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Original Article

# Poverty Analysis of 13 Districts/Cities in Central Sulawesi Province

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## Abstract

Indonesia is still grappling with considerable poverty issues, as more than 24 million individuals are currently living below the poverty line. Central Sulawesi Province is ranked as the 15th highest in terms of poverty levels across the nation, with almost 380,000 of its residents considered impoverished. From 2019 to 2023, this province's poverty rate has demonstrated varying patterns, hovering between 12% and 13%. In response to these conditions, this study seeks to examine how the average duration of schooling, level of open unemployment, and Regional Domestic Product (RDP) impact poverty rates in 13 districts and cities in the Central Sulawesi Province over the period 2020 to 2024. This research adopts a quantitative method using data sourced from the Central Statistics Agency (BPS) of Central Sulawesi. The analysis was carried out through panel data regression using Eviews 12 software. Findings from the research show that, individually, both the open unemployment rate and average duration of schooling have a significant impact on poverty levels, while the growth rate of RDP does not. Collectively, all three independent variables are influential on poverty in the 13 districts and cities of Central Sulawesi Province from 2020 to 2024. These findings highlight the urgency for focused policy measures to tackle poverty in Central Sulawesi Province, with particular emphasis on reducing unemployment and improving the quality of education.

**Keywords**: Economic Development, Education Quality, Panel Data Analysis, Poverty Reduction, Regional Economics.

## 1. Introduction

Indonesia continues to grapple with the persistent issue of poverty which remains a significant challenge for the nation. Despite efforts to address this issue, a large portion of the population still struggles to meet their basic needs due to limited access to resources and opportunities. Poverty is a complex problem involving various aspects, making it a priority in national development efforts (Ferezagia, 2018). Overcoming poverty cannot be done separately from other interrelated problems, such as economic growth, minimum wages, open unemployment rates, and education (Sumeitri & Destiningsih, 2022). All these factors are closely linked to poverty, so they need to be addressed comprehensively and in an integrated manner (Utami & Masjkuri, 2018).

As highlighted by Kuncor (2018), economic poverty is caused by inequality in resource ownership, differences in human resource quality, and limited access to capital, all of which lead to a vicious cycle of poverty. Further, Kartasasmita (1996) identifies the causes of poverty as low education levels, poor health, limited job opportunities, and isolation (Khoirudin, 2020).

As statistic reported by BPS in 2024, there were over 24 million people living in poverty in Indonesia. Central Sulawesi Province was listed as the 15th province with the highest poverty rate, with almost 380,000 people categorized as poor. The percentage of poor people in Central Sulawesi Province has fluctuated. In 2019, it was recorded at 13.48 percent. In 2020, it decreased to 12.92 percent, but increased again in 2021 to 13.00 percent. In 2022, it decreased to 12.33 percent, before increasing again in 2023 to 12.41 percent.

High poverty rates in a region can have many negative impacts, as poverty ultimately leads to new problems, particularly in the social sphere (Kristensen, 2019). Poverty directly or indirectly affects the economic growth of a region (Ashari & Athoillah, 2023). Addressing poverty is important, so efforts are needed to identify the root causes or underlying issues.

As evidenced in Ashari and Athoillah (2023), it was found that the high rate of open unemployment in the Tapal Kuda area has a considerable impact on poverty levels. The rise in the number of open unemployed individuals is closely linked to an increase in the poverty rate in the region. Similarly, research by Ningrum (2017) also indicates that open unemployment has a significant and positive influence on the poverty levels in Indonesia, suggesting that a growth in unemployment tends to result in a rise in poverty rates.

An analysis by Jannah and Sari (2023) shed light that the average length of schooling has a partial negative and significant effect on poverty in West Nusa Tenggara in 2019-2022 The typical duration of education is linked to poverty levels in West Nusa Tenggara from 2019 to 2022, with a notable but partially adverse impact. Research conducted by Mandey et al. (2023) shows that the length of schooling in Talaud Islands Regency has a notable impact on poverty levels, with higher average durations leading to positive outcomes.

Further, Dama (2016) note that The poverty rate in Manado City is significantly impacted by the Regional Domestic Product (RDP). It is crucial for the economic development of Manado City and plays a key role in reducing poverty levels, whereas research conducted by Andhykha et al. (2018) shows that RDP has a positive effect on poverty rates in 35 districts/cities in Central Java Province. This finding indicates that economic growth in the region is not evenly distributed and is largely driven by contributions from high-income groups. When economic growth is not accompanied by equitable distribution, it can lead to economic disparities in a region.

Different findings from past research suggest that the impact of education, joblessness, and financial development on poverty levels can vary significantly based on the unique attributes of each specific area. Central Sulawesi Province is one of the regions still facing poverty issues. The social and economic conditions of the community in this region require in-depth analysis to identify the specific and accurate factors influencing poverty.

The primary objective of this research is to examine how the average years of education, unemployment rate, and Regional Domestic Product (RDP) impact the poverty levels in 13 districts/cities within Central Sulawesi Province from 2019 to 2023. It is anticipated that the findings of this study will offer valuable empirical data to assist local government in crafting policies aimed at addressing poverty in a more efficient and lasting manner, while also promoting fair economic growth and enhancing the human resource quality within Central Sulawesi Province.

## 2. Literature Review

Poverty is when someone does not have enough resources to meet their basic needs, such as food and other essential items. Those who are identified as impoverished are individuals whose income falls below the poverty threshold. The poverty threshold is the level of income required to cover basic necessities, both food and non-food items. A population is deemed to be below the poverty threshold if their earnings do not suffice to meet fundamental requirements like food, clothing, and housing (Tope, 2024).

According to Tope (2024), poverty is divided into three types: absolute, relative, and cultural. These are as follows:

1. Absolute poverty is a type of poverty in which individuals have an income below the poverty line, meaning that their income is not sufficient to meet basic needs such as food, clothing, and shelter.
2. Relative poverty is a type of poverty that occurs because development policies are uneven and do not reach all levels of society. This causes inequality in income distribution, where someone may live in poverty even though they are relatively better off than those around them.
3. Cultural poverty is a type of poverty caused by cultural factors, such as laziness, lack of effort to improve quality of life, wasteful behaviour, and the like.

## 3. Methods

This research employs quantitative methods and utilises secondary data sourced from the Central Statistics Agency of Central Sulawesi. The data consists of panel data, including time series data spanning from 2020 to 2023 and cross-sectional data from 13 districts/cities within the province of Central Sulawesi.

Sugiyono (2013) underscore that research variables are used to obtain information, from which conclusions are drawn. The operational definitions of the variables in this study are as follows:

1. Poverty is the state of lacking the resources to provide for essential needs like food, housing, education, and healthcare. For this research, we analysed the percentage of impoverished individuals in different areas of Central Sulawesi Province from 2020 to 2024, with the measurement unit being percentage (%).
2. The Open Unemployment Rate (X1) represents the proportion of individuals in the working-age group who are without employment and are actively seeking opportunities. The statistics are presented as a percentage of the overall labour force in the different regencies and cities within Central Sulawesi Province from 2020 to 2024.
3. The Mean Duration of Education (X2) represents the mean number of years of schooling for individuals aged 25 and older. This figure indicates the educational attainment of the populace, a crucial determinant of personal financial capabilities. The information is recorded in annual increments.
4. RGDP Growth Rate (X3), which represents the amount by which the value of RGDP changes in real terms from one year to the following year, serves as a barometer for gauging the extent of economic development in a specific area. This metric is employed to assess the upsurge or decline in economic undertakings within a region over a specific period. The information is tabulated in percentage increments for the period spanning 2020 to 2024.

The research in this study utilises panel data analysis, specifically using Eviews 12 as the tool for processing. In the context of panel data models, the equation is typically formulated in the following manner (Sriyana, 2015):

$$Yit = \alpha + \beta 1X1it + \beta 2X2it + \beta 3X3it + \varepsilon it$$

Explanation:
Y: Percentage of Poor Population X1: Open Unemployment Rate X2: Average Length of Schooling
X3: GDP Growth Rate
i: Cross-section unit
t: Time
α: Intercept β1, β2, β3: Regression coefficients εit: Error term

In this study, three main approaches in panel data analysis were used: (1) Common Effect Model (CEM), (2) Fixed Effect Model (FEM), and (3) Random Effect Model (REM) (Sriyana, 2015).

1. Common Effect Model (CEM)

This model combines time series and cross-sectional data without considering time or unit differences, assuming homogeneous characteristics. Estimation is performed using Ordinary Least Squares (OLS).

2. Fixed Effect Model (FEM)

FEM is used when each unit (district/city) has unique characteristics that are reflected in different intercepts between units, with a fixed slope. Estimation is performed using dummy variables to capture the fixed effects of the units.

3. Random Effect Model (REM)

REM considers differences between units as part of the residual component, with random variations between units that are not correlated with the independent variables (IV). This model is more efficient than FEM in terms of degrees of freedom.

To determine the appropriate regression model, several statistical tests were conducted:

1) Chow test to choose between CEM and FEM. Hypothesis:

H0: The appropriate model is Common Effect H1: The appropriate model is Fixed Effect

2) Hausman test to determine whether FEM or REM is more appropriate. Hypothesis:

H0: The appropriate model is Random Effect H1: The appropriate model is Fixed Effect

Once the suitable panel regression model had been chosen, assessments were carried out to determine the impact of IV on poverty.

1. F test (Simultaneous Significance Test)

Used to test whether the IV simultaneously have a significant effect on poverty.
Hypothesis:
**Ho**: There is no simultaneous significant effect between the Open Unemployment Rate, Average Length of Schooling, and GRDP Growth Rate on poverty.
**H1**: There is a simultaneous significant influence between the Open Unemployment Rate, Average Length of Schooling, and GDP Growth Rate on poverty.

2. t-test (Partial Significance Test)

Used to assess the influence of each IV on poverty individually.
Hypothesis:

**H0**: The variables of open unemployment rate, average length of schooling, or GDP growth rate do not have a significant effect on poverty.
**H1**: The variables of open unemployment rate, average length of schooling, or GDP growth rate have a significant effect on poverty.

# 4. Results and Discussion

## 4.1. Selection of Panel Data Models

### 4.1.1. Chow Test

**Table 1. Chow Test Outcomes**

Redundant Fixed Effects Tests Pool: POOL01
Test cross-section fixed effects

| Effects Test | Statistic | d.f. | Prob. |
|---|---|---|---|
| Cross-section F | 113.902960 | (12,49) | 0.0000 |
| Cross-section Chi-square | 218.637563 | 12 | 0.0000 |

Source: Eviews 12 Output Results

The results of the Chow test indicate that the P-value is less than 0.05, which means that the Pooled Least Square (PLS) model is not suitable. Therefore, it is recommended to use the Fixed Effect Model (FEM) due to the significant differences in individual characteristics. The subsequent action involves conducting the Hausman test to ascertain whether the preferred model is FEM or the Random Effect Model (REM).

### 4.1.2. Hausman Test

**Table 2. Hausman Test Outcomes**

Correlated Random Effects - Hausman Test
POOL01
Test cross-section random effects

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|---|---|---|---|
| Cross-section random | 1.875563 | 3 | 0.5986 |

Source: Eviews 12 Output Results

The p-value from the Hausman test is 0.5986, exceeding the threshold of 0.05. Consequently, there is no grounds to reject the null hypothesis (Ho) that the Random Effect Model (REM) is the suitable model. The REM model is deemed more suitable than the Fixed Effect Model (FEM) due to the lack of notable disparity between them. As such, the REM was chosen as the framework for examining the connection between the independent variables (IV) and dependent variables (DV) in this paper.

**Table 3. Estimated Output of REM Regression Results**

Dependent Variable: Y?
Method: Pooled EGLS (Cross-section random effects) Date: 06/02/25 Time: 13:34
Sample: 1 5
Included observations: 5 Cross-sections included: 13
Total pool (balanced) observations: 65
Swamy and Arora estimator of component variances

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 29.80252 | 4.277588 | 6.967131 | 0.0000 |
| X1? | 0.312716 | 0.100506 | 3.111417 | 0.0028 |
| X2? | -1.997132 | 0.465019 | -4.294733 | 0.0001 |
| X3? | 0.003357 | 0.013524 | 0.248197 | 0.8048 |
| Random Effects (Cross) | | | | |
| BANGGAI--C | -6.323875 | | | |
| BANGGAI_ISLAND | -0.118674 | | | |
| BANGGAI_LAUT--C | 0.323724 | | | |
| BUOL--C | 0.653845 | | | |
| DONGGALA--C | 1.609569 | | | |
| KOTA_PALU--C | -1.898935 | | | |
| MOROWALI--C | 0.321601 | | | |
| SOUTH_MOROWALI_--C | 0.031429 | | | |
| PARIGI_MOUTONG--C | 0.048778 | | | |
| POSO--C | 3.699193 | | | |
| SIGI--C | -0.434432 | | | |
| TOJO_UNA_UNA--C | 2.581826 | | | |
| TOLITOLI--C | -0.494050 | | | |
| Effects Specification | | | | |
| | | S.D. | | Rho |
| Cross-section random | | 2.525358 | | 0.9652 |
| Idiosyncratic random | | 0.479686 | | 0.0348 |
| Weighted Statistics | | | | |
| R-squared | 0.394728 | Mean dependent var | | 1.099297 |
| Adjusted R-squared | 0.364960 | S.D. dependent var | | 0.596371 |
| S.E. of regression | 0.475245 | Sum squared resid | | 13.77730 |
| F-statistic | 13.26038 | Durbin-Watson stat | | 1.783732 |
| Prob(F-statistic) | 0.000001 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.365113 | Mean dependent var | | 12.98754 |
| Sum squared resid | 354.3368 | Durbin-Watson stat | | 0.069355 |

Source: Eviews 12 Output Results

Based on REM output estimates, each district/city has a different fixed effect coefficient. This condition explains that IV has different influences on DV in each district/city in Central Sulawesi Province during the 2020–2024 period.

1. Banggai Islands

The random effect coefficient value for Banggai Islands Regency is -0.118674. A one percent change in the IV has an individual effect on poverty of -0.118674 percent.

2. Banggai

The random effect coefficient value for Banggai Regency is -6.323875. A one percent change in the IV has an individual effect on poverty of -6.323875 percent.

3. Morowali

The random effect coefficient value for Morowali Regency is 0.321601. A one percent change in the IV has an individual effect on poverty of 0.321601 percent.

4. Poso

The random effect coefficient value for Poso District is 3.699193. A one percent change in the IV has an individual effect on poverty of 3.699193 percent.

5. Donggala

The random effect coefficient value for Donggala District is 1.609569. A one percent change in the IV has an individual effect on poverty of 1.609569 percent.

6. Tolitoli

The random effect coefficient value for Tolitoli district is -0.494050. A one percent change in the IV has an individual effect on poverty of -0.494050 percent.

7. Buol

The random effect coefficient value for Buol District is 0.653845. A one percent change in the IV has an individual effect on poverty of 0.653845 percent.

8. Parigi Moutong

The random effect coefficient value for Parigi Moutong district is 0.048773. A one percent change in the IV has an individual effect on poverty of 0.048773 percent.

9. Tojo Una-Una

The random effect coefficient value for Tojo Una-Una district is 2.581826. A one percent change in the IV has an individual effect on poverty of 2.581826 percent.

10. Sigi

The random effect coefficient value for Sigi District is -0.434432. A one percent change in the IV has an individual effect on poverty of -0.434432 percent.

11. Banggai Laut

The random effect coefficient value for Banggai Laut district is 0.323724. A one percent change in the IV has an individual effect on poverty of 0.323724 percent.

12. South Morowali

The random effect coefficient value for Morowali Utara district is 0.031429. A one percent change in the IV has an individual effect on poverty of 0.031429 percent.

13. Palu City

The random effect coefficient value for Palu City is -1.898935. A one percent change in the IV has an individual effect on poverty of -1.898935 percent.

### 4.1.3. Partial Significance Test (t-test)

The purpose of this examination was to assess the impact of each separate factor on poverty. The Open Unemployment Rate factor displayed a probability value of 0.0000, falling under the 5% significance threshold. Consequently, the null hypothesis ($H_0$) was dismissed in favour of the alternative hypothesis ($H_1$). This suggests that the Open Unemployment Rate has a notable influence on poverty levels in the regions of Central Sulawesi Province between 2020 and 2024.

The probability value for the Average Length of Schooling variable is 0.8048, indicating that it exceeds the 5% significance level. As a result, the null hypothesis ($H_0$) is upheld while the alternative hypothesis ($H_1$) is dismissed. Consequently, it can be inferred that the Average Length of Schooling does not play a substantial role in poverty in the districts/cities of Central Sulawesi Province between 2020 and 2024.

The Gross Regional Domestic Product Growth Rate variable produced a probability value of 0.0028, which is below the 5% significance threshold. Therefore, the null hypothesis ($H_0$) is rejected and the alternative hypothesis ($H_1$) is accepted. This proves that GDP Growth

Rate has a significant effect on poverty in the districts/cities of Central Sulawesi Province during the 2020–2024 period.

### 4.1.4. Simultaneous Significance Test (F-test)

The analysis results reveal that the F-statistic is 13.26038 with a F-statistic probability of 0.000001. This is compared to an F-table value of 2.47 at a 5% significance level. As the F-statistic is greater than the F-table and the probability value is less than 0.05, it can be inferred that the null hypothesis ($H_0$) is not valid. This indicates that the variables of Open Unemployment Rate, Average Length of Schooling, and GDP Growth Rate collectively impact the poverty rate in districts/cities in Central Sulawesi Province from 2020 to 2024.

### 4.1.5. Coefficient of Determination ($R^2$ and Adjusted $R^2$)

The R-squared value is used to show how effectively the estimated regression model can account for the variability in the observed data. A R-squared value of 0.394728 means that the IV in this model can explain 39.47% of the variability toward DV. Other factors not included in this model account for the remaining 60.53%. The adjusted R-squared value, at 0.364960, reflects how well the model is adapted to the number of IV being considered.

## 4.2. Discussions

The findings from the research show that the rate of open unemployment (TPT) has a noteworthy impact on the poverty rate, supporting the economic theory that identifies unemployment as a primary factor contributing to poverty. These findings are in line with research conducted by Ashari and Athoillah (2023) and Ningrum (2017), who also found that an increase in unemployment contributes to an increase in poverty. In this case, the higher the unemployment rate, the more individuals are unable to meet their basic needs, which in turn increases the poverty rate in a region.

The findings suggest that the average duration of education does not greatly impact the poverty level. Despite this, the favourable coefficient suggests that a longer period of schooling could lead to more impoverished individuals, potentially because of a disconnect between the education received and the job prospects available. These results are consistent with the research by Mandey et al. (2023), which also found a positive relationship between schooling duration and poverty, although in some places, higher education does not always result in adequate job opportunities. Conversely, research by Jannah and Sari (2023) shows a negative effect of average length of schooling on poverty, confirming that the effectiveness of education in reducing poverty depends on the context and quality of education received.

The GRDP growth rate aligns with economic theory by indicating that positive economic expansion can lead to a decrease in poverty. However, this research did not uncover a notable link between GRDP and poverty levels. This finding is consistent with the research by Andhykha et al. (2018), which shows that uneven economic growth can exacerbate social and economic disparities, thereby limiting its impact on poverty reduction. This indicates that despite economic growth, the distribution of growth outcomes is not yet equitable and insufficient to significantly reduce poverty levels.

The results shed light that factors such as the open unemployment rate, length of schooling, and GRDP growth rate are indeed related to poverty, but the influence of each variable varies. This is in line with previous theories and studies that suggest that poverty is a complex and multifaceted problem, influenced by various factors, including economic, educational, and equitable distribution of development outcomes.

## 5. Conclusion

According to the findings from the analysis of multiple linear regression, which included partial significance tests (t-tests), simultaneous significance tests (F-tests), and the coefficient of determination, a number of conclusions can be made. Initially, it was discovered that the Open Unemployment Rate had a partially significant impact on the rise in poverty in Central Sulawesi Province. Equally, the Average Length of Schooling (ALS) also displayed a partially significant association with the growth of poverty in the area. On the other hand, the Gross Regional Domestic Product Growth Rate (GRDP Growth) had no notable partial effect on the increase in the impoverished population during the examination period. Nevertheless, the outcomes of the simultaneous F test suggest that, when viewed collectively, the Open Unemployment Rate, Average Length of Schooling, and GRDP Growth Rate have a substantial influence on poverty rates in Central Sulawesi Province.

According to the findings of the research, it is advisable to intensify initiatives to lower the level of open unemployment in Central Sulawesi Province, considering the substantial impact of this factor on poverty. Even though the average duration of education and the rate of GDP growth do not exhibit a substantial individual impact, focusing on enhancing the standard of education that aligns with the requirements of the job market and promoting fair economic development could speed up the reduction of poverty. Furthermore, additional investigation is necessary to pinpoint other aspects that could potentially play a role in variations in poverty levels not accounted for by this model, in order to devise more efficient policies in the future.

## 6. References

Andhykha, R., Handayani, H. R., & Woyanti, N. (2018). Analisis Pengaruh PDRB, Tingkat Pengangguran, dan IPM Terhadap Tingkat Kemiskinan di Provinsi Jawa Tengah. *Media Ekonomi Dan Manajemen*, *33*(2), 113–123. https://doi.org/10.24856/mem.v33i2.671

Ashari, R. T., & Athoillah, M. (2023). Analisis pengaruh tingkat pengangguran terbuka, tingkat partisipasi angkatan kerja, upah minimum, indeks pembangunan manusia, pertumbuhan ekonomi dan jumlah penduduk terhadap kemiskinan di kawasan tapal kuda. *Journal of Development Economic and Social Studies*, *2*(2), 313–326.

Dama, H. Y. (2016). Pengaruh Produk Domestik Regional Bruto (PDRB) Terhadap Tingkat Kemiskinan di Kota Manado (Tahun 2005-2014). *Jurnal Berkala Ilmiah Efisiensi*, *16*(3).

Ferezagia, D. V. (2018). Analisis tingkat kemiskinan di Indonesia. *Jurnal Sosial Humaniora Terapan*, *1*(1), 1.

Jannah, M., & Sari, I. F. (2023). Analisis Pengaruh Rata-Rata Lama Sekolah, Angka Harapan Hidup dan Pengeluaran Perkapita Terhadap Kemiskinan Provinsi Nusa Tenggara Barat. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, *3*(1), 164–172.

Kartasasmita, G. (1996). *Pembangunan untuk rakyat: memadukan pertumbuhan dan pemerataan*. Cides.

Khoirudin, R. (2020). Analisis Faktor Kemiskinan Kabupaten/Kotadi Provinsi Jawa Barat 2013-2018. *Elastisitas: Jurnal Ekonomi Pembangunan*, *2*(2), 131–136.

Kristensen, R. A. (2019). Indonesia in the new world: globalisation, nationalism and sovereignty. *International Affairs*, *95*(4). https://doi.org/10.1093/ia/iiz133

Kuncoro, M. (2018). *Perencanaan Pembangunan*. Gramedia Pustaka Utama.

Mandey, D. R., Engka, D. S. ., & Siwu, H. F. D. (2023). Analisis Pengaruh Produk Domestik Regional Bruto, Rata-Rata Lama Sekolah, dan Indeks Pembangunan Manusia Terhadap Kemiskinan di Kabupaten Kepulauan Talaud. *Jurnal Berkala Ilmiah Efisiensi*, *23*(1).

Ningrum, S. S. (2017). Analisis pengaruh tingkat pengangguran terbuka, indeks pembangunan manusia, dan upah minimum terhadap jumlah penduduk miskin di

Indonesia tahun 2011-2015. *Jurnal Ekonomi Pembangunan*, *15*(2), 184–192.

Sriyana, J. (2015). Fiscal capacity and poverty alleviation: A panel data analysis for Yogyakarta special province, Indonesia. *Jurnal Ekonomi Pembangunan*, *16*(1), 1–10.

Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.

Sumeitri, A., & Destiningsih, R. (2022). Analysis of Factors Affecting Poverty in Central Java 2016-2019. *MARGINAL: Journal of Management, Accounting, General Finance and International Economic Issues*, *1*(4), 23–40. https://doi.org/https://doi.org/10.55047/marginal.v1i4.257

Tope, P. (2024). *Ekonomi publik : analisis dasar kebijakan fiskal / Patta Tope*. Deepublish.

Utami, H. W., & Masjkuri, S. U. (2018). Pengaruh pertumbuhan ekonomi, upah minimum, tingkat pengangguran terbuka dan pendidikan terhadap jumlah penduduk miskin. *Jurnal Ekonomi Dan Bisnis Airlangga*, *28*(2).