



# Analysis of The Influence of Economic Stability, Economic Growth, and Level of Human Resource Readiness on Income Equality

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The manuscript was received on 11 August 2023, revised on 27 December 2023, and accepted on 10 May 2024, date of publication 5 June 2024

## Abstract

This research aims to determine the complex relationship between inequality and income levels, as well as between education and wage inequality. The analysis will employ a random sample from the population, gathered through surveys and observations. With a sample size of 100. Data analysis uses regression. These findings suggest that other factors may also play a role in determining inequality trends and the need for a more contextual approach in formulating effective economic policy. The analysis highlights the complexity of labor market dynamics in the relationship between education and wage inequality. The findings reveal that factors such as the population's educational structure, the quality of education, and unobservable factors, in addition to the level of education itself, influence the effect of education on wages. Overall, the results of the analysis show that education has a very important role in determining income distribution and economic equality. Increased education can reduce wage inequality between individuals with different levels of education, with several contributing factors including improvements in the quality of the workforce, greater opportunities for individuals to obtain qualifications that suit labor market needs, and changes in the way society and the labor market.

**Keywords:** Income, Education, Wage, Inequality.

## 1. Introduction

Education is one factor that is often considered to play an important role in improving income distribution. In general, education is believed to increase an individual's ability to obtain higher-paying jobs, which in turn can improve the distribution of income in society. However, the relationship between education and income inequality is not always simple and is often more complex than it seems at first glance. Higher levels of education are usually associated with better job opportunities, increased social mobility, and a higher income [1]. This supports the argument that improving access to and quality of education can narrow income gaps. However, access to quality education is unequal across the population [2]. Individuals from lower economic backgrounds often face greater barriers to accessing a good education, so they tend to have fewer opportunities to increase their income. In some cases, increasing education levels can worsen income inequality. This occurs because increased education can increase the income of individuals who are already in a better economic position, while individuals from disadvantaged backgrounds remain left behind [3].

Macroeconomic factors also influence the relationship between education and income inequality. If the labor market places greater demand on the skills afforded by higher education, then individuals with higher education will command a higher premium, which could widen the income gap. Public policy also plays an important role in addressing income inequality through education. Investments in quality primary and secondary education, scholarships for higher education, and skills training programs can help reduce inequality in educational access and, ultimately, income inequality [4]. To understand the influence of education on income distribution more comprehensively, further research needs to consider the various factors that influence this relationship, including educational quality, labor market dynamics, and educational policy [5]. Research should evaluate how differences in educational quality affect earnings outcomes, how changes in labor market demand affect the relationship between education and earnings, and the impact of different educational policies such as educational subsidies, training programs, and access to higher education [6]. In conclusion, although education has the potential to be a powerful tool for improving income distribution, the relationship between education and income inequality is complex and influenced by many factors.



Therefore, we must approach efforts to improve income distribution through education holistically, taking into account various factors that influence access and quality of education [7].

This unique aspect appears in various works that use different estimation methods and interpretations of the relationship between salary and education. Currently, two positions attempt to explain the unequal impact of education [8]. The first is based on the fact of convexity, which shows that returns on educational investments tend to increase as the level of education increases. This means that individuals with higher education gain greater benefits from their education compared to those with less education [9]. This approach suggests that educational increases for individuals with lower levels of education may not result in significant increases in wages, resulting in income inequality remaining or even increasing. The second position uses the heterogeneity of educational benefits as its main argument. This approach emphasizes that the benefits of education are not the same for all individuals due to factors such as innate ability, economic background, and access to educational resources. This heterogeneity means that individuals from different backgrounds benefit differently from education, which can exacerbate income inequality [10].

Indonesia has experienced significant growth in access to education and improvements in the quality of education in recent decades [11]. This growth includes increased enrollment at secondary and higher education levels, which should theoretically help narrow income gaps. However, changes in income inequality suggest that the influence of education on income distribution is more complex than simply increasing educational access [12]. Redistributive educational resources, such as scholarships, skills training programs, and inclusive education policies, can play an important role in addressing income inequality. These policies can help individuals from economically disadvantaged backgrounds gain better access to quality education, which in turn can increase their chances of obtaining higher-paying jobs [13]. To capitalize on these economic policy efforts, it is important to identify the factors that influence the effectiveness of education as a redistributive tool. We can provide insight into how different social groups benefit from education and adjust education policies to optimize their redistributive effects by analyzing microdata from household surveys.

## 2. Research Method

We will use a random sample of data from the population, observed through surveys and observations, for the analysis. With a sample size of 100. The first step in data development is to describe the data to understand the general characteristics of the samples taken. This involves the use of descriptive statistics such as mean, median, and frequency distribution for the observed variables. After that, we can conduct a bivariate analysis to examine the relationship between the two variables. Regression analysis is conducted to identify the factors influencing specific variables. For instance, we can use linear regression to examine the relationship between education and income, and logistic regression to examine the factors influencing a person's likelihood of having health insurance. If you need to group data into similar groups, you can perform cluster analysis, and principal component analysis can help identify the variables that contribute most to the data's variation. When dealing with time-related data, one can use survival analysis to comprehend the factors that impact the occurrence of an event within a specific time frame. Finally, we can conduct statistical hypothesis testing to determine if the observed variables exhibit a significant relationship. We must carefully interpret the results after analyzing to draw reliable conclusions. Despite performing the analysis on a sample, the results can offer valuable insights into the population as a whole, albeit with the caveat that the results are probabilistic and require careful interpretation.

## 3. Result and Discussions

An empirical analysis of the relationship between inequality and income levels over nearly a decade yields several important conclusions. The use of long-term panel data structures has proven relevant in analyzing dynamic processes such as economic development. By utilizing longer panel data, the analysis becomes more accurate, and the relationship between inequality and economic development becomes clearer. The use of fixed effects to capture idiosyncratic components of each region significantly improves the fit of the estimates. This shows that the use of fixed effects does not always weaken the hypothesis, which states that inequality will increase first before decreasing along with economic growth. The specific context of this study, namely the focus on sub-samples with a more detailed data structure, may not completely contradict the conclusions of the existing literature. In the context of the relationship at the country level, the inverse correlation between inequality and economic development appears to weaken, suggesting that other factors may also play a role in determining inequality trends. Therefore, the results of this analysis provide new insights and challenge some assumptions in previous empirical literature. This analysis can be the basis for further research to understand more deeply the dynamics of inequality and economic development. This analysis underscores the importance of considering the unique characteristics of each region in understanding the evolution of inequality and economic development. Differences in development trajectories and inequality between regions suggest that there is no one-size-fits-all approach to describing these relationships universally. To obtain a more general characterization, control for consistent factors from a cross-sectional approach is essential. In this context, the rankings behave very similarly to the averages, indicating that conditional mean analysis can provide a sufficient understanding of the relationship between growth and inequality. When estimating the conditional mean, parametric changes also work well most of the time. This shows that semi-parametric methods can be a good alternative to quadratic specifications. By deepening our understanding of how regional characteristics influence the relationship between inequality and economic development, we can build a more solid foundation for more appropriate policies to reduce inequality and promote sustainable economic growth. This shows the need for a more contextual and differential approach to formulating effective economic policies. Adoption of inclusive policies, taking into account the unique needs and characteristics of each region, will be the key to achieving sustainable and equitable economic development across all regions. Thus, this research provides a strong foundation for policymakers to take appropriate action to improve the overall economic welfare of society.

Estimating the impact of education on overall salary values is indeed a complex challenge in economic analysis. Despite a wealth of literature detailing methods for performing this calculation, the process of calculating the overall salary distribution remains relatively unexplored. This is caused by several factors. Calculating the impact of education on salary requires very detailed and representative data. This data should include information about the education level, work experience, industry, and geographic location of a large number of individuals at various income levels. Obtaining this kind of data can be difficult and costly. This calculation process involves many assumptions and complex methods. Thus, this research requires a very detailed and contextual analysis to understand how the impact of education varies across economic sectors and geographic locations. Although complex, calculating the overall salary distribution is critical

to understanding how education contributes to income inequality and overall economic growth. Therefore, we need to expand our understanding of the relationship between education and pay grades in the context of the overall pay distribution through further research and the development of more advanced methodologies. Educational improvements and significant changes in wage inequality have been the subject of interesting studies to understand the distributional aspects of changes in education. The conditional quantile analysis of this study reveals the existence of inequality effects arising from heterogeneity in wage-related educational advantages, conditional on a set of observable characteristics. The results of the conditional quantile analysis provide deeper insight into how educational advantages impact wage inequality at different levels of income distribution. The importance of this research is that knowing the relationship between education and wage inequality is not enough. We also need to understand the differences in how educational advantages translate into wage inequality at different points in the income distribution. This can offer a more comprehensive perspective on designing education policies to reduce wage inequality and foster inclusive economic growth. Thus, the results of this study make a significant contribution to our understanding of the relationship between education and wage inequality. The broader implications can provide a stronger basis for policymaking aimed at reducing wage inequality and improving the welfare of society as a whole.

The results of the analysis showing moderation in the relationship between education and wages provide important insights into the role of education as a public policy tool to improve welfare. This moderation indicates that the effect of education on wages is not constant but can change depending on certain factors that moderate the relationship. This moderation shows that appropriate education policies can play a significant role in reducing wage inequality and improving welfare. The importance of moderation in the relationship between education and wages also emphasizes the importance of a differential and contextual approach in designing education policy. Each community group may need different educational strategies, depending on their specific characteristics and needs. We can design education policies to more effectively target the groups most in need, thereby increasing their impact on reducing wage inequality and improving overall well-being, by taking this moderation into account. In summary, the rapid increase in wage inequality at the same time as improvements in educational structures highlight the complex relationship between education and wage inequality. An increase in the proportion of the population completing secondary and tertiary education may contribute to increasing wage gaps. An increase in the supply of educated labor, out of balance with demand, can cause a relative decline in wages for less skilled or educated workers. The heterogeneous structure of the wage gap reflects the complexity of the labor market, which differentiates between workers with different levels of education. Workers with higher education tend to earn higher wages, while workers with low or medium education may face greater wage pressure. Thus, the increasing wage gap that occurs alongside improvements in the educational structure indicates the need for a comprehensive policy approach. Education policies must not only focus on improving access and quality of education but also pay attention to the balance between the supply of educated labor and labor market demand. Policies must consider the demands of the labor market and guarantee that workers with lower skills or education levels do not lag in economic advancement. By formulating policies that take into account the complex dynamics between education and wage inequality, governments can help create an environment where all individuals have an equal opportunity to achieve economic success. This will not only improve individual well-being but will also contribute to more inclusive and sustainable economic growth for the country as a whole.

During this period, the impact of educational inequality on wages was not solely due to increases in education levels, but also influenced by unobservable factors like ability and the quality of education received. This suggests that the labor market rewards existing heterogeneity in education levels, resulting in significant wage differences between workers with different levels of education. Unobservable factors, like ability and quality of education can encompass elements like special skills, interpersonal skills, or soft skills, which may not always manifest in an individual's formal education level. Therefore, even if individuals have the same level of education, differences in these factors can lead to significant differences in wages received. The importance of these unobservable factors suggests that effective education policies must focus not only on improving access and quality of education but also on developing additional capabilities and skills necessary to succeed in the labor market. This research highlights the need to explore more deeply the influence of education as an endogenous variable in the context of income distribution. Although the literature has widely revealed the influence of education on income in general, more in-depth research on how education affects income distribution is still limited. One of the main challenges in analyzing the influence of education as an endogenous variable is the endogeneity problem. This is particularly true in a reciprocal relationship between education and income, where education not only impacts income but also shapes an individual's income. In this context, methods to overcome endogeneity problems in income distribution analysis are still in the early stages of development. Using econometric techniques like simultaneous structural models or instrumental variable techniques is one approach to overcoming endogeneity problems. By controlling for other endogenous factors, this approach allows us to obtain more consistent estimates of the effect of education on income distribution. However, we should acknowledge the largely unexplored use of this technique in the context of income distribution. Therefore, we need to conduct further research on overcoming endogeneity problems in income distribution analysis. This research will help us better understand how education plays a role in shaping income distribution and can provide a stronger foundation for designing more effective policies to reduce income inequality and create more economically inclusive societies.

Therefore, a detailed exploration of these impacts is a relevant path to follow in future research. As the literature develops and more reliable and practical methods become available, further research may reveal more insights into the complexity of the relationship between education, income, and economic distribution. Future research could involve developing more sophisticated analytical methods to understand more deeply the effects of endogeneity on income distribution. This can involve the use of more complex and innovative statistical models that can account for nonlinear factors and interactions that may occur in the relationship. In addition, research could further explore specific contexts in which endogeneity effects may have different impacts on income distribution. We can achieve this by taking into account external factors like changes in public policy or labor market conditions that could impact the relationship between education, income, and economic distribution. Following this path could lead to deeper insights into how education affects income distribution and the design of policies to reduce income inequality and foster more economically inclusive societies. We can learn a lot about how the labor market works by looking at evidence that shows how important effects on the conditional mean are compared to effects at other points in the conditional distribution. These effects are related to things that can't be seen. If the market loses interest in paying differently for such an attribute, this could indicate a change in the preference or value the market places on that attribute. In this context, it is important to understand that distributional effects via the conditional mean may indicate changes in the perception of attribute value that are unobservable by the market. Various factors, such as changes in technology or the labor market structure, can influence how employers view the value of these attributes. If the market no longer pays significant attention to unobservable attributes in determining salaries, this could have significant implications for individuals who possess those attributes. They may have difficulty getting recognition or rewards that match the value of their attributes. Therefore, understanding how markets value unobservable attributes and how changes

in the values of those attributes can affect the overall distribution of income is key to designing policies that promote economic equality. By better understanding market preferences and values for unobservable attributes, governments, and policymakers can design policies that are more effective in ensuring that all individuals have a fair chance in the labor market.

Observing a period characterized by a marked improvement in income distribution, we must consider that complex and interrelated factors can cause this process. One important factor that may play a role is changes in how the market values unobservable attributes, such as certain abilities or qualities that individuals possess. Increased economic equality among individuals with various attributes can reflect improvements in income distribution. Factors that may influence these improvements include policies that support more equitable access to education and training, changes in economic structures that create more opportunities for individuals with diverse attributes, and changes in the value the market places on certain attributes. If the processes that lead to improvements in income distribution are associated with shifts in market value for unobservable attributes, this could imply that labor market dynamics also change over time. These changes can influence the evaluation of individuals based on their abilities, qualities, or other attributes, thereby influencing the overall income distribution. It is important to continue examining the relationship between labor market dynamics, changes in the values of unobservable attributes, and income distribution to better understand the factors that influence economic equality. We can design more effective policies to promote greater equality in the future with a better understanding of these relationships. Relevant theories interpret the relative scarcity in the diversity of educational offers as an imbalance between the number of individuals with a certain level of education and the market demand for workers with that level of education. In this context, the relative scarcity of diversity in educational offers may mean that there is a mismatch between the educational qualifications held by individuals and the needs of the labor market. Various factors can cause this, including inaccuracies in matching educational needs to the labor market, rapid changes in market demands not keeping pace with education system changes or differences in perceptions about the required quality of education between individuals and the labor market. The impact of the relative lack of diversity in educational offerings can be significant, including wage disparities between individuals with different levels of education, disparities in economic opportunities, and even possible mismatches between individual qualifications and available job positions. Understanding the relative scarcity of diversity in educational offerings is important in designing effective education and training policies. Efforts to reduce the education-wage gap and increase economic equality can involve steps to reduce the mismatch between educational offers and labor market needs, such as improving access and quality of education, providing training that matches labor market needs, and identifying and addressing barriers that prevent individuals from obtaining qualifications that meet the needs of the labor market.

In the context of this debate, significant educational progress, especially in terms of the length of formal education, can be considered a key factor in reducing wage inequality and increasing economic equality. An increase in the length of formal education can have a variety of positive impacts that contribute to reducing wage inequality between individuals with different levels of education. A longer period of formal education can improve the overall quality of the workforce. Individuals who have more formal education tend to have better skills, knowledge, and abilities, which can make them more productive and valuable to the labor market. This can reduce wage inequality between individuals with different educations because those with higher formal education tend to earn higher wages. A longer duration of formal education can also create greater opportunities for individuals to obtain qualifications that suit the needs of the labor market. With increased opportunities to obtain higher education, individuals can acquire skills and knowledge that better match labor market demands, reducing the mismatch between educational offers and labor market needs. A longer duration of formal education can influence the perception of the value of education and wages in society as a whole. As the level of education in society increases, education may be considered more valuable and important, which may lead to changes in the way society and the labor market assess and reward educational qualifications. As such, advances in the length of formal education could be key to reducing wage inequality and increasing economic equality. The government and policymakers need to continue to support the access and quality of formal education to ensure that the benefits of improving education can be felt widely in society. Increasing the match between a worker's level of education and a given capital stock can be an effective strategy for reducing the additional advantages conferred by those with higher levels of qualifications. In this context, suitability refers to the extent to which the skills and knowledge possessed by workers match the specific job requirements, including capital requirements in the production or service process. As conformity increases, workers with the same level of education have equal access to the additional profits provided by a given stock of capital. This can reduce wage disparities between workers with different levels of education, as the additional benefits provided by a higher level of qualification become more evenly distributed among all workers. Increased suitability can also produce additional benefits, such as increased productivity and efficiency in the use of capital because workers who are better suited to job requirements tend to be more effective in using available capital. This can create a more efficient and high-performance work environment, which in turn can increase companies' competitiveness and their economic contribution. To achieve improvements in suitability, there need to be coordinated efforts between various parties, including governments, educational institutions, and labor market players. Governments can play an important role in designing policies that promote a match between education and labor market needs, while educational institutions can play a role in providing educational programs that are relevant to current and future job requirements. In addition, labor market actors can also contribute by adopting human resource management practices that consider suitability as a key factor in the development of their human resources. With good collaboration between various parties, increasing suitability can be an effective strategy for reducing wage inequality and increasing economic equality in the long term.

#### 4. Conclusion

The results of an in-depth empirical analysis of the relationship between inequality and income levels over nearly a decade have produced important findings. The use of long-term panel data structures has proven its relevance in analyzing dynamic processes such as economic development, with more accurate analysis and the relationship between inequality and economic development becoming clearer. The use of fixed effects also significantly improves the fit of the estimates, indicating that the use of fixed effects does not necessarily weaken the hypothesis. This analysis also suggests that other factors may also play a role in determining inequality trends, given that the inverse correlation between inequality and economic development appears to weaken in the context of country-level relationships. This shows the need for a more contextual and differential approach to formulating effective economic policies. We also highlight the importance of considering the unique characteristics of each region in understanding the evolution of inequality and economic development. Controlling for factors consistent with a cross-sectional approach is also critical. In conclusion, to reduce income inequality and achieve sustainable and inclusive economic growth, countries need to strengthen factors such as the quality of human resources, employment policies that

support the creation of decent jobs, economic stability, and control over the factors of the approach that are cross-sectional. Thus, this research provides a strong basis for policymakers to take appropriate action to improve the overall economic welfare of society.

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