

Guaranteed Return to Work for White-Collar and Blue-Collar Workers: Impact of Covid-19 in Western and Eastern Indonesia

Wise Harumi^{1*}, Nasri Bachtiar² and Neng Kamarni³

Corresponding author. *Email: wiseharumi211211@gmail.com

Submitted: 2022-11-28 | Accepted: 2022-12-30 | Published: 2022-12-31

Abstract

This study investigates the guaranteed recall likelihood of temporarily unemployed white-collar and blue-collar workers in the labour markets affected by Covid-19 in Indonesia's western and eastern regions. The August 2020 microdata from Sakernas were used using logistic regression analysis. Descriptive analysis shows a balance of male and female workforce composition. However, the unemployment rate affected by Covid-19 is higher in western Indonesia than in eastern Indonesia. In the western part of Indonesia, the temporarily unemployed are more distributed in urban areas, while in the eastern part of Indonesia, they are more dispersed in rural areas. By gender, more men than women are temporarily unemployed due to Covid-19 in western and eastern Indonesia. Regression statistics show that layoffs and temporary layoffs impact white-collar and blue-collar workers differently. It can be seen that white-collar workers in western Indonesia have the highest return-to-work protection factor, while blue-collar workers in eastern Indonesia have the lowest. Urban areas provide blue-collar workers in eastern Indonesia with higher guaranteed chances of returning to work. Male white-collar workers in the Western Indonesia region are the most likely to return to work compared to other categories. The age variable is not significant for white-collar workers but is significant for blue-collar workers. The only significant education variable is the assurance that blue-collar workers in eastern Indonesia will return to work. An additional skill variant in the form of a course will provide a higher assurance of being recalled to work in the eastern region of Indonesia.

Keywords: labour; disparity; Covid-19; temporary unemployment.

¹ Department of Economics, Faculty of Economics and Business, Andalas University, Padang, Indonesia, and Indonesia Development Planners Association (Perkumpulan Perencana Pembangunan Indonesia/PPPI)

² Department of Economics, Faculty of Economics and Business, Andalas University, Padang, Indonesia

³ Department of Economics, Faculty of Economics and Business, Andalas University, Padang, Indonesia

I. Introduction

The Covid-19 pandemic has been a difficult period for all countries that have experienced it, including Indonesia. The pandemic has not only had a direct impact on the health aspect but other aspects of life, such as economic and social aspects. The social restriction and regional quarantine policies could limit the communities in carrying out economic activities so that the circulation of goods and services is hampered. This condition occurred for quite a long time, causing a decline in economic growth in regions experiencing the Covid-19 pandemic (Chaplyuk et al., 2019; Whitehead et al., 2021). This decline in economic growth will be followed by other economic impacts, such as an increase in the unemployment rate (Coibion et al., 2020). The economic impact of the Covid-19 pandemic can then trigger impacts on other aspects, such as the social aspect. The poor are one of the most vulnerable groups to feel the impact of the Covid-19 Pandemic. In addition, the World Bank has also predicted an increase in the number of poor people globally during the pandemic (Aeni, 2021).

Covid-19 has also caused a much more significant loss of working hours than previously estimated. The latest ILO estimates show that lost work hours worsened over the first half of 2020, highlighting a worsening situation in recent weeks, especially in developing countries. In the first quarter of 2020, an estimated 5.4 percent of global hours (equivalent to 155 million full-time jobs) were lost relative to the fourth quarter of 2019. The hours lost for the second quarter of 2020 relative to the last quarter of 2019 are estimated to reach 14 percent worldwide (equivalent to 400 million full-time jobs), with the most significant reduction of 18.3 percent occurring in the Americas. The factors driving the decline in working hours varied widely across countries. In some countries, shorter working hours with being employed but not working, for example, where workers are laid off temporarily, contributed significantly to the decline. In others, the main driver was people forced into unemployment and becoming not active. These variations suggest that a narrow focus on unemployment alone will not allow a precise assessment of the impact of the pandemic on the labour market (ILO, 2020).

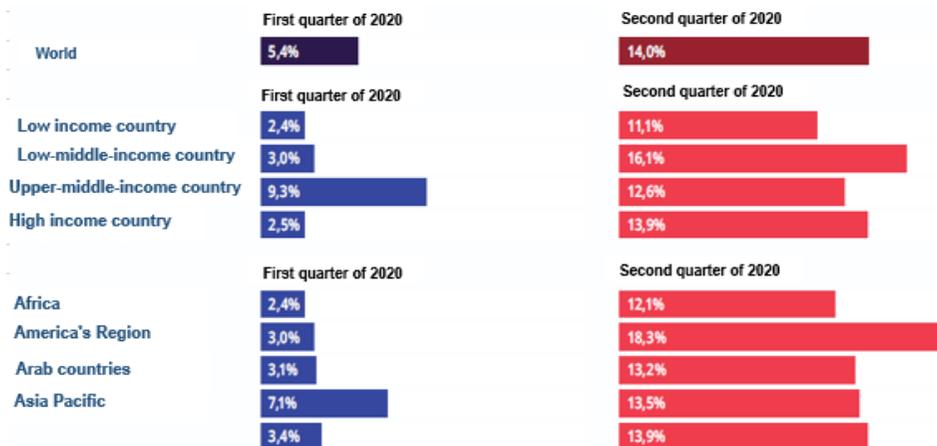


Figure 1. Percentage of Worldwide Workers with Workplace Closing, by region, January 1 – June 15, 2020 (percentage)

Source: ILO, 2020

Indonesia is one of the countries affected by the spread of the Covid-19 virus. Thousands of people are infected with this virus, so one of the government's strategies to suppress the spread of Covid-19 is to establish a Large-Scale Social Restrictions policy regulated in Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions. Large-Scale Social Restrictions are policy limiting particular residents' activities in an area suspected of being infected with Covid-19. The Large-Scale Social Restrictions policy has a broad impact on various sectors, starting from health, social and economic, including in the sustainability of the business world and employment, both workers and employers. Based on data from the Ministry of Manpower as of April 7, 2020, the impact of the Covid-19 pandemic on the formal sector, about 39,977 companies were forced to lay off houses and their workers. Of the 1,010,579 workers affected, 873,090 workers from 17,224 companies were laid off, while 137,489 workers were laid off from 22,753 companies. Meanwhile, in the informal sector, Covid-19 affected 34,453 companies and 189,452 workers (RI Coordinating Ministry for Economic Affairs, 2021).

The Indonesian Central Bureau of Statistics also released data that is more specifically looking at the impact of the Covid-19 pandemic on employment in Indonesia during the February-August 2020 period. The data shows that the working-age population affected by Covid-19 is 29.12 million people, consisting of 2.56 million unemployed people due to Covid-19. About 0.76 million people are not in the labour force because of Covid-19. About 1.77 million people are temporarily not working because of Covid-19 and 24.03 million working people have experienced reduced working hours due to Covid-19.

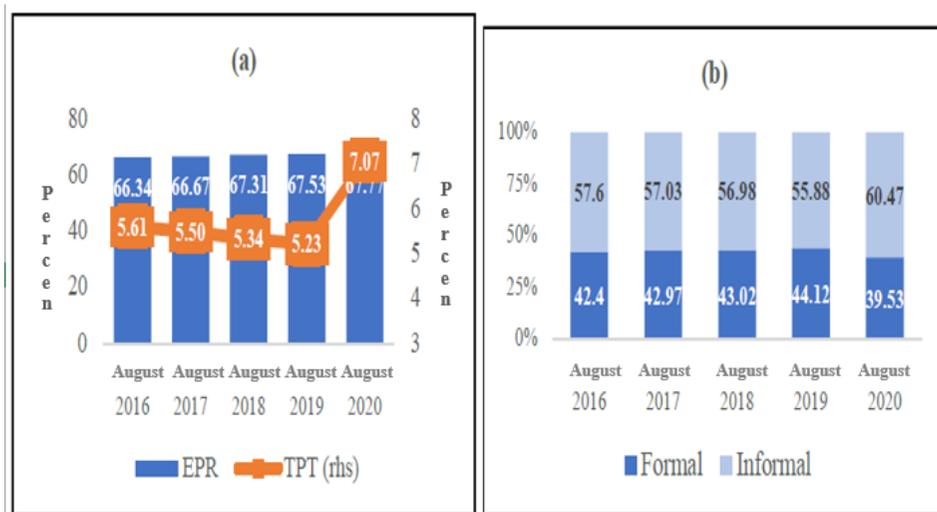


Figure 2 (a) Employment to Population Ratio (EPR) and Open Unemployment Rate (TPT), (b) Portion of Formal and Informal Workforce, August 2016-2020

Source: Indonesian Central Bureau of Statistics

On the other hand, the Covid-19 pandemic has had a different impact on the types of workers. White-collar workers who work in offices performing administrative or managerial tasks are better able to survive the pandemic because when countries implement stay-at-home policies, many workers have to work remotely. It is relatively easy for white-collar

workers because their work can generally be done remotely, as there are no specific locations. Conversely, it is difficult for blue-collar workers to survive in the job market because blue-collar jobs usually focus on physical activity in the field. They make a living doing manual or trade-related work. So during the stay-at-home policy, many were laid off or temporarily off (Stilt, 2021).

In terms of gender, several studies have shown that the crisis due to the Covid-19 pandemic disproportionately impacts women workers in many ways. Women are more vulnerable to being affected by Covid-19 in Canada (Singh et al., 2022), Jamaica (Bourne et al., 2022), Turkey (Aldan et al., 2021), and China (Rozellec et al., 2022). Meanwhile, in Indonesia, studies discussing the effects of Covid-19 on the labour market have been descriptive and qualitative. A comparative analysis has not been found that discusses the workforce affected by Covid-19 in terms of gender and type of work. So this study aims to analyze this based on groups of white-collar and blue-collar workers in Indonesia. This research will also analyze opportunities for guarantees to return to work in current work units for temporarily unemployed people affected by Covid-19 in the Western Part of Indonesia and Eastern Indonesia.

II. Data and Methodology

2.1. Data Set

This study uses microdata from the August 2020 National Labour Force Survey (Sakernas) conducted by the Central Bureau of Statistics. The research areas are grouped into two: Western Indonesia and Eastern Indonesia. Western Indonesia consists of all provinces on the islands of Sumatra and Java, totalling 16 provinces. These provinces are Nanggroe Aceh Darussalam, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, Bangka Belitung Island, Riau Islands, DKI Jakarta, West Java, Central Java, Daerah Istimewa Yogyakarta, East Java, and Banten. In comparison, the Eastern Indonesia region consists of all provinces on the islands of Kalimantan, Bali, Nusa Tenggara, Sulawesi, Maluku, and Papua, which consist of 17 provinces. The provinces included in Eastern Indonesia are the provinces of Bali, West Nusa Tenggara, East Nusa Tenggara, West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku, West Papua, and Papua.

Based on the initial screening of August 2020 Sakernas data, out of 793,202 samples, 13,805 respondents were recorded as temporarily unemployed and affected by Covid-19. It is spread over as much as 56 percent of the Western Indonesia area, and the remaining 44 percent in the Eastern Indonesia area. The research object is then differentiated into white-collar and blue-collar workers based on the type of work, as shown in Table 1.

2.2. Variables and Operational Definitions

According to Sugiyono (2017), a research variable is an attribute, trait, or value of a person, object, or activity with certain variations determined by the researcher to study and draw conclusions. An operational definition is needed to determine the research elements and tell how to measure a variable. The operational variables and definitions used in the

research originate from the August 2020 Sakernas questionnaire with the questionnaire code in Table 1.

Table 1. Operational Variables and Definitions

Questionnaire Code	Variable Description	Variable Value	Operational Definition
prov_name	Province Name	1. Western Indonesia (WI) 2. Eastern Indonesia (EI)	
classification	Village/Kelurahan Classification	1. Urban 2. Rural	1 0
k4	Gender	1. Boy 2. Girls	1 0
r4	Marital status	1. Not Married 2. Married 3. Divorced Life 4. Dead Divorced	0 1 0 0
r6a	6a. Highest degree	1. No/has not finished elementary school 2. SD/MI/SDLB/Package A 3. SMP/MTs/SMPLB/Package B 4. SMA/MA/SMLB/Package 5. SMK/MAK 6. Diplomas I/II/III 7. Diploma IV 8. S1/S2/S3	0 0 0 1 1 1 1 1
r6d	6d. Have taken courses & received a certificate	1. Yes 2. No	1 0
r10a	10a. While not working a week ago	1. Yes 2. No	1 0
r10c	10c. Is the reason related to covid	1. Yes 2. No	1 0
r10d	10d. Guaranteed return to work in the current business unit/place of work	1. Yes 2. Will not be back 3 Not sure back 4 Do not know	1 0 0 0
r13b_kji19	Standard Classification of Types of Work 1982 - 1 digit	1. Classification (1) Professionals, Technicians, and Others related to it 2. Classification (2) Leadership and Management Personnel 3. Classification (3) Executing Officers, Administrative Personnel and Associate Personnel 4. Classification (4) Sales Force 5. Classification (5) Service Business Personnel 6. Classification (6) Farming, Garden, Livestock, Fish, Forest, and Hunting 7. Classification (7/8/9) of production workers for transportation equipment and rough workers 8. Other Classification (X/00).	White Collar = 1 White Collar = 1 White Collar = 1 Blue Collar = 0 Blue Collar = 0 Blue Collar = 0 Blue Collar = 0 Blue Collar = 0

Source: Sakernas August 2020, Indonesian Central Bureau of Statistics

This study examines white-collar and blue-collar workers more specifically based on the type of work. August 2020 Sakernas divides the types of work into eight standard classifications, namely: (1) Professionals, Technicians, and Other Professional Personnel, (2) Leadership and Management Personnel, (3) Executive Officers, Administrative Personnel, and Personnel Personnel, (4) Sales Business Personnel, (5) Service Business Personnel, (6) Farming, Garden, Livestock, Fish, Forest, and Hunting Business, (7/8/9) Production Worker for Transportation Equipment and Coarse Workers, and (8) Classification (X/00) Others. However, in this study, the types of work will be grouped into two categories based on skills, namely (1) Professional Staff/Leadership Personnel/Executing Officials and (2) Business Personnel/Production Personnel/Others. So this research will categorize white-collar workers into types of work 1 to 3. The rest are types of blue-collar workers.

2.3 Methodology

The research model was processed using logistic regression with the help of STATA 14 software. Logistic regression is a method that connects categorical response variables with predictor variables that can be numerical and categorical. Logistic regression is a particular form of regression analysis that can be used to classify. Logistic regression will produce a probability value for each label that can be used as a basis for classification. In this study, the logistic regression model used is binary logistic regression because the response variable only has two categories. (Hapsary et al., 2021).

Kuncoro (2004) suggests several advantages are more flexible when using a logistic regression model than other regression models. Logistic regression does not require a linear relationship between the independent and dependent variables. Independent variables do not require the assumption of *multivariate normality*. The homoscedasticity assumption is not required. Independent variables need not be converted into metric form (interval or ratio scale). The dependent variable must be dichotomous (two categories, for example: high and low or good and bad). Independent variables can have a different variability between groups of variables. The categories in the independent variables must be separate from each other and exclusive. The required sample is relatively large. A minimum of 50 data samples is needed for a predictor variable (independent). It can select relationships because it uses a non-linear *log transformation approach* to predict the *odds ratio*. Odds in logistic regression are often expressed as probabilities.

Covid-19 and guarantee called back to work

Unemployment affected by Covid-19 are unemployed people who are temporarily unable to work due to Covid-19. The business owner does not want this temporary dismissal, so they provide a guarantee to be called back to the work unit where they work now. A logistic regression model was developed to see temporary unemployment benefits that can be called back to work. According to Gujarati (2000), the Logistics model comes from the *Logistics Distribution Function* with the equation:

$$P_i = EY = \frac{1}{X_1} = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p)}} \quad (1)$$

Equation (1) above is then simplified to:

$$Pi = \frac{1}{1+e^{-Zi}} \tag{2}$$

To estimate equation (2), the equation is manipulated by multiplying $1+e^{-zi}$ on both sides so that the following equation is obtained:

$$(1 + e^{-Zi})Pi = 1 \tag{3}$$

Or

$$\frac{(1+e^{-Zi})Pi}{Pi-1} = \frac{1}{Pi-1} \tag{4}$$

So that,

$$e^{Zi} = \frac{Pi}{1-Pi} \tag{5}$$

Because the *range* of Pi ranges from 0 - 1 and Pi is related non-linearly with Zi. If Pi is the notation for regions with identified financial conditions at the first research stage, then 1 - Pi is the notation for other regions. Opportunities for an area to be included in the group identified in the first stage of the research are:

$$1 - Pi = \frac{1}{1+e^{-Zi}} \tag{6}$$

Odds Ratio statistical model by combining equation (5) with equation (6), a new equation is obtained so that the new equation can be written as:

$$\frac{Pi}{1-Pi} = \frac{1+e^{Zi}}{1+e^{-Zi}} = e^{Zi} \tag{7}$$

Equation (7) is then transformed into a natural logarithmic model to produce the following equation:

$$Li = Ln \left[\frac{Pi}{1-Pi} \right] = Zi \tag{8}$$

Based on the equation above, the specific models in this study are:

$$LogitYi = Ln(Odds(P)) = Ln \left[\frac{Pi}{1-Pi} \right] = \beta WI - EI + \beta WCW - BCW + \beta 0 + \beta 1KW + \beta 2JK + \beta 3Age + \beta 4SK + \beta 5Pend + \beta 6Kur \tag{9}$$

Where:

Y is the dependent variable: temporary unemployment due to covid-19 or 0 otherwise;
 The WI-EI variable is the Territory Division of Western Indonesia-Eastern Indonesia;

The WCW-BCW variable is the division of types of white-collar workers and blue-collar workers;

β_0 is *intercepted*/ constant, namely the value of the dependent variable when the independent variable = 0 ;

β_1 to β_6 = regression coefficient, namely the magnitude of the increase (decrease) in the dependent variable when there is an increase (decrease) in the independent variable by 1 unit;

X 1 to 6 is the independent variable, consisting of:

1. KW is the Classification of area: 1 if Urban and 0 if Rural;
2. JK is Gender: 1 if Male and 0 if Female;
3. Age is the Age category: 1 if Productive Age (15 to 65 years) and 0 if Teenagers and Elderly (<15 years and > 65 years);
4. SK is Marital Status: 1 if married and 0 if other;
5. Pend is Education: 1 if the last high school diploma is up to a Doctoral degree, and 0 otherwise;
6. Kur is: 1 if ever course and 0 otherwise;

III. Result, Analysis, and Discussion

3.1. Descriptif Statistcs

Descriptive statistics provide an overview of the initial exploration process for each variable. The concepts and definitions used in collecting employment data by the Central Bureau of Statistics are *The Labour Force Concept* suggested by the *International Labour Organization (ILO)*. This concept divides the population into the working-age population and the non-working-age population. Furthermore, the working-age population is divided into two groups based on the main activities. The group is the Labour Force and Not the Labour Force.

The workforce is the population aged ten years and above who can be involved in the production process (Subri, 2003). According to the National Labor Force Survey, the definition of the labor force is the working-age population who have found a job in the past week, whether or not they have been in temporary work for some reason, such as waiting for the harvest. These employees are on leave and the like. The labor force also includes those who are unemployed but are looking for or hoping to find work, and those who are employed but have not yet started working are unemployed. Figure 3. shows the balance of the composition of the total male and female workforce in Indonesia in 2020.

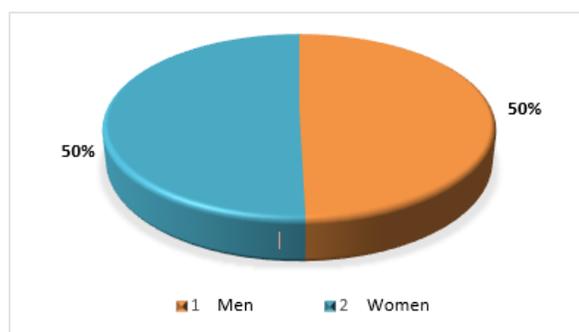


Figure 3. Distribution of the Workforce

Source: Sakernas, August 2020, edited

Temporary unemployment refers to workers who have temporarily stopped working due to the impact of Covid-19, which can be grouped into white-collar workers and blue-collar workers. Descriptively, only 20 percent of white-collar workers are affected by Covid-

19. The Western Indonesia region provides a higher return to work guarantee than the Eastern Indonesia region. Urban areas dominate the Western Indonesia Region, while Eastern Indonesia is dominated by rural areas (Figure 4.).

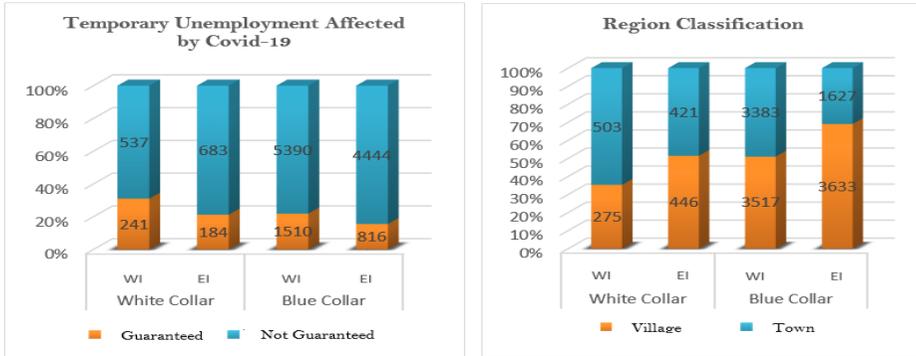


Figure 4. Distribution of Temporary Unemployment Affect by Covid-19 by Region Classification

Source: Sakernas, August 2020, Processed

By gender, white-collar workers affected by Covid-19 were almost evenly divided between men and women in Western Indonesia, but for blue-collar workers, men were more affected than women. Married workers are more vulnerable to Covid-19 than unmarried workers, but it is felt more deeply among workers. Regarding age in the labour market, Covid-19 targets the productive age group of 15 to 65. Teenagers and older white-collar workers outnumber blue-collar workers (Figure 5).

Most white-collar workers have intermediate education (high school, bachelor's, and postgraduate). In contrast, blue-collar workers are dominated by workers who only go to primary education (no school, elementary school, and junior high school). White-collar workers in eastern Indonesia are more affected than in Western Indonesia, but for blue-collar workers, western Indonesia is more affected (Figure 6).



Figure 5. Distribution of Temporary Unemployment Affect by Covid-19 by Gender, Marital Status, and Age

Source: Sakernas, August 2020, processed

Additional skills in the form of experience by taking courses are used as a variable whose effect on unemployment affected by Covid-19 will be tested. Descriptively, more white-collar workers have additional course skills than blue-collar workers. White-collar workers have more skills in this course format in Eastern Indonesia than in Western Indonesia (figure 6).

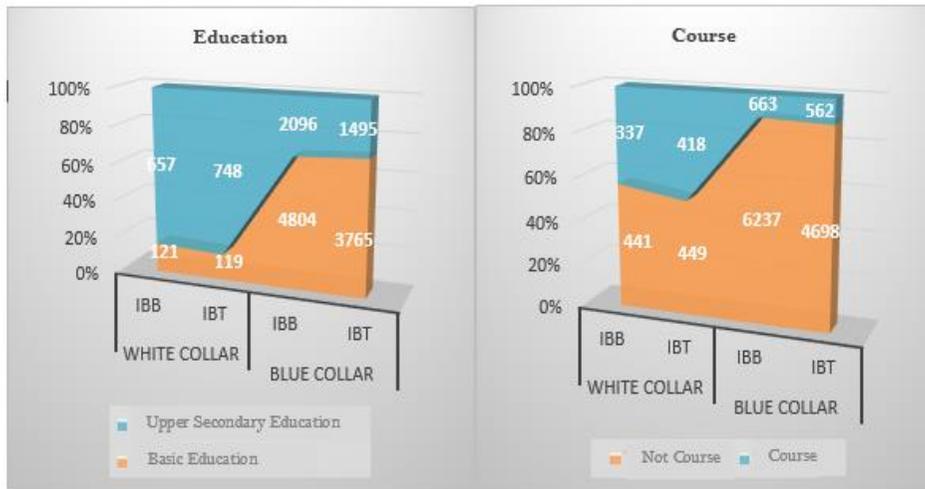


Figure 6. Distribution of Temporary Unemployment Affected by Covid-19 by Education and Courses (Additional Skills)

Source: Sakernas, August 2020, processed

3.2. Covid-19 and Guarantee Called Back to Work

The August 2020 National Labour Force Survey (Sakernas) captures a phenomenon related to guaranteed return to work in the current workplace in questionnaire number r10d. Model 9 in this study analyzes the guarantee of being called back to work for white-collar workers and blue-collar workers in the Western Indonesia and Eastern Indonesia areas. Logistic regression results for white-collar workers can be seen in table 2 and for blue-collar workers in table 3.

The regression table 2 shows that the guarantee of returning to work for temporary unemployed white-collar workers affected by Covid-19 in the Western Indonesia area is significantly influenced by the variables Gender and Marital Status. It can be seen from the p-value of 0.000 and 0.012 < 0.05. However, the most influential variable is gender, with the highest Wald Test (Z Test) value of 5.94. Based on the Odds Ratio value, it can be interpreted that male white-collar workers have almost three times the chance of guaranteeing almost three times more than female white-collar workers to be called back to work in the current work unit. As for Marital Status, white-collar workers who are not married only have 0.6 times the guarantee to be called back to work in the current work unit. Therefore, for married employees, ensuring return to work is more significant.

Table 2. Regression Results for White-collar Workers Affected by Covid-19 with Guaranteed Return to Work

Variable	White Collar Workers							
	Western Indonesia Area				Eastern Indonesia Area			
	Coefficient	z	P> z	Odds Ratio	Coefficient	z	P> z	Odds Ratio
Constanta	-0.8446189	-2.33	0.02	0.4297211	-1.571984	-3.74	0.000	0.2076227
Region Classification	0.112968	0.66	0.51	1.119596	0.6380608	3.6	0.000	1.892807
Village								
City								
Gender	0.9930503	5.94	0.000	2.699456	0.4915615	2.79	0.005	1.634867
Woman								
Man								
Age	-0.0389425	-0.13	0.893	0.961806	0.4279453	1.13	0.257	1.534102
Teenagers & Elderly Children 15 to 65 years								
Married Status	-0.4916098	-2.5	0.012	0.611641	-0.488412	-2.35	0.019	0.6136
Not Married								
Get married								
Education	-0.1247482	-0.55	0.582	0.8827191	-0.204107	-0.8	0.424	0.815375
Primary Education (no school, elementary school, and Junior high school)								
Upper Secondary Education (Senior high school, Bachelor, and Postgraduate)								
Additional Skills	-0.1239534	-0.72	0.469	0.883421	-0.427556	-2.38	0.017	0.6521009
No course								
Course								
Sample	778				867			
R-squared	0.0512				0.04			
Correctly classified	68.77%				78.78%			

Standard errors in parentheses p<0.05

Source: Sakernas Agustus 2020, processed.

As for the Eastern Indonesia area, variable region classification, gender, marital status, and course significantly influence return to work for temporary unemployed white-collar workers, with a p-value <0.05. Among the four variables, the most influential is the Region Classification, with the highest Wald Test (Z Test) score of 3.6. Using the odds ratio

value, it can be interpreted that employees living in urban areas have twice as many chances of returning to their current job than employees living in rural areas. Because rural areas dominate the Eastern Indonesia region, the classification of urban areas is significant, in contrast to the Western Indonesia region, which is predominantly urban, so the classification of urban areas is not significant.

The Gender variable also takes effect after that. Male white-collar workers have nearly two times the guaranteed opportunity compared to female white-collar workers to be called back to work in the current work unit. White-collar workers who are not married have 0.6 times the guarantee to be called back to work in the current work unit. The guarantee of returning to work is more remarkable for married white-collar workers. It is the same as what happened in the Western Indonesia region.

The Human Capital Variable in the form of Education (formal) has no effect on white-collar workers in all Western Indonesia and Eastern Indonesia areas. However, informal education in the form of additional skills, such as courses, significantly affects Eastern Indonesia. White-collar workers who do not have additional skills in the form of courses have 0.6 times the guarantee to be called back to work in the current work unit. It means that the guarantee of returning to work is more significant for white-collar workers with additional skills in the form of courses.

In general, the variable that most influences the guarantee of returning to work for white-collar workers in the Western Indonesia area is Male Gender. Meanwhile, in Eastern Indonesia, the variable that most influences the return to work guarantee is the Classification of Urban Areas (Figure 7).

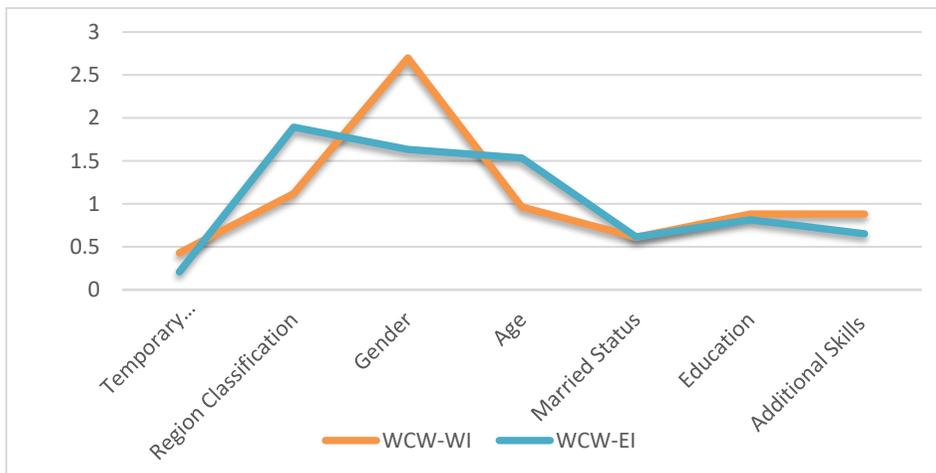


Figure 7. Regression Results of the Odds Ratio of White-collar Workers Affected by Covid-19 with Return to Work Guarantee

Source: Sakernas, August 2020, processed

Table 3. Regression Results of Temporary Unemployment Affected by Covid-19 with Blue-Collar Worker Return Guarantee

Variable	Blue Collar Workers							
	Western Indonesia Area				Eastern Indonesia Area			
	Coefficient t	z	P> z	Odds Ratio	Coefficient	z	P> z	Odds Ratio
Temporary Unemployment Guarantee No guarantees	-2.615264	-24.31	0.000	0.073149	-2.60818	-18.75	0.000	0.0736685
Region Classification Rural Urban	0.8997659	14.1	0.000	2.459027	1.005847	12.42	0.000	2.734223
Gender Woman Man	-0.0647858	-1.05	0.296	0.937268	-0.24713	-2.99	0.003	0.7810372
Age Teenagers & Elderly Children 15 to 65 years old	0.8818181	9.39	0.000	2.415287	0.667161	5.23	0.000	1.948497
Married Status Not Married Marry	-0.1060921	-1.53	0.126	0.899342	-0.17977	-1.94	0.053	0.8354633
Education Primary Education (no school, elementary school, and Junior high school) Pend. Upper Secondary (senior high school, bachelor, and postgraduate)	0.5946294	8.97	0.000	1.812359	0.49632	5.6	0.000	1.642665
Additional Skills No courses Course	0.0456389	0.47	0.64	1.046696	0.457523	3.98	0.000	1.580155
Sample	6900				5260			
R-squared	0.0734				0.0761			
Correctly classified	78.12%				84.56%			

Standard errors in parentheses p<0.05

Source: Sakernas Agustus 2020, processed

Table 3 shows the logistic regression days for blue-collar workers. The Western Indonesia region, guaranteed return to work for temporary unemployed blue-collar workers, which are affected by Covid-19 it is significantly influenced by the region classification, age, and education variables with a p-value <0.005. However, of the three variables, the most

influential is the area classification variable, with the highest Wald Test (Z Test) score of 14.1. It can be interpreted from the Odds Ratio coefficient that blue-collar workers in urban areas have a 2.46 times greater chance of being called back to work in the current work unit than blue-collar workers in rural areas. In terms of age, blue-collar workers of productive age (15 to 65 years) have a 2.41 times greater chance of collateral than blue-collar workers in the age of teenagers and the elderly. Blue-collar workers with secondary education (senior high school to a bachelor) have nearly two times the chance of collateral compared to blue-collar workers who have only completed primary education (highest junior high school).

For Eastern Indonesia areas, guaranteed return to work for blue-collar workers affected by Covid-19 is influenced by all independent variables (region classification, gender, age, marital status, education, and course). It can be seen from the p-value of all variables <0.05. However, the most influential is the area classification variable, with the highest Wald Test (Z Test) value of 12.42. It can be interpreted from the Odds Ratio coefficient that blue-collar workers in urban areas have a 2.73 times greater chance of being called back to work in the current work unit than blue-collar workers in rural areas.

The Gender variable also takes effect after that blue-collar workers' women have a guaranteed opportunity of only 0.7 times that of men's blue-collar workers to be called back to work in the current work unit. It means that the opportunity for security is more remarkable for male workers than for female workers.

In the Eastern Indonesia area, blue-collar workers of productive age (15 to 65 years) have nearly two times the chance of a guaranteed return to work compared to blue-collar workers in the age of teenagers and the elderly. Blue-collar workers who are not married have 0.8 times the guarantee of being called back to work, meaning that the guarantee of returning to work is more fantastic for married blue-collar workers. Blue-collar workers with secondary education (senior high school to Bachelor) have a 1.6 times greater chance of guaranteeing than blue-collar workers who have only completed primary education (highest junior high school).

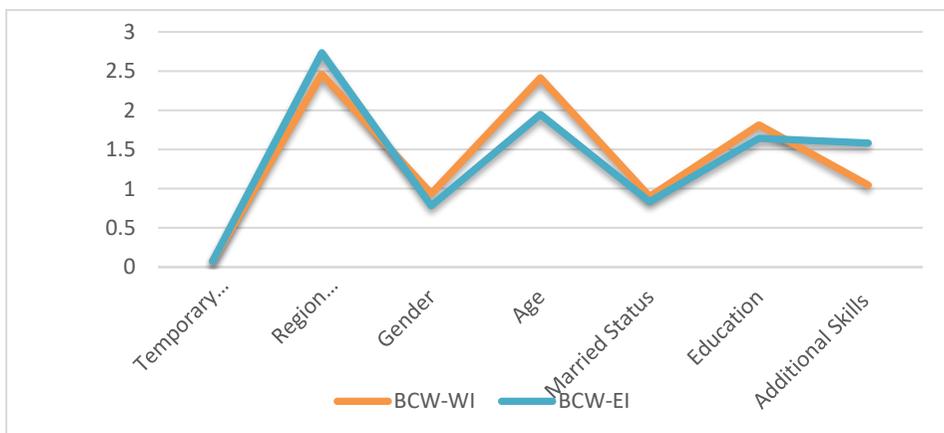


Figure 8. Regression Results of the Odds Ratio of Blue-Collar Workers Affected by Covid-19 with Return to Work Guarantee

Source: Sakernas, August 2020, processed

In general, the variable that has the most influence on guaranteeing a greater return to work for blue-collar workers in the Western Indonesia area is the productive age. Meanwhile, in Eastern Indonesia, the variable that most influences the return to work guarantee is the Classification of Urban Areas (Figure 8).

IV. Conclusion and Recommendation

The results of the 2020 Population Census Indonesian Central Bureau of Statistics recorded the percentage of the productive age population (15–64 years) to the total population in 2020 of 70.72 percent. Meanwhile, the percentage of the non-productive age population (0–14 years and 65 years and over) was recorded at 29.28 percent in 2020. The percentage of the productive age population seems so large. It shows Indonesia is still in the demographic bonus era (Kominfo, 2021).

However, this demographic bonus could not be enjoyed when the Covid-19 pandemic hit. Almost the whole world is feeling the negative impact of this pandemic. It started with the health crisis, which had a domino effect on the economic sector, gradually paralyzing the activities of the business world. The company seeks to reduce losses due to the Covid-19 Pandemic, including by reducing the number of workers by laying off employees and laying off their employees. Many entrepreneurs interpret the Covid-19 outbreak as a natural disaster. This is why *force majeure* lay off workers to reduce losses due to the Covid-19 pandemic (Kusumaweningrat, 2021).

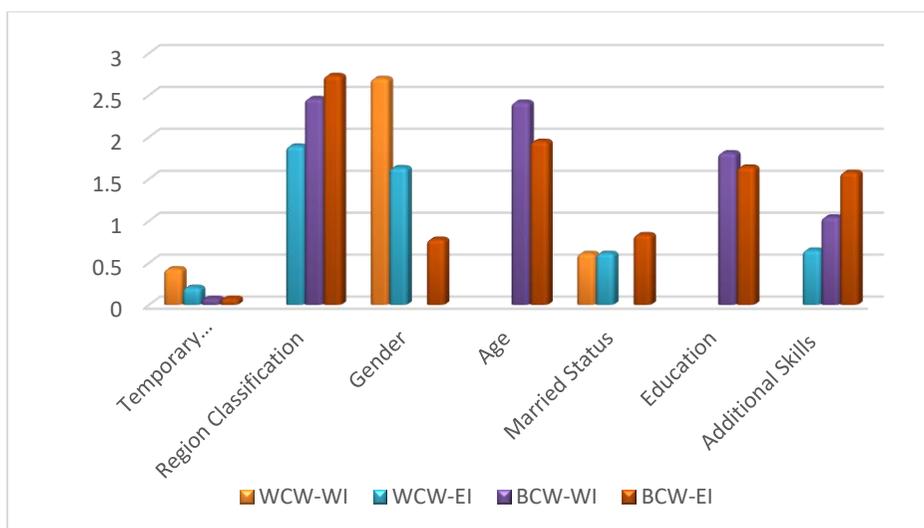


Figure 8. Regression Results of the Odds Ratio of White-Blue Collar Workers Affected by Covid-19

Source: Sakernas, August 2020, processed

The impact of layoffs and temporary layoffs is different in intensity for white-collar workers compared to blue-collar workers. It can be seen that the highest return to work coefficient is for white-collar workers in the Western Indonesia area and the lowest for blue-collar workers in the Eastern Indonesia area. Urban areas guarantee higher chances of being

called back to work for blue-collar workers in Eastern Indonesia. Compared to other categories, male white-collar workers in the Western Indonesia region have significantly guaranteed opportunities to return to work compared to other categories. The age variable is not significant for white-collar workers but is significant for blue-collar workers. The education variable is only significant in guaranteeing a return to work for blue-collar workers in Eastern Indonesia. The additional skill variables in the form of a course will provide a higher guarantee of being called back to work in Eastern Indonesia (Figure 8).

From the conclusions above, we can see that the classification of regions in Indonesia is still uneven, where urban areas dominate the western part of Indonesia. In contrast, the eastern region is still dominated by rural areas. In Presidential Regulation (Perpres) Number 105 of 2021 concerning the National Strategy for Accelerating the Development of Disadvantaged Regions for 2020-2024, the majority of underdeveloped regions are in the Eastern Indonesia Region, namely in the Papua Region with 30 Regencies, the Maluku Region with 8 Regencies, the Nusa Tenggara Region with 14 Regencies, Sulawesi Region with 3 Regencies (Merdeka.com, 2022). Regional inequality arises because there is no equity in economic development. The existence of developed regions with backward or less developed regions. This uneven development is due to differences between regions. One of Indonesia's major inequality problems is the gap between regions due to the concentration of economic activity on the islands of Java and Bali. The development of new provinces since 2001 and decentralization are expected to encourage wider disparities between regions. The disparity in development between provinces in Indonesia is in almost all sectors, especially in the availability of public facilities, education, and health. It is not just inequality. Development has so far neglected Eastern Indonesia (Alisjahbana, 2005; Ginting, 2016).

The Covid-19 pandemic is also not gender-free. The results of this study show that unemployed men affected by Covid have a higher chance of being called back to work compared to unemployed women. However, this also needs further investigation, whether this gender disparity is a form of labour market discrimination or a choice in households in Indonesia that adhere to a patrilineal culture. In Indonesia, the influence of culture is so strong that women, after marriage, generally sacrifice their income to give them more time to take care of their children. The formation of human resources becomes more critical for educated and prosperous families. It can confirm the inverted U-shaped pattern of female labour force participation in Indonesia. In addition, women with low education tend not to join the workforce due to limited employment opportunities (Bano & Mertajaya, 2022).

From the results of the research on labour force participation rates by sex in Merauke Regency 2017 to 2018, it can be concluded that men dominate the labour force rate for gender. Viewed from the labour force participation rate for the 2017 period for men, it was 81.69 percent, while that for women at 43.92 percent. In 2018, the labour force participation rate for men was 82.53 percent, and for women, it was 55.48 percent. Even if we look at the current situation, where women's emancipation and gender equality are still manifesting, in principle, this shows that men work and raise a family as the basis of a family. Since it is their job and their responsibility, most of them are classified as voluntarily unemployed, and the breadwinner (husband) supports them (Tawakal & Nahumury, 2020).

However, looking at the regression results on human capital variables such as education and additional skills in the form of courses, Eastern Indonesia is quite capable of

keeping up with the capacity of human capital in western Indonesia. Especially for the White-Collar Worker category, the Eastern Indonesia area is quite capable of compensating for the western Indonesia area, which is considered the center of development. It refutes the stigma that the eastern part of Indonesia is more backward than the western part of Indonesia. We need further research on this matter. Is it true that there has been an even distribution of Human Capital Development in Eastern Indonesia? Who are the white-collar workers in Eastern Indonesia?

The Covid-19 pandemic can be seen as a tool to test the capacity of Indonesia's Human Capital. This research shows that (formal) education is not enough to survive in the labour market. Additional skills are needed such as courses to build human capital and survive in the labour market affected by the crisis. Besides that, improving the quality of health is a major supporting factor for the workforce. The number of victims who died from Covid-19 continues to grow every day. The data also shows that more men than women have died from Covid-19. In Indonesia, for example, data from the Covid-19 Task Force recorded that up to July 14, 2021, the number of Covid-19 patients from the male group who died reached 54.6 percent. Meanwhile, female patients who died from Covid-19 were 45.4 percent. This condition follows the results of recent studies. Recent studies have found that men are more likely to suffer from severe symptoms of Covid-19 and are more at risk of dying. (Goddess, 2021).

This is in line with what Todaro (2000) stated that *Human Capital* could be measured through education and health. Education and training can add value to a human being. This can be explained if the higher a person's education or more they attend training, the higher their abilities. Meanwhile, health is a field that is interrelated with education. Having higher education without a healthy body will not increase productivity. Meanwhile, higher education can also affect a person's level of health awareness.

So based on the results of this study, the following policy recommendations are given;

1. Through targeted and efficient social programs, the government guarantees a decent life for the temporarily unemployed affected by Covid-19.
2. The government guarantees the rights of workers who are forced to temporarily stop due to Covid-19 as written in the Labour Protection Act. Especially in terms of severance pay and guaranteed re-employment.
3. Seeing that blue-collar workers are dominated by workers in the agriculture, trade, and service sectors, to overcome the impact of the Covid-19 pandemic on the economic aspect and save the majority of Indonesia's population, the government needs to strengthen the agricultural sector and agriculture-based industries to strengthen food security. In addition, it is necessary to provide assistance and facilitation to micro businesses and home industries as the most affected groups. These efforts are then expected to start creating new jobs to reduce unemployment, especially for the unemployed without a guarantee of returning to work, which accounts for not less than 80 percent of the total number of unemployed in Indonesia.
4. The government is encouraging the economic growth of lagging provinces to create equitable development in the western and eastern parts of Indonesia.
5. The government must use the budget wisely by focusing more on capital expenditure budget items that support both infrastructure and human capital accumulation.

6. Improvements in infrastructure conditions, both hard and soft, need to be continuously pursued by considering geographical aspects and regional needs.

References

- Aeni, N. (2021). The COVID-19 Pandemic: Health, Economic & Social Impacts. *Journal of R & D: Media Information Research, Development and Science and Technology*, 17 (1), 17–34.
- Aldan, A., Çıraklı, ME, & Torun, H. (2021). Covid 19 and the Turkish labour market: Heterogeneous effects across demographic groups. *Central Bank Review*, 21 (4), 155–163.
- Alisjahbana, US (2005). Regional disparities in Indonesia. *The SMERU Research Institute. Accessed Date*, 13.
- Bano, RP, & Mertajaya, JT (2022). Inverted U-Shaped: Women's Labour Force Participation Rate and Economic Development in Indonesia. *Musamus Journal of Economics Development*, 4 (2), Article 2. <https://doi.org/10.35724/feb.v4i2.4594>
- Bourne, PA, Ashley, S., Douglas, S., Smith, A., Gayle, A.-K., Fallah, J., Campbell, C., Foster, C., McLean, C., & Parkes, DR (2022). *Gender Disparity in Happiness among Jamaicans during the COVID-19 Pandemic*.
- Chaplyuk, VZ, Alam, RMK, Abueva, MM-S., Hossain, M., & Humssi, ASA (2019). COVID-19 and its impacts on global economic spheres. *Institute of Scientific Communications Conference*, 824–833.
- Coibion, O., Gorodnichenko, Y., & Weber, M. (2020). *Labour markets during the COVID-19 crisis: A preliminary view*. National Bureau of economic research.
- Dewi, BK (2021). *The number of deaths of men due to Covid-19 is greater than women, here's the reason*. <https://newssetup.kontan.co.id/news/kumtitan-kaum-pria-karena-covid-19-lebih-besar-dari-wanita-ini-reason?page=all>
- Ginting, AM (2016). The influence of development inequality between regions on poverty in Indonesia 2004-2013. *The Review*, 20 (1), 45–58.
- Gujarati, Damodar. (1995). *Basic Econometrics*. Translation: Sumarno Zain, Jakarta:Elangga.
- Hapsary, MSA, Subiyanto, S., & Firdaus, HS (2021). Prediction Analysis of Land Use Change Using Artificial Neural Network Approach and Logistic Regression in Balikpapan City. *Undip Journal of Geodesy*, 10 (2), 88–97.
- Kominfo, P. (2021). *Abundant Productive Workforce*. Official Website of the Ministry of Communication and Information of the Republic of Indonesia. <http://content/detail/33004/angkat-kerja-hasil-melimpah/0/artikel>
- Kuncoro, Mudrajad (2004) . *Research Methods for Business and Economics*, Jakarta, Erlangga.
- Kusumaweningrat, USA (2021). Legal Protection for Workers Affected by Layoffs as a result of the Covid-19 Pandemic. *Journal of Legal Research*, 80–85.

- Merdeka.com. (2022). *List of Underdeveloped Regions in Indonesia in the 2022-2024 PPDT National Strategy* . <https://id.news.yahoo.com/register-area-tertinggal-di-101426073.html>
- Singh, V., Shirazi, H., & Turetken, J. (2022). COVID-19 and gender disparities: Labour market outcomes. *Research in Economics*, 76(3), 206–217.
- Stilt. (2021, March 2). *This is the difference between white-collar and blue-collar workers [2022]*. Stilt Blog. <https://www.stilt.com/blog/2021/03/white-collar-vs-blue-collar/>
- Tawakal, M. A., & Nahumury, M. A. (2020). Tingkat Partisipasi Angkatan Kerja Menurut Jenis Kelamin. *Musamus Journal of Economics Development*, 2(2), 44–49.
- Todaro, M. P., & Smith, S. C. (2020). *Economic development*. Pearson UK.
- Whitehead, M., Taylor-Robinson, D., & Barr, B. (2021). Poverty, health, and covid-19. In *Bmj* (Vol. 372). British Medical Journal Publishing Group.