DETERMINATION OF POPULATION GROWTH AGAINST LEVEL OF UNEMPLOYMENT IN MERAUKE DISTRICT

Fenty Y. Manuhuttu and Odelia Kimirop
Department of Development Economics, Faculty of Economics and Business, Universitas Musamus, Merauke, Indonesia

ABSTRACT
This study aims to determine the magnitude of the effect of population growth on the unemployment rate in Merauke Regency. This type of research is quantitative descriptive with data collection techniques using observation and documentation. Primary data were collected from the office of the Merauke Regency Central Bureau of Statistics, while secondary data was obtained through literature. Data analysis techniques used Simple Linear Regression analysis and Correlation Coefficient analysis. While testing the hypothesis using Partial Significant Test (T Test) and Determination Test. The results showed that population growth had a positive relationship to the unemployment rate in Merauke Regency. The results of simple regression analysis known regression coefficient value of 0.350, meaning that every increase in population by 1% will have an impact on increasing the unemployment rate of 0.350%. While the results of the Determination Test show that population growth affects the unemployment rate of 90% and the remaining 10% is influenced by other factors not included in this analysis model. This is caused by the expansion of Merauke Regency into 4 districts (Merauke Regency as the parent district, and 3 pemekaran districts, namely Boven Digoel Regency, Mappi Regency, and Asmat Regency). As a result of the expansion of the new autonomous region, many job seekers from Merauke Regency were absorbed by government and private agencies in other newly created districts. With more open employment, it automatically reduces the unemployment rate.

Keywords: population growth, unemployment rate, autonomous region, job seeker

Cite this Article: Fenty Y. Manuhuttu and Odelia Kimirop, Determination of Population Growth against Level of Unemployment in Merauke District., International Journal of Civil Engineering and Technology, 10(02), 2019, pp. 10–20
http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=10&IType=02
1. INTRODUCTION

Merauke Regency is part of the Papua Province in the eastern region of Indonesia which has a population in 2005 of 173,943 people and experienced an increase in 2014 reaching 213,484 people with a population growth rate of 1.99 percent. This is due to Merauke as the District Capital besides being a center of economic, education and trade activities, so that many residents are interested in coming to the city of Merauke in the hope of obtaining decent jobs. While the area of Merauke City alone is 2,113 km2. So with a dense population, while job vacancies are limited so that many human resources that cannot be utilized in the form of labor development, resulting in a large number of unemployed labor force participation rates in Merauke Regency in 2014 amounting to 6,613 people (Central Statistics Agency, 2017).

The efforts of the Merauke Regency government must be supported by policies in the field of education and training because most of the workforce in Merauke Regency has not been fully absorbed in employment. One indicator that can be used to measure the success of development in education is the level of school participation. Data from BPS shows that in 2014 there were 95.93 people aged 7-12 years who had or were attending school, while the rest had never been educated (Central Statistics Agency, 2017).

With limited employment while labor costs are still relatively low. The provincial minimum wage (UMP) of Rp 2,435,000 is not necessarily able to meet the living needs of workers, because the price of goods in Papua is not the same as the price of goods outside Papua. The welfare of the population can be seen from the magnitude of the GRDP (at constant prices) that was achieved in a given year. This is due to the increase in the workforce each year, and the growth of the population in working age compared to the basic demand for labor which involves a large labor force in unemployed Merauke Regency. Lately the expected employment comes from the government. The desire and enthusiasm of the community to become civil servants in the Papua province including Merauke district is still high. On the other hand the government's efforts to increase job vacancies in the government are still constrained by the available budget (Central Statistics Agency, 2017).

Periodically, the Papua Provincial Government in general and the Merauke Regency government in particular cannot open job openings every year to job seekers. The tendency to seek employment as a civil servant is actually based on several facts as follows:

1. Civil servants provide old-age insurance when the employee concerned is full-time.
2. Being a civil servant does not require conditions that are not too strict, so that it is easy to get.
3. Both Papua and Mereuke Provinces still have strong opportunities to open opportunities to apply to become civil servants, although not regularly.
4. Working as a civil servant has its own advantages when compared to private or other employees.
5. There is clarity about the future for the family a few years later.

Job opportunities are the availability of jobs for the workforce who need jobs. Job opportunities in Indonesia are guaranteed in Article 27 paragraph 2 of the 1945 Constitution which reads: "Every citizen has the right to decent work and livelihood". From the sound of Article 27 paragraph 2 of the 1945 Constitution, it is clear that the Indonesian government is responsible for job creation (Arianto, 2015).

The amount of unemployment is usually in line with the increase in population and is not supported by the availability of new jobs or reluctance to create jobs (at a minimum) for themselves or it is not possible to get jobs or not to create jobs. Actually, if someone creates
jobs, creating jobs (at a minimum) for themselves will have a positive impact on others as well, for example from some of the results obtained can be used to help others even a little (Subri, 2003).

The policy of reducing open unemployment in the labor policy does not yet have enough clarity on the content to be carried out in the community. This can be seen in the form of a law that regulates, supports and controls the system of implementing labor policies. In Law Number 13 of 2003 concerning Manpower and Law Number 32 of 2004 concerning Regional Government, the implementation of regional autonomy is carried out by giving wider, real and responsible authority to the regions. Giving broader authority to these regions requires coordination and regulation to better harmonize and harmonize development in the region (Central Statistics Agency, 2017).

Based on the description above, the researcher was interested in conducting a research entitled "The Influence of Population Growth on Unemployment Rate in Merauke Regency". Based on the Background above, then the formulation of the problem in this study is "How big is the influence of population growth on the unemployment rate in Merauke Regency in 2005-2014?".

2. METHODOLOGY

2.1. Types and Data Sources

The types and sources of data used in this study are primary data and secondary data.

1. Primary data is data collected from the first data source, namely from the office of the Central Bureau of Statistics of Merauke Regency, the data used in this study is Merauke in Figures for 2005-2014 in Merauke Regency namely:
   b) Unemployment data in Merauke Regency in 2005-2014.

2. Secondary data is data obtained through literature studies by reading books related to research conducted, and articles that are useful for the implementation of this writing.

The data sources used in this discussion were obtained from:
   b) Various electronic references.

2.2. Data Collection Procedure

The procedure for collecting data used to obtain research data needed in writing the final assignment is:

1. Library Research (research literature), research held at the library with the aim of obtaining information in the form of theories, originating from books, articles relating to objects to be discussed.

2. Documentation, is a record of events that have passed. Ordinary documentation in the form of writing, drawing, or monumental works from someone (Sugiyono, 2009).

2.3. Operational

The operational definition of variables in research is to operate the variables studied in the form of indicators. As for the indicators in this study are:

   a) Independent variable (X) population growth.
Population growth is a change in population at any time, and can be calculated as a change in the number of individuals in a population using per unit time for measurement.

b) Dependent variable (Y) unemployment rate.

The Unemployment Rate is a number that shows how many of the workforce is actively looking for work.

2.4. Variable Measurement

According to Sugiyono (2014), states that the measurement of research variables is determined in the form of dependent and independent variables.

1. Independent variables are often called stimulus variables, predictors, or ancetedent. In Indonesian it is called an independent variable. Independent variables are variables that influence or become the cause of changes or the emergence of the dependent variable. In this study the independent variable is population growth.

2. The dependent variable is often referred to as the output variable, criteria and consequent. In Indonesian it is called the dependent variable. Dependent variables are variables that influence or are due to the existence of independent variables. In this study the dependent variable is the unemployment rate.

2.5. Data analysis method

According to Sugiyono (2009), this analysis is used to study the forms of relationships that exist between the variables involved, so that it can be seen how the dependent variable can be predicted through independent variables. This analysis can also be used to decide whether the rise or fall of the dependent variable can be done by increasing or decreasing the independent variable. General equation simple linear regression analysis:

\[ Y = a + bX \]

Where:  
- \( Y \) = dependent variable (unemployment) 
- \( a \) = constant 
- \( b \) = regression coefficient 
- \( X \) = independent variable (population growth)

2.6. Hypothesis testing

Testing the hypothesis in this study uses the Partial Significant Test (T Test). The t statistical test is also called the individual significance test of this test to show how far the independent variables are partially against the dependent variable. The form of testing is (Gujarati, 2007):

2.6.1. Formulate a hypothesis

Ho: \( b1 = 0 \), means that an independent variable partially does not affect the dependent variable.

Ha: \( b1 \neq 0 \), means that an independent variable partially influences the dependent variable.

2.6.2. Decision Making Criteria

If: probability <5%, Ha is accepted and if probability is> 5%, Ho is rejected.
2.6.3. Table for the Degree of Freedom

\[ df = n - k - 1 \]

Where:  
- \( Y \) = dependent variable (unemployment rate)  
- \( n \) = amount of data  
- \( k \) = number of variables

Other useful methods were provided in previous researchers (Kalalo, 208; Kore, 2018; Kotta et al., 2018; Lamalewa and Kore, 2018; Tjilen et al., 2018).

3. RESULTS AND DISCUSSION

3.1. Results of Data Analysis

3.1.1. Classical Assumption Test Results
This test is carried out using a simple linear regression test. This test consists of normality test and heteroscedasticity test.

3.1.2. Normality test
The purpose of the normality test is to find out whether in the residual or residual variable regression model has a normal distribution. If this assumption is violated or not fulfilled, the statistical test becomes invalid for the smallest number of samples. The results of the normality test using the Kolmogorov-Smirnov Test method using SPSS version 24 software are presented in the following table 1.

<table>
<thead>
<tr>
<th>Tabel 1. Normality Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Sample Kolmogorov-Smirnov Test</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parameters(^{a,b})</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

\(^a\) Test distribution is Normal.  
\(^b\) Calculated from data.  
\(^c\) Lilliefors Significance Correction.  
\(^d\) This is a lower bound of the true significance.

Based on table 1 it is known that the significance value of 0.200 is greater than 0.05 so it can be concluded that the data tested is normally distributed.

3.1.3. Heteroscedasticity Test
Heteroscedasticity testing is done to see whether the regression model occurs inequality of variables by looking at the scatterplot graph between the values associated with the residuals. The results of the heteroscedasticity test are presented in the following figure 1.
Based on the results of data processing using SPSS version 24 software, as presented in the scatterplot image above, it can be seen that the points spread randomly, and formed a certain pattern, and scattered above and below zero on the Y axis. So, it can it was concluded that the regression model in this study was free of heteroscedasticity.

### 3.1.4. Simple Linear Regression Analysis

Testing of simple regression analysis in hypothesis testing that the authors propose has two objectives, namely:

a) To get an equation and a line that can show the relationship between the independent variable and the dependent variable. This equation is called a regression equation linear or non-linear.

b) To estimate the relationship between independent variables and the dependent variable indicated by linear equations.

Based on the results of calculations using SPSS Windows 24 software, the results of regression analysis are obtained as presented in the following table 2.

<table>
<thead>
<tr>
<th>Table 2. Linier Regression analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coefficients</strong>a</td>
</tr>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>Population Growth</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Unemployment
Table 2 shows that the regression coefficient of the population growth variable affects the unemployment rate of 0.350 while the value of the constant parameter is 1.99. Based on the values in the table above, the estimation of the regression model can be formulated in the simple regression equation as follows:

\[ Y' = a + bX \]

\[ Y' = 1.917 + (0.350)X \]

From these equations can be interpreted that:

1) The constant coefficient \( a \) is 1.917 meaning that if it is not influenced by \( X \) then \( Y \) is 1.917 or if population growth is considered constant then unemployment is 1.917.

2) Regression coefficient of population growth \( (X) \) of 0.350. From the simple regression results above, the regression coefficient of population growth \( (X) \) is positive, which is 0.350 which determines that if the number of population growth increases by 1%, it will result in an increase in the unemployment rate of 0.350%.

### 3.2. Testing of Hypotheses

#### 3.2.1. Determination Test

Percentage of influence of the independent variable on the dependent variable is indicated by the magnitude of the Determination Coefficient (R²) expressed in percent.

<table>
<thead>
<tr>
<th>Table 3. Determination Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Summary b</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Population growth

b. Dependent Variable: Unemployment Rate

Based on the analysis results obtained R² value of 0.900 which means that the independent variable (population growth) affects the dependent variable (unemployment rate) of 0.900 x 100% = 90% and the remaining 10% is influenced by other factors not included in this analysis model.

#### 3.2.2. Partial Significant Test (T Test)

The T test is done to partially test the independent variables can have a significant effect on the dependent variable. The hypothesis in the T test is that:

- Ha: The independent variable has a significant effect on the dependent variable.
- Ho: The independent variable does not significantly influence the dependent variable.

The basis for decision making for the partial T test in regression analysis is as follows:

3.2.3. Based on the value of \( t \) count and the value of \( t \) table

- If the value of \( t \) count > \( t \) table, the independent variable has an effect on the dependent variable.
- If the value of \( t \) count < \( t \) table, the independent variable does not affect the dependent variable.
In this study using 2-sided testing (significance = 0.025) with degrees of freedom df = n - k - 1 = 10 - 2 - 1 = 7, then the results obtained in the distribution table t for the t table value is equal to 2.365.

3.2.4. Based on the significance value of the SPSS output

- If the value is sig. <0.05, the independent variable has a significant effect on the dependent variable.
- If the value is sig. > 0.05, the independent variable has no significant effect on the dependent variable.

Significant Partial Test Results (t test) using SPSS version 24 software are presented in the following table 4.

Table 4. Significant Partial Test Result (t Test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficientsa</th>
<th>Standardized Coefficients</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td></td>
<td></td>
<td>2.747</td>
<td>.047</td>
<td></td>
</tr>
<tr>
<td>Population growth</td>
<td></td>
<td></td>
<td>.0950</td>
<td>2.710</td>
<td>.039</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Unemployment Rate

Based on the data in Table 4 it is known that the value of t arithmetic is 2.710 > t table 2.365. This shows that population growth affects the unemployment rate where the higher the population growth, the more the unemployment rate increases. While the significant value of 0.039 <0.05 indicates that population growth has a significant effect on the unemployment rate.

From these results the hypothesis taken is Ha accepted and Ho rejected, namely population growth significantly influences the unemployment rate in Merauke Regency, where the higher population growth the higher the unemployment rate.

3.3. DISCUSSION

Based on the results of a simple regression analysis it is known that the regression coefficient value is 0.350. This means that every increase in population growth by 1% will have an impact on increasing the unemployment rate by 0.350%. The fixed value of the unemployment rate is not calculated with the regression coefficient of 1.917. Thus, based on the results of this simple regression analysis, it can be said that population growth has a positive relationship to the unemployment rate and has a significant effect because the independent variable shows a significant value of 0.039 <0.05.

The Determination Test results show that population growth affects the unemployment rate of 90% and the remaining 10% is influenced by other factors not included in this analysis model. This is because the development of population growth in Merauke Regency has fluctuated due to the division of three regencies from Merauke Regency, thus affecting population growth and the unemployment rate.

The results of this study explain that the increase in population growth in Merauke Regency was followed by an increase in the unemployment rate. Conversely, a decline in population growth in Merauke Regency was followed by a reduction in the unemployment rate. This is caused by the expansion of Merauke Regency into 4 districts (Merauke Regency as the main district, and 3 pemekaran districts, namely Boven Digoel Regency, Mappi Regency, and Asmat Regency). As a result of the expansion of the new autonomous region, many job seekers from
Merauke Regency were absorbed by government and private agencies in other newly created districts. With more open employment, it automatically reduces the unemployment rate.

4. CONCLUSION

Based on the results of research and hypothesis testing, the authors form a conclusion that population growth has a positive relationship to the unemployment rate in Merauke Regency. As for the results of simple regression analysis known regression coefficient value of 0.350, meaning that every increase in population by 1% will have an impact on increasing unemployment rate of 0.350%. Other factors not included in this analysis model.

This is caused by the expansion of Merauke Regency into 4 districts (Merauke Regency as the main district, and 3 pemekaran districts, namely Boven Digoel Regency, Mappi Regency, and Asmat Regency). As a result of the expansion of the new autonomous region, many job seekers from Merauke Regency were absorbed by government and private agencies in other newly created districts. With more open employment, it automatically reduces the unemployment rate.

Thus the hypothesis received is Ho while Ha is rejected, namely that population growth affects the unemployment rate in Merauke Regency.

REFERENCES


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editor@iaeme.com
