Journal of Strategic and Global Studies

Volume 1
Number 1 *January*

Article 2

1-30-2018

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Recommended Citation
Chotib and Nurbaiti, Beti (2018) "Are Migrant Workers in DKI Jakarta More Welfare than Non Migrants?: A Data Analysis of National Social and Economic Survey (Susenas) 2013," *Journal of Strategic and Global Studies*: Vol. 1 : No. 1 , Article 2.
DOI: 10.7454/jsgs.v1i1.1001
Available at: https://scholarhub.ui.ac.id/jsgs/vol1/iss1/2

Are Migrant Workers in DKI Jakarta More Welfare than Non Migrants?: A Data Analysis of National Social and Economic Survey (Susenas) 2013

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ABSTRACT

The objective of this research is assessing welfare status of Worker in DKI Jakarta and its relationships to migration status and other determinant variables (other socio-demographic variables). By using Susenas (National Socio-Economics Survey) 2013 raw data as a source of research data, this research conducted analysis with two stages: 1) Constructing the worker's welfare status by using PCA (Principle Component Analysis); 2) Statistical analysis to show the effect of migration status and other variables on worker's welfare status in DKI Jakarta. The statistical analysis employed both descriptive and inferential statistics. The result of descriptive analysis shows that the welfare workers tend to be in those with some characteristics as follow: non-migrant status, older age, female, higher education, unmarried workers, and workers with formal job status. The inferential analysis using binary logistic regression exhibits that migration status and other socio-demographic variables have significant effects on welfare status of workers.

Keywords: Welfare status; Susenas 2013; PCA; binary logistic regression.

1. Introduction

In many developing countries, where the majority of the population still lives in rural areas, the desire to migrate to urban areas increases with the availability of much better jobs and improved economic conditions in urban areas. The agricultural sector began to be neglected as development progressed and the industrial sector widened. The World Bank Report (2001, p. 5) reveals the fact that world income distribution is declining drastically and the economic cake in developing countries is also declining, and even 70% of the world's population in developing countries enjoy only 30% of the world's economic cake.

Indonesia has a higher level of urbanization than the rate of economic development (Yadava, 1989, p. 2). This has led to various excesses, such as city density, difficulty of garbage disposal, lack of housing, educational facilities, lack of water and electricity, including traffic

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congestion (Yadav, 1987, p. 47). Migration to urban areas is not a mere demographic phenomenon but related to other dimensions with broader implications (Wirakartakusumah, 1999, p. 7 and Chotib, 1998, p. 34).

It can be understood that the migration from rural into urban areas is a necessity of individuals, families, and communities to achieve a better life, not only in terms of income/ wage (economic factor) to be more prosperous, but also from the comfort side of life by enjoying the facilities of education, health and entertainment (non-economic factor) is safe and comfortable.

This paper aims to identify the effect of migration on the welfare of individual workers in DKI Jakarta. This paper will also show the impact of other variables (socioeconomic demography) on the welfare of the individual workers.

2. Literature Review

Migration is one of the three main demographic components, namely fertility, mortality and migration. Like the other two components, migration affects not only the magnitude of the population of a region, but also has a significant influence on the socio-economic, cultural, political and physical environment (Alatas, 1995, p. 2). Economic development will indeed encourage mobility and population movement, as people will go to areas where they promise a better life, for themselves and their families than where they come from (Tjiptoherijanto, 2000).

Todaro's study (2006, p.77) states that the higher the level of education that bears the greater the tendency of a person to move to another area that is considered more profitable. The level of education can describe the mastery of information. Therefore, those with higher education have more tendencies to migrate than those who are less educated for reasons of economic factors. The rural-urban wage gap has varied over time.

Human capital theory also predicts that the migration flow from the relatively poor areas to areas that have better job opportunities. The results of several studies on migration suggest that better job attrition factors in destination areas are stronger than those of the small employment opportunities origin (Ehrenberg and Smith, 2002).

Aritonang (1998) conducted a study on the migration behaviour of migrants in working age in Indonesia with the 1993 Indonesian Household Survey Aspect (SAKERTI) survey data by focusing on migration of civilian and military migrants. Chotib (1998) conducted a study on the

migration model schedule from DKI Jakarta / Out of DKI Jakarta, using a multiregional demographic approach with the SUPAS Data Analysis 1995.

Housing also influences the decision to migrate. Chotib (2003) explaining that the area where the percentage of people living in urban areas is more likely to be the destination of migration. Wiyono (2003) conducted a study on the effect of migration on socio-economic status of Indonesian women by examining the patterns and differences in work status and socio-economic status of women based on migration reasons: family migration, individual migration, education, origin, age, married, have children under five or no, household expenses and other income sources, as well as ethnic groups.

Bocquier (2005) conducted an empirical analysis based on provincial panel data revealing the role of urbanization at the urban work rate. Empirical analysis based on data from 29 provinces during 1995 and 2010, for further stability test and co-integration test of panel data, also estimated parameters on panel data models. Saepudin (2007) analyzed the factors influencing labor migration into Bogor, Depok, Tangerang and Bekasi (BODETABEK) areas using SUPAS 2005 data. The labour risen migration in BODETABEK region influenced by migrant age, gender, marital status, occupation, employment status, GDRP growth, industry sector role, open unemployment rate and wages of labourers/employees.

Harfina (2008) conducted a study of the impact of income differentials on migration decisions. This is seen from the income of migrants and non- migrants as well as their characteristics such as sex, marital status, health status, community participation, age, duration of education, employment status, employment, number of family members, dominant tribe, as well as wife's employment status. Another factor that influence the welfare is the location of migrants and non-migrants. Apparently, migration decisions were influenced by differences in income versus non-migration.

Wisana (2014) examines the migration of urban village workers in terms of the labour market aspect and its impact on economic development in Indonesia. The data used in this case Indonesia Family Life Survey (IFLS) in 2000, 2003 and 2007. This study measured spending on migrant health are influenced by emotional health, physical health as measured by the *Body Mass Index* (BMI), blood pressure and lung capacity As well as the risk of smoking habits per day.

3. Methodology

This study uses National Socioeconomic Survey 2013 (Susenas 2013) raw data, with focus on individual population of DKI Jakarta aged 15 years and over (manpower age) with the status of work on the question of activities a week ago for a minimum of 1 (one) consecutive hours of uninterrupted *(economically active population)* in 2013. The individual data covers a number of 13,238 respondents.

This study has 7 (seven) variables involved in the model, consisting of 1 (one) dependent variable and 6 (six) independent variables. One dependent variable is a latent variable that cannot be measured directly, namely the welfare status as measured by *wealth index* based on the questions of housing information in Block VI questionnaire Susenas, 2013. This information constructs a welfare status of workers by using PCA (Principle Component Analysis) method.

This research conducts two quantitative analysis: descriptive and inferential analysis. Descriptive analysis employs the bivariate cross tabulation between each independent variable and welfare status of workers. Inferential analysis uses Binary Logistic Regression as a tool. The inferential analysis has 3 models, where welfare status is a dependent variable. Model 1 employs only migration status as an explanatory variable. Model 2 employs other socioeconomic variables without migration status as explanatory variables. Model 3 as a full model, which is involving migration status and other socioeconomic variables.

Model 1 (migration only):

$$ln\left(\frac{p_1}{p_0}\right) = \beta_0 + \beta_1 Mig$$

Model 2 (without migration):

$$ln\left(\frac{p_1}{p_0}\right) = \beta_0 + \beta_2 Age_1 + \beta_3 Age_2 + \beta_4 Age_3 + \beta_5 Gender + \beta_6 Educ_1 + \beta_7 Educ_2 + \beta_8 Mar + \beta_9 Stapek$$

Model 3 (full model):

$$ln\left(\frac{p_1}{p_0}\right) = \beta_0 + \beta_1 Mig + \beta_2 Age_1 + \beta_3 Age_2 + \beta_4 Age_3 + \beta_5 Gender + \beta_6 Educ_1 + \beta_7 Educ_2 + \beta_8 Mar + \beta_9 Stapek$$

Where:

p_1	=	The probability that workers to be welfare
p_0	=	The probability that workers to be not welfare
Mig	=	Migration status: 1= if migrant; 0= if non-migrant
Age_1	=	Working age group: 1=if middle career (25-34 years); 0=others
Age_2	=	Working age group: 1=if peak career (35-54 years); 0=others
Age_3	=	Working age group: 1=if post career (55 years and over); 0=others
Age_0		Working age group: reference category=initial career (15-24 years)
$Gender$	=	Worker gender: 1=if worker is male: 0=if worker is female
$Educ_1$	=	Worker education: 1=if secondary education (completed high scholl or D1/D2); 0=others
$Educ_2$	=	Worker education: 1=if higher education (completed D3 and above)
$Educ_0$	=	Worker education, up to graduate from junior high school (as a reference category)
Mar	=	Marital status: 1=if workers are married; 0=if workers are unmarried
$Stapek$	=	Working status of workers: 1=if formal job; 0=if informal job.

4. Result Analysis and Discussion

According to Susenas 2013 data, workers in DKI Jakarta tend to be welfare (50.88%). Descriptive analysis result shows that if the workers are grouped into migration status, it can be stated that non-migrant workers tend to be more welfare than migrants. Table 1 shows that 51% non-migrant workers are more welfare than migrants do which have less than 45% welfare.

The relationship between age group and welfare status tends to be positive. The older the workers, the higher percentage of welfare workers. Table 1 shows that the highest percentage of welfare workers are in the oldest age group (55 years and above), that is almost 66 %. The second highest percentage of welfare workers is in lower age group (35-54 years) that is 48%. For the workers with age group 25-34, the percentage is lower, that is 44 %. However, the workers with the youngest age group has higher percentage of welfare, that is 51 %. The younger workers usually remain stay with their parents in a household. They do not play role as a head, but as a member of prosperous household.

The result of data analysis also shows that female workers in DKI Jakarta tend to be more prosperous than that of male workers. This finding was indicated by the data where the table shows that women workers in DKI Jakarta have higher percentage of welfare than male workers.

Workers in DKI Jakarta tend to be welfare in line with rising of education level. Workers with low levels of education (SLTP and below) tend to have lower percentage of welfare status. Education is a socio-demographic aspect regardless of gender relativity, male or female workers. The more advanced a nation, the more people who get the education, so that workers who have higher education level more prosperous. The table also shows that workers with unmarried status tend to be higher percentage of welfare status than that of married workers.

There was almost no difference in welfare between formal and informal workers. The informal sector plays an important role in contributing to urban development, as the informal sector is able to absorb substantially lower levels of labour (especially lower income), thereby reducing the problem of urban unemployment and increasing the incomes of the urban poor.

Table 1. Distribution of Welfare Status by Status of Migration and Other Variables

Independent Variables	**Welfare Status**		**Number of Observation**	
	Not Welfare	**Welfare**	**%**	**n**
Migrant Status:				
- Non-Migrant	48.91	51.09	100	12792
- Migrant	55.16	44.84	100	446
Age Group:				
- 15-24	49.40	50.60	100	2905
- 25-34	55.61	44.39	100	2834
- 35-54	51.71	48.29	100	5285
- 55+	34.28	65.72	100	2214
Sex:				
- Female	46.94	53.06	100	6758
- Male	51.40	48.60	100	6480
Education Level:				
- Up to Junior High Scool	61.26	38.74	100	6004

- Senior High School, D1, D2	47.81	52.19	100	5271
- D3 and above	15.54	84.46	100	1963
Marital Status:				
- Unmarried	44.37	55.63	100	5229
- Married	52.23	47.77	100	8009
Job Status:				
- Informal	49.22	50.78	100	7978
- Formal	48.97	51.03	100	5260
TOTAL	49.12	50.88	100	13238

The inferential analysis is intended to generalize or estimate population characteristics based on unbiased sample characteristics. Regression analysis, especially binomial logistic regression, aims to estimate the probability of occurrence of a category on the dependent variable based on the respondent's characteristics, which are indicated by independent variables. The effect of independent variables on the probability of occurrence of a category are shown by parameters estimated which are measured by coefficient of regression or odd ratio.

As described above, this research has 3 models of regression functions: model 1 (only migration status as independent variable); model 2 (socio-demographic variables other than migration as independent variables); and model 3 as a full model which employs migration status and other socio-demographic characteristics as explanatory variables.

The result of estimated parameters is shown by Table 2, which are measured by **B** coefficient (coefficient of regression) and Odd Ratio (**OR**). B and OR are interrelationship parameters, if B has positive sign then OR has value more than 1, on the other way if B has negative sign then OR has value smaller than 1.

As seen on Table 1, in the Model 1, migration status has significance effect on welfare status and has negative direction, which can be interpreted as non-migrant workers tend to be welfare than migrants. The effect of migration status is consistent between model 1 and model 3, where the effect of this variable joints with other socioeconomic characteristics, that is having negative effect. The negative effect of migration status is also indicated by OR value with less than 1. In Model 1, the OR value is 0.78, which means that the migrant workers have the risk to

be welfare lower 0.78 times than that of non-migrant workers. In Model 3, the migrants have risk to be welfare 0.9 times lower than that of non-migrants.

The effects of age groups have generally positive direction as seen on the Table 2 shown by Model 2 and Model 3, which means that the older age of workers the more probability to be welfare. The positive impact of age group also measured by OR value, which indicates generally the older age group of workers, the more value of OR. For example, variable Age3 has 2.54 of OR value. This means that workers with age 55 years and above have the risk 2.54 times to be welfare than that of workers with age 15-24 years (as reference category).

Gender has negative effect on welfare status of workers. This means that female workers tend to be welfare than male workers. The OR value of 0.76 means that male workers have lower 0.76 times to be welfare than that of female workers.

Education level of workers has positive direction in affecting the welfare status, that is the higher level of education, the more probability of the workers to be welfare. The workers with level of education SMA and D1 (educ1) have 2.25 times to be welfare than workers with level of education SMP and lower (as reference category). The workers with level of education D3 and above have almost 13 times to be welfare than workers with level of education SMP and lower.

Marital status variable also shows significant differences between married and unmarried workers (including widow, divorced, and unmarried). The negative sign of regression coefficient indicates that unmarried workers tend to be welfare than married workers. It is also indicated by OR value with less than 1. This means that married workers have lowered 0.64 times to be welfare than unmarried workers.

Employment status also shows a significant difference to get into a more prosperous condition between formal and informal status of workers. With the OR value shows less than 1 on the formal status of workers than the informal status of workers, it can be said that the status of informal workers tend to be more prosperous than the formal status of workers.

If we are comparing Model 2 and Model 3, it can be said that the entry of migration status variable into Model 3, has no effect on socioeconomic variables in affecting the welfare status of workers. There are almost no different value of OR and value of regression coefficient in Model 2 and Model 3.

Table 2. Parameter Estimated by Model 1, Model 2, and Model 3

Independent Variabel	Model 1		Model 2		Model 3	
	B	**OR**	**B**	**OR**	**B**	**OR**
Constant	0.0435**	1.04	-0.2218***	0.80	-0.2133***	0.81
$Mig(1)$	-0.2505***	0.78			-0.10407***	0.90
Age_1			-0.4592***	0.64	-0.4638***	0.63
Age_2			0.0428	1.04	0.0352***	1.04
Age_3			0.9314***	2.54	0.9244***	2.52
$Gender(1)$			-0.2723***	0.76	-0.275***	0.76
$Educ_1$			0.8115***	2.25	0.8090***	2.25
$Educ_2$			2.5360***	12.63	2.5344***	12.61
$Mar\ (1)$			-0.4467***	0.64	-0.4451***	0.64
$Stapek\ (1)$			-0.1704***	0.84	-0.1661***	0.85

**) Significance at α = 5%
***) Significance at α = 1%

5. Conclusion and Recommendation

5.1 Conclusion

The results show that the migration status of workers in Jakarta has significant effect in contributing probability of welfare. The significant effect of migration is also followed by other socioeconomic variables in contributing the probability of welfare.

From the data analysis, the probability of welfare tends to be occurred on workers with certain characteristics: non-migrants, the older age group, female, the higher level of education, unmarried, and informal status of job.

5.2 Recommendation

From the results mentioned above, there are some suggestions to the government of DKI Jakarta as follows: (1) formulating a strategy for the policy that people who intend to stay in Jakarta must have a high skill level has a minimum of formal education D3 plus vocational education level D1 and capital enough to face the competition level is very high life; (2) develop a system of population registration especially for perpetrators of mobility non-permanent, in order to obtain their data and as a basis for development planning and public services as an integral part of the system of population registration and civil registration that now exists and has networking *online system* to other areas, and; (3) improving cooperation with local governments, especially the area of origin of migrant to handle in-migration and out of Jakarta for outreach programs and campaigns for the people of their respective areas as well as sharing information both employment information and job opportunities in their respective areas as well as measures population-step treatment for problematic or often known with social welfare problems.

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