Determining The Decrease in Wages of Workers During The Covid-19 Pandemic in West Tanjung Jabung Regency

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Abstract. The 2019 Coronavirus Disease pandemic (COVID-19) has spread and spread all over the world. The spread of the COVID-19 pandemic to various countries has such a terrible impact on the aspects of human life. Some aspect of the human life has changed instantly with the emergence of the outbreak. In addition to having a direct impact on human health aspects, the COVID-19 epidemic has also had a huge impact on world economic order for both developed and developing countries. There has been a lot of research into the impact of COVID-19 on employment, but large-scale research using probability sampling techniques is still rare. The study examines the impact of COVID-19 on wage fluctuations in West Tanjung Jabung Regency. The data used in this study came from the results of the National Labour Force Survey (Sakernas) August 2021 conducted by the BPS West Tanjung Jabung Regency with the number of samples respectively of 56 Census Blocks or about 1.052 households scattered in 13 districts in West Tanjung Jabung Regency. The method used in this research is to use binary logistic regression analysis. The results confirmed that about 15.27 percent of workers earned less than before the COVID-19 pandemic. Logistical regression results suggested that Age, Gender Type, Education, Business Field, Working Hours, and COVID-19 Impact Status had significant values below 5 percent. This means that the six variables have an influence in determining the risk of workers experiencing a wage decline in the district of Tanjung Jabung West.

Keywords: Wages, Worker, COVID-19, West Tanjung Jabung Regency.

1 Introduction

The 2019 Coronavirus Disease pandemic (COVID-19) has spread and spread all over the world. The spread of the COVID-19 pandemic to various countries has such a terrible impact on aspects of human life. In addition to having a direct impact on human health aspects, the COVID-19 pandemic also has a major impact on the global economic order in both developed and developing countries. The social, educational and security aspects of some parts of the world have been shaken by the impact of the COVID-19 pandemic.

Qian & Fan research reveals the first quarter of 2020 China's GDP, which became the first region of the COVID-19 outbreak, was a 6.8 percent decline [1]. The impact of the COVID-19 pandemic on the Indonesian economic order has also been recorded as deteriorating and experiencing a contraction that can be seen on some macro indicators in Indonesia. Based on data released by the Central Statistical Authority (BPS), the Indonesian GDP in the second quarter of 2020 recorded a decrease of 5.32 per cent compared to the same quarter in 2019 [2]. Fauzia's research states that Indonesia's recorded economic growth also experienced a contraction in the third quarter of 2020 of 3.49 per cent compared to the quarter III of 2019 which resulted in Indonesia being declared facing an economic recession [3].

BPS also reports cumulatively, Indonesian GDP has contracted by 2.07 percent by 2020 [4]. Other macro indicators that are also deteriorating can be seen in the picture of Indonesia's employment conditions. One of the indicators of employment is the Open Unemployment Rate (OPR) [5]. Furthermore, the average wage of Indonesian labour in August 2020 decreased by 5.20 per cent compared to the August 2019 period [6]. For the average monthly wage (Rupees) of Indonesia's workers/workers in 17 field sectors, that is, 2.756.345 for August 2020, and 2.736.463 for August 2021.

Without exception, the district of Tanjung Jabung West located on the eastern coast of the province of Jambi also experienced the impact caused by COVID-19 which resulted in the deterioration of the economic order in this district. Based on the data of BPS Province of Jambi (2021) in the publication Economic Survey of District/City of Se Province Jambi explains, that there is a contraction of economic growth of District of Tanjung Jabung West in the period of 2020-2021 [7]. The district of Tanjung Jabung West became one of the districts that gave the largest share in the creation of Regional Gross Domestic Product (RGDP) province of Jambi. See by category, which gave the greatest contribution was created by the category of mining and excavation in particular the subcategory of migas mining that became the preeminent district.

Before the COVID-19 pandemic, namely, in the period 2018-2019 recorded district of Tanjung Jabung West has a RGDP contribution to the RGDP of Jambi Province that occupies the top position of 11 cab/cities that exist in Jambi Province. Based on data BPS Province of Jambi (2021) mentioned, that after the COVID-19 pandemic hit the region of this district, i.e., the period 2020-2021 the economic growth rate of Tanjung Jabung West district is just below the level of Province Jambi that is, - 0.60 percent in 2020, and 1.36 percent in 2021 [7].

Furthermore, the employment situation of Tanjung Jabung West district based on data from the results of the National Labour Force Survey (Sakernas) August 2021 BPS of the district noted, the Open Unemployment Rate (OPR) in the period August 2020 - 2021 experienced an increase of 0.37 percent points, i.e., from 2.16 percent points in August 2020 to 2.53 percent point in August 2021. Increasing the Open Unemployment Rate (OPR) in a region will have an impact on the poverty rate [8]. The key indicator of success in economic development is the reduction in poverty. One of the most difficult and complicated fundamental social problems to date to be the concern of the government is related to poverty. The following is shown in table 1 related to Indicators of Employment in Tanjung Jabung West District in 2019-2021.

Table 1. Indicators of employment in Tanjung Jabung West District 2019-2021

Labor Indicators	Employment Indicators for West Tanjung Jabung Regency		
	2019	2020	2021
Work (person)	165 862,00	179 842,00	179 622,00
Unemployment (person)	4 373,00	3 978,00	4 666,00
Labour Force (person)	170 235,00	183 820,00	184 288,00
Not the Labour Force (person)	71 518,00	61 823,00	65 117,00
Open Unemployment Rate (percentage)	2,57	2,16	2,53
Labour Force Participation Level (percentage)	70,42	74,83	73,89

Source: Sakernas, August 2021

This pandemic of COVID-19 against economic order that has affected almost all of Indonesia's territories without exception in the territory of Tanjung Jabung West has influenced the performance, productivity, corporate finances, the obligation of entrepreneurs to meet the needs of operational costs such as wages of workers that have become their normative rights to be paid. Some companies in financial difficulties encourage entrepreneurs to take action by implementing a termination policy (PHK) against their employees even though the policy taken by the entrepreneur is very detrimental to the workers. That the policies issued by employers such as unpaid leave (washing workers, but not paid), housing workers, and doing PHK. PHK is one of the impacts that people feel as a result of the COVID-19 pandemic, some companies take the policy of PHK to employees on the grounds of losses (force majeure) [9]. The COVID-19 pandemic has caused the company to act unilaterally and to cut workers' wages [9].

Further, a review of COVID-19 affected status based on data from the results of the National Labour Force Survey (Sakernas) August 2021 conducted by the Central Statistical Agency (BPS) of Jambi Province noted, that the total Working Age Population (PUK) affected by COVID-19 in Jambi province was 177.93 thousand people [10]. As long as the workers are affected by COVID-19 status they will not be able to work because they will have to undergo self-isolation until they are declared recovered by the health force. This condition will affect the fulfilment of the living needs of the working family. On the other hand, since the COVID-19 pandemic struck the West Jabung Tanjung district, the prices of commodities have risen drastically compared to the pre-Covid 19 pandemics. Workers affected by COVID-19 will have trouble filling their household finances.

In addition to recorded RGDP contraction and increased OPR in Tanjung Jabung West district, it turns out there is also recorded a decrease in wages of workers in this district. For the average wage in Jambi Province recorded 16.043 per hour and this average is lower compared to the average Indonesian wage of 18.089 per hour in 2021 [10]. If the average wage of Jambi Province is compared with the other 10 provinces on the island of Sumatra, then the average salary of the province is in the fourth lowest position in 2021. Almost every country in the world is restricting public activity as

one of the possible efforts to slow down and suppress the number of COVID-19 cases in their respective countries. Similarly, the efforts made by the Indonesian government in suppressing and slowing down the spread of COVID-19 in implementing the imposition of restrictions on social activity through the PSBB policy that has been officialized by the President of the Republic of Indonesia Joko Widodo on March 31, 2020 [11]. Over time, the PSBB policy has changed terms: PPKM both micro level, PPKM emergency up to with PPKM Level 4 [12].

With the limitation of human activity also interaction with others, greatly influences the aspects of meeting the needs of daily life of society and this is closely related to economic problems. The imposition of restrictions on public activities during the COVID-19 pandemic has affected a number of segments of the population, including significant economic vulnerabilities [13].

This study discusses the economic impact caused by COVID-19 in Tanjung West Jabung district at the individual level. For that, the results of this study will describe information related to the characteristics of workers who have experienced a decrease in salary/income. The information from the results of this study is expected to help in providing information to the most vulnerable workers from an economic point of view for intervention and to gain special attention from the government, especially the government of Tanjung Jabung West district to the workers in the district area both during the time of the COVID-19 pandemic and during the recovery post-COVID-19. With intervention and special attention given by local governments, workers suffering from wage/income decline will be helped to overcome the economic vulnerabilities they face.

Based on the background, the issues related to the decline in wages/income of workers in the territory of Tanjung Jabung West during the COVID-19 pandemic to the post-COVID-19 pandemics are important issues to be studied. Therefore, the basic formula of the problem in this study is: How are the characteristics of workers in the district of Tanjung West Jabung who experienced a decrease in wages during the period of the COVID-19 pandemic? Besides, the second problem formula is how the age, gender, education, field of enterprise, working hours, employment status, area of residence, and COVID-19 affected status influence the risk of wage decline in workers in the West Jabung District during the COVID-19 pandemic?

From the formula of the problems mentioned above, the purpose of this study is to analyze the characteristics of workers in Tanjung West Jabung district who have experienced a decline in wages during the COVID-19 pandemic. Furthermore, the study also aims to look at the influence of age, gender, education, field of work, working hours, employment status, area of residence, and the status of the impact of COVID-19 on the risk of the decline of wages in workers in the West Tanjung Jabung District during the COVID-19.

2   Literature Review and Development of Hypotheses

In the terms of the Employment Act (known as the UUK) listed in Article 1 No. 3 of the Law No. 13 of 2003, it is stated that a worker or worker is any person who works by obtaining or receiving wages or remuneration in any other form. The worker is a member of the labor force, every man who works in the labor service, and under the commandment of the man who gives the work, or of the employer [14].

BPS (2021a) defines work as the activity of doing work with the intention of obtaining or helping to obtain income or profit for at least one hour (uninterrupted) in the previous week [15]. Furthermore, defines employment status as the type of position of a person in employment, consisting of self-employed, seeking to be assisted by non-permanent workers/family workers/unpaid, seek to be helped by fixed workers/paid workers, labourers/employees/officials, freelancers in the farm, freely-workers in non-farms, and family workers/unsalary. The units of analysis in this study are limited, i.e. only to workers who receive wages with the labour force that has the status of labour or employee, farm freelancers, and non-farm freelance workers [15].

A worker who is a worker or employee, wages or salaries are salaries or substantive salaries and benefits which are in exchange for or in return for services received by the worker in the status of labour or the employee during the last month of the main job, whether they are money and goods paid by the company/office/employee in which the workaround is employed [15]. Furthermore, a free worker by earning a salary or remuneration or net income within a month is defined as the income/subsidy/reimbursement of services during the last month whether it is money or goods received by a worker who works with the status of a freelance worker in a farm and a freelancer in a non-farm [15].

The Independent Academic Research Team (2006) stated that, in Act No. 13 of 2003, the meaning of wages is contained in Article 1 No. 30, which is "Wages are the rights of workers or workers received and expressed in the form of money as a remuneration from the employer or employer to the worker or worker established and paid in accordance with a labour agreement, agreement or rule of law, including benefits for workers or labourers and their families for a job and/or service that has been or is to be performed" [16]. Other wage-related interpretation by the BPS defines wage is the net wage received by the worker/employee/officer, whether in money or goods during the last month. As for the benefit paid to the employee is all workers' receipts or employees in connection with the work he does such as performance benefits, post benefits, discharge benefits or living costs benefits paid in the form of money and goods.

This research project has been supported by previous studies, which have shown that the impact of the COVID-19 epidemic has been so great that it has been recorded that the worsening wages paid to workers since the COVID-19 pandemic. As a survey conducted in China in 2020 revealed, half (48 per cent) of registered workers lost part of the salary they received from their jobs, which is slightly lower than before the COVID-19 pandemic hit their country [1]. Furthermore, research by Qian and Fan revealed that the risk of loss of wages or income of workers as a result of the impact caused by the outbreak of COVID-19 may vary between individuals where this is

affected by various factors including higher educational levels, greater income earned by workers' families, and seen from the field of employment in the government sector or formal workers can protect workers from the risks of losing part or even the entire income of employees. Furthermore, if you look at the factor area of residence of the workers, it is recorded that workers living in urban areas are at greater risk of losing half the lower income than those living in rural areas [1].

A similar study conducted in Japan revealed that workers' wages experienced a recorded 1 to 2 percent decrease in the second quarter of 2020 compared to the same period of the previous year [17]. The impact of this COVID-19 shock is much stronger on workers who had lower incomes prior to the COVID-19 pandemic, as well as those who suffered from workers who did not remain much harder hit than those who were permanent workers, workers who were associated with social work and were not flexible compared to those who worked regularly and flexibly [17].

The results of the Antipova study (2021) in the United States revealed that in addition to the rise in unemployment during the COVID-19 pandemic, it also affects the loss of income even in the livelihoods of workers that have a further effect leading to the wages they receive down and this condition will put many people forced into the poverty line [18]. Hoynes et al., (2012) stated that in the recession that hit countries around the world, low-wage workers will typically experience an increase in unemployment and a greater reduction in working hours and income than any other group [19].

Studies in Tunisia explained that individual socio-economic factors affecting the loss of wages/income of workers with the predictor variable used is education, employment sector, and income level significantly influencing the risk of loss or decrease in Tunisian workers' wages / income. Workers with undergraduate education or higher education, formal workers showed more chances ofining their source of income than workers with low education [20]. The estimates for all levels of employee income show significant positive except for two categories of income levels namely, "5000-9999" and ">30000" show negative [20].

The results of research in Indonesia itself conducted in 2020 reveal that there has been a termination of employment (PHK) by part of the company, a decrease in wages/income of workers/workers/employees/officials, and enforcement of UNFPA rules in Indonesia during the COVID-19 pandemic [21]. At the end of April 2020, it was recorded that 15.6 percent of workers in Indonesia suffered from PHK and 13.8 percent of employees who were victims of PHK were registered without a resignation and 1.8 percent with resignations [21]. The province of Bali is the one with the highest number of PHK incidents, then in the region of Nusa Tenggara recorded as 39.9 percent and Banten as 24.8 percent. In addition to the PHK problem registered as 16.7 percent of the workers/workers that are in Bali, Nusa tenggara experienced a decrease in wages/income above 50 percent [21]. The three main sectors that are driving the economy in Bali are tourism, processing, and agriculture. For tourism sectors found in Bali include travel agency activities, transportation, hospitality, restaurants and dining houses, local art and culture, industry and folk crafts, as well as places of entertainment and recreation. Since the COVID-19 pandemic the performance of the tourism sector has caused the activity of this sector to paralyze for a moment so that the com-

pany does quite a lot of PHK to the workers/workers. Worse, the case of the PHK workers in Bali without a resignation recorded the highest in Indonesia that is up to 35.3 percent [21].

Taking into account previous research that has been done before, the hypothesis that can be constructed in this study is as follows.

1. Workers ≥ 60 years of age are expected to be more at risk of falling wages/income than those aged 15-59.
2. Workers of the male sex are thought to be more at risk of falling wages/income than women
3. Low-educated workers (<=High School) are expected to be more at risk of falling wages/income than those with higher education.
4. Workers in the non-agricultural sector are expected to be more at risk of falling wages/income than in the agricultural sector.
5. Full-time workers are expected to be more at risk of falling wages/income than non-full-time employees.
6. Informal workers are assumed to be more at risk of falling wages/income than formal workers.
7. Workers living in the countryside are expected to be more at risk of falling wages/income than workers living in cities.
8. Workers affected by COVID-19 are expected to be more at risk of falling wages/income than workers who are not affected.

3   Research Methods

The data used in this study are secondary data obtained from raw data from Sakernas August 2021 organized by BPS with the SAK21.AK questionnaire. Sakernas is a household survey specifically designed to gather employment data, with the aim of obtaining estimates of data on the number of employed people, unemployment, other employment indicators, as well as their representative development at the national, provincial, and district/city level. The population in this study is the entire working age worker (15 years and over) in Tanjung Jabung West district. This study uses data Sakernas August 2021 with the number of samples respectively as 56 Blocks of Census (BS) or about 1.052 households spread out in 13 districts in the district of Tanjung jabung West. nformation about the COVID-19 pandemic, Sakernas' August 2021 data gathers data related to changes in wages or income earned by workers during the period of the COVID-19 epidemic as compared to the conditions of February 2020 before the epidemics. Furthermore, the unit of analysis in this study is to select workers with labour or employee status, freelancers in both agriculture and non-agriculture who have been working since February 2020 or earlier.

The focus of this study is more on the negative impact of the outbreak of COVID-19 since its onset, so the variables linked to this study are grouped into two categories, namely workers who suffer from lower wages and workers who do not experience reduced wages. (as a reference category). For the free variables used in the study include age, gender, education, field of business, working hours, employment status,

area of residence, and COVID-19 status. Operational definition of both bound varia-
bles and free variables with reference to the concepts and definitions used in Sakernas
2021.

In this study, the analytical techniques used are descriptive statistical analysis and
inference. Descriptive stats describe or summarize data, while inference statistics use
methods to conclude populations from samples [22]. Descriptive analysis is used to
describe the characteristics of workers who experienced a decrease in salary/income
during the COVID-19 pandemic in the West Jabung District, based on free variables
such as age, gender, education, field of business, working hours, employment status,
residence area, and status affected by COVID-19. The data is presented in the form of
a contingency table to observe the percentage and frequency of workers experiencing
a decrease in wages/income during the COVID-19 pandemic in each category of free
variables and is shown in graphical form.

Besides, inferential analysis is also used in this study, i.e. there are two. First, cor-
relation analysis is a statistical evaluation method that studies the strength of the rela-
tionship between two numerically measured continuous variables, aimed at testing the
rotation of the relation between workers who experienced a decrease in wages/income
during the COVID-19 pandemic with the predictor variable through the Cramér coef-
ficient (Cramér's V). Secondly, it tested predictor variables that allegedly affected
workers who experienced a decrease in wages/income during the COVID-19 pandem-
ic in the West Jabung district and measured the tendency of those variables using
binary logistic regression analysis.

Binary logistic regression analysis has the same purpose as other regression models
in statistics, namely to obtain the most appropriate model (fit) and can be interpreted
in describing the relationship between dependent variables (responsive or bound) with
a series of independent variables. (predictor or free) [23]. The difference between the
binary logistic regression model and the other linear regression models lies in the
responsive or bound variable that consists of two ketegories (Dicotomy) [23]. The
categorical data analysis with this binary Logistic Regression model uses a dummy
variable, with a value of one-zero on a response variable or a bound one [24]. Fur-
thermore, Madris (2021) adds that the given value is one (1) based on the category to
be studied, whereas for the comparator the value is zero. (0) [24].

Several stages of the analysis carried out in this study began with the preprocessing
of data which included the verification and imputation of missing value, the categori-
zation of variables and the creation of new derivative variables, then performed de-
scriptive analysis and then conducted inferential analysis and the last stage was to
select the best model.

With the purpose of research to analyze the determinants of the fall in wages in
workers during the period of the COVID-19 pandemic, the binary logistic regression
model was formed as follows.

$$ln\left[\frac{\pi_{(x)}}{1-\pi_{(x)}}\right] = \beta_0 + \beta_1 Age + \beta_2 Gender\ Type + \beta_3 Education +$$
$$\beta_4 Business\ Field + \beta_5 Working\ Hours + \beta_6 Job\ Status +$$
$$\beta_7 Area\ of\ Residence + \beta_8 Covid - 19\ Affected\ Status - 19 + e$$

$$(1)$$

description:

$p = \pi(x)$: probability of an employee experiencing a decrease in salary/income

$\beta_{1,} \beta_{2,...,} \beta_8$: regression coefficient

e : error term

4   Results and Discussion

4.1   Results of Descriptive Analysis and Explanation Descriptive Analysis

In this sub-chapter will describe the results of descriptive analysis and explanation of the first purpose of the research, namely the characteristics of workers who experienced a decrease in wages/income during the COVID-19 pandemic in the district of Tanjung West Jabung. Descriptive analysis is used to describe detailed employee percentage information based on some employee characteristics and contains information on wage/income change status using contingency tables and graphs. In general, the characteristics of the workers of Tanjung Jabung West district can be seen in table 2 below.

Table 2. Percentage of Working People in Tanjung Jabung West District According to Social Economic Characteristics in 2021

Variable	Category	Percentage
Age	>= 60 Years	10.91
	15-59 Years	89.09
Gender Type	Male	61.95
	Female	38.05
Education	<=High School	92.87
	Diploma Up	7.13
Business Field	Non-Farm	38.74
	Farm	61.26
Working Hours	Fully employed	54.67
	Employees are Not Full	45.33
Job Status	Informal	74.29
	Formal	25.71
Area of Residence	Rural	64.72
	Urban	35.28
COVID-19 Affected Status	Affected by COVID-19	4.07
	Not Affected by COVID-19	95.93
Total		100.00

Source: Sakernas, 2021 (processing results)

As shown in table 2 above, it can be explained that the majority of the working population in Tanjung Jabung West district in 2021 has a characteristic age under 60 years, that is 89,09 percent, male sex 61,95, high school education down 92,87 per-

cent, working in the field of agricultural enterprises 61,26 percent with full-hour work is 54,67 percent, employment status as informal worker is 74,29 percent, residing in the countryside is 64,72 percent, and workers with non-affected status COVID-19 is 95,93 percent.

Furthermore, the characteristics of workers in Tanjung Jabung West district according to COVID-19 status and socio-economic characteristics in 2021 can be described in table 3 below.

Table 3. Percentage of Workers in Tanjung Jabung West District According to COVID-19 Status and Social and Economic Characteristics in 2021

Variable	Category	COVID-19 Affected Status		
		Affected	Not Affected	Total
Age	>= 60 Years	0.17	10.74	10.91
	15-59 Years	3.90	85.19	89.09
Gender Type	Male	2.49	59.46	61.95
	Female	1.57	36.47	38.05
Education	<=High School	3.04	89.83	92.87
	Diploma Up	1.02	6.11	7.13
Business Field	Non-Farm	2.59	36.16	38.74
	Farm	1.48	59.78	61.26
Working Hours	Fully employed	1.80	52.87	54.67
	Employees are Not Full	2.27	43.06	45.33
Job Status	Informal	2.12	72.18	74.29
	Formal	1.95	23.76	25.71
Area of Residence	Rural	2.05	62.66	64.72
	Urban	2.01	33.27	35.28
Total		**4.07**	**95.93**	**100.00**

Source: Sakernas, 2021 (processing results)

The majority of workers in Tanjung West Jabung District in 2021 affected by COVID-19 are those under the age of 60, male, low-educated or high school down, working in non-farm fields, unemployed workers with an informal employment status and workers living in rural areas. If you look more deeply, from table 3 above gender does not have significant enough differences between categories, it can be explained that workers affected by COVID-19 between men and women are linked only less than one percent, that is 0.92 percent. This means that gender does not have much influence on workers for the impact of COVID-19. Otherwise, when viewed from the characteristics of age and education, it can be explained that the difference in the two categories ranges from 2 to 4 percentage points, indicating that there is such a great influence upon workers as a result of Covid-19.

Further, it will be discussed the characteristics of workers in Tanjung Jabung West district according to the fall in wages and socio-economic characteristics in 2021 which can be seen in table 4 below.
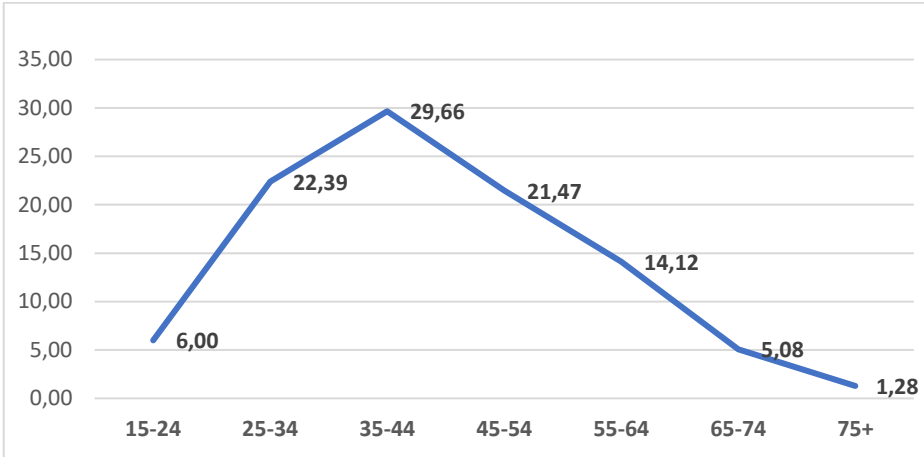
Table 4. Percentage of Workers in Tanjung Jabung West District According to Falling Wages and Social Economic Characteristics in 2021

Variable	Category	Falling Wages.	
		Suffering	Not Suffered
Age	>= 60 Years	2.04	8.87
	15-59 Years	13.24	75.85
Gender Type	Male	11.96	50.00
	Female	3.32	34.73
Education	<=High School	14.74	78.12
	Diploma Up	0.53	6.60
Business Field	Non-Farm	7.46	31.28
	Farm	7.81	53.45
Working Hours	Fully employed	9.99	44.68
	Employees are Not Full	5.28	40.05
Job Status	Informal	10.68	63.61
	Formal	4.59	21.12
Area of Residence	Rural	9.74	54.98
	Urban	5.53	29.75
COVID-19 Affected Status	Affected by COVID-19	1.60	2.47
	Not Affected by COVID-19	13.68	82.26
Total		**15.27**	**84.73**

Source: Sakernas, 2021 (processing results)

It is generally described, that workers in the district of Tanjung Jabung West who have experienced a decrease in wages/income by 15.27 percent and the rest, as much as 84.73 percent of workers earn a fixed wage /income/increased when compared to the time conditions before the COVID-19 pandemic is February 2020.

The percentage of workers in Tanjung Jabung West district in 2021 who suffered a decrease in wages were those under the age of 60, or 13.24 percent. It can be explained, that the workers in the district of Tanjung Jabung west are the most predominantly working are those who have a productive age. Workers aged 60 and over work less or may be said that a smaller percentage of them experienced a decrease in wages/income during the COVID-19 pandemic. More clearly, the percentage of workers in Tanjung Jabung West district who experience a decrease in salary/income by age group can be observed in Figure 1 below.
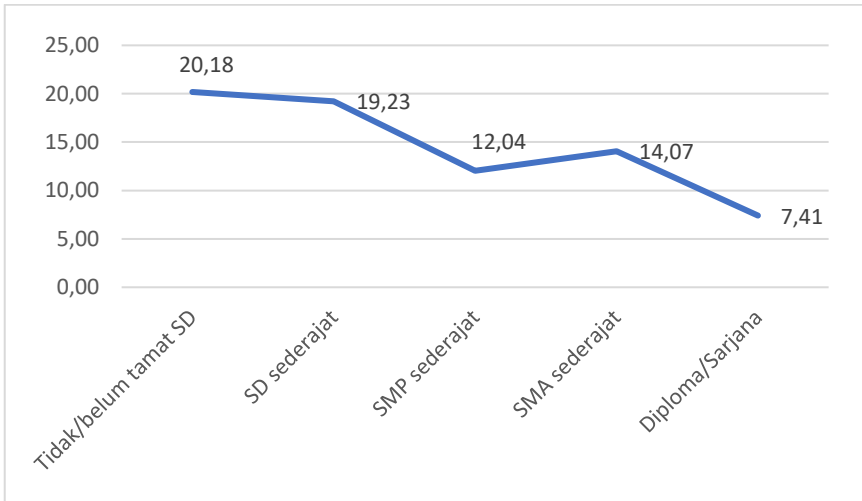
Fig. 1. Percentage of Workers Experiencing Wage Decrease According to Age Group in Tanjung Jabung West District in 2021

Furthermore, from table 4 above it can be explained, that male workers who are also more predominantly working in the companies that exist in the district of Tanjung Jabung West were found to suffer a decrease in wages of 11.96 percent. Less female workers working in companies in this district have a smaller percentage of reduced wages/income during the pandemic. It could mean that women in Tanjung Jabung West have more time to take care of their households.

Furthermore, the percentage of workers in the district of Tanjung Jabung West who also experienced a wage decline if seen from the higher education of workers, that workers with a high school education below there are 14.74 percent who experienced a decrease in wages/income. It can be explained that, in general, a worker who has a higher level of education, the smaller the percentage of those worker experience a decrease in wages/income during the COVID-19 pandemic, whereas those with low education or under-secondary education the greater the percent of these worker suffer from a decline in salaries/incomes. The full version can be seen in Figure 2 below.

Source: Sakernas, 2021 (processing results)

Fig. 2. Percentage of Workers Experiencing Wage Decrease According to Education in Tanjung Jabung West District in 2021

Then, if you look at the field of work, farm workers who experienced a 7.81 percent wage/income decline are higher than non-farm workers.
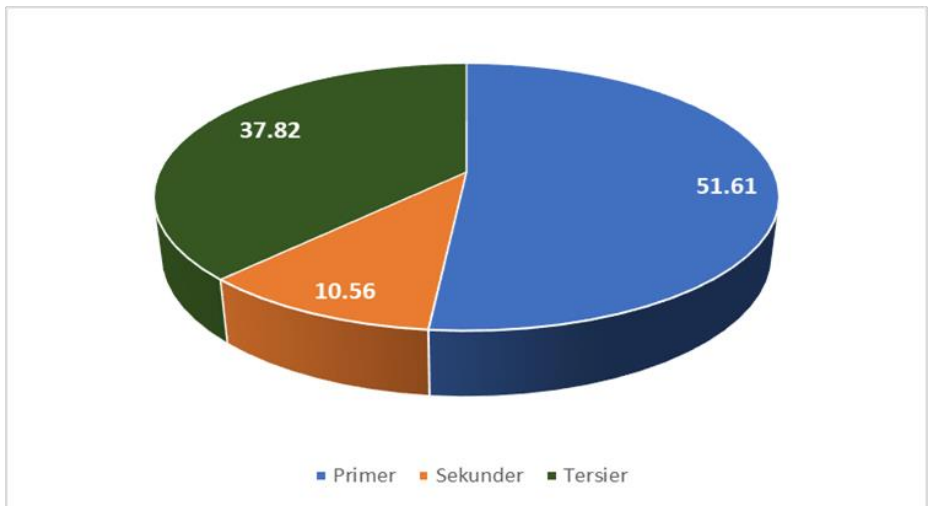
Source: Sakernas, 2021 (processing results)

Fig. 3. Percentage of Workers Experiencing Wage Decrease According to Business Fields in Tanjung Jabung West District in 2021

If more closely examined in Figure 3, it can be explained, based on the fields in which workers work, that the primary economic sectors include agriculture, forestry and fishing; also mining and excavation are the economic sector in the district of West Jabung district most affected by COVID-19. Sakernas results recorded more than half of workers in the Primary sector, which is 51.61 percent also experienced a decrease in wages/income in 2021 as a result of the impact caused by Covid-19.

The higher percentage of full-time workers experienced a decrease in wages/income, which is 9.99 per cent compared to workers with part-time work. It is indicated that wages /income of workers have decreased as a result of their reduction in working hours since the onset of COVID-19. The percentage of informal workers who experienced a 10.68 per cent wage/income decline was much higher than those who were formally employed.

Furthermore, if you look at the classification of the residential areas of the workers, there is a difference in the percentage of workers who experience a decrease in wages/income. Workers who live in the countryside experience a decline in salaries /income of 9.74 per cent, higher than workers in the urban area. This is because the workers who live and work in rural areas in the district of Tanjung Jabung West there are 64.72 per cent as seen in table 2 above. The large companies where the workers work in Tanjung Jabung West district operate in some of the rural areas in this district.

Looking at the status of COVID-19 affected, it can be explained, that the percentage of workers who are not affected by Covid-19 has a higher rate of reduction in wages/income, which is 13.68 percent compared to workers who were affected with COVid-19 during the COVIDA-19 pandemic in the district of Tanjung Jabung West.

4.2   Results of Variable Interrelationship Analysis and Interpretation

Determination of the Decrease in Wages of Workers During the COVID-19 Pandemic. Furthermore, from the results of logistic regression analysis can be seen the influence of some characteristics of workers in the district of Tanjung Jabung West on the change in salary/income they receive at the same time to answer the second research question. As for the logistical regression equations produced in this study are as follows.

$$In \left[\frac{\pi_{(x)}}{1-\pi_{(x)}} \right] = -4,193 + 0,585 Age + 0,815 Gender\ Type + 1,190 Education + $$
$$0,521 Business\ Field + 0,394 Working\ Hours + 0,138 Job\ Status + $$
$$0,131 Area\ of\ Residence + 1,698 Covid - 19 Affected\ Status + e$$
$$(2)$$

The results of the logistical regression analysis simultaneously obtained a very small significance value where the value is much smaller than the alpha of 1 percent which means that the age variables, gender, education, field, working hours, and status of COVID-19 affected workers simultaneusly or jointly influenced the risk of a decline

in wages/income during the period of the Covid-19 pandemic. It can be seen from a significance value of less than alpha 1 percent or in the sense of a very small significance.

Influence of Age. The significant value of the age variable is very small, i.e. 0.030 (lower than the alpha 1 percent), which means that with an alpha of 1 percent generally it can be said that age influences the risk of workers in the West Jabung District experiencing a decrease in wages/income during the COVID-19 pandemic. Employees aged 60 and over have an odds ratio or Exp(B) of 1,794. Seeing the odds ratios of 1.794, this means that employees aged 60-plus have a 1,794 times greater risk of a wage/income decline than employees under 60. Generally speaking, the older you get, the less likely you are to get a job. Age is also a fundamental factor that affects your health and access to the labour market. Statistically explained, that poor health turns out to have a very strong and significant relationship with the loss of employment of the elderly [25].

Influence of the Gender Type. The odds ratio value on the gender characteristics showed only significantly influenced the risk of male workers experiencing a decrease in wages/income during the COVID-19 pandemic, with the odds value ratio of 2,259. It can be understood that the risk of male workers experiencing a wage/income decline is 2,259 times greater than that of female workers. Generally speaking, one of the reasons for the difference in the odds ratio of male and female workers lies in the responsibility that a man in the family has as a huge survivor. The male worker is considered to be the backbone of the family in order to be able to meet the daily needs of his family by overworking those who are already married.

Impact of Education. Reviewed from educational characteristics, the significance value of the educational variable, is 0.012. The odds ratio of 3,286 can be understood, that workers with high school education graduated from high school have a 3.286 times greater risk of falling salaries during the COVID-19 pandemic compared to employees with a higher degree. Generally speaking, there is a tendency for a worker with a higher education, the lower the risk that he/she will suffer from a decrease in wages/income during the COVID-19 pandemic. High-educated workers tend to generally have a more stable and economically secure job compared to workers with low education.

Field Effects. Workers who work in the non-agricultural sector are at a 1.683 times greater risk of falling or falling in wages/income than workers working in the agricultural sector. Statistically, it explains that workers working in the agricultural sector have the lowest risk of falling or decreasing wages/income during the COVID-19 pandemic. This is because although during the pandemic, farm workers remained working on open farmland. Unlike workers working in the non-farm sector, during the COVID-19 pandemics and since the imposition of large-scale social restrictions in Tanjung Jabung West district, many other sectors of employment have been closed.

Working Hours. Workers in the West Jabung District with full hours of work are at risk of falling or decreasing their salary/income during the COVID-19 pandemic. The results showed that a full-time employee has a odds ratio or Exp(B) of 1,483. This means a full employee is at a 1.483 times greater risk of a wage/income decline than an incomplete employee. The policies of most companies by reducing working hours during the pandemic resulted in lower wages they received, especially since the imposition of large-scale social constraints.

Impact of Job Status. On the other hand, the employment status variable has a significance value above 5 percent, which means that it has no influence in determining the risk of workers in the district of Tanjung Jabung West experiencing wage decreases.

Impact of the Residence Area. The same is true of the job status variable above, that the residential area variable has a significant value above 5 percent.

Impact of COVID-19 Affected Status. Based on data from the results of the National Labour Force Survey (Sakernas) August 2021 conducted by the Central Statistical Authority (BPS) of Jambi Province noted, that the total Working Age Population (PUK) affected by COVID-19 in Jambi province was 177.93 thousand people. Workers affected by COVID-19 have a 5.463 times greater risk of losing their salary/income than non-Covid 19 workers. Workers infected with Covido-19 are required to undergo self-isolation until the patient is declared recovering. The worker has to stop working temporarily and this results in the worker losing his/her salary/opinion during the recovery period.

5   Conclusion

In depth, how the wages/income of workers in Tanjung Jabung West District have changed compared to before the onset of the COVID-19 pandemic. The results of the study with descriptive analysis show that in general, the socio-economic characteristics of the workers used in this study experienced a decrease in wages/income during the COVID-19 pandemic, which is 15.27 percent.

With inferential analysis, only age, gender, education, field of work, working hours, and COVID-19-affected status are influential in determining the employee's risk of falling wages/income during the COVID-19 pandemic. The other two free variables, the employment status and the area of residence, have no influence in determining the risk of workers in the West Jabung Tanjung district experiencing wage/income decline during the pandemic.

The workers most at risk of falling wages/income are workers with the criterion of age 60 and over, male sex, low-educated or high school down, their workplace in the non-farm sector, full-time workers, and affected by COVID-19. Workers with the most vulnerable criteria at risk of falling wages/income during the COVID-19 pandemic are urgently in need of more special attention from the government, especially the local government of the district of Tanjung Jabung West through various aid pro-

grammes such as the Hope Family Program (PKH), Non-cash food assistance (BPNT), and non-regular social assistance, namely Cash Social Assistance (BST), Direct Cash Assistance of the Village Fund (BLT-DD), and 10 Kg of rice assistance are expected to be targeted so that the workers are likely to be able to survive economically during the pandemic to the post-COVID-19 epidemic.

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