

WORKING PAPER

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ABSTRACT

The Socioeconomic and Health Status of Rural–Urban Migrants in Indonesia

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This paper seeks to answer whether or not rural–urban migrants “make it”, i.e. whether or not they are able to, at least, achieve a socioeconomic and health status similar to that of their nonmigrant counterparts living in the same city. Using specifically collected data on rural–urban migration, this study finds that, after controlling for various characteristics, migrants’ household incomes are significantly higher than those of nonmigrants. They also have a significantly lower probability to be absolutely poor than nonmigrants. Their health performance and that of their children are also no different from the health status of nonmigrants. There is only weak, and not robust, evidence that children of migrants have a higher probability of being significantly underweight. Their children’s educational performances do not lag behind. In fact, for lifetime migrants, there is evidence that their children’s educational attainments are significantly better than those of nonmigrants’ children. Therefore it can be inferred that the process of rural-to-urban migration in Indonesia is not a harmful process. In fact, it has been found to be beneficial to the socioeconomic condition of the migrants. It is a way to provide a better life for poor rural people. To allow this process to happen naturally, the government needs to reduce unnecessary barriers to rural people who want to move to urban areas.

Key words: rural–urban migration, Indonesia, socioeconomic status, health, education

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I. INTRODUCTION

The movement of people from rural to urban areas, popularly known as urbanization, is a common phenomenon observed all over the world during a country's process of development. The Harris-Todaro model has long been used to explain this phenomenon. In general, the prevalence of higher average incomes in urban areas has attracted large numbers of rural people to move to urban areas (Harris and Todaro, 1970). Some rural residents move to urban areas to work in the formal sector and some to study, but many are self-employed or work illegally in some of the lowest-paid jobs in the informal sector. These rural–urban migrants have to adapt to a city lifestyle and compete to earn an income that meets their expectations. Some succeed but others certainly fail.

It is also an empirical observation that, to achieve the urban income they expect, migrants have to work harder and be willing to endure harsher conditions than nonmigrants living in the same city. In pursuit of a better life, they often end up sacrificing their own health and that of their children (Garnier et al., 2003). In many cases, the hard work and antisocial hours worked by adult migrants divert their attention away from their children, particularly their children's educational performance (Batbaatar et al., 2005; Liang and Chen, 2007).

In Indonesia, rates of rural-to-urban migration increased during the 1970s and 1980s. During this period, Indonesia implemented a number of economic reforms that successfully attracted foreign investment and improved the socioeconomic conditions of the populace. Levels of education increased, the status of women rose, and the quality of roads and transportation improved (Hill, 2000; Thee, 2001; Resosudarmo and Kuncoro, 2006). Most foreign investment initially went into resource extraction industries, and later into export-oriented, labor-intensive industries such as garments and footwear. Together with complementary domestic investment in industry and services, the high levels of foreign investment contributed to the growth of urban and industrial agglomerations in several major cities. The population movements, particularly from rural to urban areas, that took place during these decades, saw people moving short and long distances temporarily and permanently.¹

The literature on the performance of rural–urban migrants in the urban labor market is relatively well established in the Indonesian case, especially for the period of rapid economic growth leading up to the economic crisis of 1997–98.² Less is known about the relationship between migration and health, especially for migrants who have moved to the city in the post-Soeharto period. Even fewer studies have evaluated whether or not rural–urban migrants succeed in achieving a socioeconomic and health status that is at least comparable to that of their nonmigrant counterparts in the same cities.

The main goal of this chapter is to determine whether or not the families of rural–urban migrants in Indonesia "make it", by studying both their own perceptions of improvement as well as more objective measures of their income and educational and health status. Following the practice of the central statistics agency, Statistics Indonesia, this study distinguishes between rural–urban migrants who have moved to a city within the preceding five years (recent migrants) and those who have lived in a city for more than five years (lifetime migrants). Like the other chapters in this section of the book, this study focuses on rural–

¹For a description of these trends in detail, see Chapter 8 of Xin Meng (forthcoming). See also Hugo (1995), Jones (1997), Manning (1998), and Firman (2004).

²See Chapter 10 of Xin Meng (forthcoming). See also Krausse (1979), Azis (1997), and Manning (1998).

urban migrants in four cities: Medan, Tangerang, Samarinda, and Makassar. The data on which the study is based are derived from the Rural–Urban Migration in Indonesia (RUMiI) survey, conducted in Indonesia in 2008 as part of the Rural–Urban Migration in China and Indonesia (RUMiCI) project.³

To find out whether or not rural–urban migrants make it, we look at a number of socioeconomic and health indicators for households, adults, and children. First, we examine household expenditure per capita and the probability of a household being poor as defined by Statistics Indonesia’s regional poverty lines. Second, we examine the probability of an adult being significantly underweight or overweight, or of normal weight, based on body mass index (BMI). We then establish the probability of a dependent child being significantly underweight or overweight, using both BMI-for-age and weight-for-age. Finally, we examine educational attainment among children and the probability of a child entering primary school late. To measure the net effect of migration, we compare the results for recent and lifetime migrants with those of a control group, namely local urban residents (nonmigrants) living in the same city.

Next, Section 2 reviews the literature on rural-to-urban migrants in Indonesia. Section 3 describes the method used in the chapter to determine whether or not migrants make it in the cities. Section 4 presents and discusses the econometric results, and Section 5 summarizes our conclusions.

II. LITERATURE REVIEW

Most of the literature on rural–urban migration analyses patterns and causes of migration,⁴ migrant earnings in the urban labor market⁵ and the effect of migration on the areas migrants leave or those they move to.⁶ As noted earlier, little attention has been given to the question of whether or not rural–urban migrants make it in the city. Of the studies that have considered the success or otherwise of rural–urban migrants, most have focused on only one or a few of the indicators observed in this chapter.

The findings of studies on whether or not migrants make it are mixed. An example of a study that finds that migrants actually make it is Garnier et al. (2003). From 1995 to 1999, the authors conducted a longitudinal study of 331 Senegalese adolescent girls, 36 percent of whom were nonmigrants and the remainder rural-to-urban migrants working as domestic helpers in the city. They observed the nutritional and growth status of the girls as measured by height-for-age, weight-for-age, BMI, and fat mass index, and researched their determinants. Garnier et al. concluded that, in general, the nutritional and growth status of the migrants was better than that of the nonmigrants.

An example of a study that finds that migrants do not make it is Batbaatar et al. (2005). The authors explored the effect of rural-to-urban migration on the well-being of children in

³For a description of the design and methodology underpinning the RUMiI survey, see Chapter 11 of Xin Meng (forthcoming). More details on the dataset and other background material can be found at <http://rumici.anu.edu.au>.

⁴See, for example, Field (1975), Mazumdar (1976), Zhao (1999), Lucas (2004), and Dubey, Palmer-Jones, and Sen (2006).

⁵See, for example, Meng and Zhang (2001), Hazans (2004), and Davila and Mora (2008).

⁶Studies on the effect of migration on the areas migrants leave include Hetler (1989), Skeldon (1997), Rozelle, Taylor, and de Brauw (1999), and Goldsmith, Gunjal, and Ndarishikanye (2004). Studies on the effect of migration on the areas migrants move to include Zhang and Song (2003), Au and Henderson (2006), and Lu and Song (2006).

Mongolia, focusing in particular on access to education. Their sample consisted of 964 households, of which 326 were migrant households. They observed that, in some of the rural areas left by migrants, more children were out of school than in urban areas of high immigration. However, in the latter areas, fewer migrant than nonmigrant children were attending school.

Consistent with the findings of several chapters in this book, Sato (2006) finds that migrants in China are doing it tough in terms of housing. Sato observed the cost and condition of housing among rural–urban migrant households in mega-urban areas in China at the end of the 1990s. He based his findings on data from the 1999 Chinese Academy of Social Sciences (CASS) survey, which covered more than 3,900 households of urban origin and 790 migrant households of rural origin as defined by the household registration (*hukou*) system. For the purposes of the study, Sato confined his attention to “settled” migrants of rural origin; that is, he included only migrant households with stable home addresses in urban areas and excluded those living in communal housing such as factory dormitories.

He found that, as a proportion of total expenditure, migrants spent far more on rent, utilities, and other housing-related expenditure than nonmigrant households. Although the quality of housing had generally improved, there was still a wide gap in the housing conditions of migrant and nonmigrant households; the proportion of households living in houses with their own toilet and bathroom, for example, was 33 percent among nonmigrant households but only 6 percent among migrant households. Conditions were worse in the provincial capitals than in the subprovincial or county-level cities. Despite this, rents were much higher in the provincial capitals. Sato found that sociopolitical factors such as party membership together with individual factors such as years of employment, years of education, and household income were important in explaining the cost of housing in Chinese cities.

Weber et al. (2007) examined a subsample of the US Panel Study of Income Dynamics dataset for 1993, consisting of 701 household heads aged 25–64 residing in nonmetropolitan counties. To find out whether there were any differences in the poverty status of households that had migrated versus those that had not, the authors tracked the movements of the households between 1993 and 1999, and assessed their poverty status in the latter year. They employed a two-stage-probit model to explain the direct and indirect effects of education on the probability of a household being poor and to control the fact that better-educated rural adults were more likely to move to urban areas and access better-quality jobs.

Weber et al. found that the educational attainment of the household head was a strong direct and indirect determinant of poverty: the higher the household head’s level of education, the lower the probability of the household being poor. Other important determinants were the gender and age of the household head and the family size. They found that migration status was not important, probably because rural populations in developed countries such as the United States tend to be quite wealthy. This suggests that, for people with an equivalent level of education, the risk of poverty among those who are likely to move is no different to the risk of poverty among those who are likely to stay behind in a rural area.

Although not described in detail here, a number of other studies have analyzed rural–urban migration at the household or individual level. They include a study by Liang and Chen (2007) on the educational consequences of migration for children in China and a study by Bogin and MacVean (1981) on the health consequences of migration for children in Guatemala. Bogin and MacVean found that the children of rural-to-urban migrants in Guatemala were smaller than the children of nonmigrants.

III. METHODOLOGY

Building on the literature discussed above, we employ a number of models to find out whether or not migrants make it. The general form of these models is as follows:

$$Y_j = f(M_j, IC_j, HC_j, DC_j, VC_j, MS_j) \quad (9.1)$$

where Y_j is socioeconomic and health status; M_j is a vector of migration status (recent and lifetime migrant dummies with nonmigrants as the control group); IC_j is a vector of individual characteristics; HC_j is a vector of household characteristics; DC_j is a vector of city dummies (where Tangerang is the control group); VC_j is the distance to the *kecamatan* (subdistrict) office, representing the level of development in the village of origin; and MS_j is the migration strategy, proxied by the age at which a person leaves the village of origin.

The first set of equations consists of an equation for per capita household expenditure, estimated using the ordinary least squares (OLS) method, and an equation for the probability of being poor, estimated using the probit method. A "poor" household is defined as a household whose per capita expenditure is below the poverty line for the region where the household is located, as assessed by Statistics Indonesia. Since this is a household-level analysis, no characteristics for individuals are included in the models. The household characteristics are the gender, age, educational attainment, work status, and labor classification of the household head, as well as the size of the household.

The second set of equations consists of equations for the probability of an adult having a normal BMI, being severely underweight or being severely overweight, estimated using the probit method. BMI is weight (in kilograms) per square of height (in meters). The range of a normal BMI is 18.5–25. People with a BMI below 16.5 are considered severely underweight and those with a BMI above 30 are considered severely overweight. Household characteristics are proxied by per capita household expenditure. The individual characteristics are gender, age, work status, labor classification, disability status, smoking status, religion, and having health insurance (as a proxy for concern about health).

The third set of equations consists of equations for the probability of a dependent child being severely underweight or overweight, estimated using the probit method. Both conditions are measured using BMI-for-age and weight-for-age. Severely underweight children are those with a BMI or weight that falls within the lowest 5% of their age group, and severely overweight children are those with a BMI or weight that falls within the top 5%. Household characteristics are proxied by per capita household expenditure and whether or not other members of the family are severely underweight or overweight. The latter is important, since it is a measure of whether or not the child's weight is an inherited characteristic or due to lifestyle factors. The individual characteristics are gender, age, religion, and whether or not the person has health insurance.

The final set of equations comprises equations for educational attainment and the probability of entering primary school late among the children of recent and lifetime migrants relative to the children of nonmigrants. The former equation is estimated using the OLS method and the latter using the probit method. Household characteristics are proxied by per capita household expenditure. The individual characteristics are gender, age, and religion.

Table 1. Indonesia: Socioeconomic and Health Indicators by Migration Status

	Recent Migrants	Lifetime Migrants	Nonmigrants
Households			
Average household expenditure per capita (Rp million)	9.5	7.0	6.3
% of poor households	4.7	10.7	21.2
Adults			
% of adults with normal BMI	66.2	63.4	62.4
% of severely underweight adults	5.3	3.5	4.4
% of severely overweight adults	1.5	4.1	3.8
Dependent children			
% of severely underweight children based on BMI	12.5	12.8	9.8
% of severely overweight children based on BMI	28.9	26.5	26.1
% of severely underweight children based on weight-for-age	11.7	6.1	6.5
% of severely overweight children based on weight-for-age	14.8	20.0	14.9
Average educational attainment (years of schooling)	4.3	5.1	4.9
% of children who entered school late	39.3	24.9	30.4

Source: Rural–Urban Migration in Indonesia survey, 2008.

IV. FINDINGS AND DISCUSSION

In this section we discuss the results of the equations, using data from the 2008 RUMiI survey. Table 1 sets out some basic socioeconomic and health indicators for the samples of households, adults, and children analyzed in this chapter.

The Perception Paradox

To find out whether migrants themselves felt they had made it, at least in terms of household income as measured by per capita household expenditure, we asked them the following three questions:

1. Before moving to the city, how do you think your family income compared with the average income of others in the same village?
2. After moving to the city (right now), how do you think your family income compares with the average income of families who stayed in the village?
3. How do you think your family income compares with the average income of families in the city where you live?

The responses are shown in Figure 1.

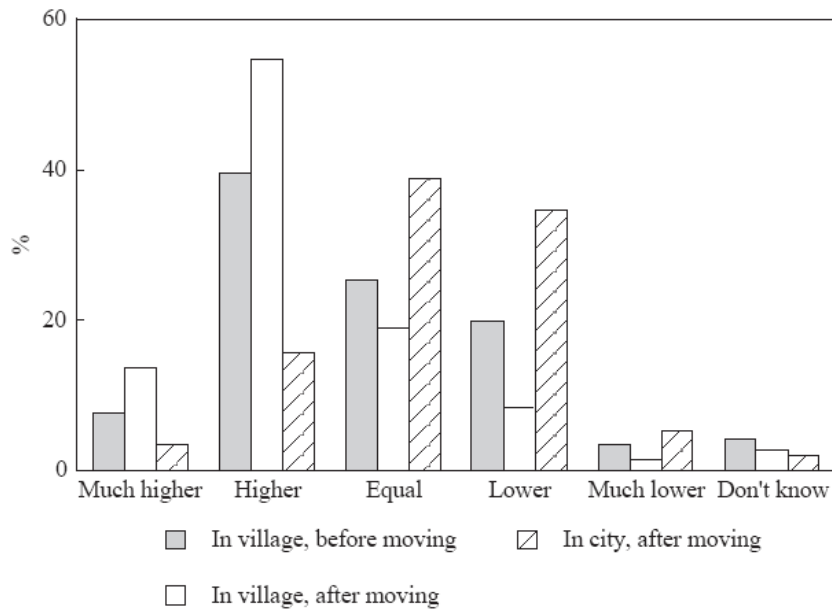


Figure 1. Indonesia: migrants' perceptions of their average household income

Source: Rural–Urban Migration in Indonesia survey, 2008.

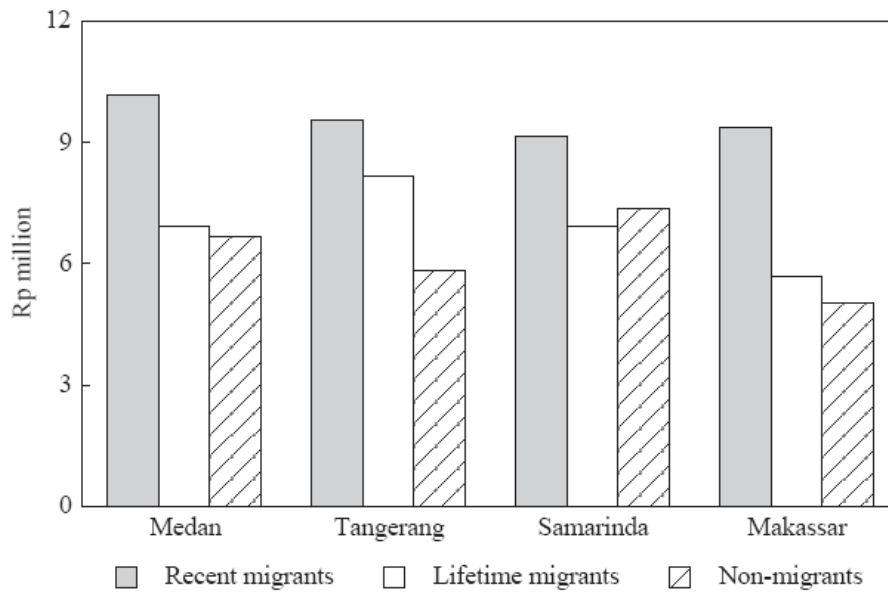


Figure 2. Indonesia: average household expenditure per capita by migration status

Source: Rural–Urban Migration in Indonesia survey, 2008.

The answers to questions (1) and (2), shown in the first and second bars of Figure 1, reveal that a high proportion of migrants think they have made some progress since moving to the city. As the figure indicates, the proportion of migrants who think they have a higher or much higher income than the average income in the village of origin is far higher than the proportion of those who think that their income is lower than the average income in the village.

Figure 1 also reveals the migrants' perceptions about their income relative to that of nonmigrants in the same city. Most migrants think that their income is lower than or equal to the average household income in the city where they live. That is, while most migrants think that the move from a rural to an urban area has led to them being better off, they believe that they are not as well-off as their nonmigrant counterparts in the same city.

However, when we look at household income as measured by per capita household expenditure, we find that the reality is somewhat different. Figure 2 shows that, on average, migrants are actually better off than nonmigrants in all four cities surveyed. This is the paradox surrounding migrants' perceptions of income.

Our estimates of per capita household expenditure, arrived at after controlling for various household, village-of-origin and city characteristics, as well as migration strategy, confirm that both recent and lifetime migrants are significantly better off than nonmigrants (Table 2, column 1). Similarly, the estimation results for the probability of being poor show that migrant households are significantly less likely to be poor than nonmigrants living in the same city, taking into account their various characteristics (Table 2, column 2). Hence, one can only conclude that migrants do make it as measured by improvements in their socioeconomic status.

Health Status

To survive in the city, migrants must work hard and endure harsh living and working conditions. Evidence from a number of countries suggests that this affects their own health and that of their children.

In the Indonesian context, it is particularly important to find out whether rural–urban migrants sacrifice their health and that of their dependents, because we have just shown that they are generally successful in improving their socioeconomic status. Does this success come at the cost of their health? That is the issue we examine here.

We analyzed the health status of adult migrants and dependent children separately, mainly to take account of the different ways in which the health status of adults and children is measured. For adults (those aged 16 years or above), BMI is the dominant measure of health, and there is universal consensus on the weight ranges for normal weight, severely underweight, and severely overweight adults. For children, however, weight-for-age is the preferred measure of health; where BMI is used, the analysis should be based on BMI-for-age. Moreover, there is no universal consensus on the weight ranges for a normal weight, severely underweight or severely overweight child. The most common practice is to define a child as being severely underweight if his or her BMI (or weight) falls within the lowest 5% of the children of the same age in the same region, and as severely overweight if the child's BMI (or weight) falls within the highest 5%. Therefore the ranges for BMI-for-age and weight-for-age may differ from one region to another.

Table 2. Indonesia: Estimation Results for Household Expenditure per Capita and the Probability of Being Poor

	Household Expenditure per Capita (OLS) (1)	Probability of Being Poor (Probit) (2)
Migration status		
Lifetime migrant	0.217***	-0.749***
Recent migrant	0.358***	-0.960***
Household characteristics		
Gender of household head (female = 1)	0.056	0.050
Age of household head	0.019***	-0.060***
Age of household head square	-0.000*	0.001***
Educational attainment of household head	0.051***	-0.082***
Household head is a professional worker ^a	0.324***	-0.450***
Household head is a clerical worker ^a	0.169***	-0.336**
Household head is a manual worker ^a	0.114**	-0.169
Household head is an agricultural worker ^a	-0.115	0.216
Household head is a student (yes = 1)	0.397***	-0.909***
No. of household members	-0.132***	0.233***
City characteristics		
Medan	-0.077**	-0.385***
Samarinda	-0.092***	-0.058
Makassar	-0.371***	0.200*
Village characteristics		
Distance to <i>kecamatan</i> office	-0.003**	0.005
Migration strategy		
Age of household head on leaving village	-0.006***	0.015**
Constant	14.845***	0.687
No. of observations	2,371	2,371
R square (or equivalent)	0.368	0.215

Source: Rural–Urban Migration in Indonesia survey, 2008.

***significant at the 99 percent confidence level; **significant at the 95 percent confidence level; *significant at the 90 percent confidence level.

^aProfessional, clerical, manual, and agricultural workers are dummies for work status. The control group is people who are unemployed or not in the workforce.

To set the appropriate BMI-for-age and weight-for-age ranges for children, we used data from the 2000 round of the Indonesia Family Life Survey rather than the data we had collected ourselves through the RUMiI survey. This was because the Indonesia Family Life Survey used the same method to measure weight and height, but had a much larger dataset. We then applied the results to our own data to determine whether or not the health status of the dependent children of migrants was worse than that of the dependent children of nonmigrants in the same city.

Table 3 shows the results for the econometric analysis of adults' health status. It can be seen that, after controlling for individual, household, and city characteristics, the probability of a migrant (either recent or lifetime) having a normal BMI is not significantly different from that of a nonmigrant. Similarly, the probability of a migrant being severely underweight or severely overweight is not significantly different from that of a nonmigrant.

Table 3. Indonesia: Estimation Results for the Health Status of Adults

	Normal BMI (Probit)	Severely Underweight (Probit)	Severely Overweight (Probit)
Migration status			
Lifetime migrant	0.022	-0.099	0.017
Recent migrant	0.009	0.022	-0.072
Individual characteristics			
Gender (female = 1)	-0.121**	0.191**	0.129
Age	-0.018***	-0.078***	0.107***
Age square	0.000**	0.001***	-0.001***
Professional worker ^a	0.076	0.053	-0.117
Clerical worker ^a	0.021	0.044	-0.014
Manual worker ^a	0.135**	0.081	-0.223**
Agricultural worker ^a	-0.103	-0.091	0.010
Student (yes = 1)	-0.134*	0.321***	-0.218
Disabled (yes = 1)	0.207	0.520	
Smoking among those aged 18+	0.009	0.016	-0.101
Catholic (yes = 1)	0.039	0.021	0.240
Non-Muslim, non-Catholic	0.102*	-0.091	0.083
Has health insurance	-0.016	0.065	-0.057
Household characteristics			
Log (expenditure per capita)	-0.044	-0.153***	0.035
City characteristics			
Medan	-0.137***	0.080	0.261***
Samarinda	0.092*	0.205**	-0.245**
Makassar	-0.039	0.399***	-0.068
Constant	1.489***	1.781**	-4.532***
No. of observations	5,474	5,474	5,438
R square (or equivalent)	0.011	0.082	0.083

Source: Rural–Urban Migration in Indonesia survey, 2008.

***significant at the 99 percent confidence level; **significant at the 95 percent confidence level; *significant at the 90 percent confidence level.

^aProfessional, clerical, manual, and agricultural workers are dummies for work status. The control group is people who are unemployed or not in the workforce.

Gender and age seem to be the important factors determining the health performance of adults. Females are less likely to have a normal BMI; they are more likely to be severely underweight than males with the same characteristics. The older a person is, the less likely he or she is to be severely underweight, but the more likely to be severely overweight. Other important determinants of the probability of being severely underweight are being a student (perhaps unsurprisingly) and per capita household expenditure. Being a manual worker is an important determinant of having a normal BMI or being less likely to be severely overweight. It is interesting to note that there are significant differences between the four cities in the probability of being severely underweight or overweight.

Table 4 presents the results of the econometric analysis of dependent children's health status. When BMI-for-age is used, the dependent children of lifetime migrants have a higher probability of being severely underweight. However, when weight-for-age is used, it is the dependent children of recent migrants that have a higher probability of being severely underweight. Based on weight-for-age, the dependent children of lifetime migrants have an increased probability of being severely overweight, at the 90 percent confidence level. Given these inconclusive findings, it seems safe to conclude that, in general, the dependent children of migrants are no more likely than the children of nonmigrants to have an increased probability of health problems.

Table 4. Indonesia: Estimation Results for the Health Status of Dependent Children

	BMI-for-Age (Probit)		Weight-for-Age (Probit)	
	Severely Underweight	Severely Overweight	Severely Underweight	Severely Overweight
Migration status				
Lifetime migrant	0.217***	-0.012	0.026	0.139*
Recent migrant	0.148	-0.132	0.347**	-0.135
Individual characteristics				
Gender (female = 1)	-0.083	-0.107*	-0.062	-0.140**
Age	-0.034***	-0.046***	-0.021*	-0.023***
Disabled (yes = 1)	0.203			
Catholic (yes = 1)		0.332*	-0.637	0.151
Non-Muslim, non-Catholic	-0.392**	0.241**	-0.501**	0.356***
Has health insurance	-0.205**	0.129*	-0.169	0.063
Household characteristics				
Other members with similar health problem	0.249*	0.277***	0.245*	0.256**
Log (expenditure per capita)	-0.125**	0.087	-0.097	0.282***
City characteristics				
Medan	0.063	-0.418***	0.303**	-0.246***
Samarinda	0.086	0.064	0.153	0.116
Makassar	0.151	-0.089	0.499***	0.041
Constant	0.909	-1.482*	-0.042	-5.114***
No. of observations	1,885	1,923	1,929	1,929
R square (or equivalent)	0.032	0.039	0.046	0.041

Source: Rural–Urban Migration in Indonesia survey, 2008.

***significant at the 99 percent confidence level; **significant at the 95 percent confidence level;

*significant at the 90 percent confidence level.

It is interesting to observe in Table 4 that the existence of other family members with similar health problems is a significant determinant of the probability of health problems among dependent children. It makes no difference whether they are the dependent children of migrants or nonmigrants. This indicates that being severely overweight or underweight may be hereditary, although further research would be needed to verify this.

Finally, we can conclude that there is no evidence in the case of Indonesia that migrants have to sacrifice their health in order to be able to survive in the city. Moreover, there is only limited evidence that the health of their dependent children deteriorates. In general, the health status of migrants and their dependent children is the same as that of nonmigrants.

Dependent Children's Educational Status

Our grounds for wishing to observe the educational status of children are twofold. First, migrants are suspected of working long hours and unsociable shifts. This raises the question of whether they are able to pay sufficient attention to their children's development, in particular their educational performance.

Second, the children of migrants have limited—or sometimes even no—access to schools in the city. As Liang and Chen (2007) have shown for China, and Batbaatar et al. (2005) for Mongolia, the act of migration can have serious consequences for the educational performance of the migrants' children.

Because our survey was conducted in urban areas, this study is only able to observe the educational status of dependent children living in the city, not those remaining in the village. We use two indicators to represent educational status: educational attainment as measured by years of schooling (the main indicator) and the probability of a child entering primary school late (the supplementary indicator). The results of the econometric estimation are shown in Table 5.

Table 5. Indonesia: Estimation Results for the Educational Status of Dependent Children

	Educational Attainment (OLS)	Late School Entry (Probit) ^a
Migration status		
Lifetime migrant	0.117**	-0.133*
Recent migrant	-0.004	0.195
Individual characteristics		
Gender (female = 1)	0.081	-0.026
Age	0.895***	0.044***
Disabled (yes = 1)	-1.766*	0.483
Catholic (yes = 1)	0.090	-0.008
Non-Muslim, non-Catholic	0.109	-0.095
Household characteristics		
Log (expenditure per capita)	0.274***	-0.242***
City characteristics		
Medan	0.211***	-0.783***
Samarinda	0.161*	-0.483***
Makassar	0.226**	-0.651***
Constant	-9.142***	3.183***
No. of observations	1,474	1,470
R square (or equivalent)	0.835	0.066

Source: Rural–Urban Migration in Indonesia survey, 2008.

***significant at the 99 percent confidence level; **significant at the 95 percent confidence level; *significant at the 90 percent confidence level.

^aProbability of entering primary school one or more years late, that is, at age seven or above.

We found no evidence that the educational performance of migrants' dependent children is worse than that of nonmigrants' dependent children. On the contrary, the children of lifetime migrants actually perform better than those of nonmigrants. Lifetime migrants also seem to send their children to primary school at the correct age (six years old). The educational performance of the children of recent migrants, meanwhile, is similar to that of the children of nonmigrants.

The age of the household head and per capita household expenditure are important determinants of children's educational performance, regardless of migration status. Higher-income households are more likely to send their children to primary school at the right age. The city in which a child lives has a significant effect on the educational performance of the child.

V. CONCLUSION

In this chapter, we have sought to ascertain whether or not rural–urban migrants make it in the city, that is, whether they are able to achieve at least the same socioeconomic and health status as their nonmigrant counterparts. We have also investigated whether migrants sacrifice their health, and the health and education of their dependent children, in the attempt to improve their socioeconomic status.

This study constitutes the first attempt to use data from the RUMiI survey to tackle the issue of whether or not migrants make it in the Indonesian context. A number of caveats should be attached to the results. First, the study uses the socioeconomic and health status of nonmigrants as the benchmark to determine whether or not rural–urban migrants succeed, whereas some might argue that the status of residents in the rural village of origin would be the correct counterfactual. Second, if the case is that only the most motivated persons in a village actually migrate, then the data on rural–urban migrants may suffer from a selection bias problem. Third, it is conceivable that we have not conducted the postestimation tests properly, so that the results suffer from endogeneity or a missing variable bias.

Taking these caveats into account, this study provides strong evidence that rural–urban migrants in Indonesia indeed make it. After controlling for various characteristics, the income of migrant households is found to be significantly higher than that of nonmigrant households, and they have a significantly lower probability of being poor. The health of migrants and their children is no different from that of nonmigrants and their children. There is only weak—and not robust—evidence that the children of migrants have a higher probability of being severely underweight. The educational performance of migrants' children does not lag behind. In fact, there is evidence that the educational attainment of the children of lifetime migrants is significantly better than that of nonmigrants' children.

Hence, it can be inferred that, in Indonesia, the process of rural-to-urban migration is not harmful, and may in fact lead to improvements in the socioeconomic status of migrants. In Indonesia, as in other countries, poor rural people will continue to migrate to the cities in search of a better life. To allow this process to happen naturally, governments need to remove the barriers currently preventing rural people from moving to urban areas. These include the high cost of travel, the need to hold an identification card permitting a person to live and work in an urban area, and unequal access to urban public facilities. Further research is needed to determine the full extent and nature of those barriers and the most appropriate policy responses.

LIST OF REFERENCES

- Alisjahbana, Armida, and Chris Manning (forthcoming) 'Migration and Urban Labor Market Dynamics in Indonesia.' In *The Great Migration: Rural-Urban Migration in China and Indonesia*. Meng, Xin and Chris Manning with Tadjuddin Effendi and Shi Li (eds). United Kingdom: Edward Elgar Publishing.
- Au, Chun-Chung, and J. Vernon Henderson (2006) 'How Migration Restrictions Limit Agglomeration and Productivity in China.' *Journal of Development Economics* (80): 350–388.
- Azis, Iwan Jaya (1997) 'The Increasing Role of the Urban Non-formal Sector in Indonesia: Employment Analysis within a Multisectoral Framework.' In *Urbanization in Large Developing Countries: China, Indonesia, Brazil, and India*. Jones, Gavin W. and Pravin M. Visaria (eds), Oxford: Clarendon Press: 109–110.
- Batbaatar, M., Ts. Bold, J. Marshall, D. Oyuntsetseg, Ch. Tamir, and G. Tumennast (2005) 'Children on the Move: Rural–urban migration and access to education in Mongolia.' Country Report 17. London: Childhood Poverty Research and Policy Centre (CHIP).
- Bogin, Barry, and Robert B. MacVean (1981) 'Biosocial Effects of Urban Migration on the Development of Families and Children in Guatemala.' *American Journal of Public Health* 12 (71): 1373–1377.
- Davila, Alberto, and Marie T. Mora (2008) 'Changes in the Relative Earnings Gap between Natives and Immigrants along The U.S.-Mexico Border.' *Journal of Regional Science* 3 (48): 525–545.
- Dubey, Amaresh, Richard Palmer-Jones, and Kunal Sen (2006) 'Surplus Labor, Social Structure, and Rural-to-Urban Migration: Evidence from Indian Data.' *The European Journal of Development Research* 1 (18): 86–104.
- Effendi, Tadjuddin, Budy P. Resosudarmo, and Chikako Yamauchi (forthcoming) 'Rural–Urban Migration in Indonesia: Study Design and Implementation.' In *The Great Migration: Rural–Urban Migration in China and Indonesia*. Meng, Xin and Chris Manning with Tadjuddin Effendi and Shi Li (eds). United Kingdom: Edward Elgar Publishing.
- Effendi, Tadjuddin, Mujiyani, Fina Itriyati, Danang Arif Darmawan, and Derajad S. Widhyharto (forthcoming) 'Compositions and Characteristics of Rural–Urban Migrants in Four Indonesian Cities in the Era of Globalisation and Decentralisation.' In *The Great Migration: Rural–Urban Migration in China and Indonesia*. Meng, Xin and Chris Manning with Tadjuddin Effendi and Shi Li (eds). United Kingdom: Edward Elgar Publishing.
- Field, Gary S. (1975) 'Rural–Urban Migration, Urban Unemployment and Underemployment, and Job-Search Activity in LDCs.' *Journal of Development Economics* (2): 165–187.
- Firman, Tommy (2004) 'Demographic and Spatial Patterns of Indonesia's Recent Urbanisation.' *Population Space and Palace* (10): 421–434.

- Garnier, Denis, Kirsten B. Simondon, Thierry Hoarau, and Eric Benefice (2003) 'Impact of the health and living conditions of migrant and non-migrant Senegalese adolescent girls on their nutritional status and growth.' *Public Health Nutrition* (6): 535–547.
- Goldsmith, Peter D., Kisan Gunjal, and Barnabe Ndarishikanye (2004) 'Rural–Urban Migration and Agricultural Productivity: The Case of Senegal.' *Agricultural Economics* 1 (31): 33–45.
- Harris, John R., and Michael P. Todaro (1970) 'Migration, Unemployment & Development: A Two-Sector Analysis.' *American Economic Review* 1 (60): 126–42.
- Hazans, Mihails (2004) 'Does Commuting Reduce Wage Disparities?.' *Growth and Change* 3 (35): 360–390.
- Hetler, Carol B. (1989) 'The Impact of Circular Migration on a Village Economy.' *Bulletin of Indonesian Economic Studies* 1 (25): 53–75.
- Hill, Hal (2000) *The Indonesian Economy*. 2nd ed. Cambridge: Cambridge University Press.
- Hugo, Graeme (1995) 'Indonesia's Migration Transition.' *Austrian Journal of Development Studies* 3 (11): 285–309.
- Jones, Gavin W. (1997) 'Introduction.' In *Urbanization in Large Developing Countries: China, Indonesia, Brasil, and India*. Jones, Gavin W., and Pravin M. Visaria (eds). Oxford: Clarendon Press: 109–110.
- Krausse, Gerald (1979) 'Economic Adjustment of Migrants in the City: The Jakarta Experience.' *International Migration Review* 1 (13): 46–70.
- Liang, Zai and Yiu Por Chen (2007) 'The Educational Consequences of Migration for Children in China.' *Social Science Research* (36): 28–47.
- Lu, Hong and Shunfeng Song (2006) 'Rural Migrants' Perceptions of Public Safety Protections in Urban China: The Case of Tianjin.' *The Chinese Economy* 3 (39): 26–41.
- Lucas, Robert E. (2004) 'Life Earnings and Rural–Urban Migration.' *Journal of Political Economy* 1 (112): S29–S59.
- Manning, Chris (1998) *Indonesian Labor in Transition: An East Asian Success Story*. Cambridge: Cambridge University Press.
- Mazumdar, Dipak (1976) 'The Rural–Urban Wage Gap, Migration and the Shadow-Wage.' *Oxford Economic Papers* 3 (28): 406–425.
- Meng, Xin, and Junsen Zhang (2001) 'The Two-tier Labor Market in Urban China: Occupational Segregation and Wage Differentials between Urban Residents and Rural Migrants in Shanghai.' *Journal of Comparative Economics* 3 (29): 485–504.
- Resosudarmo, Budy P., and Ari Kuncoro (2006) 'The Political Economy of Indonesian Economic Reform: 1983-2000.' *Oxford Development Studies* 3 (34): 341–355.
- Rozelle, Scott, J. Edward Taylor, and Alan deBrauw (1999) 'Migration, Remittances, and Agricultural Productivity in China.' *The American Economic Review* 2 (89): 287–291.

- Sato, Hiroshi (2006) 'Housing Inequality and Housing Poverty in Urban China in the Late 1990s.' *China Economic Review* 1 (17): 37–50.
- Skeldon, Ronald (1997) 'Rural-to-Urban Migration and Its Implications for Poverty Alleviation.' *Asia-Pacific Population Journal* 1 (12): 3–16.
- Thee, Kian Wie (2001) 'The Soeharto Era and After: Stability, Development and Crisis.' *The Emergence of A National Economy: An Economic History of Indonesia, 1800–2000*. Dick. Howard, Vincent J.H. Houben, J. Thomas Lindblad, and Thee Kian Wie (eds). Sydney: Allen & Unwin: 194–243.
- Weber, Bruce, Alexander Marre, Monica Fisher, Robert Gibbs, John Cromartie (2007) 'Education's Effect on Poverty: The Role of Migration.' *Review of Agricultural Economics* 3 (29): 437–445.
- Zhang, Kevin H., and Shunfen Song (2003) 'Rural–Urban Migration and Urbanization in China: Evidence from Time-series and Cross-section Analyses.' *China Economic Review* (14): 386–400.
- Zhao, Yaohui (1999) 'Leaving the Countryside: Rural-to-Urban Migration Decisions in China.' *The American Economic Review* 2 (89): 281–286.