

THE EFFECT OF EDUCATION EXPENDITURE, HEALTH EXPENDITURE, POVERTY RATE, AND ECONOMIC GROWTH ON THE HUMAN DEVELOPMENT INDEX IN CENTRAL JAVA PROVINCE

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Abstract

Human development is one of the key indicators reflecting the level of social welfare in a region. Central Java has the lowest Human Development Index compared to other provinces on the island of Java. This study aims to analyze the effects of the independent variables, namely education expenditure, health expenditure, poverty rate, and economic growth, on the dependent variable, namely the Human Development Index in Central Java Province during the 2019–2024 period. The analytical method employed in this study is panel data regression analysis. The results indicate that, partially, education expenditure has a positive and significant effect on the Human Development Index, health expenditure has a negative and significant effect on the Human Development Index, the poverty rate has a negative and significant effect on the Human Development Index, and economic growth has a positive and significant effect on the Human Development Index.

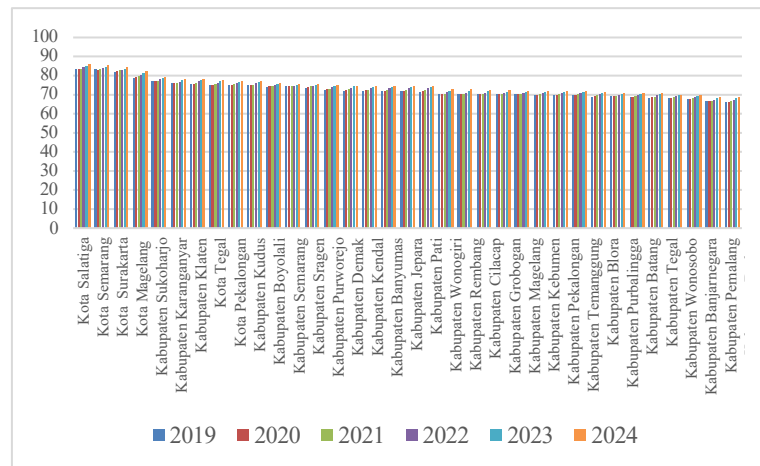
Keywords: Education Expenditure, Human Development Index, Health Expenditure, Poverty Rate, Economic Growth

INTRODUCTION

Human development is the main goal in the process of national development. Human development is the main goal in the process of national development. Human development is defined as the process of expanding choices for the population (Central Statistic Agency, 2025). Striving for sustainable development is the most important thing that a country must do to create conditions for society to enjoy an environment that supports a healthy life, longevity, and a productive life (Kreuta et al., 2020). The main focus in a country is development. One of the elements of development that will support a country's progress is human resources. Therefore, the welfare of the community needs to be a priority in any development. A comprehensive indicator used to measure the extent of development and welfare success is the Human Development Index (HDI). HDI is a comparative measurement of life expectancy, education, and standard of living for all countries around the world (Rahmayati & Pertiwi, 2018).

Central Java Province is one of the provinces with the largest population in Indonesia, characterized by diversity among its regencies/cities. The Human Development Index (HDI) of Central Java Province in 2024 ranks 20th out of 38 provinces in Indonesia with an HDI value of 73.87, which falls into the high category, growing by 0.65 percent from 2023's value of 73.39. The increase in the Human Development Index (HDI) of Central Java in 2024 is supported by improvements in all its components, including long life and healthy living, knowledge, and decent living standards

(Central Statistic Agency of Central Java Province, 2024). Central Java Province, which consists of 29 regencies and 6 cities, has an average HDI over the past 6 years of 72.62, as shown in the following image:



Source: Central Statistic Agency of Central Java Province, 2025

Figure 1. HDI by Regency/City in Central Java Province 2019-2024

Based on Figure 1, it can be seen that during the period from 2019 to 2024, the HDI of Central Java increased by an average of 0.59% per year, from 71.73 in 2019 to 73.88 in 2024. Along with the increase in the provincial HDI, the HDI of all districts/cities also experienced an increase. Although the HDI figures in the Central Java Province have increased, this improvement is not yet evenly distributed. The HDI of Central Java Province is recorded as the lowest compared to other provinces on the island of Java, such as DI Yogyakarta, East Java, West Java, DKI Jakarta, and Banten. The low HDI figure may indicate limited access to basic services such as inadequate education and health infrastructure, as well as difficult job opportunities.

This research aims to analyze the influence of education spending, health spending, poverty levels, and economic growth on the human development index in Central Java. This research falls within the scope of Development Economics. It is expected to enrich the study of economics, particularly in understanding the relationship between regional spending, namely education spending, health spending, poverty levels, economic growth, and the Human Development Index (HDI) at the regional level. For the Regional Government, this research is expected to provide a reference in formulating policies aimed at improving the quality of human life in Central Java Province. For the Ministry of Finance in general, this research can serve as a consideration in formulating fiscal policies, particularly in the allocation of budgets for the education and health sectors.

The novelty of this research lies in the combination of four main variables, namely education expenditure, health expenditure, poverty rate, and economic growth, into a single analytical model to examine their impact on the Human Development Index (HDI). In addition, this research uses a more specific and comprehensive object, namely all districts/cities in Central Java Province for the latest period (2019–2024), thus providing a more current empirical picture. Another novelty is the effort to explain the phenomenon of the asynchrony between the increase in HDI and the dynamics of regional fiscal and economic variables more comprehensively compared to previous studies, which generally only used one or two variables.

The research results using the Fixed Effect Model show that education expenditure and economic growth have a positive and significant impact on the human development index. Conversely, health expenditure and the poverty rate have a negative and significant impact on the human development index. This research recommends: (1) Local governments are expected to optimize the education budget effectively to improve the quality of human resources, (2) The

effectiveness of health spending should be increased by prioritizing programs that directly impact the improvement of public health quality and equitable access to health services, (3) Strengthening poverty alleviation programs thru job creation, MSME empowerment, workforce skill enhancement, and expanded access to capital, (4) Local governments need to create a conducive investment climate, expand job opportunities, and improve infrastructure quality to support economic activities.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Based on Central Statistic Agency (2025), human development is defined as a process of enlarging people's choices. The HDI was first introduced by the UNDP (United Nations Development Program) in 1990. The Human Development Index (HDI) is formed by three basic dimensions: longevity and healthy life, knowledge, and standard of living. To measure the dimension of longevity and healthy life, the component used is Life Expectancy at Birth (LEB). Next, the knowledge dimension is formed by two indicators, namely Expected Years of Schooling (EYS) for the population aged 7 years and above and Mean Years of Schooling (MYS) for the population aged 25 years and above. Then, the standard of living dimension is represented by real per capita expenditure per year.

1) The Effect of Education Expenditure on the Human Development Index

The Rostow and Musgrave theories are among the economic theories that explain the relationship or correlation between regional spending and the human development index. This theory connects the development of government spending with the stages of development, namely the initial stage, the intermediate stage, and the advanced stage of economic development (Priyadharsini et al., 2023). This statement is also supported by Harjunadhi & Rahmawati (2020) thru their research findings, which show that the HDI variable is positively influenced by the education expenditure variable in 34 provinces of Indonesia. Additionally, the results of this study are reinforced by research analyzed by Habib et al. (2025) and Dhae et al. (2025), which demonstrate that the education expenditure variable has a positive and significant impact on the HDI.

Hypothesis 1: Education expenditure has a positive effect on the Human Development Index.

2) The Effect of Health Expenditure on the Human Development Index

Similar to the education expenditure variable, the relationship between health expenditure and the human development index is also explained thru the Rostow & Musgrave Theory. In this context, the achievement of the Human Development Index (HDI) highly depends on the effectiveness of public services provided by the government, so an optimal allocation of the health budget has the potential to enhance human development (Fernando & Yustie, 2025). The statement is in line with the findings of research by Ferdiansyah & Febrianti (2025) and Fitriyana & Putri (2026), which explain that health spending is positively and significantly related to the Human Development Index (HDI). This means that any increase in the allocation of health spending will improve the quality of life and the components of the HDI.

Hypothesis 2: Health expenditure has a positive effect on the Human Development Index.

3) The Effect of Poverty Levels on the Human Development Index

Poverty refers to a condition where an individual or a group of individuals is unable to meet their basic needs to maintain and improve their quality of life adequately (Asyifa & Chandriyanti, 2025). This condition is explained thru the Poverty Circle Theory, which states that poor countries will remain poor due to low productivity. If a region has low productivity, the residents within it will also have low incomes, making it difficult to meet basic needs that can improve their welfare. This statement is in line with the research conducted by Putri & Woyanti (2022), which states that poverty has a negative and significant impact on the Human Development Index (HDI). Additionally, research conducted by Trisno et al. (2022) and Rohman (2026) also obtained similar results, indicating that the poverty rate has a negative and

significant impact on the HDI. These findings suggest that the higher the poverty rate, the lower the human development achievements, which are reflected in the dimensions of health, education, and a decent standard of living.

Hypothesis 3: The Poverty Rate negatively affects the Human Development Index.

4) The Effect of Economic Growth on the Human Development Index

Economic growth is a benchmark for the economy of a region. High and sustainable economic growth is a necessity for the continuity of economic development and the improvement of welfare. The increase in economic growth indicates an increase in the production of goods and services, which is reflected in the rise in people's income. This condition will improve the quality of life of the community and enhance the welfare of the society, which will ultimately increase the Human Development Index (HDI). Septiyani's research (2021) states that economic growth has a positive impact on HDI. The increased contribution of regional gross domestic product will provide access for the community to enhance their productivity, thereby affecting the quality of life positively. Furthermore, Arifin et al. (2020) and Rohman (2026) also conducted similar research showing that the Human Development Index (HDI) is positively and significantly influenced by economic growth.

Hypothesis 4: Economic Growth has a positive effect on the Human Development Index.

RESEARCH METHODS

1) Research Design

- a. Type of Research
This research is categorized as quantitative research.
- b. Research Object
The object of this research is 35 regencies and cities in Central Java Province.
- c. Research Subject
The dependent variable in this research is the human development index, while the independent variables in this research include education expenditure, health expenditure, poverty rate, and economic growth.
- d. Data Collection Technique
The data used in this research is secondary data covering the period from 2019 to 2024. The data collection methods used in this research are documentation and literature study. Data were collected from relevant official institutions, including the Central Statistics Agency (BPS) and the Directorate General of Financial Balance. Desain Penelitian

2) Data Analysis Techniques

- a. Panel Data Regression
In this study, the analysis method used is the panel data regression analysis method, which is a regression analysis that utilizes panel data. Panel data is a combination of cross-section data and time series data. Next, for the data processing in this research, the statistical software E-Views 9 is used. The panel data regression analysis model, when written systematically, can be expressed in the following form:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_{it}$$

Based on the regression model above, the regression model used in this study is mathematically formulated in the following equation:

$$\ln HDI_{it} = \beta_0 + \beta_1 \ln EE_{it} + \beta_2 \ln HE_{it} + \beta_3 PR_{it} + \beta_4 EG_{it} + e_{it}$$

Note:

- HDI : Human Development Index
 t : Time (Year 2019-2024)
 i : District/City i in Central Java Province
 β_0 : Constant
 $\beta_1, \beta_2, \beta_3$: Regression Coefficients

EE : Education Expenditure
 HE : Health Expenditure
 PR : Poverty Rate
 EG : Economic Growth
 e : Error term

At the panel data analysis stage, it is necessary to determine the most appropriate estimation model among the Common Effect, Fixed Effect, or Random Effect models by conducting the Chow Test, Hausman Test, and Lagrange Multiplier Test.

b. Classical Assumption Test

The classical assumption test is applied to evaluate whether the regression model used is appropriate. The classical assumption tests used in this panel data regression study include multicollinearity and heteroscedasticity tests.

c. Coefficient of Determination (R^2)

The coefficient of determination (R^2) indicates the extent to which the independent variable can explain the variation occurring in the dependent variable (Suminto & Huda, 2025).

d. Statistical Test

1. F-Test

The F test is used to determine whether the independent variables collectively or as a whole affect the dependent variable (Suminto & Huda, 2025).

2. T-Test

The t-test essentially shows how far the influence of one independent variable individually can explain the variation in the dependent variable.

RESULT AND DISCUSSION

1) Result

a. Panel Data Regression

This research was conducted to examine the influence of education spending, health spending, poverty rate, and economic growth on the human development index. The analysis was conducted using panel data regression. Based on the Chow test results, the F-Statistic probability value is 0.000, and the Hausman test yields a Chi-square probability value of 0.026. Therefore, the most appropriate estimation method is the Fixed Effect Model, because both tests reject the null hypothesis (H_0) at the 5 percent significance level. The results of the panel data regression analysis using the Fixed Effect Model are presented as follows:

Table 1. Summary of Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4,068076	0,145963	27,87053	0,0000
LN_EE	0,016359	0,005027	3,254055	0,0014
LN_HE	-0,005345	0,001333	-4,008965	0,0001
PR	-0,007762	0,001755	-4,422413	0,0000
EG	0,001249	0,000288	4,333040	0,0000
Significance level α	= 0,05			
R-squared	= 0,97777	F-statistic	= 198,007	
Adjusted R-Squared	= 0,9728	Prob (F-statistic)	= 0,000	

Source: Eviews 9, Processed data (2026)

The panel data regression equation estimated using the Fixed Effect Model approach can be formulated as follows:

$$\ln HDI_{it} = 4,068 + 0,016 \ln EE_{it} - 0,005 \ln HE_{it} - 0,007 PR_{it}$$

$$+ 0,002 EG_{it}$$

b. Classical Assumption Test

The multicollinearity test aims to examine the presence of correlation between independent variables and the regression model. According to Napitulu et al. (2021), if the correlation coefficient value between independent variables is < 0.85 , then there are no signs of multicollinearity. Based on the test results, the correlation coefficients of each variable were found to be less than 0.85, indicating that there is no multicollinearity in the model.

The Heteroskedasticity test is conducted to determine whether there is a difference in the variance of residuals from one observation to another in the regression model. According to Napitulu et al. (2021), one method to detect heteroscedasticity is by observing the pattern of the residual graph in a regression model. The decision-making criteria in interpreting the graph are as follows: if the residual values exceed the interval of 500 and -500, then there is a problem of heteroscedasticity. Based on the test results, the residual values for each variable are within the range of -500 to 500, indicating that there is no heteroscedasticity problem in the model.

c. Coefficient of Determination (R^2)

Based on the Fixed Effects Model estimation in Table 3, the R-squared value is 0.9728 or 97.28 percent. This result indicates that the dependent variable, the Human Development Index, can be explained by the independent variables, which consist of Education Expenditure, Health Expenditure, Poverty Rate, and Economic Growth, by 97.28 percent, and the remaining 2.72 percent can be explained by other variables not included in this research model. Other variables not included in this model.

d. Statistical Test

1. F-Test

The analysis results in Table 1 show that the F-statistic probability value is 0.000, which is smaller than alpha 0.05. The F-statistic value is 198.007, which is greater than the F-table value of 2.69. This indicates that the dependent variable, the Human Development Index, is significantly influenced by the independent variables, which include Education Expenditure, Health Expenditure, Poverty Rate, and Economic Growth collectively or as a whole.

2. T-Test

Based on the analysis results in Table 3, the t-statistic value for the education expenditure variable is 3.254 and for economic growth is 4.333, both greater than the t-table value of 2.0345, indicating a positive and significant effect on the human development index. Meanwhile, the t-statistic value for health expenditure is -4.008 and for the poverty rate is -4.4224, both smaller than the t-table value of -2.0345. Therefore, it is concluded that these variables have a negative and significant effect on the human development index.

2) Discussion

a. The Effect of Education Expenditure on the Human Development Index

Based on the analysis results in this study, it was found that education expenditure has a positive and significant impact on the Human Development Index (HDI). This result is in line with the research hypothesis, which assumes that education spending positively affects the human development index. This means that an increase in the education budget will improve the Human Development Index (HDI), and vice versa.

Budget support directed toward the education sector can drive improvements in the quality of life for the community thru increased access to education, provision of educational assistance, and strengthening of infrastructure and the quality of learning. Human capital is a productive investment in people, encompassing knowledge, skills,

abilities, and ideas. Government spending in the field of education is a fundamental government expenditure in human development.

The results of this study are in line with the theory of Rostow & Musgrave, which explains that government spending plays an important role in driving the improvement of community welfare. At a more advanced economic level, government activities in economic development shift from providing infrastructure to expenditures on social activities such as elderly welfare programs and public health services. The education sector is crucial in determining the ability to absorb and manage sources of economic growth (Ambya, 2023). These findings are in line with the research results of Habib et al. (2025), Dhae et al. (2025), and Sari et al. (2022), which state that education spending has a positive and significant impact on the human development index. The allocation of education spending is a tangible investment in improving the welfare of society.

b. The Effect of Health Expenditure on the Human Development Index

In the results of this study, it was found that health expenditure does not have a positive effect on the human development index. This study assumes that health expenditure has a negative effect on the human development index. This means that an increase in health expenditure will lower the human development index, and vice versa.

In this study, the variable of health expenditure does not have a positive effect on the human development index in 35 regencies and cities in Central Java Province. This condition may be influenced because a large portion of the health budget is absorbed by pandemic management and routine financing that does not directly improve the quality of basic services. If compared to education spending, the realization of health spending is much smaller, resulting in a reverse outcome from the research. According to data from DJPK Kemenkeu, in 2024, the education budget for Central Java Province is allocated at Rp9,092,926,263,000, while the health budget is Rp3,288,761,952,000, which means it is only 35% of the education budget. Thus, health spending takes a longer time to positively impact the health component in the HDI.

The results of this study are not in line with the Rostow and Musgrave Theories, which explain that at the development stage, increased government spending in the public sector, including health, can improve the quality of human resources and community welfare, ultimately driving an increase in the HDI. However, this study's results indicate that health spending has not yet been able to improve the HDI. These findings contradict the research conducted by Ferdiansyah & Febrianti (2025) and Fitriyana & Putri (2026), which state that health spending has a positive and significant impact on the human development index. However, the findings of this study align with the research conducted by Fernando & Yustie (2025), which states that health spending has a negative and significant impact on the human development index.

c. The Effect of Poverty Rate on the Human Development Index

The results of this study indicate that the poverty rate has a negative and significant impact on the Human Development Index (HDI). These results are consistent with the research hypothesis, which assumes that the poverty rate negatively affects the human development index. This means that an increase in the poverty rate will lower the Human Development Index (HDI), and vice versa.

The results of this study are in line with the vicious circle of poverty theory by Ragnar Nurkse. This theory explains that poverty causes society to have low income, which in turn limits the ability to meet basic needs, such as education and health. This low capability impacts the decline in the quality of human resources, as reflected in the HDI value. The reduction in poverty levels will enable access to better degrees of education and health, which will lead to an increase in HDI. Government efforts to improve the quality of education and health will encourage the formation of a highly productive society, allowing

the community to meet their living needs and enabling an increase in HDI as well as achieving a prosperous life. Access to the fulfillment of education and health degrees is caused by the community having adequate income, so this encouragement will impact the community to improve the HDI.

This finding is in line with the research results of Saputro (2022), Rohman (2026), and Syofya & Shintia (2024), which state that the poverty rate has a negative and significant effect on the human development index. The higher the poverty rate, the lower the human development achievements, which are reflected in the dimensions of health, education, and a decent standard of living. Poor residents generally have limited access to education and health services, which results in low achievements in the education and health dimensions of the Human Development Index (HDI).

d. The Effect of Economic Growth on the Human Development Index

The results of this study indicate that economic growth has a positive and significant impact on the Human Development Index (HDI). These results align with the research hypothesis, which assumes that economic growth positively affects the Human Development Index. This means that an increase in economic growth will enhance the Human Development Index, and vice versa.

The results of this study are in line with classical economic growth theory, which explains that economic growth reflected in the increase of a region's output will drive community welfare, thereby enhancing the community's ability to meet their living needs. This condition allows the community to gain better access to education, health, and a more decent standard of living, and ultimately, the components of the Human Development Index (HDI) will improve.

Economic growth, as reflected by GDP, expands the ability of local governments to provide public services, including education and health. Increased economic activity creates opportunities to improve the quality of education, health services, and living standards. Therefore, the economic capacity of the region becomes a determining factor in the improvement of the Human Development Index (HDI). Economic growth directly contributes to the quality of life of the community thru improved access and quality of public services.

These findings are in line with the research results of Septiyani (2021), Arifin et al. (2020), and Anitasari & Imaningsih (2024), which state that economic growth has a positive and significant impact on the Human Development Index. The higher the GDP produced by a region, the more it will impact the increase in the Human Development Index (HDI) because it is overall related to improvements in economic welfare and access to essential services that drive the increase in HDI.

CONCLUSION

Based on the research results and data analysis using panel data regression, it can be concluded that education spending and economic growth have a positive and significant impact on the human development index. Conversely, health spending and the poverty rate have a negative and significant impact on the human development index. This research recommends: (1) Local governments are expected to optimize the education budget effectively to improve the quality of human resources, (2) The effectiveness of health spending should be increased by prioritizing programs that directly impact the improvement of public health quality and equitable access to health services, (3) Strengthening poverty alleviation programs thru job creation, MSME empowerment, workforce skill enhancement, and expanded access to capital, (4) Local

governments need to create a conducive investment climate, expand job opportunities, and improve infrastructure quality to support economic activities.

This research has a limitation, namely the research period from 2019-2024, which includes the COVID-19 pandemic period in 2020-2021. This condition caused disruptions in various aspects of regional development, such as changes in regional budget spending priorities, a slowdown in economic activities, an increase in poverty, and disruptions in public access to education and health services. As a result, the variables of education spending, health spending, poverty rate, economic growth, and Human Development Index (HDI) experienced significant fluctuations, causing the research results to not fully reflect the normal development conditions of the region.

BIBLIOGRAPHY

- Ambya. (2023). *Ekonomi Keuangan Daerah*. Bandar Lampung: CV. Anugrah Utama Raharja.
- Anitasari, D., & Imaningsih, N. (2024). Analisis Pengaruh Pendapatan Asli Daerah (PAD) Dan Pertumbuhan Ekonomi Terhadap Indeks Pembangunan Manusia Dengan Belanja Modal Sebagai Variabel Intervening (Studi Kasus Di Pemerintah Daerah Kabupaten Nganjuk). *Management Studies and Entrepreneurship Journal*, 5(1), 122–128. <http://journal.yrpioku.com/index.php/msej>
- Arifin, Z., Maipita, I., & Hutasuht, S. (2020). The Effect Of Capital Expenditure And Economic Growth On The Human Development Index Of The District/City In North Sumatera. *Advances in Social Sciences Research Journal*, 7(1), 585–594. <https://doi.org/10.14738/assrj.71.7741>
- Asyifa, R. N., & Chandriyanti, I. (2025). Pengaruh Pendapatan Asli Daerah, Tingkat Kemiskinan, dan Tingkat Pengangguran Terhadap Indeks Pembangunan Manusia (IPM) di Kabupaten Barito Kuala. *JIEP: Jurnal Ilmu Ekonomi Dan Pembangunan*, 8(2), 386–397. <https://doi.org/https://doi.org/10.20527/jiep.v8i2.597>
- Central Statistics Agency. (2025a). *Human Development Index* (9th ed., Vol. 9). Lingga District: Central Statistif Agency of Lingga District
- Central Statistics Agency of Central Java Province. (2025). *Human Development Index by District/City in Central Java Province*. <https://jateng.bps.go.id/id/statistics-table/3/V25GaFNHaExaMnhITm1sWmRrUIJZelJzYUc1SGR6MDkjMw==/indeks-pembangunan-manusia-menurut-kabupaten-kota-di-provinsi-jawa-tengah--2023.html?year=2023>
- Central Statistics Agency of Central Java Province. (2025). *Poverty by District/City in Central Java Province*. <https://jateng.bps.go.id/id/statistics-table/2/MzQjMg==/kemiskinan-menurut-kabupaten-kota-di-provinsi-jawa-tengah.html>
- Central Statistics Agency of Central Java Province. (2026). *The Growth Rate of GDP at Constant 2010 Prices by District/City in Central Java Province*. <https://jateng.bps.go.id/id/statistics-table/2/MTc0MyMy/--seri-2010--laju-pertumbuhan-pdrb-atas-dasar-harga-konstan-2010-menurut-kabupaten-kota-di-provinsi-jawa-tengah.html>
- Directorate General of Fiscal Balance. (2019). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Directorate General of Fiscal Balance. (2020). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Directorate General of Fiscal Balance. (2021). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Directorate General of Fiscal Balance. (2022). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Directorate General of Fiscal Balance. (2023). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Directorate General of Fiscal Balance. (2024). *Expenditure Realization by Function*.

<https://djpk.kemenkeu.go.id>

Dhae, F. P., Renggo, Y. R., & Hudang, A. K. (2025). Pengaruh Pengeluaran Pemerintah Dalam Bidang Pendidikan dan Kesehatan Terhadap Indeks Pembangunan Manusia. *Jurnal Transformatif*, 14(1), 10.

<https://doi.org/https://ojs.unkriswina.ac.id/index.php/transformatif/article/view/1159>

Ferdiansyah, A. B., & Febrianti, G. R. (2025). Analisis Pengaruh Belanja Pendidikan dan Kesehatan terhadap Indeks Pembangunan Manusia pada Kota/Kabupaten di Provinsi Kalimantan Timur. *Jurnal Manajemen Keuangan Publik*, 9(1), 18–39.
https://doi.org/https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://jurnal.pknstan.ac.id/index.php/JMKP/article/download/3315/1605/16121&ved=2ahUKEwiU58zC55GUAXUKWHADHXpMM2MQFnoECBgQAQ&usg=AOvVaw2dDKRgBC_tjVkJUt7dgn4

Fernando, B., & Yustie, R. (2025). Pengaruh Belanja Pendidikan, Belanja Kesehatan dan PDRB Terhadap IPM di Provinsi-Provinsi Indonesia Tahun 2020-2024. *EKONOMIKAWAN: Jurnal Ilmu Ekonomi Dan Studi Pembangunan*, 25(2), 267–278.
<https://doi.org/10.30596/ekonomikawan.v%vi%i>

Fitriyana, N., & Putri, R. N. H. (2026). Pengaruh Belanja Pendidikan, Kesehatan, dan PDRB Per Kapita Terhadap Pembangunan Manusia. *Buletin Studi Ekonomi*, 31(1), 49–62.
<https://doi.org/https://doi.org/10.24843/BSE.2026.v31.i01.p05>

Habib, I. K., Binardjo, G., Badriah, L. S., Ilma, A. F. N., & Wijaya, H. (2025). Analisis Pengaruh Produk Domestik Regional Bruto, Pengeluaran Pemerintah Bidang Pendidikan dan Kesehatan terhadap Indeks Pembangunan Manusia di Provinsi Papua Tahun 2018-2022. *Arus Jurnal Sosial Dan Humaniora (AJSH)*, 5(3), 3556–3561.
<http://jurnal.ardenjaya.com/index.php/ajshhttps://jurnal.ardenjaya.com/index.php/ajsh>

Harjunadhi, J. T., & Rahmawati, F. (2020). *Pengaruh Belanja Pendidikan, Belanja Kesehatan, dan* 2786

UMP terhadap IPM di Indonesia Tahun 2014-2018. 16(2), 241–249.
<http://journal.feb.unmul.ac.id/index.php/INOVASI>

Kreuta, B., Dwi Atmaja, D., & Purbariani, I. A. (2020). Analisis Pengaruh Belanja Pemerintah Daerah Terhadap Peningkatan Kualitas Sumber Daya Manusia di Provinsi papua Tahun 2013-2016. *Jurnal KajianEkonomi Dan Studi Pembangunan*, 7(3), 1.

Napitulu, R. B., Simanjuntak, T. P., Hutabarat, L., Damanik, H., Harianja, H., Sirait, R. T. M., & Tobing, C. E. R. L. (2021). *Penelitian Bisnis, Teknik dan Analisa dengan SPSS-STATA-Eviews*. Medan: Madenatera.

Priyadharsini, S. I., Rahim, M., & Suriadi, L. O. (2023). Dampak Realisasi Anggaran Pendapatan dan Belanja Daerah Terhadap Indeks Pembangunan Manusia di Sulawesi Tenggara. *Jurnal Progres Ekonomi Pembangunan (JPEP)*, 8(2), 205–215.

Putri, C. S., & Woyanti, N. (2022). Analysis of the Influence of Economic Growth, Poverty, and Education on the Subosukawonosraten Human Development Index 2016 To 2020. *International Journal of Business Marketing and Management*, 7(5), 189–198.
www.ijbmm.com

Rohman, M. F. (2026). Pengaruh Pertumbuhan Ekonomi dan Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) di Provinsi Jawa Timur. *J-CEKI: Jurnal Cendekia Ilmiah*, 5(2), 2778. <https://doi.org/https://doi.org/10.56799/jceki.v5i2.15374>

Saputro, M. H. (2022). Analisis Pengaruh Tingkat Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) Dengan Model Regresi Linier (Studi Kasus Di Kabupaten Bengkulu Utara Pada Tahun 2010-2021). *Jurnal Ekombis Review*, 10(2), 809–816.
<https://doi.org/10.37676/ekombis.v10i2>

Sari, A. I. C., A'ini, Z. F., & Tukiran, M. (2022). Pengaruh Anggaran Pendidikan dan Kesehatan Terhadap Indeks Pembangunan Manusia di Indonesia. *Journal of Applied Bussines and Economic (JABE)*, 9(2), 127–136. <https://journal.lppmunindra.ac.id>

Septiyani, A. (2021). Analisis Pengaruh Pertumbuhan Ekonomi dan Belanja Modal Terhadap Indeks Pembangunan Manusia di Eks Karasidenan Kedu. *Jurnal Paradigma Multidisipliner (JPM)*, 2 (1)(1), 34–44.

Suminto, A., & Huda, M. (2025). *Ekonometrika Dasar: Seri Analisis Regresi Linier, Regresi Data Panel, ECM, VAR/VECM dan ARDL* (1st ed.). Mazda Media. www.madzamedia.co.id

Syofya, H., & Shintia. (2024). Pengaruh Tingkat Kemiskinan dan Pertumbuhan Ekonomi terhadap Indeks Pembangunan Manusia Indonesia. *El-Mal: Jurnal Kajian Ekonomi Dan Bisnis Islam*, 5(7), 3844–3855. <https://journal-laaroiba.com>

Trisno, T. U., Munajat, & Oktarina, Y. (2022). Pengaruh Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) di Provinsi Sumatera Selatan Tahun 2016-2020. *Jurnal Ilmiah Akuntansi Dan Keuangan*, 4(8), 2022. <https://journal.ikopin.ac.id/index.php/fairvalue>