



The Influence of Social Assistance Expenditure, Education, and Unemployment on Poverty in Districts/Municipalities of D.I. Yogyakarta Province 2013-2022

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ABSTRACT

This study aims to determine the effect of social assistance spending, education, and unemployment on poverty in 5 regencies/cities of D.I Yogyakarta Province in 2013-2022. The analysis method uses panel data regression. The time series data covers 2013-2022, and the cross-section data involves five districts/cities in D.I Yogyakarta Province. The selected model is the random effect model (REM). The results state that social assistance expenditure, education, and unemployment affect poverty in the districts/cities of D.I Yogyakarta Province 2013-2022.

INTRODUCTION

Poverty is an issue that is currently at the center of global attention. One of the actions taken to deal with this situation is through the Sustainable Development Goals (SDGs), an international agreement approved by leaders from various countries. The SDGs aim to reduce poverty and make the world economy sustainable. The first point of the 17 SDGs goals is overcoming poverty to achieve specific targets by 2030. By referring to the SDGs' primary purpose, poverty becomes the main target in development efforts at the central and regional levels. Development is carried out to improve people's welfare, so it is essential to overcome the problem of poverty so that these development goals can be achieved. Several factors cause development delays in a country, and one of the main problems is the high poverty rate. However, it is essential to realize that the issue of poverty involves several very complex factors. Therefore, strong cooperation between the government at the national and local levels is needed to reduce the poverty rate (Prasetyo, 2020).

As one of the developing countries, Indonesia also faces challenges in overcoming economic development problems such as high poverty rates. From data published by BPS (Central Bureau

of Statistics) in 2021, the number of poor people in Indonesia was recorded at 27,542.77 people, and this figure shows an increase of 1,118.75 poor people compared to 2020, the number of poor people was 24,424.02 people. Various factors can cause the number of poor people to increase, namely the limited availability of jobs and low income. Measures to reduce poverty in Indonesia can be implemented through various strategies; the aim is to improve people's welfare. An increase in community welfare can reduce poverty. Therefore, a negative relationship exists between the level of interest and poverty (Bintang & Woyanti, 2018). According to data (Central Bureau of Statistics in Indonesia 2022), D.I. Yogyakarta Province is the poorest province in Java, with a percentage rate of poor people of 11.49%, exceeding the national poverty percentage rate of 9.57%. Regarding the issue of poverty in D.I. Yogyakarta Province, there is a positive change in the number of poor people in 2021. There are around 474.49 thousand poor people in the D.I. Yogyakarta area, while in 2022, the number of poor people decreased to around 463.63 thousand. This means that there is a decrease of 10.86 thousand poor people.

Therefore, the national and regional government continues to strive to reduce the poverty rate through regional revenue and expenditure budgets, especially on social assistance expenditure, which includes cash or goods provided to help people from social risks aimed at improving community welfare. With this increase in welfare, poverty in the region is expected to decrease. In addition to social assistance spending, in a note entitled "The End of Poverty, ." Jeffrey Sachs", suggests a process to overcome poverty that involves improving the ability and quality of human resources, primarily through education.

The length of education passed by the community is one of the benchmarks to measure the population's quality in the aspect of education (Turner, 2014). Mean Years of Schooling (MYS), known as average years of schooling, is an indicator that combines various factors, including the level of education attained and the last level of education completed. Efforts to improve the quality of human resources through education have a positive impact on reducing poverty because the level of education owned by the community has a close relationship with the problem of poverty. This is because the level of education can be one factor that triggers poverty (Riva et al., 2021). Therefore, education has an essential role in determining the level of welfare, and high levels of education also tend to produce higher rewards (Siregar & Ritonga, 2019).

In addition, the problem of poverty can be exacerbated when there is a situation where jobs are not available, resulting in a high unemployment rate. The Open Unemployment Rate (OER) is often used to assess how much labor is absorbed in the market. The OER is the ratio of the number of people not working to the total labor force. Unemployment can harm welfare because when a person does not have a job, it can result in a decrease or loss of welfare compared to the condition before unemployment. A decline in welfare can increase the risk of a person becoming trapped in a cycle of poverty (Sukirno, 2004). Therefore, an increase in the number of individuals who experience difficulties in finding work and an increase in the unemployment rate severely impact poverty (Ishak et al., 2020). Based on the description of the problem that has been described, the purpose of this study is to find out the influence of social assistance spending, education, and unemployment on poverty in D.I. Yogyakarta 2013-2022.

LITERATURE REVIEW

Poverty

The inability to fulfill basic daily needs such as food, clothing, and shelter necessary for survival is called poverty (Todaro, 2009). Poverty is caused by a lack of sufficient income to meet needs. There is a concept called the "vicious cycle of poverty," which is a cycle in which various factors are interconnected and exacerbate poverty conditions. Reduced consumption, savings, and investment due to declining income are common problems in conditions of low productivity. This can create a cycle of poverty that can disrupt production levels (Purnomo, 2019). To stop poverty, it can be done by investing or providing capital as a stimulus to create jobs so that it can

reduce poverty gradually over time (Ibnu Abbas & Farida Rahmawati, 2020). Poverty alleviation is significant because it can hinder development progress. Both the central and local governments have implemented various policies for alleviation. However, the lack of coordination and effective implementation often makes achieving the goal of reducing poverty challenging. So, to achieve poverty alleviation, cooperation between various parties is needed in designing effective policies (Kharisma et al., 2020).

Social Assistance Expenditure

According to Government Regulation No.58/2005, local expenditure is a local government obligation recognized as a deduction from net worth. Local governments must allocate expenditure funds fairly to provide optimal public services and meet all citizens' needs. Social assistance is one form of expenditure directly related to poverty reduction efforts. According to Regulation of the Minister of Finance of the Republic of Indonesia No.81/Pmk.05/2012, social assistance expenditure transfers money, goods, or services provided by the Central/Regional Government to the community to protect the community from possible social risks and improve economic capacity and welfare. Social assistance expenditure aims to improve community welfare by providing goods and money budgeted to support institutions and governments to reduce poverty levels (Sendouw et al., 2017).

Education

According to Todaro and Smith (2009), the strategy to overcome poverty is prioritizing development in the education sector. Progress in the education sector can be measured through indicators such as literacy rate and years of schooling. Todaro and Smith (2009) suggest that high levels of education, such as literacy rates and years of schooling, can potentially reduce poverty. Becker (1964), in his book entitled "Human Capital," emphasized the critical role of education in overcoming poverty. Becker said that a highly educated person, meaning that they have spent enough time (years of schooling), will earn a better income and is less likely to fall into poverty. This opinion is also corroborated by (Desmawan et al., 2021) that human resources, which can be measured through the Human Capital Index, have a significant influence in reducing poverty. Increased investment in education can increase the productivity of individuals and help them get out of the poverty cycle.

Unemployment

According to Sukirno (2004), the negative impact of unemployment on poverty is the reduction in community income due to unemployment, which can reduce the level of welfare. The decline in community welfare caused by unemployment will undoubtedly increase the risk of falling into poverty due to insufficient income. Unemployment has the potential to hamper a country's economic development. People who are involved in productive activities such as work will have income that helps fulfill their daily needs and can improve their welfare. Therefore, the unemployment rate can reflect the community's welfare in terms of income, which in turn can reduce poverty (Hatta & Khoirudin, 2020). Unemployment has a significant positive effect on poverty. When unemployment falls, so does the poverty rate (Purnomo, 2019).

METHODS

Data Type

This research applies a quantitative approach. The type of data used is secondary data. Data sources come from government institutions (BPS) Central Bureau of Statistics and (DJPK) Directorate General of Financial Balance Ministry of Finance Regency/City D.I Yogyakarta Province 2013-2022. The data processing analysis method applied is panel data regression, combining data (time series) and data (cross-section). The statistical tool used is the E-Views 10 application.

Panel Data Regression Model

The research was conducted in 5 regencies/cities of Yogyakarta Province during 2013-2022. The dependent variable (Y) studied was poverty, while the independent variables (X) used were social assistance expenditure, education, and unemployment, the percentage of poor people measured in poverty data. Social assistance expenditure data uses social assistance expenditure (BBS) data. Education data uses the average years of schooling. Meanwhile, unemployment data uses the Open Unemployment Rate (OER). Furthermore, the collected data will be analyzed using panel data regression. Therefore, the following equation model formulation can be arranged:

$$K_{it} = \alpha + \beta_{BBS} BBS_{it} + \beta_{PD} PD_{it} + \beta_P P_{it} + \mu_{it}$$

Note:

K = Poverty

α = Constanta

β_{BBS} = Regression Coefficient on Social Assistance Expenditure Variable

β_{PD} = Regression Coefficient on Education Variable

β_P = Regression Coefficient on Unemployment Variable

BBS = Social Assistance Expenditure

P.D. = Education

P = Unemployment

μ = error or variable outside the model

i = Cross Section (5 districts/cities)

t = Time Series (Year 2013-2022)

RESULTS

Based on calculations using panel data regression through the EViews application, the first step is to understand the results of each model, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). After obtaining these results, the next step is to conduct a series of tests to determine the best model.

1. Chow Test (Likelihood Ratio Test)

A chow test is applied to determine the best model between CEM and FEM. This test's results will help determine the choice of the most appropriate model.

Table 1. Chow Test Estimation Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	71.2199	(4,37)	0.0000
Cross-section Chi-square	97.3467	4	0.0000

Source: Data processed using EViews 10.

The Chow test results show that the probability value for cross-section F (0.00) < α (0.05) and the cross-section chi-square value (0.0000) < α (0.05). So the FEM model is the best choice in chow testing.

2. Hausman Test

To determine the best model between FEM and REM, the test used is the Hausman test. This test's results will help determine the choice of the most suitable model.

Table 2. Hausman Test Estimation Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.47946	3	0.687

Source: Data processed using EViews 10.

The Hausman test results show that the probability value on the random cross-section (0.6870) < α (0.05), so the REM model is the best choice in the Hausman test.

3. Lagrange Multiplier Test (Breusch-Pagan)

To determine the best model between REM and CEM, the test used is the L.M. test. This test's results will help determine the choice of the most suitable model.

Table 3. L.M. Test Estimation Results

Null (no rand. effect) Alternative	One-sided Cross-section	Period One-sided	Both
Breusch-Pagan	115.3508 (0.0000)	0.923405 (-0.3366)	116.2742 (0.0000)

Source: Data processed using EViews 10.

The L.M. test results obtained the probability value. Breusch Pagan (0.0000) < α (0.05), therefore the best model chosen in the L.M. test is the REM model. Based on the Chow test, Hausman test, and L.M. test results, the conclusion is that the best model in this study is REM. Through the data processing process using the panel data regression method, the following equation model can be formed:

$$K = 40.7527283883 - 2.91144021495e-11*BBS - 3.02767169605*PD + 0.426942878756*P + [CX=R]$$

1. Coefficient Value

Table. 4 Estimation Results of the Coefficient Value

Variable	Coefficient
C	40.75273
BBS	-2.91E-11
PD	-3.027672
P	0.426943

Source: Data processed using EViews 10

- The constant value is 40.75, meaning that when all independent variables are zero, poverty will reach 40.75%.

- The coefficient of the social assistance expenditure variable is -2.91, meaning that when it increases by 1,000,000, it can reduce the poverty rate by 2.91%.
- The coefficient of the education variable is -3.02, meaning that when the education level increases by 1%, it can reduce the poverty rate by 3.02%.
- The coefficient of the unemployment variable is 0.42, meaning that when the unemployment rate rises by 1%, it can increase poverty by 0.42%.

2. Coefficient of Determination (R-square)

Table. 5 Estimation Results (R-square)

Adjusted R-squared	0.813702
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Source: Data processed using EViews 10

The regression analysis results using the best REM model show that R-square has a value of 0.813702, meaning that the independent variables in this study affect the dependent variable by 81%. Other variables explain the remaining 19%.

3. Simultaneous Effect Test (F Test)

Table. 6 Estimation Results of F Test

Prob(F-statistic)	0.000000
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Source: Data processed using EViews 10

The results of the probability test (f-statistic) found a value of $0.000000 < \alpha (0.05)$ that together, the variables of social assistance spending, education, and unemployment have a significant influence on poverty in the Regency/City of D.I Yogyakarta Province in the period 2013-2022.

4. Partial Effect Test (t-Test)

Table. 7 Estimation Results of the t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	40.75273	2.564559	15.89074	0.0000
BBS	-2.91E-11	1.56E-11	-1.871449	0.0686*
PD	-3.027672	0.234975	-12.88509	0.0000***
TPT	0.426943	0.172808	2.470624	0.0178**

Source: Data processed using EViews 10

Note :

* : sig at $\alpha = 10\%$

** : sig at $\alpha = 5\%$

*** : sig at $\alpha = 1\%$

- It is known that the t-table value is 2.013 while the t-statistic value of the social assistance expenditure variable is $-1.871 < t\text{-table} (2.013)$. The probability value $(0.0686) < \alpha (0.1)$ that social

assistance expenditure has a negative significant effect on poverty in the regencies/municipalities of D.I. Yogyakarta 2013-2022.

- In the education variable, the t-statistic value is $-12.885 < t\text{-table} (2.013)$. With a probability value $(0.0000) < \alpha (0.01)$, the education variable has a significant negative effect on poverty in the regencies/cities of D.I Yogyakarta 2013-2022.
- In contrast, for the unemployment variable, the t-statistic value is $2.470 > t\text{-table} (2.013)$. With a probability value $(0.0178) < \alpha (0.05)$, the unemployment variable has a positive significant effect on poverty in the regencies/municipalities of D.I. Yogyakarta 2013-2022.

DISCUSSION

Social Assistance Expenditure on Poverty

Social assistance expenditure significantly negatively affects poverty in the Regency / City of D.I. Yogyakarta 2013-2022. This shows that government spending in social assistance can reduce poverty in the Regency / City of D.I. Yogyakarta. This research is in line with research (Celeste.Ch.E.Rarun, George M.V. Kawung, 2018) that government spending in the form of social assistance spending can reduce poverty, so this social assistance spending must be maintained because the provision of social assistance is needed for social safety in the event of a spike in the increase in the poverty rate. However, the data collection of recipients of social assistance funds also needs to be improved and controlled so that individuals or groups receiving assistance are right on target. So that the existence of this social assistance expenditure can continue to increase the welfare of the community so that it can reduce poverty in the Regency / City of D.I Yogyakarta Province.

Education on Poverty

Education has a negative significant effect on poverty in the regencies/cities of D.I.Yogyakarta 2013-2022. The results of this study are consistent with the research (Riva et al., 2021) that higher education increases an individual's chances of achieving welfare because their knowledge dramatically influences how they think about a problem. The primary source of knowledge is education. With higher levels of education, people have more choices to live more prosperous lives. The above results align with the expression (Todaro, 2000) that education is essential in developing a country. Education is a significant factor in the development of a country because, through education, a country can increase competent human resources to increase growth and sustainable development, ultimately reducing poverty.

Unemployment and Poverty

Unemployment has a positive significant effect on poverty in the regencies/cities of D.I.Yogyakarta 2013-2023. This study's results align with research (Agustin, 2022) that there is a positive significant relationship between the unemployment rate and poverty. When the number of unemployed people continues to increase, the poverty rate in the region also tends to increase. Several factors can cause an increase in unemployment, which can impact increasing poverty. One such factor is the gap between the number of job opportunities and the number of job seekers. In addition, another major cause is the lack of human labor ability to meet the labor market's demand (Kolibu et al., 2019). To overcome this problem, people can mobilize their skills, talents, and interests to create new jobs. This will increase employment opportunities and reduce

unemployment because when a person is unemployed, his or her level of productivity tends to decline, resulting in no income to fulfill daily needs. This can also have a negative impact on welfare. According to Arsyad (1997), unemployment and poverty have a close relationship because unemployment can reduce a person's level of welfare. Poverty is also often the prolonged effect of a protracted unemployment problem.

CONCLUSION

It can be concluded that the social assistance expenditure variable has a significant negative effect on poverty in the Regency/City of D.I.Yogyakarta 2013-2022. Social assistance spending can reduce poverty in the Regency/City of D.I.Yogyakarta Province. Furthermore, the education variable significantly negatively affects poverty in the Regency / City of D.I.Yogyakarta 2013-2022. This means that any increase in education, as reflected in the average years of schooling, can reduce poverty, and the unemployment variable positively affects poverty in the Districts/Municipalities of D.I.Yogyakarta Province 2013-2022. This means that when the unemployment rate decreases, people who were previously unemployed can have jobs that generate income, resulting in an increase in welfare levels and a poverty reduction.

SUGGESTION

Reducing the poverty rate is a top priority for the D.I.Yogyakarta Regional Government in its economic development efforts. A reduction in the poverty rate positively impacts improving people's welfare. In providing social assistance, the government has been right on target in allocating it to reduce poverty in the Regency/City of D.I.Yogyakarta Province. However, the provision of social assistance expenditures to the community also needs to be expanded to reduce the economic burden on those who are vulnerable, and data collection of recipients of social assistance expenditures must be carried out systematically and routinely to ensure that the assistance is proper on target and not wasted and recipients of social assistance expenditures also need to be given education about the management of these assistance funds so that they can be used productively and contribute to improving their welfare, not used for consumptive purposes. In addition, to achieve human development goals through education, the government must be more active in providing information to the community about access to available education facilities. Thus, these facilities can be utilized to their full potential, which will positively impact the education level, an essential indicator of economic development. In addition, to reduce the unemployment rate, the government should prioritize increasing investment, providing business capital to the community, and ensuring smooth production activities. This will help reduce the unemployment rate and ultimately reduce the poverty rate. For future research, examining other factors that also play a role in poverty is recommended to understand all aspects that contribute to this problem.

REFERENCES

Agustin, L. (2022). Pengaruh Pengangguran, Ipm, Dan Bantuan Sosial Terhadap Kemiskinan Di Provinsi Jawa Timur. *EKONIKA: Jurnal Ekonomi Universitas Kadiri*, 7(2), 262.

<https://doi.org/10.30737/ekonika.v7i2.2221>

- Arsyad, Lincolin. 1997. *Ekonomi Pembangunan*. Penerbit STIE YKPN. Yogyakarta.
- Becker, G. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*
- Bintang, A. B. M., & Woyanti, N. (2018). Pengaruh PDRB, Pendidikan, Kesehatan, Dan Pengangguran Terhadap Tingkat Kemiskinan Di Jawa Tengah (2011-2015). *Media Ekonomi Dan Manajemen*, 33(1), 20–28. <https://doi.org/10.24856/mem.v33i1.563>
- Celeste.Ch.E.Rarun, George M.V. Kawung, A. O. N. (2018). Analisis Pengaruh Belanja Bantuan Sosial Dan Investasi Swasta Terhadap Kemiskinan Di Provinsi Sulawesi Utara. *Jurnal Berkala Ilmiah Efisiensi*, 18(01), 91–102.
- Desmawan, D., Syaifudin, R., Mamola, R. M., Haya, H., & Indriyani, D. (2021). Determinant Factors Poverty of Relativity in Banten Province: A Panel Data Analysis. *Ecoplan*, 4(2), 131–141. <https://doi.org/10.20527/ecoplan.v4i2.387>
- Hatta, R., & Khoirudin, R. (2020). Analisis Tingkat Kemiskinan di Propinsi NTT: Pendekatan Dua Panel. *Jurnal Samudra Ekonomi Dan Bisnis*, 11(2), 138–150. <https://doi.org/10.33059/jseb.v11i2.2004>
- Ibnu Abbas, A. S. M. H., & Farida Rahmawati, S. M. (2020). Technological Changes, Investments, and Unemployment in Indonesia. *KnE Social Sciences*, 2020, 679–691. <https://doi.org/10.18502/kss.v4i14.7925>
- Ishak, R. A., Zakaria, J., & Arifin, M. (2020). Pengaruh Pertumbuhan Ekonomi, Pendidikan dan Pengangguran Terhadap Tingkat Kemiskinan di Kota Makassar. *PARADOKS: Jurnal Ilmu Ekonomi*, 3(2), 41–53. <https://doi.org/10.33096/paradoks.v3i2.463>
- Kharisma, B., Remi, S. S., Wardhana, A., & Minarso, D. (2020). Modal sosial dan kemiskinan di Jawa Barat. *Jurnal Ekonomi Dan Bisnis*, 23(2), 317–338. <https://doi.org/10.24914/jeb.v23i2.3303>
- Kolibu, M., Rimate, V. A., & Engka, D. S. M. (2019). Pengaruh Tingkat Inflasi, Investasi, Pertumbuhan Ekonomi Dan Tingkat Pengangguran Terhadap Tingkat Kemiskinan Di Provinsi Sulawesi Utara. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah*, 19(3), 1–14. <https://doi.org/10.35794/jpekd.16456.19.3.2017>
- Prasetyo, N. (2020). Risk : Jurnal Riset Bisnis dan Ekonomi Volume 1 Nomor 2 Tahun 2020. *Risk : Jurnal Riset Bisnis Dan Ekonomi*, 1(2), 56–71. <http://ojs.unik-kediri.ac.id/index.php/jimek>
- Purnomo, S. D. (2019). Determinants of poverty in the province of the special region of yogyakarta. *FORUM Ekonomi*, 21(2), 217–225.
- Riva, V., Kornita, S., & Maulida, Y. (2021). Analisis Pengaruh Belanja Bantuan Sosial, Pendidikan Dan Pertumbuhan Ekonomi Terhadap Tingkat Kemiskinan Penduduk Di Provinsi Riau. *Pekbis*, 13(3), 157–166.
- Sendouw, A., Rimate, V. A., & Rotinsulu, D. C. (2019). Pengaruh Belanja Modal, Belanja Sosial, Dan Pertumbuhan Ekonomi Terhadap Tingkat Kemiskinan Di Kota Manado. *Jurnal Pembangunan Ekonomi Dan Keuangan Daerah*, 19(2), 1–15. <https://doi.org/10.35794/jpekd.15780.19.2.2017>
- Siregar, N. A., & Ritonga, Z. (2019). Analisis Tingkat Pendidikan Dan Tingkat Pendapatan Terhadap Kesejahteraan Sosial Di Kabupaten Labuhanbatu. *Jurnal Informatika*, 6(1), 1–10. <https://doi.org/10.36987/informatika.v6i1.736>
- Sukirno, S. (2004). *Makroekonomi Teori Pengantar Edisi Ketiga*. In Jakarta: Raja Grafindo Persada.
- Swara, W. Y. (2012). Kemiskinan Di Bali. *Piramida*, 7(2), 1–22.
- Todaro, M. P. & Smith, S. C., 2009. *Pembangunan Ekonomi*. Jakarta: Penerbit Erlangga.

Todaro, M. P. (2000). Ekonomi pembangunan di dunia ketiga. In Terjemahan oleh Haris Munandar, Edisi ke tujuh, Erlangga, Jakarta.

Turner, B. (2014). *Council on Foreign Relations*. 84(3), 77-77. https://doi.org/10.1007/978-1-349-67278-3_135