

# Determinants of Poverty in Tasikmalaya City, West Java, Indonesia: The Role of Per Capita Gross Regional Domestic Product, Education, and Unemployment

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## Abstract

Poverty remains a persistent challenge in Indonesian urban centers, including Tasikmalaya City in West Java Province. This study investigates the determinants of poverty by employing per capita Gross Regional Domestic Product (GRDP), average years of schooling, and the open unemployment rate as explanatory variables. Using multiple linear regression analysis based on 13 years of data (2012–2024) from the Central Bureau of Statistics (BPS) of Tasikmalaya City, the findings reveal that per capita GRDP significantly reduces poverty, whereas education and unemployment show no significant effects. These results underscore the critical role of economic growth, while education and labor market conditions exhibit only limited short-term influence on poverty alleviation, particularly in urban economies with large informal sectors. The study provides policy recommendations for local governments to design more effective poverty alleviation strategies aligned with the SDGs and regional development agendas.

**Keywords:** Poverty, Per capita GRDP, Education, Unemployment, Multiple Regression, Tasikmalaya.

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## 1. INTRODUCTION

Poverty is a multidimensional issue that reflects deficiencies in income, access to basic services, and limited participation in economic life (Nuryitmawan, 2016). Although Indonesia's macroeconomic performance has shown substantial growth over the past two decades, poverty reduction has not been evenly distributed. Secondary cities such as Tasikmalaya face dual challenges of urbanization and economic informality (Yuliawati, Larasati, & Lituhayu, 2025). Located in West Java, Tasikmalaya is characterized by high population density, uneven infrastructure, and segmented labor markets, which together complicate poverty alleviation efforts (Azzahra & Susilowati, 2025).

At the national level, the Indonesian government has implemented several flagship poverty alleviation programs—such as the Program Keluarga Harapan (Conditional Cash Transfer), Bantuan Langsung Tunai (Direct Cash Assistance), and the Village Fund—as stipulated in the Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020–2024 (Bappenas, 2020). At the global level, the

commitment to Sustainable Development Goal 1 (No Poverty) reinforces the urgency of localized poverty research (United Nations, 2015).

This study therefore calls for an empirical investigation of structural factors that shape poverty dynamics—particularly income, education, and employment. These variables are deeply rooted in development theories, ranging from human capital perspectives to labor market dynamics in transitional economies (Todaro & Smith, 2020). The present study aims to identify how these factors influence the proportion of the population living below the poverty line in Tasikmalaya City.

## 2. LITERATURE REVIEW

### 2.1 Poverty and Economic Theories

Poverty has been analyzed through a wide range of theoretical perspectives, each emphasizing different causal mechanisms and policy implications. From the scarcity perspective, poverty is seen to influence human decision-making by creating a mindset of constraint, often resulting in short-term financial choices and lower

productivity (Bruijn *et al.*, 2021). Marxist theory, on the other hand, situates poverty within structural inequalities generated by capitalist accumulation, highlighting exploitation and the deepening of social stratification (Wu, 2024). Complementary to these views, approaches such as social exclusion and social capital theories emphasize the relational and institutional dimensions of poverty, where limited access to networks, norms, and social protection mechanisms reinforces deprivation (Davis, 2014). Historical critiques further suggest that conventional economic models tend to oversimplify poverty, failing to account for its dynamic and context-specific features (Martin, 2010). Taken together, these perspectives demonstrate that poverty cannot be adequately understood through a single framework, but rather requires a multidisciplinary synthesis to inform effective policy design.

## 2.2 GRDP and Poverty

The relationship between Gross Regional Domestic Product (GRDP) and poverty reduction has been widely examined, though the findings vary across regions. In several provinces, higher GRDP has been strongly associated with poverty alleviation, as seen in Central Java where growth in regional output significantly reduced poverty rates (Bintang & Woyanti, 2018; Andhykha *et al.*, 2018). However, other studies suggest that the impact of GRDP is uneven. For instance, in Aceh, increases in GRDP did not translate into substantial poverty reduction due to persistent structural challenges such as limited infrastructure and weak human capital development (Fardilla & Masbar, 2020). Moreover, evidence shows that factors like unemployment and education mediate the relationship between GRDP and poverty; high unemployment and low educational attainment can weaken the positive effects of economic growth (Bintang & Woyanti, 2018; Fisabilillah, 2023). Infrastructure development also emerges as a crucial complement, where investments in transportation and social facilities enhance the inclusivity of growth and broaden its poverty-reducing effects (Awaludin & Wibowo, 2023). Overall, while GRDP growth plays a central role in reducing poverty, its effectiveness depends on the simultaneous improvement of human resources, infrastructure, and labor market conditions.

## 2.3 Education and Poverty

Education is widely recognized as a critical pathway for poverty reduction, primarily through its role in enhancing human capital and improving access to higher-paying employment opportunities. Studies in Indonesia highlight that education not only increases income levels but also reduces inequality and supports intergenerational mobility (Herianingrum *et al.*, 2018; Hindun *et al.*, 2019). Beyond Indonesia, evidence from countries such as Colombia shows that context-specific approaches—such as culturally sensitive curricula—can enhance education’s effectiveness in alleviating poverty (Santos, 2020). Despite these positive findings, other

research suggests that the impact of education is often partial and context-dependent. For example, Garcia and Silva (2019) observed that the perceived benefits of education in reducing poverty may diminish in settings where labor market mismatches and structural inequalities persist. These findings suggest that while education is an essential tool for poverty alleviation, its transformative potential is limited unless integrated with broader socio-economic reforms, including labor market policies, infrastructure improvements, and social protection systems.

## 2.4 Unemployment and Poverty

Unemployment and poverty are closely intertwined, often reinforcing one another in cyclical patterns. A lack of employment opportunities directly reduces household income, making it difficult to meet basic needs, while sustained poverty can in turn exacerbate unemployment by limiting access to skills, education, and productive assets (Saunders, 2006; Akhmad, 2020). Empirical studies in developing countries, such as Nigeria, highlight this two-way relationship, where high unemployment and poverty mutually intensify, leading to social unrest and rising crime rates (Ayegba, 2015; Urowoli & Alero, 2022). However, the strength of this relationship differs across contexts, particularly in economies with large informal sectors. In such settings, households may still generate income through informal work, reducing the apparent impact of unemployment on poverty statistics (Akhmad, 2020). At the same time, sustained economic growth has the potential to break this cycle by creating more job opportunities and expanding income sources. These findings suggest that tackling poverty through employment policies requires more than job creation alone; complementary strategies, including skills development, labor market formalization, and social protection programs, are equally critical to ensure sustainable poverty reduction.

# 3. RESEARCH METHODOLOGY

## 3.1 Research Design

This study adopts a quantitative approach using multiple linear regression models to measure the impact of per capita GRDP, education, and unemployment on poverty levels in Tasikmalaya City.

## 3.2 Data Sources

Secondary data were obtained from the Central Bureau of Statistics (BPS) of Tasikmalaya City for the period 2012–2024, comprising:

- Poverty rate (%)
- Per capita GRDP (million rupiah)
- Average years of schooling (years)
- Open unemployment rate (%)

### 3.3 Model Specification

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

- Y** : Poverty rate (%)  
**X<sub>1</sub>** : Per capita GRDP (million rupiah)  
**X<sub>2</sub>** : Average years of schooling (years)  
**X<sub>3</sub>** : Open unemployment rate (%)

$\varepsilon$  : Error term

## 4. RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

Table 1 presents the descriptive statistics for the variables used in the regression analysis.

**Table 1: Descriptive Statistics of Research Variables (n = 13)**

| Variable                           | Min   | Max   | Mean  | Std Deviasi |
|------------------------------------|-------|-------|-------|-------------|
| Poverty rate (%)                   | 11,1  | 18,94 | 14,19 | 2,44        |
| Per capita GRDP (million rupiah)   | 15,93 | 24,92 | 20,93 | 2,86        |
| Average years of schooling (years) | 8,34  | 9,63  | 9,02  | 0,47        |
| Open unemployment rate (%)         | 5,94  | 8,29  | 6,97  | 0,68        |

**Source:** Processed data

Descriptive statistics indicate that the poverty rate in Tasikmalaya City ranged between 11.1% and 18.94% during 2012–2024, with an average of 14.19%. This reflects substantial fluctuations, suggesting that while some improvements have occurred, poverty remains a persistent issue.

Per capita GRDP varied from IDR 15.93 million to IDR 24.92 million, with a relatively high standard deviation of IDR 2.86 million, indicating notable variation in economic output per person. This may reflect broader economic shifts such as sectoral productivity changes or investment dynamics.

The average years of schooling ranged from 8.34 to 9.63 years, with a mean of 9.02 years. Most residents had completed at least junior secondary

education, but relatively few advanced to senior secondary education, highlighting ongoing challenges in higher-level educational access.

The open unemployment rate ranged from 5.94% to 8.29%, averaging 6.97%. While not extreme, this variation indicates cyclical or structural labor market pressures, potentially linked to industrial shifts, informal work patterns, or demographic transitions.

### 4.2 Regression Summary

Table 2 presents the overall performance of the multiple linear regression model that estimates the effect of GRDP per capita, average years of schooling, and unemployment rate on the poverty rate in Tasikmalaya City.

**Table 2: Regression Model Summary**

| Statistic          | Value    |
|--------------------|----------|
| Multiple R         | 0,9769   |
| R Square (R2)      | 0,9545   |
| Adjusted R Square  | 0,9393   |
| Standard Error     | 0,6203   |
| Observation (n)    | 13       |
| F-Statistic        | 62,87    |
| Significance F (p) | <0,00001 |

**Source:** Processed data

The regression model produced an R<sup>2</sup> of 0.9545, implying that 95.45% of the variation in poverty levels can be explained by per capita GRDP, education, and unemployment. The F-statistic (62.87,  $p < 0.01$ ) confirms the overall model's statistical significance, indicating strong explanatory power.

### 4.3 Coefficients

Following the overall regression summary presented in the previous section, this subsection

provides detailed estimates of the regression coefficients for each independent variable. These coefficients indicate the direction and magnitude of the relationship between each predictor—GRDP per capita, average years of schooling, and unemployment rate—and the dependent variable, the poverty rate. Table 4 displays the coefficient values, along with their respective t-statistics and p-values, to assess the statistical significance of each predictor in the model.

**Table 3: Estimated Coefficients of Regression Model**

| Variable                   | Coefficient | t-Statistic | p-Value | Significance    |
|----------------------------|-------------|-------------|---------|-----------------|
| Constant                   | 280,23      | 7,568       | 0,00003 |                 |
| Per capita GRDP            | -34,718     | -4,808      | 0,00096 | Significant     |
| Average years of schooling | -11,836     | -0,611      | 0,55656 | Not significant |
| Open unemployment rate     | -0,102      | -0,389      | 0,70619 | Not significant |

Source: Processed data

Regression results reveal that only per capita GRDP significantly affects poverty reduction. A coefficient of  $-34.718$  ( $p < 0.01$ ) confirms that rising per capita income consistently lowers poverty levels, supporting the *trickle-down effect* hypothesis.

In contrast, education and unemployment are not statistically significant. The negative but insignificant coefficient for education suggests potential long-term effects, constrained by uneven quality, limited access, or delayed impacts on welfare. Similarly, unemployment's insignificance may reflect the dominance of the informal sector, where individuals continue to earn income despite rising formal unemployment.

#### 4.4 DISCUSSION

The results of this study confirm that economic growth, measured through per capita GRDP, plays a central role in reducing poverty in Tasikmalaya City. This finding aligns with classical development theories that emphasize the importance of output expansion for improving welfare (Todaro & Smith, 2020). At the same time, the insignificant effects of education and unemployment highlight the complexity of poverty dynamics in urban economies dominated by informal labor markets.

Several several factors may explain these findings. First, while education is often associated with higher productivity and income, its effects in Tasikmalaya appear muted, possibly due to the mismatch between educational outcomes and labor market demands. The persistence of informal employment means that additional years of schooling do not necessarily translate into better job prospects or higher incomes (Garcia & Silva, 2019). Second, the insignificant relationship between unemployment and poverty may reflect the prevalence of informal work arrangements. Even when individuals are officially unemployed, many households sustain livelihoods through informal economic activities, thereby weakening the observed statistical link between unemployment and poverty (Akhmad, 2020).

Taken together, these findings suggest that poverty reduction in Tasikmalaya depends not only on economic growth but also on policies that strengthen the inclusiveness of growth. Structural reforms in education, labor market regulation, and social protection are

necessary to ensure that the benefits of growth are more evenly distributed.

### 5. POLICY IMPLICATIONS

#### Strengthening Local Economic Capacity:

Tasikmalaya must prioritize productivity growth through small and medium-sized enterprises (SMEs), particularly in culturally embedded sectors such as creative industries, handicrafts, culinary trade, and tourism. Expanding infrastructure, including digital connectivity, is crucial to integrate local producers into broader value chains.

#### Restructuring Vocational Education:

Vocational curricula should align with labor market demand in services and manufacturing. Public–private partnerships between educational institutions and industries can enhance skill relevance and employability.

#### Promoting Labor Formalization:

Local governments should incentivize small firms to register formally through tax reductions, credit access, and subsidized social security programs. Such measures can reduce informality and expand fiscal capacity for social protection.

#### Targeted Social Interventions:

Social safety nets should adopt Multidimensional Poverty Index (MPI) indicators to more accurately identify chronically poor households. Conditional cash transfers could be linked to school attendance, vocational training, or small business participation to ensure short-term relief while building long-term human capital.

#### Improving Poverty Data Systems:

Disaggregated poverty data by gender, age, disability, and district-level indicators are needed to improve policy targeting. Establishing household-level panel data could help policymakers evaluate whether investments in education and training translate into income mobility.

### 6. CONCLUSION

This study investigated the determinants of poverty in Tasikmalaya City. It focused on the effects of per capita GRDP, education, and unemployment using data from 2012–2024. The analysis demonstrates that only per capita GRDP has a significant and negative relationship with poverty, underscoring the importance of economic growth as a driver of poverty reduction. By



contrast, education and unemployment were found to have no significant short-term effects, suggesting that their influence may be constrained by structural limitations such as informality in the labor market and disparities in education quality.

The findings imply that while poverty alleviation strategies in Tasikmalaya should prioritize inclusive economic growth, complementary reforms in education and labor policies remain essential for long-term improvements. Efforts to align vocational training with labor market needs, formalize employment opportunities, and expand social safety nets will help ensure that economic growth translates into broader welfare gains.

## 7. LIMITATIONS AND FUTURE RESEARCH

This study has several limitations. First, it relies on aggregate secondary data, which may not capture household-level variations in poverty dynamics. Micro-level or panel data would provide richer insights into individual and intergenerational trajectories. Second, the measurement of unemployment does not fully reflect underemployment or informal labor, both of which are highly prevalent in Tasikmalaya and central to household survival strategies. Third, the model does not account for lagged effects, particularly in education, where the impact on poverty often materializes over longer horizons.

Future research should therefore incorporate broader variables such as health access, gender disparities, infrastructure quality, and governance indicators. Combining quantitative methods with qualitative approaches—for example, interviews or household surveys—would also allow for a more nuanced understanding of poverty dynamics. Comparative studies across secondary cities in Indonesia could further enrich the analysis by identifying context-specific challenges and best practices.

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