

Analysis of the Determination of Youth Unemployment in Jambi Province

Muhammad Haikal Fahlevi Rawli^{1*}, Junaidi², Erni Achmad³

^{1,2,3} Faculty of Economics and Business, Jambi University, Jambi, 36657 Indonesia

Corresponding author: Muhammad Haikal

Fahlevi Rawli

Email: haikalfahlevi212@gmail.com

DOI: <https://doi.org/10.61688/ajpbs.v7i1.469>

Article History

Received	Revised	Accepted	Published
1 March 2026	20 May 2026	31 May 2026	30 June 2026

ABSTRACT

This study analyzes the effects of the working-age population, provincial minimum wage, human development index (HDI), inflation, economic growth, and investment on youth unemployment in Jambi Province. The study employs a quantitative approach using annual secondary data for the period 2000-2024 and multiple linear regression analysis. The F-test indicates that the independent variables are jointly significant in explaining youth unemployment. The partial tests show that HDI and economic growth are statistically significant at the 5% level, while investment is significant at the 10% level. The working-age population, provincial minimum wage, and inflation are not statistically significant. These results highlight the importance of human development, economic growth, and investment in understanding youth unemployment dynamics in Jambi Province.

Keywords: *working-age population, provincial minimum wage, human development index, inflation, economic growth, youth unemployment.*

How to Cite

Haikal, M., Junaidi, J., & Achmad, E. (2026). Analysis of the determinants of youth unemployment in Jambi Province. *The Asian Journal of Professional & Business Studies*, 7(1), 249–265.
<https://doi.org/10.61688/ajpbs.v7i1.469>

Copyright © 2026 The Author(s)

Published by Universiti Poly-Tech Malaysia. This is an open access article under the Creative Commons Attribution (CC BY 4.0) license:

<https://creativecommons.org/licenses/by/4.0/legalcode>

1. INTRODUCTION

Poverty alleviation and reducing unemployment are top development priorities. This aligns with the five objectives of the Indonesia Golden Vision 2045, which include per capita income equal to that of developed countries, reduced poverty, and decreased inequality. However, per capita income alone does not reflect the population's level of prosperity. Economic inequality between the rich and the poor is a major issue that hinders economic development.

The goal of economic development is to address unemployment. Unemployment occurs due to an imbalance between the size of the labor force and the number of available job opportunities. According to Keynes, the economy always faces unemployment problems, and full employment is rarely achieved (Sukirno, 2017). If the unemployment rate decreases, economic disparities will become more evenly distributed. Unemployment is a macroeconomic problem that directly affects humans and has the most severe impact on a country's economic development.

Unemployment is one of the main short-term problems every country faces. Therefore, every economy and country faces unemployment, namely natural unemployment (the natural rate of unemployment). Natural unemployment is a level of unemployment that is natural and cannot be eliminated. This means that if the unemployment rate is 2-3 percent or less, it signifies that the economy is in a state of full employment (Sukirno, 2017).

High unemployment caused by regional disparities also results in higher unemployment levels across Jambi Province, in both cities and regencies. Low-quality education and limited workforce skills also hinder access to jobs that match their qualifications. However, many young people in Jambi who graduate from schools or universities also struggle to find suitable employment. According to data from the Central Statistics Agency, Jambi Province shows an interesting unemployment trend, especially among youth.

Young people are the group most vulnerable to unemployment because of limited work experience and skills that are not fully developed. The digitalization of work reduces the need for labor in some traditional sectors, while young people have yet to acquire relevant skills for new sectors. In fact, young people's economic potential includes a productive workforce that could significantly drive economic growth if properly empowered. Furthermore, young people tend to have high expectations for salaries and rapid career paths, which do not always align with local labor market conditions.

Indonesia defines youth in Law Number 40 of 2009 concerning Youth. Under this regulation, youth are Indonesian citizens in an important period of growth and development, aged between 16 and 30 years. For statistical purposes, the United Nations defines youth as persons aged 15 to 24 years (United Nations, n.d.). These definitions show that the operational age range for youth may vary across national and international contexts.

The first factor contributing to unemployment is the size of the working-age population. An increase in the working-age population will raise the unemployment rate if it is not matched by proportional growth in job opportunities. A significant gap remains between the number of working-age people and labor absorption, which remains an important issue in the employment sector (Sukirno, 2017). The second factor affecting unemployment is the provincial minimum wage. An increase in the provincial minimum wage can boost workers' purchasing power, potentially increasing consumption and demand for goods and services. This can stimulate economic growth and create new jobs. However, if the minimum wage is raised too high, companies may face higher operational costs. This can lead companies to reduce the number of employees or even carry out layoffs (PHK) to maintain company stability (Arsyad, 2011). The third factor that affects unemployment is the Human Development Index (HDI), because a high HDI is often correlated with a higher level of a person's ability or knowledge (Education). Good education enhances an individual's skills and abilities, which creates a society ready to enter the labor market (Sukirno, 2017).

The fourth factor that influences unemployment is economic growth. Strong economic growth often contributes to a decline in the unemployment rate. The impact of economic growth on the unemployment rate is not always linear (Arsyad, 2011), especially for young age groups who are vulnerable to labor market instability, with the number of young people seeking jobs or engaged in formal economic activities still showing significant figures. The fifth factor

influencing unemployment is inflation, a financial issue or an annual rise in prices. If this condition continues, many unemployment problems will arise. Inflation and unemployment rates are major economic issues that receive special attention from the government (Jhingan, 2018). This also applies to Jambi Province, which, by and large, experiences relatively high inflation and requires intensive government oversight. The sixth factor that influences the unemployment rate is investment. Investment plays a significant role in integrating the workforce into the economy, as the amount of investment affects labor demand. From a theoretical perspective, an increase in investment is directly proportional to an increase in labor demand (Sukirno, 2017). Investment acts as a component of economic activity that directly affects labor absorption. As investment increases, its impact on reducing the unemployment rate becomes more significant. However, a decrease in investment tends to increase unemployment.

Various studies have examined the determinants of unemployment. Laia and Ashar (2023) found that economic growth had no significant effect on open unemployment in West Java. Putra and Aisyah (2021), Syafitri et al. (2023), and Azzikra and Anjas (2023) report relationships between inflation and unemployment. Studies of wage-related variables also identify significant associations with unemployment (Salsabila et al., 2023; Dewi & Sirait, 2024; Putra & Aisyah, 2021; Kartika & Muslim, 2021). HDI has likewise been identified as an important determinant of unemployment (Dewi & Sirait, 2024; Burhanuddin, 2015), while economic growth has frequently been associated with lower unemployment (Salsabila & Kusuma, 2024; Bucevska & Kozheski, 2022).

Based on this background, this study examines the effects of the working-age population, Provincial Minimum Wage (UMP), Human Development Index (HDI), inflation, economic growth, and investment on youth unemployment in Jambi Province. The findings are intended to provide evidence that can support policymakers in designing measures to reduce youth unemployment.

2. LITERATURE REVIEW

2.1. Unemployment

Sukirno (2017) defines unemployment as a condition in which individuals in the labor force do not have work and are seeking employment. In the context of this study, youth unemployment refers specifically to unemployment among young people within the age definition adopted for the analysis.

2.2. Working-Age Population

The working-age population represents the potential labor supply available to participate in productive economic activity (Mulyadi, 2015). When growth in the working-age population is not matched by sufficient job creation, pressure on the labor market and unemployment may increase.

2.3. Provincial Minimum Wage

According to Jhingan (2018), wages are all types of payments arising from a work contract, regardless of the type of job and the agreement reached between the worker and the employer. Wages are the income a worker receives as compensation for the work performed. Wages can be paid in cash or other agreed forms, or in cash along with goods according to the worker's needs.

2.4. Human Development Index

According to Efendi (2024), the Human Development Index (HDI) is a comparative measure of life expectancy, literacy, education, and living standards. The HDI shows how a population accesses development outcomes in terms of income, health, education, and so on.

2.5. Inflation

Inflation is an economic problem that occurs in both developed and developing countries like Indonesia. Inflation is the tendency for prices to rise continuously, caused by too much money in circulation relative to available goods (Abidin, 2020).

2.6. Economic Growth

Economic growth is a key measure and indicator of a region's economic development. According to Abidin (2020), economic growth is economic development that increases the goods and services produced within society.

2.7. Investment

According to Sukirno (2017), economic theory on investment describes the allocation of funds to purchase capital goods and production tools, with the aim of replacing and adding capital goods used in the production of goods or services.

3. METHODOLOGY

This study employs a quantitative approach using annual secondary time-series data for Jambi Province from 2000 to 2024. Multiple linear regression analysis is used to examine the effects of the working-age population, provincial minimum wage, human development index, inflation, economic growth, and investment on youth unemployment. The analysis is intended to estimate the relationship between the independent variables and the dependent variable (Sugiyono, 2018). The multiple linear regression model applied in this study is as follows (Bambang & Junaidi, 2012).

$$\text{Log}(Y) = \beta_0 + \beta_1 \log(X_1) + \beta_2 \log(X_2) + \beta_3 \log(X_3) + \beta_4 \log(X_4) + \beta_5 \log(X_5) + \beta_6 \log(X_6) + e$$

Description:

Y: Youth Unemployment (People)

X1: Working-Age Population (People)

X2: Provincial Minimum Wage (Rupiah)

X3: Human Development Index (Index)

X4: Inflation (Percent)

X5: Economic Growth (Percent)

X6: Investment (Rupiah)

β_0

$\beta_1 - \beta_6$

Log: Logarithm

e: Error Term (Residual Error Value)

Coefficient of Determination Test

According to Ghozali (2018), the coefficient of determination (R^2) indicates the proportion of variation in the dependent variable explained by the independent variables in the regression model. A higher R^2 indicates greater explanatory power within the estimated model, although it should be interpreted together with the statistical significance and specification of the model.

Simultaneous Test with F Statistics

The F-test is used to assess whether the independent variables jointly explain variation in the dependent variable. In this study, the model is considered statistically significant when the probability value is below the adopted 10% significance level ($p < 0.10$).

Partial Test with t Statistic

The t-test is used to assess the partial statistical significance of each independent variable. A coefficient is considered statistically significant at the adopted 10% level when its probability value is below 0.10 ($p < 0.10$); otherwise, it is treated as not statistically significant.

4. FINDINGS AND DISCUSSION

The analysis examines the effects of the Working-Age Population, Provincial Minimum Wage, Human Development Index, Inflation, Economic Growth, and Investment on Youth Unemployment in Jambi Province using multiple linear regression with annual time-series data from 2000 to 2024 (25 observations). The estimated regression coefficients are presented below.

Table 1 Results of Multiple Linear Regression Analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5.595	3.523		-1.588	.130
	Log(X1)	.034	.697	.028	.049	.961
	Log(X2)	-.017	.121	-.072	-.139	.891
	Log(X3)	3.815	.770	1.185	4.955	.000
	Log(X4)	-.004	.009	-.017	-.472	.643
	Log(X5)	-.020	.020	-1.040	-3.005	.003
	Log(X6)	-.045	.025	-.188	-1.803	.088

a. Dependent Variable: Log(Y)

Source: processed data, 2025

Based on Table 1, the research results show the regression equation as follows:

$$\text{Log}(Y) = -5.595 + 0.034 \text{Log}(X1) - 0.017 \text{Log}(X2) + 3.815 \text{Log}(X3) - 0.004 \text{Log}(X4) - 0.020 \text{Log}(X5) - 0.045 \text{Log}(X6)$$

Coefficient of Determination

The magnitude of the effect explained by the independent variable on the dependent variable can be seen from the value of the coefficient of determination as follows:

Table 2 Coefficient of Determination

MODEL SUMMARY ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.994 ^a	.988	.983	.01105	1.843
a. Predictors: (Constant), Log(X1), Log(X2), Log(X3), Log(X4), Log(X5), Log(X6)					
b. Dependent Variable: Log(Y)					

Source: processed data, 2025

Based on Table 2, the coefficient of determination (R^2) of 0.988 indicates that the model explains approximately 98.80% of the observed variation in youth unemployment over the study period, while the remaining 1.20% is associated with factors not included in the model.

F Test Statistics

To examine the influence simultaneously, a hypothesis test was conducted using the F Statistic; the estimation results are as follows:

Table 3 Simultaneous Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.175	6	.029	239.219	.000 ^b
	Residual	.002	18	.000		
	Total	.177	24			
a. Dependent Variable: Log(Y)						
b. Predictors: (Constant), Log(X1), Log(X2), Log(X3), Log(X4), Log(X5), Log(X6)						

Source: processed data, 2025

Based on Table 3, the F-test is statistically significant at the 10% level ($F = 239.219$, $p < 0.001$). This indicates that the working-age population, provincial minimum wage, human development index, inflation, economic growth, and investment are jointly significant in explaining youth unemployment in Jambi Province.

t Test

To examine the partial influence, a hypothesis test was conducted using the t-statistic; the estimation results are as follows:

Table 4 Partial Test

Variable	Coefficient	Sig.	Alpha	Conclusion
Log(X1)	0.034	0.961	0.10	Not Significant
Log(X2)	-0.017	0.891	0.10	Not Significant
Log(X3)	3.815	0.000	0.10	Significant
Log(X4)	-0.004	0.643	0.10	Not Significant
Log(X5)	-0.020	0.003	0.10	Significant
Log(X6)	-0.045	0.088	0.10	Significant

Source: processed data, 2025

Based on Table 4, the working-age population ($\beta = 0.034$, $p = 0.961$) and provincial minimum wage ($\beta = -0.017$, $p = 0.891$) are not statistically significant at the 10% level. The human development index has a positive and statistically significant coefficient ($\beta = 3.815$, $p < 0.001$). Because the model is specified in logarithms, the coefficient is interpreted as an elasticity: a 1% increase in HDI is associated with an estimated 3.815% increase in youth unemployment, holding the other variables constant.

Inflation is not statistically significant ($\beta = -0.004$, $p = 0.643$). Economic growth has a negative and statistically significant association with youth unemployment ($\beta = -0.020$, $p = 0.003$), implying that a 1% increase in economic growth is associated with an estimated 0.020% decrease in youth unemployment, holding other variables constant. Investment is also negative and significant at the 10% level ($\beta = -0.045$, $p = 0.088$), indicating an estimated 0.045% decrease in youth unemployment for a 1% increase in investment, *ceteris paribus*.

The Influence of the Human Development Index on Youth Unemployment

The positive and significant HDI coefficient indicates that, over the study period, higher HDI is associated with higher youth unemployment after controlling for the other variables. This finding should not be interpreted as evidence that human development is detrimental to employment. Rather, it may reflect a labor-market mismatch in which improvements in education and capabilities increase the supply and expectations of educated young job seekers faster than suitable employment opportunities are created. Previous studies also identify HDI as an important determinant of unemployment, although the direction of the relationship may differ across contexts (Dewi & Sirait, 2024; Dahma, 2018; Burhanuddin, 2015). The result therefore suggests that improvements in human development should be accompanied by job creation and stronger alignment between education, skills, and labor-market demand.

The Impact of Economic Growth on Youth Unemployment

Economic growth has a negative and statistically significant association with youth unemployment. This pattern is consistent with Okun's law, which predicts an inverse relationship between output growth and unemployment, and with evidence reported by Bucevska and Kozheski (2022). The result implies that stronger economic activity can expand labor demand and improve employment opportunities for young workers. However, Azizah (2016) reports a different pattern, suggesting that the employment effect of growth may depend on whether growth is labor-intensive or capital-intensive. Thus, the Jambi result supports the importance of the composition and employment intensity of economic growth.

The Effect of Investment on Youth Unemployment

Investment has a negative and statistically significant association with youth unemployment. Increased investment can expand productive capacity and create employment opportunities, thereby reducing unemployment (Jarniati, 2017). This result is consistent with Hasana et al. (2023), Yanti et al. (2019), and Erfit et al. (2020), which identify investment as an important factor associated with unemployment. In the Jambi context, the finding suggests that investment that expands productive activity and labor demand can help absorb young workers. Domestic and foreign investment can therefore contribute to employment creation when directed toward sectors with sufficient labor absorption (Yuli, 2017).

5. CONCLUSION

The F-test indicates that the working-age population, provincial minimum wage, human development index, inflation, economic growth, and investment are jointly significant in explaining youth unemployment in Jambi Province. The partial results show that HDI has a positive and statistically significant association with youth unemployment, economic growth has a negative and statistically significant association, and investment has a negative association that is significant at the 10% level. The working-age population, provincial minimum wage, and inflation are not statistically significant. These findings suggest that efforts to reduce youth unemployment should combine human-capital development with job creation and investment that can generate employment opportunities for young people. Given the 25 annual observations used in the analysis, the estimated relationships should be interpreted within the study period and the Jambi Province context.

6. ACKNOWLEDGEMENT

The authors express their sincere gratitude to Jambi University for the institutional support provided during this study. The authors also thank colleagues and peers who provided constructive feedback during the development of the manuscript.

7. CONFLICT OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in the paper.

8. AUTHOR CONTRIBUTION STATEMENT

Muhammad Haikal Fahlevi Rawli¹ contributed to the conceptualization, methodology, and writing of the original draft.

Junaidi² contributed to data curation, formal analysis, and validation.

Erni Achmad³ provided supervision, critical review, and editing of the final manuscript.

All authors have read and approved the final version of the manuscript.

9. ETHICS STATEMENT

This study relied exclusively on secondary, aggregate economic data and did not involve human participants, identifiable personal data, or experimental interventions. Accordingly, informed consent was not applicable, and no participant-related ethical approval was required for the analysis reported in this article.

REFERENCES

- Abidin, Z. (2020). *Pengantar ekonomi makro*. CV. Latinulu.
- Arsyad, L. (2011). *Pengantar perencanaan dan pembangunan ekonomi daerah*. BPFE.
- Azzikra, T. F., & Anjas. (2023). Analisis kebijakan pemerintah terkait ancaman pengangguran pasca kenaikan inflasi di Indonesia periode 2011–2021. *Jurnal Ekonomi dan Manajemen*, 2(1), 52–57.
- Azizah, F. I. N. (2016). Analisis pengaruh jumlah penduduk, pertumbuhan ekonomi, dan inflasi terhadap pengangguran terbuka di kabupaten/kota Provinsi Jawa Tengah periode 2010–2014. *Jurnal Ilmu Ekonomi*, 1(3), 1–10.
- Bambang, & Junaidi. (2012). *Ekonometrika deret waktu: Teori dan aplikasi*. IPB Press.
- Bucevska, V., & Kozheski, K. (2022). Determinants of youth unemployment in SEE countries. *Management Research and Practice*, 14(4), 62–74.
- Burhanuddin, M. (2015). Pengaruh produk domestik bruto, upah minimum kabupaten/kota, dan indeks pembangunan manusia terhadap tingkat pengangguran di Provinsi Banten periode 2008–2013. *Jurnal Ilmu Ekonomi*, 1(3), 1–12.
- Dahma, M. A. Y. (2018). Pengaruh upah dan indeks pembangunan manusia (IPM) terhadap pengangguran di Kota Manado. *Jurnal Berkala Ilmiah Efisiensi*, 18(3), 1–10.
- Dewi, S., & Sirait, T. (2024). Pemodelan tingkat pengangguran usia muda di Indonesia tahun 2015–2021 dengan FEM SUR. *Limits: Journal of Mathematics and Its Applications*, 21(1), 71–79.
<https://doi.org/10.12962/limits.v21i1.16965>
- Efendi, B., Nasution, D. P., Rusiadi, & Pratiwi, D. (2024). *Teori indeks pembangunan manusia dan pertumbuhan ekonomi*. Tahta Media Group.
- Erfit, E., Yulmardi, Y., & Chandra, C. (2020). Analisis tingkat pengangguran terbuka di Kota Jambi. *Jurnal Ilmiah Ekonomi Pembangunan*, 8(1), 45–58.
- Firdhania, R., & Fivien, M. (2017). Faktor-faktor yang mempengaruhi tingkat pengangguran di Kabupaten Jember. *E-Journal Ekonomi Bisnis dan Akuntansi*, 4(1), 1–11.

- Ghozali, I. (2018). *Aplikasi analisis multivariate dengan program SPSS*. BP Universitas Diponegoro.
- Hasana, H., Zulfanetti, Z., & Syaparuddin, S. (2023). Determinan pengangguran di Kota Jambi. *E-Jurnal Ekonomi Sumber Daya dan Lingkungan*, 11(2), 83–96.
- Jarniati, S. D. (2017). Analisis pengaruh inflasi, investasi, dan pertumbuhan ekonomi terhadap pengangguran di Indonesia periode 2002–2015. *Jurnal Pembangunan Ekonomi dan Keuangan Daerah*, 24(3), 284–303.
- Jhingan, M. L. (2018). *Ekonomi pembangunan dan perencanaan*. Rajawali Pers.
- Kartika, R., & Muslim, I. (2021). Analisis faktor-faktor yang mempengaruhi pengangguran di Indonesia. *Abstract of Undergraduate Research, Faculty of Economics, Bung Hatta University*, 19(3).
- Laia, J. P., & Ashar, K. (2023). Analisis determinan tingkat pengangguran terbuka di kabupaten dan kota Jawa Barat tahun 2018–2021. *Journal of Development Economic and Social Studies*, 2(3), 583–599. <https://doi.org/10.21776/jdess.2023.02.3.10>
- Mulyadi, S. (2015). *Ekonomi sumber daya manusia dalam perspektif pembangunan*. Rajagrafindo Persada.
- Putra, G. A., & Aisyah, S. (2021). Determinan pengangguran usia muda: Studi kasus di Pulau Jawa dan Sulawesi. *Journal of Economics Research and Policy Studies*, 1(3), 173–182. <https://doi.org/10.53088/jerps.v1i3.347>
- Salsabila, S. I., Nabila, S., Rianti, R. A., Priyoga, D., & Sujianto, A. E. (2023). Pengaruh upah minimum dan tingkat partisipasi angkatan kerja terhadap tingkat pengangguran terbuka di Jawa Timur periode 2018–2022. *Journal of Administrative and Social Science*, 5(1), 92–107. <https://doi.org/10.55606/jass.v5i1.885>
- Salsabilla, A. S., & Kusuma, H. (2024). Analisis determinan pengangguran: Studi kasus negara ASEAN-6 (Indonesia, Filipina, Laos, Malaysia, Vietnam, Thailand). *Jurnal Ilmu Ekonomi JIE*, 8(1), 1–14. <https://doi.org/10.22219/jie.v8i01.31747>
- Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.
- Sukirno, S. (2017). *Pengantar teori ekonomi*. RajaGrafindo Persada.
- Syafitri, A., Yusrizal, & Tambunan, K. (2023). Analisis determinan tingkat pengangguran di Kabupaten Langkat. *Journal of Islamic Economics and Finance*, 1(3), 108–124. <https://doi.org/10.59841/jureksi.v1i3.483>
- United Nations. (n.d.). *Youth*. <https://www.un.org/en/global-issues/youth>
- Yanti, Y., Anam, A., & Adda, A. (2019). Analisis faktor-faktor penyebab pengangguran di Indonesia. *Jurnal Ekonomi dan Kebijakan Publik*, 5(2), 145–160.
- Yuli, S. (2017). Pengaruh PMDN dan PMA terhadap pengangguran di Kota Medan. *Jurnal Ekonomi dan Bisnis*, 1(2), 1–10.