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Do They Look for Informal Jobs ?: Migration of the Working Age in Indonesia

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Do They Look for Informal Jobs?: Migration of the Working Age in Indonesia

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Abstract

Characteristics of informal activity that are highly flexible in terms of working hours, barrier to entry, mobility, capital and skills requirement, have made informal jobs attractive for migrant workers in developing countries. Informal jobs are also theoretically claimed as a temporary position or transition for migrants who seek to work in more certain, formal jobs. Using individuals jobs and migration history of adults obtained from the 2007 IFLS data from 2000–2007, this study aims to analyse how migration affects individuals tendency to work in informal jobs by measuring the immediate effect of migration on the job's status. The result of clustered multinomial logit regression shows that individuals who migrate are less likely to work in informal job relative to formal job compared with individuals who do not migrate. This result contradicts the notion that migration is an act to look for opportunities with high uncertainty because migrants seem more likely to engage in formal jobs compared to non migrants. It may show that temporary positions into the formal jobs are not what the adult migrants in Indonesia are looking for.

JEL Classifications: J60

Keywords: Migration, Informal Sector, Employment, Indonesia

1. Introduction

Migration patterns as well as the distribution of the population in Indonesia is far from evenly distributed. More than half of Indonesia's population resides on the island of Java, which is an area of only 6.7% of Indonesia's territory. Based on the results of the 2010 Census, the population distribution of Indonesia is still concentrated in Java, i.e. by 58%, followed by Sumatra 21%; Sulawesi (7%); Borneo (6%); Bali and Nusa Tenggara (6%); and

Maluku and Papua (3%) (BPS, 2010a). According to Tjiptoherijanto (1997), old patterns of population migration Indonesia has not experienced a change in which migration flows are still around the island of Java and Sumatra. Most migrations out of Java into Sumatra Island, and vice versa. Migration out of the eastern islands of Indonesia were mostly goes to the island of Java.

According to Tjiptoherijanto (1997), the distribution of the population is affected by the development strategies. Since the new order Government in 1966, there are three patterns of macroeconomic policies that affect the distribution and mobility of the population of Indonesia. Since the new order era industrialization tends to be concentrated in Java, Jakarta

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in particular. The agricultural sector, which is mostly located in rural areas, experienced a decline in its ability to absorb manpower. In the end there was a great development imbalance between regions, especially between Java and outside Java. Trend of industrialization and economic patterns in Jakarta with the North coast of Java island triggered a rapid urbanization process in the area (Tjiptoherijanto, 1997). Firman (1994) in Darmawan (2010) confirms that migration is actually a reaction to economic opportunities in a region. It is not surprising if the distribution and migration patterns of the population become uneven.

The relationship between development in an area with migration decisions someone can be viewed through reason or motive of someone performing migration. The movement of the population occurred because economic motives or due to economic imbalances between one and the other areas (Lee, 1990; Todaro, 2006). With progress difference between one region and other areas in Indonesia, then it can cause the push factors and the pull factors for the area of origin and the destination (Lee, 1987). For areas with high entry migration flows, then the population growth will be high anyway. The high number of inhabitants is closely related to the high number of Labor (Simanjuntak (1985) in Sahlan (1996)). Often, the forefront of course growths, especially in the formal sector, cannot compensate for the high rate of population growth (Handayani, 1991). The growth of employment opportunities is always smaller than the increase in the work force, especially for the job market in the formal sector (Sahlan, 1996).

Labor problems in urban Indonesia normally associated with two key symptoms: relatively high unemployment rate and high increase in informal sector which is characterized by low income and productivity (Wirosardjono, 1976; Hidayat (1978) in Sahlan (1996)). The growth of the informal sector is also caused by the inability of the formal sector to absorb labor

(Sahlan, 1996). In addition, the characteristics of the activities of the informal sector in accordance with the conditions of the job seekers get them interested to enter into this sector (Sahlan, 1996). These characteristics include: affordable in terms of flexible working hours and no contract, easily entered, high mobility, does not require a large capital, high skills and time effort that does not bind (Sahlan, 1996).

Researches showed that the main motive of someone doing the migration is economic motives (Bandopadhyay, 2010). The gap of development between one area and another area making the migration destination is concentrated in areas with a more advanced development. In migration destination areas, high migration in flow has high effect on population increase. The high increase of population growth will ultimately impact on the increase in the labor force, which if not offset by higher employment will cause problems such as employment, unemployment. In addition, the inability of the formal sector to absorb labor, making the fertile growing informal sector.

Whether based on theories that state that migrants decide to migrate hoping to get jobs in the formal sector and looking at jobs in the informal sector is the result of a temporary phase (Harris-Todaro; Field, 1975 ; Lucas, 1983), as well as some empirical studies suggest that migrants migrate because interested in working in the informal sector from the beginning and does not intend to enter formal sector because of informal sector's characteristics which are more suitable to the circumstances of migrants (Heckenber, 1980; Barnerjee, 1983; Papanek, 1976; Ananta and Tjiptoherijanto, 1985; Sahlan, 1996) the author concluded the existence of close links between migration and the informal sector. Some studies suggest that this is because the characteristics of the informal sector which make the migrants easier to enter this sector than the formal one. However, other characteristics of informal sector which are; low productivity, not protected

by law, and no certainty either in income or employment contract make workers in the informal sector are in a vulnerable position. Therefore, it is interesting to find out how migration affects one's tendency to work in informal sector.

Several studies conducted in several regions in Indonesia show that there are similar characteristics among those who work in informal sector in Indonesia: low education, work longer hour than normal working hour (35 hour per week), dominated by the productive age group although the percentage of old age group who work in this sector is also higher, majority of people who work in informal sector are males (Firandy, 2002; Jaelani, 2009; Nazara, 2010; Santoso, 2011).

As previously mentioned, internal migration in Indonesia is highly uneven and centered in Java Island. A study of internal migration patterns in Indonesia stated that the level of mobility of the inhabitants of Indonesia increased from 4.94% in 1971 to 8.25% in 1990. And according to reason to migrate, based on SUPAS 2005 data 19.89% of respondents who moved is for work related reason. Then 16.19% move for looking for job. Nine coma six respondents move for educational reason, move due to changes status marriage is worth 3.09%. Move because following family member is 43.56%. Move because of housing reason is as much as 2.11% and 1.32% move for security reasons.

Previous studies shows that there is relationship between migration, sosio-demographic characteristics of the migrants and the job sector. Smith and Koo (1983) conducted a study in Manila and several other major cities (secondary-cities) found that the proportion of recent migrants in the informal sector is much higher than non migrants. However, when the duration of migration is raised to seven years, there are no significant differences between migrants and non migrants in their involvement in the informal sector. This happens only in Manila, as in other cities, the distinction re-

mains quite large. Furthermore, in this study it was found that the pattern of entry to the formal sector through the informal sector, as stated by some theories on migration, found only on women migrant workers. A similar pattern is not found in male migrants. The study was done by looking at the distribution of formal-informal sector workers based on location (Manila and cities other than Manila), level of education, gender, and the duration of the migration.

A research by Syahran (2000) based on SUPAS 1990 data in West Java showed that non migrants have a higher probability to go into the informal sector, especially in the age group 10-19 and 30 years and those who are in the low-education group. This group has a higher risk to enter the informal sector, both in the migrant and non-migrant groups. It is also found in similar research by Sahlan (1996) based on the data of IFLS in 1993. In General, non-migrants have a greater risk for entering the informal sector. And the risk is higher in the age groups found in the young and old age group, low education level, and those whose gender is female. Similar findings are also found by Handayani (1993) based on SUPAS 1985 data for Jakarta. Migrants tend to have a lower risk to go into the informal sector. And the higher risk was found in the young and old age group.

In addition research conducted by Florez (2003) migration and urban informal sector in Colombia revealed migration conditions (duration of migration, education level, origin, economic strata, and the unemployment rate in the city) have great effect on the migrant's risk to enter informal sector, formal sector or unemployed. The results showed no significant difference between men and women. The origin of the village also does not affect significantly. The variable that has significant effect are the education as well as the length of the duration of the migration.

As previously mentioned, there are several differences in theory and result of empirical

studies regarding the relationship between migration and informal sector. According to Meng (2010) this difference occurred because of many factors and of them is the difference in the concept of informal sector it self. Although the concept of division of informal and formal sector is used extensively in the study of economic development, there is no standard theoretical definition of the informal economy (Koo, Smith 1983). Based on the many literatures of concept and definition of informal sector, the author concluded that informal sector is an unofficial work sector, in terms of not registered nor protected by law or government regulation both in recruitment, working conditions, as well as the level of wages. So, this sector tend to be more vulnerable and uncertain compared with the formal sector.

2. Method

Data used in this research is from IFLS. IFLS is a longitudinal survey, the first in Indonesia. This survey collected information about household spending, knowledge about medical facilities, household economy, and much more. In addition, the society also being surveyed to obtain data about the history and characteristics of the community, the statistics community, women's organizations, and so on. This survey represents about 85% of Indonesia's population and includes more than 30,000 individuals domiciled in 13 of the 27 provinces in the country. The first wave of IFLS (IFLS1) held in 1993/1994. IFLS2 and IFLS2 respectively held in 1997 and 1998, in which the IFLS2 covers 25% of sub-sample of households to assess as a self-contained IFLS impact from the Asian financial crisis. IFLS3 covers the whole sample, and was held in 2000. While the latest survey, the fourth wave of IFLS, which was held in 2007/2008 also includes the overall sample.

The sampling scheme in the first wave is the primary determinant of the samples on the next wave. The sampling scheme IFLS1 doing

on the province, stratification and then randomly sampled in the province. The province was chosen to maximize the representation of the population, socio-economic and cultural diversity captures Indonesia, as well as ensuring cost-effectiveness given the size and composition of the country's geography. During the IFLS1, 7,224 households interviewed. Next up 90 percent of the households visited in IFLS2. Aside from the interviewed households, conducted individual interviews in IFLS.

In IFLS3, the level of recontact is 95.6% of IFLS1 households. Indeed, nearly 91% of IFLS1 households is complete households panel, in the interview in the third wave, IFLS1, 2 and 3. Recontact level is same height or higher than most of the longitudinal survey in the United States and Europe. IFLS4 was held at the end of 2007 and beginning of 2008 against the same household in 1993 and their descendants, 13,535 households and; 44,103 individuals were interviewed. On IFLS1, the respondent distributed in 13 provinces in Indonesia. On IFLS4, the panel of respondents have been scattered in 21 provinces in Indonesia: Aceh, North Sumatra, West Sumatra, Riau, South Sumatra, Bangka Belitung, Lampung, Jakarta, West Java, Central Java, Yogyakarta, East Java, NTB, Bali, Banten, West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, North Sulawesi, South Sulawesi.

Respondents in this research are individuals from selected households; those who are 15 year old and above since 2000. Total respondents is 15,371 individuals, who observed from 2000 to 2007. So population who were not 15 years old yet in 2000 are not incorporated as unitsof analysis. That is because, based on concept used by ILO, the work force is those who are 15 years and above. Variables used in this research are divided into dependent variables, independent variables and control variables. The dependent variable is employment status (working in the formal sec-

tor, working in informal sector, unemployed). The independent variable is migration (migrate and does not migrate) and the control variables are the socio-demographic variables such as sex (male, female), age, education (does not finish elementary school, finished elementary school, finished junior high school, finished academy/university), marital status (not yet married, married and separated/divorced/widowed), and location (rural, urban).

In this research both descriptive and econometrics analysis are used to analyze the data. In this study, descriptive analysis is used to provide a general overview of the variables used. Descriptive analysis is done by doing a two dimensional cross-tabulations. These tabulations are intended to present the distribution of the respondents who do not work, work in the formal sector and work in the informal sector based on the migration status as well as the socio-demographic characteristics. Multinomial logistic regression model is used to accommodate categorical form of the dependent variables. This Model is similar to the logistic regression model, but with more than two dependent variables. Variable in the multinomial logistic model at least consists of three categories. In this study, the categories of dependent variables is Employment Status: unemployed, working in the formal sector and working in the informal sector. Clustered Standard Error is used because the data used in this research is panel, where there are repeated observations on the individual/respondent. The usual assumption is that the error in the model are independent and identically distributed. But this assumption is violated in many cases, one of them is on the model in this study. Hence the assumption of clustered error is used, where observation in the group is considered to correlate. In this study, the error is clustered based on the id of the respondents.

Here are the general form of logistic regres-

sion model:

$$L_i = \ln \left(\frac{p_i}{1 - p_i} \right) = \beta_1 + \beta_2 x_i + \varepsilon \quad (1)$$

In this study, the multinomial logistic regression analysis model is divided into two:

1. Equation for Unemployed

The first equation is p1 is the probability or the tendency to be unemployed and po is the reference category is the probability or the tendency to work the Formal Sector

$$\begin{aligned} L_1 = \left(\frac{p_1}{p_0} \right) &= \hat{\beta}_{10}mg_1 + \hat{\beta}_{11}Sex_1 \\ &+ \hat{\beta}_{12}agem + \hat{\beta}_{13}agem2 + \hat{\beta}_{14}edu_1 \\ &+ \hat{\beta}_{12}edu_2 + \hat{\beta}_{13}edu_3 + \hat{\beta}_{14}edu_4 \\ &+ \hat{\beta}_{15}marstat_1 + \hat{\beta}_{16}marstat_3 \\ &+ \hat{\beta}_{17}desa1_1 + \varepsilon \end{aligned} \quad (2)$$

2. Equation for Working in Informal Sector

The second equation is p2 is the probability or tendency to work in the informal sector and the po which is the reference category is the probability or the tendency to work in the Formal Sector

$$\begin{aligned} \ln \left(\frac{p_2}{p_0} \right) &= \hat{\beta}_{20}mg_2 + \hat{\beta}_{22}Sex_1 \\ &+ \hat{\beta}_{22}agem + \hat{\beta}_{23}agem2 \\ &+ \hat{\beta}_{24}edu_1 + \hat{\beta}_{22}edu_2 \\ &+ \hat{\beta}_{23}edu_3 + \hat{\beta}_{24}edu_4 \\ &+ \hat{\beta}_{25}marstat_1 + \hat{\beta}_{26}marstat_3 \\ &+ \hat{\beta}_{27}desa2_2 + \varepsilon \end{aligned} \quad (3)$$

To inteprete the results of the estimation of multinomial logistic model, the concept of Relative Risk Ratio (RRR) that has similarities to the concept of the Odds Ratio in the logit model is used. In essence, they are both looking for a comparison between the probability of an event occur with a probability of an event does not occur.

RRR calculation can be seen in Equation 4:

$$RRR_j(x, x_0) = \frac{P(Y = j|x)/P(Y = 0|x)}{P(Y = j|x_0)/P(Y = 0|x_0)}, \quad j = 1, 2, 3 \quad (4)$$

Using regression output, RRR can be obtain from the exponential of the coefficient.

3. Analysis

3.1. Descriptive Analysis of the Model

This section will explain the descriptive statistical analysis to model in this study, where the Employment Status is a dependent variable. The analysis in this section discusses the tabulation results that shows the relationship between the employment status and the independent variables in the model.

In Table 2, we can see that for those who did not migrate, the highest percentage lies in Working in Informal Sector, in contrast to respondents who migrated, the highest percentage was on Working in Formal Sector. The theories that have been discussed previously stated the opposite, that more migrants work in the informal sector. However, the findings in this study were in accordance with the findings of study conducted by Sahlan (1996) and Handayani (1993), each of which is done in West Java and Jakarta, where the proportion of migrants who work in the formal sector is greater than the proportion of migrants who work in the informal sector.

Percentage of informal workers is higher for men than women. Percentage who did not work are significantly higher in female respondents compared to men. Similarly, the percentage of worker in the formal sector is higher for male respondents. This percentage indicates that the labor force participation of men is still higher than women. The higher the percentage of informal workers in men may be due to the fact that men who obliged to work more than women because of his status as head of the family. Thus, the need to work is higher for men

and for those who can not enter the formal sector, the informal sector. This finding is similar with the study conducted by Nazara (2010).

The pattern of age on employment status has a different pattern to those who work in the formal sector and those who work in the informal sector. For workers in the formal sector, as the age increasing the percentage is getting smaller. Conversely, increasing in age followed with increasing percentage of informal workers. This might be because, there is age limit for employment in formal sector, where they will experience old age pension. As for the informal sector, there is no age limit. And as people grow older their ability to compete in the formal sector will decrease, so for those who are still working on this age group will enter the sector that is easier to enter: the informal sector.

As we can see in Table 2, the higher the education level, the percentage of working in informal sector become lower. Individuals with low levels of education would be more risky to enter the informal sector, while the higher education will further reduce this risk. Higher education is closely related with more skills, in which the formal sector needs. In contrast, the informal sector does not require high skill, and eventually many of them who are poorly educated, in other words, low-skilled go into the informal sector.

In this study it is also found that the highest percentage of informal workers is in the category of Separated, Divorced and Widowed. This may be because those that are in this category were mostly married women who did not work because they were supported by their husbands. When they separated, and divorced, then they are forced to look for a job themselves. And because of the characteristics of the informal sector that is easier to enter, many of them go to this sector.

The difference between the percentage of formal and informal sector is quite striking between the rural and urban areas. For Rural cat-

Table 1: Frequency Distribution and Percentage of Variables' Categories

Variables Name	Categories	Freq.	(%)
Employment Status	Unemployed	20,056	15.94
	Fomal	37,959	30.16
	Informal	67,833	53.9
Migration Status	Does not migrate	120,842	96.02
	Migrate	5,006	3.98
Sex	Female	59,32	47.14
	Male	66,528	52.86
Age	15–27	34,188	27.17
	28–36	28,96	23.01
	37–48	29,266	25.17
	49+	31,021	24.65
Education	Not finished elementary	36,589	29.07
	Finished Elementary	31,534	25.06
	Finished Junior High	19,341	15.37
	Finished Senior High	29,778	23.66
	Finished Academy/University	8,606	6.84
Marital Status	Not yet married	13,408	10.65
	Married	99,736	79.25
	Separated, divorced,widowed	12,704	10.09
Location	Urban	66,073	53.00
	Rural	59,775	47.00

egory, the majority of respondents go into the informal sector. It can be seen that the high percentage of 68%. As for Urban, the percentage of the Work Formal and Informal Working almost as yaiut 40.37% and 40.43%. This is consistent with the theory that the majority of rural livelihoods is in the agricultural sector that can be classified into the informal sector. While in the city, with more advanced development and industrialization, it will need more workers in the formal sector, but the percentage of workers in the informal sector in the city is also still high. This is because, not all workers in the city can be absorbed into the formal sector. For those who are not absorbed into the formal sector, the choice is to go into the informal sector.

3.2. Econometrics Analysis of The Model

From the regression output in Table 3, there are several conclusions that can be drawn. Those who migrate have a lower tendency to go into the informal sector than those who did not migrate. This means that the tendency to work in the informal sector is higher among those who did not migrate. This may be because they who do not migrate tend to know more about their area so it will be easier for them if they want to open a business that normally go into the informal sector category. In addition, there is the possibility that those who work in the informal sector are those that are circular migrants, as revealed in a study conducted by Hugo (1982) in several provinces in Indonesia. The definition of circular migrants

Table 2: Distribution of Employment Status Based on Migration Status and Socio-Demographic Characteristic

Variables Name	Categories	Freq.	(%)
Employment Status	Unemlopyed	20,056	15,94
	Fomal	37,959	30,16
	Informal	67,833	53,9
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	Married	99,736	79,25
	Separatd, Divorced, Widowed	12,704	10,09
Location	Urban	66,073	53
	Rural	59,775	47

Source: Authors' calculation based on IFLS 2007

are those who make the shift from the original but with permanenitas lower than migrants, and is not intended to settle. Examples are farmers who migrate to urban areas during the harvest waiting, then worked in the goal area as a builder, hawkers and others, but when the harvest comes, they return to their home areas in the countryside.

Circular migrants are not registered as migrants in the census as well as IFLS survey, because the census and survey limitations person is categorized as migrants settle is if the person at the destination for at least six months. According to the research of Hugo (1982) circular migrants usually settle at the destination with

less than that, so they are not listed in the census or survey. The findings are consistent with the descriptive analysis of the proportion of informal workers is higher in those who did not migrate.

The results of the regression output shows men have a lower tendency than women to enter the informal sector. This is in contrast with the results of the descriptive analysis that showed that a higher percentage of informal workers in the male gender. Age variable is also not significant in the second equation. However, variable age2 is significant. When viewed from the descriptive analysis, the relationship between age and the percentage of

workers in the informal sector is linear, meaning that the increase in age followed the increase in the percentage of informal workers. And there is the highest percentage of informal workers in the 49+ age category. This is because the characteristics of the informal sector are more accessible than the formal sector, so for those whose capabilities and competitiveness has fallen, will be easier to enter into the informal sector.

Both the output of regression and descriptive analysis results indicate that the education level, the lower the risk of entering informal sector. This is consistent with theories and previous studies which stated that education has a great impact on employment. The higher the education the more it will grow skills, the greater also the formal sector job opportunities that do require a high skill.

Those who are separated, divorced and widowed have a lower propensity to enter the informal sector than those who are married. This is in contrast with the results of the descriptive analysis in which the highest percentage of informal workers in this category.

One's location is significant in determining what sector that person is working in. For them who are located in the village are more likely to work in the informal sector compared to those located in the city. This makes sense, because the development in the countryside lags behind urban development so that livelihood is more traditional than the more urban livelihoods. Traditional livelihoods jobs, such as agriculture for example, fall into the category of informal sector.

4. Conclusion

The findings of this study show that adults who migrate have lower tendency to work in informal jobs than those who do not migrate and it seems to confirm previous studies in Indonesia. There are several possible explanation for this findings. The first one is that definition of migration in IFLS, SUPAS, and Census, which

is a move that includes staying in destination for at least six months, exclude the less permanent moves. There is a possibility that those who move and then work in informal economy are circular migrants, as revealed in a study by Hugo (1982) in several provinces in Indonesia. Circular migrants are those who make the shift from the origin but with permanenitas lower than migrants (not to settle in destination). Examples are farmers who move to urban areas waiting for the harvest and then work in destination as builders, hawkers and others, and then return when the harvest comes. Thus, it is possible that in case of Indonesia, more permanent moves mean more permanent, secure, formal jobs, which is not in line with the classical Harris-Todaro concept of migration.

The second one is that according to Meng (2010), difference in results regarding the relationship between migration and informal jobs may occur due to the difference in the concept of informal economy. Although the division of informal and formal activities or economy is used extensively in the study of economic development, there is no standard theoretical definition of informal economy (Koo and Smith, 1983). The challenge to improve this study, therefore, is an attempt to use more accurate definition of informal jobs, especially the latest one developed adopted by the Indonesia statistical bureau, Badan Pusat Statistik (BPS, 2012) to observe whether the results still show the same relationship between migration and informal jobs. The third one, which is an important theoretical reason, is that the Harris-Todaro model was built in the frame of job search theory, which is not fully appropriate to explain various migration types captured in the IFLSs. Theoretically, labors are assumed to move to search for jobs in the center of economic activities (urban areas). Reasons for migrations in IFLS are varied from marriage, family reasons, to follow the bread winners, to look for work, job transfers, up to retirement. To find out whether by disaggregating migration

Table 3: Output Logistic Multinomial Model Regression, Employment Status by Migration Status and Socio Demographic Characteristics

Work Status	Not Working				Working in Informal Sector			
	Coef.	Robust SE	P> z	RRR	Coef.	Robust SE	P> z	RRR
Cons	3.938	0.190		-	-0.213			
Migration Status								
Migrated	-0.418	0.032	0.000	0.658	-0.493	0.027	0.000	0.610
Did not Migrated	-	-	-	-	-	-	-	-
Sex								
Male	-0.147	0.009	0.000	0.228	-0.405	0.025	0.000	0.666
Female	-	-	-	-	-	-	-	-
Age	-0.272	0.007	0.000	0.761	-0.002	0.008	0.738	0.997
Age2	0.003	0.0001	0.000	1.003	0.000	0.0001	0.000	1.000
Education								
Not finished elementary	1.609	.468	0.000	4.999	2.786	0.148	0.000	16.21
Finished Elementary	1.346	.328	0.000	3.845	2.464	0.105	0.000	11.76
Finished Junior High	1.292	.307	0.000	3.641	2.055	0.726	0.000	7.806
Finished Senior High	0.795	.172	0.000	2.215	1.300	0.325	0.000	3.671
Finished Academy/University	-	-	-	-	-	-	-	-
Marital Status								
Not yet Married	0.355	0.081	0.000	1.426	-0.120	0.056	0.061	0.886
Married	-	-	-	-	-	-	-	-
Separated, Divorced, Widowed	0.068	0.089	0.417	1.070	-0.198	0.060	0.007	0.819
Location								
Rural	0.060	0.450	0.151	1.602	0.906	0.920	0.000	2.475
Urban								

based on reason to migrate may change the result, is the line of inquiry that we intend to pursue further.

5. References

- [1] Badan Pusat Statistik. (2012). Indikator Pasar Tenaga Kerja Indonesia [Indonesia Labor Market Indicators], February 2012. Jakarta: Badan Pusat Statistik.
- [2] Badan Pusat Statistik. (2007). Survei Sosial Ekonomi Nasional 2007 [National Socio Economic Survey 2007]. Katalog BPS 4101002. Jakarta: Badan Pusat Statistik.
- [3] Badan Perencanaan dan Pembangunan Nasional. (2009). Peran Sektor Informal Sebagai Katup Pengaman Masalah Ketenagakerjaan [The Role of Informal Sector as Safety Net in Labor Market]. Kajian Evaluasi Pembangunan Sektoral [Evaluation Studies in Sectoral Development]. Jakarta: Badan Perencanaan dan Pembangunan Nasional.
- [4] Badan Perencana dan Pembangunan Nasional. (n.d). Studi Profil Pekerja di Sektor Informal dan Arah Kebijakan ke Depan [Study of Workers Profiles in Informal Sectors and the Direction of Policies in the Future]. June 2012. http://old.bappenas.go.id/index.php?module=Filemanager&func=download&pathext=ContentExpress/&view=85/Studi-Pekerja_Acc.pdf.
- [5] Becker, K.F. (2004). 'The Informal Economy: Fact and Findings'. Swedish International Development Cooperation Agency. <http://rru.worldbank.org/Documents/PapersLinks/Sida.pdf>.
- [6] Darmawan, Benny. (2007). Pengaruh faktor-faktor ekonomi terhadap pola migrasi antar provinsi di Indonesia [The Effect of Economic Factors on Inter-provincial Migration Patterns in Indonesia]. Magister Kependudukan dan Ketenagakerjaan Program Pasca Sarjana, Universitas Indonesia.
- [7] Florez, Carmen E. (2003). 'Migration and the Urban Informal Sector in Columbia'. Paper presented at Conference on African Migration in Comparative Perspective, Johannesburg.
- [8] Handayani, Titik. (1991). Migran dan sektor Informal di DKI Jakarta (Analisis Data SUPAS 1985) [Migrants and Informal Sector in Jakarta: Analysis of the 1985 SUPAS]. Depok: Magister Kepem-

- dudukan dan Ketenagakerjaan Program Pasca Sarjana, Universitas Indonesia.
- [9] Hugo, Graeme J. (1982). 'Circular Migration in Indonesia'. *Population and Development Review*, Vol. 8, No. 1 (Mar., 1982), pp. 59–83.
- [10] International Organization for Migration. (2005). *Glossary on Migration*. Juni, 2012. <http://www.epim.info/wp-content/uploads/2011/01/iom.pdf>.
- [11] Jaelani, Ujang. (2011). Analisis Pekerja Sektor Informal di Kabupaten Bogor [Analysis of the Informal Sector Worker]. June 2012. <http://bogorkab.bps.go.id/index.php/artikel/79-analisis-pekerja-sektor-informal-di-kabupaten-bogor.html>.
- [12] Koo, Hagen and Peter C. Smith. (1983). 'Migration, the Urban Informal Sector and Earnings in the Phillipines'. *The Sociological Quarterly*, No. 2 Vol. 24.
- [13] Lucas, E. Robert. (1997). "Internal Migration In Developing Countries", in M.R Rozensweig dan Oded Stark (Eds). *Handbook of Population and Family Economics*. Elsevier, edition 1, volume 1, number 1.
- [14] Meng, Xin. (2001). 'The Informal Sector and Rural-Urban Migration—A Chinese Study'. *Asian Economic Journal*, Number 1 Volume 15.
- [15] Munir. (2010). "Migrasi" [Migration], in Sri M. Adioetomo and Omas B. Samosir (Eds), *Dasar-Dasar Demografi (Edisi 2)* [Basic Demography. 2nd ed]. Jakarta: Salemba Empat.
- [16] Nazara, Suahasil. (2010). *Ekonomi Informal Indonesia: Ukuran, Komposisi dan Evolusi* [Indonesian Informal Economy: Size, Composition and Evolution]. Jakarta: Organisasi Perburuhan Internasional.
- [17] Saefullah, Djaja H.A. (1996). *Mobilitas Internal Non Permanen* [Non Permanent Internal Mobility]. Lembaga Demografi Fakultas Ekonomi Universitas Indonesia dan Kantor Menteri Kependudukan/BKKBN.
- [18] Sahlan, Eben. (1996). *Partisipasi Kaum Migran dalam Ekonomi Informal di Daerah Perkotaan: Suatu Analisis data IFLS (Indonesia Family Life Survey 1993)* [Migrants Participation in Informal Economic in Urban Areas: Analysis of the 1993 IFLS]. Depok: Magister Kependudukan dan Ketenagakerjaan Program Pasca Sarjana, Universitas Indonesia.
- [19] Shryock, Henry. S., Jacob S. Siegel and Associates. (1971). *The Methods and Materials of Demography*. Vol. 2. Washington, DC. : U.S. Department of Commerce, Bureau of the Cencus.
- [20] Syahrani P., Taufik. (2000). *Migran dan Pekerja Sektor Informal di Povinsi Jawa Barat (Analisis Data Sensus Penduduk Tahun 1990)* [Migrants and Informal Sector Workers in West Java Province: Analysis of the 1990 Population Census]. Depok: Magister Kependudukan dan Ketenagakerjaan Program Pasca Sarjana, Universitas Indonesia.
- [21] Tjiptoherijanto, Prijono. (1997). *Migrasi, Urbanisasi dan Pasar Kerja di Indonesia* [Migration, Urbanization, and Labor Market in Indonesia]. Jakarta: Universitas Indonesia.
- [22] Todaro, M.P. (1969). 'A Model of Labour Migration and Urban Unemployment In Less Develop Countries'. *American Economic Review*, 59 (1), 138–148
- [23] Todaro, M.P. and Stephen C. Smith. (2006.) *Pembangunan Ekonomi (Edisi kesembilan Jilid 1)* [Economic Development, 9th ed.]. Jakarta: Erlangga.
- [24] Todaro, M.P. and John R Harris. (1970). 'Migration, Unemployment and Development: Two-Sector Analysis' *The American Economic Review*, Vol. 60 No. 1, pp 126–142.
- [25] Wajdi, M. Nashrul. (2010). *Migrasi Antarpulau di Indonesia: Analisis Model Skedul Migrasi dan Model Hibrida* [Inter-island Migration in Indonesia: Analysis of Migration Schedule and Hybrid Models]. Depok: Magister Kependudukan dan Ketenagakerjaan Program Pasca Sarjana, Universitas Indonesia.