

## Analysis of the Influence of Migration on Poverty in Indonesia

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### Abstract

*Alleviating poverty and creating prosperity is the ultimate goal for every country, especially in developing countries. The Indonesian Government initiates various poverty alleviation efforts, one of which is the transmigration program. As a strategic plan to reduce poverty, it is necessary to pay special attention to the results of migration activities. This study aims to determine the effect of migration on poverty rates in Indonesia. This study uses pooled cross-sectional data analysis for 34 Indonesian provinces in 2015 and 2019 using the Ordinary Least Squares model. Based on this research, it was found that permanent in-migration did not affect poverty, but there was a positive and significant effect of permanent out-migration and rising out-migration on poverty. Meanwhile, in-migration has a negative and significant effect on poverty. Another finding from this study is that wages and education have a negative and significant effect on poverty, while the place of origin does not affect poverty.*

**Keywords:** Indonesia, in-migration, out-migration, poverty

**JEL:** A11, A1

### A. INTRODUCTION

Poverty is a person's inability to meet standard basic needs for every aspect of life (Ismuningsih, 2011). Poverty is a problem that is of particular concern to all countries (Lestari, 2022). According to (Yacoub, 2013), poverty is a fundamental problem that is difficult to solve. This condition occurs due to a lack of access to meeting basic needs, including food, clothing, education, and health (Kadji, 2012).

In addition, the phenomenon of poverty arises due to complex problems, meaning that this occurs not only because of one factor, but is influenced by many underlying factors (Parwa & Yasa, 2019). Numerous factors contribute to poverty, and as a result, numerous global efforts are continually updated to alleviate poverty. The global plan for poverty alleviation has been agreed upon by all country leaders in the world,

known as the Sustainable Development Goals (SDGs).

The SDGs are a development program that is carried out on an ongoing basis by monitoring the level of community economic welfare, the sustainability of people's social life, environmental quality, justice, and implementation of governance, so as to improve the quality of life from one generation to the next. In an effort to improve the welfare of society, the SDGs have 17 goals, with the first goal being a society without poverty.<sup>1</sup>

Alleviating poverty and creating prosperity is the ultimate goal for every country, especially in developing countries (Pratama, 2014). Indonesia is one of the developing countries that has yet to succeed in alleviating the problem of poverty. In Indonesia, there are 26.36 million people under the poverty line.<sup>2</sup> The measurement of the poverty rate is carried out by the Central Bureau

<sup>1</sup> Ministry of National Development Planning successfully alleviate/BAPPENAS, 2022

<sup>2</sup> Central Bureau of Statistics, 2022

**Table 1.** Percentage and Number of Poor Population by Island in 2022

Region	Percentage of Poor Population (%)			Number of Poor Population (million people)		
	Urban	Rural	Total	Urban	Rural	Total
Sumatera	8.25	10.48	9.47	2.25	3.51	5.76
Jawa	7.65	11.94	9.03	8.03	5.91	13.94
Bali and Nusa Tenggara	8.71	17.80	13.46	0.65	1.45	2.10
Kalimantan	4.70	7.07	5.90	0.39	0.60	0.99
Sulawesi	5.88	13.08	10.06	0.50	1.53	2.03
Maluku and Papua	6.00	27.62	20.10	0.16	1.38	1.54
Indonesia	7.53	12.36	9.57	11.98	14.38	26.36

Source: Central Bureau of Statistics (BPS), 2022

of Statistics (BPS) using the basic needs approach; namely, poverty is seen as an economic inability to meet basic food and non-food needs as measured through the expenditure side. The amount of income to determine whether a country is poor or not is by looking at the per capita income of the people, namely, with a minimum limit of IDR 505,469.00 per capita per month.<sup>3</sup>

The phenomenon of poverty appears throughout the Indonesian archipelago, such as on the island of Java, which has the largest population, contributing to the highest poverty rate.<sup>4</sup> Table 1 shows the percentage and number of poor people by island in 2022. Kalimantan Island has the lowest percentage of poor people, namely 5.90%. Meanwhile, the islands of Maluku and Papua have the largest percentage of poor people, namely 20.10%. The total poor population in Indonesia is 26.36 million people, divided into 11.98 million urban residents and 14.38 million rural poor people. Of these, 13.94 million poor people live on the island of Java.

The high poverty population is dominated by the Western Region of Indonesia (KBI) of 74.45%, especially on the islands of Java and Sumatra

(Sangadah et al., 2020). The high number of poor people on the two islands is natural because more than half of Indonesia's population lives on the two islands. The high poverty rate and dense population in the region have encouraged the government to be more aggressive in overcoming poverty. One of the efforts taken by the Government of Indonesia to be able to reduce the population and reduce poverty is by implementing a population migration policy.<sup>5</sup>

Migration is an activity of moving people from one area to another to settle for a certain period of time.<sup>6</sup> Migration occurs due to dissatisfaction or lack of needs of the population from their place of origin, so they move to other areas (Pradana et al., 2021). Factors that support migration are the diversity of conditions and potential between regions in Indonesia (Hersahanty, 2020). The migration program initiated is in line with (Yulianti, 2018) that the poverty rate can be reduced by migrating because migration can improve the quality of education, which is directly proportional to increased employment and income opportunities.

<sup>3</sup> Central Bureau of Statistics, 2022

<sup>4</sup> Ibid

<sup>5</sup> National Socioeconomic Survey (SUSENAS), 2019.

<sup>6</sup> Ibid

**Table 2.** Number of Migrants in Indonesia 2019

No	Province	Migration for Life (000)	Risen migration (000)
1	Aceh	232.6	47.1
2	North Sumatera	586.7	196
3	West Sumatera	405	176.9
4	Riau	1,998.6	175.6
5	Jambi	688.3	51.4
6	South Sumatera	974.1	100.4
7	Bengkulu	372.7	44.0
8	Lampung	1,402.0	115.2
9	Bangka Belitung Islands	218.7	31.1
10	Riau Islands	1,010.2	190.7
11	DKI Jakarta	3,745.6	466.4
12	West Java	5,698.3	894.5
13	Central Java	1,143.2	690.2
14	Yogyakarta	686.6	264.6
15	East Java	1,064	450.7
16	Banten	2,898	307
17	Bali	478.1	123.2
18	West Nusa Tenggara	138.2	121.3
19	East Nusa Tenggara	190.8	90.2
20	West Kalimantan	288.2	28.8
21	Central Kalimantan	586.2	63.2
22	South Kalimantan	519.4	88.1
23	East Kalimantan	1,232.3	136.8
24	North Kalimantan	264.4	34.8
25	North Sulawesi	209.2	38.5
26	Central Sulawesi	481.1	49.9
27	South Sulawesi	402	173.2
28	South East Sulawesi	461.5	57.1
29	Gorontalo	83.5	22.3
30	West Sulawesi	191.3	41.9
31	Maluku	157.4	35.4
32	North Maluku	123.6	19.7
33	West Papua	301.8	43.8
34	Papua	546.4	68.8
35	Indonesia	29,781.7	5,440.4

Source: National Socioeconomic Survey (SUSENAS), 2019.

The migration program promoted by the government has been implemented since 1950. This program aims to reduce the poverty rate and overcrowding that have occurred on the island of Java.<sup>7</sup> The mission carried out by this program is to provide opportunities for residents who want to work and meet the needs of workers in other areas, such as on the islands of Kalimantan, Sulawesi, Sumatra, and Papua. The long-term impact of the implementation of transmigration is expected to be one of the solutions for equal distribution of the population, which refers to poverty alleviation.

In 2019, the number of migrants in Indonesia reached 35.3 million people, namely divided into lifetime migrants (29.8 million people) and rising migrants (5.4 million people). The dominance of the migrant population comes from Java Island, namely, lifetime migrants of around 51.2% and recent migrants of 56.5%. Meanwhile, the smallest number of lifetime migrants came from Gorontalo Province (83,545 people), and the smallest number of migrants came from North Maluku Province (19,771 people).

In practice, migration has both positive and negative impacts. The positive impact of migration can improve the economy and family welfare (Wafirotin, 2016). Workers who do not get jobs in their areas of origin will get job opportunities. That way, migration can improve the economy and welfare, which affects the reduction of the poverty rate. However, this will harm the welfare of the area of origin if too many productive workers migrate (Rusdi et al., 2022).

Based on the description above, poverty can be influenced by many factors. Therefore, the Government of Indonesia initiated various poverty alleviation efforts, one of which is the migration program. As a strategic plan to reduce poverty, researchers are interested in the results of migration activities that have been carried out.

<sup>7</sup> National Socioeconomic Survey (SUSENAS), 2019.

Thus, the researcher took the title "Analysis of the Effects of Migration on Poverty in Indonesia".

The difference between this research and previous research lies in the scope or coverage of data and variables. To the best of the author's knowledge, there has been no research on the factors influencing migration to poverty in Indonesia within the province. (Nabila & Pardede, 2014) argues that the opportunities for the poor to migrate are smaller than those who are not poor. However, for individuals in urban areas, it was found that the opportunities for the poor to migrate from urban areas to other urban areas were greater than those who were not poor. Meanwhile, according to (Kousar et al., 2016), migration has a significant impact on poverty alleviation among rural households. Researchers also add control variables that are thought to influence poverty levels, namely wages, education, and region.

## **B. LITERATURE REVIEW**

### **The relationship between migration and poverty**

Various theories explain the relationship between migration and poverty by emphasizing the impact of population movement on economic conditions and poverty reduction. Yulianti (2018) revealed that migration is an effective strategy for reducing poverty, as people with higher levels of education who choose to migrate tend to have better chances of securing higher-paying jobs compared to those who do not migrate. This notion aligns with neoclassical economic theory, which suggests that migration occurs due to wage differences between regions or countries. Individuals move from areas with lower wages, often associated with high levels of poverty, to areas with higher wages, ultimately reducing poverty for both the migrants and their families. Furthermore, remittances sent by migrants significantly increase household income, reducing poverty in their home regions (Todaro, 1976). Gloria and Sentosa (2019) emphasize that internal migration flows can also influence poverty, a

developmental issue characterized by unemployment, underdevelopment, and inequality.

The New Economics of Labor Migration (NELM) supports this perspective by viewing migration not as an individual decision, but rather as a household strategy to diversify income sources and mitigate risks like unemployment or crop failure. Remittances from migrants serve as a financial safety net for families, allowing for investments in education, healthcare, and small businesses—thus contributing to poverty reduction (Stark & Bloom, 1985).

Additionally, structuralist theory asserts that migration arises from inequalities within economic and social structures. Migration is considered a consequence of uneven development, where some regions or countries offer better economic opportunities than others. In this context, migration can help alleviate poverty by redistributing labor and wealth more equitably (Portes, 1978). However, the theory also cautions that migration may not always reduce poverty, as it can sometimes exacerbate inequalities or lead to the exploitation of migrants in their destinations (De Haas et al, 2019).

Moreover, the dual labor market theory explains that the demand for unskilled labor in developed countries drives migration. Migrants often take low-wage jobs in the secondary labor market, but these jobs still provide higher incomes than what they could earn in their home countries, contributing to poverty reduction through remittances (Piore, 1979).

### **Previous Studies**

Migration has been a pervasive phenomenon throughout human history, impacting societies, economies, and individuals in various ways. The relationship between migration and poverty has garnered significant attention from scholars and policymakers alike. This literature review aims to examine the multifaceted role of migration on

poverty, drawing on findings from a range of scholarly journals.

Migration is often perceived as a strategy to escape poverty, but its impact on poverty dynamics can be complex. Duleep (2007) argues that migration can lead to improvements in economic conditions for migrants and their families over time, while Stark (1991) contends that migration can contribute to poverty traps in both sending and receiving countries.

Remittances, a key outcome of migration, have been hailed as a potential tool for poverty reduction. Adams and Page (2005) emphasize that remittances can enhance household consumption and investment, thereby raising the welfare of families in origin countries. However, Ratha and Shaw (2007) warn of the risk of dependency on remittances, which can inhibit sustainable development.

Migration often leads to urbanization, as migrants seek better economic opportunities in cities. Fafchamps and Shilpi (2008) note that rural-urban migration can increase the incidence of urban poverty due to inadequate infrastructure and limited access to services. Conversely, Todaro (1969) argues that urban areas can provide a pathway out of poverty for migrants through employment and improved living conditions.

The phenomenon of brain drains, characterized by the emigration of highly skilled individuals, has raised concerns about its impact on poverty in origin countries. Docquier and Rapoport (2012) suggest that brain drain can exacerbate poverty by depleting human capital, particularly in sectors crucial for development.

Migration can render certain populations vulnerable to exploitation and marginalization. De Haas (2007) emphasizes that migrants, especially irregular ones, are often excluded from social protection mechanisms, increasing their risk of falling into poverty. Martin and Taylor (1996) discuss the need for policies that safeguard migrant rights and mitigate vulnerability.

Environmental factors, such as climate change and natural disasters, can drive migration and interact with poverty dynamics. McLeman and Hunter (2010) highlight that environmental stressors can disproportionately affect marginalized communities, potentially leading to both forced and voluntary migration, and thus influencing poverty outcomes.

Migration's impact on labour markets can shape poverty outcomes in both sending and receiving countries. Borjas (2003) examines the effects of immigration on wages and employment opportunities for native workers, while Fields (2001) underscores the importance of labour market policies in reducing poverty among migrants.

The gender dimension of migration and poverty has gained attention in recent years. Kofman (2000) argues that women migrants often face unique challenges, such as limited job opportunities and vulnerability to exploitation, which can impact their economic well-being. Chant (2008) discusses how gendered power dynamics intersect with migration and poverty.

Social networks play a critical role in shaping migration decisions and outcomes. Stark and Bloom (1985) introduce the concept of "network externalities," whereby migrants rely on information and support from their social networks to navigate the challenges of migration, potentially affecting poverty dynamics.

Policies addressing migration and poverty require a comprehensive approach. Hagen-Zanker et al. (2017) emphasize the importance of integrating migration considerations into poverty reduction strategies, while DeOliveira et al. (2016) advocate for policies that enhance the positive impact of migration on development.

The relationship between migration and poverty is intricate and multifaceted, influenced by a range of factors including remittances, urbanization, labour markets, gender dynamics, and policy frameworks. While migration can serve as a pathway out of poverty for some, it can also

perpetuate poverty traps for others. An interdisciplinary approach, integrating insights from economics, sociology, geography, and gender studies, is essential to fully understand and address the complex interplay between migration and poverty.

### C. RESEARCH METHODS

This research was conducted in all Indonesian provinces, consisting of 34 provinces in 2015 and 2019. The selection of these two years is based on the availability of relatively complete data for each variable used in this study. By using data from only two years, the study can focus on analyzing the key changes between periods without introducing excessive complexity, such as the large variation from additional annual data. Furthermore, the use of two years allows for better management of data and resource limitations while still providing adequate representation of relevant changes in the variables studied. This approach also reduces the risk of multicollinearity, which often arises with more periods of data and facilitates easier interpretation of the results (Baltagi, 2005; Wooldridge, 2010).

The data for the variables poverty, migration in, migration out, wages, and education were taken from the publication data from the Central Bureau of Statistics (BPS). After the data has been collected, it is documented in an Excel spreadsheet format to facilitate further processing. Processing and analysis of data is carried out using STATA 17.0 software, which allows in-depth statistical analysis and preparation of more detailed research results. By using STATA 17.0, researchers can perform various analyses and gain deeper insights into the data collected, resulting in valid and significant findings. In this study, the method used for multiple linear regression is Ordinary Least Squares (OLS). OLS is a regression method that focuses on the best line or regression line that

minimizes the number of squared errors (Dewi & Karim, 2017).

Using panel data with only two periods, ordinary least squares (OLS) can often be more appropriate than fixed or random effects because the limited time variation makes it difficult for fixed effects models to accurately capture changes within units, leading to imprecise estimates. Fixed effects models also introduce a large number of parameters relative to the amount of data, reducing the reliability of the estimates. While random effects may offer greater efficiency, the assumption that individual-specific effects are uncorrelated with explanatory variables is harder to verify with only two periods of data. OLS, being simpler, avoids overcomplicating the model and can provide more efficient estimates, provided there is no significant unobserved heterogeneity (Baltagi, 2005; Wooldridge, 2010).

The model used in this study is as follows:

$$\log Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

where:

Y : Poverty (thousands of people)

a : Constant

B : Regression coefficient

X<sub>1</sub> : Migration in (people)

X<sub>2</sub> : Migration out (people)

X<sub>3</sub> : Wages (rupiah)

X<sub>4</sub> : Education (years)

X<sub>5</sub> : Region (1 = western region, 0 = central and eastern region)

ε : Error term

The dependent variable in this study is poverty, which is measured based on the Poverty Line (GK) indicator established by the Central Bureau of Statistics and expressed in units of the number of people. The Poverty Line (GK) is the sum of the Food Poverty Line (GKM) and the Non-Food Poverty Line (GKNM). If the average

**Table 3.** Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Poverty (thousands of people)	68	783,81	1.119.04	40,93	4.775,97
Permanent In Migration (people)	68	836.305	1.097.712	64.448	5.698.359
Permanent Out Migration (people)	68	830.755	1.384.615	43.214	6.943.718
Migration in Risen (people)	68	150.792	180.267,2	15.034	894.530
Risen Out Migration (people)	68	141.230	179.973,6	14.617	779.166
Wages (rupiah)	68	2.075.019	5.898.427	910.000	3.940.973
Education (years)	68	8,3	1,01	5,9	11,06
Region	68	0,17	0,38	0	1

Source: Central Bureau of Statistics (processed)

expenditure per capita per month is below the poverty line, a person or household is considered poor.

As a variable of interest, this study uses several indicators, namely permanent in-migration, permanent out-migration, research-in-migration, and research-out-migration. Researcher migration is migration that is carried out if the place of residence at the time of the survey is different from the place of residence five years before the survey. Permanent or lifelong migration of individuals who, at the time the census was held, live in an area different from their place of birth. Meanwhile, in-migration is the number of people entering a destination area, while out-migration is the number of people leaving a destination area. Migration data in this study were taken from the Central Bureau of Statistics in 2015 and 2019 in units of people.

To see the effect of migration on poverty, researchers use several control variables that are relevant in explaining the effect on poverty, as has been done by previous researchers. First, the level of education as measured by the average length of schooling (RLS) of the population in Indonesia in 2015 & 2019 in years. Furthermore, this study also uses the minimum wage measured in nominal rupiah obtained from the publication of the Central Bureau of Statistics. Finally, the rural

variable is a dummy variable with a value of 0 if the province is located in the western part of Indonesia (WIB) and 1 if it is outside WIB.

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#### D. RESULTS AND DISCUSSION

Table 3 explains the statistics for each variable used in this study. There were 68 samples in this study. As the dependent variable in this study, poverty has an average of 783.81 thousand people. The lowest poverty is 40.93 thousand people, while the highest poverty is 4,775.9 thousand people.

The independent variable in this study, namely permanent migration, averaged 836,305 people, where the lowest number was 64,448 people and the highest was 5,698,359 people.

**Table 4.** Estimation Results

Variable	(1) Poverty	(2) Poverty
Permanent In Migration	0,143 (0,093)	
Permanent Out Migration (people)	0.641*** (0.076)	
Wages (rupiah)	-0.496* (0.278)	-1.012*** (0.278)
Education (years)	-0.374*** (0.074)	-0.372*** (0.074)
Region	-0.258	-0.0599 (0.279)
Migration In Risen (people)		-0.379** (0.185)
Risen Out Migration (people)		1.135*** (0.163)
Constant	6.371 (3.844)	15.33*** (3.939)
Observation	68	68
R-squared	0.773	0.771

*Standard errors in parentheses* \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The permanent out-migration variable in this study sample has an average of 830,755 people. The lowest number was 43,214 people, while the highest was 6,943,718 people. For incoming migration, the average is 150,792 people, with the lowest being 15,034 people and the highest being 894,530 people. In out-migration, the average was 141,230 people, the lowest was 14,617 people, and the highest was 779,166 people.

Furthermore, the education variable in this study has an average length of schooling of 8.3 years, with the lowest being 5.9 years and the highest being 11.06 years. For variable wages, the average is IDR 2,075,019, while the lowest wage is IDR 910,000 and the highest is IDR 3,940,973. The regional variable in this study is a dummy variable; that is, 17% of the sample is in the western region of Indonesia, and the rest are in the central and eastern regions.

#### **Estimation Results**

This study analyzes the effect of migration on poverty in Indonesia in 2015 and 2019. The

analytical tool used in this study is a multiple regression model that is processed using the Ordinary Least Squares (OLS). The results presented are the best estimates that have fulfilled statistical, econometric, and economic criteria. The results obtained are expected to answer the hypotheses proposed in this study.

The table presents the estimation results for two different models related to migration and poverty. Model 1 focuses on permanent migration, both for inward and outward migration. The analysis uses the variables "permanent in migration" and "permanent out migration" as indicators. The coefficients in Model 1 illustrate the influence of these variables on poverty, in conjunction with other factors like wages, education, region, and migration inflows and outflows.

On the other hand, Model 2 addresses rising migration, as evidenced by the variables "Migration in Risen" and "Risen Out Migration." These variables capture the effect of non-permanent migration changes, and the model shows how these factors affect poverty in a

similar context to Model 1, but with a focus on changes in migration flows rather than permanent migration.

### ***Effects of In-Migration on Poverty***

The in-migration variable in model 1 (permanent migration) is not significant. This shows that there is no effect of permanent in-migration on the poverty rate in Indonesia. Meanwhile, the incoming migration variable in model 2 (rising migration) has a negative and significant effect with a significance level of 5%. This shows that every 1% increase in immigration will affect poverty reduction by 0.37%.

The regression results in this study found that the incoming migration variable in model 1 (permanent migration) did not affect poverty. This shows that regardless of the number of permanent immigrants, it does not affect the rise and fall of poverty in Indonesia. This finding is different from research (Hoang et al., 2021), which found that migration has an effect on poverty and has a positive effect on poverty alleviation.

Meanwhile, the incoming migration variable in model 2 (rising migration) has a negative effect on poverty in Indonesia. This means that any increase in the number of immigrants will help reduce the poverty rate. This finding is in line with (Yulianti, 2018) that migration has an effect on reducing poverty. Migrants who enter an area are usually for the sake of getting better job opportunities so that their income increases and their capacity is optimal.

In addition, in-migration can encourage local economic growth. When migrant residents spend their money in the receiving area for their daily needs. This can drive demand and vitalize various sectors of the economy, such as retail, housing, food, and transportation. This in turn creates additional jobs, increases people's incomes, and reduces poverty.

### ***Effects of Out Migration on Poverty***

The out-migration variable in model 1 (permanent migration) has a positive and significant effect with a significance value of 1%. This shows that every 1% increase in permanent out-migration will increase poverty by 0.64%. Meanwhile, the outgoing migration variable in model 2 (rising migration) has a positive and significant effect with a significance level of 10%. It means that every 10% increase in out-migration will increase poverty by 1.13%.

The regression results in this study indicate that the out-migration variable in model 1 (permanent migration) has a positive effect on poverty. That is, the higher the number of people who migrate out for a lifetime, the higher the poverty rate. This finding is in line with (Rusdi et al., 2021), which states that migration can increase poverty. If many residents in the village migrate, it will have a major impact on reducing labor and human resources (HR), causing the village to become underdeveloped, which can then increase poverty.

The out-migration variable in model 2 (inward migration) has a positive effect on poverty in Indonesia. This means that any increase in the number of out-migrants will increase the number of poor people in Indonesia. This finding is in line with the results of research (Ningsih, n.d.), which states that migration also harms poverty and can contribute to an increase in the number of poor people. Abandoned areas leave people who are more vulnerable and weaker, such as children and the elderly. The area will have a high dependency ratio, so that poverty can increase.

### ***Effect of Wages on Poverty***

The wage variable in Model 1 has a negative and significant effect. The significance of wages is 1%, so that every 1% increase in wages will reduce poverty by 0.49%. In model 2, the wage variable has a negative and significant effect on poverty at a significance level of 10%, where every 10% increase in wages will reduce poverty by 1.01%.

This shows that when wages increase, poverty will decrease. This finding is consistent with the results of research (Priseptian & Primandhana, 2022) and Boediono (2014), which state that increasing the minimum wage aims to increase the income of the population and the welfare of workers. Higher minimum wages can reduce poverty rates. With higher wages, individuals have greater financial ability to obtain the goods and services needed to improve their quality of life and reduce poverty.

#### ***Effect of Education on Poverty***

The education variable in model 1 has a negative and significant effect on poverty at a significance level of 10%, where every one year an increase in the average length of schooling will reduce poverty by 0.37%. Model 2 is consistent with model 1, where the education variable also has a negative and significant effect on poverty at a significance level of 10%, where every one year an increase in the average length of schooling will reduce poverty by 0.37%.

The regression results in this study found that the education variable in models 1 and 2 both had a negative and significant effect on the poverty rate. That is, any increase in education will reduce poverty. This finding is in line with research results (Islami & Anis, 2019). Through education, a person will gain knowledge and understanding. With higher education, individual productivity can be increased, so that opportunities to get good jobs and income also increase. High income can meet the needs of a decent life and avoid poverty.

#### ***Regional Influence on Poverty***

The regression results in this study found that area variables in models 1 and 2 did not affect poverty. This shows that there is no difference in poverty rates in the western and eastern regions of Indonesia. This finding is in line with research (Saputro & Utomo, 2010).

#### **E. CONCLUSION**

The in-migration variable in model 1 (permanent migration) does not affect poverty in Indonesia. Meanwhile, the in-migration variable in model 2 (rising migration) has a negative and significant effect on poverty. This shows that the higher the rate of in-migration, the lower the poverty rate in Indonesia.

The out-migration variable in model 1 (permanent migration) and model 2 (permanent migration) has a positive and significant effect on poverty. This shows that the higher the rate of out-migration, both temporary and permanent, will increase poverty in Indonesia.

Wages in models 1 and 2 have a negative and significant effect on poverty. This means that any increase in the minimum wage will reduce the poverty rate in Indonesia. The education variable in Model 1 and Model 2 has a negative and significant effect on poverty. This shows that the higher the level of education in a community, the greater the impact on poverty reduction in Indonesia will be. Regional variables in models 1 and 2 do not affect poverty in Indonesia, which means that there is no difference in poverty rates between the western and eastern regions of Indonesia.

Based on these conclusions, the following suggestions can be given. First, it is hoped that the Government of Indonesia, especially the National Development Planning Agency (BAPPENAS), in partnership with the Ministry of Social Affairs, can pay attention to and evaluate regulations and policies related to the migration program. This is because of the four migration variables, only the in-migration variable contributes to poverty alleviation. Meanwhile, the permanent in-migration variable has no effect. The variables of permanent out-migration and out-of-migration actually increase poverty.

Second, bearing in mind that the wage variable has a significant effect on poverty alleviation in Indonesia, the local government, especially the Manpower Office, needs to

regularly enforce and evaluate the minimum wage policy so that every worker can obtain their right to a decent living.

Third, bearing in mind that the education variable influences poverty reduction, the government needs to instill public awareness to pursue the highest possible education and pay more attention to the quality of education in Indonesia. This is an effort to improve the quality of human resources in the hope of reducing poverty.

Meanwhile, the limitations of this research are related to the availability of migration data at the macro level, which is only available for a certain time period, namely, in 2015 and 2019. Therefore, further research can utilize micro-based data at the household level to obtain more detailed analysis results.

## F. REFERENCES

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