# GENDER INEQUALITY IN EDUCATION AND ECONOMIC GROWTH IN WEST JAVA

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*Abstract*

*This study seeks to examine the impact of educational variables, which are components of the GDI, on economic growth. The research aims to determine the extent of the influence of gender inequality in education, represented by the variables of average years of schooling and school expected rates, as well as the percentage of the population receiving higher education in West Java, and to analyze the achievements of gender equality in education in West Java during the 2019-2023 period. This research employs a quantitative data analysis technique using the Generalized Method of Moments (GMM), covering 27 regencies/cities in West Java Province. The data used in this study is secondary data collected from the West Java Central Statistics Agency for the period 2019-2023. The results of the study show that the ratio of average years of schooling and the ratio of higher education have a significant negative impact on per capita income. Meanwhile, the ratio of expected years of schooling has a positive but insignificant effect on per capita income. Additionally, the achievement of gender equality in West Java has reached 90% of the targeted goal. Therefore, achieving equal gender equality across all areas of West Java remains a challenge for the government to continue reducing the existing disparities.*

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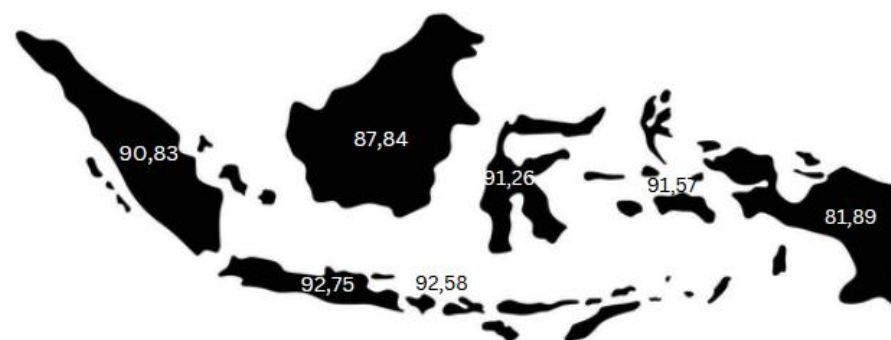Indonesia
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**INTRODUCTION**

The relationship between gender equality and economic growth has become a key topic among policymakers and social sciences (Ezeh, 2020). This is evidenced by the inclusion of achieving gender equality and women's empowerment as one of the agendas in the 17 Sustainable Development Goals (SDGs) to be achieved by 2030. Gender equality is assumed to contribute to overall economic development as it can increase the talent pool available as human capital (World Development, 2012). Human capital is one of the most crucial elements for economic growth, and gender discrimination serves as a barrier to accelerating economic development. The state of gender equality can be observed through the Gender Development Index (GDI). GDI is one of the metrics used to measure the success of development achievements that have incorporated gender issues (Ministry of Women's Empowerment and Child Protection, 2014). The smaller the gap between the GDI score and the value of 100, the more equal the development between women and men. However, the larger the gap between the GDI score and the value of 100, the greater the disparity in development achievements between women and men (Badan Pusat Statistik Kabupaten Tanjung Jabung Timur, 2024).

In Indonesia, progress in gender equality is reflected in the increase in the Gender Development Index (GDI), which rose by 2.4 percents in 2023. However, this increase does not necessarily mean that gender inequality in Indonesia has been completely resolved. Although the overall GDI score has improved, the increase is not very significant. Based on data obtained from the Central Statistics Agency (BPS), there remains a gap between men and women across all provinces in Indonesia. This is evident from the fact that the GDI has not yet reached 100. This condition is illustrated in Figure 1.1 below.



*Source*: Central Statistics Agency 2024 (processed)

**Figure 1. Average GDI of Islands in Indonesia for the Years 2019-2023**

According to data collected by the Central Statistics Agency, the average Gender Development Index (GDI) in Indonesia for the years 2019-2023 was 91.38. Figure 1.1 shows that the GDI in Sumatra, Kalimantan, Sulawesi, and Papua is still below the national average. Meanwhile, the GDI in Java, Bali, Nusa Tenggara, and Maluku is above the average, with the highest score achieved by Java. Java is considered the economic and governmental center with the largest population, so it is not surprising that the region has a higher GDI compared to other islands in Indonesia. To provide a more specific picture of the GDI in each province on the island of Java, the following graph is presented.
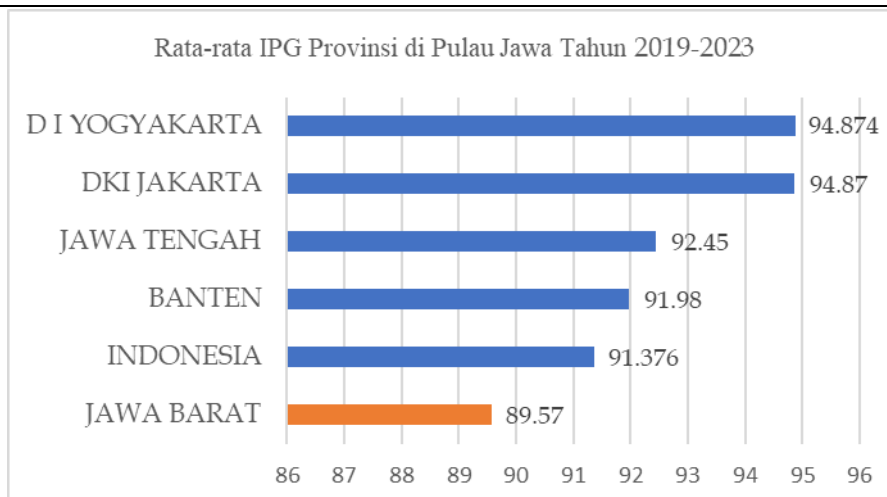
*Source*: Central Statistics Agency 2024 (processed)

**Figure 2. Average (GDI) of Provinces in Java Island for the Years 2019-2023**

Based on Figure 1.2, it can be seen that the highest Gender Development Index (GDI) score was achieved by the province of DKI Jakarta with 94.87 points, making it the highest GDI score in Indonesia. Meanwhile, the lowest GDI score was obtained by the province of West Java with 89.57 points, which is lower than the national average of 91.38 points. This situation is in stark contrast to the fact that West Java has the largest number of educational institutions on the island of Java (Sakti, 2007). However, its development index score is the lowest compared to other provinces and the national level. The GDI score is calculated by considering components such as education, health, and the economy. Therefore, the low GDI score is heavily influenced by these components, especially education as the main factor. This proves that gender inequality still exists, particularly in the field of education, in West Java.
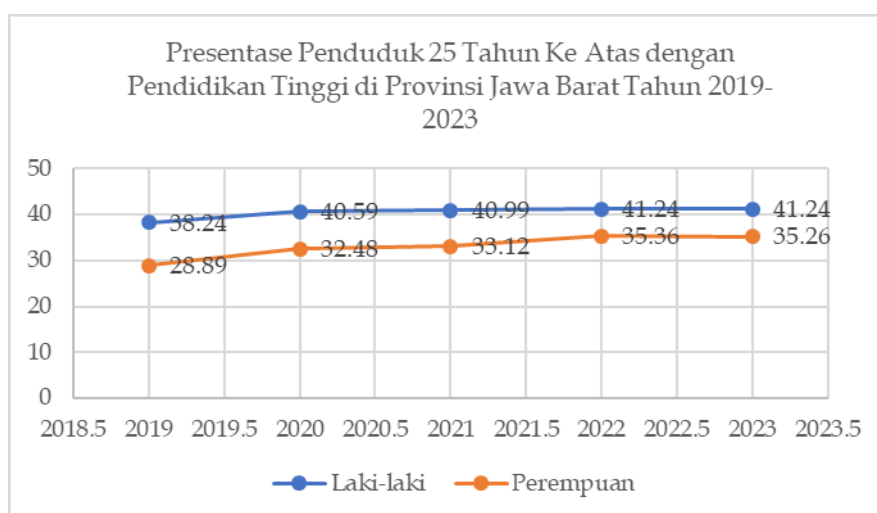


*Source*: Central Statistics Agency 2024 (processed)

**Figure 3. Percentage of Population Aged 25 and Over with Higher Education**

Gender inequality between women and men in the field of education is illustrated in Figure 1.3. The graph shows that the percentage of women receiving higher education is lower than the percentage of men receiving higher education, and it even decreased in 2023. Development spending in the education sector has not shown a significant impact on improving community welfare,

indicating the need for more efficient allocation and implementation (*Lidwina, Setiawina, & Purbadharmaja, 2015*). Gender inequality not only affects the quality of life for individuals but also impacts overall social and economic development. The level of education has a dominant influence on increasing labor absorption in West Java Province, indicating the importance of investment in education as a driver of regional economic growth (Hikmawati & Yasa, 2024*).* If left unaddressed, gender inequality can hinder economic growth by reducing the potential contribution of half the population. According to Suryadi and Idris (2004), education is the most decisive sector in achieving equality. Therefore, enhancing equality needs to be pursued through increasing educational participation, as it is a key component of the Gender Development Index (GDI).

According to Mankiw (Ezeh, 2020), education can increase the level of human capital in the workforce, which will directly improve labor productivity and can lead to higher output growth. Education can provide benefits in the form of increased productivity, long-term development, and accelerated economic growth, particularly in low- and middle-income countries (World Bank, 2018). The level of education has a significant negative effect on poverty, indicating that education is an important factor in promoting community welfare (Windayanthi & Oka, 2021). As such, the government continues to work toward eliminating gender inequality, especially in education, due to its positive effects on economic growth.

Previous studies on educational equality and inequality have been conducted to understand its impact on economic growth. Several studies have shown that gender inequality in education negatively affects economic growth, such as the research conducted by Baliamoune-Lutz & McGillivray (2015), Wibawa et al. (2024), and Ngepah Nicholas et al. (2024). The variables used include the graduation rates of women at various educational levels, the ratio of school enrollment between women and men at different educational levels, and the average years of schooling. However, unlike these studies, Pegkas (2017), Karoui & Feki (2018), Ogundari (2018) analyzed the correlation between gender equality in education and economic growth in various geographic locations and found a positive correlation between the two. The educational variables used included school enrollment rates and literacy rates to measure equality between male and female education.

Despite the many studies that have been conducted, none have used GDI components in education as variables simultaneously. Therefore, this study seeks to fill the literature gap by adding several predictor variables that have not been used in previous research. This research focuses on gender inequality in education because education is a key component that determines the GDI level. Based on the explanation above, the research problems can be formulated as follows: 1) What is the impact of educational inequality variables on economic growth? 2) What are the achievements of gender equality in education in West Java Province? In line with the research problems, the objectives of this study are: 1) to determine the extent of the impact of gender equality in education on economic growth in West Java Province, and 2) to analyze the achievements of gender equality in education in West Java.

## RESEARCH METHOD

This study uses a quantitative approach, utilizing panel data consisting of 27 regencies/cities in the province of West Java for the period 2019-2023. The panel data is a combination of cross-sectional data from 27 regencies/cities in West Java with the 2019-2023 period as its time series. The subject of this research is the province of West Java, which has the lowest average GDI (Gender Development Index) among other provinces on the island of Java, despite having more educational institutions compared to other provinces outside Java. Additionally, the 2019-2023 period was selected because the GDI growth rate in West Java slowed during this time compared to previous years.

The 27 regencies/cities in West Java province include Bogor, Sukabumi, Cianjur, Bandung, Garut, Tasikmalaya, Ciamis, Kuningan, Cirebon, Majalengka, Sumedang, Indramayu, Subang, Purwakarta, Karawang, Bekasi, West Bandung, Pangandaran, Bogor City, Sukabumi City, Bandung City, Cirebon City, Bekasi City, Depok City, Cimahi City, Tasikmalaya City, and Banjar City. The data source for this study utilizes secondary data compiled by the Central Statistics Agency (BPS). Data processing was carried out using Stata 17.

The analysis method used in this study is the Generalized Method of Moments (GMM), which is employed to examine the influence of the ratio of expected years of schooling (EXPECT), the ratio of average years of schooling (AVERAGE), and the ratio of the population aged 25 and above with higher education (HIGHSCHOOL) on economic growth, which is proxied by per capita income (GDP). The modified equation model used in this study is as follows:

$$\text{Ln}GDP_{it} = \alpha_0 + \alpha_1 EXPECT_{t-1} + \alpha_2 AVERAGE_{it} + \alpha_3 HIGHSCHOOL_{it} + e_{it}$$

LnGDP          = economic growth as proxied by per capita income
EXPECT         = the ratio of expected years of schooling for females to males
AVERAGE        = the ratio of average years of schooling for females to males
HIGHSCHOOL =  the ratio of the population aged 25 and over who have received high education
i              = regency/city
t              = year
e              = error

The equation model above will be estimated using the Common Effect Model (CEM), Fixed Effect Model (FEM), First Differences Generalized Method of Moments (FDGMM), and System-GMM (Sys-GMM) models. Subsequently, the best model will be selected from these four models, and a Robustness Check will be conducted to address issues of autocorrelation and heteroscedasticity.

## RESULT AND DISCUSSION

Table 1 shows descriptive statistics for the average, standard deviation, maximum and minimum values. Average economic growth as proxied by per capita income (GDP) is 10,155. Meanwhile, data on average length of school (AVERAGE), expected length of school (Expect) and higher education participation rate (HIGHSCHOOL) are 1,101, 1,002 and 1,272 respectively. The largest maximum value is found in the high school participation rate variable and the lowest value is found in the expected years of schooling variable.

**Tabel 1.**
**Statistic Descriptive**

| Variable | Mean | Std. Dev | Min | Max |
|---|---|---|---|---|
| LnGDP | 10,155 | 0,526 | 9,463 | 11,391 |
| Average | 1,101 | 0,046 | 1,034 | 1,268 |
| Expect | 1,002 | 0,036 | 0,929 | 1,087 |
| Highschool | 1,272 | 0,145 | 1,009 | 1,678 |

*Source:* Data Processed, 2024

**Tabel 2.**
**Comparison of Model Estimation Results FD GMM, SYS GMM, FEM, dan PLS**

| Variable | FD GMM | SYS GMM | FEM | PLS |
|---|---|---|---|---|
| LnGDP (-1) | 0,914*** | 0,913*** | 0,361*** | 1,000*** |
| Variable | FD GMM | SYS GMM | FEM | PLS |
| EXPECT | -0,918 | 0,104 | -0,335 | 0,040 |
| AVERAGE | -0,679** | -0,775*** | -1,055*** | 0,015 |
| HIGHSCHOOL | -0,157*** | -0,157*** | -1,0142** | -0,014*** |
| _Cons | 1,927 | 1,854** | 8,166*** | 0,117 |
| N | 81 | 108 | 108 | 108 |

Significant: * p<0.05; **p<0.01; ***p<0.001
*Source*: Data Processed, 2024

Based on the estimation results from the four models analyzed, the First Differences (FD) GMM model and the System GMM (SYS GMM) model have coefficient values of 0,914 and 0,913, respectively, which fall between the coefficient values of the Fixed Effect Model (FEM) and Pooled Least Square (PLS). This indicates that the GMM models are superior compared to the PLS and FEM models. FDGMM and SYSGMM are designed to address the issue of endogeneity, which often arises in dynamic panel data, particularly when there is a possibility that some independent variables are correlated with the error terms. Meanwhile, the PLS and FEM models do not explicitly correct for endogeneity issues.

However, SYSGMM is generally considered more efficient than FDGMM because it uses information from both the level and first-difference equations, making it more efficient in capturing the dynamics of panel data. In SYSGMM, the instruments used are more extensive and encompass more information, often resulting in more efficient estimations compared to FDGMM. SYSGMM demonstrates efficiency in addressing endogeneity issues and provides more stable estimates compared to other models. The coefficient for the lagged GDP variable (L1.gdp) in the SYSGMM model is 0,913*, which is significant at the 1 percents level, indicating that GDP from the previous period has a strong positive influence on current GDP growth.

**Tabel 3.**
**Comparison of Model Estimation Two Step SYS-GMM dan FD GMM**

| Variabel | SYS-GMM | FD-GMM |
|---|---|---|
| C | 1,854* | 1,927 |
| LnGDP (-1) | 0,913** | 0,914** |
| Expect | 0,104 | 0,679 |
| Average | -0,775** | -0,092** |
| Highschool | -0,157** | -0,157** |
| Sargan | 0,173 | 0,097 |
| AR (2) | 0,640 | 0,464 |

Significant: * p<0.05; **p<0.01; ***p<0.001
*Source*: Data Processed, 2024

The estimation results from the System GMM and First Differences two-step models show that the lagged GDP variable (L1.gdp) has a very strong and significant positive influence on current GDP growth. Overall, the estimation results between FD GMM and SYS GMM are not significantly different. Both are free from autocorrelation, as indicated by AR values > 0.05, meaning there is no autocorrelation. Similarly, the Sargan test shows a p-value > 0.05, indicating that the instruments used are valid and not correlated with the error terms. However, the difference between these two models lies in the constant coefficient, where in the SYS-GMM model, the constant is significant at the 5 percents level, while the constant in the FD GMM model is not statistically significant. A non-significant constant means that when all independent variables are zero, GDP does not have a

significant basis for growth. Thus, based on the comparison of the estimation results, this study uses Sys-GMM as the best model to analyze the impact of inequality in education on economic growth.

**Tabel 4.**
**Robustness Check Sys-GMM**

| Variabel | Koefisien | WC-Robust SE |
|---|---|---|
| C | 1,854 | 1,215 |
| LnGDP (-1) | 0,913 | 0,044 |
| Expect | 0,104 | 0,849 |
| Average | -0,775* | 0,288 |
| Highschool | -0,157* | 0,058 |

*Source:* Data Processed, 2024

The two-step System GMM is considered more efficient than the one-step GMM because it accounts for a more efficient covariance matrix structure in the second step. However, the standard error estimates in the two-step process can be prone to bias, which may reduce the efficiency of the estimates. Therefore, the use of robust standard errors (WC-Robust or robust standard errors) in the two-step System GMM model is applied to address the bias issue in standard error estimation that typically arises in GMM models, especially in two-step GMM estimation.

The estimation results of the Two-Step System GMM with WC-Robust show that the lagged GDP variable (L1.GDP) has a very strong and significant influence on current GDP growth. With a coefficient of 0,913, past GDP almost fully influences GDP growth in the following period. This indicates the importance of past economic performance in determining future economic performance. Meanwhile, the insignificant constant suggests that the baseline GDP value when all independent variables are zero cannot be statistically confirmed. In other words, if all other variables (such as education or lagged GDP) are not at play, the baseline GDP cannot be well predicted. This may be due to other factors not included in the model that affect GDP, and the model may rely more on other variables (such as past GDP and education) to explain changes in GDP rather than on a constant baseline value.

The educational inequality variables, represented by the ratio of average years of schooling for females to males (AVERAGE) and the ratio of females to males receiving higher education (HIGHSCHOOL), have a significant negative impact on economic growth. The average of school coefficient of -0.775 indicates that an increase in average of school inequality by 1 percents would decrease per capita income by 0.78 percents. 1 percents an increase in RRLS inequality by 1 percents would decrease per capita income by 0.775 percents. Meanwhile, the coefficient value of the higher education ratio (HIGHSCHOOL) is -0,157, which means that an increase in the inequality between females and males receiving higher education by 1 percents will reduce per capita income by 0,157 percents. This finding supports the human capital theory popularized by Becker and Schultz (Ezeh, 2020), which states that investment in human resources, particularly in education, training, and experience, can enhance individual productivity and, in turn, boost overall economic growth. Additionally, these research results also support previous studies conducted by (Baliamoune-Lutz & McGillivray, 2015), (Ezeh, 2020; Ngepah Nicholas, Saba Charles Shaaba, 2024). When women do not have equal access to education, the potential human resources in society are not fully utilized. As a result, total productivity in the economy decreases because only a portion of the population can contribute to its maximum potential. Individuals with higher education tend to obtain higher-paying jobs because their skills and knowledge are more valuable in the labor market. This is further reinforced by the study conducted by (Karoui & Feki, 2018) which found a positive relationship between higher education, primary, and secondary schooling with economic growth. However, the most influential variable for growth rates is higher education. Thus, higher education equality plays a crucial role in promoting sustainable economic growth. By improving the quality of human resources,

encouraging innovation, reducing inequality, and expanding women's participation in the economy, higher education equality allows the economy to grow faster, more inclusively, and more competitively. Gender inequality in education causes economic growth to be less inclusive and primarily benefits specific groups, particularly men. This creates injustice and leads to social inequalities that can exacerbate poverty and inequality issues.

In contrast to the variables of the average years of schooling ratio and the higher education ratio, the ratio of expected years of schooling is not significant in influencing economic growth. This indicates that this factor is not a primary determinant of regional GDP growth. Additionally, the expected years of schooling figure does not reflect the real situation during the analyzed period, as expectations may not align with the actual conditions in the field, thus not impacting productivity, which would affect per capita income.

According to data obtained from the (Badan Pusat Statistik, 2024) regarding the Gender Development Index (GDI), inequality is still evident in several aspects of educational participation in West Java Province. West Java's educational statistics record differences in school participation rates between boys and girls at various educational levels. In general, girls are more represented at the primary education level, but the gap begins to appear in secondary and higher education, where male participation is often higher. Additionally, disparities in access to education, especially in remote areas, remain a significant challenge. On the other hand, school dropout rates also exhibit dynamics that warrant attention. Although the overall dropout rate tends to decrease, the differences between boys and girls in certain areas show that some groups still face significant obstacles in accessing continuous education. The condition of the Gender Development Index (GDI) in West Java Province continues to show improvement, although gender disparities still exist in several sectors, including education. In 2023, West Java's GDI was recorded at 91.10 percents, showing an increase compared to previous years. This figure reflects that human development achievements between men and women in West Java are approaching equality, although not yet perfect. Even though the GDI is nearing 100 percents, which represents an ideal condition, several regencies/cities still face challenges in achieving gender equality, particularly in access to education and participation in the workforce. The increase in GDI is driven by improvements in life expectancy, education, and women's income, although certain areas are still lagging.

The budget realization for gender mainstreaming and gender inequality programs in West Java Province in 2023 showed satisfactory performance. According to data from the West Java Government Performance Accountability Report (LAKIP), the overall budget realization in 2023 reached more than 90 percents of the set target, including allocations for programs focused on gender mainstreaming. These programs include promoting gender equality in various sectors, including education and women's economic empowerment. By using the budget realization ratio calculation, the budget absorption rate in West Java has reached more than 90 percents, indicating that a significant portion of the allocated budget has been effectively utilized, reflecting strong financial management and program execution. Additionally, the effectiveness ratio has been applied to measure the extent to which budget spending translates into tangible outcomes. A high effectiveness ratio suggests that the allocated funds are being used optimally to achieve intended policy goals, including gender equality initiatives. The West Java government, through various initiatives and collaborations with national and international institutions such as the World Bank, is also focused on increasing women's participation in the workforce and advancing equal access to educational and training resources.

Thus, although there has been improvement in certain aspects and the gender budget allocation in West Java has been well implemented, West Java Province still needs to strengthen efforts to reduce gender inequality at all educational levels. This includes providing more equitable access in rural areas, raising awareness of the importance of education for all genders, and closely monitoring budget realization and the sustainability of gender equality programs that are expected to further reduce these gaps in the future.

## CONCLUSION AND SUGGESTION

Based on the economic analysis results, the educational inequality variables represented by the ratio of average years of schooling (AVERAGE) and the ratio of higher education (HIGHSCHOOL) have a significant negative impact on economic growth. Meanwhile, the variable of expected years of schooling (EXPECT) does not affect economic growth. The most influential variable is the average years of schooling. Therefore, the government needs to prioritize increasing the average years of schooling as part of efforts to promote more inclusive and sustainable economic growth. However, the government should also focus on improving the quality of education, as the average years of schooling only measures the number of years spent in education, not the quality of education received by individuals. If the quality of education is low, increasing the length of schooling will not necessarily enhance the workforce's skills relevant to market needs.

Meanwhile, gender inequality in West Java tends to be improving, as indicated by the increase in the Gender Development Index (GDI) year by year and the realization of inequality-related program budgets, which have reached over 90 percents. However, this also shows that gender equality in West Java still needs to be enhanced, especially in rural areas. Therefore, despite the progress, further efforts are needed to reduce the gender gap in various sectors, including education, particularly to ensure equal access to education for women across West Java.By expanding access to education, improving teacher quality, reducing dropout rates, and ensuring that education is relevant to the labor market, the government can boost labor productivity and improve the overall quality of life for the population.

## REFERENCES

Aini, A.N. (2021). Analisis Indeks Pembangunan Gender (IPG) Kota/Kabupaten di Provinsi Jawa Timur Tahun 2017-2019. *Jurnal Kebijakan Pembangunan*, (16)1, 77-91.

Altuzarra, A., Gálvez-Gálvez, C., & González-Flores, A. (2021). Is gender inequality a barrier to economic growth? A panel data analysis of developing countrie*s. Sustainability*, 13(1), 367.

Assadullah, M.N., Webb, A.,& Islam, K.M.M. (2024). SDG 4 mid-point challenge: Fixing the broken interlinkages between education and gender equality. *International Journal of Educational Development*, 106, 1-4. https://doi.org/10.1016/j.ijedudev.2024.103015.

Atiq F & Qadri FS. Does Gender Inequality Affect Economic Growth? Empirics from Asian Countries. IJWE. 2021; 7(1): 1-11.

Badan Pusat Statistik Kabupaten Tanjung Jabung Timur. (2024). Gender Development Index. Diakses dari https://tanjabtimkab.bps.go.id/en/statistics-table/2/ODkjMg%3D%3D/gender-development-index.html

Baliamoune-Lutz, M., & McGillivray, M. (2015). The impact of gender inequality in education on income in Africa and the Middle East. *Economic Modelling*, *47*, 1–11. https://doi.org/10.1016/j.econmod.2014.11.031.

Batool, S., & Arshed, N. (2020). Institutional perspective on gender inequality and economic development: Evidence from developing economies. *Journal of Economic Development,* 45(3), 89-105.

Becker, G. S. (2011). *The Oxford Handbook of Human Capital*. Oxford University Press.

Chen, X., & Liu, Y. (2016). Gender inequality and economic development: evidence from panel data. *Journal of Development Studies,* 52(10), 1393-1407.

Ezeh, K. O. (2020). Gender Inequality in Education and Economic Growth. *Pakistan Institute of International Affairs*, *60*(4), 81–91.

Hariadinata I. Ketimpangan Gender dan Pengaruhnya Terhadap PertumbuhanEkonomi: Kesehatan, Pendidikan, Dan Ketenagakerjaan. Vol. 1, *Rabit : Jurnal Teknologi Dan Sistem Informasi Univrab.* Universitas Islam Negeri Syarif Hidayatullah; 2019.

Hikmawati, N., & Yasa, I. N. (2024). The level of education has a dominant influence on increasing labor absorption in West Java Province, indicating the importance of investment in education as a driver of regional economic growth. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 12(5), 251-267. https://doi.org/10.24843/EEB.2024.v12.i05.p13.

Ikhsan, U. H. dan. (2020). Pembangunan Manusia, Ketimpangan Gender Dan Pertumbuhan Ekonomi di Indonesia. *Jurnal Ilmiah Mahasiswa Ekonomi Pembangunan*, 5(1).

Karoui, K., & Feki, R. (2018). The impacts of gender inequality in education on economic growth in Tunisia: an

empirical analysis. *Quality and Quantity*, *52*(3), 1265–1273. https://doi.org/10.1007/s11135-017-0518-3.

Khan, S. R., et al. (2018). Gender inequality and poverty: A qualitative study in developing economies. *Gender & Development,* 26(2), 311-327.

Klasen, S., & Minasyan, A. (2017). Gender Inequality and Growth in Europe. Intereconomics, 52(1), 17–23.

Laporan Akuntabilitas Kinerja Tahunan Pemerintah Daerah Provinsi Jawa Barat Tahun 2023.

Lidwina Lidia, K., Setiawina, N. D., & Purbadharmaja, I. B. P. (2015). Pengaruh belanja pembangunan terhadap ketimpangan distribusi pendapatan dan kesejahteraan masyarakat di Provinsi Papua. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 4(3), 456–470. https://doi.org/10.24843/EEB.2015.v04.i03.p12

Mbatha, S. (2024). Gender Inequality and Economic Development in Developing Economies. *Journal of Developing Economies,* 6(1),1 - 11. https://doi.org/10.47672/jde.1872.

Napitupulu, F. & Ekawaty, M. 2022. Ketimpangan Gender dan Pertumbuhan Ekonomi: Studi Kasus Pada Negara-Negara Asia Timur dan Pasifik. *Journal of Development Economic and Social Studies.* Volume 01, Number 1, Pages 29-43. Universitas Brawijaya. http://dx.doi.org/10.21776/jdess.2022.01.1.4.

Nazmi L, Jamal A. Pengaruh Ketimpangan Pendidikan Antar Gender TerhadapPertumbuhan Ekonomi Di Indonesia. *Jurnal Ekonomi Bisnis.* 2022;21(1):740–50.

Novitasari & Lestari, S. (2023). Evaluasi Kesenjangan Gender Dalam Pembangunan Manusia : Studi Kasus IPM dan IPG di Provinsi Bali Tahun 2022. *Jurnal Imiah Dinamika Sosial.* Volume 7, Number 2, Pages 153-173. https://doi.org/10.38043/jids.v7i2.4675.

Nicholas, N., Saba, C.S., dan Tinga, C. L. M. (2024). Gender Inequaity and Economic Growth In Developing Countries. *International Economics*, *77*(3), 371–416. https://doi.org/10.1111/1468-0106.12181.

Ogundari, K. and T. A. (2018). Human Capital Contribution to Economic Growth in Sub-Saharan Africa: Does Health Status Matter more than Education? *Economic Analysis and Policy*, *58*(06), 131–140. https://doi.org/10.1016/j.eap.2018.02.001.

Pegkas, P. and C. T. (2017). Are There Separate Effects of Male and Female Higher Education on Economic Growth? Evidence from Greece. *Journal of the Knowledge Economy*, *8*(1), 279–293. https://doi.org/10.1007/s13132-015-0286-z.

Ruiters, M., Charteris, A., 2020. Gender equality in labour force participation, economic growth and development in South Africa. *Dev. South. Afr.* 37, 997–1011. https://doi.org/10.1080/0376835X.2020.1772042.

Schultz, T. W. 1961. Investment in Human capital. *American Economic Review*. 51 (1): 1-17.

Sitorus, A. (2016). Dampak Ketimpangan Gender Terhadap Pertumbuhan Ekonomi diIndonesia. *Jurnal Kesejahteraan Sosial, Sosio Informa* 2(1), Januari-April.

Siswati, Endang, & dkk. (2018). Analisis Indeks Pembangunan Manusia (IPM) Kabupaten Bojonegoro. *Journal Universitas Wijaya Kusuma Surabaya,*18(2).

Smith, J., et al. (2017). Gender inequality and economic development: A mixed-methods study in developing economies. *Journal of Economic Behavior & Organization*, 135, 29-44.

Todaro, M. P., & Smith, S. C. (2015). *Economic Development (Twelfth Edition)*. New York : Pearson.

Wibawa, R., Budiartiningsih, R., Endang Kornita, S., Maulida, Y., & Nurmayanti M, P. (2024). The Influence of Gender Inequality on Economic Growth in Riau Province 2012-2021. *KnE Social Sciences*, *2024*, 381–394. https://doi.org/10.18502/kss.v9i23.16748.

Windayanthi, N. P. D., & Oka, I. M. D(2021). Pengaruh tingkat pendidikan, distribusi pendapatan, dan pertumbuhan penduduk terhadap kemiskinan di Provinsi Bali. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 10(8), 2345–2360. https://doi.org/10.24843/EEB.2021.v10.i08.p08.

World Bank. (2018). *World Development Report 2018: Learning to Realize Education's Promise*. Washington, DC: World Bank. Diakses dari https://www.worldbank.org/en/publication/wdr2018

World Development, R. (2012). *Gender Equality and Development : Main report (Japanese)*. http://documents.worldbank.org/curated/en/108831468163442921/Main-report

Yuslin, H., Irfan, A. (2022). Kesetaraan Gender di Bidang Pendidikan dan Pertumbuhan Ekonomi di Provinsi Sulawesi Selatan. *Jurnal IAIN Bone*, (15)1, 29-37.