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Comparison of Labour Absorption Based on Employment Status in the Regencies/Cities of South Sumatra Province

Abstract. *The labour force is one of the factors of economic growth. At the same time, the discrepancy between the labour supply and the demand for it creates unemployment in the country. This study aims to analyze the difference in labour absorption in the labour status group of agricultural free workers and non-agricultural free workers using the variables that are more dominant in influencing labour absorption in the regencies/cities of South Sumatra Province. The sample was selected based on a multi-stage sample design with a probability method based on the cluster sampling method so that 172 people were obtained consisting of 62 free workers in agriculture and 110 free workers in non-agriculture in the regencies/cities of South Sumatra Province. The analysis technique uses the Chi-Square test and Multiple Regression Analysis based on the F-test and t-test. The independent variables in this study are working hours, marital status, gender, education level and employee's age. The results of the analysis show that there is a difference between the absorption of agricultural and non-agricultural free labour. Simultaneously, the variables of working hours, marital status, gender, education level and age affect the absorption of free agricultural and non-agricultural labour. Partially, only the education level variable has no significant effect on the absorption of free agricultural labour. This is because labour in agriculture is less qualified, and workers without a high level of education can be engaged for their performance. In general, in Indonesia the absorption of agricultural free labour is higher than the absorption of non-agricultural free labour. The most dominant variable affecting the absorption of agricultural free labour is gender, while for non-agricultural free labour is marital status.*

Keywords: *agriculture, population employment, labour resources, labour absorption, unemployed workers, working hours, marital status, gender, education level, employee's age.*

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Порівняння поглинання робочої сили в залежності від статусу зайнятості в регенствах/містах провінції Південна Суматра

Анотація. *Трудові ресурси є одним із факторів економічного зростання. Водночас невідповідність пропозиції робочої сили та попиту на неї породжує проблему безробіття в країні. Це дослідження має на меті проаналізувати різницю в поглинанні робочої сили залежно від статусу незайнятих працівників у сільському господарстві та в інших галузях економіки, використовуючи змінні, які мають значний вплив на поглинання робочої сили в регіонах/містах провінції Південна Суматра. Вибірку було сформовано на основі багатоступеневої схеми вибірки з використанням методу кластерної вибірки. Таким чином було відібрано 172 особи: 62 незайнятих працівників у сільському господарстві та 110 незайнятих працівників з інших галузей економіки у регіонах/містах провінції Південна Суматра. Техніка аналізу використовує критерій хі-квадрат і множинний регресійний аналіз на основі F-критерію та t-критерію. Незалежними змінними в цьому дослідженні є робочий час, сімейний стан, стать, рівень освіти та вік працівника. Результати аналізу показують, що існує різниця між поглинанням незайнятої робочої сили в сільському господарстві та інших галузях економіки. Одночасно змінні тривалості робочого часу, сімейного стану, статі, рівня освіти та віку впливають на поглинання незайнятої робочої сили незалежно від галузі. Окремо, лише змінна рівня освіти не має істотного впливу на поглинання незайнятої робочої сили в сільському господарстві. Це пояснюється тим, що праця в сільському господарстві є менш кваліфікованою, і для її виконання можуть залучатися працівники без вищої освіти. Загалом, в Індонезії поглинання незайнятої робочої сили у сільському господарстві є вищим, ніж поглинання незайнятої робочої сили в інших галузях економіки. Найбільш домінуючою змінною, яка впливає на поглинання незайнятої робочої сили в сільському господарстві, є стать, тоді як для поглинання незайнятої робочої сили в інших галузях економіки таким фактором є сімейний стан.*

Ключові слова: *сільське господарство, зайнятість населення, трудові ресурси, поглинання незайнятої робочої сили, безробітні, тривалість робочого часу, сімейний стан, стать, рівень освіти, вік працівника.*

INTRODUCTION

Labour absorption is fundamental to human life because labour is one of the indicators of economic growth in a country that aims to realize equitable economic development. Research conducted by Hassan (2016) found that labour is the most dominant variable affecting economic growth in Indonesia; therefore, increasing the number of workers in Indonesia is an alternative to increasing economic growth.

As economic growth continues to increase, this will affect the demand for labour; on the contrary, fluctuating economic growth will cause a lot of unemployment. One of the indicators used to measure economic growth is gross domestic product. Based on the report Badan Pusat Statistik (2023), Table 1 shows the gross regional domestic product (GRDP) of South Sumatra Province for the period 2022-2023.

Table 1. **GRDP of South Sumatra Province at Current Prices 2020-2022**

Business Field	GRDP of South Sumatra Province (Rp 1.000)		
	2020	2021	2022
1	2	3	4
A. Agriculture, Forestry and Fisheries	53.277,41	54.834,53	56.927,71
B. Mining and Quarrying	68.393,53	72.065,27	76.584,57
C. Processing Industry	59.225,12	60.571,42	63.231,36
D. Electricity and Gas Procurement	395,09	417,84	423,94
E. Water Procurement; Waste Management Waste Management and Recycling	381,08	363,22	365,63
F. Construction	36.678,56	36.671,66	37.136,08
G. Wholesale and Retail Trade; Repair of Cars and Motorcycles	33.124,35	35.035,24	38.682,81

1	2	3	4
H. Transportation and Warehousing	6.106,40	5.984,55	6.686,24
I. Provision of Accommodation and Meals	4.363,55	4.556,74	5.225,37
J. Information and Communication	12.214,33	12.951,75	14.003,88
K. Financial Services and Insurance	7.477,61	7.790,89	7.744,09
L. Real Estate	10.214,87	10.807,86	11.373,07
M.N. Corporate Services	358,14	360,30	370,75
O. Government Administration. Defense and Compulsory Social Security	9.877,17	10.260,46	10.639,94
P. Education Services	8.082,90	8.613,70	8.806,97
Q. Health Services and Social Activities	2.272,24	2.400.14	2499.67
R.S.T.U. Other Services	2.700,64	2.725,73	2.781,58
Gross Regional Domestic Product	**315.143,01**	**326.411,30**	**343.483,65**

Source: BPS South Sumatra (2023).

The data in Table 1 indicate good indicators of economic growth in each sector. The highest contributing sector in 2022 is the mining and quarrying sector of Rp 76,584,570. The second is the processing industry sector of Rp 63,231,360, and the third is the agricultural sector. According to the GRDP results, the agricultural sector is not the largest contributor to economic growth. However, this sector is still an important industry where each year it has increased in 2020, it amounted to Rp 53,277,410 in 2021 to Rp 54,834,530 and increased again in 2022 to Rp 56,927,710.

Based on the GRDP of South Sumatra, the agricultural sector is one of the sectors that can open up great opportunities to overcome the problem of imbalance between the working-age population and employment opportunities. According to Badan Pusat Statistik (2023), there are several types of work, one of which is based on employment status, which is the type of position of a person carrying out work in a business unit or activity (Table 2).

Table 2. **Number of Working Population by Employment Status in South Sumatra Province**

No	Employment Status	Year				
		2018	2019	2020	2021	2022
1	Self-employed	817.962	884.580	900.422	903.581	1.012.639
2	Business assisted by non-permanent / unpaid workers	699.580	646.326	670.435	704.049	730.512
3	Business assisted by permanent workers / paid labourers	118.830	113.836	91.468	99.375	105.224
4	Employee / employee labour	1.417.428	1.451.333	1.329.859	1.398.529	1.470.045
5	Agricultural free labour	134.898	115.223	201.881	185.994	92.464
6	Non-agricultural casual workers	91.149	108.936	142.470	138.127	93.482
7	Unpaid workers	684.023	648.265	754.848	750.053	785.338

Source: BPS South Sumatra (2023).

The data in Table 2 indicate that employment status as an employee labourer/employee absorbs more labour. In contrast, the lowest labour absorption is found in employment status as an agricultural and non-agricultural free worker. Based on its contribution to the GRDP of South Sumatra Province, the agricultural sector is quite influential, but seen from the absorption of labour has decreased.

According to Badan Pusat Statistik (2023), a free worker in agriculture is someone who works in an agricultural business for another person, employer or institution, does not have work ties or is not a permanent worker (more than 1 employer in the last month) in the agricultural sector in the form of both household and non-household businesses that receive wages or compensation in the form of money or goods either with a daily payment system or piecework based on labour services, which includes agricultural businesses, namely plantations, food crops, animal husbandry, fisheries, forestry, and hunting, as well as agricultural services. In contrast, a free worker in non-agriculture is someone who works for other people, institutions, or employers and is not a permanent worker (have more than 1 employer in the last month) in non-agricultural businesses with a daily or piecework payment system in the form of wages or rewards in the form of money or goods. Non-agricultural businesses include the mining sector, industry, electricity, gas and water, construction/building sector, trade sector, transportation, warehousing and communication sector, finance, insurance, rental of buildings, land and company services, community, social and individual services sector.

LITERATURE REVIEW

Previous studies explain what factors affect labour absorption. In particular, Atiyatna et al. (2016) demonstrated that several factors influence labour absorption, including demand for products, types of

employment, and labour productivity. These factors are interrelated; when a company increases the amount of output produced, the company is likely to add labour according to the type of work or qualifications requested from employers or business entities based on labour characteristics related to internal labour factors such as gender, age, education level, marital status and wages which will affect labour productivity.

Xie (2022) explains that the length of education tends to have a more significant impact on people's income because the higher a person's education level, the greater the possibility of getting a job. Still, there is wage discrimination between genders due to the reduced labour supply of women after marriage; married women tend to prefer not to work. This is seen from the declining wages because they prefer to be housewives responsible for the family; this is different from men, who, even though married, still choose to work to get a job because there is a responsibility for the family after marriage.

Jaume's (2021) research shows that there was a large expansion in education between 1995 and 2014 and a fixed occupational structure; workers with higher education did not provide benefits to job productivity. This is because more and more highly educated workers are working in jobs that do not add value to worker productivity. Workers with lower levels of education may be easier to find and more in demand in jobs that require physical skills or specialized skills, so the demand for labour with lower levels of education increases and results in higher wage levels. Whereas workers with higher levels of education may be more competitive in jobs that require specialized skills or more desirable jobs, the demand for labour with school education levels and above decreases, and the wage rate decreases as a result.

According to Ulma and Julia (2022), the male gender is more dominant in obtaining employment than women, who function more as housewives. Still, women may be able to get higher wages because they choose jobs according to their level of education, in contrast to men who do not have to work according to their level of education. Age and marriage also affect labour absorption. People aged 15 years and under are directed to prioritize education over work, and marriage is a consideration in obtaining work.

Bachtiar et al. (2023) show that the absorption of labour in the agricultural sector based on gender characteristics does not show a more skewed difference but more male workers than female workers. The level of education of workers in the agricultural sector is lower having an average length of schooling of 6 years and below or up to elementary school, workers with high school education and above tend to prefer formal work and vice versa, workers with high school education and below tend to prefer the informal sector. When viewed from the variable of marital status, unmarried workers are more dominant in the formal sector, while married workers prefer informal work.

Satriawan and Chrismardani (2018) explain that wages and age influence labour productivity. The higher the level of wages earned, the better the labour productivity of a working person. Age also has a positive and significant effect on labour productivity because, in this research, the age level above 44-60th produces higher productivity; otherwise, people aged 20-27 have low productivity in the sense that the higher the age level of the worker will have a lot of labour experience which will affect the level of worker productivity.

Based on theory and previous studies, gender, age, marital status, education level, and wages are important factors in labour absorption, which will have an impact on labour productivity according to the type of employment offered. This study uses the variables of working hours, marital status, gender, education level and age. Still, it is different from previous studies because it focuses on labour absorption based on the status group of agricultural free workers and the status of non-agricultural free workers in the South Sumatra Province with projected population growth in 2023 of 8,743,522 people (Badan Pusat Statistik, 2023). If this condition is not balanced with an equal distribution of labour needs, it will cause unemployment problems, impacting economic instability and per capita income. South Sumatra is an agricultural province with a plantation area of 2,815,847 Ha, and the employment status of South Sumatra Province covers agricultural free workers and non-agricultural free workers whose labour absorption is still relatively low. This is a good opportunity to help the working-age population obtain employment and be absorbed in the sector.

Thus, this study aims to analyze the difference in labour absorption in the labour status group of agricultural free workers and non-agricultural free workers using the variables that are more dominant in influencing labour absorption in the regencies/cities of South Sumatra Province.

THEORETICAL BACKGROUND

Theory of Production

Production theory studies the relationship between input and output or economic activity in which there are production factors, namely capital, labour, natural resources and technology, aiming to produce goods or what is called output. This theory explains how users of inputs such as capital, labour or factors supporting production produce a certain output by increasing labour with constant capital. This theory is valid for the short term. Additional labour can no longer be done when production reaches its maximum and additional production (marginal product) has reached zero. The labour production factor is one of the production factors that is important to pay attention to in the production process in sufficient quantities because it will affect the number of goods produced and labour wages. The law of additional labour but not accompanied by an increase in the amount of production results will occur. The Law of Diminishing Return is a production theory which shows that when one production factor is increased while other production factors remain constant, then at a certain point the additional output produced will decrease (Nurlina, 2018).

Labour

The demand for labour is influenced by production theory which describes the demand for goods to be produced so that companies will add labour for goods produced if demand for the goods produced increases. Therefore, the demand for labour is referred to as derived demand (Borjas, 2016).

According to Badan Pusat Statistik (2023), the labour force is the working population aged 15 years and over who work or have a job but are temporarily unemployed or unemployed. Meanwhile, the non-labour force is people aged 15 years and over who are still in school, taking care of the household, or carrying out personal activities.

RESEARCH METHODOLOGY

The population in this study was all free workers in agriculture and non-agriculture in South Sumatra Province, totalling 154,200 people. The sample design is a multi-stage sample selection method using probability with cluster sampling. Based on this, 172 people were used as samples (Table 3).

Table 3. **Research Sample**

No	Labour Status	Population	Sample
1	Free workers in agriculture	51.800	62
2	Free workers in non-agriculture	102.400	110
	Total	154.200	172

Source: Statistics Indonesia Sakernas of South Sumatra (2023).

The data analysis technique used to see if there is a difference in labour absorption between the status of free labour in agriculture and free labour in non-agriculture in the regencies/cities of South Sumatra Province uses the Chi-square test with the following formula:

$$x^2 = \sum \frac{(O_{bk} - E_{bk})^2}{E_{bk}}$$

where:
x^2 = Chi Square;
O = Observed value;
E = Expected value;
b = Number of row;
k = Number of column.

To calculate the effect of working hours, marital status, gender, education level and age on the absorption of agricultural and non-agricultural free labour in the regencies/cities of South Sumatra Province along with the most dominant variable, multiple regression analysis is used with the following equation:

$$Wa_{1,2} = \beta o + \beta_1 He + \beta_2 Mse + \beta_3 Ge + \beta_4 Ed + \beta_5 Age + e$$

where:
Wa_1 = Absorption of free labour in agriculture;
Wa_2 = Absorption of free labour in non-agricultural industries;
$\beta_1 - \beta_5$ = Regression coefficient;
β_0 = Constant;
He = Working hours;
Mse = Marital status (dummy, married and unmarried);
Ge = Gender (dummy, male and female);
Ed = Education level (years);
Age = Age (years);
e = Residual (error).

RESULTS

Chi Square Difference Test

The t-test is used to see whether there is a difference in the absorption of agricultural free labour and non-agricultural free labour. Table 4 contains the result of the differential t-test for agricultural free labour absorption and non-agricultural free labour absorption in the regencies/cities of South Sumatra Province.

Table 4. **Differential Test Results of Agricultural and Non-Agricultural Free Labour Absorption**

Variable	Code		
	Observed N	Expected	Residuals
Agricultural free workers	62	86	-24
Non-agricultural free workers	110	86	24
Chi Square	13.395[a]		
Df	1		
Asymp. Sig	0.001		

Source: Field research data processed (2023).

Test data show that the Asymp.Sig value is 0.001 <0.05, meaning there is a difference between the absorption of agricultural free labour and non-agricultural free labour.

Classical Assumption Test

Normality Test

For normality testing in this study, we used the Kolmogorov-Smirnov Test (Table 5).

Table 5. **Kolmogorov-Smirnov Test Normality Test Results**

Variable	Asymp. Sig (2-tailed)	Alpha	Description
Agricultural free workers	0.200[d]	0.05	Normally distributed
Non-agricultural free workers	0.089	0.05	Normally distributed

Source: Field research data processed (2023).

The significant values of the variables of agricultural free labour and non-agricultural free labour are 0.200 and 0.089, respectively, all of which are greater than 0.05, which means that the variables of agricultural free labour and non-agricultural free labour are normally distributed.

Multicollinearity Test

Table 6 contains the result of multicollinearity testing for agricultural and non-agricultural free workers in the regencies/cities of South Sumatra Province.

Table 6. **Multicollinearity Test Results**

Variable	Agricultural free workers		Non-agricultural free workers		Description
	Tolerance	VIF	Tolerance	VIF	
Working Hours	0.804	1.244	0.836	1.196	No Multicollinearity
Marital Status	0.568	1.760	0.273	3.659	
Gender	0.719	1.391	0.524	1.908	
Education Level	0.850	1.177	0.855	1.170	
Age	0.688	1.454	0.391	2.559	

Source: Field research data processed (2023).

The data in Table 6 show that the tolerance values for the variables of working hours, marital status, gender, education level and age for both agricultural and non-agricultural free workers are all greater than 0.10, and the variance inflation factor (VIF) values for the variables of working hours, marital status, gender, education level and age for both agricultural and non-agricultural free workers are all smaller than 10. Thus, there is no multicollinearity.

Heteroscedasticity Test

For heteroscedasticity testing in this study, we used the Glejser test (Table 7).

Table 7. **Heteroscedasticity Test Results**

Variables	Agricultural free workers	Non-agricultural free workers
	Sig.	Sig.
Working Hours	0.904	0.466
Marital Status	0.060	0.455
Gender	0.650	0.888
Education Level	0.511	0.771
Age	0.776	0.923

Source: Field research data processed (2023).

The significance values for the variables of working hours, marital status, gender, education level and age for agricultural and non-agricultural free workers are all greater than alpha 0.05, meaning there is no heteroscedasticity.

Hypothesis Test

For testing the influence of the variables of working hours, marital status, gender, education level and age on the absorption of agricultural and non-agricultural free labour, we used the F-test and t-test (Table 8 and Table 9, respectively).

Table 8. **F Hypothesis Test**

Variable	Sig	alpha	Description
Agricultural free workers	0.001	0.05	Significant effect
Non-agricultural free workers	0.001	0.05	Significant effect

Source: Field research data processed (2023).

The data in Table 8 show that the significance value for the variable of agricultural free workers and non-agricultural free workers is 0.001 < 0.05, respectively, which means that the variables of working hours, marital status, gender, education level and age together (simultaneously) have a significant effect on the absorption of agricultural and non-agricultural free labour in the regencies/cities of South Sumatra Province.

Table 9. **Hypothesis Test t**

Variables	Agricultural free workers		Non-agricultural free workers	
	t-statistic	Sig.	t-statistic	Sig.
Constant	-1.841	0.071	1.695	0.093
Working Hours	2.624	0.011	2.845	0.005
Marital Status	2.107	0.040	4.243	0.001
Gender	3.090	0.003	5.736	0.001
Education Level	-0.305	0.762	2.348	0.021
Age	2.833	0.006	-2.848	0.005

Source: Field research data processed (2023).

Using the data in Table 9, we will estimate the influence of each independent variable (working hours, marital status, gender, education level and age) on the absorption of agricultural free labour.

1. For the working hour variable, the t value is 2.624 > t table 2.003, and the significance value is 0.011 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the working hour variable partially significantly affects the absorption of free agricultural labour.

2. For the marital status variable, the calculated t value is 2.107 > t table 2.003, and the significance value is 0.040 < alpha 0.05; this indicates that Ho is rejected and Ha is accepted. Thus, the marital status variable partially significantly affects the absorption of free agricultural labour.

3. For the gender variable, the calculated t value is 3.090 > t table 2.003, and the significance value is 0.003 < alpha 0.05; this indicates that Ho is rejected and Ha is accepted. Thus, the gender variable partially significantly affects the absorption of agricultural free labour.

4. For the education level variable, the calculated t value is 0.305 < t table 2.003, and the significance value is 0.762 > alpha 0.05; this indicates that Ho is accepted and Ha is rejected. Thus, the education level variable partially has no significant effect on the absorption of free agricultural labour.

5. In the age variable, the calculated t value is 2.833 > t table 2.003, and the significance value is 0.006 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the age variable partially significantly affects the absorption of free agricultural labour.

The influence of each independent variable (working hours, marital status, gender, education level and age) on the absorption of non-agricultural free labour can be described as follows.

1. For the working hour variable, the t value is 2.845 > t table 2.003, and the significance value is 0.005 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the working hour variable partially significantly affects the absorption of non-agricultural free labour.

2. For the marital status variable, the t value is 4.243 > t table 2.003, and the significance value is 0.001 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the marital status variable partially significantly affects the absorption of non-agricultural free labour.

3. For the gender variable, the t value is 5.736 > t table 2.003, and the significance value is 0.001 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the gender variable partially significantly affects the absorption of non-agricultural free labour.

4. For the education level variable, the calculated t value is 2.348> t table 2.003, and the significance value is 0.021 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the education level variable partially significantly affects the absorption of non-agricultural free labour.

5. For the age variable, the t value is 2.848 > t table 2.003, and the significance value is 0.005 < alpha 0.05; this shows that Ho is rejected and Ha is accepted. Thus, the age variable partially significantly affects the absorption of non-agricultural free labour.

DISCUSSION

The results show that there is a difference between the absorption of agricultural free labour and the absorption of non-agricultural free labour. Agricultural free labour has a higher risk, which is influenced by climatic conditions, working hours, land area, selling prices and various other factors. The most important factor in the absorption of agricultural free labour is low wages, which is one of the factors that people decide to move to types of work with higher wages. As for non-agricultural free labour, the wage earned depends on the expertise of the worker; the higher the worker's expertise in producing goods or services, this will affect the marginal production, which will have an impact on wages due to the addition of one variable input from labour (Nurlina, 2018).

Arrofi (2019), Chen, Miao and Zhu (2021), and Blanco and Raurich (2022) state that differences in the absorption of agricultural and non-agricultural free labour lie in several factors such as land area, number of workers, type of work, location, residence and level of education and wages. According to Shen et al. (2020) and Qie et al. (2023), climate-dependent agricultural free labour will impact the amount of production produced. There is less allocation of working hours for agricultural free labour for those who work in large-scale agriculture (Julien et al., 2021). Meanwhile, non-agricultural free labour workers use more skills and wages are influenced by the ability to produce or workers' skills (Sadoulet, 2024).

Our research data show that working hours, marital status, gender, education level, and age have a significant effect (simultaneously) on the absorption of non-agricultural and agricultural free labour in the regencies/cities of South Sumatra Province.

The results of previous studies confirm our findings. In particular, Febianti et al. (2023) found that education level, age, gender and work experience significantly affect labour productivity in Indonesia.

The working hour variable partially significantly affects the absorption of agricultural free labour and non-agricultural free labour. According to Nurlina (2018), one of the substitution effects of wage changes is changes in the opportunity cost of leisure time, which will affect workers to reduce or add working hours; if a person decides to increase working hours or reduce leisure time, then this will have an impact on the level of wages earned by a person. Backhaus, Schäper and Schrenker (2023) found the difference in wages between part-time workers earning lower wages than full-time workers. Meanwhile, according to Wang et al. (2020), long working hours contribute to the rapid economic growth in the country, which affects financial security, productivity, welfare and quality of life of the community, which means that it has an impact on the socio-economy of a country. Research by Lochner et al. (2021), Rahayu, Setyowati and Rahmadwiati (2021), and Husaini and Fadhlani (2017) show that the working hour variable has a significant positive effect on labour productivity.

The marital status variable partially has a significant effect on the absorption of non-agricultural free labour and agricultural free labour. The family economy is a family's finances or ability to meet a family's needs. To meet the needs of life, the head of the family has a vital role in being responsible for the family's economic needs (Wahyuni, 2015). According to Altonji, Hynsjö, and Vidangos (2022), homemakers who can work are not only heads of households but also housewives who can help the family economy to meet family needs. The level of family welfare or household composition in obtaining income is still very low, and household consumption patterns are high. This will impact someone with dependents, both women and men, influencing the decision to work, but the most dominant to work is a married man to get a wage or permanent job (Lundqvist et al., 2022). Goussé, Jacquemet and Robin (2017), Moffitt (1990), and Chen et al. (2024) explain that when a person is married, the marital status variable has a significant effect on employment.

The gender variable partially has a significant effect on the absorption of agricultural free labour and the absorption of non-agricultural free labour. According to Sassine and Hajj (2022), gender affects a person in choosing the type of work, when the work proportion is heavy or has a high risk, this will affect a person's decision in choosing a job that suits the ability of each worker. Female workers have less free time because it relates to parental responsibilities in caring for children. Employment in the agricultural sector has a higher risk of automation (Rijnks et al., 2022). Research by Koplan, Mussida and Patimo (2021) shows that the average woman is not the head of the family, only an additional worker, unlike men, as the head of the family earns a much higher wage than women. In contrast to research by Moeeni and Tanaka (2023), women have more opportunities in the labour market when they tend to pursue higher education, which can result in better career prospects and higher income.

The variable level of education partially has no significant effect on the absorption of free agricultural labour. The agricultural sector is classified as informal work, where there is poor regulation, modernization, and primary operations. This is characterized by people with low or no education. Financially, the informal sector lacks resources, has poor wages, and has a high risk of defaulting on credit (Yigezu & Wakgari, 2020; Lanjouw & Lanjouw, 2005). Research by Sitompul (2023) shows that people with higher education tend to work in the formal sector, while youth with lower levels of education tend to have informal sector jobs due to their inability to enter formal jobs with qualifications that are considered higher than those of jobs with low education or high school and below.

The education level variable partially significantly affects the absorption of non-agricultural free labour. According to Borjas (2016), the theory of productivity efficiency depends on the level of wages; if wages decrease, productivity decreases, so company profits decrease. The level of wages is one of the factors in choosing the type of work, such as a person who has a high level of education has skills, knowledge, insight, and how a person behaves, including a person's decision in choosing the type of work by looking at the amount of wage level and work that suits his field, this shows that workers with higher levels of education may compete more in jobs that require special skills or more desirable jobs. Xie (2022) explains that the length of education tends to have a more significant impact on people's income because the higher a person's education level, the greater the possibility of getting a job. Meanwhile, according to Chassamboulli and Gomes (2023), a high level of education will increase the choice of employment, and education is an important factor in the development of human resources (Borjas, 2016).

The age variable partially significantly affects the absorption of agricultural free labour and non-agricultural free labour. According to Hasan et al. (2015) and Blinder (1973), the marginal revenue and efficiency of the quality of human capital, which initially increases, will then decrease as the working age increases. Limitations at an early age include not having the skills and experience that are as good as at an older age, so there is a difference in productivity produced (Borjas, 2016). In addition, Ulma and Julia (2022) found that the level of education affects the wage dummy (getting a job).

CONCLUSION

The results of various tests show a difference in the absorption of agricultural and non-agricultural free labour in South Sumatra Province. In particular, the variables of working hours, marital status, gender, and age positively and significantly influence the absorption of free agricultural labour in South Sumatra Province. At the same time, the variable level of education has a negative and non-significant effect on the absorption of free agricultural labour in South Sumatra Province. Furthermore, the variables of working hours, marital status, gender, and education level positively affect the absorption of non-agricultural free labour in South Sumatra Province. In contrast, the age variable negatively and significantly affects the absorption of non-agricultural free labour in South Sumatra Province. The most dominant variable affecting the absorption of agricultural free labour in South Sumatra Province is gender, while the most dominant factor in non-agricultural free labour is marital status.

Research Limitations

This research only uses samples from the Sakernas February 2023 survey, and the researchers did not analyze the district or city level in South Sumatra Province due to limited information available from Silastic data from the February 2023 Sakernas Survey, so they only used samples in South Sumatra Province.

It is hoped that future researchers will add study variables not discussed in this research, such as location variables, work experience, risk, health, agricultural land area and job type variables.

4 References

Altonji, J. G., Hynsjö, D. M., & Vidangos, I. (2022). *Individual Earnings and Family Income: Dynamics and Distribution*. 30095. Washington, DC.

Arrofi, M. K. A. (2019). *Analysis of Differences in Wage Levels for Agricultural and Non-Agricultural Sector Workers in Indonesia*. Universitas Brawijaya.

Atiyatna, D. P. et al. (2016). The influence of minimum wages, economic growth and education on labour absorption in South Sumatra Province. *Jurnal Ekonomi Pembangunan*, 14(1), 8–21.

Bachtiar, B. A. et al. (2023). Absorption of Labour in the Food Crop Agriculture Sector in Generation Z. In *Seminar Nasional Official Statistics*. Jakarta: Jurnal Aplikasi Statistika dan Komputasi Statistik, pp. 491–502.

Backhaus, T., Schäper, C., & Schrenker, A. (2023). Causal misperceptions of the part-time pay gap. *Labour Economics*, 83(102396). https://doi.org/10.1016/j.labeco.2023.102396

Badan Pusat Statistik (2023). *Concept/Technical Explanation*. Provinsi Sumatera Selatan.

Blanco, C., & Raurich, X. (2022). Agricultural composition and labour productivity. *Journal of Development Economics*, 158(C). https://doi.org/10.1016/j.jdeveco.2022.102934

Blinder, A. S. (1973). Wage Discrimination: Reduced Form and Structural Estimates. *The Journal of Human Resources*, 8(4). https://doi.org/10.2307/144855

Borjas, G. J. (2016). *Labour Economics*. New York: The MacGrow-Hill Companies.

Chassamboulli, A., & Gomes, P. (2023). Public-Sector Employment, Wages And Education Decisions. *Labour Economics*, 82. https://doi.org/10.1016/j.labeco.2023.102345

Chen, Q. et al. (2024). Effect of marital status on the survival outcomes of cervical cancer: a retrospective cohort study based on SEER database. *BMC Women's Health*, 24(75). https://doi.org/10.1186/s12905-024-02907-5

Chen, Y., Miao, J., & Zhu, Z. (2021). Measuring green total factor productivity of China's agricultural sector: A three-stage SBM-DEA model with non-point source pollution and CO2 emissions. *Journal of Cleaner Production*, 318(2), 128543. https://doi.org/10.1016/j.jclepro.2021.128543

Febianti, A. et al. (2023). The Influence of Education Level, age, gender, and Work Experience on Work Productivity in Indonesia. *Sahmiyya: Jurnal Ekonomi dan Bisnis*, 2(1), 198–204.

Goussé, M., Jacquemet, N., & Robin, J.-M. (2017). Household labour supply and the marriage market in the UK, 1991-2008. *Labour Economics*, 46(C), 131–149. https://doi.org/10.1016/j.labeco.2017.02.005

Hasan, B. et al. (2015). Conservation Agriculture Practices in Salt-Affected, Irrigated Areas ofCentral Asia: Crop Price and Input Cost Variability Effecton Revenue Risks. *Sustainable Agriculture Research*, 4(2). http://dx.doi.org/10.5539/sar.v4n2p1

Hassan (2016). Influence of Investment, Labour Force and Government Expenditures on Economic Growth in West Sumatra Province. *Jurnal Ekonomi Pembangunan*, 3(1), 41–49.

Husaini & Fadhlani, A. (2017). The Influence of Working Capital, Length of Business, Working Hours and Business Location on Monza's Income at Simalingkar Market, Medan. *Jurnal Visioner dan Strategis*, 6(2), 111–126.

Jaume, D. (2021). The Labour Market Effects of an Educational Expansion. *Journal of Development Economics*, 149. https://doi.org/10.1016/j.jdeveco.2020.102619

Julien, J. C., Bravo-Ureta, B. E., & Rada, N. E. (2021). Productive efficiency and farm size in East Africa. *Agricultural Economics Research, Policy and Practice in Southern Africa*, 60(3). https://doi.org/10.1080/03031853.2021.1960176

Koplan, Mussida, C., & Patimo, R. (2021). Women's Family Care Responsibilities, Employment and Health: A Tale of Two Countries. *Journal of Family and Economic Issues*, 42, 489–507.

Lanjouw, J. O., & Lanjouw, P. (2005). The rural non-farm sector: issues and evidence from developing countries. *Agricultural Economics: The Journal of Internastional Association of Agricultural Economics*, 26(1). https://doi.org/10.1111/j.1574-0862.2001.tb00051.x

Lochner, B. et al. (2021). Recruiting intensity and hiring practices: Cross-sectional and time-series evidence. *Labour Economics*, 68(101939). https://doi.org/10.1016/j.labeco.2020.101939

Lundqvist, D., Wallo, A., & Kock, H. (2022). Leadership and Learning at Work: A Systematic Literature Review of Learning-oriented Leadership. *Journal of Leadership & Organizational Studies*, 30(2). https://doi.org/10.1177/15480518221133970

Moeeni, S., & Tanaka, A. (2023). The effects of labour market opportunities on education: The case of a female hiring ceiling in Iran. *Journal of Public Economics*, 224(C). https://doi.org/10.1016/j.jpubeco.2023.104896

Moffitt, T. E. (1990). Juvenile delinquency and Attention Deficit Disorder: Boys' developmental trajectories from age 3 to age 15. *Child Development*, 61(3), 893–910. https://doi.org/10.2307/1130972

Nurlina (2018). *Labour Market Behavior*. Palembang: Unsri Press.

Qie, L. et al. (2023). Gains and losses of farmland associated with farmland protection policy and urbanization in China: An integrated perspective based on goal orientation. *Land Use Policy*, 129. https://doi.org/10.1016/j.landusepol.2023.106643

Rahayu, E. S., Setyowati, & Rahmadwiati, R. (2021). Analysis of income distribution as prevention of environmental damage in agribusiness management of cassava in Bengawan Solo watershed, Wonogiri regency. In *IOP Conference Series: Earth and Environmental Science*. IOP Publishing, 012076. https://doi.org/10.1088/1755-1315/637/1/012076

Rijnks, Crowley, F., & Doran, J. (2022). Regional variations in automation job risk and labour market thickness to agricultural employment. *Journal of Rural Studies*, 91, 10-23. https://doi.org/10.1016/j.jrurstud.2021.12.012

Sadoulet, E. (2024). The Agricultural Wage Gap within Rural Villages. *SSRN Electronic Journal*, February(1), 1–42. https://doi.org/10.2139/ssrn.4218947

Sassine, J., & Hajj, J. (2022). *Gender Differences and Career Choice: The Role of Personality, Interest, Ability, and Motivation in Choosing to Pursue a Career*. https://www.researchgate.net/publication/358497347_Gender_Differences_and_Career_Choice_The_Role_of_Personality_Interest_Ability_and_Motivation_in_Choosing_to_Pursue_a_Career

Satriawan, B., & Chrismardani, Y. (2018). Formal and Informal Sector Workers in Bangkalan Regency. *Media Trend*, 13(1), 158. https://doi.org/10.21107/mediatrend.v13i1.3665

Shen, J. et al. (2020). Agriculture Green Development: a model for China and the world. *Frontiers of Agricultural Science and Engineering*, 7(1), 5. https://doi.org/10.15302/J-FASE-2019300

Sitompul, T. (2023). The Effect Of Minimum Wages On Young Workers In The Formal Sector. *Soedirman Economics Education Journal*, 5(1), 39–54. https://doi.org/10.32424/seej.v5i1.8299

Ulma, D. N., & Julia, A. (2022). Increased Labour Absorption Encouraging the Demographic Bonus in Sukajadi District, Bandung. *Jurnal Riset Ilmu Ekonomi Dan Bisnis*, 2(2), 105–114. https://doi.org/10.29313/jrieb.vi.1217

Wahyuni, N. (2015). *Adjusting the Role of Working Mothers in Family Life: Descriptive Study of Female Factory Workers in Kalijati District, Subang Regency*. Universitas Pendidikan Indonesia.

Wang, H. et al. (2020). The effect of digital transformation strategy on performance: The moderating role of cognitive conflict. *International Journal of Conflict Management*, 31(3), 441–462. https://doi.org/10.1108/IJCMA-09-2019-0166

Xie, R. (2022). The Influence of Education Level, Gender, Race, Marital Status, Age, and Occupation on the Wage of the General Population. In *Proceedings of the 2022 7th International Conference on Social Sciences andEconomic Development (ICSSED 2022)*. Wuhan: Advances in Economics, Business and Management Research. https://doi.org/10.2991/aebmr.k.220405.155

Yigezu, G., & Wakgari, M. (2020). Local and indigenous knowledge of farmers management practice against fall armyworm (Spodoptera frugiperda) (J. E. Smith) (Lepidoptera: Noctuidae): A review. *Journal of Entomology and Zoology Studies*, 8(1), 765–770.