Migration and the Well-being of the Elderly in Rural China

Yue (Angela) Zhuo
Department of Sociology
State University of New York
1400 Washington Ave.
Albany, NY 12222
e-mail: yz7338@albany.edu

and

Zai Liang
Department of Sociology
State University of New York
1400 Washington Ave.
Albany, NY 12222
e-mail: zliang@albany.edu

Paper prepared for presentation at Population Association of America 2006 Annual Meeting, Los Angeles, California.

Abstract

In this paper, we examine the extent to which migration of younger generation affects the well-being of elderly in rural China. Our general strategy is to compare the well-being of the rural elderly who have migrant children and of those who do not have migrant children. Specifically, we consider following four aspects: money transfer from children to the elderly, housing conditions, life satisfaction, and living arrangements. Data are from 10% sample of the 2000 China Aged Population Survey. We find a high proportion of the rural elderly have migrant children. Results suggest that the rural elderly with migrant children obtain more economic support from children and also have better housing conditions than those without migrant children. With respect to life satisfaction and living arrangements, no significant pattern is found. The implications for family planning policy, rural-to-urban migration, and especially elderly support in the future are discussed.

Migration and the Well-being of the Elderly in Rural China

INTRODUCTION

Migration and population aging

On the one hand, human beings have always been migratory. The migrations of today are the largest of all in human history (Davis, 1974). The *2003 Revision* of the *Total Migrant Stock* indicates that the number of international migrants in the world increased from an estimated 75 million in 1960 to almost 175 million in 2000 (United Nations, 2004). At the same time, the waves of population movement surge within boundaries, particularly from rural to urban in some developing countries. On the other hand, populations everywhere are growing older. Globally, the number of older persons (60 years or older) is about 606 million in 2000. The number has tripled over the last 50 years, and is projected to more than triple again over the next 50 years. More than one-half of the world's Governments consider population aging to be a major concern (United Nations, 2004).

The dramatically increasing migration and the rapid aging of populations underway in much of the world has spawned extensive research on these two important demographic issues. Among the existing studies, the causes, patterns, and consequences of either migration or population aging are discussed broadly and intensely. As to the relationship between these two demographic transformations, the research is limited to specify the emigration of young people as one of the causes for population aging in a region or society (for example, Zeng and Vaupel, 1989). However, there remains much to be known about this relationship.

The conventional framework of migration assumes individuals as the unit of migration and focus on the characteristics and selectivity of migrants. However, the performance of individual migrants can largely be accounted for not only by migrants' characteristics but also by the preferences and constraints of their families who stay behind (Stark, 1991). Migration is not only a matter of isolated migrants, but also of their families, including their spouses, children, and other family members. Migration has effect on migrants and their families or households, as well as the communities. The traditional migrants are represented by young males. Over time more and more young women have joined in migrant group. As a result, most of their parents are left at the source places. Therefore, theoretically we can suppose that migration may have influence on the elders' life, including economic status, caregiving, psychological health, and so on.

Migration and population aging in China

The topic about the impact of migration on the elderly is much more interesting in the context of China. Over the course of the last several decades, along with the fundamental social and economic changes in China, two major demographic transformations are simultaneously in rapid progress, i.e., population aging and migration.

According to demographic transition theory, China is experiencing the period with low fertility and low mortality. So population aging is a natural consequence. The birth control policy in China further accelerates the population aging process. The *Communiqué on Major Figures of the 2000 Population Census (No. 1)* released by National Bureau of Statistics of China indicates that, 88.11 million persons are in the age group of 65 and over, accounting for 6.96 percent of the total population. Compared with

the results of the 1990 population census, the share of people aged 65 and over was up by 1.39 percentage points. Furthermore, there is a remarkable increase in recent years. By the end of 2003, the number of people aged 65 and over has been up to 96.92 million, accounting for 7.5 percent of 2003 year-end total population. In terms of people aged 60 and over, the aged population is 0.138 billion in 2003 China, which accounts for about 10.6 percent of the total population (National Population and Family Planning Commission of China, 2004). According to the traditional Chinese culture and norms, it is the children's duty to take care of old parents. It is said, "Do not go far away when your parents are alive." Although this tradition has been slightly weakened in modern society, it is still the dominant culture, particularly in rural China. Moreover, the support for the elderly is weak from society and government in China. Till now social welfare and security system has not been well established. Particularly, it is almost a blank in rural area. If the retired urban elderly still can live on their retirement pension, the rural elderly have no special economic source for their late years, except for agricultural income, which to a great extent depends on their physical health. Furthermore, the social resource for the elderly caregiving is quite limited. Children have been the major caregivers for the Chinese elderly all along.

Along with the increasing pace of population aging, China's transition to a market-oriented economy increased the mobility of the Chinese population. The late 1980s and the 1990s of China may be characterized as a period of great migration. Firstly, the magnitude of migration is huge and increases rapidly. Using 10% sample of China 1988 2/1,000 Fertility and Birth Control Survey, Liang and White calculated the migration rates of China from 1950 to 1988. The migration rate for 1985 to 1988 is

0.0043, significantly higher than 0.0027 for 1975 to 1979 and for 1980 to 1984 (Liang and White, 1996). The volume of migrant population has increased tremendously during the past two decades in China. Labor migration has been rising from a few millions in the mid-1980s to an unprecedented level of 100 millions recently. In terms of temporary migration, in 1982 only 11 million temporary migrants were recorded in the first population census; by the time of 1990 Chinese census, the size of the temporary reached nearly 22 million; from 1989 to 1990, in just one year, China's temporary population increased by almost 60 percent (11 million); in 1995 there were 56 million temporary migrant; the 2000 census shows there was a total of 79 million cross-county temporary migrants in that year. The size of total migrant population from 1995 to 2000 is more than 79 million, including 58.8 million floating population and 20.2 million permanent migrants (Liang, 2001, 2004). Secondly, migration wave surges broadly across China. The main trend of internal migration in China is from rural to urban. Thirdly, migration in China has generally remained highly selective. In terms of age selectivity, migrants are primarily young and middle-aged adults. According to 2000 census, 57.2 percent of migrants are young adults (15-29), and 25.0 percent middle-aged adults (30-44). Meanwhile, migration has become less selective of males in China, partly because of rising demand for young female labor and partly because of the formed migrant networks. Based on these observations, Ma et al pointed out that elderly care in migration regions becomes an interesting topic of study (Ma et al, 2004).

Adult children are major caregivers for the Chinese elderly, as well as economic supporters in rural China. Considering the considerable migration of young and middle-

aged adult and the increasing size of aged population, it is interesting to probe the impact of migration on the well-being of the elderly in rural China.

Previous studies

The consequences of migration have been intensely discussed, specially the economic outcomes. Migration has significant economic influence on households and origin communities, particularly for rural China. Rural migrants always earn more money in cities and send remittance back to the countryside. Migration has become part of a strategy for survival for an increasing number of rural households. A 1994 survey suggests that as much as 18 percent of China's rural household income is derived from migrant remittance (Cai, 1997). The study on rural China by Taylor et al provided evidence that the remittances sent home by migrants partially compensate for the lost-labor effect of migration, contributing to household incomes directly (Taylor et al, 2003). The research of Ma et al indicated that migration strongly enhanced rural income growth. Per capita net income and savings grew more rapidly in areas with higher migration rate. They found that migrant remittances contributed to considerable improvement of children's education, housing and hygiene conditions in migration communities. Meanwhile, they also noticed that the departure of the young member(s) reduced household size and increased the share of old dependent ratio (Ma et al, 2004).

As to the impact of migration on family structure and family members, there have been some studies on migration and fertility (for example, Goldstein et al, 1997; Goldstein et al, 1981), a few on migration and children (for example, Hagan et al, 1996; Long, 1975), infant death (Landale et al, 2000), and marriage and migrant's spouse (for

example, Shihadeh, 1991). Meanwhile, there are a couple of studies on migration and the elderly (Rogers, 1988; Heaton et al, 1981; Charles, 1990). But the topic is limited to the elderly migration. The elderly were discussed as migrants, while not as the dependent persons that are left behind. Moreover, because migrants are represented by young and middle-aged people and the volume of the elderly migration is relatively small, there is no much research on this topic. However, although the elderly usually are not actors of migration, they are truly involved in migration. The migration of their children does affect their life.

In the field of aging studies, scholars have talked much about living arrangements of the elderly, i.e., parent-child(ren) coresidence or noncoresidence. These intergenerational residence patterns are viewed through many lenses, each of which raises somewhat different questions and points up to different explanations. The three major theoretical frameworks for the research on this topic are life course, macro-structural, and exchange perspectives (White, 1994). The life course perspective concentrates on age-related transitions that are socially created, social recognized, and shared. The research grouped under this perspective focus on the question about homeleaving age, and leaving home before or after marriage. The end of coresidence and the establishment of independence living fall within the part of the life course known as the "transition to adulthood." The research by macro-structural perspectives explains the cross-national and historical differences of coresidence within macro economic, legal, and demographic structures. The concerns cover economic changes, tax laws, welfare and housing policies, levels of fertility and mortality, and so on. The exchange theory is a theoretical framework on the micro level. Children are assumed to assess the costs and benefits of

living with their parents compared to alternative living arrangements and to choose the arrangement that offers the most highly valued benefits. The residence arrangement decision is studied from the parents' point of view or the child's. Under these theoretical frameworks, the empirical findings of living arrangements study are mainly about who is a home leaver; who live with their children; differentials of residence patterns by race/ethnic, gender or class, and so on.

Living arrangements studies on East and Southeast Asia put more emphasis on family structure and intergenerational relationships. For one reason, filiation is highly valued in the countries within this region; for another, many of these countries have experienced both rapid demographic change and high rates of industrialization, urbanization, and related social changes, which influence the traditional family values and structures. Some thoughts hold that these changes have weakened the respect and support for the older population, endangering the well-being of the elderly. A different school of thought holds that longstanding family and cultural arrangements will persist and largely protect the elderly from untoward consequences of various sociodemographic changes (Hermalin and Yang, 2004). A lot of studies have discussed the dynamics of changes in people's preferences and actual living situation, and the degree of concordance between expectations and actual living arrangement, as well as the predictors (Logan et al, 1998, 1999; Hermalin and Yang, 2004). The research by Zeng et al found that many more adult children continue to live with their parents in East Asia countries than in the West societies. In the East Asia countries, the prevailing attitudes toward generational relationships are quite different from those in modern Western societies. Filiation has been one of the cornerstones of East Asia societies for thousands

of years, and is still highly valued today. The philosophical idea of filiation includes children's duty not only to respect older generations, but also to contribute financially to their family's household and take care of their elderly parents. Moreover, many East Asia parents still care for their children after the children have grown up, by providing financial aid to adult children when needed, and looking after their children's children (Zeng et al, 1994).

We can find that in this field the basic fact that researchers are interested in is whether the elderly and their children coreside or not, while not whether those noncoresiding children stay within local places or migrate to other places. Few studies went further to discuss the specific location of the homeleaving children. An exception is the research on urban China conducted by Bian et al. They examined the relations of these noncoresident offspring with parents in terms of geographic proximity, frequency of contact, and exchange of help. Based on a 1993 random sample survey (China Housing Survey) conducted in Tianjin and Shanghai, they found that although rates of coresidence are high in urban China, noncoresident sons and daughters live close to parents, have frequent contact with their parents, and provide regular help to parents (Bian et al, 1998). In their research, most noncoresident children in urban China were found to live near to the elderly, while not migrate far away. However, there is a different story in rural China. There is a large migrant population from rural to urban in China, and these rural-to-urban migrants are usually young people. Some of their elderly parents join the migrants after they have settled in their new location, but most stay behind (Zeng, 1986, 1989). As to the caregiving for those who stay behind, Zeng supposed that the traditional Chinese three-generation family is more likely to persist in rural areas than in

towns and cities, so that older people can be better taken care of by family networks in rural areas (Zeng, 1989). However, there has been no further empirical research about the influence of migration on the elderly who stay behind.

The purpose of this paper is to study the impact of migration on the well-being of the elderly in rural China. The research will contribute to the literature on both migration and elderly support. The following questions are to be probed. What is location distribution of the rural elderly's children? What are the impacts of migration on the economic well-being, housing conditions, and life satisfaction of the elderly in rural China?

Based on migration economics theory and previous studies, we hypothesize that the rural elderly with migrant children obtain more economic support from children than those without migrant children, and also they have better housing conditions. Since almost all the elderly have local children, either with or without migrant children, it is difficult to predict the psychological status of the elderly across two categories. But with some boldness we may suppose a better psychological status for the rural elderly with migrant children, because in rural China migration to cities is generally valued as the indication of ability, and most of the elderly are proud of having children in cities. With regard to living arrangement, we hypothesize that having migrant children increases the likelihood that the elderly live alone.

DATA AND METHODS

Data are from 10% sample of the 2000 China Aged Population Survey. This national survey was conducted by China National Aging Committee and China Center for

Scientific Study of Aging in 160 cities (counties) within 20 provinces, autonomous regions, and municipal cities. The respondents were individuals aged 60 and over. The sample used here is a 10% sample of 2000 Survey. We focus on rural China for this paper. Restricting the sample in this way results in a total sample of 946 rural respondents aged 60 and above in 2000.

The advantage of this data set is that it comes from a national survey, which helps us to learn about the general patterns of China. Next, the collected information is broad and rich. In addition, it is a relatively updated data set.

The major disadvantage is that the 10% sample size is small for a national research, since unfortunately we have no access to the whole sample. Also due to the limited access, we cannot identify the regional distribution of the 10% sample. Moreover, there is no sufficient information for migration study.

There is only one question about migration, "How many children (including son-in-law and daughter-in-law) do you have living outside the county?" Given the total number of children, we identify the distribution of children by location (local children within the county or migrant children outside the county). The elderly aged 60 and above in 2000 usually have more than one child, and most have at least one local child. The frequency distribution shows that few elders have no local children but only migrant children. Therefore, we divide the rural elderly into two categories: with migrant children and without migrant children. Our general strategy is to compare the well-being of the rural elderly who have migrant children and of those who do not have migrant children. Specifically, we consider following three aspects: money transfer from children to the elderly, housing condition, and life satisfaction for the elderly.

Money transfer from children to the elderly is measured by the total amount of money (*yuan*[1]) that the children gave to the elderly in 2000. Housing condition is measured by house materials: earth, brick and wood, brick and tile, and others. Because houses made of brick and tile are the most expensive, we create a dummy variable (brick and tile = 1; else = 0) and brick and tile serves as the reference category. The measure of life satisfaction is taken from the interview question "In general, are you satisfied with your current life?" and an ordinal variable is created to rate it from the lowest satisfaction to the highest. The measure of living arrangement is a dummy variable scored 1 for the elderly living with children.

The independent variable of main interest is having migrant children or not. We recode it into a dummy variable and those without migrant children serve as the reference category. The other explanatory variables are about the individual characteristics and household characteristics, including age, gender, cadre status, marital status, educational attainment, total number of children, and household size. Respondent's age is measured in years. The measure of age used in the analyses for living arrangement is a dummy variable scored 1 for the respondents age 70 and older. With regard to gender, we recode it to a dummy variable (male = 0; female = 1) and the male serves as the reference category. Another dummy variable is used to measure the cadre status and those who were cadres during the interview serve as the reference category. Respondent's marital status is measured by three mutually exclusive categories: married, divorced[2], and widowed[3]. Each is recoded as a dichotomous variable and the married serves as the reference category. As to education, we adopt years of schooling, instead of educational

[1] *yuan*: Chinese currency (RMB), 1 USD equals about 8 *yuan*.
[2] Including 14 separated living cases.
[3] Including 1 unmarried case.

attainment levels (elementary school, middle school, and so on), because years of schooling is more meaningful considering the very low educational attainment of the rural elderly and the traditional non-grade private school they attended. The total number of children is sum of sons, daughters, sons-in-law, and daughters-in-law. Household size used here is measured by the number of persons living together, including the respondent, spouse, parents, children, grandchildren, and others.

In the analyses, we use OLS regression for money transfer from children to the elderly, Logistic Regression for housing condition, and Ordinal Logistic Regression for life satisfaction. The independent variable of gender is only included in life satisfaction model, because the old couples usually share the money from children, as well as the housing unit.

RESULTS

Table 1 presents descriptive statistics for all variables in the analyses. Among the 946 respondents, 355 have migrant children while 591 have no migrant children. A high proportion of the rural elderly have migrant children, which accounts for 37.5 percent. This result is consistent with the fact of remarkable rural-to-urban migration in China. For those with migrant children, the average amount of money transfer from children to the elderly is 585.2 *yuan*, while it is 368.0 *yuan* for those without migrant children. 39.9 percent of the respondents with migrant children lived in the houses made of brick and tile. This proportion for those without migrant children is 33.0 percent. In terms of life satisfaction, the patterns are complex. 59.1 percent of the rural elderly indicated that they were satisfied or very satisfied with their current life, which is close to the percentage for

those without migrant children (59.2 percent). On the contrary, 14.9 percent among those with migrant children said they were dissatisfied or very dissatisfied with their current life, much higher than 10.8 percent for those without migrant children. However, 12.1 percent rural elderly with migrant children fall into the "very satisfied" category, which is also higher than that for those without migrant children (10.3 percent). If the dissatisfaction is truly due to children's migration, a possible explanation is that labor force is more highly valued by the rural elderly than migration remittance, considering the absolutely low level of net money flow from children to parents.

[Table 1 about here]

Next we examine these differences further by controlling for both individual and household characteristics.

Table 2 presents the regression model for money transfer from children to the elderly. The results suggest that having migrant children or not has significant effects on the money transfer from children to the elderly. Controlling for all other variables including the number of children, the rural elderly with migrant children got 181.242 *yuan* from their children more than those without migrant children. Clearly, when the children migrate across counties, particularly into cities, and work there, they make more money and their old parents can obtain more economic support from children. Meanwhile, years of schooling and number of children both have positive relationship with the money transfer from children to the elderly. The better-educated elderly received more money from children, probably due to the positive association between parents' education and children' education, hence children's socioeconomic status and income. Besides, the widower elderly got less money from children than others. One possible explanation is

the children usually give more money to parents when both parents are alive; the other is some aged persons move to live with their children after their spouses die, and the children directly support them, instead of giving much cash.

[Table 2 about here]

Table 3 presents the logistic regression analyses of house material. Having migrant children increases the likelihood for the rural elderly living in houses made of brick and tile by about 1.4 times ($e^{.326} = 1.386$). When the rural-to-urban migrants have enough savings, they usually invest to rebuild their houses in hometown. Therefore, the rural elderly left behind can benefit from their migrant children to have their housing conditions improved. Age has a modest but significant positive effect on the housing conditions ($e^{.029} = 1.029$). A reasonable explanation is that older persons have older children or more adult children, who have better economic status. In addition, the likelihood of living in houses made of brick and tile decreases with household size. It is easy to understand that larger household needs bigger houses, which puts a strain on the houses quality with certain budget.

[Table 3 about here]

The results of ordinal logistic regression analyses of life satisfaction are reported in Table 4. No significant differences are found across the rural elderly with and without migrant children. Cadre status and years of schooling have moderate positive effects on the level of life satisfaction, while the widowed has lower life satisfaction than others.

[Table 4 about here]

Table 5 shows that having migrant children or not does not significantly influence the elderly living arrangements. The interesting finding is that the number of sons significantly decreases the odds for coresidence of the elderly and children.

[Table 5 about here]

DISCUSSION AND CONCLUSION

Despite the established findings about the positive economic effects of rural-to-urban migration on families, as well as the extensive research on intergenerational coresidence, little research has focused directly on the impact of migration on the elderly left behind. Our findings suggest that having migrant children improves both the economic well-being and housing conditions of the rural elderly in China, although no significant influence is found on the psychological status of the elderly.

Future research using this 2000 survey data set might examine the impact of children's migration on the living arrangement of the rural elderly. More individual and household characteristics might be included in the analyses, such as income, health status, caregiver, quality of family relationships, and so on. The comparison between rural and urban is also interesting. Complementary surveys will contribute much to the research on this topic. For example, detailed information about the location of migrant children, money from migrant children to the elderly, the elderly's attitudes towards the migration of their children, and so on will be very helpful.

Our findings suggest that economic effects of rural-to-urban migration on the elderly are strong, while the psychological effects, either positive or negative, are not as strong as we expected. However, stronger impact of migration on the well-being of the

elderly can be expected in about five to ten years in China. On the one hand, the persons subject to birth control policy will gradually reach 60 years old or over, and these cohorts largely have only one child or two children; on the other hand, many of their children are involved in nowaday migration wave, which is still increasing at rapid pace. There will be more and more elderly without local children. The economic exchange and emotional interaction between the elderly and their migrant children is an interesting issue to study in future. A more important issue is the caregiving for these elderly.

References:

Bian, Fuqin, John R. Logan, and Yanjie Bian. 1998. "Intergenerational Relations in Urban China: Proximity, Contact, and Help to Parents." *Demography* 35: 115-124.

Cai, Fang. 1997. "On the Issue of Floating Population." In Min Xu (ed.), *Critical Moment: 27 Critical Problems in Contemporary China*. Beijing: Today Press, pp. 423-435.

Charles F. Longino, Jr. 1990. "Geographical Mobility and Family Caregiving in Nonmetropolitan America: Three-Decade Evidence from the U.S. Census." *Family Relations* 39: 38-43.

Davis, Kingsley. 1974. "The Migration of Human Populations." In W. H. Freeman (ed.), *The Human Population*. San Francisco: pp. 53-65.

Goldstein, Alice, Michael White, and Sidney Goldstein. 1997. "Migration, Fertility, and State Policy in Hubei Province, China." *Demography* 34: 481-491.

Goldstein, Sidney and Alice Goldstein. "The Impact of Migration on Fertility: an 'Own Children' Analysis for Thailand." *Population Studies* 35: 265-284.

Hagan, John, Ross MacMillan, and Blair Wheaton. 1996. "New Kid in Town: Social Capital and the Life Course Effects of Family Migration on Children." *American Sociological Review* 61: 368-385.

Heaton, Tim B., William B. Clifford, and Glenn V. Fuguitt. 1981. "Temporal Shifts in the Determinants of Young and Elderly Migration in Nonmetropolitan Areas." *Social Forces* 60: 1981.

Hermalin, Albert I. and Li-Shou Yang. 2004. "Levels of Support from Children in Taiwan: Expectations versus Reality, 1965-99." *Population and Development Review* 30: 417-448.

Kaneda, Toshiko, Zachary Zimmer, and Zhe Tang. 2004. "Differentials in Life Expectancy and Active Life Expectancy by Socioeconomic Status Among Older Adults in Beijing." Policy Research Division working paper, Population Council.

Landale, Nancy S., R. S. Oropesa, and Bridget K. Gorman. 2000. "Migration and Infant Death: Assimilation or Selective Migration among Puerto Ricans?" *American Sociological Review* 65: 888-909.

Lee, Yean-Ju, William L. Parish, and Robert J. Willis. 1994. "Sons, Daughters, and Intergenerational Support in Taiwan." *The American Journal of Sociology* 99: 1010-1041.

Liang, Zai. 2001. "The Age of Migration in China." *Population and Development Review* 27: 499-524.

Liang, Zai and Michael J. White. 1996. “Internal Migration in China, 1950-1988.” *Demography* 33: 375-384.

Liang, Zai and Zhongdo Ma. 2004. “China’s Floating Population: New Evidence from the 2000 Census.” Population and Development Review 30: 467-488.

Logan, John R. and Fuqin Bian. 1999. “Family Values and Coresidence with Married Children in Urban China.” *Social Forces* 77: 1253-1282.

Logan, John R., Fuqin Bian, and Yanjie Bian. 1998. “Tradition and Change in the Urban Chinese Family: The case of Living Arrangements.” *Social Forces* 76: 851-882.

Long, Larry H. 1975. “Does Migration Interfere with Children’s Progress in School?” *Sociology of Education* 48: 369-381.

Ma, Zhongdong, Weimin Zhang, Zai Liang, and Hongyan Cui. 2004. “Labor Migration as A New Determinant of Income Growth in Rural China.” Paper presented at 2004 annual meetings of the Population Association of America. April 1-3, Boston.

Population Division, United Nations. 2004. *Population Newsletter* 77.

Raymo, James M. and Yu Xie. 2000. “Income of the Urban Elderly in Postreform China: Political Capital, Human Capital, and the State.” *Social Science Research* 29: 1-24.

Rogers, Andrei. 1988. “Age Patterns of Elderly Migration: An International Comparison.” *Demography* 25: 355-370.

Shihadeh, Edward S. 1991. “The Prevalence of Husband-Centered Migration: Employment Consequences for Married Mothers.” *Journal of Marriage and the Family* 53: 432-444.

Stark, Oded. 1991. *The Migration of Labor*. Cambridge: Basil Blackwell.

Taylor, J. Edward, Scott Rozelle, and Alan de Brauw. 2003. “Migration and Incomes in Source Communities: A New Economics of Migration Perspective from China.” *Economic Development and Cultural Change* 52: 75-101.

White, Lynn. 1994. “Coresidence and Leaving Home: Young Adults and Their Parents.” *Annual Review of Sociology* 20: 81-102.

Whyte, Martin King (editor). 2003. *China’ Revolutions and Intergenerational Relations*. Ann Arbor: Center for Chinese Studies, University of Michigan.

Zeng, Yi. 1986. “Changes in Family Structure in China: A Simulation Study.” *Population and Development Review* 12: 675-703.

Zeng, Yi, Ansley Coale, Minja Kim Choe, Zhiwu Liang, and Li Liu. 1994. “Leaving the Parental Home: Census-based Estimates for China, Japan, South Korea, United States, France, and Sweden.” *Population Studies* 48: 65-80.

Zeng, Yi and James W. Vaupel. 1989. “The Impact of Urbanization and Delayed Childbearing in Population Growth and Aging in China.” *Population and Development Review* 15: 425-445.

Zimmer, Zachary, Xianghua Fang, Toshiko Kaneda, Zhe Tang and Julia Kwong. 2004. “Trends and Transitions in Children’s Coresidence with Older Adults in Beijing Municipality.” Policy Research Division working paper, Population Council.

Table 1. Summary Statistics of Variables Used in the Analysis

	Mean	SD
Dependent variables		
Money from children to the elderly (*yuan*)	449.03	831.792
House material (brake and tile = 1, else = 0)	.36	.479
Life satisfaction (very dissatisfied = 1, dissatisfied = 2, neutral = 3, satisfied = 4, very satisfied = 5)	3.53	.948
Independent variables		
Gender (male = 0, female = 1)	.43	.495
Age	69.10	6.800
Cadre (yes = 1, no = 0)	.02	.140
Divorced (divorced = 1, else = 0)	.02	.144
Widowed (widowed = 1, else = 0)	.39	.488
Years of schooling	2.10	2.983
Number of children	8.73	3.522
Household size	3.77	4.284
Have migrant children (yes = 1, no = 0)	.38	.484

Table 2. Regression Analyses of Money from Children to the Elderly (OLS)

	β		S.E.
Constant	238.821		301.607
Age	.335		4.309
Cadre	-126.496		192.451
Divorced	-35.011		192.950
Widowed	-133.538	**	61.339
Years of schooling	25.049	***	9.481
Number of children	16.691	**	7.711
Household size	-5.796		6.275
Have migrant children	181.242	***	56.272
R^2	.038		

(two-tailed test) * p ⩽ .10 ** p ⩽ .05 *** p ⩽ .01

Table 3. Logistic Regression Analyses of House Material

	β		S.E.
Age	.029	***	.011
Cadre	-.726		.576
Divorced	-.250		.512
Widowed	-.250		.161
Years of schooling	.021		.024
Number of children	-.017		.020
Household size	-.029	*	.017
Have migrant children	.326	**	.145
Constant	-2.371	***	.775
Model χ^2	17.528		
df	8		

(two-tailed test) * p ⩽ .10 ** p ⩽ .05 *** p ⩽ .01

Table 4. Ordinal Logistic Regression Analyses of Life Satisfaction

	β		S.E.
Threshold			
Life satisfaction = 1	-2.031	***	.709
Life satisfaction = 2	-.952		.700
Life satisfaction = 3	.654		.698
Life satisfaction = 4	3.141	***	.707
Gender	.134		.143
Age	.015		.010
Cadre	.753	*	.450
Divorced	-.303		.425
Widowed	-.273	*	.147
Years of schooling	.040	*	.023
Number of children	-.004		.018
Household size	.005		.014
Have migrant children	-.050		.128
Model χ^2	12.030		
df	9		

(two-tailed test) * p ⩽ .10 ** p ⩽ .05 *** p ⩽ .01

Table 5. Logistic Regression Analyses of Living Arrangements

	1		2		3	
Age 70+	-0.046		-0.054		-0.174	
Cadre	-0.213		-0.221		-0.217	
Divorced	-0.155		-0.162		-0.153	
Widowed	0.215		0.207		0.216	
Years of schooling	0.006		0.006		0.007	
Number of sons	-0.328	***	-0.322	***	-0.324	***
Number of daughters	0.094		0.101		0.099	
Have migrant children	---		-0.151		-0.288	
Age 70+ * Have migrant children	---		---		0.359	
Constant	-1.259	***	-1.231	***	-1.178	***
Model χ^2	7		8		9	
df	25.366	***	25.947	***	26.753	***

(two-tailed test) * $p \leqslant .10$ ** $p \leqslant .05$ *** $p \leqslant .01$