



## IMPACT OF RECENT MIGRATION AND LOCAL INCOME DISPARITY: DOES TIME VARIYING IMPLY?

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### ABSTRACT

*Temporary migration is one part of the potential for income inequality in the region. On this basis, this study aims to examine the effect of temporary migration on income disparity. This study uses SUSENAS panel data from 34 provinces during 2010-2019. This study uses the generalized method of moments dynamic panel regression to analyze the time change while reviewing the regional aspect. The results show that in-migration has a significant positive effect on income disparity. Meanwhile, out-migration has a negative effect on income disparity. Moreover, inflation and consumption expenditure are suspected to cause the severity of inequality. On the other hand, average years of schooling encourage people to get good labor productivity. This upward migration policy implies that it is an alternative for regions to reduce income inequality. The policy is navigated from various transmissions such as education, investment, access to public services, central and local coordination, and monitoring of labor exploitation practices.*

**Keywords:** Temporary Migration, Income Disparity, Education

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### ABSTRAK

*Migrasi sementara menjadi salah satu bagian yang berpotensi terhadap ketimpangan pendapatan di daerah. Atas dasar tersebut, penelitian ini bertujuan untuk meninjau pengaruh migrasi risen terhadap disparitas pendapatan. Penelitian ini menggunakan data panel SUSENAS 34 provinsi selama 2010-2019. Penelitian ini menggunakan regresi panel dinamis Generalized Method of Moments untuk menganalisis perubahan waktu sekaligus meninjau aspek wilayah. Hasilnya menunjukkan bahwa migrasi risen masuk berpengaruh positif signifikan terhadap disparitas pendapatan. Sementara itu, migrasi risen keluar justru berpengaruh negatif terhadap disparitas pendapatan. Tidak hanya itu, faktor yang diduga menyebabkan tingkat keparahan ketimpangan adalah inflasi dan pengeluaran konsumsi. Di sisi lain, rata-rata lama sekolah justru mendorong seseorang untuk mendapatkan produktivitas kerja yang baik. Implikasi dari kebijakan migrasi risen ini menjadi alternatif bagi daerah untuk menurunkan ketimpangan pendapatan. Kebijakan tersebut dinavigasi dari berbagai transmisi seperti pendidikan, investasi, akses terhadap layanan publik, koordinasi pusat dan daerah, serta pengawasan terhadap praktik-praktik eksploitasi tenaga kerja.*

**Kata Kunci:** Migrasi Sementara, Disparitas Pendapatan, Pendidikan

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## Introduction

The area's accessibility is increasingly heterogeneous, so many people have to commute and migrate temporarily. It is intended to sustain their livelihoods. Most people and households migrate from villages to cities or from one region to another (Phan & Coxhead, 2010). Temporary migration is carried out by households due to changes in duties, finding new jobs, and following children in school (Chan, 2001). Temporary migration benefits the region because it serves as a parameter for equity. Through temporary migration, income sharing can be done by migrants to indigenous communities. Temporary migration (upward migration) becomes indispensable for remote and outermost regions for welfare sharing and work experience.

Besides providing benefits to indigenous people, temporary migration is also a boomerang for income disparity (Blanchflower et al., 2007). In rural-urban migration conditions, problems that are quite concerning are often found. These problems include slum environments, the emergence of illegal (semipermanent) housing, and the potential for shanty towns (Ibrahim, 1990). Not only that, the potential for increasing income inequality is also higher. It is because migrants with insufficient competence and lack of eligibility feel forced to settle in a new place, which has implications for long-term concessions. It indicates that educational competencies are necessary to prevent income disparities from getting higher. The role of education and skills is fundamental for communities to develop their capacity to drive labor productivity (Knapp et al., 2013).

In general, education has a significant positive impact on reducing income inequality. Higher education increases an individual's chances of getting a better job and earning more. People with better education often access better quality and paid jobs (Muszyńska & Wędrowska, 2023). Education enables social mobility, i.e., individuals can move from lower to higher-income groups. It helps reduce the income gap between groups (Artige & Cavenaile, 2023). Education increases knowledge about health, hygiene, and nutrition, contributing to improved quality of life and reduced costs of necessary healthcare. Investments in education, especially for low-income groups, are an effective strategy to reduce income inequality and create a more economically just society (Müller & Klein, 2023).

As a country with the potential to increase the urban population, Indonesia is also a target for the sustainability of income disparity. According to (BPS, 2022), the urban population projection has reached 58% and continues to grow. It encourages unique instrumentation for central and regional governments to utilize certain areas to avoid potential income inequality (Sacchi & Salotti, 2014). Not only that, the potential for upward migration to densely populated areas is also projected to increase. For example, in Java alone, urban population growth has reached 76% by the end of 2022. It has become a particular concentration for transmigration equity and synergy.

For several years, Indonesia has been adopting an integrated transmigration policy. People are given material provisions and skills to develop the destination area to create inclusive equity. In the past, transmigration activities were found contradictory because they only moved people from densely populated areas to sparsely populated areas without special skills and expertise, making the area even poorer and increasing income disparities. Therefore, this activity will currently be reviewed to realize more real development transparency and manifest towards equity. However, the relatively low transmigration rate and the absence of restrictions on the entry and exit of the region have made people more concentrated in the central areas and old-growth poles. Jakarta, for example, has reached a maximum population of 100%, which will hamper the balance of income for people in the region.

Income inequality is one of the concepts in long-term development planning. The importance of measuring income inequality is indispensable in formulating policies that lead to justice and balance of society in general within the scope of the country (Resosudarmo & Vidyattama, 2006). Perpendicularly involving information from all directions, this reference rectifies the phenomenon of the entanglement of each sector and the sectoral ego intervention of each individual in the population to explain concretely how this gap can be minimized within a particular time. The existence of massive migration also has the potential to sustain income inequality.

Indonesia's inequality level now stands at 0.381 and is classified as low. If dissected individually, the expenditure distribution for the bottom 40% is 18.24%. It puts September 2022 household expenditure in the low inequality category. By region, the value for urban areas is 17.19%, which falls into the low disparity category. Meanwhile, rural areas fall into the low disparity category at 21.06%. This condition proves that the passion for consumption is still relatively high and evenly distributed across various expenditure deciles.

Several previous studies question whether migration can cause income disparity (Orrenius & Zavodny, 2018; Uprety, 2020). Orrenius & Zavodny (2018) examined how migration affects income and wage disparities in the country of origin. They found that Mexican immigrants to the United States are important in reducing inequality as low-income families move up to the middle class or further away from poverty. On the other hand, considering the concept of causality (Uprety, 2020) shows that in developing countries, there is evidence that the migration of highly skilled individuals increases income inequality in the short-run. In contrast, the migration of low-skilled individuals does not impact inequality significantly.

On the other hand, in Indonesia, not many studies have tried to reveal the behavior of temporary migrants, including commuters, in driving increasing income disparity. Most migration research in Indonesia is still directed at the determinants of migration. Not only that, research that directly addresses migration is often focused on its movement aspect, with minimal interconnection with income inequality. Thus, this study will be directed at the effect of temporary migration on the potential income inequality of people in Indonesia. The research is expected to provide factual information related to migration rates in Indonesia and encourage regulations to equalize population density so that social and economic problems can be overcome quickly. This research is helpful for policymakers in planning inclusive development by considering economic growth, poverty, and accessibility.

## Literatur Review

### **Migration**

Migration was first developed to look at population dynamics that, over time, change in addition to the original factors of birth and death. Migration was adapted to look at the net movement of the inflow and outflow of a population within a particular area. The migration theory proposed by Todaro & Smith (2020) is often associated with the field of development economics. It focuses on explaining the process of rural-to-urban migration in developing countries. According to Todaro, migration occurs due to various factors, such as the push from rural areas that encourage people to migrate. It could include a lack of job opportunities, low wages, and poor living conditions. Meanwhile, the pull factors tend to come from cities. These include higher wages, job opportunities, and living standards.

Migration significantly impacts the economy, both in the origin and destination regions. The positive impacts of migration include increasing growth, increasing the number of workers, and helping to accelerate capital inflows as economic activity increases (de Haas

& Fokkema, 2011). Meanwhile, the negative impacts of migration include the development of an area that can be hampered. Productivity decreases due to the lack of productive labor, overcrowding problems in the destination area, housing problems, and unemployment, which impacts increasing crime (de Haas & Fokkema, 2011; Ozgen et al., 2010).

### ***Inequality***

Todaro and Harrod-Domar discuss income inequality from an economic development perspective. Todaro & Smith (2020) recognize that economic growth can create disparities, primarily if the benefits are distributed unequally. His section covers the impact of urbanization and the growth of specific economic sectors that can benefit a small portion of society more significantly. In addition, Todaro introduces the concept of “hidden labor supply,” which describes a situation where the number of workers seeking employment in urban areas may exceed the number of jobs available (Mello, 2008). It may increase unemployment and may create pressure on wage levels.

Meanwhile, Harrod-Domar provides a development economics theory explanation of the relationship between investment, economic growth, and income inequality (Hochstein, 2017). The Harrod-Domar theory emphasizes that investment has a significant impact on economic growth. High investment can trigger an increase in production and national income. However, the theory also recognizes that such growth may be uneven across sectors of the economy. Some sectors may expand faster than others, creating a misalignment in income distribution. In addition, unstable investments or fluctuations in the business cycle can create economic instability (Vandenberg & Rosete, 2019). This instability can lead to a gap between income and expenditure, ultimately resulting in an imbalance in the economy.

Income inequality is generally caused by various factors, such as economic, social, and institutional factors (Heckman, 2011). These factors produce complex interactions that have the potential to spread much faster. These factors generally include education, skills, regional differences, and inequality in regional governance. These factors then accelerate the process of widening income inequality. Externally, some factors can be one of the keys related to income inequality, namely capital accessibility and widespread globalization.

The consequences of income inequality can lead to a general slowdown of the regional economy, given its crucial role in the region’s development (Bigsten, 1997). In particular, income inequality leads to widening income disparities, economic slowdown, social instability, and societal segregation such that the rights of the lower classes are denied.

### ***Relation of Migration and Inequality***

Several studies have also analyzed the impact of migration on income disparity (Antonia & Prada, 2022; Howell, 2017; Zhan et al., 2021). Howell (2017) analyzed the impact of migration on income disparity in China’s rural minority areas. Howell found that the continued movement of rural-urban migrants is likely to lead to inequality between ethnicities in rural minority areas. These results are supported by research (Zhan et al., 2021), which shows that migration contributes to enlarging income inequality in rural areas; while it can reduce income inequality in urban areas, this can occur because the labor market in rural areas is small and less diverse (Slettebak, 2020). On the other hand, Nobahar & Ghorbani (2021) found that migration increases income inequality in origin cities and reduces inequality in destination cities.

Migration and inequality are highly correlated. For example, individuals are driven from their place of origin due to poverty to other places to improve their living standards by earning higher wages. [Slettebak \(2020\)](#) analyzed the relationship between migration and income inequality with the case of labor migration to Norway. The findings show that labor migration from the EU is followed by high-income inequality in Norway. It is due to two different mechanisms: a “mechanical” effect of the large number of low-income workers and a more controversial impact on the income of native workers. [Blau & Kahn \(2015\)](#) argue that migration can lead to income inequality because it increases labor supply too quickly, affects inter-group competition in the labor market, and ultimately depresses wages. On the other hand, [Kalleberg \(2011\)](#) argues that the impact of immigration depends on whether immigrants are substitutes or complements for local workers. If immigrants are substitutes, they can lower wages and lead to income inequality, while if they are complements, they can create jobs for local workers.

Previous studies have talked a lot about the impact of migration on both domestic and international employment. Under certain conditions, migration may negatively or positively affect the number of workers. The first condition is that migration negatively affects the number of workers. This effect is transmitted through the low productivity level of migrant workers, so the job supply is increasingly squeezed by open information ([Borjas et al., 1997](#); [Docquier et al., 2014](#); [Foged & Peri, 2016](#)). On the other hand, in other conditions, the positive impact of migration on labor supply is transmitted through people’s skills and expertise so that there is a possibility of relatively stable wage units and higher labor supply. In both relationships, migration is often associated with wage determination ([d’Amuri et al., 2010](#); [Dustmann et al., 2013](#); [Peri, 2012](#)). On the other hand, other studies often link the arrival of immigrants, who often threaten the potential employment space of natives ([Dustmann et al., 2013](#)). Under these conditions, the local community is increasingly exposed to the challenge of competing with the immigrant community and vice versa ([Dustmann et al., 2017](#)). Not only that, the increasing competition also encourages social problems such as crime and social injustice.

Several other studies have also revealed the behavior of immigrant populations towards the potential social inequality of society in general, but the behavior is more about permanent immigrants ([Mckenzie & Rapoport, 2007](#)). On the other hand, the effect of upward migration on reducing inequality is sometimes followed by macroeconomic factors such as consumption expenditure and inflation. Increased consumption expenditure has a significant positive effect on income inequality. This is especially the case if the increase in consumption focuses on low- and middle-income groups ([Jappelli & Pistaferri, 2010](#); [Oakley & O’Brien, 2016](#)). Inflation is generally considered a factor that can increase income inequality. The impact of inflation may burden individuals with low incomes more than those with high incomes ([Desai et al., 2005](#); [Jaravel, 2021](#); [Menna & Tirelli, 2017](#)).

## **Data and Research Methods**

### ***Data and Variable***

The data used is a type of panel data consisting of 34 provinces as its cross-section, while the year used is for nine years, namely 2010-2019. This type of secondary data can be found through the BPS National Social and Economic Survey (SUSENAS). This study uses the interval range of 2010-2019 because, at the end of 2009, some migration began to be found in Indonesia’s megapolitan integrated urban areas such as Jakarta, Surabaya, and Medan. In addition, the relatively stable concentration of migration that occurred in 2010-2012 makes this study very important for developing and regulating migrant populations. In addition,

phenomena such as the relatively contrasting regional income inequality for eastern Indonesia highlight this study. The relatively false view of the development of income distribution in eastern Indonesia and Indonesia is one paradigm that accommodates each other.

**Table 1: Summary of Research Unit Variables**

No	Variable	Unit	Source
1	Gini Ratio Index	Percent	BPS
2	Recent out-migration	Percent	SUSENAS, BPS
3	Recent in-migration	Percent	SUSENAS, BPS
4	Household Expenditure	Percent	SUSENAS, BPS
5	Average Years of Schooling	Percent	SUSENAS, BPS
6	Inflation	Percent	BPS

### **Empirical Model**

This study uses the generalized method of moments regression to estimate the model's coefficient by assuming the panel data is dynamic. The use of the GMM method is an estimation method in panel data and can overcome the endogeneity problem in the model. The GMM method was introduced by [Arellano & Bond \(1991\)](#) and [Anderson & Hsiao \(1982\)](#). This GMM method has several advantages compared to other methods. GMM can overcome endogeneity problems that cause estimation bias to determine the relationship between variables. The GMM method also has consistent and efficient estimation results and is suitable for panel data with a short research period.

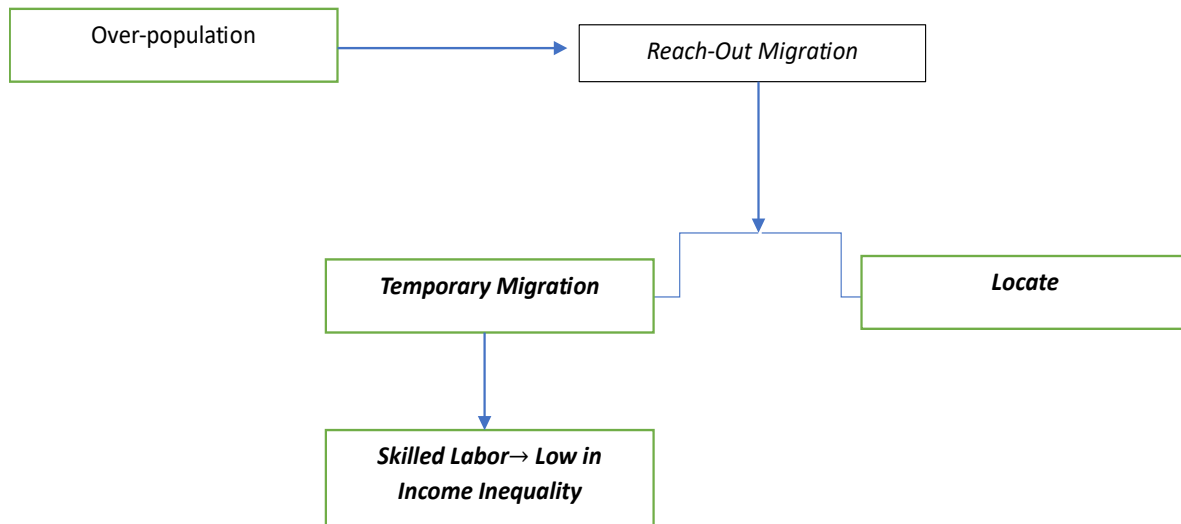
Difference GMM and system GMM are used for panel data analysis and are followed by several assumptions ([Roodman, 2006](#)), including the process is dynamic, where last year's value influences the current value of the dependent variable, some regressors may be predetermined, but not purely exogenous, where last year's residual values influence the current independent variable residuals, idiosyncratic errors that are separate from fixed effects may have individual-specific patterns of heteroscedasticity and serial correlation, Idiosyncratic errors are not correlated between individuals, the data has a short period component and wide individuals.

Other estimation methods can be applied as long as they can have consistent and efficient coefficients by correcting the fixed effect as developed by ([Blundell & Bond, 1998](#)), who saw that the lag of the dependent variable at the level level becomes weak because the ratio of the variance of the fixed effect to the ratio of idiosyncratic error becomes wide. They introduced a GMM estimation system that uses moment conditions where the lag of the dependent variable at the first derivative level is used as an instrumental for the equation at the level.

The empirical model of this study is to construct a new framework by [Taylor \(1992\)](#) and [Mckenzie & Rapoport \(2007\)](#) consisting of the Gini ratio index, in-migration, out-migration, average years of schooling, expenditure, and price level. Furthermore, the framework is organized as follows:

$$GR_{it} = \alpha_0 + \alpha_1 GR_{it-1} + \alpha_2 \ln MM_{it} + \alpha_3 \ln MK_{it} + \alpha_4 RLS_{it} + \alpha_5 \ln EXP_{it} + \alpha_6 inf_{it} + e_{it} \quad (1)$$

Where  $GR$  is the Gini ratio index,  $MM$  is recent in-migration,  $MK$  is recent out-migration,  $RLS$  is average years of schooling,  $EXP$  is a household expenditure,  $inf$  is inflation,  $\alpha_0$  is a constant,  $\alpha_1 - \alpha_6$  are coefficients,  $i$  is a province,  $t$  is the current period, and  $t - 1$  is the previous period.



**Figure 1: Conceptual Freamwork**

The increase in population, coupled with the accessibility and attractiveness of the neighboring areas, makes people decide to move due to various demands. Some people will settle down directly, and the rest will commute because of rural-urban jobs. In the context of people who settle down, there is still the possibility of temporary migration, which then encourages the evaluation of labor into skilled and unskilled labor. Specifically, the potential for unskilled labor drives differences in income levels, causing inequality to increase.

**Finding and Discussion**

The following table presents descriptive statistics, including centralization (mean) and measures of dispersion (standard deviation, min, and max).

**Table 2: Summary of Research Variable Units**

Variable	Obs	Mean	Std. Dev.	Min	Max
gini	374	0.357	0.057	0	0.459
logmrk	369	11.229	1.202	9.59	15.775
rls	374	8.004	1.237	0	11.13
logexp	374	31.903	1.252	26.151	34.603
inf	374	4.309	2.672	-0.03	12.55

**Estimation Results**

Table 3 presents the estimation results using GMM dynamic panel analysis. The variables used in the estimation are the Gini index (inequality proxy), percentage of recent in-migration, percentage of recent out-migration, percentage of household expenditure in the province, average years of schooling, and price level.

Based on the results, it shows that all coefficient values are consistent across GMM analysis techniques. The difference in significance level is due to the relatively large standard error value in diff-GMM, so the most appropriate model is sys GMM. The four estimation results show that one-step GMM, derived and system equations, have significant Sargan probabilities at the 10% level, thus rejecting the valid GMM hypothesis. Thus, one step is invalid and exceeds identification. Meanwhile, the two-step GMM, derived and system, show that the probability of sargan is insignificant at each level, 1%, 5%, and 10%, so the model is

declared to accept the hypothesis that this model is valid. In addition, the results of testing autocorrelation (Arellano-bond) show that the second order is insignificant at each level, so the model is declared free from autocorrelation problems.

**Table 3: Estimation Results of the Effect of Recent Migration on Income Disparity**

	(1)	(2)	(3)	(4)
	gini	gini	gini	gini
cons	0.071	0.082	0.003	0.168***
	(0.251)	(0.104)	(0.1)	(0.056)
L.gini	0.23***	0.337***	0.227***	0.392***
	(0.079)	(0.058)	(0.05)	(0.051)
logmrk	-0.007	-0.014**	-0.002	-0.017***
	(0.009)	(0.006)	(0.004)	(0.003)
logmrm	0.032***	0.035***	0.034***	0.027***
	(0.011)	(0.007)	(0.007)	(0.005)
logexp	0	0	0*	0.001*
	(0.005)	(0.004)	(0)	(0.001)
rls	-0.013***	-0.011***	-0.014***	-0.012***
	(0.004)	(0.004)	(0.001)	(0.001)
inflation	0.001**	0.001**	0.001***	0.001**
	(0.001)	(0.001)	(0)	(0)
Observations	301	335	301	335
Instrumental	50	50	50	50
AR (1)	-	-	0.0001	0.0001
AR (2)	-	-	0.8458	0.7710
P(Sargan)	0.0762	0.0126	0.9328	0.9890

Standard errors are in parentheses

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Note: (1) One-Step Diff-GMM; (2) One-Step Sys GMM; (3) Two-Step Diff GMM; (4) Two-Step Sys GMM

The estimation results in Table 3 above show that when the average years of schooling increase by one year, the Gini ratio decreases by 0.012 indexes with the assumption of ceteris paribus. Furthermore, the percentage of recent in-migration shows that when recent in-migration increases by 1 percent into a new region, the gini ratio increases by 0.027 indexes, assuming ceteris paribus. Then, the percentage of recent out-migration shows that when recent out-migration increases by 1 percent into a new region, the gini ratio decreases by 0.017 indexes, assuming ceteris paribus. Household consumption expenditure described through the percentage of expenditure shows that when consumption increases by 1 million rupiah, the gini ratio decreases by 0.001 index assuming ceteris paribus. Finally, inflation, when it rises by 1 percent, affects the gini ratio by 0.001 index, assuming ceteris paribus.

### Discussion

Based on the estimation results above, recent in-migration positively affects income inequality. It is in line with [d'Amuri et al. \(2010\)](#); [Dustmann et al. \(2013\)](#); and [Peri \(2012\)](#) that the arrival of immigrants often threatens the employment opportunities and wage determination of natives. Recent in-migration can lead to a decrease in wages, a change in the formality of work in the informal sector, a change in the composition of increasingly complex work, and the potential for worker discrimination. In terms of wage decline, for example, in-migration



can increase the number of workers in the labor market, resulting in a decline in wages for local workers. It happens because, with an increase in the number of workers, competition for available jobs becomes higher, which can reduce the bargaining power of local workers to set higher wages.

In the case of changes in worker formality, migrant workers entering the destination are more likely to enter the informal sector, such as the service sector, due to a lack of adequate training or language skills. It can reduce their income and lower wage standards in these informal sectors. In the case of changes in the composition of workers, people coming to the destination can fill previously unavailable jobs to local workers, especially in sectors such as health care, child care, and housekeeping. It can reduce disparities in access to specific jobs but can also reduce wages in those sectors. In the case of labor discrimination, it can occur in destination areas, which can result in significant wage differences between local workers and migrants. It occurs due to bias or prejudice against immigrant workers from different cultures or regions.

Based on the estimation results, recent out-migration has a negative effect on income inequality. Thus, the results correlate with research [Borjas et al. \(1997\)](#); [Docquier et al. \(2014\)](#); [Foged & Peri \(2016\)](#) that the productivity level of migrant workers is low and leads to less job supply. Recent out-migration directly impacts the equitable distribution of the population. Recent out-migration then impacts the reduction of pressure in the labor market, increased money transfers, increased skills, and increased investment. In the case of decreased pressure in the labor market, it can increase local workers' wages because the labor demand is higher than the supply. In the case of increased material transfers, for example, migrant workers can send money to their families in the area of origin, increasing their household income and reducing economic inequality among social and economic groups. In the case of increased skills, for example, migrant workers can bring the skills and experience gained in the destination back to their origin, which can help improve productivity and job skills in the origin area. Finally, in the case of increased investment, migrant workers who are successful in their destination may choose to return to their area of origin and start a business or investment that can provide employment and boost the economy in their area.

However, there are also some negative impacts of out-migration, such as the loss of skilled and productive labor and the loss of human resources that can contribute to economic development and growth in the region of origin. Moreover, out-migration can also increase economic inequality if only certain groups have the opportunity and resources to emigrate.

Education is one of the critical factors related to the success of income equality in a region. Based on the estimation results, education can significantly reduce inequality. This study is consistent with the results presented by [Artige & Cavenaile \(2023\)](#); [Müller & Klein \(2023\)](#); [Muszyńska & Wędrowska \(2023\)](#). Education can help improve one's skills and ability to access better, higher-paying jobs. Higher education can give access to more sophisticated jobs and provide a broader range of capabilities, increasing the chances of earning a higher income. Education can open doors to social mobility, which can help reduce income inequality. With higher education, one can move from lower to higher social and economic groups and increase their income. Education can help reduce discrimination and prejudice that may affect a person's chances of getting a job and a fair wage. With higher education, a person can better fight discrimination and take steps to ensure they are treated fairly in the workplace. Therefore, it is essential to ensure that quality and affordable education is available to everyone and to redress disparities in access to good education. In addition, there must be appropriate policies to ensure graduates have access to appropriate employment and fair earning opportunities.

Expenditure is also critical to the connectivity of temporary migrants to income inequality. In this context, expenditure has a significant positive effect on income disparity. This result is consistent with the research presented by [Jappelli & Pistaferri \(2010\)](#); [Oakley & O'Brien \(2016\)](#). At first sight, consumption expenditure may worsen income inequality if the less well-off spend more on basic needs such as food, clothing, and shelter. It will make the poorer segments of society worse off while the wealthier segments increase their wealth. Meanwhile, investment spending can help reduce income inequality by increasing employment opportunities and providing additional income for the community. Investments made by the government or the private sector in infrastructure, technology, and industry sectors can create employment opportunities and improve people's skills and income.

Spending on education can help reduce income inequality by providing equal opportunities for everyone to acquire the skills and education needed to enter a better job market and earn higher incomes. With better education, the less well-off can improve their skills and competencies to get better jobs and increase their income. Spending on health can also help reduce income inequality as it can help reduce disparities in access to health services and prevent the poor from falling into deeper poverty due to unexpected health costs. With better health, people can work more effectively and productively, increasing their income. Therefore, the government needs to allocate sufficient funds to sectors to help reduce income inequality and improve the skills and income of people experiencing poverty. The government also needs to pay attention to the effectiveness of spending and ensure that the funds spent are used appropriately and efficiently to achieve the goals of poverty alleviation and income inequality.

Inflation is considered to be the transmission part of the increase in inequality when the in-migration surge arrives. Inflation can exacerbate income inequality as higher prices of goods and services affect lower-income groups more than higher-income groups. The more financially well-off groups tend to bear the cost of inflation better than the less well-off groups. Inflation can reduce people's purchasing power because higher prices of goods and services require more significant expenditure to buy them. If wages and incomes do not keep up with inflation, purchasing power will decline, especially for lower-income groups. Inflation can also hurt savers, especially if banks' interest rates are insufficient to cover the rising prices of goods and services. It can worsen the income gap between those who need access to better investment instruments.

On the other hand, inflation can encourage spending and investment. When prices of goods and services rise, people tend to spend their money faster, boosting economic growth and employment opportunities. However, it can also worsen income inequality as groups with more money spend more. Therefore, the government needs to maintain a stable inflation rate and implement policies that can help people deal with the impact of inflation on income inequality, such as subsidizing or protecting prices for people's basic needs and improving the skills and income of people who are vulnerable to inflation. Controlled inflation can promote economic growth by indicating increased consumer demand and investment. Balanced economic growth can create more job opportunities and increase income for low-income groups ([Desai et al., 2005](#); [Jaravel, 2021](#); [Menna & Tirelli, 2017](#)).

## **Conclusion**

Based on the dynamic panel estimation results, there is a link between migration and income distribution. It is in line with various information that increased migration to urban areas causes population concentration to be optimized, which indirectly affects the profession and

income received by migrants from other regions. Several reasons support previous research, especially about the average years of schooling, which is negatively correlated when migrants enter urban areas. Thus, when the migrant population has specific skills to utilize everything they have, this paradigm will not occur. On the other hand, more productive spending is also expected to reduce income inequality massively. However, inflation needs to be considered so that the transitivity of inequality can be reduced unilaterally.

The recommendations presented in this study then have implications for massively reducing income inequality through various transmissions such as education, investment, access to public services, central and regional coordination, and supervision of labor exploitation practices. The government can improve access to education in less developed areas so that people in these areas can acquire the necessary skills and education to improve their employment opportunities and income. It can encourage positive migration, where people moving to more developed areas can bring new skills and improve the quality of human resources. The government can increase investment in less developed areas to create new jobs and improve the skills of local people. It can encourage positive migration, where people who move to the area can get new jobs and increase their income.

The government can improve access to public services such as transportation, health, and housing in less developed areas to improve people's quality of life and open up opportunities for people to increase their income. It can encourage positive migration, where people who move to these areas can gain better access to public services and improve their quality of life. Central and local governments must collaborate to develop effective strategies to reduce income inequality between regions. Coordination between the central and local governments can accelerate the development of less-developed areas and increase employment opportunities and incomes of people in these areas. Improving oversight of labor exploitation practices can help protect migrant communities from oppression and ensure that they earn decent wages. It can encourage positive migration, where people moving to more developed areas can find safe and fair work and increase their incomes. Implementing these policies is hoped to help reduce income inequality between regions and encourage positive migration, where people can get better opportunities to improve their quality of life and income.

This study is limited to a literature review with little to say about the relationship between migration and income disparity. In addition, the data available is relatively short for some of the new provinces, such as North Kalimantan, which causes incomplete data like other provinces. The limitation of the study is also shown by the lack of various variable elements in the Human Development Index because the two should have a connection with each other. Thus, recommendations for future researchers are needed; for example, a particular review of other indicators, such as superior power/leading sectors, is also needed so that this information is more connected to each other. In addition, more interval years are also needed so that the research will focus on the macro-panel (PMG).

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