

Analysis of the Effect of Income on the Consumption Patterns of Mining Workers in Watusampu Subdistrict

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Abstract

The mining industry in Watusampu Subdistrict boosts local incomes but also brings socio-economic and environmental challenges. Mining provides jobs and higher wages but causes environmental degradation and air pollution leading to health issues. This study aims to analyze the influence of income on consumption patterns of workers in the mining sector in Watusampu Subdistrict. This sector has unique characteristics, especially regarding worker income levels, which can influence spending patterns. The method used in this research is quantitative with a survey approach, involving a sample of workers from various job levels in a mining company. Using simple linear regression analysis tools, this study explains the influence of income on consumption, both for food and non-food goods, among mining sector workers in Watusampu Subdistrict. The research results show that income has a positive and significant influence on expenditures for food and non-food items. Based on the research results, the regression equations obtained are: $Y = 230,543.653 + 0.258X$, $Y = 170,503.477 + 0.361X$, $Y = 922,634.574 + 0.329X$, $Y = 212,953.571 + 0.557X$. The regression coefficients indicate that income increases will increase expenditures, with a larger proportion directed toward non-food goods.

Keywords: Consumption, Food Expenditure, Income, Mining, Non-Food.

1. Introduction

Indonesia is a country rich in natural resources, both renewable and non-renewable. An example of non-renewable natural resources is mining materials. Almost every region in Indonesia stores various mining materials, from gold, metals, and coal, with nickel currently gaining popularity (Nasution et al., 2024). Management of these economically valuable natural resources is very important so they can be utilized optimally to increase community income, so that the standard of living of communities around mining locations can improve (Purba, 2023). From an economic perspective, the presence of mining industries in a region should provide positive impacts on the development of that area, as this can create and expand employment opportunities, increase community income, and open business opportunities. Besides, the presence of this industry is also expected to strengthen the economic capacity of the region (Wahyudin, 2020).

The presence of mining companies in an area will certainly provide positive impacts for the surrounding community. Mining operations can provide progress, create more prosperous lives, and guarantee security. Additionally, mining activities also contribute to improving social life and economic enhancement, especially for communities directly related to natural resource management (Pratiwi et al., 2024). There are many regions with potential for



developing the mining sector, such as Central Sulawesi Province, due to its abundant natural resources (Kadir et al., 2020; Nazir et al., 2020). Abundant natural resources are good capital for economic growth if managed or utilized properly and optimally. This condition will increase foreign investment in the mining sector in every region of Central Sulawesi Province that has considerable mining potential. One region with natural resource potential is Ulujadi District in Watusampu Subdistrict.

The mining sector has a very important role in Indonesia's economy, both at national and regional levels. The presence of mining companies often provides significant impacts on the social and economic conditions of surrounding communities, including changes in income levels and consumption patterns. Watusampu Subdistrict, which serves as the operational location for one of the mining companies, becomes an interesting area to observe this dynamic more deeply. The presence of mining companies in an area generally provides positive impacts for surrounding communities. In Watusampu Subdistrict, the presence of several mining companies has become an attraction for job seekers, especially local communities. This mining activity has helped drive increased employment absorption, which ultimately impacts increased community income around mining areas. This income increase directly or indirectly influences individual and household consumption patterns. Consumption patterns are often used as one of the indicators to measure community welfare levels. Welfare is considered to increase if there is improvement in income, where part of that income is allocated for consumption of necessary goods, both food and non-food.

The presence of mining companies also causes significant environmental damage, both directly and indirectly, affecting the quality of life of surrounding communities (Anggraeni et al., 2019; Meutia et al., 2023). Mining activities have caused the loss of natural vegetation cover that previously functioned as water absorption zones. Forest and shrub areas that previously could absorb rainfall have now turned into open land that does not have similar capacity for water absorption. This condition increases surface runoff and contributes to flooding. Flooding that occurs in Watusampu Subdistrict is not just water pooling, but also carries mud and mining material. This shows that surface runoff carries sediment and erosion material from mining areas to downstream areas, including residential areas and main roads. This sediment accumulation worsens flood impacts by clogging drainage channels and reducing the capacity of rivers and ditches to accommodate rainwater volume.

A major impact of mining activities in Watusampu Subdistrict is road damage, especially the national road connecting Palu and Donggala. The high volume and weight of mining vehicles have caused severe physical damage to roads, resulting in rapid road surface deterioration, cracks, and serious damage such as large potholes, uneven roads, and road body shifts. Piles of materials such as stones and gravel scattered along the road make infrastructure conditions worse. Besides being a direct cause of physical road damage, these material piles also reduce traffic quality and safety. Two-wheeled vehicles, for example, are very vulnerable to accidents due to slippery or uneven road surfaces. Other road users, including private vehicles, public transportation, and pedestrians, also feel the impact of uncomfortable and high-risk road conditions.

Class C mining activities on the west coast of Palu City, especially in Watusampu, Buluri, and Tipo Subdistricts, have produced quite severe environmental impacts, including decreased air quality due to dust pollution from mining activities. This air pollution is caused by poor dust management by mining companies and the absence of supporting infrastructure such as special roads for trucks. As a result, mining dust spreads widely to residential areas and main roads traversed by mining transport vehicles. According to data from UPTD Puskesmas Anuntodea Tipo, between January and July 2025, there were 5,381 cases of Acute

Respiratory Infection (ARI) recorded in three affected subdistricts mentioned. Of this number, Watusampu Subdistrict reported 379 ARI cases, primarily affecting children, elderly, and other vulnerable groups. This figure shows a strong relationship between air pollution from mining activities and increased respiratory problems.

The high number of ARI cases in these three subdistricts, including 379 cases in Watusampu, shows the lack of effectiveness in controlling air pollution by mining companies and minimal supervision from local government. Meanwhile, in accordance with regulations in Law No. 32 of 2009 on Environmental Protection and Management, every business activity that impacts the environment must follow principles of pollution prevention and environmental impact control, including air pollution. The increasing number of ARI patients is not just a health problem, but also affects the social and economic conditions of the community. Medical care costs, decreased work productivity, disruption in children's learning processes, and increased pressure on health service facilities are consequences of unresolved air pollution. If not handled seriously, this issue could turn into an environmental health crisis.

In response to the intricate social, economic, and environmental factors at play, this study aims to examine how income influences the consumption patterns of miners in the Watusampu Subdistrict, offering a unique viewpoint on how the mining sector impacts the community. This study gives important information for local governments to create specific economic and health policies for mining communities. It emphasizes the need for mining workers to manage their finances wisely due to fluctuating incomes. The research also adds valuable real-life data on spending habits in a resource-based economy.

2. Literature Review

2.1. Income

Income is earnings from the sale of goods and services within a certain period, in cash or non-cash form, and is compensation for payment for services for helping others. Wages or income are related to what work that person has done; the better someone's job, the greater the wages earned. The results of that work will generate income and will be used to meet living needs and can also be saved or used as business capital (Ramadhan et al., 2023).

A person's income should be used as an indicator of welfare, because with that income individuals can meet their daily needs both directly and indirectly. Individual income can be interpreted as the total money received measured in one currency by a person or a region during a certain period. Community income consists of salaries or compensation received by individuals or household groups in one month (Rahim, 2023).

Income is all business activities and information processing carried out repeatedly, related to providing goods and services to customers and receiving various forms of payment from them. This cycle is designed to provide detailed descriptions of cash collection processes and income receipt. Additionally, sources and types of income generally come from selling goods or providing services to other parties in certain accounting periods. Income can be generated from sales, production processes, and service provision, including transportation and storage (Mokoginta, 2019).

Income is one of the main aspects affecting someone's expenditure level and welfare. In work environments, marital status can affect income composition and individual living needs. Unmarried workers usually have simpler expenditures because there are no family dependents, so the money received is generally used to meet personal needs such as food, transportation, entertainment, and savings. On the other hand, married workers generally have greater financial responsibilities. Their income is not only used for personal needs, but

also to support spouses, children, and other household needs. Therefore, although the amount of income between single and married workers might be similar, the expenditure burden borne by workers with families tends to be higher (Faradina et al., 2018).

2.2. Consumption Theory

According to Hanum (2018), consumption is an activity carried out by humans to use or utilize goods and services to meet their needs. The quality and quantity of goods or services consumed reflect the consumer's level of prosperity. The higher the quality and the more goods or services consumed, the higher the consumer's level of prosperity. Conversely, if the quality and quantity of goods or services consumed is low, then the consumer's level of prosperity will also decrease.

Consumption actors, or individuals who use goods and services to meet their needs, are known as consumers. Consumer behavior refers to tendencies shown by consumers in the consumption process, with the aim of maximizing their satisfaction. Simply put, consumer behavior reflects the actions and processes experienced by consumers, from searching to purchasing, using, evaluating, and improving products and services they choose (Zakiah, 2022). According to Sitanggang et al. (2024), consumption is generally understood as the use of goods and services that directly meet human needs. Consumption is interpreted as expenditure made by someone on goods and services with the intention of fulfilling the needs of the individual doing that task.

2.3. Food and Non-Food Consumption

Food consumption is one aspect of basic human needs that includes all types of costs incurred to obtain food and drinks to meet daily nutritional needs. According to Artika & Marini (2023), food consumption is an economic activity carried out by households that is directly related to efforts to maintain life through fulfilling energy and nutritional needs. Additionally, food consumption also reflects welfare levels, because communities with higher incomes usually prefer quality food.

Non-food consumption includes all types of household expenditures other than food, such as housing, education, transportation, health, communication, recreation, and other needs. Artika & Marini (2023) note that along with increasing income and community socio-economic progress, non-food consumption also increases. At certain income levels, expenditures for non-food needs such as education and transportation can even exceed food expenditures.

2.4. Relationship Between Consumption and Income

Keynes stated that there is a relationship between disposable income and consumption. Keynes also explained that current income greatly influences current consumption. According to Keynes, there are basic consumption limits that are not affected by income levels. In other words, that consumption level must be met even if the income level equals zero. This is called autonomous consumption. An increase in disposable income will be accompanied by an increase in consumption, but this increase will not be proportional to the increase in disposable income (Sitanggang et al., 2024).

$$C = C_0 + b Y_d$$

Where:

C = Consumption

C₀ = Autonomous Consumption

b = Marginal Propensity to Consume (MPC)

Y_d = Disposable income $0 \leq b \leq 1$

The relationship between income and consumption patterns as a balanced relationship, showing that higher consumption expenditures can be caused by greater income and vice versa, that lower consumption expenditures can be caused by less income. This relationship can be expressed as follows:

$$\begin{array}{l} Y \uparrow \rightarrow C \uparrow \\ Y \downarrow \rightarrow C \downarrow \end{array}$$

Related to these two variables, individuals will strive to increase their income so they can meet all their needs. Because they will carry out these efforts only if they obtain greater income.

2.5. Previous Research

Research conducted by Andreanto et al. (2022) in Kuripan Yosorejo Subdistrict, examining how income affects community consumption patterns. In this study, researchers used a quantitative approach and collected primary data through questionnaires, including laborers, farmers, civil servants, and traders. Income has a positive and significant effect in increasing community consumption levels in Kuripan Yosorejo Subdistrict. This can be seen from the F-statistic significance value of 40,837.604 with F-table of 3.942, namely (40,837.604 > 3.942) and (sig = 0.000 < 0.05). From data processing results, it can be concluded that the independent variable (X), namely income, affects the dependent variable (Y) consumption behavior) simultaneously.

Analysis by Perdana & Bandrang (2020) aims to examine expenditure patterns and income elasticity related to food and non-food spending among PT Salonok Ladang Mas employees. The research sample consists of two categories: employees holding high positions and employees carrying out operational tasks, taken randomly based on income level variations. Research findings indicate that there are no significant differences in expenditure patterns between the two categories, but there are differences in the amount of food consumed and total expenditures. Employees carrying out operational tasks tend to spend a greater proportion of income on food shopping compared to employees holding high positions. The average percentage of food expenditure from total expenditure for operational employees reaches 41.52%, while for management employees it is recorded at 38.76%.

3. Methods

3.1. Research Type

This research type is associative. Associative research is a type of research that aims to investigate relationships between two or more variables, without having to claim complex causal relationships. This type of research is very useful when researchers want to evaluate how strong and in what direction independent variables (for example, income) relate to dependent variables (such as consumption patterns), using statistical methods such as Pearson correlation, simple linear regression, or path analysis (Wahyuni & Rindrayani, 2025).

3.2. Data Type

The data used is primary data obtained directly from respondents through closed questionnaire distribution. The questionnaire contains questions designed to measure monthly income as an IV and monthly consumption expenditure, divided into:

- 1) Food expenditure
- 2) Non-food expenditure (as indicators of consumption patterns as dependent variables)

3.3. Population and Sample

The population in this study is all workers at mining companies located in Watusampu Subdistrict. The sampling technique uses purposive sampling, namely sample selection based on certain criteria such as permanent worker status and having regular monthly income. Therefore, researchers need to identify the target population and accessible population, before finally deciding on sample size and sampling methods to be applied (Basrah, 2014). To determine the number when the population is too large, the Slovin formula is used as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample
N = population
e = precision value

The population is 120, and the desired error rate is 0.15%, so the sample size used is:

$$N = 120 / 120 (0,15)^2 + 1 = 32,4, \text{ rounded to } 32.$$

3.4. Data Analysis Method

This analysis is used to provide a general overview of respondent characteristics (age, gender, education) and average values of income and food and non-food consumption expenditure. Data is presented in frequency table form. To test the influence of income on consumption patterns, simple linear regression formula is used with SPSS program assistance, with the following model (Suot et al., 2023):

$$Y = a + bX + e$$

Where:

Y = Consumption patterns (amount of expenditure for food and non-food)
X = Monthly income
a = constant
b = regression coefficient
e = error

Hypothesis testing is conducted by looking at significance values at 95% confidence level ($\alpha = 0,05$). Data processing is done using statistical programs such as SPSS. Statistical tests are used to determine whether independent variables have significant influence on dependent variables. Statistical tests used in this research are t-tests and coefficient of determination (R^2). Based on data taken from 32 respondents, monthly income received varies, ranging from Rp. 2.100.000 to Rp. 7.900.000. This data shows significant income differences among respondents, which certainly impacts consumption patterns for both food and non-food items. Average costs for food consumption range from Rp. 500.000 to Rp. 2.000.000, while non-food consumption expenditures are also in similar ranges.

Food consumption expenditures include all consumptive needs related to food and beverages. This includes ready-to-eat food, and beverages such as bottled water, coffee, tea, milk, and other instant products. Respondents who spend a lot of money on food (for example, those reaching Rp. 2.000.000 per month). Meanwhile, non-food expenditures include various types of costs such as transportation, entertainment and recreation, communication (phone credit, internet), clothing and accessories, and other household expenditures. Some respondents show balanced expenditures between food and non-food, indicating good and balanced financial management.

The spending patterns shown in this data indicate that although income increases, basic needs such as food and beverages remain the main focus in expenditures. However, as someone's income increases, the proportion of expenditure on non-food items usually also increases, especially for entertainment and lifestyle needs.

4. Results and Discussion

4.1. Research Results

4.1.1. Simple Linear Regression Results on Income Influence on Food Consumption of Unmarried Workers

The influence of income on the food consumption of unmarried workers based on simple linear regression analysis is shown in Table 1.

Table 1. Simple Linear Regression Results				
Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	
	B	Std. Error	Beta	t Sig.
(Constant)	230.543,653	331.503,045		0,695 0,492
Income	0,258	0,077	0,522	3,356 0,002

Source: processed data, 2025

Based on simple linear regression research results, the regression equation obtained is:

$$Y = 230.543,653 + 0,258X$$

The calculation results show that the constant value of 230,543.653 indicates that if unmarried worker income is zero, then food consumption is 230,543.653. The regression coefficient for the income variable valued at 0.258 shows that every income increase of one rupiah will result in increased food consumption of 0.258 rupiah. In other words, there is a positive relationship between income and food consumption.

Through testing analysis conducted with SPSS in the table, results were obtained from comparison between t-statistic and t-table $\alpha/2$ ($n-k-1$) = $32-1-1 = 30$ (2,042). The first hypothesis states that income has a positive impact on community consumption behavior. The income variable shows that t-statistic is exceed t-table ($3,356 > 2,042$), as such the income variable has a major effect on worker consumption behavior. Thus, the hypothesis is accepted.

Table 2. Model Summary	
R	0,522
R Square	0,273
Adjusted R Square	0,249
Std. Error of the Estimate	525.455,631

Source: processed data, 2025

Looking at the table 2, R value reaches 0.522 and coefficient of determination with Adjusted R Square value of 0.273. This means that independent variables can explain dependent variables by 27.3%, while the remaining 72.7% is explained by other factors not studied such as lifestyle, geographical location, and the like. Based on analysis, it can be concluded that income has a significant impact on consumption patterns.

Table 3. ANOVA Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.109.313.278.320,837	1	3.109.313.278.320,837	11,261	0,002
Residual	8.283.108.596.679,165	30	276.103.619.889,306		
Total	11.392.421.875.000,002	31			

Source: processed data, 2025

From the table 3, it can be seen that the F-statistic significance value is 11.261 with F-table of 4.170, namely ($11.261 > 4.170$) and ($\text{sig} = 0.002 < 0.05$). From data processing results, it can be concluded that the independent variable (X), namely income, affects the dependent variable (Y) consumption behavior.

4.1.2. Simple Linear Regression Results on Income Influence on Non-Food Consumption of Unmarried Workers

The results of the simple linear regression analysis are described in the following Table 4.

Table 4. Simple Linear Regression Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	922.634,574	459.345,706		2,009	0,054
Income	0,329	0,107	0,492	3,092	0,004

Source: processed data, 2025

Simple linear regression research results obtained the following regression equation:

$$Y = 922.634,574 + 0,329X$$

Regression calculation results show that the constant value reaches 922.634,574. This means that if an unmarried worker's income is zero, non-food consumption will still be at 922.634,574. This shows that even without income, unmarried workers still have to incur basic non-food costs that are usually needed. Through testing analysis conducted with SPSS in the table, results were obtained from comparison between t-statistic and t-table $\alpha/2$ ($n-k-1$) = $32-1-1 = 30$ (2,042). The first hypothesis states that income has a positive impact on community consumption behavior. The income variable shows that t-statistic is greater than t-table ($3,092 > 2,042$), so it can be concluded that the income variable has a significant effect on worker consumption behavior. Thus, the hypothesis is accepted.

Furthermore, the summary of the simple linear regression model is presented in the following Table 5.

Table 5. Model Summary

R	0,492
R Square	0,242
Adjusted R Square	0,216
Std. Error of the Estimate	728.095,236

Source: processed data, 2025

The correlation coefficient obtained ($R = 0.492$) shows a positive relationship with moderate strength between income and non-food consumption. R Square value of 0.242 shows that 24.2% of non-food consumption variation can be explained by income, while the remainder, 75.8%, is influenced by other factors outside this model. Adjusted R Square value

of 0.216 reflects adjustment to the number of variables in the model, which still indicates meaningful income contribution.

Table 6. ANOVA Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.067.491.706.280,131	1	5.067.491.706.280,131	9,559	0,004
Residual	15.903.680.168.719,873	30	530.122.672.290,662		
Total	20.971.171.875.000,004	31			

Source: processed data, 2025

Looking at the table 6, it can be seen that the F-statistic significance value is 9.559 with F-table of 4.170, namely ($9.559 > 4.170$) and ($\text{sig} = 0.002 < 0.05$). From data processing results, it can be concluded that the independent variable (X), namely income, affects the dependent variable (Y) consumption behavior.

4.1.2. Simple Linear Regression Results on Income Influence on Food Consumption of Married Workers

The results of the simple linear regression analysis for married workers are presented in the following Table 7.

Table 7. Simple Linear Regression Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	170.503,477	87.506,102		1,948	0,061
Income	0,361	0,019	0,959	18,576	0,001

Source: processed data, 2025

Based on simple linear regression calculation results, the following equation is obtained

$$Y=170.503,477+0,361X$$

The constant value of 170,503.477 indicates that married worker food consumption still occurs even when income is zero. This shows the existence of basic household needs that must be met to maintain survival, whether there is income or not. Meanwhile, the income regression coefficient of 0,361 indicates that every income increase of one rupiah will be followed by increased food consumption of 0,361 rupiah. Thus, it can be concluded that there is a positive relationship between income and food consumption, meaning the higher the income received by married workers, the greater the proportion of expenditure allocated to meet food needs.

Through testing analysis conducted using SPSS on the coefficient table, comparison results were obtained between t-statistic and t-table with degrees of freedom ($n-k-1$) = $32-1-1 = 30$ at 0,05 significance level valued at 2,042. Test results indicate that the t-statistic value of 18,576 is higher than t-table 2.042, and the significance value is 0,001.

The following is the summary of the obtained simple linear regression model, as displayed in Table 8.

Table 8. Model Summary

R	0,959
R Square	0,920
Adjusted R Square	0,917
Std. Error of the Estimate	81.837,007

Source: processed data, 2025

Simple linear regression analysis results show that the correlation coefficient (R) is 0,959. This figure shows a very strong relationship between income and consumption, because the closer the value is to 1, the stronger the relationship. Additionally, the coefficient of determination (R Square) of 0,920 indicates that 92.0% of consumption changes can be explained by income.

Table 9. ANOVA Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.310.927.178.473,462	1	2.310.927.178.473,462	345,054	0,001
Residual	200.918.872.118,413	30	6.697.295.737,280		
Total	2.511.846.050.591,875	31			

Source: processed data, 2025

ANOVA analysis results in the table 9 above illuminates that the F-statistic value reaches 345.054 with significance level (Sig.) of 0.001. This figure is lower than $\alpha = 0.05$, so we can conclude that the applied regression model has statistical significance.

4.1.3. Simple Linear Regression Results on Income Influence on Non-Food Consumption of Married Workers

The results of the simple linear regression analysis regarding the consumption of married workers are presented in the following Table 10.

Table 10. Simple Linear Regression Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	212.953,571	207.870,492		1,024	0,314
Income	0,557	0,046	0,911	12,064	0,001

Source: processed data, 2025

Based on simple linear regression calculation results, the following equation is obtained:

$$Y=212.953,571+0,557 X$$

Results show that the constant value of 212.953,571 indicates that if married worker income is zero, then food consumption is 212.953,571. The regression coefficient for the income variable valued at 0,557 shows that every income increase of one rupiah will result in increased food consumption of 0,557 rupiah. In other words, there is a positive relationship between income and food consumption.

Table 11 presents a summary of the simple linear regression results between income and consumption of workers.

Table 11. Model Summary

R	0,911
R Square	0,829
Adjusted R Square	0,823
Std. Error of the Estimate	194.403,574

Source: processed data, 2025

Simple linear regression analysis results show correlation coefficient (R) of 0.911. This figure shows a very strong relationship between income and consumption. Therefore, it can be concluded that income increases among workers are followed by significant consumption

increases. Further, R Square value reaching 0.829 shows that 82.9% of consumption variation can be explained by income.

Table 12. ANOVA Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5.499.950.970.143,821	1	5.499.950.970.143,821	145,529	0,001
Residual	1.133.782.487.097,054	30	37.792.749.569,902		
Total	6.633.733.457.240,875	31			

Source: processed data, 2025

ANOVA analysis results in the table 12 reveal that F statistic reaches 145.529, while significance value (Sig.) recorded as 0.001. This figure is much lower than the established significance level ($\alpha = 0.05$), and also the F statistic exceeds F-table value ($145.529 > 4.170$). This shows that the regression model applied in this research is statistically significant.

4.2. Discussion

4.2.1. Income Influence on Food Consumption of Unmarried Workers

This research results confirm that income has a very important role in shaping food consumption patterns among unmarried workers. Conceptually, income functions as a purchasing power determinant, so the higher the income obtained, the greater the worker's ability to meet food needs with better quality and quantity. In daily life context, income increases provide flexibility for unmarried workers to not only meet basic needs like rice, side dishes, and vegetables, but also enable them to consume more varied, nutritious food, and occasionally enjoy ready-to-eat food or dining out. This condition shows that income increases not only contribute to meeting basic needs, but also to improving nutritional quality and consumption variety.

Thus, food consumption becomes the top priority in unmarried worker expenditure structure. Additionally, this research results support the view that unmarried workers with higher income levels tend to have more regular, balanced eating patterns that meet nutritional standards, so they can improve their health and work productivity. Such consumption patterns show that income not only affects the amount of food consumed, but also its quality, so it has direct implications for individual welfare.

4.2.2. Income Influence on Non-Food Consumption of Unmarried Workers

This research results also show that income has significant influence on non-food consumption of unmarried workers. Practically, these findings confirm that the higher the income received, the greater the worker's ability to meet various non-food needs, such as transportation costs, communication, entertainment, and other personal needs. In real life, unmarried workers with higher incomes tend to have financial freedom to allocate funds for improving quality of life, for example by renting more decent housing, using more comfortable transportation, or investing in education and self-development. In other words, income increases encourage shifts in consumption patterns from food needs to non-food needs. This phenomenon also reflects that unmarried workers with relatively high incomes have more varied consumption preferences, including entertainment and recreation, so they can support work-life balance.

From socio-economic perspective, this non-food consumption pattern shows that income is not only a means to meet living needs, but also an instrument to improve psychological and social welfare. Unmarried workers with proportional non-food

expenditures tend to have better life satisfaction levels, which in turn can improve their motivation, productivity, and work engagement. Thus, this research results provide empirical evidence that income plays a strategic role in shaping non-food consumption patterns, which impacts overall worker quality of life.

4.2.3. Income Influence on Food Consumption of Married Workers

Analysis results show that income has very strong influence on married worker food consumption patterns. In households, food needs not only include consumption fulfillment for one individual, but must be able to meet the needs of all family members. Therefore, every income increase will provide real impact on food quality and quantity served at home.

Workers with higher incomes tend to be able to buy more varied food ingredients, including animal protein, fruits, and fresh vegetables, which are important for health and growth of family members, especially children. This increased ability to buy quality food has implications for improved family nutritional status, which in turn can improve health and productivity of workers as breadwinners (Anggraeni et al., 2019; Meutia et al., 2023).

Additionally, food consumption patterns in households are influenced by family social and economic responsibility factors. Unlike unmarried workers who are freer to determine their eating patterns, married workers must consider distribution needs for all household members, so priority on balanced nutrition fulfillment becomes more dominant. Thus, the higher the income, the greater the family's opportunity to achieve better food security and maintain overall quality of life.

4.2.4. Income Influence on Non-Food Consumption of Married Workers

Income influence on non-food consumption is also very significant. Income increases enable families to meet needs outside food, such as education costs, health, transportation, and expenditures for housing and communication (Ramadhan et al., 2023). This shows that income not only functions to maintain survival, but also to improve living standards through meeting secondary and tertiary needs. Non-food consumption patterns in worker families are usually more directed toward long-term needs and future investments. For example, families with higher incomes tend to be able to send children to better educational institutions, conduct routine health care, and make home improvements or buy goods that improve living comfort.

This condition strengthens the view that income increases not only improve purchasing power, but also expand family ability to achieve more stable social and economic welfare (Anggraeni et al., 2019; Meutia et al., 2023). In other words, non-food consumption in worker families functions as a means to improve quality of life sustainably, so it plays an important role in creating healthier, more educated, and productive generations.

4.2.5. Negative Impacts of Class C Mining Companies

Class C mining activities in Watusampu Subdistrict cause real impacts on both environmental conditions and social life of local communities. Mining activities through hill excavation and equipment use result in natural damage, reduced vegetation cover, and disruption of clean water source quality. Additionally, material transportation and stone crushing activities produce dust pollution that triggers increased Acute Respiratory Infection (ARI) cases, especially among vulnerable age groups such as children and elderly. Mining vehicle mobility also worsens road damage, while land use changes increase potential for floods and landslides during high rainfall. Although mining presence provides job opportunities for some communities, these economic benefits are not proportional to ecological and health losses experienced (Pratiwi et al., 2024). This reflects imbalance between economic orientation and environmental sustainability, so strict regulations, consistent

supervision, and concrete mitigation steps are needed to minimize negative mining impacts in the region.

5. Conclusion

Income is proven to significantly influence food and non-food consumption of unmarried and married workers. For unmarried workers, the equation $Y = 230.543,653 + 0,258X$ shows that food needs still exist even without income and increase with additional earnings. The correlation value of 0,522 indicates a fairly strong relationship, while determination of 27,3% shows income plays an important role in shaping food consumption patterns. Similarly, income significantly influences non-food consumption through the equation $Y = 922.634,574 + 0,329X$, demonstrating that basic non-food expenditures exist even without income and increase with earnings growth. The correlation value of 0,492 shows a moderate relationship, while determination of 24,2% indicates income only explains part of non-food consumption variation. For married workers, income plays a dominant role in shaping food consumption, as shown by the equation $Y = 170.503,477 + 0,361X$, indicating basic food needs exist even without income. The correlation value of 0,959 reflects a very strong relationship, while determination of 92,0% shows most food consumption variation is explained by income. Income also significantly influences non-food consumption of married workers through the equation $Y = 212.953,571 + 0,557X$, showing basic non-food expenditures exist even without earnings. The correlation value of 0,911 and determination of 82,9% confirm that income is the main factor in explaining non-food consumption variation. Overall, unmarried workers tend to have lower income influence on consumption, while married workers show greater dependence on income in managing household expenditures.

Based on these findings, several recommendations can be made. Unmarried workers are advised to manage income wisely, allocating portions for savings or investment to prevent excessive consumptive behavior. Married workers should accompany income increases with directed consumption planning, particularly for household food and non-food needs. Employers and mining companies can use these results to design employee welfare policies, as income increases positively impact worker welfare and purchasing power. Local governments can formulate economic policies related to minimum wage standards or basic needs subsidy programs to help workers meet essential needs without economic pressure. Future research should include additional variables such as family dependents, education level, consumption patterns, and social or cultural factors, while also considering advanced methods like multiple regression or panel analysis. Mining companies are expected to carry out land reclamation, provide compensation, and involve communities in supervision to maintain environmental sustainability and reduce social and health risks.

6. References

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