



Underemployment Rate by Gender in 2015-2018

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Article History

Received
17 July 2023
Revised
19 August 2023
Accepted
20 August 2023
Published
31 August 2023

ABSTRACT

Understanding the dynamics of underemployment across gender is critical not only for economic policymakers but also for advocates of gender equality. The findings from this analysis can reveal potential areas where targeted interventions and policy measures may be needed to ensure that both men and women have equal opportunities for full and meaningful employment. This study uses a quantitative approach. This study uses data on underemployment rate by gender provided by the Central Bureau of Statistics. The study employs a Contingency Table Analysis, specifically utilizing the chi-square test. Contingency Table Analysis suggests that there is no substantial relationship between the level of underemployment by gender during the specified years, it is important to approach this conclusion with caution due to the limitations of the analysis and the possibility of unaccounted influences. Further research, possibly incorporating additional variables and a more extended time frame, would be valuable for a comprehensive understanding of the complex relationship between underemployment, gender, and regional factors.

Keywords: Underemployment, Gender, Contingency

INTRODUCTION

The underemployment rate, a critical aspect of labor market analysis, provides insights into the utilization of the available workforce and offers a nuanced perspective on the overall health of an economy. Underemployment occurs when individuals are employed part-time or in jobs that do not fully utilize their skills and qualifications, leading to a significant gap between their potential productivity and actual job engagement. The underemployment rate by gender is a particularly important metric as it sheds light on potential gender disparities in the labor market.

One of the problems in employment in Indonesia is unemployment. Unemployment from an economic standpoint is a product of the inability of the labor market to absorb the available labor force, such as: the number of available jobs is less than the number of job seekers, the competency of job seekers is not in accordance with the labor market and the ineffectiveness of job market information for job seekers.

This analysis focuses on the underemployment rate by gender during the period of 2015 to 2018. These years were marked by various global economic changes and evolving social dynamics, which may have influenced the underemployment patterns among men and women. By examining this time frame, we aim to better understand the extent to which gender played a role in the underutilization of labor during this period.

The analysis delves into various factors that contribute to underemployment, including but not limited to, involuntary part-time employment, skill mismatch, and the prevalence of informal work arrangements. By dissecting the underemployment rate (Eddy et al., 2023) by gender, we can discern if there were disparities in how these factors affected men and women in the workforce.

Understanding the dynamics of underemployment across gender is critical not only for economic policymakers but also for advocates of gender equality. The findings from this analysis can reveal potential areas where targeted interventions and policy measures may be needed to ensure that both men and women have equal opportunities for full and meaningful employment. Studying underemployment data and trends by gender from

2015 to 2018 will gain insight into the broader narrative of labor utilization and the challenges that particular gender groups may face during this period.

LITERATURE REVIEW

Underemployment

Underemployment refers to a situation where individuals are employed in jobs that are inadequate in terms of their skills, qualifications, or the number of hours they are willing and able to work. It is characterized by a mismatch between an individual's potential and their actual employment situation. Underemployment can have significant economic, social, and individual implications, affecting job satisfaction, income, career progression, and overall well-being (Alpler et al., 2021).

Underemployment generally refers to a situation where individuals are employed part-time or in jobs that are below their skill level and education, resulting in reduced income and job satisfaction. It often includes those who are working part-time but would prefer to work full-time or those who are overqualified for their current jobs.

Underemployed are those who work under normal working hours (less than 35 hours a week). Underemployment consists of:

- Forced Underemployment are those who work under normal working hours (less than 35 hours a week), and are still looking for a job or are still willing to accept a job.
- Voluntary Underemployment are those who work under normal working hours (less than 35 hours a week), but are not looking for a job or are not willing to accept another job (some say they are part time workers).

In addition, unemployment can also be caused by termination of employment that occurs because companies have closed/reduced their business fields as a result of the economic crisis, security that is not conducive, regulations that inhibit investment, and others. In addition to the problem of unemployment, Indonesia is also faced with the problem of underemployment, namely people who work less than the normal working hours of 35 hours per week. Some of them are forced to work even though their position is lower than their level of education, their wages are low, which results in their productivity being low (Lebert & Antal, 2016).

Skill Mismatch Theory

This theory posits that underemployment often results from a mismatch between the skills possessed by workers and the skills demanded by the available job opportunities. This mismatch can occur due to changes in technology, shifts in industry demands, or educational systems that do not align with current labor market needs. For example, a person with advanced qualifications working in a low-skilled job due to lack of relevant opportunities illustrates skill mismatch underemployment (Draissi & Rong, 2023).

Cyclical Theory

Cyclical underemployment is closely tied to business cycles. During economic downturns, companies may reduce their workforce or cut back on employee hours to cope with decreased demand. This leads to involuntary part-time employment and reduced working hours, even for those who desire full-time work. As the economy recovers, underemployment rates may decrease as demand for labor increases.

Structural Theory

Structural underemployment arises from longer-term shifts in the economy, such as changes in industry composition, technological advancements, or shifts in consumer (Purba, 2023) preferences. Certain regions or industries may experience chronic underemployment due to factors like the decline of traditional manufacturing industries or the rise of automation, leading to persistent skill mismatches.

Demand-Supply Mismatch Theory

This theory focuses on the imbalance between the demand for labor and the supply of available jobs. It considers factors such as population growth, labor force participation rates, and changes in industry sectors. When job creation lags behind labor force growth, it can contribute to a situation where there are more job seekers than available jobs, leading to underemployment.

Involuntary vs. Voluntary Underemployment

Some individuals might be underemployed due to circumstances beyond their control, such as lack of job opportunities or reduced hours by the employer. This is known as involuntary underemployment. On the other

hand, voluntary underemployment occurs when individuals choose to work in jobs that do not fully utilize their skills or capabilities. This might occur due to personal preferences, work-life balance considerations, or pursuing other non-employment activities.

Institutional Factors

Institutional factors, including labor market regulations, minimum wage laws, and social safety nets, can influence the prevalence of underemployment. These factors can affect employers' decisions to hire, retain, or offer full-time positions.

Gender and Underemployment

Gender-related factors can also contribute to underemployment. Women, for instance, might face barriers in accessing certain industries or positions, leading to underemployment or involuntary part-time work. Gender norms and caregiving responsibilities can also play a role in shaping employment choices.

METHODOLOGY

Research Design

This study uses a quantitative approach. A quantitative approach involves the collection and analysis of numerical data to derive objective conclusions and identify patterns or relationships. In this study, the primary goal is to quantify the relationship between the underemployment rate by gender and its potential connection to regional disparities. This approach allows for statistical techniques to be employed to test the strength and significance of the observed associations (Sekaran & Bougie, 2016).

Data Types and Sources

This study uses data on underemployment rate by gender provided by the Central Bureau of Statistics. The study utilizes secondary data, which refers to data that have been collected by other sources for purposes other than the present research. In this case, the data on underemployment rates by gender is obtained from the Central Bureau of Statistics. Secondary data are often used in quantitative studies as they are readily available, cost-effective, and can cover extensive periods, as is the case with the study's four-year span from 2015 to 2018.

Data Analysis Method

The study employs a Contingency Table Analysis, specifically utilizing the chi-square test (Lind et al., 2018). A contingency table (also known as a cross-tabulation or crosstab) is a table that presents the distribution of two categorical variables. In this study, the variables are underemployment level by region and gender. The chi-square test assesses the independence of these variables, measuring the extent to which the observed distribution in the contingency table deviates from what would be expected if there were no association between the variables.

Hypothesis Test

The hypothesis will be accepted if the significance value is below 0.05. The study establishes hypotheses to test the relationship between underemployment rates by gender. The null hypothesis (H₀) posits that there is no significant association between the variables, implying that any observed differences are due to random chance. The alternative hypothesis (H_a), on the other hand, suggests that there is a significant association between the variables.

The null hypothesis might be framed as follows: "There is no relationship between the level of underemployment by gender." The alternative hypothesis, then, could state: "There is a relationship between the level of underemployment by gender."

The chosen significance level (α) of 0.05 indicates the threshold at which the study will consider results statistically significant. If the calculated p-value (probability value) associated with the chi-square test is below 0.05, the study would reject the null hypothesis in favor of the alternative hypothesis. This suggests that the observed relationship between underemployment rates by gender is not likely due to random variation. If the p-value is equal to or higher than 0.05, the study would fail to reject the null hypothesis, implying that there is insufficient evidence to conclude a significant relationship.

RESULT AND DISCUSSION

Analysis Result

Table 1. Underemployment Rate by Gender

Gender	2015	2016	2017	2018
Male	8.43	7.63	7.46	6.77
Female	8.57	7.50	7.71	6.39

Source: Indonesian Statistics Agency, 2019

Based on the above data and Contingency Table Analysis, where $\alpha = 5\%$ and $\chi^2 = 0.017124$, based on the Contingency Table, it proves that there is no relationship between the level of underemployment by gender.

Discussion

The assessment of the relationship between the level of underemployment by gender, conducted through Contingency Table Analysis with a significance level (α) of 5% and a calculated chi-squared (χ^2) value of 0.017124, presents interesting insights into the dynamics of underemployment and its potential association with gender. The calculated chi-squared value is notably smaller than what might be expected at a 5% significance level, indicating that the observed relationship between these two variables is very weak.

The result suggests that the underemployment rates across different regions do not significantly differ based on gender, given the chosen threshold of significance. In other words, the data does not provide enough evidence to conclude that there is a substantial association between the level of underemployment and the gender of individuals in the workforce during the specified years (2015-2018).

While the calculated p-value associated with the chi-squared value is not provided, the small magnitude of the chi-squared statistic itself indicates that the observed deviations from the expected values in the Contingency Table are minor. This implies that any disparities in underemployment levels across regions are likely due to random variation rather than a meaningful relationship between gender and underemployment.

However, it's important to interpret these findings cautiously. The absence of a statistically significant relationship at a 5% significance level does not necessarily mean that there is absolutely no association between gender and underemployment. It could be possible that other factors not considered in the analysis could contribute to underemployment disparities that are not captured by the Contingency Table.

During the years 2015 to 2018, various factors influenced the underemployment rates among different genders. It's important to note that the underemployment rate can vary based on economic conditions, labor market trends, and other socio-economic factors. Historically, women have faced higher rates of underemployment compared to men. This can be attributed to various factors, including occupational segregation, caregiving responsibilities, and wage gaps. Women have often been more likely to engage in part-time work due to family responsibilities. While some women choose part-time work for flexibility, others may be compelled due to lack of affordable childcare options. Women have been more likely to work in sectors that are prone to underemployment, such as retail, hospitality, and administrative roles. These sectors are more sensitive to economic fluctuations.

Women have been making strides in education and obtaining higher degrees. However, this can sometimes lead to overqualification in certain roles, contributing to underemployment. The underemployment rate tends to increase during economic downturns when employers are more cautious about hiring and job opportunities become scarcer. Underemployment rates can vary by region due to differences in economic activity, industry composition, and labor market conditions. Policies related to workplace flexibility, parental leave, and affordable childcare can impact the underemployment rate for women, especially those who balance work and caregiving responsibilities. Women may face barriers in accessing training and development opportunities to keep up with changing job requirements, which can contribute to underemployment.

Furthermore, the time period being analyzed (2015-2018) might not fully capture potential changes or trends that could have emerged in subsequent years. Labor market dynamics can be influenced by various macroeconomic, social, and policy factors that might have evolved after 2018.

CONCLUSION

Conclusion

Contingency Table Analysis suggests that there is no substantial relationship between the level of underemployment by gender during the specified years, it is important to approach this conclusion with caution due to the limitations of the analysis and the possibility of unaccounted influences.

Recommendation

Further research, possibly incorporating additional variables and a more extended time frame, would be valuable for a comprehensive understanding of the complex relationship between underemployment, gender, and regional factors.

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