The Influence of the Field Enterprises, Marital Status, Education, Age and Area of Residence to the Underemployment in Bengkulu Province, Indonesia

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ABSTRACT: The objective of this study is to find out the general description of the characteristics of underemployment and the influence of the field enterprises, marital status, education, age and area of residence to the underemployment in Bengkulu Province. This study is applied research. The analytical method used is descriptive analysis and logistic regression analysis. The data used are secondary data from the National Labor Force Survey (Sakernas) in August 2022. Based on the results of processing with SPSS 22.0 it is known that the four explanatory variables in this study significantly influence the underemployment in Bengkulu Province. The explanatory variables that influence underemployment in Bengkulu Province were marital status, education level, age and area of residence. Workers with characteristics of marriage, middle-educated, middle-aged or adult, and living in urban areas are most likely to be underemployment with opposite characteristics, i.e. unmarried, low-educated, young and living in rural areas. The results of the study is known that the four explanatory variables in this study significantly influence the underemployment in Bengkulu Province. The explanatory variables that influence underemployment in Bengkulu Province were marital status, education, age and area of residence. Workers with characteristics of marriage, middle-educated, middle-aged or adult, and living in urban areas are most likely to be underemployment with opposite characteristics, i.e. unmarried, low-educated, young and living in rural areas.

KEYWORDS: underemployment, field enterprises, marital status, education, age and area of residence and logistic regression analysis

1. INTRODUCTION
1.1 Background
One of the development problems faced by developing countries, including Indonesia, is the problem of unemployment. Unemployment is a very complex problem because it affects and is influenced by many factors that interact with each other following patterns that are not always easy to understand. If unemployment is not addressed immediately, it can cause social insecurity and potentially lead to poverty.

In Indonesia, the indicator used to measure the level of unemployment in a region is the Open Unemployment Rate (OUR) released by the Central Statistics Agency (BPS). BPS releases OUR figures twice a year, namely in May for February Sakernas data and November for August Sakernas data. Based on the BPS release, over the last five years, Bengkulu Province has been one of the provinces with a relatively low OUR when compared to the national OUR figures.

Comparison of OUR of Bengkulu Province and Indonesia, 2017-2021 (Percent)

Data Source: Bengkulu Province Central Statistics Agency, 2022
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Figure 1.1 it can be seen that the Bengkulu Province OUR for the last five years has always been lower than the national OUR figure. In 2017, Bengkulu Province's OUR was recorded at 4.91 percent. This figure is lower than the National OUR which was recorded at 6.18 percent. The OUR for Bengkulu Province and the National OUR continue to decline until 2021, but the OUR for Bengkulu Province is always lower than the National OUR. In 2021, the Bengkulu Province OUR was recorded at 3.39 percent lower than the National OUR which was recorded at 5.28 percent. Thus, it can be said that the availability of job opportunities in Bengkulu Province is good enough to absorb labor so that the unemployment rate is relatively smaller when compared to the national unemployment rate.

However, apart from OUR, there is another problem of unemployment in Bengkulu Province that has not been studied in more depth, namely disguised unemployment. Disguised unemployment is a population that works with low productivity or is often known as underemployed and has lower working hours per week. According to Ananta (1991), the meaning of not working fully can have two meanings, namely that all of the worker's abilities have not been used or that there is reward in the form of economic value that is too small for the work done. In Bengkulu Province, although the Open Unemployment Rate (OUR) is relatively low, many residents work less than normal working hours. In fact, the figure is greater than the national figure. This group is then called disguised unemployment or forced unemployment.

Comparison of Disguised Unemployment in Bengkulu Province and Indonesia, 2018-2021 (Percent)

Data Source: Bengkulu Province Central Statistics Agency, 2022

Figure 1.2 it can be seen that the disguised unemployment rate in Bengkulu Province over the last four years is higher than the national disguised unemployment rate. In 2018, disguised unemployment in Bengkulu Province was recorded at 10.37 percent, while nationally it was only 7.58 percent. Likewise, in 2021, disguised unemployment in Bengkulu Province was recorded at 10.26 percent. 3.83 percentage points higher compared to national disguised unemployment which was recorded at 6.43 percent. Thus it can be concluded that disguised unemployment in Bengkulu Province is relatively high compared to the national average of disguised unemployment.

So far, unemployment has tended to be seen in terms of open unemployment and less attention to hidden unemployment or underemployment, whose figures are even greater than open unemployment. Even though the Open Unemployment Rate (OUR) is low, if the hidden unemployment rate is high it will have an impact on low productivity and worker income which ultimately results in low levels of welfare. Therefore, this research is intended to complete the study of the phenomenon of disguised unemployment in Bengkulu Province, especially in relation to the characteristics of the unemployed and the socio-demographic variables that influence it.

1.2 Problem Formulation
1. What are the characteristics of disguised unemployment in Bengkulu Province?
2. What is the influence of business field variables, marital status, education level, age and area of residence on disguised unemployment in Bengkulu Province?

1.3 Research Objectives
1. To analyze the characteristics of disguised unemployment in Bengkulu Province
2. To analyze the influence of business field variables, marital status, education level, age and area of residence on disguised unemployment in Bengkulu Province
2. RESEARCH METHODOLOGY

2.1 Types of research

This research is a type of applied research when viewed from its objectives. Applied research is research that involves the application of theory to solve certain problems. In applied research, the research carried out is included in the evaluation research category. Namely research that is expected to provide input or support decision making about the relative value of two or more alternative actions.

2.2 Operational Definition

The August 2022 Sakernas census was carried out on 8-31 August 2022 in Bengkulu Province. The total sample for Sakernas in August 2022 was 5,120 households. Meanwhile, the individuals who were respondents to this research were Household Members (ART) aged 15 years and over who were sampled for the August 2022 Sakernas in Bengkulu Province.

The definitions of the variables used are as follows:

1. **Covert Unemployment** is a population who works less than normal working hours (35 hours a week) and is still looking for work and willing to accept work. Covert unemployment variables are divided into two categories, namely:
   a. Yes, if the respondent works less than normal working hours (35 hours a week) and is still looking for work and willing to accept work
   b. No, if the respondent works normal working hours (at least 35 hours a week) and less than normal working hours.

2. **Marital status (D1)** is the marital status of respondents which is divided into:
   a. Unmarried, that is, if the respondent's marital status is unmarried
   b. Marriage, which is if the respondent's marital status is married
   c. Divorce, i.e. if the marital status of the divorced respondent is alive or the divorcee dies

3. **The level of education (D2)** is the highest diploma completed by respondents. The education level of respondents was simplified into three groups, namely low, secondary and higher education, with the intention of making the data more meaningful.
   a. Low, which is if the respondent has the highest elementary school diploma equivalent and below
   b. Intermediate, which is if the respondent has the highest junior high school diploma equivalent
   c. High, which is if the respondent has the highest high school diploma equivalent and above

3. **Age (D3)** is the age of respondents in years. Age in this study was divided into three groups, namely:
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a. Young, ie if the age of respondents is 15-24 years
b. Intermediate, which is if the age of respondents is in the range of 25 to 64 years
c. Adult, ie if the age of the respondent is 65 years and over Age is calculated in years.

4. Area of residence (D4) is a classification of respondents’ areas of residence which are divided into:
   a. Rural, i.e. if the respondent lives in rural areas
   b. Urban, that is, if the respondent lives in an urban area

5. Business Field (D5) is a business field where respondents work divided into two categories, namely:
   a. Agriculture, if respondents work in the agricultural sector
   b. Others, if respondents work other than in the agricultural sector

2.3. Data types and sources
The type of data used is micro data from the August 2021 National Labor Force Survey (Sakernas) data collection carried out by the Central Statistics Agency (BPS) in Bengkulu Province. The data was sourced from BPS Bengkulu Province.

2.4. Data Collection Methods
The data used in this study is secondary data from the August 2021 National Labor Force Survey (Sakernas) conducted by BPS Bengkulu Province. The data obtained is still in the form of raw data. The variables used in this study were five independent variables consisting of 5 dummy variables.

2.5. Analysis Methods
The analytical methods used in this study are descriptive analysis method and logistic regression method. The descriptive method is carried out by interpreting the data collected from the beginning to the end of the study. The data analysis technique used is through a qualitative approach, namely answering and solving problems by understanding and deepening thoroughly and completely of the object under study in order to produce conclusions that are descriptive according to conditions and time.

- DESCRIPTIVE ANALYSIS
Descriptive analysis is used to provide a general description of the characteristics of the disguised unemployed in Bengkulu Province in 2021. The characteristics of the disguised unemployed analyzed include: marital status, education level, age, area of residence, and business field. Apart from that, cross table analysis is also used which is transformed into bar chart form to illustrate the relationship between each independent variable and the dependent variable.

- LOGISTIC REGRESSION ANALYSIS
Logistic regression is used to analyze the relationship between the response variable (yi) which is on a binary scale with categories of success or failure and the independent variables (x1, x2, ..., xp) which are on an interval and/or categorical scale (Hosmer and Lemeshow, 1989).

The logistic regression probability model with the independent variable p is:

\[ \pi(x) = \frac{\exp(\beta_0 + \beta_1x_1 + \ldots + \beta_p x_p)}{1 + \exp(\beta_0 + \beta_1x_1 + \ldots + \beta_p x_p)} \]

If yi ~ Bernoulli (x) then E (y |x) = \pi(x) namely the opportunity or probability of "success" for a certain independent variable value (x) or P (y = 1|x) so that the opportunity or probability of "failure" is 1 - \pi(x) or P (y = 0|x).

3. RESEARCH RESULTS AND DISCUSSION
a. Research result
3.1. Characteristics of Disguised Unemployment in Bengkulu Province
1. Disguised Unemployment Based on Marital Status
Marital status is thought to have a relationship with disguised unemployment. Residents with married status tend to work to meet their daily living needs. In August 2021, the majority of the working population in Bengkulu Province were married.
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Figure 4.1. Percentage of Working Population Based on Marital Status in Bengkulu Province, August 2021

Source: Processed Sakernas August 2021 data

In Figure 4.1 it can be seen that the majority of the working population in Bengkulu Province is married, namely 77.90 percent. Meanwhile, the percentage of the unmarried population is 15.10 percent and the working population who are divorced is 7.01 percent.

2. Disguised Unemployment Based on Education Level

Education level is thought to be related to disguised unemployment. Based on Sakernas data for August 2021, the working population with a high school or equivalent education in Bengkulu Province is quite dominant.

Picture 4.2. Percentage of Working Population Based on Education Level in Bengkulu Province, August 2021

Source: Processed Sakernas August 2021 data

From Figure 4.2, it can be seen that the percentage of working population with an elementary school or equivalent education level is 41.57 percent. Meanwhile, the percentage of working population with junior high school or equivalent and senior high school education levels is 18.11 percent and 40.32 percent, respectively.

3. Disguised Unemployment Based on Age

The level of disguised unemployment is thought to be related to the age of the worker. The older a worker gets, the higher the chance of becoming disguised unemployed.

Picture 4.3. Percentage of Working Population by Age in Bengkulu Province, August 2021

Source: Processed Sakernas August 2021 data

In Figure 4.3 it can be seen that most of the working population in Bengkulu Province is in the middle age group, namely the population aged 25-64 years by 83.44 percent. Meanwhile, as many as 11.71 percent of the population works with the young age group (15-24 years) and as many as 4.85 percent are working residents with the adult age group (65 years and over).

4. COVERT UNEMPLOYMENT BY AREA OF RESIDENCE

The area of residence is thought to be associated with covert unemployment. In this study, residential areas are divided into two, namely rural areas and urban areas. In general, the population of Bengkulu Province is in rural areas. The following is presented a picture of the population based on the area of residence in Bengkulu Province.
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Gambar 4.4. Percentage of Working Population by Area of Residence in Bengkulu Province, August 2021

In figure 4.4 it can be seen that the working population in Bengkulu Province generally lives in rural areas, reaching 70.09 percent and the remaining 29.91 percent live in urban areas.

5. Covert Unemployment Based on Business Field

Business fields are thought to be related to underemployment. In this study, business fields are only classified into two categories, namely the agricultural sector and other sectors (non-agricultural). Covert unemployment in the population working in the agricultural sector tends to be higher compared to non-agricultural sectors, such as the manufacturing and service sectors.

Gambar 4.5. Percentage of Employed Population by Business Field in Bengkulu Province, August 2021

Based on Figure 4.5 above, it can be seen that the majority of the population in Bengkulu Province works in agricultural businesses, which is 77.41 percent. While the rest, as many as 22.59 percent work in other sectors.

3.1.2. Logistic Regression Analysis

1. Logistic Regression Analysis

a. Partial Test

After rejecting H0 in the simultaneous test, partial testing is continued with Wald statistics or p-value on the analysis output to see which explanatory variables can be included in the model that influence the trend of disguised unemployment. Test results with Wald statistics can be seen in the table below:

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>β</th>
<th>SE</th>
<th>Wald</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td>Marital Status (Not Married)</td>
<td>-</td>
<td>-</td>
<td>25,059</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Marital Status (Married)</td>
<td>0.339</td>
<td>0.170</td>
<td>3,974</td>
<td>2</td>
<td>0.046</td>
</tr>
<tr>
<td>Marital Status (Divorced)</td>
<td>-0.216</td>
<td>0.138</td>
<td>2,433</td>
<td>1</td>
<td>0.119</td>
</tr>
<tr>
<td>Education Level (Low)</td>
<td>-</td>
<td>-</td>
<td>11,601</td>
<td>2</td>
<td>0.003</td>
</tr>
<tr>
<td>Education Level (Intermediate)</td>
<td>0.281</td>
<td>0.082</td>
<td>11,581</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>Education Level (High)</td>
<td>0.135</td>
<td>0.099</td>
<td>1,837</td>
<td>1</td>
<td>0.175</td>
</tr>
<tr>
<td>Age (Young)</td>
<td>-</td>
<td>-</td>
<td>27,986</td>
<td>2</td>
<td>0.000</td>
</tr>
<tr>
<td>Age (Middle)</td>
<td>1.361</td>
<td>0.264</td>
<td>26,638</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Age (Adult)</td>
<td>0.954</td>
<td>0.236</td>
<td>16,358</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Residential Area</td>
<td>-0.500</td>
<td>0.086</td>
<td>33,443</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>Business Field</td>
<td>-0.150</td>
<td>0.088</td>
<td>2,926</td>
<td>1</td>
<td>0.087</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.008</td>
<td>0.264</td>
<td>129,536</td>
<td>1</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Sakernas data processing results August 2021
Based on the results of calculations using SPSS, it is known that with a confidence level of 95 percent, most of the explanatory variables in this study are significant in the model. This can be seen from the p-value of the majority of variables being smaller than 0.05. In other words, the explanatory variables included in the research, namely marital status (except divorce status), education level (except higher education level), age, and area of residence have an influence on disguised unemployment in Bengkulu Province.

b) Logistic Regression Model

The logistic regression opportunity model obtained based on the β coefficient value in Table 4.1 for each significant variable is:

\[
\Pi (D_2, D_3, D_4, D_5) = 1 + \exp (-3.008 + 0.339 \text{MS(Married)} + 0.281 \text{EL(Middle)} + 1.361 \text{Age}\text{(Middle)} + 0.954 \text{Age(Adult)} - 0.500 \text{AR/Area of Residence)}
\]

The logistic regression probability model formed is a nonlinear function. Then a logit transformation is carried out to obtain a linear function so that the relationship between the explanatory variables and the response variable can be seen. The results of the logit transformation of the logistic regression probability model formed are as follows:

\[
g (D_2, D_3, D_4, D_5) = -3.008 + 0.339 \text{MS(Married)} + 0.281 \text{EL(Middle)} + 1.361 \text{Age(Middle)} + 0.954 \text{Age(Adult)} - 0.500 \text{AR/Area of Residence)}
\]

Where,

MS: Marital Status  
EL: Education Level  
AR: Area of Residence

c) Propensity Risk Value

Logistic regression analysis, apart from knowing the influence, can also determine the risk trend (odd ratio) of that influence. Odds ratio is a measure to determine the risk of a tendency to experience a certain event between one category and another in one variable. The odds ratio in this study is used to determine the tendency of each variable that influences disguised unemployment. The value of the odds ratio can be seen in the Exp() column.

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>β</th>
<th>Exp(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Marital Status (Not Married)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Marital Status (Married)</td>
<td>0.339</td>
<td>1.403</td>
</tr>
<tr>
<td>Marital Status (Divorced)</td>
<td>-0.216</td>
<td>0.806</td>
</tr>
<tr>
<td>Education Level (Low)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Education Level (Intermediate)</td>
<td>0.281</td>
<td>1.324</td>
</tr>
<tr>
<td>Education Level (High)</td>
<td>0.135</td>
<td>1.144</td>
</tr>
<tr>
<td>Age (Young)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Age (Middle)</td>
<td>1.361</td>
<td>3.899</td>
</tr>
<tr>
<td>Age (Adult)</td>
<td>0.954</td>
<td>2.595</td>
</tr>
<tr>
<td>Residential Area</td>
<td>-0.500</td>
<td>0.607</td>
</tr>
<tr>
<td>Business Field</td>
<td>-0.150</td>
<td>0.860</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.008</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Source: Sakernas data processing results August 2021

The propensity risk value or odds ratio for an individual to become disguised unemployed is shown by the Exp( ) value in Table 4.2, namely:

1. Marital Status  
The tendency of married working people to become underemployed is 1.403 times that of never-married people.

2. Education level  
The tendency of working people with a secondary level of education to become disguised unemployed is 1.324 times that of those with low education.
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3. Age
The tendency of the middle-aged working population (25-64 years) to become disguised unemployed is 3,899 times than the young working population (15-24 years). Meanwhile, working adults (65 years and over) are 2.595 times more likely to be underemployed than young working residents.

4. Residential Area
The tendency for residents working in rural areas to become disguised unemployed is 0.607 times than those living in urban areas. In other words, working people who live in urban areas have a greater chance of becoming disguised unemployed than working people who live in rural areas.

3.1.3. Discussion
After testing using logistic regression, it can be concluded that the explanatory variables, namely marital status, education level, age, area of residence have a significant effect on disguised unemployment in Bengkulu Province.

Marital status
In this research, marital status has a significant effect on disguised unemployment. Based on Table 4.2, it can be seen that the variable marital status (married) has a p-value of 0.046, which is smaller than the value of 0.05. Meanwhile, in Table 4.3 it can be seen that the opportunity for a married worker to become disguised unemployed is 1.403 times greater than that of an unmarried worker. Married residents have greater responsibility for meeting daily living needs. Not only for his own needs, but also to meet the living needs of his dependent children and wife. Therefore, people with married status will tend to work to meet their daily needs. They will continue to work even if the working hours are less than 35 hours per week in order to meet household needs.

Level of education
The education level variable in this study has a significant effect on disguised unemployment where the p-value of the education level variable (secondary) is 0.001, which is smaller than 0.005. Meanwhile, the opportunity for a worker with a (medium) level of education to become disguised unemployed is 1.324 times greater than that of a worker with a low level of education.

The results of this research are in line with Ngadi (2005) who found that in general underemployment occurs at low levels of education which reflects low productivity. Likewise, research by Soetomo (1984), in developing countries, in general, the unemployment rate curve is inverted U-shaped, where the unemployment rate for workers at the primary education level is relatively low, then increases again at the high school education level and decreases again at the diploma/college education level.

Age
In this study, age has a significant effect on disguised unemployment. This can be seen in Table 4.2 where the p-value of the age (middle) and age (adult) variables is 0.000, which is smaller than 0.05. Meanwhile, the tendency for a middle-aged worker to become underemployed is 3,899 times that of a young worker. Likewise, the adult population is 1.144 times more likely to be underemployed than young workers.

This is in line with the results of research by Soeprobo (2002) which states that young age is the peak of unemployment and increasing age and responsibility in life results in people choosing not to be unemployed. When related to labor productivity, it is clear that young age is an age with low productivity. As age increases and the fulfillment of life's needs increases, labor tends to increase its productivity to achieve a better level of welfare.

Residential Area
With a p-value of 0.000, the region of residence variable has a significant effect on disguised unemployment. Meanwhile, the tendency for a worker living in rural areas to become underemployed is 0.607 times that of workers living in urban areas. It can also be said that the opportunity for workers living in urban areas to become disguised unemployed is greater than workers living in rural areas.

5. CONCLUSIONS AND SUGGESTIONS
CONCLUSIONS
1. Working people with characteristics of marriage, secondary education (junior high school equivalent), middle age (25-64 years) or adults (65 years and above), and living in rural areas tend to be more likely to become underemployed in disguise compared to working people who are not married, have low education (elementary school equivalent and below), are young (15-24 years) and live in urban areas.
2. Of the 100 working residents aged 15 years and over in Bengkulu Province, there are 10 people delivered among them are covert unemployment, and variables that affect covert unemployment significantly in Bengkulu Province are marital status, education level, age and area of residence.
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SUGGESTIONS
1. All relevant parties, especially the government and business actors must pay special attention to covert unemployment in Bengkulu Province. The reason is, so far the government has only focused on open unemployment, while the problem of covert unemployment has received relatively little attention even though it provides considerable obstacles in efforts to increase the pace of economic development in Bengkulu Province.

2. One of the efforts that can be made to reduce the number of covert unemployment is to map covert unemployment based on its socio-demographic characteristics so that the handling carried out can be more targeted. Covert unemployment with marital status, secondary education, middle age or adulthood and those living in rural areas in order to get greater attention. In addition, it can also be done to provide better more employment, reducing mismatch between labor education specifications and business needs, improving workforce skills through training or courses, and reviewing the minimum wage level in districts / cities to reduce the number of hidden unemployed.

REFERENCES
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