

Migration Analysis of Labor Commuters in the City of Padang

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ABSTRACT

This study is to analyze the effect of wage level, level of education, age, sex, status of marital, and employment sector on the employment opportunities to migrate commuters in the city of Padang. The population in this study were all laborers in the city of Padang as many as 701 people. Data analysis techniques using logistic regression. This study results that wage level, education level, gender, and employment sector had significant effect and positive effect on the employment opportunities of Padang City in commuting migrations. However, age and marital status do not affect the employment opportunities of Padang City in commuting migrations. Based on these results, the policy implications in this study so that the government can adjust the wages received by workers to reduce the flow of labor migrating commuters. It is expected that the Padang City Provincial Government can provide employment in the area of origin, provide and provide training to workers in order to improve *soft skills* which is owned by labor.

Keywords: migration, commuting, labor

1. INTRODUCTION

The narrow factor of employment occurring in the village will drive the mobility behavior of the population higher. This is caused by a factor that decreases from the shifting agricultural land, the manufacturing sector, services, and the habits of parents to divide their land as inheritance to their offspring. The higher awareness of education makes young people feel that life in their area of origin is increasingly unattractive. They also choose to move to more advanced cities to receive better quality education with more complete facilities (Purnomo, 2006). In the end they expect a higher income than the area of origin from work that suits their field.

Besides the emergence of the socio-economic problems above, there are also other problems that arise that link villages with cities, namely, the emergence of the phenomenon of labor decisions

in commuting migration. Rural workers who are forced to decide to become commuters by working in other cities or regions have different backgrounds, one of which is due to the pressure of socio-economic conditions that are not sufficient for the cost of daily living. There is hope for employment opportunities with better wages, encouraging rural workers to choose alternatives to commuting migrations to other cities or regions in order to make ends meet.

Lee (Todaro, 2012) believes that one's motivation to move is an economic motive. The motive developed because of the economic imbalances between regions. Todaro calls the main motive as rational economic considerations, where someone mobility to the city is the hope of getting a job and earning a higher income than that obtained in the countryside. Same with the opinion of Robert (2000) also provides an

explanation as quoted by Mayda (2010) that unequal employment and agricultural income in rural areas motivates rural to urban migration. Thus, the movement of villages to cities also reflects the imbalance between the two regions.

Because commuting actors spend more income in the village or area of origin such as financing their daily needs and investing in buying land, livestock and building houses, the effect of commuter activities is to increase the economic welfare of the commuting family. Thus there is a flow of money from cities to villages and vice versa a flow of labor capital from villages to cities. Additional income is the impact that they expect and they plan beforehand, while unwittingly or not by them has an impact, especially in their social life. Commuter motion which is one form of linkages between rural-urban areas has brought a flow of information and innovations that occur in cities more quickly to villages. Good transportation support will further strengthen the linkages between villages and cities. While in the city there is interaction between city dwellers and villagers, so that they exchange cultures and habits that will ultimately affect social life in the city and in their home village (Effendi, 2004).

This commuter migration phenomenon also occurs in the city of Padang. Table 1 explains the number of workers commuting for commuting in the city of Padang. The number of workers commuting for commuting in 2017 is 178 people, while in 2018 it has increased by 222 people. This increased is thought to be influenced by several factors including wages, education level, age, gender, marital status, and employment sector.

Table 1. Number of Workers Commuting Migration in Padang City 2017-2018

Year	Number of people
2017	178
2018	222

Source: 2017-2018 Sakernas

Based on the background above, the problem is the large number of city workers in Padang

who work to earn income to help the family economy by commuting to other areas in Padang City, even though they should not work as commuters. Most of the workers hope to get job opportunities in their home regions, but there are economic conditions in the area of origin that do not support meeting the daily needs of life. Causing workers to find better job opportunities with higher wages, namely by commuting to other areas in the city of Padang.

2. METHODS

The population used in this study were all workers in the city of Padang and were recorded by the National Labor Force Survey (Sakernas) in 2018 by the Central Statistics Agency. While the sample studied was all labor migrants commuting daily in Padang as many as 701 people.

This study uses estimation techniques logistic regression as follows:

$$Y = \ln \frac{p}{1-p} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$

Where:

- Y = Inflation
- X1 = Wage Level
- X2 = Education Level
- X3 = Marital Status
- X4 = Age
- X5 = Gender
- X6 = Employment Sector

3. RESULTS AND DISCUSSION

The logistic regression estimation results in this study were processed using Eviews 9 with value of $\alpha = 0.05$. If the alfa α small than significance value then independent variable does not have a significant effect on the X's variable. While at a significance value smaller than 0.05, the independent variable has a significant effect on the dependent variable.

The estimation results of the logistic regression of labor commuter migration in the city of Padang could be seen at Table 2.

Table 2. Estimation Results of Logistic Regression Parameters and Odd Ratio Factors Influencing Employment Opportunities in Padang City to Do Space Migration in 2018

Dependent Variable: Y

Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)

Date: 05/23/20 Time: 23:55

Sample: 1 701

Included observations: 701

Convergence achieved after 3 iterations

Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.107813	0.274269	-4.039148	0.0001
X1	0.664872	0.174114	3.818603	0.0001
X2	0.048595	0.021592	2.250640	0.0021
X3	0.118075	0.196245	0.601672	0.5474
X4	0.478008	0.230386	2.074809	0.0380
X5	0.042756	0.177940	0.240283	0.8101
X6	0.610245	0.183176	3.331470	0.0009
McFadden R-squared	0.035791	Mean dependent var		0.316690
S.D. dependent var	0.465518	S.E. of regression		0.457665
Akaike info criterion	1.223978	Sum squared resid		145.3634
Schwarz criterion	1.269438	Log likelihood		-422.0043
Hannan-Quinn criter.	1.241550	Deviance		844.0086
Restr. deviance	875.3381	Restr. log likelihood		-437.6691
LR statistic	31.32953	Avg. log likelihood		-0.602003
Prob(LR statistic)	0.000022			
Obs with Dep=0	479	Total obs		701
Obs with Dep=1	222			

1. Effect of Wage Levels Against Opportunities Padang City Workers commute migrating

The variable wage level (X1) has a significant effect on the employment opportunities of Padang City in commuting migration. This can be seen from the z-statistic probability value of $0.0001 < 0.05$ that means that H_0 rejected and H_a is accepted. It means that wages have a significant effect on the employment

opportunities of Padang City in commuting migrations.

The analysis shows that the wage variable has + (positive) and significant effect on the employment opportunities of Padang City in commuting migration. This happens because the higher the income a person receives, the higher the mobility of a person to carry out commuter migration. Because with high wages resulting in

labor welfare will be met. With welfare being met, the workforce will increase its mobility in commuting migration with the aim of improving the labor economy.

2. Effect of Education Level on Employee Opportunities in Commuting Migration in Padang City

At the variable level of education (X₂) has a significant effect on the employment opportunities of the City of Padang to commute migration. This can be seen from the z-statistic probability value of 0.0021 smaller than 0.05 which means that H₀ rejected and H_a accepted. This means that the level of education significantly influences the employment opportunities of the Padang City in commuting migration.

The analysis results showed that the variable level of education had positive and the effect is significant on the employment opportunities of the Padang City in commuting migration. This finding concludes that the higher the education of a workforce, the tendency for the workforce to migrate commuting is also increasing. Where a higher level of education will increase one's interest in commuting migration and can open new opportunities in the labor market through his abilities. On the other hand, with high education will affect the mindset of workers to get jobs and income better than before.

3. Effect of Age on Labor Opportunities in the City of Padang to commute migration

The Effect variable of age has no significant on the employment opportunities of the Padang City in commuting migration. This could be seen from the z-statistic probability value of 0.5474 over than 0.05 which means that H₀ accepted and H_a rejected. This means that age does not significantly influence the employment opportunities of the Padang City in commuting migration.

The analysis results showed showed that the age variable had + (positive) and the effect not

significant on the employment opportunities of the Padang City in commuting migration. This finding concludes that the age variable has no effect in determining a person's chance of commuting migration. Because of age isn't the main factor why someone decides to commute migration, but the age variable has a positive coefficient value, meaning that the more a person is at the peak of productive age, the tendency or opportunity for such workers to migrate commuting also increases. This happens because young workers are more likely to migrate commuters, because they have physically strong and productivity at work is still very good.

Whereas if the age of the workforce has reached the age of 60 years and above, then the employment opportunities for migrating commuter will be reduced due to the increasing age of labor, the immunity of the workforce to migrate commuting decreases, then the labor will choose to settle in the destination area (place of work). This is related to decreased endurance in old age.

4. The Influence of Gender Against Labor Opportunities in the City of Padang to Commute Migration

On the employment opportunities of the Padang City, the variable of gender has significant influence in commuting migration. This can be seen from the z-statistic probability value of 0.0380 smaller than 0.05 which means that H₀ rejected and H_a accepted. It means that the effect of gender is significant on the employment opportunities of the Padang City in commuting migrations.

The results of the analysis showed that gender variables had a positive and significant effect on the employment opportunities of the Padang City in commuting migration. This finding concludes that the gender variable influences the chances of someone commuting a commuter migration. This means that employment opportunities that migrate commuting to the male sex will have greater opportunities than the

female sex. This is because men have a greater responsibility in the household, so that they will spend more time working to increase their income and prosperity. Unlike the case with the female sex they are more likely to take care of the household, if they want to work they only work voluntarily with the aim of increasing their income which is not fixed working hours or as much as men's work hours.

5. The Influence of Marriage Status Against the Opportunities of Workers in the City of Padang to Perform Commuter Migration

The variable of marital status has no significant influences on the employment opportunities of the Padang City in commuting migration. This can be seen from the z-statistic probability value of $0.8101 > 0.05$ which means that H_0 is accepted and H_a is rejected. This means that marital status has no significant effect on the employment opportunities of Padang City in commuting migrations.

The analysis results indicate that the marital status variable has positive and not significant effect on labor opportunities for commuting migration in the city of Padang. This means that married workers will have a high enough opportunity to migrate commuters because of the growing push to get better income. This is influenced because married workers will have a higher cost than before. However, it does not rule out the possibility for someone who has an unmarried marital status to commute migration because of the desire to get more income in the destination city.

6. The effect of the employment sector on the employment opportunities of the city of Padang in commuting migration

The employment sector variable has a significant influence on the employment opportunities of the City of Padang in commuting migration. This can be seen from the z-statistic probability value of 0.009 smaller than 0.05 which means that H_0 rejected H_a accepted. It means that the employment sector has a

significant effect on the employment opportunities of the Padang City in commuting migration.

The results of the analysis show that the employment sector variable has a positive and significant effect on the employment opportunities of the Padang City in commuting migration. This finding concludes that the work sector variables influence in determining one's chances of commuting migration. This means that workers who work in the formal and informal sectors will have an influence on labor opportunities that carry out commuter migration.

If seen from the results of the descriptive work sector data that the formal sector dominates more absorbing the workforce committing migration with a percentage of 61.5% while the informal sector has a percentage of around 38.5%. This happens because workers who commute to commute migrations have high education and soft skills so they are more dominant in working in the formal sector such as employees, laborers and employees.

7. Effects of Wage Level, Education Level, Age, Gender, Marital Status and Employment Sector on Workforce Opportunities in Kota Padang Doing Commuter Migration.

The results of the analysis show that together the variables of wage level, level of education, age, gender, and marital status have a positive and significant effect on employment opportunities of Padang City commuting migrations with probability value $> \chi^2$ is 0,000 with a real level of 5% significance $0,000 < 0.05$. This means that together, the variables of wage level, education level, age, sex, and marital status have a significant influence on the employment opportunities of the City of Padang in commuting migrations.

Based on the McFadden R-squared value of 0.035791, 3.52% of the dependent variables commuter migration could be explained by independent variables (variables of wage level, education level, age, gender, marital status and

employment sector). McFadden R-squared value for research is sufficient to determine the effect of each independent variable on the dependent variable, which means that together the contribution of the independent variable to the dependent variables is 3.52% while another

96.48% is showed by other variables in outside of this study.

From logistic regression estimation results in Table 2 the calculation of odds ratio can be produced at the following table 3 bellow:

Table 3. Odds Ratio Calculation Results Labor Commuter Migration in Padang City

Variable	Coefficient	Odds ratio
X1	0.664872	1.945059
X2	0.048595	1.049827
X3	0.118075	1.125412
X4	0.478008	1.613346
X5	0.042756	1.043711
X6	0.610245	1.841592

Source: Eviews 9 (2020)

From Table 3 it can be seen that the variable odds ratio of wages is 1.94. This figure shows that if wages received by labor are high, it will increase the employment opportunities of Padang City for commuting migration by 1.94 times compared to if wages received are low.

The odds ratio value of the education level variable is 1.04. This figure shows that the high level of education of the workforce will increase the employment opportunities of the City of Padang to commute migration by 1.04 times compared to the low level of education. The age variable odds ratio is 1.12. This figure shows that the age of the older workforce will increase the employment opportunities in Padang City for commuting migration by 1.12 times compared to the age of the younger workforce.

The odds ratio value of the sex variable is 1.61. This figure shows that Padang City's male workforce has an opportunity to migrate commuter 1.12 times compared to female workers. The odds ratio value for marital status variable is 1.04. This figure shows that Padang City workers who are married have an opportunity to migrate commuters by 1.04 times compared to unmarried workers. The odds ratio value of the employment sector variable is 1.84.

This figure shows that Padang City workers who worked in the formal sector had an opportunity to migrate commuter 1.84 times compared to workers who worked in the informal sector.

Based on the Pseudo R2 (Goodness of fit) value of 0.0510, 5.1% of the dependent variable commuter migration can be explained by independent variables (variables of wage level, education level, age, sex, marital status and employment sector). Pseudo R2 value of 0.0510 for research is sufficient to determine the effect of each independent variable on the dependent variable, which means that together the contribution of the independent variable to the dependent variable is 5.1% while 94.9% again explained by other variables outside of this study.

4. CONCLUSIONS

The results of the study concluded: 1. The wage rate (X1) has a positive and significant effect on the employment opportunities of the City of Padang in commuting migration (Y) at alpha 5%. This shows that the higher the income received by a worker in the workplace, the opportunity for the workforce to migrate commuting also increases 2. The level of education (X2) has a positive and significant

effect on the employment opportunities of Padang City commuting (Y) at alpha of 5%. This shows the higher level of education of a person, the higher the desire to commute migration. 3. Age (X3) has a positive and insignificant influence on the employment opportunities of the City of Padang in commuting migration (Y) at alpha 5%. The more a person is at the peak of productive age, the tendency or opportunity of the labor force to migrate commuting will not increase. 4. Gender (X4) has a positive and significant effect on the employment opportunities of Padang City commuting (Y) at alpha of 5%. This means that male sex dominates more commuter migrations than women. 5. Marital status (X5) has a positive and insignificant influence on the employment opportunities of the City of Padang in commuting migration. (Y) at alpha 5%. This means that both workers who are married or not married will not have an impact on the tendency of workers in the city of Padang to commute migration. 6. The employment sector (X6) has a positive and significant impact on the employment opportunities of the City of Padang in commuting migration. (Y) at alpha 5%. This means that workers who work in the formal sector will have influence and opportunities for workers to migrate commuters in the Padang city.

Based on these results, the policy implications in this study so that the government can adjust the wages received by workers to reduce the flow of labor migrating commuters. It is expected that the each Regency and City in West Sumatera Provincial Government can provide employment in the area of origin, provide and provide training to workers in order to improve *soft skills* which is owned by labor.

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