

## **Intra-Household Bargaining and Migration**

Yu-hsuan Su ([yuhsu@uw.edu](mailto:yuhsu@uw.edu))

Department of Economics, University of Washington

### **Abstract**

The urbanization in most developing countries can be attributed largely to rural-urban migration. Understanding the in-migration to cities can shed some light on to how the urban population emerged in the past and how it is likely to evolve in the future. Split migration – one of the married couple moved to city and the rest of the family joined later – has received limited attention in the migration literature. This paper uses data from the Indonesia Family Life Survey (IFLS) to describe the migration dynamics and to examine the relationship between intra-household bargaining power and the length of time which households were separated. Preliminary results suggest that the more power held by the first mover, the longer the split length is.

### **Background**

Urbanization has occurred around the world. According to the United Nations, by the end of 2008, half of the world's population lived in urban areas, and by 2050, it is predicted that 64.1% and 85.9% of the developing and developed world respectively will be urbanized. As the urban population grows, inadequate housing supply usually creates slums with poor living conditions. Understanding the in-migration to cities can shed some light on to how the urban population emerged in the past and how it is likely to evolve in the future.

Split migration – one of the couple moved to city and the rest of the family joined later – has received limited attention in the migration literature, but the length of family being split can be crucial to determine the speed of urban population growth. Most literature studied family migration – the whole family moved to cities together – and male migration – husbands migrated to city to work with wives and children left behind. However, from my observation in a slum community, the most common migration pattern is split migration. In addition, although most households came from the same rural state and are currently doing similar jobs, the length of family split time still varies across households. This indicates that the common explaining factors for migration – differences in wages and costs of living between their rural origins and their new residence in the city (Harris & Todaro, 1970; Todaro, 1969) – are similar in this case and thus insufficient to explain the variation in the number of years of separation.

Migration in developing economies has been mostly considered as a household decision using the unitary model, while the interaction between bargaining and location decisions has been widely discussed in more developed countries. Studies in developed economies usually focus on the dual-earner problem (such as Abraham, Auspurg, & Hinz, 2010; Lundberg & Pollak, 2003; Mincer, 1978; Rabe, 2009): both husband and wife work, but it is unlikely that both partners will receive optimal job offers at the same time and within the same region. Therefore, the couple has to decide whether the migration incentive for the mover is sufficient for the other to accepting, at least temporarily, a worse employment situation. A few studies on developing countries (Chen, 2006; Halliday, 2012) consider intra-household bargaining in the migrant families but focus on the resources allocated instead of the migration behavior itself. Agesa & Kim (2001) use Kenyan data and a unitary model to show how households choose between split migration and family migration. In either developed or developing context, I have not seen any research addressing the length of separation.

This paper attempts to answer the following research questions. Once the first mover comes to the city, when will the rest of the family join the first mover? To what extent does the intra-household bargaining influence the length of split?

## **Data and Methods**

The data used in this paper come from the Indonesia Family Life Survey (IFLS). IFLS is a longitudinal survey with abundant information on household behavior, including migration and household bargaining. The first wave was conducted in 1993-1994, and 7,224 households and 22,000 individuals were interviewed. The survey sample represented about 83% of the Indonesian population living in 13 of the country's 26 provinces. IFLS2 followed up with the same sample four years later, in 1997-1998. One year after IFLS2, a 25% subsample was surveyed to provide information about the impact of Indonesia's economic crisis. IFLS3 was fielded on the full sample in 2000 and IFLS4 in 2007-2008. I use IFLS3 and IFLS4 for this paper.

The outcome I will investigate is the length of the couple's separation. The explanatory variables will be both husband's and wife's demographic characteristics and proxies for the wife's bargaining power relative to the husband, such as relative difference (husband's age less wife's age), relative education, wife's share of household assets, etc. The analysis will consider only couples who were married before moving to the current residence and were currently living in urban areas when the survey was conducted. The baseline ordinary least squares specification will first estimate the following model:

$$Y_i = \alpha + \beta_1 P_i + \beta_2 X_i + \varepsilon \quad (1)$$

where  $Y_i$  represents the number of years a couple was separated, constructed by the difference of the husband's number of years living at the current residence and the wife's number of years living at the current residence.  $Y_i > 0$  if the husband moved first, and then the wife followed.  $Y_i < 0$  if the wife migrated before the husband.  $Y_i = 0$  if the couple moved together, or the separation was shorter than one year, which is considered migrating together in this estimation.  $P_i$  is the husband's bargaining power relative to the wife, and  $X_i$  is other demographic characteristics.  $\beta_1$  is the coefficient of interest. The error term is represented by  $\varepsilon$ .

I assume that the first mover prefers longer separation time to earn enough money in order to support the rest of the family, while the second mover prefers family reunion as soon as possible. If we assume that the first mover is the husband and the second move is the wife, the testable hypothesis is that when the husband has more power, we should expect to see longer length of separation so  $\beta_1 > 0$ .

I use two strategies to deal with the potential endogeneity. First, I use IFLS4 (2007) to construct the dependent variable but use IFLS3 (2000) to measure the bargaining power so that the migration dynamics should not affect the bargaining power in the earlier period. Second, I utilize an instrument for bargaining power proxies. The instrument is constructed by the following equation:

$$P_{ij} = \frac{1}{n-1} \sum_{k=1} P_{k-i}$$

where  $P_{ij}$  is the instrument of bargaining power for the wife of household  $i$  in sampling district  $j$ .  $P_{k-i}$  is the average of bargaining power proxies of women in the same sampling district  $j$  except for the respondent in household  $i$ . Thus,  $P_{ij}$  is the average of bargaining power proxies of wives in the same district  $j$  except for the wife of household  $i$ , and is not correlated with the respondent's individual household unobserved characteristics by construction. This "minus- $i$  method" is often used in the literature of the household bargaining in order to deal with the endogeneity issue (Aizer, 2010).

### **Preliminary Results and Next Steps**

From the migration section in IFLS4, among the whole sample of 29,055 individuals, 9,136 people moved between 2000 and 2007 and showed 17,215 moves in total. 36% of these moves have one or more household member moving together with the respondent, and only 27% of the moves involve the spouse, which indicates a significant amount of split migration. Among married couples who moved between 2000 and 2007, 53% of the husbands and 42% of the wives moved more than once, indicating split migration happens and husbands have a higher mobility than wives. When restricting the sample to each

couple's last move, the average time of split is 0.72 years with the standard deviation of 4.62 years.

The age difference between husband and wife (his years less her years) has been used as one indicator of the bargaining power (such as Lundberg & Ward-Batts, 2000). The simple OLS estimate using equation (1) shows that when the age difference increases by one year, the length of separation increases by 0.25 years, statistically significant at the 1% level, which is consistent with the theoretical prediction.

Additional analyses, controlling for more individual and household variables and dealing with potential endogeneity issues are needed to better understand the migration pattern and the potential mechanisms at work. Although this research focuses on the urban poor in a developing country, the results from this paper may provide policy implications for rural residents, and the analytical framework may be used in more developed economies as well.

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