

## Analysis Of The Socio-Economic Effect On Unemployment In Gorontalo Province

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<i>Info Articles</i>	<i>Abstract</i>
<p><i>Article history:</i> Received April 9, 2022 Revised May 10 2022, Accepted June 2, 2022 Available online June 30, 2022</p> <p><b>Keywords:</b> <i>Indicators; Socioeconomic; Unemployment</i></p> <p><b>JEL Classification:</b> B55; E24</p>	<p><i>This study aims to know whether or not socio-economic indicators affect unemployment in Gorontalo Province. This study uses secondary data from 5 regencies and one city (Gorontalo Regency, Bone Bolango Regency, Gorontalo Utara Regency, Baalemo Regency, Pohuwato Regency, and Gorontalo City) from 2011 to 2020 sourced from journals, articles, and government agencies, such as Statistics of Indonesia. The data analysis technique uses panel data regression analysis. The finding shows that population growth has a negative and insignificant effect on unemployment in Gorontalo Province. Population growth will not necessarily reduce the unemployment rate in the Regencies/cities in Gorontalo Province. Economic growth has a negative and significant effect on unemployment in Gorontalo Province; every increase in economic growth can reduce the unemployment rate in the Regencies/cities in Gorontalo Province. Inflation has a negative and insignificant effect on unemployment in Gorontalo Province; inflation does not necessarily reduce the unemployment rate in the Regencies/cities in Gorontalo Province. The Human Development Index has a negative and significant effect on unemployment; This means that the increase in the human development index can reduce the unemployment rate in the Regency/ City in Gorontalo Province.</i></p>

### INTRODUCTION

As a developing country, Indonesia is still undergoing a process of economic development that aims to achieve people's welfare. One way to accomplish this is by providing job opportunities and creating an equal income distribution. There is still a gap between the number of jobs available and the number of the workforce, which triggers the creation of unemployment and will also have an impact on the life of other socio-economic statuses such as poverty (Choirur et al., 2021) and increased crime (Rungsrisawat et al., 2019). The success of a country's economic development can be from several economic indicators, one of which is the unemployment rate. Based on the unemployment rate, the condition of a nation can determine whether its economy is developing slowly or experiencing a decline (Badu et al., 2020).

At present, the issue of human resources mainly focuses on one of the problems faced by our country, not regulating Gorontalo Province. Unemployed people generally do it voluntarily either because they choose a job, wait for a suitable job, or leave their old position to look for a new job

due to boredom, boredom or not being ideal for the job, and various other reasons (Putong, 2013). Unemployment in Gorontalo Province is still a severe problem that must receive government attention. The unemployment problem is complex because it can be related to socio-economic indicators that will affect unemployment, namely population growth, economic growth, inflation, and the human development index. Based on data from the Central Bureau of Statistics (Badan Pusat Statistik 2016-2020, 2020), the unemployment rate in Gorontalo Province has fluctuated. From year to year. In 2016 it had 2.56%; then it increased in 2017 to 4.28%. Then fell again in 2018 to 3.70%; after that, in 2019, it rose to 3.76%; in 2020, it decreased to 4.28%.

In the problem of unemployment in Gorontalo Province, several socio-economic indicators affect unemployment, including population growth, economic growth, inflation, and the human development index. Several previous studies have also shown similar findings, where factors such as the human development index (Sumaryoto et al., 2020), inflation (Idris, 2021), population growth (Ayuningtyas, 2019) (Hjazeen et al., 2021), regional minimum wage (Rustariyuni et al., 2018) (Sari & Bangun, 2019) (Parulian & Mahendra, 2021) and economic growth (Prawira, 2018), (Johan et al., 2016) affect the unemployment rate. Previous research studies have found different results and perspectives. However, studies that attempt to analyze the effect of more comprehensive socio-economic indicators on unemployment have received less attention from previous researchers. These limitations make a gap that will be completed in this study and is an added value to the novelty the researcher offers. This study aims to determine how much influence population growth, economic growth, inflation, and the human development index have on unemployment in Gorontalo Province. In addition, this study contributes to the development of science, particularly related to economics.

## **RESEARCH METHODS**

This study used a quantitative approach to know the effect of population growth on unemployment in Gorontalo Province from 2011 to 2020 and understand the impact of economic growth on unemployment in Gorontalo Province from 2011 to 2020. Know the effect of inflation on unemployment in Gorontalo Province in 2011-2020 and determine the impact of the human development index on unemployment in Gorontalo Province 2011-2020. The analytical method used is a quantitative data analysis method using tools statistical data processing software Eviews 9 as a tool to test the data. Utility from Eviews is a tool to present statistical information and the results of hypothesis testing that are easily understood by readers and can be trusted.

### **Method of Collecting Data**

The method used in data collection is conducting a literature study to obtain appropriate theories and reference materials from research journals and other sources that explain the problems of this research. After that, collect data. The data used in this study is secondary data obtained from Badan Pusat Statistik (BPS) of Gorontalo Province. The data obtained is in an annual form

for each variable, both in the form of data presented and relevant sources for analysis. The data needed in this study include data on the unemployment rate, population growth, economic growth, inflation, and the human development index in Gorontalo Province.

**Data Analysis Method**

Researchers used panel data regression, time series, and cross-section in this study. There are several advantages to using panel data. First, panel data combines two data, namely time series, with a cross-section capable of providing more data to produce greater freedom. Second, combining information from time series and cross-section data can overcome problems that arise when it is a problem of eliminating variables (omitted variables) (Widarjono, 2013). The panel data regression model in this study is as follows:

$$TP_{it} = \beta_0 + \beta_1 PP_{it} + \beta_2 PE_{it} + \beta_3 Inflasi_{it} + \beta_4 IPM_{it} + \epsilon_{it} \dots \dots \dots (1)$$

Where; TP = Unemployment Rate;  $\beta_1, \beta_2, \beta_3, \beta_4$  = Regression Coefficient; PP = Population Growth; PE = Economic Growth; Inflation = Inflation; HDI = human development index;  $\epsilon$  = Error terms; I = Regency/City in Gorontalo Province; t = Period 2011-2020

**Panel Data Analysis Model**

The model in panel data regression consists of 3 models, which are as follows (Widarjono, 2013):

**1. Standard Effect Model (CEM) or Pool Least Square (PLS)**

The CEM or PLS model is the most straightforward panel data model approach because it only combines time-series and cross-section data. In this model, neither time nor individual dimensions are into account. This method can use the Ordinary Least Square (OLS) approach or the least-squares technique to estimate the panel data model.

**2. Fixed Effect Model (FEM)**

This model assumes that differences between individuals can be accommodated from differences in intercepts; This is a regression approach with a dummy variable as the independent variable. FEM calculates the possibility of researchers facing the problem of omitted variables that can bring changes to the intercept time series or cross-section.

**3. Random Effect Model (REM)**

This approach can make it possible to see differences between individuals or time through errors. In REM, the error is assumed to be random and estimated using the Generalized Least Square (GLS) method. REM considers that errors may be correlated throughout the time series and cross-section.

The panel models in this approach are:

$$Y_{it} = \beta_{it} + \beta_2 X_{3it} + \dots + \beta_n X_{nit} + \mu_{it} \dots \dots \dots (2)$$

Each model must be tested in selecting the model used in this study. The fixed effects method with the pooled least square method can be tested with the F-Test, while The Hausman specification test is carried out by calculating the fixed-effect method and the random effect method.

**RESULT AND DISCUSSION**

**Selection of Panel Data Analysis Model**

There are three types of panel data analysis: combined effects model (CEM), fixed effects model (FEM), and random effects model (REM). We can use multiple Chow and Hausman tests to choose one of the three best models above. The Chow test selects between the CEM and FEM models, and the Hausman test determines between the FEM and REM models.

**Table 1. Justification of Research Model**

<b>Justification of Model</b>	<b>Probability</b>	<b>criteria</b>	<b>Decision</b>
Uji Chow	Cross Section F= 0.0000***	$\rho < \alpha$	FEM
Uji Hausman	Cross Section Random=0.0006***	$\rho < \alpha$	FEM

*Note: Confidence level = \*\*\*)1%, \*\*)5%, \*)10%, NS) Not Significant*

With the level of confidence that has been determined in this study, it is known that the value. The Chow test is 0.0000, and the value - from the Hausman test is 0.0006, which is smaller than the 1% significance value, so H0 is rejected; This means that the model selected based on the two tests (Chow and Hausman tests) above is the Fixed Effects Model.

**Estimated Results**

The estimation results are intended to determine the relationship between two variables: the dependent variable (Unemployment Rate) and the independent variable (Population Growth, Economic Growth, Inflation, and Human Development Index). The first step in the data processing process is to convert the data into logs. In addition to providing a better estimate of the relationship between variables, changing the logarithmic data can reduce the estimated residual (residual) generated by the regression equation.

**Table 2. Results of Data Panel Regression**

Dependent Variable:  
LOG(TP?)  
Method: Pooled EGLS (Cross-section SUR)  
Sample: 2011-2020  
Cross-sections included: 6  
Total pool (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.90204	3.074347	3.871405	0.0003***
LOG(PP?)	-0.169424	0.327449	-0.517405	0.6072 <sup>1S</sup>
LOG(PE?)	-0.020176	0.008979	-2.246959	0.0291**
LOG(INFLASI?)	-0.045169	0.037424	-1.206956	0.2331 <sup>1S</sup>
LOG(IPM?)	-2.382533	0.693044	-3.437780	0.0012***
Fixed Effects (Cross)				
_KAB_BOALEMO—C	-0.295858			
_KAB_BONBOL—C	0.224342			
_KAB_GORONTALO--C	-0.042124			
_KAB_GORUT—C	-0.122313			
_KAB_POHUWATO—C	-0.517545			
_KOTA_GORONTALO--C	0.753498			
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.928670	Mean dependent var	14.62880	
Adjusted R-squared	0.915831	SD dependent var	10.49351	
SE of regression	1.065097	Sum squared resid	56.72162	
F-statistic	72.33005	Durbin-Watson stat	2.079744	
Prob(F-statistic)	0.0000***			

Notes: \*\*\*)1%, \*\*)5%, \*)10%, NS) Not Significant

Regression Equation:

$$\text{LOG(TPit)} = 11.90204 - 0.169424 \text{ LOG(PPit)} - 0.020176 \text{ LOG(PEit)} - 0.045169 \text{ LOG(INFLASIit)} - 2.382533 \text{ LOG(IPMit)} + \epsilon_{it} \dots \dots \dots (3)$$

Round Calculation Results:

$$\text{LOG(TPit)} = 11.90 - 0.17 \text{ LOG(PPit)} - 0.02 \text{ LOG(PEit)} - 0.05 \text{ LOG(INFLASIit)} - 2.38 \text{ LOG(IPMit)} + \epsilon_{it} \dots \dots \dots (4)$$

The estimation results in the form of statements are as follows:

1. Open Unemployment Rate (TP) in the research model, if the independent variables (PP, PE, Inflation, HDI) are considered constant, the available unemployment rate is 11.90%.
2. Population Growth (PP) is negatively correlated with the Open Unemployment Rate with a coefficient value of 0.17; This means that every 1 percent increase in population can reduce unemployment by 0.17 percent.
3. Economic Growth (PE) is negatively correlated with the Open Unemployment Rate with a coefficient value of 0.02. An increase in the economic growth of 1 percent can reduce unemployment by 0.02 percent.
4. Inflation is negatively correlated with the Open Unemployment Rate with

a coefficient value of 0.05; an increase in inflation of 1 percent can reduce unemployment by 0.05 percent.

- The Human Development Index (HDI) negatively correlates with the Open Unemployment Rate with a coefficient value of 2.38. A 1 percent increase in the Human Development Index can reduce unemployment by 2.38 percent.

If the magnitude of the Intercept value ( $\beta_0$ ) is different for each Regency/City, it is in the Fixed Effect Cross table below:

**Table 3. Intercept Cross-Section**

Fixed Effects (Cross)	Intercept
_KAB_POHUWATO—C	-0.517545
_KAB_BOALEMO—C	-0.295858
_KAB_GORUT—C	-0.122313
_KAB_GORONTALO—C	-0.042124
_KAB_BONBOL—C	0.224342
_KOTA_GORONTALO—C	0.753498

Note: Minus = Below Average and Positive = Above Average

It is known that four regencies have intercept values below the average, including; Pohuwato, Boalemo, Gorut, and Gorontalo regencies; This means that if it is assumed that the independent variable is constant, it will reduce the unemployment variable by 0.52 percent for Pohuwato Regency and so on. Meanwhile, the regions with coefficients above the average consist of Bone Bolango Regency and Gorontalo City; assuming constant independent variables, unemployment in Bone Bolango Regency will increase by 0.22 percent, which happens in Gorontalo City.

### Statistical Hypothesis Testing

Hypothesis testing is used to statistically test the validity of a statement and decide whether to accept or reject the hypothesis that has been formed. Thus, this research only answers the questions by stating the rejection or acceptance of the hypothesis.

### The goodness of Fit (R-Squared) Test

The Goodness of Fit test, better known as the coefficient of determination, aims to measure the model's ability to calculate the dependent variable. The coefficient of determination ranges between zero (0) and not more than one (1). A low R-squared value means that the independent variable cannot explain the dependent variable. In multiple linear regression with more than two dependent variables, it would be better to use the adjusted R-square value (Adj R-square) because adding the dependent variable or more than two variables will affect the R-square value. The value of Adj R-square is 0.915831; if it is a percentage, it means 91.58%; This means that 91.58% of changes in the unemployment rate variable by the dependent variable (Population Growth, Economic Growth, Inflation, and

Human Development Index). At the same time, the remaining 8.42% by other variables outside the observation model.

### **Simultaneous Significance Test (F-Statistics)**

The f-statistical test aims to show whether all independent variables in the model have the same or simultaneous effect on the dependent variable. The method used in this test compares it with the F-statistical Prob value in the statistical application output table. If the p-value  $< \alpha$ , then reject H0 and accept H1. The probability of F-statistics is 0.0000, and the level of significance ( $\alpha$ ) = 10%, 5%, and 1%. Thus, a decision can be made that all independent variables simultaneously affect the dependent variable; This is because the value of the p-value of the probability F-statistic is smaller than the 1 percent significance level.

### **Individual Significance Test (t-Statistic)**

The t-statistical test determines how much influence each independent variable has on the dependent variable. In the F-statistical test, we only need to compare the F-statistical Prob and Significance level; the same in the t-statistical test. We only compare each independent variable's probability with the significance level. This study has three levels of significance in this study, namely 10 percent, 5 percent, and 1 percent.

#### **1. Population Growth to Unemployment Rate**

It that the p-value for the population growth variable is 0.6072. If the p-value is compared with a significance level of 10%, the p-value obtained is more significant than 10%, so Ho is accepted. So, the decision is that population growth is insignificant to the unemployment rate from 2011-to 2020.

#### **2. Economic Growth Against Unemployment Rate**

It that the p-value for the Economic Growth variable is 0.0291. If the p-value is compared with a significance level of 5%, the p-value is still smaller than 5%, so Ho is rejected. Thus, Economic Growth is significant to the Unemployment Rate from 2011 to 2020.

#### **3. Inflation against the Unemployment Rate**

It that the p-value for the inflation variable is 0.2331. If the p-value is compared with a significance level of 10%, the p-value obtained is more significant than 10%, so Ho is accepted. So, the decision is that inflation is not substantial to the unemployment rate from 2011 to 2020.

#### **4. Human Development Index to Unemployment Rate**

It that the p-value for the Human Development Index variable is 0.0012. Suppose the p-value is compared with a significance level of 1%. In that case, the p-value obtained is still smaller than 1%, so Ho is rejected; thus, the Human Development Index significantly affects the Unemployment Rate in the 2011-2020 period.

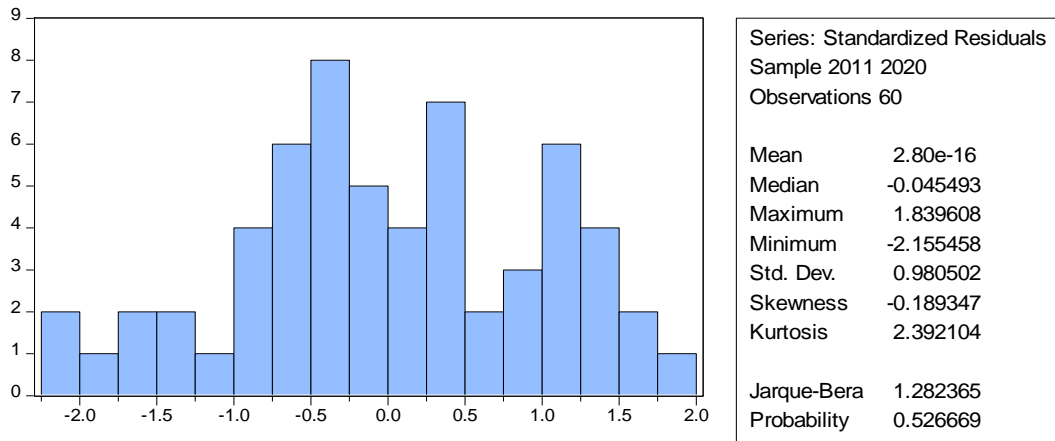
### **Classic Assumption Validity Test**

The regression model for forecasting has minimum prediction error and is a good model. Or better known as BLUE (Best Linear Unbiased Estimation), which assumes that the estimation results do not have biased

parameters. The classical assumption tests are Normality-test, Multicollinearity-test, Autocorrelation-test, and Heteroscedasticity-test.

**Normality-test**

**Figure 1: Normality of data**



Notes: \*\*\*)1%, \*\*)5%, \*)10%, NS) Not Significant

The results of the normality test above using Eviews 9 provide normal residual test results with a Jarque-Berra value of 1.282365 with a probability value of 0.526669 ( $0.526669 > 0.1$ ), so the decision was taken that the data were normally distributed

**Multicollinearity-test**

The correlation test between independent variables is called the multicollinearity test, which helps check whether there is a correlation between independent variables in the regression model. There is a linear relationship between the variables when there is a correlation. A good regression model should not have interactions between independent variables. Therefore, the multicollinearity test by observing the calculated value of the correlation coefficient between the independent variables. The selected model must be free from multicollinearity; that is, if the correlation coefficient value is lower than 0.80, it can be that there is no correlation between the independent variables. The results of the calculation are as follows:

**Table 4. Multicollinearity**

Independen	LOG(PG)	LOG(EG)	LOG(INFLATION)	LOG(HDM)
LOG(PP)	1.0000			
LOG(PE)	-0.0427	1.0000		
LOG(INFLASI)	-0.0744	0.6040	1.0000	
LOG(IPM)	0.2012	-0.1832	-0.4434	1.0000

The table above shows the correlation between the Independent Variables with each other. The correlations between independent variables include: 1) Variable Population Growth with economic growth does not occur multicollinearity (value 0.0427 less than 0.80); 2) Variable Population Growth



with economic growth does not occur multicollinearity (value 0.0427 less than 0.80); 3) Population Growth with Inflation also does not occur multicollinearity (value 0.0744 less than 0.80); 4) For population growth with the Human Development Index, there is no multicollinearity (value of 0.2012 is less than 0.80); 5) Economic growth and inflation do not occur multicollinearity (value 0.6040 less than 0.80); 6) Economic growth and human development index do not occur multicollinearity (matter 0.1832 less than 0.80); 7) Inflation and Human Development Index There is no multicollinearity (-0.4434 less than 0.80) so that the decision that can is that all independent variables have no correlation with each other and do not contain symptoms of multicollinearity.

### Autocorrelation-test

The autocorrelation test aims to determine whether there is a correlation in the linear regression model between the confounding error in period t and the confounding error in period t-1 (previous). The method determines whether there is autocorrelation in the Durbin Watson test. It is known that the number of observation data or the value of  $N = 60$ . The number of confounding variables or the value of  $K = 5$ . DW table, the value of  $D_u = 1.73$  and the value of  $D_L = 1.44$ , while the value of DW in the model estimation above is 2.079744; This means the regression estimation of the previous model does not have an autocorrelation problem because the value of  $DW(2.079744) > D_U(1.73)$ .

### Heteroscedasticity-test

Test of non-uniform variance (heteroscedasticity) occurs when the error or residual of the observed model does not have a constant variance from other observations. The heteroscedasticity test in this study uses the Glejser method, Where the value of the residuals from the equation results is regressed with the dependent variable in the model. This observation is free from heteroscedasticity problems if the -value is greater than the significant level.

#### Table 4. Heteroscedasticity

Dependent Variable: RESABS

Method: Panel Least Squares

Sample: 2011, 2020

Cross-sections included: 6

Total panel (balanced) observations: 60

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.555796	1.274580	2.005206	0.0499
LOG(PP)	-0.115517	0.050634	-2.281409	0.0264
LOG(PE)	-0.008160	0.015320	-0.532658	0.5964
LOG(INFLASI)	0.113400	0.054031	2.098788	0.0404
LOG(IPM)	-0.522478	0.302364	-1.727976	0.0896

Notes: \*\*\*)1%, \*\*)5%, \*)10%, NS) Not Significant

Testing of non-uniform variance (Heteroscedasticity) using the glejser test. In the non-uniform dispersion test, the Sig ( $\alpha$ ) value is more significant

than 0.01; heteroscedasticity dispersion symptoms are considered invalid. The data does not show a non-uniform variance, meaning that the regression equation in the observation does not occur in heteroscedasticity

## **DISCUSSION**

### **Population Growth to Unemployment Rate**

The estimation results state that the Population Growth variable has a negative and insignificant effect on the Unemployment Rate. Population growth does not necessarily reduce the unemployment rate in the Regency/City of Gorontalo Province; A.O Hirschman ([Hirschman, 1964](#)) argues that population growth can stimulate the economy. One of the most severe problems facing developing regions is the development of the working population. An increase in job opportunities has not been accompanied; This will eventually lead to unemployment ([Oktarima & Nazipawati, 2021](#)).

The analysis results show that the unemployment rate will decrease along with the increase in population. Strong population growth does not necessarily mean increased unemployment. From a qualitative perspective, population growth has a positive effect if its growth can encourage economic development. An increase in population can increase the number of workers, enabling the manufacturing sector to increase economic activity. On the other hand, population growth can negatively impact if population growth can hinder economic development. Population growth cannot increase production and reduce the need to consume manufactured products.

Therefore, population growth must by reducing the number of unproductive workers. However, this population growth must balance good talent and sufficient job opportunities to beat a large population with abundant employment opportunities ([Ardiansa et al., 2021](#)). This study's results align with ([Oktarima & Nazipawati, 2021](#)) research that population growth is negatively and insignificantly correlated with unemployment. The reason is that population growth does not necessarily increase the unemployment problem because the unemployment rate by a disturbing variable, namely the wage level.

### **Economic Growth Against Unemployment Rate**

Economic growth has a negative and significant effect on unemployment so every increase in Economic Growth can reduce the unemployment rate in the Regency/City of Gorontalo Province; Regional economic growth of Gorontalo Province in recent years has accommodated new workers and reduced unemployment. An increase usually follows economic growth in the production of goods and services. And when that happens, the need for labor to produce more goods and services will also increase. In other words, the regional economic growth of Gorontalo Province is related to job creation.

Economic growth as a creator of new jobs occurs because more significant economic growth is contributed by consumption. With this increase in consumption, many companies increase the number of workers to

meet the consumption needs of the community. This is reasonable considering that economic growth is driven more by non-tradable sectors (sectors that cannot be traded, such as the financial and service sectors) than real ones. This study's results align with those reported by research by Adiyadnya ([Adiyadnya & Swara, 2021](#)). They argue that economic growth negatively impacts open unemployment because the region's high economic growth affects the industry's possibility to increase production.

### **Inflation against the Unemployment Rate**

From the estimation results, the inflation variable has a negative and insignificant effect on unemployment. Every increase in inflation does not necessarily reduce the unemployment rate in the Regency/City of Gorontalo Province. Inflation is an indication that a country's economy is deteriorating; this study on regencies/cities in Gorontalo Province. High inflation can encourage the central bank to raise interest rates, which leads to deflation or negative growth in the real sector. Another effect is the increase in the number of unemployed, and inflation and the unemployment rate can be used to measure the good or bad of a country's economy.

That a temporary and sporadic increase in the number of goods causes inflation; when there is an increase in prices, it will affect people's purchasing power and impact expensive production, thus having an impact on reducing labor. The Phillips curve can describe the relationship between inflation and short-run unemployment rates. Phillips uses this curve to examine the UK's relationship between unemployment and inflation. Phillips found a negative relationship between the inflation rate and the unemployment rate so that higher inflation can reduce unemployment ([Yehosua et al., 2019](#)).

This can happen by meeting this demand due to rising prices (inflation); producers can increase their production capacity by adding labor (labor is the only input that can increase production). Due to the increase in demand for labor, inflation will reduce unemployment. This study's results align with research conducted by Shafira ([Shafira et al., 2021](#)). They found that inflation hurt unemployment; This increases the number of workers in many companies to produce more goods because prices continue to rise (inflation).

### **Human Development Index to Unemployment Rate**

From the estimation results, the Human Development Index variable negatively and significantly affects unemployment. With the increase in the Human Development Index, the unemployment rate in the state of Gorontalo Regency/City can decrease. Unemployment does not reflect the level of community welfare, while the ultimate goal of development is to create prosperity and prosperity for the community. High unemployment in an area hinders the achievement of economic development goals. People's incomes decrease, so people's purchasing power declines, and even education and health, which are the basis for improving human quality, are not realized ([Si'lang et al., 2019](#)).

According to BPS, the human development index indicators consist of Health, Education, and per capita income; This means that one-third of the human development index indicator is the income per capita. Okun's law cited by Badu (Badu et al., 2020) research that unemployment will increase if per capita income decreases (indirectly also consumption decreases). The new growth theory (New Growth Theory) emphasizes the critical role of government in Human Capital (Investment in human resources) and human resource development to increase human productivity. Investment in education improves the quality of human resources, leading to increased knowledge and skills. The higher the human quality, the more knowledge and experience, and the better the workforce's productivity. The more workers employed, the lower the unemployment rate because hiring more productive workers will improve a company's performance.

Keynes explained that the unemployment problem to weak aggregate demand. Aggregate demand is all the demand for goods and services in an economy. When the supply of labor increases, wages fall, and wage cuts cause unprofitable losses because wage cuts show people's purchasing power for an item. People's purchasing power, one of the indicators of low HDI, forces companies to reduce production and absorb excess labor so that there is rarely a balance between supply and demand, and unemployment occurs. This study's results align with research conducted by Mahroji (Mahroji & Nurkhasanah, 2019), explaining that the development index has a negative and significant effect on the open unemployment rate; This is because the law of supply and demand will increase the number of workers.

## **CONCLUSION**

Based on the results and discussions discussed in the previous chapter regarding the influence of socio-economic indicators on unemployment in Gorontalo Province, the researchers draw the following conclusions: 1) Population growth has a negative and insignificant effect on unemployment in Gorontalo Province. Which means. Any increase in population growth may not necessarily reduce the unemployment rate in the Regency/City of Gorontalo Province; 2) Economic growth has a negative and significant effect on the movement in Gorontalo Province. Which means. Any increase in economic growth can reduce the figures in the Regency/City of Gorontalo province; 3) Inflation has a negative and insignificant effect on movements in Gorontalo Province. Which means. Any increase in inflation does not reduce the inflation rate in the Regency/City of Gorontalo Province.

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