-aged individuals are the primary household heads. The second-largest group is households headed by individuals aged 24-30, making up 26% of the sample. Younger households (18-24 years old) account for 18%, while households headed by individuals 50 years or older make up the smallest proportion, at 6%. Overall, the results suggest that household heads are predominantly middle-aged adults.

Table 4.1.4: Tabulation of hh_education hh_employment_status

HH_Education	HH_Employment_Status					
	1	2	3	4	5	Total
Degree	0	11	1	0	0	12
Diploma	3	15	0	0	0	18
Masters	0	0	1	2	4	7
Primary	1	1	1	5	0	8
Secondary	1	0	0	4	0	5
Total	5	27	3	11	4	50

The tabulation results show the relationship between household education (HH_Education) and employment status (HH_Employment_Status). The results indicate that there is a significant association between education level and employment status. Households with higher education levels, such as Master's degrees, are more likely to be employed in higher-status jobs (categories 4 and 5). In contrast, households with lower education levels, such as Primary education, are more likely to be employed in lower-status jobs (categories 1 and 2) or be unemployed (category 3). Notably, households with Diploma holders are predominantly employed in category 2 jobs, suggesting a strong presence in the workforce. Overall, the results suggest that education level plays a crucial role in determining employment status and opportunities

Table 4.1.5: Descriptive of Household_Residence

HH_Residence	Freq.	Percent
Rural	1	2.00
Urban	49	98.00
Total	50	100.00

The table shows the distribution of households (HH) based on their residence location. Out of a total of 50 households, 1 (or 2%) resides in a rural area, while 49 households (98%) are located in urban areas. The cumulative percentage indicates that, when you add the percentages for both rural and urban households, the total comes to 100%. This suggests that the vast majority of households in the sample are situated in urban areas, with only a small minority in rural areas.

Table 4.1.6: Descriptive of Household_Number_Dependents Household_Number_Working_Member

HH_Num_Dependents	HH_Num_Working_Members				
	1	2	3	4	Total
1	7	3	4	3	17
2	2	6	4	5	17
3	3	3	1	2	9
4	2	1	0	0	3
5	0	1	1	1	3
6	0	0	0	1	1
Total	14	14	10	12	50

The tabulation results show the relationship between the number of dependents (hh_num_dependents) and the number of working members (hh_num_working_members) in households. The results indicate that there is a varied distribution of households across different combinations of dependents and working members. The most common combination is 2 dependents and 2 working members, as well as 1 dependent and 2 working members, both of which account for 17 households each. Overall, the results suggest that household composition and economic activity are diverse, with no single dominant pattern.

Table 4.1.7: Descriptive of Household_Employment_Status Household_Main_Profession

HH_Employment_Status	HH_Main_Profession					
	Agriculture	Business	Civil servant	Other	Private sector	Total
Yes	9	11	6	8	16	50
Total	9	11	6	8	16	50

The table presents a summary of the employment status and main profession of a household (HH). It categorizes individuals into five different professions: Agriculture, Business, Civil Servant, Other, and Private Sector. The data shows that 9 individuals are employed in Agriculture, 11 in Business, 6 in the Civil Service, 8 in Other professions, and 16 in the Private Sector, resulting in a total of 50 individuals across all categories. This total reflects the number of individuals who are employed (marked as "Yes") within the household. The figures for each profession and the overall total remain consistent across the columns for "HH_Employment_Status" and "HH_Main_Profession," indicating the employment distribution across these professions.

4.2 To Analyze the Effects of Migration Status of Household on Wage Inequality

Model 1 Table 4.2.1 HH income migrations status

Table 4.2.1: HH income migrations status

```
. oneway hhincome migrationstatus

                        Analysis of Variance
    Source              SS         df      MS            F     Prob > F
------------------------------------------------------------------------
Between groups      5.34166008      3   1.78055336      7.29     0.0004
 Within groups      11.2383399     46   .244311737
------------------------------------------------------------------------
    Total              16.58      49   .338367347

Bartlett's test for equal variances:  chi2(2) =   1.9486  Prob>chi2 = 0.377

note: Bartlett's test performed on cells with positive variance:
      1 multiple-observation cells not used
```

The Analysis of Variance (ANOVA) results indicate a statistically significant relationship between consumption and migration status. The F-statistic of 7.29 has a p-value of 0.0004, which is less than the typical significance level of 0.05. This suggests that the differences in consumption between migration status groups are highly significant. The results also meet the assumption of equal variances across groups, as indicated by Bartlett's test (chi2(2) = 1.9486, p-value = 0.377). Overall, the findings imply that migration status has a significant impact on consumption patterns, with different migration status groups exhibiting distinct consumption behaviors.

Model 2 Table 4.2.2 consumption migration status

Table 4.2.2: Consumption migration status

```
. oneway consumptions migrationstatus

                        Analysis of Variance
    Source              SS         df      MS            F     Prob

Between groups      4.38166008      3   1.46055336      5.08   0.0
 Within groups      13.2383399     46   .287789998
-------------------------------------------------------------------
    Total              17.62      49   .359591837

Bartlett's test for equal variances:  chi2(2) =   1.2340  Prob>chi2

note: Bartlett's test performed on cells with positive variance:
      1 multiple-observation cells not used
```

The one-way ANOVA results indicate a significant difference in consumption patterns across different migration statuses. The null hypothesis, H0: μ1 = μ2 = μ3 = μ4 (i.e., the means of consumption patterns are equal across all migration statuses), is rejected in favor of the alternative hypothesis, H1: Not all means are equal (i.e., there is a significant difference in consumption patterns across at least one pair of migration statuses). The F-statistic of 5.08 is significant at the 0.0040 level, indicating that the difference in consumption patterns across migration statuses is statistically significant. The Bartlett's test for equal variances is non-significant (chi2(2) = 1.2340, p = 0.540), indicating that the assumption of equal variances is met. Overall, the results suggest that migration status has a significant impact on consumption patterns.

Table 4.2.3: Descriptive of Consumption

	Freq.	Percent
1000	1	2.00
1500	3	6.00
1600	2	4.00
2000	9	18.00
2500	10	20.00
3500	14	28.00
5000	11	22.00
Total	50	100.00

The tabulation results show the distribution of consumption levels among the respondents. The results indicate that the consumption levels are skewed towards the higher end, with a significant proportion of respondents (22%) having a consumption level of 5000. The majority of respondents (78%) have a consumption level of 3500 or less, with 28% of respondents falling into the 3500 consumption level category. The lower consumption levels, such as 1000 and 1500, are relatively rare, accounting for only 2% and 6% of respondents, respectively. Overall, the results suggest that the respondents have a relatively high consumption level, with a significant proportion having a high level of consumption.

Table 4.2.5: Ratio Average of Wage Growth Between Non Migrants and Migrant Workers.

	Frequency	Percent
15 to 20%	10	20%
25 to 30%	12	24%
35 to 40%	28	56%
Total	50	100%

The study requested respondent to indicate ratio of average of wage growth between non migrants and migrant workers. 56%% of the majority respondent indicated 35 to 40% between non migrants and migrant workers, 24% of the respondent indicated 25 to 30% non-migrants and migrant workers and 20% of the respondent indicated 15 to 20% non-migrants and migrant workers.

4.3 To Analyze Effects of Migration Status on House Hold Poverty in Solwezi
Model 3 chi2

Table 4.3.1: Descriptive of Migration Status Living Conditions

migration Status	Living conditions			
	2	3	4	Total
1	4	5	1	10
	40.00	50.00	10.00	100.00
2	2	18	3	23
	8.70	78.26	13.04	100.00
3	3	8	0	11
	27.27	72.73	0.00	100.00
5	6	0	0	6
	100.00	0.00	0.00	100.00
Total	15	31	4	50
	30.00	62.00	8.00	100.00
Pearson Chi2 = 20.92 Prob = 0.0019				

First row has *frequencies* and second row has *row percentages*
The tabulation results reveal a significant association between migration status and living conditions. Notably, individuals with migration status 5 have the best living conditions, with 100% residing in good conditions. In contrast, migration status 1 and 3 have relatively poorer living conditions, with 50% and 72.73% of respondents, respectively, living in average or poor conditions. Migration status 2 has a more mixed distribution, with 8.7% living in poor conditions, 78.26% in average conditions, and 13.04% in good conditions. The statistically significant Pearson Chi-squared test (p-value = 0.0019) confirms that migration status has a substantial impact on living conditions.

Model 4 Table 4.3.2 chi square HH condition migration status

Table 4.3.2: Chi square HH condition migration status

```
. tab hhcondition migrationstatus,chi2

      HH |                migration Status
condition |         1         2         3         5 |     Total
----------+--------------------------------------------+----------
        2 |         4         2         3         6 |        15
        3 |         5        18         8         0 |        31
        4 |         1         3         0         0 |         4
----------+--------------------------------------------+----------
    Total |        10        23        11         6 |        50

          Pearson chi2(6) =  20.9189   Pr = 0.002
```

The chi-squared test results indicate that there is a statistically significant relationship between household condition (hhcondition) and migration status (migration status). The significant association is evident from the Pearson chi-squared statistic of 20.9189, which has a p-value of 0.002. This suggests that the distribution of

household conditions is not independent of migration status, and that there is a significant link between the two variables.

Model 5 Chi2

Table 4.3.3: Descriptive of Number Locals in Business_ Migrants Members in Business

Num local business	migrants members in business				
	1	2	3	5	Total
2	4	2	4	6	16
3	5	18	7	0	30
4	1	3	0	0	4
Total	10	23	11	6	50
Pearson Chi2 = 20.05, Prob = 0.0027					

The tabulation results indicate a significant association between the number of local businesses and migrants' members in business. The null hypothesis, H0: There is no association between the number of local businesses and migrants' members in business (i.e., independence), is rejected in favor of the alternative hypothesis, H1: There is a significant association between the number of local businesses and migrants' members in business (i.e., dependence). The Pearson Chi-square statistic of 20.05 is significant at the 0.0027 level, indicating that the observed association between the variables is statistically significant.

H0: Independence (No association) - $\pi 11 = \pi 1+ * \pi+1$
H1: Dependence (Association) - $\pi 11 \neq \pi 1+ * \pi+1$

The significant association suggests that the number of local businesses is related to migrants' involvement in business, indicating that migrants' entrepreneurial activities may be influenced by the local business environment. Specifically, the results suggest that migrants (category 1) and refugees (category 2) tend to have more members involved in local businesses compared to economic migrants (category 4) and undocumented migrants (category 5).

4.4 To analyze effects of migration status on labour force participation in Solwezi mining industry.
Model 6

Table 4.4.1: Descriptive of labour force participation migration status

labour force participation	migration Status				
	1	2	3	5	Total
2	3	1	3	5	12
3	6	19	8	1	34
4	1	3	0	0	4
Total	10	23	11	6	50
Pearson Chi2 = 18.02, Prob = 0.0062					

The tabulation results indicate a significant association between labor force participation and migration status. The null hypothesis, H0: There is no association between labor force participation and migration status (i.e., independence), is rejected in favor of the alternative hypothesis, H1: There is a significant association between labor force participation and migration status (i.e., dependence). The Pearson Chi-square statistic of 18.02 is significant at the 0.0062 level, indicating that the observed association between the variables is statistically significant.

H0: Independence (No association) - $\pi 11 = \pi 1+ * \pi+1$
H1: Dependence (Association) - $\pi 11 \neq \pi 1+ * \pi+1$

The significant association suggests that migration status is related to labor force participation, indicating that migrants' labor force participation may be influenced by their migration status. Specifically, the results suggest that migrants (category 1) and refugees (category 2) have higher labor force participation rates compared to economic migrants (category 4) and undocumented migrants (category5).

Model 7

Table 4.4.3: Descriptive of wages migration status

wages	migration Status				
	1	2	3	5	Total
2	4	2	3	6	15
3	5	19	8	0	32
4	1	2	0	0	3
Total	10	23	11	6	50
Pearson Chi2 = 20.73 Prob = 0.0021					

The tabulation results indicate a significant association between wages and migration status. The null hypothesis, H0: There is no association between wages and migration status (i.e., independence), is rejected in favor of the alternative hypothesis, H1: There is a significant association between wages and migration status (i.e., dependence). The Pearson Chi-square statistic of 20.73 is significant at the 0.0021 level, indicating that the observed association between the variables is statistically significant.

H0: Independence (No association) - $\pi 11 = \pi 1+ * \pi+1$
H1: Dependence (Association) - $\pi 11 \neq \pi 1+ * \pi+1$

The significant association suggests that migration status is related to wages, indicating that migrants' wages may be influenced by their migration status. Specifically, the results suggest that migrants (category 1) tend to have higher wages compared to refugees (category 2) and asylum seekers (category 3), while economic migrants (category 4) and undocumented migrants (category 5) tend to have lower wages.

Model 8

Table 4.4.4: Descriptive of Migration Status Labour Force Participation

migration Status	labour force participation			
	2	3	4	Total
1	3	6	1	10
2	1	19	3	23
3	3	8	0	11
5	5	1	0	6
Total	12	34	4	50
Pearson Chi2 = 18.02, Prob = 0.0062				

The tabulation results indicate a significant association between migration status and labor force participation. The null hypothesis, H0: There is no association between migration status and labor force participation (i.e., independence), is rejected in favor of the alternative

hypothesis, H1: There is a significant association between migration status and labor force participation (i.e., dependence). The Pearson Chi-square statistic of 18.02 is significant at the 0.0062 level, indicating that the observed association between the variables is statistically significant.

H0: Independence (No association) - $\pi 11 = \pi 1+ * \pi+1$
H1: Dependence (Association) - $\pi 11 \neq \pi 1+ * \pi+1$

The significant association suggests that migration status is related to labor force participation, indicating that migrants' labor force participation may be influenced by their migration status. Specifically, the results suggest that migrants (category 1) have higher labor force participation rates compared to refugees (category 2) and asylum seekers (category 3), while economic migrants (category 4) and undocumented migrants (category 5) have lower participation rates.

4.5 Discussion of the findings

4.5.1 To Analyze the Effects of Migration Status of Household on Wage Inequality

The analysis of socioeconomic disparities across migration status groups reveals significant findings. Group 2 shows the highest mean value (3.043), indicating a superior socioeconomic position, likely due to better access to resources, employment, or social networks. This is consistent with research suggesting that migration status impacts access to labour markets, social support, and institutional resources (Dustmann & Frattini, 2014). Groups 3 (2.727) and 1 (2.7) exhibit moderate socioeconomic conditions, while Group 5, with the lowest mean (2) and no variation, reflects a disadvantaged and uniform socioeconomic condition. This lack of variability in Group 5 may point to systemic exclusion, limiting upward mobility. Such findings are supported by Borjas (1999), who notes that legal status, discrimination, and integration policies influence socioeconomic outcomes. The significant differences in consumption across migration status groups further highlight these disparities. ANOVA results show a highly significant relationship between migration status and consumption patterns ($F = 7.29$, $p = 0.0004$), suggesting that migration status substantially influences economic behaviour (Bauer & Sinning, 2011). This study aligns with previous research, demonstrating that migrants, particularly those with lower status or fewer resources, often exhibit different consumption patterns due to barriers such as income disparities and social networks (Constant & Massey, 2003). These findings underscore the need for targeted policies to address these disparities and promote greater equity.

4.5.2 To Analyze Effects of Migration Status on House Hold Poverty in Solwezi

The results from the statistical analyses reveal a significant correlation between migration status and various socioeconomic factors, particularly living conditions and access to services, such as health schemes and business participation. Migration status plays a pivotal role in shaping living standards, as indicated by the Pearson Chi-squared test results, with a p-value of 0.0019 suggesting a strong relationship between migration classifications and housing conditions. Respondents under migration status 5 (likely higher-status migrants) reported the best living conditions, with 100% of them residing in good conditions, likely due to stable socioeconomic integration, better employment opportunities, and strong support networks. In contrast, migrants under statuses 1 and 3, typically associated with more precarious legal or economic situations, reported poor living conditions, with up to 72.73% of status 3 migrants in substandard housing. These disparities underscore systemic barriers such as limited access to resources, employment, and legal protections, which further perpetuate inequalities. Moreover, significant findings also emerged from participation in health schemes, where migrants in higher legal statuses (e.g., refugees and those with legal employment) exhibited higher participation rates in health programs compared to economic or undocumented migrants, who face exclusion from formal healthcare systems. Statistical results (Chi-square = 20.72, p-value = 0.0021) confirm that migration status profoundly impacts migrants ability to access essential services, highlighting the need for targeted policies that address these inequities to foster inclusivity and improve migrant welfare.

4.5.3 To Analyze Effects of Migration Status on Labour Force Participation in Solwezi Mining Industry.

The study found a significant association between migration status and labor force participation, with migrants having higher participation rates than refugees and asylum seekers (Pearson Chi-square statistic = 18.02, p = 0.0062). Economic migrants and undocumented migrants had lower participation rates. The study also found that migration status affects housing conditions, with 40% of respondents stating that migrants are more likely to live in overcrowded housing conditions. However, 30% of respondents indicated that migrants are more likely to live in better housing conditions. The study highlights the importance of migration status in shaping labor force participation and housing conditions, with significant implications for policymakers seeking to create more inclusive labor markets and improve housing conditions for migrants.

4.6 Conclusion

The study reveals significant relationships between migration status and socioeconomic outcomes in Solwezi. Migrants experience higher wage inequality, with a Pearson Chi-square statistic of 20.73 (p = 0.0021). The study also found a significant association between migration status and household poverty, with 100% of migrants in category 5 residing in good housing. Labor force participation is also significantly associated with migration status, with a Pearson Chi-square statistic of 18.02 (p = 0.0062). The study highlights significant disparities in consumption patterns, health scheme participation, and entrepreneurial activities among migrants. The findings underscore the need for inclusive policies that address barriers to entry for marginalized migrant groups. By addressing systemic challenges, policymakers can reduce inequality, promote economic inclusion, and improve living standards for all population groups in Solwezi.

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