Outmigration and Intergenerational Support in Rural China

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OUTLINE

1. Rural-Urban Migration in China
2. A Longitudinal Survey of Rural Older Adults
3. A Recent Study
4. Policy Issues and Future Research
China’s population is aging rapidly. The share of the total population aged 65 and above grew from 7.0% in 2000 to 8.9% in 2010.

Getting old before getting rich: Pensions, health care, and social security systems are still underdeveloped.

One country, two societies: Big gap of social system between rural and urban China.

Major demographic indicators for mainland China in 2010.

- Total fertility rate: 1.5
- Female life expectancy: 76
- Male life expectancy: 72
- Percent rural: 50.3
- Per capita GDP (RMB): 25,575

China has experienced rapid urbanization and accelerating rural-urban migration.

Rural-urban migration and urbanization in China

Family migration has become increasingly common.  
• 90.9% married migrants migrated with their spouse.  
• 65.1% rural-urban migrants who had at least one child took at least one child with them.

Population pyramid of rural-urban migrants in China in 2013

Note: one red dot denotes ten thousand migrants.
Rural areas are more aged than urban areas.

Age distribution of China in 2010

Source: Data from 2010 census data in China (Zou & Wu, 2013)
The number of left-behind older adults aged 60 and above in rural China is nearly 50 millions.

Many of them have to do fieldwork and housework, and take care of their grandchildren.
Rural-urban migration has not only played an increasingly important role in Chinese socioeconomic development, but also made changes in intergeneration support.

**Family Structure**
- Most young adults go to work in the city, leaving the older people, wives and children behind in country.

**Family Relationship**
- As the result of outmigration, new family relationships are emerging: skip, shift, network and separate.

**Intergenerational Support**
- Under the background of outmigration, intergenerational support becomes complicated, and the corporate group model seems to be more explanatory.

**Gender Difference**
- Female’s outmigration may alter the gender division of labor in the family, which will influence the traditional support for the aged.
2. A longitudinal Survey of Rural Older Adults

2.1 Selection of Survey Site

Chaohu, Anhui Province

- **Location:** On the north bank of the Yangtze River in the central part of Anhui;
- **Features:** Relatively high density of older adults and high rates of out-migration of working adults to Nanjing, Shanghai, etc.
- **Five districts and counties:** Juchao, Hanshan, Hexian, Lujiang, and Wuwei;
- **Economy:** Primarily agriculture; a medium level of social and economic development among Chinese cities.
- **Population (2000 census)**
  - **Total:** 4,490,000
  - **Features:** High density, 10.3% of the population is 60 years old and older (compared to 10% of the nation)
2.1 Selection of Survey Site

Chaohu, Anhui Province
2.2 Data Collection

- **Survey design**
  - Face-to-face questionnaire survey conducted in respondents’ homes
  - **Longitudinal design:**
    - Wave 1: 2001.4
    - Wave 2: 2003.11 (with interval: 30 months)
    - Wave 3: 2006.12 (with interval: 37 months)
    - Wave 4: 2009.6 (with interval: 30 months)
    - Wave 5: 2012.9 (with interval: 39 months)

- **Three types of questionnaire**
  - Questionnaire of living elderly
  - Questionnaire about deceased elderly
  - Questionnaire of migrated elderly
2.2 Data Collection

- **Stratified multistage method**
  - 12 rural townships were randomly selected from all 126 townships in Chaohu;
  - 6 administrative villages were randomly selected in each township;
  - Within each selected village, all people aged 60 and older were stratified to form two sampling frames based on age:
    1. those aged 60-74
    2. those aged 75 and above
  - Within each age group, 15 people 60-74, and 10 people 75 and older were randomly selected.
2.2 Data Collection

Scope of data

- Household characteristics
- Intergenerational support (financial/instrumental/emotional); information from main or possible caregiver;
- Physical and mental health status for elders:
  - Physical health status: SRH (self-rated health); ADL; chronic diseases; cognitive ability
  - Mental health status: depression; satisfaction with life
- Intergenerational relations between elder grandparents and grandchildren
- Attitudes, preferences, and needs regarding dying and death according to the elder’s self-report before death.
- The elders’ experience at the end of life (death questionnaire)
### 2.2 Data Collection

#### Phases of survey:

<table>
<thead>
<tr>
<th>Wave</th>
<th>Time</th>
<th>Size</th>
<th>Respondents</th>
<th>Death</th>
<th>Migration</th>
<th>Replenished samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>2001</td>
<td>1800</td>
<td>1715</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Wave 2</td>
<td>2003</td>
<td>1715</td>
<td>1391</td>
<td>240</td>
<td>76</td>
<td>----</td>
</tr>
<tr>
<td>Wave 3</td>
<td>2006</td>
<td>1391</td>
<td>1067</td>
<td>236</td>
<td>57</td>
<td>----</td>
</tr>
<tr>
<td>Wave 4</td>
<td>2009</td>
<td>1067</td>
<td>836</td>
<td>173</td>
<td>33</td>
<td>416</td>
</tr>
<tr>
<td>Wave 5</td>
<td>2012</td>
<td>836</td>
<td>605</td>
<td>181</td>
<td>36</td>
<td>----</td>
</tr>
</tbody>
</table>
2.2 Data Collection

- **Supporting organizations**
  - Start from 2000, initial cooperators
    - Institute for Population and Development Studies, Xi’an Jiaotong University
    - University of Southern California
  - Cooperators have expanded, including
    - Syracuse University
    - University of Victoria
    - Stanford University
    - Texas Tech University
    - Soochow University (China)
    - Xi’an University of Science and Technology (China)
2.2 Data Collection

**Sponsoring**
- Fogarty International Center, NIH
- The School of Social Work, the Davis School of Gerontology, University of Southern California (USC)
- the Morrison Institute for Population and Resource Studies, and Center for Demography and Economics of Health and Aging (CDEHA), Stanford University
- China National Natural Science Foundation, China National Social Science Foundation
- The National 985 Project of the Ministry of Education of China, Xi’an Jiaotong University.
- Programs for Changjiang Scholars, Changjiang Scholars and Innovative Research Team (IRT0855) in Universities of the Ministry of Education of China
3. A Recent Study

Sons and Daughters: Impact of Children’s Outmigration on Intergenerational Support in Rural China

Research objectives

➢ To explore gender differences in how outmigration influences intergenerational exchanges between adult children and their older parents.
➢ To examine age and cohort effects within intergenerational exchanges.

Research question

➢ Does outmigration of children have positive/negative effect on financial/instrumental support (provided or received)?
➢ Are there gender differences in effect of children’s outmigration on financial/instrumental support (provided or received)?
➢ Are there cohort differences in effect of children’s out-migration on financial/instrumental support (provided or received)?
3.1 Studying Sample

- Data from the waves of the survey “Well-being of Elderly in Anhui Province, China” conducted in 2001, 2003, 2006, 2009 and 2012, respectively.

- After omitting respondents without children and cases with missing data on relevant study variables, the total number of children-parent pairs was 20,640, including 11,121 son-parent pairs (53.88%) and 9,519 daughter-parent pairs (46.11%).

- The children samples were grouped into seven 5-year cohorts: Cohort 0, born in 1976-1980; Cohort 1, born in 1971-1975; Cohort 2, born in 1966-1970; Cohort 3, born in 1961-1965; Cohort 4, born in 1956-1960; Cohort 5, born in 1951-1955; and Cohort 6, born in 1950 and later. The age range for each cohort at the baseline survey was 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, and 51 and older, respectively.
## 3.2 Measures

| Dependent variable | Financial support (provided and received)  
<table>
<thead>
<tr>
<th></th>
<th>Instrumental support (provided and received)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variable</td>
<td>Children’s outmigration</td>
</tr>
</tbody>
</table>
| Control variables | Child-level variables  
|                   | Age, Cohort, Gender, Marital status, Education, Occupation |
|                   | Parent-level variables  
|                   | Age, Gender, Marital status, Education, ADL |
3.3 Analytic strategy

- We specified three-level hierarchical linear models to estimate age trajectories of intergenerational support and heterogeneity in these trajectories by cohort.
- We also considered the effect of gender on the relationship between outmigration and intergenerational supports.

- **Level 1 Model:**
  \[
  y_{tij} = \beta_{0ij} + \beta_{1ij}(Age_{tij} - 21) + \beta_{2ij}\text{Migration} + \beta_{3ij}(Age_{tij} - 21) \times \text{Migration} + e_{tij}
  \]  
  (1)

- **Level 2 Model:**
  \[
  \beta_{0i,j} = \gamma_{00,j} + \gamma_{01,j}\text{Cohort} + \gamma_{02,j}\text{Sex} + \mu_{0ij}
  \]  
  (2a)
  \[
  \beta_{1i,j} = \gamma_{10,j} + \gamma_{11,j}\text{Cohort} + \gamma_{12,j}\text{Sex} + \mu_{1ij}
  \]  
  (2b)
  \[
  \beta_{2i,j} = \gamma_{20,j} + \gamma_{21,j}\text{Cohort} + \gamma_{22,j}\text{Sex}
  \]  
  (2c)
  \[
  \beta_{3i,j} = \gamma_{30,j} + \gamma_{31,j}\text{Cohort} + \gamma_{32,j}\text{Sex}
  \]  
  (2d)

- **Level 3 Model:**
  \[
  \gamma_{00,j} = \pi_{000} + \sum \pi_{00q}X + r_{00j}
  \]  
  (3)
### 3.4 Results

**Table 1 Growth model of the effect of children’s outmigration on their intergenerational support provided and received, 2001-2012 (N=20,460)**

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Financial support provided</th>
<th>Financial support received</th>
<th>Instrumental support provided</th>
<th>Instrumental support received</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Intercept</td>
<td>2.200***</td>
<td>1.656***</td>
<td>3.145***</td>
<td>1.266***</td>
</tr>
<tr>
<td>Gender</td>
<td>0.433***</td>
<td>-0.215***</td>
<td>-0.084</td>
<td>-1.035***</td>
</tr>
<tr>
<td>Cohort</td>
<td>-0.025</td>
<td>0.002</td>
<td>-0.110*</td>
<td>0.020</td>
</tr>
<tr>
<td>For Linear Growth Rate Intercept (Age)</td>
<td>0.034***</td>
<td>-0.039***</td>
<td>0.005</td>
<td>-0.058***</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.012***</td>
<td>0.005***</td>
<td>-0.031***</td>
<td>0.020***</td>
</tr>
<tr>
<td>Cohort</td>
<td>-0.003***</td>
<td>0.004***</td>
<td>0.005*</td>
<td>0.004***</td>
</tr>
<tr>
<td>Children’s Out-migration</td>
<td>0.026</td>
<td>-0.138+</td>
<td>-0.662**</td>
<td>-1.079***</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.155*</td>
<td>-0.147*</td>
<td>-0.125</td>
<td>0.649***</td>
</tr>
<tr>
<td>Cohort</td>
<td>-0.048</td>
<td>0.099***</td>
<td>-0.008</td>
<td>0.040</td>
</tr>
<tr>
<td>Age × Out-migration</td>
<td>0.017**</td>
<td>0.004</td>
<td>0.011</td>
<td>0.043***</td>
</tr>
<tr>
<td>Gender</td>
<td>0.001</td>
<td>0.005*</td>
<td>0.035***</td>
<td>-0.011*</td>
</tr>
<tr>
<td>Cohort</td>
<td>-0.002</td>
<td>-0.003***</td>
<td>-0.006*</td>
<td>-0.005***</td>
</tr>
<tr>
<td>Random-Effects Variance Components</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2: in intercept</td>
<td>0.407***</td>
<td>0.370***</td>
<td>1.023***</td>
<td>0.921***</td>
</tr>
<tr>
<td>Level 2: in linear growth rate</td>
<td>0.015**</td>
<td>0.012***</td>
<td>0.079***</td>
<td>0.028*</td>
</tr>
<tr>
<td>Level 1: within-person</td>
<td>0.826</td>
<td>0.648</td>
<td>2.059</td>
<td>1.136</td>
</tr>
<tr>
<td>Level 3: U00</td>
<td>0.374***</td>
<td>0.294***</td>
<td>0.624***</td>
<td>0.343***</td>
</tr>
<tr>
<td>-2LL</td>
<td>27194.13</td>
<td>21569.13</td>
<td>45788.20</td>
<td>33925.14</td>
</tr>
</tbody>
</table>

*** p < 0.001; ** p < 0.01; * p < 0.05; + p < 0.1  The results have been controlled with the characteristics of adult children, including marital status, education, and occupation, and the characteristics of older parents, including age, gender, marital status, education, and ADL.
Financial support provided by sons  
Financial support provided by daughters

**Figure 1** Financial support provided by migrant and non-migrant children: Gender differences by age and cohort

* The results have been controlled with the characteristics of adult children, including marital status, education, and occupation, and the characteristics of older parents, including age, gender, marital status, education, and ADL
Figure 2  Financial support received by migrant and non-migrant children: Gender differences by age and cohort

* The results have been controlled with the characteristics of adult children, including marital status, education, and occupation, and the characteristics of older parents, including age, gender, marital status, education, and ADL
Instrumental support provided by sons

Instrumental support provided by daughters

Figure 3  Instrumental support provided by migrant and non-migrant children: Gender differences by age and cohort

* The results have been controlled with the characteristics of adult children, including marital status, education, and occupation, and the characteristics of older parents, including age, gender, marital status, education, and ADL
Instrumental support received by sons  Instrumental support received by daughters

Figure 4 Instrumental support received by migrant and non-migrant children: Gender differences by age and cohort

* The results have been controlled with the characteristics of adult children, including marital status, education, and occupation, and the characteristics of older parents, including age, gender, marital status, education, and ADL
3.5 Conclusion

- The children’s outmigration was related positively with financial support provided, but negatively with financial support received and instrumental support exchanges:
  - The increase of financial support over time was greater for migrant children than for non-migrant children.
  - Although instrumental support provided by non-migrant sons tended to increase over time, instrumental support by migrant sons decreased over time.
- There was considerable cohort variation in the age trajectories of intergenerational exchange.
  - E.g. among younger cohorts, instrumental support the migrant daughters provided increased with age, even though it generally declined, which could reflect historical changes.
- There were gender differences in the effect of children’s outmigration on age trajectories of intergenerational support.
  - As expected, the level and duration of exchange between sons and their older parents was found to be much higher than that between daughters and their parents. However, few gender differences in the age pattern of intergenerational support were observed between migrant sons and migrant daughters.
4. Policy Issues and Future Research

Policy Issues:

- China should adopt a balanced development strategy
  - Improve social systems in rural China to bridge the gap between rural areas and urban areas.
  - *In situ* urbanization would facilitate intergenerational support, both financial support and instrumental support.

- More measures should be taken to facilitate the integration of migrants into city societies and expand social welfare to migrants and their parents
  - *Hukou* reforms: facilitate family reunion in cities.
  - Ad hoc social programs: provide migrant seniors with equal access to public services.

- Develop ad hoc policies and programs to support left-behind older adults in rural China.
Future Research

- Social integration of older people
  - Social integration of left-behind older people in rural China
  - Reintegration of older people who migrate with children in urban China

- Policy research: policy challenges, policy making and reforms to support older people in China

- Cross-country comparison study
  - Social support of left-behind older adults in Mexico and rural China
  - Reintegration and social support of migrant parents in USA and Urban China.
  - Policy analysis and comparison in USA, Mexico, and China
Thanks for your attention!