Migration decisions of households in Guizhou province, South-West China: Do household demographics and health matter?

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Introduction

Migration makes important contributions to livelihoods of rural households in south western China. At the same time, there are accounts of a likely interplay between household demographics and health which influences households' migration decisions:

- Young people without dependants in principle decide freely whether to migrate. Children or parents in need of support may constrain their choice.

- Division of labor within the household facilitates migration. Elder take care for children, allowing young couples to migrate.

- Here, grandparents' health status may be of crucial importance a household's migration decision.

Objective To explore the effect of household demographics and health on migration decisions of rural households.

Methodology

- Logistic regression model of household migration decisions, using household data from a 2006 village survey (N = 827).
- Use of dummy variables to capture the presence of children and elder as well as the health status of the elder.
- Test for equality of coefficients on hh composition and health dummies. If coefficients are equal, combine dummies to consolidate the model.
- Replace household composition dummies with share variables to increase information content.

Results

1. Full model

Variable	Estimate	
Intercept	-2.708	**
Hh composition and health dummies		
Children, no elder	-1.588	***
Children, healthy elder	-3.950	***
Children, all elder chronically ill	-2.407	**
No children, healthy elder	-0.944	
No children, all elder chronically ill	-0.427	
Control variables		
Hh size	0.585	***
Share married in hh	-1.435	**
Share males migration age	0.910	**
Labor market experience of hh head	0.025	**
Value of durable assets/capita	0.000	
Contract land/capita	0.098	
Communist party member in hh	-0.156	
Ethnic minority hh	0.613	**
Migration experience in hh	1.104	***
LR	127.56	***
McFadden-R^2	0.252	

Level of significance: * α=10%, ** α=5%, *** α=1%.

Negative effect of children on migration.

Are coefficients for healthy and ill elder significantly different from each other?

- For hh with children: LR-test cannot reject H_0 of equal coefficients.
- For hh without children: Both coefficients not signif. different from 0.

$\Rightarrow$ Elders' health status does not help to explain hhs' migration decisions.

$\Rightarrow$ Collapse dummies: Drop differentiation between healthy and sick elder.

2. Neglect health

Variable	Estimate	
Intercept	-2.753	**
Hh composition and health dummies		
Children, no elder	-1.578	***
Children, elder	-3.458	***
No children, elder	-0.717	
Control variables		
Hh size	0.587	***
Share married in hh	-1.492	**
Share males migration age	0.901	**
Labor market experience of hh head	0.026	**
Value of durable assets/capita	0.000	
Contract land/capita	0.095	
Communist party member in hh	-0.162	
Ethnic minority hh	0.585	**
Migration experience in hh	1.140	***
LR	123.87	***
McFadden-R^2	0.245	

Level of significance: * α=10%, ** α=5%, *** α=1%.

Negative effect of children on migration.

Presence of elder does not counteract negative influence of children. Hh with children and elder even less likely to migrate.

No significant impact of presence of elder in hh without children.

$\Rightarrow$ Share variables for children and elder should capture the same effects while increasing the information content.

$\Rightarrow$ Replace household composition dummies with share variables.

3. Replace dummies with shares

Variable	Estimate	
Intercept	-1.624	
Shares for hh composition		
Share of children	-4.015	***
Share of elder	-4.096	***
Control variables		
Hh size	0.377	***
Share married in hh	-1.977	**
Share males migration age	0.854	*
Labor market experience of hh head	0.028	**
Value of durable assets/capita	0.000	
Contract land / capita	-0.213	
Communist party member in hh	-0.251	
Ethnic minority hh	0.751	**
Migration experience in hh	1.136	***
LR	125.39	***
McFadden-R^2	0.248	

Level of significance: * α=10%, ** α=5%, *** α=1%.

Higher shares of children or elder decrease probability to migrate.

Are the coefficients different from each other?

- LR-test cannot reject H_0 of equal coefficients.

$\Rightarrow$ For migration decisions it does not matter whether a dependant is a child or elder.

$\Rightarrow$ Combine share variables into dependency ratio.

4. Use dependency ratio

Variable	Estimate	
Intercept	-1.239	
Dependency ratio for hh composition		
Dependency ratio	-4.038	***
Control variables		
Hh size	0.338	***
Share married in hh	-1.984	***
Share males migration age	0.847	**
Labor market experience of hh head	0.028	***
Value of durable assets/capita	0.000	
Contract land / capita	-0.213	
Communist party member in hh	-0.253	
Ethnic minority hh	0.710	**
Migration experience in hh	1.136	***
LR	125.33	***
McFadden-R^2	0.248	

Level of significance: * α=10%, ** α=5%, *** α=1%.

A higher dependency ratio decreases households' probability to migrate.

A further factor with significantly negative impact is the share of married in hh.

Migration is facilitated by a larger hh size, a higher share of males in migration age and previous migration experience.

Ethnic minority households are significantly more likely to migrate.

Coefficients on control variables are robust to the consolidation of the model.

Conclusions

Accounts of an interplay between migration, household demographics and grandparents' health in Guizhou province, China, are not reflected in the data. Grandparents' health does not contribute to explaining households' migration decisions. Household composition, however, is an important determinant of migration.

In addition, household size, marital status, gender composition, migration experience and ethnicity have been identified as factors which influence the migration decision.

Results should be checked for robustness, reverting to the use of a panel dataset.