Children's well-being and family migration decisions

Introduction

In spite of many studies on international migration, our understanding of immigrant farmworkers in the United States (U.S.) is limited, and even less is known about children of immigrant farmworkers, their migration decisions and expectations. Specifically, there exists a gap in the knowledge about migration decisions after the first move from the origin to the new destination, and who decides to stay there, move back to the origin or move on to another destination. Most literature on sequential migration has focused on individual factors rather than household factors (Djajić, 2008) for international instead of internal migration, and has not included children of immigrants in their analyses. Basically, the debate has explored the return decision of highly educated migrants with less attention to unskilled migrants like farmworkers like the population of study in this research.

Similar to *Easterlin's puzzle*, immigrants very often report happiness scores at the destination lower than those reported by the rural population left behind at the origin -- contrary to migration predictions and in spite of having a higher mean income. De Jong et al. (2002) for Thailand and Knight & Gunatilaka (2008) for China found that there exists a negative relationship between migration and well-being. Likewise, Graham & Pettinato (2000) found no relationship between income and happiness among internal migrants in Peru.

Given the above observations about migration and happiness, the question that arises is: *if immigrants are not satisfied with their well-being at the destination, why is the migration flow still high*[1] *and why do immigrants not leave the destination for another subsequent destination elsewhere?* Most of Latin American immigrants do not return to their home country (Mayr & Peri, 2008). A potential *key variable* that most applied studies do not consider is "*the well-being of the next generation"*. Based on a homogeneous group, such as immigrant farmworkers, this paper attempts to extend the literature in happiness and migration by incorporating *the next generation* in the equation to explain the *migration puzzle*. The *hypothesis* proposed is that *children's well-being may sway migration decisions in their households*.

This study differs from previous ones in several aspects. First, due to the nature of the data used for the empirical estimation, it is possible to compile reported responses of adolescents from immigrant families regarding their overall well-being, education and expectations with respect to migration. Second, it explores a topic hardly studied – i.e., the role of children's well-being in the decision to migrate. However, due to data limitations, it is not possible to control by years since the last migration, but instead the variable 'parent's identity as U.S. citizen' will be included to control for attachment to the new destination and assimilation into the host culture.

The model

Let us consider that there are two generations, '*the first generation*' includes international migrants who are the parents, and the second generation is '*the next generation*' who are the children of the first generation. Decisions related to

[1] According to the United Nations Population Division, the stock of immigrants in the U.S. grew from 13,991 thousand (6.4% of total population) in 1975 to 42,813 thousand (13.5% of total population) in 2010.

migration are undertaken by the first generation; the first generation will be called *generation t*, and the next generation called *generation t+1*.

According to sequential migration theory, the migrant has three options: (1) to stay, (2) to move back to the origin, and (3) to move out again to another destination, depending on his/her experience in the current location of residence. However, following household decision models, generation t will make a decision taking into account not only his own experience but also generation t+1 experience in the new area. Parents consider in their decision-making process factors as having the family united and the future of their children in economic and social facets (Nivalainen, 2004). Hence, it is expected that next-generation well-being will enter as a determinant in the migration decision equation. If parents observe that their children are doing well in the new area then they are willing to invest on their children by staying in the new area instead of moving out.

In each location, *generation t* observes two rewards, $X_{i,t}$, which represents the reward for generation t, and $X_{i,t+1}$, which represents the reward for generation t+1, with i=1, 2 (location). In this article, the reward is associated to well-being and education[2] for children (generation t+1), and job well-being for parents (generation t). The objective is to select location 1 and location 2 that maximizes the total expected reward for a family, that is, the well-being outcome for children and parents.

Data

The data employed for this research paper is based on the "Survey of Migrant and Seasonal Farm Worker Youth – A Study Conducted by The Pennsylvania State University, 2006" in collaboration with the Lincoln Intermediate Unit of the Pennsylvania Migrant Education Program (MEP) and Rural Opportunities, Inc. headquartered in Rochester NY (ROI, now Pathways).

The survey was conducted only in the southeastern Pennsylvania; it was a one-time survey among adolescents in migrant and seasonal farmworker families; survey participants began to be enrolled in late 2006 and incorporated new participants until early 2008.

Estimation Strategy and Variable Definitions

First, it is necessary to clarify that the data only consider international immigrants; that is, the analysis is based on the post-migration movements once the immigrant has entered the U.S., then moving costs within the U.S. are negligible.

One of the main problems in migration studies is "selectivity bias" in the data. However, one advantage of this study is that the survey gathers information from people who have already experienced international migration, that is, they share similar characteristics and personal attributes that make them more likely to opt for migration. Likewise, the data comprise a homogenous group of immigrants from Latin American[3] (mostly from Mexico) with similar skills as farmworkers.

This case is a good example to analyze only next generation effect on parents' decision. Parents are a homogenous group working as farmers in PA who face a similar wage in PA and nearby state comprises in the Northeast Region II. Thus, in

[2] Education for children is a good indicator of happiness in the long term.

[3] Mayr & Peri (2008) based on U.S. data showed that Latin Americans have a different return migration pattern in comparison to migrants from Eastern Europe and Asia. There is almost no return migration among Latin Americans immigrants.

this case, wage is not a factor to determine migration's decision because the other potential locations are not offering a wage differential.

There are two approaches in the estimation strategy proposed. The first approach uses a logit analysis using the statistical package STATA 9. The second approach is based on a latent analysis regression (including latent analysis classes) using the statistical package R 2.13.0.

In the first approach, the immigrant in location 1 (PA) will decide to migrate according to:

$$DecMig = \alpha_0 + \alpha_1 X_{it} + \alpha_2 X_{it+1} + \alpha_3 Z + \varepsilon$$

Z includes control variables such as parents' educational attainment, family structure which includes civil status of parents and if the child lives in a nuclear family or extended family (with aunts and uncles).

To control by next generation, two variables are considered: well-being and education. The survey asked to children if they are satisfied with the overall well-being of their family. Survey responses show that 18.4% are very satisfied, 49.3% are satisfied, 24.8% are neutral, 6.0% are unsatisfied, and 1.5% are very unsatisfied. Next generation well-being is grouped into three categorical responses: satisfied, neutral, and unsatisfied.

In the case of education, school levels are included to measure educational attainment of the next generation. The survey considers not only children in high school but also children who dropped-out school and already graduated. The survey's question is: "what grade are you in now or if it is now summer, what grade will you be in this coming fall?" There are 13.1% respondents in 8th grade, 19.8% in 9th grade, 21.5% in 10th grade, 14.8% in 11th grade, 11.4% in 12th grade, 6.0% has dropped-out the school, and 13.4% has already graduated or have a GED. This variable is grouped into four categories, drop-out, middle school (8th grade), high school (9th grade through 12th grade), and already graduated or with a GED.

To control for parents' well-being, the variable job well-being is used, with the response from child's point of view. The survey includes a question about the mother and father -- if they like their jobs. In the case of fathers, the responses show that 11.8% believe that their fathers strongly like their jobs, 37.1% only like their jobs, 15.2% neither like nor dislike, 8.9% dislike their job, and 2.1% strongly dislike their employment. In the case of the mother's job, responses show that 9.7% believe that their mothers strongly like their jobs, 35.5% only like their employment, 18.9% neither like nor dislike, 8.8% dislike their job, and 0.4% strongly dislike their job. These two variables are grouped into: 1) like job (includes strongly like and like), 2) neutral (neither like nor dislike), and 3) dislike job (includes strongly dislike and dislike).

The dependent variable, migration, is a dichotomous variable and the best strategy of estimation is to use a logit model. Logit models are estimated to analyze the likelihood of migrating, with (Y = 0) for moving and (Y = 1) representing staying.

In the second approach, latent class analysis (LCA) and latent class regression (LCR) are employed[4]. For both approaches, there are two models to estimate, one model includes next generation well-being as the main independent variable, and the second model includes education level of the next generation.

[4] Using the program polCA in R (Linzer & Lewis, 2011), the latent class regression is estimated by the "one-step" technique to avoid generating biased coefficients.

Results

Table 1 – Marginal effects on migration decisions

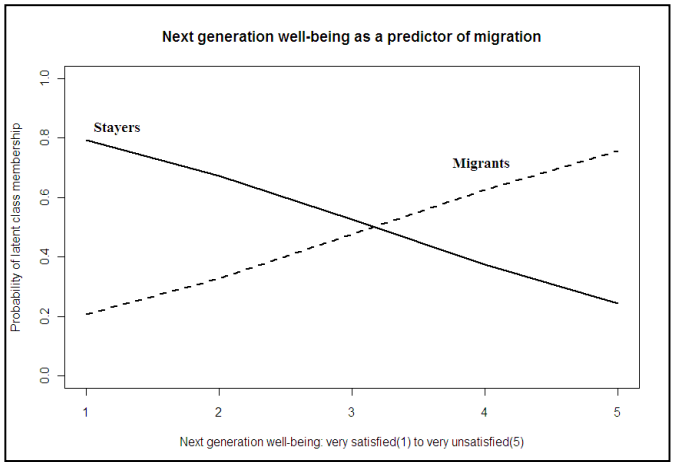
Stayer (=1), Mover (=0)	Model 1	Model 2
Next Generation		
Unsatisfied (1=yes)	0.142	
	1.39	
Satisfied (1=yes)	0.244**	
	2.23	
Reference category: neutral		
Next Generation		
Middle school		0.213*
		2.82
High school		0.363**
		1.92
Already graduate or GED		0.188
		2.02
Reference category: drop-out		
Father		
Unsatisfied (1=yes)	0.179	0.131
	1.87	1.07
Satisfied (1=yes)	-0.079	-0.061
	-0.79	-0.58
Reference category: neutral		
Log-likelihood function	-50.8451	-50.0205
Number of observations	100	101

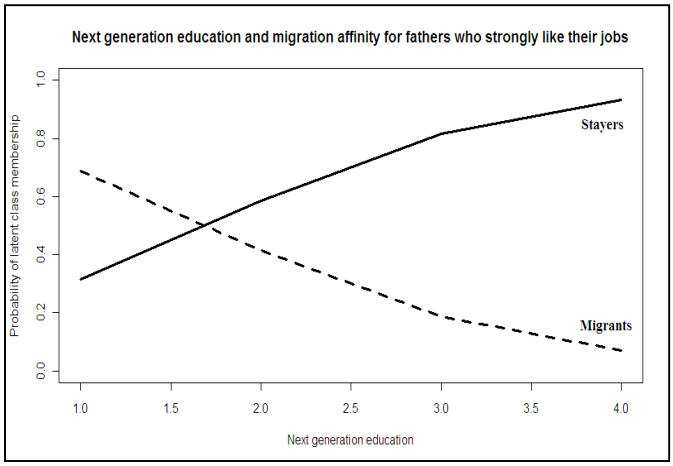
* p<.1; ** p<.05; *** p<.01

For the *first approach*, preliminary results indicate that families with children reporting a 'satisfied' level of well-being are more likely to stay in PA even when controlling by father's job satisfaction. These preliminary results (Table 1) in Model 1 validate the hypothesis that parents' migration decisions take into account the child's well-being. In the same line, preliminary results in Model 2 show that families with children doing well in the school (who did not drop-out) are more likely to stay in PA.

For the second approach, a two-class model was run considering next-generation and father's well-being as covariates. Preliminary results show that next-generation well-being has a significant effect on the likelihood of being a stayer. As it is showed in Figure 1, if next-generation reports being very satisfied the probability of being a stayer is higher than the probability of being a migrant (mover), meanwhile if the children report being very unsatisfied then the probability of being a migrant is higher than the probability of being a stayer. Similar results (preliminary) are found for children's education. Figure 2 shows that if the child drops out the school then there is a lower probability that the family stays.

Figure 1 and Figure 2





Extension

To complete the analysis is necessary to incorporate additional covariates as it was proposed in the introduction, such as, family structure, years of education of parents,

parent's identity as U.S. citizen, and well-being of the mother. Besides, more observations from recent immigrants from overseas are going to be included. Likewise, the analysis will be completed with an exploratory analysis of children's expectations about migration and returning to their home countries.

These preliminary results are very important to analyze the relationship between parents' decisions and their children's outcome. Thus, if parent observes that children are doing well in school and in the new destination area, it is more likely that parents will stay in the new area as an investment decision on their children. Incorporating an analysis based on simultaneous equations may shed light on that hypothesis.

References

Djajić,Slobodan (2008). Immigrant parents and children: An analysis of decisions related to return migration. *Review of Development Economics*, 12 (3), pp. 469-485.

De Jong, G., A. Chamratrithirong & Q. Tran (2002). For better, for worse: Life satisfaction consequences of migration. *International Migration Review*, 36 (3), pp. 838-863.

Graham, C. & S. Pettinato (2000). Frustrated achievers: Winners, losers, and subjective well being in new market economies. Center on Social and Economic Dynamics, Working Paper Series, 20, 41p.

Knight, J. & R. Gunatilaka (2008). Aspirations, adaptation and subjective well-being of rural-urban migrants in China. University of Oxford, 26p.

Linzer, D. & J. Lewis (2011). poLCA: An R package for polytomous variable latent class analysis. *Journal of Statistical Software*, 42(10).

Mayr, K. & G. Peri (2008). Return migration as a channel of brain gain. NBER Working Paper, 14039.

Nivalainen, Satu (2004). Determinants of family migration: short moves vs. long moves. *Journal of Population Economics*, 17, pp. 157-175.

United Nations Population Division.
http://www.un.org/esa/population/publications/wpp2009/WPP2009%20web/Countries/WPP2009%20Frame.htm