

The Effect of Open Unemployment Rate and Average Years of Schooling (RLS) on Poverty Rate in The Province of West Nusa Tenggara 2018-2023

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Article Info

Article history:

Received May, 2025
Revised May, 2025
Accepted May, 2025

Keywords:

Poverty Level
Open Unemployment
Average Years of Schooling

ABSTRACT

The purpose of this research is to investigate the relationship between the open unemployment rate and the average number of years spent in school and the level of poverty in West Nusa Tenggara (NTB) Province between the years 2018 and 2023. For the purpose of this investigation, a quantitative methodology and an associative design are utilized. The collection of data was carried out using the Central Statistics Agency (BPS) of NTB Province as the primary source of information. In the course of the research, three different datasets were utilized: the poverty level, which was determined by the proportion of the poor population; the open unemployment rate (TPT); and the average number of years spent in school (RLS) in NTB Province over the course of the selected time period. In this study, the method of data analysis that was utilized was panel data analysis, which was performed with Eviews 12. According to the findings, the rate of open unemployment has a negative and negligible impact on the degree of poverty, whereas the average number of years spent in school has a negative and large impact on poverty. Beginning in 2018 and continuing until 2023, the poverty rate in NTB Province is heavily impacted by the open unemployment rate as well as the average number of years spent in education.

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1. INTRODUCTION

High poverty rates are still one of the problems in development for developing countries including Indonesia. Poverty is a condition where there is a lack of resources in the form of money or goods used to meet basic needs. A person is considered to be living in poverty when they are unable to meet their fundamental requirements, which include the

need for food, clothing, medical care, and a place to live [1].

According to [2] a person or group of people is said to be living in poverty when they are unable to achieve the degree of economic prosperity that is believed to be the bare minimum necessary for a particular standard of living. The term "poverty" refers to a state in which a person does not have sufficient resources to sustain their survival,

including money and possessions. Not only is there a correlation between poverty and limited employment prospects, but persons who are considered to be poor (the poor) typically do not have jobs (they are unemployed), and their level of education and health are generally inadequate.

West Nusa Tenggara Province (NTB) is a province in Indonesia located in the central part of the Nusa Tenggara Islands between the province of Bali to the west and the province of East Nusa Tenggara to the east. The center of government and the capital of this province is in Mataram City. NTB has 8 regencies and 2 cities, including Mataram City. Citing population data from the Directorate General of Population and Civil Registration (Dukcapil) of the Ministry of

Home Affairs, the population of NTB Province is 5,666,314 million people in June 2024. While in 2023, the population of NTB Province is 5,560,287 million people. With a fairly large population, NTB's poverty rate is still in the top ten nationally and the results of the March 2016 Susenas showed that NTB's poverty rate was in 8th place nationally with a poverty rate of 16.48%. The poverty rate in NTB has continued to decline compared to the same period in 2015, which was in 7th position nationally with a poverty rate of 17.1% [3].

The following is the percentage of the number of poor people, Average Length of Schooling and Open Unemployment Rate in NTB Province by district/city from 2018 to 2023.

Table 1. Number of Poor People in NTB Province 2018 – 2023

Regency/City	Number of Poor Population by Regency/City (Percent)					
	2018	2019	2020	2021	2022	2023
Kabupaten Lombok Barat	15.2	15.17	14.28	14.47	13.39	13.67
Kabupaten Lombok Tengah	13.87	13.63	13.44	13.44	12.89	12.93
Kabupaten Lombok Timur	16.55	16.15	15.24	15.38	15.14	15.63
Kabupaten Sumbawa	14.08	13.90	13.65	13.91	13.50	13.91
Kabupaten Dompu	12.40	12.25	12.16	12.60	12.40	12.62
Kabupaten Bima	14.84	14.76	14.49	14.88	14.50	14.39
Kabupaten Sumbawa Barat	14.17	13.85	13.34	13.50	13.02	12.95
Kabupaten Lombok Utara	28.83	29.03	26.99	27.04	25.93	25.80
Kota Mataram	8.96	8.92	8.47	8.65	8.63	8.62
Kota Bima	8.79	8.60	8.35	8.88	8.80	8.67
Nusa Tenggara Barat	14.75	14.56	13.97	14.14	13.68	13.85

Source: Central Statistics Agency (BPS) of NTB Province, 2024

The increasing number of poor people in each country has an impact on economic growth in a country. In Indonesia, in the Province of NTB, the number of poor people in March 2023 was 13.85 percent, an increase of 0.17 percent compared to September 2022. This is a problem that must be solved immediately. The increasing number of poor people in a country has an

impact on the economy of a country. Efforts to eradicate poverty in NTB must be carried out comprehensively, by targeting the problem of unemployment as one of the causes. Improving the skills and competitiveness of the workforce through education and training, as well as the creation of wider and quality jobs, are important strategies that need to be carried out.

Table 2. Open Unemployment Rate in NTB Province 2018 - 2023

Regency/City	Open Unemployment Rate (TPT) of NTB Province by Regency/City (Percent)					
	2018	2019	2020	2021	2022	2023
Kabupaten Lombok Barat	3.22	3.52	4.58	3.32	4.16	3.12
Kabupaten Lombok Tengah	2.98	2.35	3.74	2.33	3.02	2.78
Kabupaten Lombok Timur	3.02	3.35	4.17	2.79	1.51	2.47
Kabupaten Sumbawa	3.29	2.99	4.01	3.39	2.11	2.79
Kabupaten Dompu	3.18	3.04	3.28	3.02	2.5	2.36
Kabupaten Bima	4.63	2.79	2.89	1.58	2.28	2.15
Kabupaten Sumbawa Barat	3.53	5.29	5.5	5.52	4.56	3.54
Kabupaten Lombok Utara	1.86	1.99	3.01	1.75	0.38	1.4
Kota Mataram	6.49	5.28	6.83	5.19	6.03	4.78
Kota Bima	2.27	4.06	4.42	3.56	3.73	3.57
Nusa Tenggara Barat	3.58	3.28	4.22	3.01	2.89	2.8

Source: Central Statistics Agency (BPS) of NTB Province, 2024

Table 2 presents data on the open unemployment rate in NTB Province which fluctuated during the period. Several regions showed a downward trend in the TPT, while others experienced an increase. West Lombok Regency has a TPT that tends to decrease, from 3.22% in 2018 to 3.12% in 2023. On the other hand, Central Lombok Regency experienced a significant increase in the TPT, from 2.98% in 2018 to 2.78% in 2023. There is quite a large variation in the unemployment rate between districts/cities. Mataram City has the highest TPT, which increased from 6.49% in 2018 to 4.78% in 2023. Meanwhile, North Lombok Regency has the lowest TPT, although it also increased from 1.99% in 2018 to 1.4% in 2023. Fluctuations and differences

in TPT between regions indicate that there are still challenges in creating adequate employment opportunities throughout NTB Province. Efforts to expand employment opportunities and improve the quality of human resources need to be carried out in a comprehensive and integrated manner.

According to [4] the pursuit of education is a primary objective of progress. A country's capability to absorb current technology and to develop the capacity to create sustainable growth and development is significantly influenced by education, which plays a crucial role in molding this capacity. In the years 2018-2023, the following is the average number of years spent in school in the province of West Nusa Tenggara:

Table 3. Average Length of Schooling in NTB Province 2018 – 2023 Regency/City Average Length of Schooling (RLS) in NTB Province by Regency/City (Year)

Regency/City	Average Length of Schooling (RLS) in NTB Province by Regency/City (Year)					
	2018	2019	2020	2021	2022	2023
Kabupaten Lombok Barat	6.16	6.37	6.41	6.42	6.60	6.87
Kabupaten Lombok Tengah	5.96	6.27	6.28	6.29	6.44	6.61
Kabupaten Lombok Timur	6.45	6.69	6.7	6.71	7.04	7.12

Kabupaten Sumbawa	7.72	7.91	7.92	8.15	8.21	8.52
Kabupaten Dompu	8.12	8.4	8.44	8.72	8.73	8.97
Kabupaten Bima	7.59	7.77	7.78	7.91	8.17	8.29
Kabupaten Sumbawa Barat	8.24	8.83	8.66	8.72	8.9	8.98
Kabupaten Lombok Utara	5.81	5.84	5.91	6.04	6.30	6.39
Kota Mataram	9.43	9.45	9.46	9.54	9.55	9.56
Kota Bima	10.3	10.38	10.49	10.65	10.94	10.95

Source: Central Statistics Agency (BPS) of NTB Province, 2024

Table 3 shows the average length of schooling in NTB Province shows an increasing trend from year to year. Almost all districts/cities experienced an increase in RLS during this period. Bima City has the highest RLS in NTB Province, with a value that continues to increase from 10.3 years in 2018 to 10.95 years in 2023. Although there has been a general increase in RLS, there are still quite significant differences between districts/cities. North Lombok Regency and Mataram City have higher RLS than other regions. On the other hand, West Lombok Regency and Central Lombok have relatively lower RLS. The fairly wide gap in RLS between regions with the highest and lowest achievements shows that efforts are still needed to equalize the quality of education throughout NTB Province. More intensive interventions in areas with low RLS are needed to improve access and quality of education evenly.

According to [5] limited access to quality education, inadequate health services, lack of employment opportunities, and income disparities contribute to the persistence of poverty. Poverty alleviation can be seen from the formation of human resources through the level of education which will have an impact on increasing a person's productivity level. The availability of educational facilities and the increase in the level of education of the population can be used as one of the indicators of development success.

Based on the research results that show a positive and negative relationship, the researcher is interested in taking this title and considers it important to conduct research on

"The Effect of Open Unemployment Rate and Average Years of Schooling (RLS) on Poverty Rate in The Province of West Nusa Tenggara 2018-2023" so that it can provide a deeper understanding of the factors that influence the unemployment rate in the province of West Nusa Tenggara.

2. LITERATURE REVIEW

2.1 Poverty

According to [6] there are several theories of poverty, including Lewis's Marginal theory, which assumes that urban poverty is often considered to occur due to a culture of poverty that is embedded and socialized in certain community groups. The concept introduced by Lewis, namely "Culture of Poverty", explains that poverty is not only caused by economic factors, but is also influenced by inherent cultural patterns. Lewis argues that people living in poverty tend to have characteristics such as apathy, lack of effort, resignation to fate, and an unstable financial system. In addition, they generally lack education, have minimal ambition to plan for the future, and are often trapped in an environment full of welfare problems and violence. This culture ultimately creates a cycle of poverty that is difficult to break, where the next generation

inherits the same mindset and conditions.

2.2 *Open Unemployment*

According to [7] individuals who have been classed as members of the labor force and who are actively looking for work at a specified wage level but are unable to obtain the job that they desire are considered to be unemployed. The negative repercussions of unemployment include a decrease in people's income, which, in turn, brings about a reduction in the amount of prosperity that a person has achieved. The decrease in people's welfare that is caused by unemployment will undoubtedly raise the likelihood that they will become imprisoned in poverty. This is because they will have no income, which will in turn increase the rate of unemployment. In most cases, the unemployment rate is utilized to determine the total number of individuals of working age who are classified as being in the category of being unemployed.

2.3 *Average Length of Schooling*

Average Years of Schooling (ALS) describes the number of years the population has received formal education. According to human capital theory, capital in the field of education will produce graduates who have high productivity. The higher the quality, the better the quality. Education can get someone out of the cycle of poverty. The general definition that is often used in calculations and academic studies is the definition of poverty introduced by the World Bank, namely the inability

to achieve a minimum standard of living. The Bank (1990) In its report to UN members with the theme "Poverty and Human Development" said that human development is not only prioritized in the economic aspect, but more importantly, prioritizing the aspect of education universally for the benefit of the poor in order to improve their socio-economic life [8].

2.4 *Hypothesis Formula*

Hypothesis formulation is a level requirement concluded from the theoretical basis or literature review and is a temporary answer to the problem being studied. The following is the formulation of the hypothesis in this study:

1. **The Influence of Open Unemployment Rate on Poverty Rate**

According to [9] who stated that poverty may not always be related to employment issues. This shows that even though someone has a job, they may still have difficulty in meeting their basic living needs. There are several other factors that can influence poverty, such as low wages received, high living costs, and limited access to basic services such as education and health.

In the study [10] an examination of the relationship between poverty in Minahasa Regency and factors such as population, education level, and unemployment rate is the subject of this study. Based on the findings of the study, it can be concluded that the open unemployment rate has a negative impact on the poverty

rate, albeit this impact is not statistically significant.

H1 = It is suspected that the open unemployment rate has a negative and insignificant effect on the poverty rate.

2. The Influence of Average Length of Schooling on Poverty Level

According to [11], education is an important means to escape the poverty trap and is a major element in achieving development goals. Todaro emphasized that education serves as a key to improving the ability of individuals and countries to face changing times, including the ability to adopt modern technology.

In a study by [1] an examination of the relationship between poverty in Minahasa Regency and factors such as population, education level, and unemployment rate is the subject of this study. Based on the findings of the study, it was determined that there is a significant and negative correlation between education and poverty. On the basis of the description that was presented earlier, the hypothesis can be stated as follows:

H2 = It is suspected that the level of education has a negative and significant effect on the level of poverty.

3. METHODS

3.1 Types of research

A quantitative approach is utilized in this study because the data that is utilized is expressed in the form of numbers or a numerical scale in order to ascertain the relationship that exists between the variables investigated. In this study, the quantitative method is scientific, systematic, organized,

and structured. It involves a clear examination of the parts and phenomena, as well as their interactions, beginning with the commencement of the study and continuing all the way through to the conclusion of the study. Data collection is carried out using numerical symbols or numbers, so that this study can be carried out objectively, measurably, and verifiably [12].

3.2 Location and Time of Research

The scope of this research encompasses all of the districts and cities that are located within the West Nusa Tenggara Province consisting of 8 districts and 2 cities. This study makes use of a number of different types of data, including the Poverty Rate, the Open Unemployment Rate, and the Average Length of Training. Based on the publication of BPS West Nusa Tenggara, this province still has a high poverty rate during the study period from 2018 to 2023.

3.3 Method of collecting data

The method used in this study is the documentation method, namely by examining documents in government agencies related to this study. The data collection carried out resulted in important writings and information that were relevant to the problem being studied, so that comprehensive data was obtained. In addition, data collection was also carried out through documentation, namely collecting secondary data sourced from related government agencies, namely the Central Statistics Agency (BPS) of West Nusa Tenggara Province (NTB).

3.4 Data Collection Techniques and Tools

Data collection techniques are the methods used by researchers to collect information or data needed in a study. Some data collection techniques used in this study are as follows:

1. Documentation

Documentation in data collection is a data collection technique carried out by

collecting and studying various documents that are relevant to the topic or problem being researched, such as books, writings and figures in the form of reports published on the internet where the data is related to this research.

2. Literature review

Literature study in this research is a research method carried out by collecting, analyzing, and interpreting information from various written sources that are relevant to the topic or problem of this research.

3.5 Data Types and Sources

The types and sources of data used in this study are as follows:

1. Data Types

The type of data used in this study is secondary data. Secondary data is information data that has been collected, processed, and published previously by other parties, not by researchers directly in the field. Secondary data from this study uses poverty rate data, open unemployment rate data, average length of schooling data for West Nusa Tenggara Province (NTB) in 2018-2023. In this study, the data used is panel data taken in the districts/cities of West Nusa Tenggara Province from 2018-2023 for the dependent and independent variables.

2. Data source

The data used in this study are secondary data obtained from government agencies, namely the Central Statistics Agency (BPS) of West Nusa Tenggara (NTB) Province, and also obtained from various sources such as books, journal articles, archives, or other documents relevant to this study.

3.6 Research Variables

1. Identification and Clarification of Variables

- a. Dependent Variable (Y): Poverty Level
- b. Independent Variable (X1): Open Unemployment Rate

- c. Independent Variable (X2): Average Length of Schooling

2. Variable Clarification

Dependent Variable: [13] is a variable that is either impacted by the independent variable or that is the consequence of the independent variable. For the purposes of this investigation, the poverty rate in West Nusa Tenggara Province serves as the dependent variable.

a variable that has the ability to impact or induce changes in dependent variables or the appearance of those variables [13]. It is the open unemployment rate and the average amount of time spent in school that are being considered in this study.

4. RESULTS AND DISCUSSION

4.1 Research result

As a result of the research that has been carried out, it generates data from a number of different variables that have been investigated. The rate of poverty serves as the dependent variable, while the rate of open unemployment and the average duration of schooling serve as independent variables. Following that, statistical analysis was performed on the data that was collected using Microsoft Excel 2010. Furthermore, the study was carried out by employing the panel data regression method through the utilization of the Eviews version 12 application.

4.2 Research Data

1. Poverty Level

Poverty rate data was obtained from BPS, which shows variations between regions. For example, North Lombok Regency has the highest poverty rate with an average of around 26–29%, while Mataram City and Bima City recorded poverty rates below 9%. Complete data is presented in Table 4.1.

2. Open Unemployment Rate (TPT)

TPT data shows varying fluctuations across regions. Some districts such as West

Sumbawa show lower TPT compared to other areas. Table 4.2 presents this data in detail.

3. Average Length of Schooling (RLS)

RLS in NTB Province tends to increase gradually during the study period. Mataram City shows the highest number for RLS, while districts such as North Lombok and Sumbawa recorded relatively lower values. Details are shown in Table 4.3.

4.3 Estimation Analysis and Model Selection

The investigation included three panel data estimate models: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Additionally, the Chow and Hausman tests were performed to identify the optimal model.

1. The Chow test shows that the FEM model is more appropriate than CEM.
2. The Hausman test produces a p value < 0.05 , which means the FEM model is more appropriate than REM. Therefore, the Fixed Effect Model is chosen as the basis for panel data regression analysis.

4.4 Regression Model Estimation

The estimation results using the FEM model show the following regression equation:

$$\text{LOG_Y} = 3.880544 - 0.008137(\text{LOG_X1})_{it} - 0.616976(\text{LOG_X2})_{it}$$

Information:

LOG_Y = logarithm of poverty rate

LOG_X1 = logarithm of the open unemployment rate

LOG_X2 = logarithm of average years of schooling

The coefficient of determination (R^2) for this model is 0.994187, which indicates that the open unemployment rate and the average

duration of schooling variables are responsible for explaining 99% of the variation in poverty levels.

4.5 Classical Assumption Test

The analysis is continued with the classical assumption test:

1. Normality test shows normal residual distribution.
2. Multicollinearity test showed no significant symptoms of multicollinearity.
3. Autocorrelation and Heteroscedasticity tests also showed no violation of assumptions.

4.6 Hypothesis Testing

1. t-Test (Partial):

The open unemployment rate (X_1) has a negative but insignificant effect on poverty ($p = 0.5256 > 0.05$).

Average length of schooling (X_2) has a negative and significant effect on poverty ($p = 0.0000 < 0.05$).

2. F Test (Simultaneous):

A significance value of $0.000000 < 0.05$ indicates that simultaneously X_1 and X_2 have a significant effect on the poverty level.

3. Coefficient of Determination (Adjusted R^2):

Indicates that 99% of the variation in poverty levels can be elucidated by these two independent variables.

Discussion

1) The Influence of Open Unemployment Rate on Poverty Level in Districts/Cities of NTB Province 2018-2023

From the partial research results for the open unemployment rate variable, it can be concluded that the open unemployment rate has a negative and insignificant effect on the poverty rate in the Regency/City of NTB Province in 2018–2023.

The findings of this study are consistent with the theories presented in [9]

and [14], however they do not align with the assertions made by Beatrice [15], who argued that open unemployment has a good impact on poverty.

2) The Influence of Average Length of Schooling on Poverty Levels in Districts/Cities of NTB Province 2018-2023

According to the findings of the t-statistic, the average number of years spent in education has a significant and detrimental impact on the poverty rate across the board. Both [11] and [1] lend their credence to this conclusion.

3) The Simultaneous Effect of Open Unemployment Rate and Average Length of Schooling on Poverty Level

The simultaneous significance value is 0.000000, which is less than 0.05, indicating that both variables concurrently influence the poverty level. The R^2 value of 0.994187 signifies that both variables account for 99% of the variance in poverty, with the remaining 1% attributable to other causes.

This finding is consistent with [16] and [11] which emphasize the role of government and education in economic development.

4) Research Implications

Based on the research results and discussion, the conclusions in this study are as follows:

- a. In this study, the open unemployment rate exerts a

negative and minor influence on the poverty rate in NTB province from 2018 to 2023.

- b. The mean duration of education exerts a negative and significant influence on the poverty rate in NTB province from 2018 to 2023.
- c. The open unemployment rate and average length of schooling concurrently influence the poverty rate in the regencies and cities of NTB Province from 2018 to 2023.

5. CONCLUSION

This study demonstrates that the open unemployment rate has a negligible and statistically insignificant impact on the poverty rate in West Nusa Tenggara Province from 2018 to 2023. This indicates that, despite the elevated unemployment rate, the overall welfare of the community has not undergone a substantial deterioration. Individuals may possess alternative revenue sources that assist in sustaining their well-being, despite encountering difficulties in securing employment. Conversely, the average duration of education has had a negative and significant impact on the poverty rate. Enhancing the average duration of education in NTB Province is anticipated to elevate the quality of human resources and subsequently promote improved wellbeing. Consequently, initiatives to enhance access to and the quality of education are crucial for successfully and consistently alleviating poverty in this region.

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