p-ISSN: *0189-0182*
e-ISSN: *0189-0298*

International Journal of
Advanced Research in Tourism, Environment and Social Sciences | **IJARTESS**
Volume 3, Number 1 May, 2024

Socioeconomic Impact of Rural-Urban Migration in Bayelsa State

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Author DOI: 10.48028/iiprds/ijartess.v3.i1.07

Abstract

The study investigates the socioeconomic consequences of rural-urban migration in Bayelsa State, with a specific focus on its effects on employment status, household per capita income, and educational attainment. Utilizing a sample of 297 respondents, the research employs both probit modeling and Ordinary Least Squares (OLS) techniques for analysis. The empirical findings reveal that household migration rate and the education level of migrants exert a positive and significant impact on their employment status. Conversely, the age of migrants exhibits a negative and significant influence on their employment prospects. Additionally, the marital status of the household head is found to have a positive but insignificant effect on migrant employment, while the gender of the household head shows a negative and insignificant impact. Moreover, the study uncovers that migration rate, education, and the inactive labor force rate within households positively and significantly affect household per capita income. Furthermore, household migration rate and size emerge as significant contributors to educational attainment and achievement, with higher rates correlating positively with educational outcomes. However, factors such as the age of migrants and the marital status of household heads are identified as negatively and significantly impacting educational attainment and achievement. Based on these findings, the study suggests a focus on initiatives aimed at job creation and the promotion of entrepreneurship, particularly within the agricultural sector. Additionally, investments in skills development and training for small businesses are recommended to reduce dependence on remittances and provide disincentives for migration.

Keywords: *Bayelsa, Socio-economic, Rural, Migration, Urban*

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Background to the Study

The vast disparity in wealth and development between rural and urban areas plays a pivotal role in driving migration patterns (Lunika, 2022). Migration, a fundamental aspect of human history, involves the movement of individuals from one geographical location to another, either permanently or temporarily (Woldegebriel, 2017). This movement can take the form of international migration, which occurs between countries, or internal migration, which takes place within a country's borders (Gwanshak, Yusof, & Shafie, 2021). Migration, whether international or internal, is often influenced by similar factors, including urbanization, industrialization, and economic growth (Deksiso, 2017). These factors can be categorized as pull factors, which attract individuals to migrate, and push factors, which compel individuals to leave their place of origin (World Economic Forum, 2017). Economic, social, and political factors contribute to both push and pull dynamics, with economic factors such as employment opportunities and income levels playing a significant role (World Economic Forum, 2017).

In the context of rural-urban migration, which has been extensively studied in developing countries like Nigeria (Deksiso, 2017), individuals are drawn to urban areas by the promise of better opportunities and a higher standard of living (Mthiyane, Wissink, & Chiwawa, 2022). Urban areas typically offer improved infrastructure, greater access to healthcare and education, and more employment prospects compared to rural areas, which often lack these amenities (Mthiyane, Wissink, & Chiwawa, 2022). The United Nations Population Migration Division projects a significant increase in rural-urban migration in Nigeria, highlighting the urgent need to address its implications (Ayantoye, 2022). However, rapid migration poses challenges for urban areas, including overpopulation, informal settlements, and increased crime rates (Ayantoye, 2022).

Bayelsa State, situated in Southern Nigeria, faces similar challenges associated with rural-urban migration. Despite being rich in natural resources, the state grapples with underdevelopment and limited urban infrastructure (Niger Delta Budget Monitoring Group, 2024). Efforts to curb migration through rural development initiatives have yielded limited success, leading to continued migration trends and associated socioeconomic consequences (Niger Delta Budget Monitoring Group, 2024).

This study aims to examine the social and economic impacts of rural-urban migration in Bayelsa State. By investigating the effects of household migration rates on employment status, household per capita income, and educational attainment, the study seeks to fill existing gaps in the literature and provide insights into the challenges faced by both rural and urban communities. The research objectives are as follows: i. To assess the impact of household migration rates on employment status in Bayelsa State. ii. To analyze the influence of household migration rates on household per capita income in Bayelsa State. iii. To examine the relationship between household migration rates and educational attainment and achievement in Bayelsa State. Addressing these objectives will contribute to a better understanding of the socioeconomic dynamics of rural-urban migration and inform policy interventions aimed at mitigating its adverse effects in Bayelsa State.

Theoretical Literature

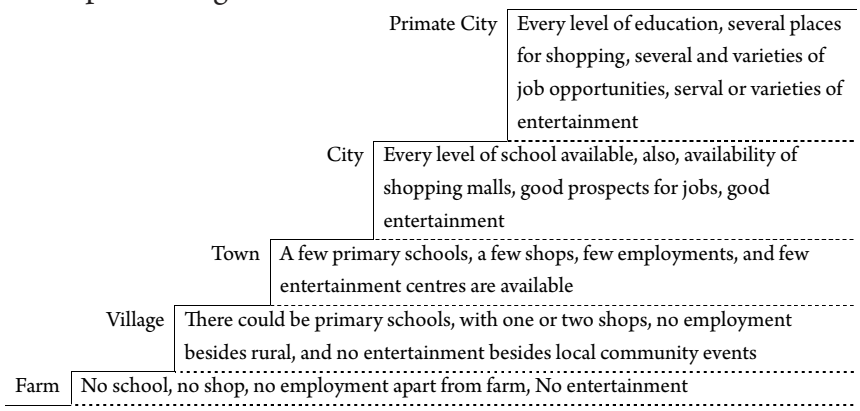
Ravenstein's Push–Pull Theory of Migration

The theoretical framework guiding this study is the push-pull theory of migration, originally proposed by Ernst Georg Ravenstein in the 19th century. According to this theory, migration from rural to urban areas is driven by socio-economic factors that either push individuals away from their place of origin or pull them towards a new destination (Mthiyane, Wissink & Chiwawa, 2022). Push factors, such as lack of employment opportunities and poor living conditions in rural areas, compel individuals to seek better prospects elsewhere. On the other hand, pull factors, such as job opportunities and urban amenities, attract individuals to urban centers (Mathebula, 2018).

However, the theory suggests that the influx of migrants into urban areas can lead to challenges, including overcrowding and social issues. Despite the promise of job opportunities associated with industrialization, the number of migrants often exceeds the available employment opportunities, resulting in unemployment and strained social services (Mthiyane, Wissink & Chiwawa, 2022). Ravenstein proposed that migration occurs in streams, where individuals or households migrate from an origin to a destination, creating links between the two places. These links facilitate further migration, leading to a continuous flow of individuals from the same origin to the destination (Mthiyane, Wissink & Chiwawa, 2022). Ravenstein's theory also suggests that migration typically occurs over short distances, with individuals moving to nearby urban centers where opportunities are perceived to be available. However, those who travel longer distances may be less aware of opportunities at their destination and are more likely to migrate to larger urban centers (Mthiyane, Wissink & Chiwawa, 2022). For Ravenstein;

1. Migrates most cases move relatively short distances, leading to an indirect relationship between the number of migrants and the distance travelled
2. Individuals who travel long distances are most cases not aware of opportunities available at their destinations and are likely to move to bigger urban centers
3. Migration takes place in stages, resulting in stepwise migration.

Figure 1: Step-Wise Migration



Source: Dutta (2012), with little modifications

According to the concept of exponential city growth, rural inhabitants are more inclined to migrate than their urban counterparts. This tendency is further accentuated by technological advancements, which facilitate migration. Ravenstein's theory posits that women tend to migrate internally and over shorter distances compared to men.

Everett Lee's Theory of Migration

Everett S. Lee introduced his theory of migration in 1965, categorizing the factors influencing individual or household decisions to migrate into four main groups. Firstly, there are factors pertaining to the areas of origin, such as available income and job opportunities. Secondly, factors related to the destination area come into play, including risks, uncertainties, and expectations. Thirdly, intervening factors or obstacles between the origin and destination areas, such as distance and legal constraints, also influence migration decisions. Lastly, personal factors such as age, gender, race, education, and health play a crucial role in migration determinants. Lee contends that these factors either push people away from an area, retain them in it, or attract them to another.

The migration rate can be completely prevented or reduced through the influence of intervening factors. These obstacles can be positive, negative, or neutral, encompassing elements like job offers, misinformation, governmental policies, religious beliefs, language barriers, political disparities, and the cost of travel. Lee emphasizes that both the presence of intervening obstacles and individual or household characteristics are the primary instigators of migration or spatial mobility. Lee suggests that migration is shaped by the volume and flow of migration, as well as the characteristics of migrants themselves. The level of diversity within an area, whether in terms of ethnicity, race, or specialization, also impacts migration volume. Economic trends, such as recession or boom periods, further influence both the volume and rate of migration for individuals or households.

The "Stream of Migration" will increase if push factors dominate over pull factors. Conversely, there exists a counter stream for each major migration stream. Better economic conditions coupled with significant intervening factors lead to higher migration efficiency, while similar characteristics between origin and destination areas result in weaker migration streams.

Population characteristics tend to mirror those of migrants at both origin and destination places. Migrants primarily driven by pull factors are not compelled to migrate and thus exhibit a lower migration propensity. However, when push factors strongly influence migrants, the propensity for migration increases. Consequently, migration represents a bi-modal interaction between pull and push factors.

Empirical Literature

Amare (2023) conducted a qualitative analysis to explore the factors and outcomes of rural-urban women migration in Injibara town, Ethiopia. Through interviews with 20 women, the study identified prominent pushing factors such as gender-based violence, poverty, low

productivity, drought, and land scarcity as primary drivers of migration. Conversely, urban pull factors including better job opportunities, higher income, improved quality of life, favorable work environments, and access to better healthcare were found to exert significant influence on women's migration decisions. Additionally, negative consequences faced by women migrants in Injibara town included housing issues, rights violations, diseases, food insecurity, unemployment, and low wages.

Igene, Onymekonwu, and Ehiwario (2023) investigated the effects of rural-urban migration on agricultural production in Esan Central Local Government Area of Edo State, Nigeria. Their study, based on a sample of 80 respondents, utilized descriptive statistics and multiple regression techniques. The findings revealed a significant impact of migration on labor shortages within the agricultural sector. Furthermore, the study identified correlations between farmers' marital status, education level, household size, and the effects of migration on agricultural productivity.

Ezeudu (2023) analyzed rural-urban dependency in Nigeria across six states, employing descriptive techniques. The study highlighted economic factors as primary drivers of rural-urban migration and emphasized a high level of interdependence between rural and urban communities. Mumu, Stanaway, and Merom (2023) explored the association between cardiovascular disease (CVD) risk factors and urban migration in Bangladesh, utilizing multivariate logistic regression models. Their findings indicated lower prevalence of overweight/obesity among migrants, but higher rates of hypertension among urban women and alcohol/illicit drug use among urban men. Mental health disorders were also found to be more prevalent among migrants compared to urban residents.

Sohad, Celi, and Sica (2023) investigated migration intentions from rural to urban areas in Bangladesh, employing structural equation modeling. The study identified subjective norms as the primary influencer of migration intentions, with attitudes towards migration and perceived behavioral control playing secondary roles. Veershetty et al. (2023) examined the impact of socio-economic and demographic characteristics on agricultural laborers' migration in the Bidar district of Karnataka, India. Through descriptive and correlation analyses, they found significant relationships between migration and factors such as land ownership, family size, education level, and income.

Anchovur et al. (2022) studied rural-urban migration and criminal behavior among youths in the Makurdi metropolis, Nigeria, utilizing simple percentages for data analysis. The study identified unemployment, insecurity, poverty, pursuit of better education, and lack of basic amenities as major drivers of rural-urban migration among youths. Eshetu et al. (2022) examined the impact of rural out-migration on the poverty of migrant-sending households in Ethiopia, using the cost of basic needs approach and Foster, Greer, and Thorbecke techniques. Their findings suggested that international migration significantly increased consumption and caloric intake per adult in rural households.

Gwanshak, Yusoff, and Shafie (2022) explored rural-urban migration issues in Plateau State, Nigeria, based on a sample of 420 households and 1325 rural migrants. The study highlighted various challenges faced by rural migrants in the region. Islam, Papia, and Yesmin (2022) investigated the influences of rural-urban migration on the Rayerbazar area in Dhaka, Bangladesh, employing a Structural Equation Model (SEM) technique. Their findings suggested positive economic impacts of migration driven by social and economic reasons, while migration due to political and personal factors had negative economic implications.

Mthiyane, Wissink, and Chiwawa (2022) examined the negative impacts of rural-urban migration in KwaDukuza municipality, South Africa, through descriptive techniques. Their findings attributed high rural-urban migration rates to neglect in providing basic infrastructure in rural areas. Dadi (2021) explored the effects of youth rural-urban migration on the socio-economic aspects of migrant-sending rural households, utilizing thematic analysis. The study revealed that youth migration represented both a burden and an opportunity for migrant-sending households.

Hossain and Riad (2020) assessed the impact of migration on household income in Bangladesh, employing the New Economics for Labour Migration (NELM) model. Their analysis of data from the Rural-Urban Migration - 2012 survey indicated a negative impact of rural-urban migration on on-farm income but a positive impact on off-farm income, attributed to remittances from migrants.

Badolo (2020) investigated the effects of rural-urban migration on the socioeconomic status of migrants in the Sunyani municipal area of Ghana, utilizing survey questionnaires and descriptive techniques. The study emphasized the significance of income and employment status in determining migrants' socioeconomic status.

Islam (2020) examined the socioeconomic conditions of migrants and the causes and effects of rural-urban migration in Bangladesh. Based on a sample of 200 respondents and descriptive analysis, the study concluded that migration contributed to poverty reduction and increased employment among migrants. Tanle, Ogunleye-Adetona, and Arthor (2020) assessed the impact of rural-urban migration on the livelihoods of migrant households in Ghana, utilizing descriptive analysis based on a sample of 121 respondents. Their findings highlighted the positive impact of migration on wealth accumulation, particularly among households with higher educational attainment. Grote and Waibe (2017) investigated the motivations and welfare impacts of rural-urban migration in Thailand and Vietnam, utilizing descriptive techniques and panel data from 4,000 rural households. The study revealed that rural households viewed outmigration as a livelihood support strategy.

Research Design

This study adopts a sample survey research design, which involves collecting data from individuals regarding the variables under study. This design selects a portion of the study population for analysis, and findings are then generalized back to the entire population,

drawing conclusions based on the sample. Surveys serve as the primary tool for data collection in this type of research, allowing for the collection of population characteristics or opinions from a sample.

The Study Area

The focus of this study is Bayelsa state, one of Nigeria's 36 states, established on October 1, 1996, with Yenagoa as its capital. The state is bordered by Rivers State to the west, the Atlantic Ocean to the east and south, and Delta State to the north. Bayelsa comprises eight local government areas: Nembe, Kolokuma/Opokuma, Sagbama, Ogbia, Southern Ijaw, Yenagoa, Brass, and Ekeremor, covering a landmass of 10,773 km2. According to the 2006 population census, the state had an estimated population of 1,704,515 people. Fishing, both subsistence and commercial, is a significant activity in the state, alongside a thriving petroleum sector due to its substantial crude oil and natural gas reserves.

Population of the Study

The study population includes both rural-urban migrants and non-migrant individuals and households. Rural-urban migrants are defined as individuals who have relocated from their place of origin to a new destination and have resided in the destination for a minimum of six months.

Sample and Sampling

Technique Sampling involves selecting units or groups from the target population of a study. The sample size, comprising 200 respondents, is divided equally between migrants and non-migrant households. A mixed sampling technique was employed, starting with purposive selection to determine the initial sample size due to limited prior knowledge of migrant and non-migrant populations. Subsequently, a random sampling technique was utilized to select four urban areas in Bayelsa state: Yenagoa, Ogbia, Amassoma, and Sagbama. From each selected town, 50 respondents, consisting of 25 migrants and 25 non-migrant households, were randomly chosen, resulting in a total sample size of 200 respondents.

Instrumentation

Data will be collected using a structured questionnaire comprising multiple-choice open and closed-ended questions, along with 4-point Likert Scale items. In the Likert Scale questions, respondents will assign scores based on their agreement level, with Strongly Agree (SA) assigned 4 points, agree (A) 3 points, Disagree (D) 2 points, and Strongly Disagree (SD) 1 point.

Where:

SA	=	Strongly Agree
A	=	Agree
D	=	Disagree
SD	=	Strongly Disagree

Validation of Instrument

The research instrument will undergo validation by the supervisor and another faculty member from the Department of Economics at Niger Delta University, Bayelsa State. Their feedback and observations will be incorporated into the final version of the instrument for the study.

Reliability of the Instrument

To assess the internal consistency reliability of the instrument, a pilot survey will be conducted at Niger Delta University. Additionally, Cronbach's Alpha coefficient will be calculated to measure reliability. Cronbach's Alpha coefficient, denoted as α, is computed using the formula:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum \sigma^2}{\sigma_x^2}\right)$$

Where;

σ = Cronbach's Alpha coefficient of Reliability

K = No of the questions in the questionnaire

σ_x^2 = The variance of the observed total test scores

$\sum \sigma^2$ = The sum of the variance of the component, i for the pilot sample of the (female) entrepreneurs

In the assessment of Cronbach's Alpha Coefficient Reliability, a coefficient value of 0.5 or higher is generally deemed significant, while values below 0.5 are considered insignificant. The obtained Cronbach's Alpha coefficient of 0.65 from the reliability test signifies significance. Therefore, based on this result, the instruments used in the study are considered reliable.

Method of Data Collection

The researcher will personally distribute the questionnaire to the respondents, assisted by an assistant who will be briefed on the study's objectives and procedures. The assistant will help distribute the questionnaire and address any queries from the respondents. Completed questionnaires will be collected immediately by the researcher and the assistant.

Methods of Data Analysis

For objectives one and three, a Probit model will be employed to analyze the data. This model will capture the impact of household migration rate on employment status. Additionally, objective two will be analyzed using an Ordinary Least Square (OLS) model.

The Probit model is specified as:

$$Prob(EMPS_i) = prob(\gamma + \gamma_1 HMR_i + \gamma_2 EDU_i + \gamma_3 AGE_i + \gamma_1 MARSTATUS_i + \gamma_1 GENDR_i + u_{1i} > 0) \qquad (1)$$

Where for *is the* household:

$EMPS_i$ = employment status of the migrant, a dummy variable that takes the value of 1 if employed and 0 otherwise. Employment status concerns whether an individual is an employee, self-employed or self-employed and employing others.

HMR_i = household migration rate, measured by the number of migrants in a household/household size

EDU_i = education of the migrant, a dummy variable that ranges between 1 to 4. It takes the value of 1 if no formal education, 2 if primary, 3 if secondary education, and takes the value of 4 if tertiary education is attained by the migrant.

AGE_i = Age of the migrant, a dummy variable that ranges between 1 to 4. It takes 1 if the migrant's age is below 30 years, 2 if the age ranges between 30 to 40 years, 3 if the age ranges between 41 to 50 years, and 4 if above 50 years.

$MARSTATUS_i$= Marital status, which takes the value of 1 if single, 2 if married, 3 if divorced, 4 if separated, and 5 widows.

$GENDR_i$ = household gender ratio, measured by the number of males in a household/household size

u_{1i}= the random error terms

Equation (1) is specified to capture objective one. The explanatory variables are expected to have either a positive or negative impact on the dependent variable.

To capture objective two, which is to determine the impact of household migration rate on household per capita income, an Ordinary Least Square (OLS) model will be estimated. The functional form of the model is specified as:

$$HPI_i = f(HMR_i, EDU_i, GENDR_i, HILFR_i, MARS_i) \qquad (2)$$

Where for the *i*th household:

HPI_i = household per capita income, measured by household income divided by the household size.

HMR_i = household migration rate, measured by the number of migrants in a household/household size

EDU_i = education of the migrant, a dummy variable that ranges between 1 to 4. It takes the value of 1 if no formal education, 2 if primary, 3 if secondary education, and takes the value of 4 if tertiary education is attained by the migrant

.

$GENDR_i$ = household gender ratio, measured by the number of males in a household/household size

$HILFR_i$= household inactive labour force rate, measured by the number of people not working in a household/household size

$MARSTATUS_i$ = Marital status, which takes the value of 1 if single, 2 if married, 3 if divorced, and 4 if separated.

The model for estimation is presented as:

$$HPI_i = a_0 + a_1 HMR_i + a_2 EDU_i + a_3 GENDR_i + a_4 HILFR_i + a_5 MARS_i + u_{2i} \quad (3)$$

Where u_{2i} is the random error term. Other variables remained as previously defined. Equation (3) is specified to capture objective two. The explanatory variables are expected to have either a positive or negative impact on the dependent variable.

To capture objective three, which is to examine the impact of household migration rate on educational attainment and achievement, a Probit model will be estimated. The Probit model is specified as:

$$Prob(EDUAA_i) = prob(\beta + \beta_1 HMR_i + \beta_2 HHS_i + \beta_3 AGE_i + \beta_1 MARSTATUS_i + \beta_1 GENDR_i + u_{3i} > 0) \quad (4)$$

Where for the *i*th household:

$EDUAA_i$ = educational attainment and achievement of the migrant, a dummy variable that ranges between 1 to 4. It takes the value of 1 if no formal education is attained or achieved, 2 if primary education is attained or achieved, 3 if secondary education is attained or achieved, and takes the value of 4 if tertiary education is attained or achieved by the migrant.

HMR_i = household migration rate, measured by the number of migrants in a household/household size

HHS_i = household size, a dummy variable that ranges between 1 to 4. It takes 1 if the household size is less than 5 persons, 2 if the household size is 5 to 10 persons, 3 if the household size is 11 to 15 persons, and 4 if the household size is above 15 persons.

AGE_i = Age of the migrant, a dummy variable that ranges between 1 to 4. It takes 1 if the migrant's age is below 30 years, 2 if the age ranges between 30 to 40 years, 3 if the age ranges between 40 to 50 years, and 4 if above 50 years.

$MARSTATUS_i$ = Marital status, which takes the value of 1 if single, 2 if married, 3 if divorced, and 4 if separated.

$GENDR_i$ = household gender ratio, measured by the number of males in a household/household size

u_{1i}= the random error terms

Equation (4) is specified to capture objective three. The explanatory variables are expected to have either a positive or negative impact on the independent variable.

Estimation Technique

For objectives one and three, the Probit models will be estimated using the quasi-maximum likelihood estimator (QLME), as proposed by Papke & Wooldridge (2008). This estimator assumes a normal distribution of errors and homoscedasticity (Liu & Xin, 2014). The OLS model for objective two will be estimated using the OLS technique, which is known as the best linear unbiased estimator (BLUE) among linear estimators.

Source of Data and Software

Used The data for this study will be collected through a structured questionnaire distributed to households, who will provide primary information. The researcher and a research assistant will distribute the questionnaire. The data will be analyzed using STATA 17 econometric software.

Results and Discussion

Out of the 300 questionnaires distributed, 299 were coded and utilized for analysis, as they were fully completed with all options selected. The analysis involved employing Probit models and Ordinary Least Square techniques. Prior to the analysis, the demographic characteristics of the respondents were examined. This chapter presents the results and discussions, starting with the demographic characteristics, which provide insights into the personal attributes of the respondents, followed by the findings and discussions of the respective objectives.

Demographic Characteristics of the Respondents

The demographic characteristics of the respondents are reported in Table 1.

Table 1: Descriptive Statistics of the Respondents' Profiles

	Frequency	Percentage (%)
Gender		
Female	85	28.62
Male	212	71.38
Total	297	100.00
Age Group		
Below 30 years	91	30.64
30 - 40 years	110	37.04
41 - 50 years	71	23.91
Above 50 years	25	8.42
Total	297	100.00
Marital Status		
Single	120	40.40
Married	118	39.73
Separated	8	2.69
Divorced	51	17.17
Total	297	100.00
Educational Level		
None	16	5.39
Primary	39	13.13
Secondary	80	26.94
Tertiary	162	54.55
Total	297	100.00
Household Size		
Below 5	128	43.10
5-10	108	36.36
11-15	48	16.16
Above 15	13	4.38
Total	297	100.00
Occupation		
None	32	10.77
Farmer	75	25.25
Civil servant	143	48.15
Entrepreneur	47	15.82
Total	297	100.00

Source: Author's computation from field survey

Females accounted for 85 respondents, constituting 28.62% of the total, while males numbered 212, representing 71.38% of the total respondents. Hence, a majority of the respondents were male.

Regarding age distribution, 91 respondents (30.64%) were below 30 years old, 110 (37.04%) fell within the 30-40 age range, 71 (23.91%) were aged 41-50, and 25 (8.42%) were above 50 years old. Thus, the majority fell within the 30-40 age bracket.

In terms of marital status, 120 respondents (40.40%) were single, 118 (39.73%) were married, 8 (2.69%) were separated, and 51 (17.17%) were divorced. Consequently, the majority were married.

Regarding household size, 128 respondents (43.10%) had households with fewer than 5 members, 108 (36.36%) had 5-10 members, 48 (16.16%) had 11-15 members, and 13 (4.38%) had 15 or more members. Hence, the majority had households with fewer than 5 members. In terms of education, 16 respondents (5.39%) had no formal education, 39 (13.13%) had primary education, 80 (26.94%) had secondary education, and 162 (54.55%) had tertiary education. Thus, the majority had tertiary education. Regarding occupation, 32 respondents (10.77%) had no occupation, 75 (25.25%) were farmers, 143 (48.15%) were civil servants, and 47 (15.82%) were entrepreneurs. No respondents were engaged in other occupations. Hence, the majority were civil servants.

Impact of Household Migration Rate on Employment Status

Objective one is to examine the impact of household migration rate on employment status. The results are reported in Table 2.

Table 2: Probit regression Estimates of the impact of household migration rate on employment status

Employment status of the migrant	Coefficient	Standard error	z-value	p-value
HMR	0.0185	0.0049	3.78	0.000
Edu	0.2012	0.0669	3.01	0.000
Age	-0.1190	0.0270	-3.40	0.000
MarStatus	0.7293	0.4187	1.74	0.082
Gender	-0.3105	0.3173	-0.98	0.328
Constant	1.6750	0.8071	2.08	0.038
Pseudo R2		0.6654		
LR chi2(5)		60.91 (p = 0.0000)		
_hat		-4.1809 (p = 0.363)		
_hatsq		1.9875 (p = 0.269)		

Source: Estimated by the author

The coefficient associated with household migration rate is 0.0185, with a significant z-value of 3.78. Given the significance of the z-value, we reject the null hypothesis, indicating a substantial impact of household migration rate on employment status in Bayelsa state. This suggests that an increase in household migration enhances the employment status of migrants. Education level of migrants exhibits a positive coefficient of 0.2012, with a z-value of 3.01, indicating statistical significance at the 5% level. Consequently, we reject the null hypothesis,

suggesting that education significantly influences the employment status of migrants. Each additional year of schooling increases migrants' employment status by about 0.20%.

An increase in migrants' age results in a decrease in employment status by 0.12%, as indicated by the significant z-value of -3.40 at the 5% level. Thus, the null hypothesis that age has no significant impact on employment status is rejected, implying a negative and significant relationship between age and employment status. Marital status, with a coefficient of 0.7293 and an insignificant z-value, leads to the acceptance of the null hypothesis. This suggests that marital status has a positive but insignificant impact on employment status. Married household heads have a 0.73% higher likelihood of better employment status compared to single heads.

The gender of the household head has a negative and insignificant impact on migrants' employment status, with the null hypothesis accepted at the 5% level. This indicates that households led by females are likely to have lower chances of better employment status compared to those led by males. The Pseudo R^2 coefficient indicates that the variables account for approximately 66.54% of the change in migrants' employment status in Bayelsa state. The likelihood chi-square value of 60.91 (p = 0.0000) demonstrates that the variables jointly significantly affect employment status. Additionally, the insignificant hatsq p-value of 0.269 suggests a good fit and model adequacy.

Impact of Household Migration Rate on Household Per Capita Income

Objective two is to examine the impact of household migration rate on household per capita income. The result for objective two is reported in Table 3.

Table 3: OLS estimates of the impact of household migration rate on household per capita income

Household per capita income	Coefficient	Standard error	t-value	p-value
HMR	0.4173	0.1280	3.26	0.000
Edu	0.8921	0.2841	3.14	0.000
Gender	0.3873	2.0384	0.19	0.851
HILFR	0.9659	0.2257	4.28	0.000
MarStatus	-0.6239	0.7609	-0.82	0.413
Constant	0.4894	0.3679	1.33	0.184
R-squared		0.6034		
Adj R-squared		0.5737		
F-statistics		40.20 (p = 0.0000)		

Source: Estimated by the author

The coefficient associated with migration rate is 0.4173, with a significant t-value of 3.26 and a p-value of 0.000 at the 5% significance level. These significant values lead to the rejection of the

null hypothesis and acceptance of the alternative hypothesis. This suggests that migration rate has a positive and significant impact on household per capita income, with each additional migration of a household member leading to a significant increase of 0.42% in household per capita income.

The coefficient for education is 0.8921, with a significant t-value of 3.14 and a p-value of 0.000 at the 5% significance level. Hence, the null hypothesis is rejected, indicating that education significantly influences household per capita income. An additional year of schooling leads to a significant increase of 0.89% in household per capita income. The gender coefficient indicates a positive but insignificant impact on household per capita income. Specifically, households headed by males are likely to have a household per capita income 0.39% insignificantly higher than those headed by females.

The coefficient for household inactive labour force rate is 0.9659, with a significant t-value of 4.28 and a p-value of 0.000. Thus, household inactive labour force rate has a positive and significant impact on household per capita income. An increase in the household inactive labour force rate leads to a significant impact of 0.97% on household per capita income. Marital status of the household head exhibits a negative coefficient of -0.6239, with a t-value of -0.82 and a p-value of 0.413. The significant t-value leads to the acceptance of the null hypothesis, indicating that the marital status of the household head has no significant impact on household per capita income.

The coefficient of determination (R-squared) indicates that the independent variables explain approximately 60.34% of the change in household per capita income. The F-statistic of 40.20 with a significant probability value of 0.0089 rejects the null hypothesis of no significant joint effect of the independent variables on household per capita income, indicating a joint significant impact. Multicollinearity among the independent variables was also assessed, with results presented in Table 4.

Table 4: Multicollinearity test result for objective two

Variable	VIF	1/VIF
HILFR	1.32	0.758548
HMR	1.26	0.793818
Edu	1.05	0.950222
Mar_Status	1.03	0.966454
Gender	1.03	0.968480
Mean VIF	1.14	

The variance inflation factors – VIF are very low, compared to the acceptable VIF of 10. This means rejecting the null hypothesis of the presence of multicollinearity. This means that the independent variables in the model are free from the problem of multicollinearity.

Impact of Household Migration Rate on Educational Attainment and Achievement

Table 5: Probit regression estimates of the impact of household migration rate on educational attainment and achievement

Educational attainment and achievement of the migrant	Coefficient	Standard error	z-value	p-value
HMR	0.0220	0.0054	4.10	0.000
hhsize	0.0105	0.0033	3.11	0.000
Age	-0.0705	0.0236	-2.99	0.000
MarStatus	-0.2285	0.0967	-2.36	0.018
Gender	-0.2674	0.2763	-0.97	0.333
Constant	1.3849	0.5753	2.41	0.016
Pseudo R2		0.6306		
LR chi2(5)		36.83 (p = 0.000)		
_hat		-6.2836 (p = 0.331)		
_hatsq		3.6527 (p = 0.510)		

Source: Estimated by the author

The coefficient associated with household migration rate is 0.0220, with a significant z-value of 4.10. The significance of the z-value leads to the rejection of the null hypothesis, indicating a positive and significant impact of household migration rate on educational attainment and achievement in Bayelsa state. This suggests that each additional migration enhances educational attainment and achievement. Household size exhibits a positive coefficient of 0.0105, with a significant z-value of 3.11, leading to the rejection of the null hypothesis at the 5% level. This indicates a positive and statistically significant impact of household size on educational attainment and achievement of migrants. Thus, an additional member in the household implies increased schooling and educational attainment.

An increase in the migrant's age results in a decrease in educational attainment and achievement by 0.07%, as indicated by the significant z-value of -299 at the 5% level. Hence, the null hypothesis is rejected, implying a negative and significant impact of age on educational attainment and achievement. Marital status of the household head exhibits a coefficient of -0.2285, with a significant z-value of -2.36, leading to the rejection of the null hypothesis. This suggests a negative and significant impact of marital status on educational attainment and achievement, with married household heads having lower chances for more educational attainment and achievement than single heads.

The impact of the gender of the household head on educational attainment and achievement is negative and insignificant, leading to the acceptance of the null hypothesis at the 5% level. This implies that households headed by females likely have lower chances of educational attainment and achievement than those headed by males. The Pseudo R^2 coefficient

indicates that the variables account for approximately 63.06% of the change in educational attainment and achievement in Bayelsa state. The likelihood chi-square value of 36.83 (p = 0.0000) suggests that the variables jointly significantly affect educational attainment and achievement. Additionally, the insignificant hatsq p-value of 0.510 reflects a good fit and model adequacy.

Summary of Findings

The key findings of this study are summarized as follows:

i. Regarding objective one, the analysis revealed that household migration rate and the education level of migrants positively and significantly influenced their employment status. Conversely, the age of migrants exhibited a negative and significant impact on their employment status. Additionally, the marital status of the household head showed a positive but insignificant effect, while the gender of the household head had a negative and insignificant impact on the employment status of migrants.
ii. In relation to objective two, it was observed that migration rate, education level, and the household's active labor force rate positively and significantly affected household per capita income. However, the gender of the household head had a positive but insignificant influence on household per capita income. Conversely, the marital status of the household head negatively but insignificantly impacted household per capita income.
iii. Concerning objective three, the findings indicated that household migration rate and size positively and significantly influenced educational attainment and achievement. Conversely, the age of the migrant and the marital status of the household head had a negative and significant impact on educational attainment and achievement. Moreover, the gender of the household head negatively but insignificantly affected educational attainment and achievement

Conclusion

This study has delved into the socioeconomic ramifications of rural-urban migration in Bayelsa state. Utilizing both the Probit model and Ordinary Least Squares (OLS) techniques, the data was rigorously analyzed. The findings underscored the pivotal role of rural-urban migration in bolstering the employment status, household per capita income, and educational attainment and achievement of migrants in Bayelsa state. Notably, the education level of migrants emerged as a crucial determinant of their employment status and household per capita income. Additionally, factors such as the age of the migrant and the marital status of the household head significantly influenced educational attainment and achievement

Recommendations for Policy

The following recommendations are suggested:

i. Emphasis should be placed on fostering job creation and promoting entrepreneurship, particularly in sectors like agriculture and small businesses. Providing skills development and training programs can empower individuals to pursue viable

livelihood options locally. By reducing reliance on remittances and creating economic opportunities in rural areas, this approach can help discourage excessive rural-urban migration.

ii. Furthermore, efforts should be made to enhance access to education and training opportunities in rural areas. By improving educational facilities and offering skill-building programs locally, the propensity for rural-urban migration can be mitigated. This proactive measure aims to address the root causes of migration by providing individuals with viable alternatives and opportunities within their communities.

References

Amare, Z. S. (2023). Factors and consequences of rural-urban women migration: Evidence from Injibara town, Ethiopia. *LWATI, A Journal of Contemporary Research,* 20(2), 66 – 79.

American Physiological Association (2022). *Socioeconomic status,* Available at: https://www.apa.org/topics/socioeconomic-status

Anchovur, T. T., Nomor, T., Ende, D. T. & Dekera, F. (2022). Rural-urban migration and criminal behaviour among youths in Makurdi metropolis, Benue state – Nigeria. *Benue Journal of Sociology*, 9(2), 154 – 155.

Ayantoye, D. (2022). Rising rural-urban migration depopulates hinterlands and aged dwellers crave amenities, *Punch, 10 December*. Available at: https://punchng.com/rising-rural-urban-migration-depopulates-hinterlands-aged-dwellers-crave-amenities/#:~:text=The%20United%20Nations%20Population%20Migration,hit%20275%20million%20by%202050.

Badolo, A. (2020). The effect of rural-urban migration on socioeconomic status. A case of Sunyani municipal area of Ghana, *Global Scientific Journals, 8*(11), 129 – 152.

Bayelsa Watch (2022). *About Bayelsa State*, Available at: https://bayelsawatch.com/about-bayelsa-state/

Cowan, C. D., Hauser, R. M., Levin, H. M., Beale Spencer, M., & Chapman, C. (2012). *Improving the measurement of socioeconomic status for the National Assessment of Educational Progress: A theoretical foundation,* Available at: https://www.nagb.gov/content/dam/nagb/en/documents/what-we-do/quarterly-board-meeting-materials/2023-05/08-measuring-socioeconomic-status.pdf

Dadi, J. (2021). *The effects of youth rural-urban migration on the socio-economic aspects of migrant-sending rural households; the case of Yaya Gulale woreda,* Research Square: Available at: https://assets.researchsquare.com/files/rs-1061693/v1/0aa77334-4597-4868-859b-bf2678dd1775.pdf?c=1636583160

Deksiso, M. (2017). *Socio-economic effects of rural-urban migrant youths in Addis Ketema sub-city,* Thesis. Indria Gandhi National Open University (IGNOU). Available at: http://197.156.93.91/bitstream/123456789/3001/1/LEMAWORK%20DEKSISOpdf.pdf

Douglas, P., Cetron, M. & Spiegel, P. (2019). Definitions matter: Migrants, immigrants, asylum seekers and refugees, *Journal of Travel Medicine*, 26(2), 61 – 79.

Duta, M. (2012). *Theories and typologies of migration*, Available at: https://egyankosh.ac.in/bitstream/123456789/6094/4/Unit-1.pdf

Eshetu, F., Haji, J., Ketema, M. & Mehare, A. (2022). Impact of rural out-migration on poverty of households in southern Ethiopia, *Cogent Economics and Finance*, 11(1), 193 – 206.

Ezeudu, T. S. (2023). Rural-urban dependency as a bane of rural development in Nigeria, *Journal of Public Administration*, 5(1), 11 – 17.

Gwanshak, J. Y., Yusof, M. B. M. & Shafie, A. (2021). Impacts of rural-urban migration on rural communities and urban centres in Plateau state, north-central Nigeria. *PalArch's Journal of Archeology of Egypt/Egyptology*, 18 (08), 985 – 1002.

Gwanshak, J. Y., Yusoff, M. B. M., & Shafie, A. B. (2022). Issues of rural-urban migration in north-central Nigeria: A study of Plateau state urban centres, *International Journal of Health Sciences*, 6(S2), 1698 – 1714.

Grote, U. & Waibe, H. (2017). *Rural-urban migration, welfare and employment: Comparing results from Thailand and Vietnam*, TVSEP Working Paper, No. WP-001, Leibniz Universität Hannover, Thailand Vietnam Socio Economic Panel (TVSEP), Hannover.

House of European History (2016). *Borders and bridges – Migration*. Available at: https://historia-europa.ep.eu/sites/default/files/Discover/EducatorsTeachers/ActivitiesForYourClassroom/migr-introduction-en_0.pdf

Hossain, M. Z. & Riad, M. M. (2020). Impact of rural-urban migration on household income in rural Bangladesh: An application of 2-Stage NELM model, *International Journal of Statistical Sciences*, 20(2), 191 – 206.

Igene, C. A., Onymekonwu, R. C. & Ehiwario, F. A. (2023). Assessment of effects of rural-urban migration on agricultural production in Esan central local government area, Edo state, Nigeria. *FUDMA Journal of Agriculture and Agricultural Technology*, 9(1), 117 – 123.

Imran, A. (2023). *Urban governance in Bangladesh*. Available at: https://www.researchgate.net/publication/367296531_What_is_migration_Describe_the_types_causes_and_consequences_of_migration

Islam, S., Papia, M. J. & Yesmin, S. (2022). The rural-urban migration and its socio-economic consequences: A study on the Rayerbazar area of Dhaka city, *International Journal of Publication and Social Studies*, 7(1), 12 – 18.

Islam, M. M. (2020). The effect of rural-urban migration on socioeconomic development and poverty reduction among the migrants in Khulna city of Bangladesh, *International Journal of Science and Research (IJSR)*, 10(8), 687 – 697.

Koczan, Z., Peri, G., Pinat, M. & Rozhkov, D. (2021). *The impact of international migration on inclusive growth: A review*. International Monetary Fund – IMF Working Paper No 88.

Lunika, B. A. (2022). *Assessing the socio-economic impacts of rural-urban migration on KwaNokweja, Kwa-Zulu Natal, South Africa*. A Dissertation, University of Zululand. Available at: https://uzspace.unizulu.ac.za/server/api/core/bitstreams/ee0ea43f-412c-4db2-a1d3-a6be5c88b4a8/content

Mathebula, N. E. (2018). Politics of municipal demarcation in South African democratic dispensation: A case of selected mergers, *African Journal of Public Affairs* 10(4), 257 – 270.

Mthiyane, D. B., Wissink, H. & Chiwawa, N. (2022). The impact of rural–urban migration in South Africa: A case of KwaDukuza municipality, *Journal of Local Government Research and Innovation*, 3(0), a56. Available at: https://jolgri.org/index.php/jolgri/article/view/56/218

Mumu, S. J., Stanaway, F. F. & Merom, D. (2023). Rural-to-urban migration, socio-economic status and cardiovascular diseases risk factors among Bangladeshi adults: A nationwide population-based survey, *Front Public Health*, 1, 860927. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10116049/

Nagesha, B. (2023). *An economic analysis of internal and international migration – some issues and challenges*, Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4566579

Niger Delta Budget Monitoring Group, (2024). *Overview of Bayelsa State*, Available at: https://www.nigerdeltabudget.org/overview-of-bayelsa/

Sohad, M. K. N., Celi, G. & Sica, E. (2023). Factors determining migration intentions in Bangladesh: from land to factory, *Journal of Economic Studies*, Available at: https://www.emerald.com/insight/content/doi/10.1108/JES-06-2023-0293/full/html

Tanle, A., Ogunleye-Adetona, C. I. & Arthor, G. (2020). Rural-urban migration and household livelihood in the Agona West Municipality, Ghana. *Journal of Geography and Regional Planning*, 13(1), 1 – 18.

Tataru, G. F. (2019), Migration – an overview on terminology, Causes and effects, *Logos Universality Mentality Education Novelty: Law*, 7(2), 10 – 29.

Veershetty, M., Muhsina, A., Chigadolli, M., Nayak, G. H., Avinash, G., Baishya, M. & Megeri, S. N. (2023). Effect of Socio-Economic and Demographic Characteristics on Agricultural Labourers Migration in Bidar District of Karnataka, India, *Asian Journal of Agricultural Extension, Economics & Sociology*, *41*(9), 751 – 765.

Woldegebriel, M. (2017). Assessing socio-economic impact of rural-urban migration in Sodo town, SNNPR Ethiopia, *Global Journal of Human-Social Science: B Geography, Geo-Sciences, Environmental Science & Disaster Management*, 17(1), 11 – 24.

World Economic Forum (2017). *Migration and its impact on cities*, World Economic Forum Ref. No. 061017. Available at: https://www3.weforum.org/docs/Migration_Impact_Cities_report_2017_low.pdf