Changes in Family and Household during China's Rapid Economic Development

A Case Study in Heilongjiang Province

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Abstract

Since the late 1970s, China has experienced unprecedented social, economic, and demographic changes. Among these changes, the sustained rapid economic growth generated a series of reform policies, the great demographic transition resulted largely from the nation-wide birth control program, and the increasing integration to the entire world brought about by the open-door policy, have profoundly influenced Chinese families and households. Families, as the building block of the society, have been experiencing a 'revolution'. Despite that, however, detailed and systematic studies of these changes are still limited.

This study will use data collected by China's 1982, 1990, 2000 and 2010 censuses. Among them, the data for 1982 and 1990 are 1 percent census samples and for 2000 are the 1 thousandth census sample. Because the detailed census data of the 2010 are still not available, only some tabulated results will be used. This study is a case study in Heilongjiang Province. Those four sample census data include 71329, 97941, 10131 and 13000088 family households respectively. In this study, conventional demographic and statistical analysis is used to examine changes in household composition, people's household formation behaviors, and major factors that are related to or have contributed to these changes. The study will provide a detailed description of changes in household formation and composition in Heilongjiang during the past 30 years, and the major characteristics of contemporary Chinese household.

Changes in family and household during China's rapid economic development

1. Introduction

Family and household are the building blocks of human society. Most social activities people engaged in are closely linked to their family and household. Changes in family and household have emerged since the establishment of the People's Republic (Zeng, 1991). In the late 1970s, the central planned economic system was replaced by the market economic system. Chinese society experienced an unprecedented "revolution". Rapid economic development and opening-up accelerated the process of Westernization and modernization. People's living standard was improved greatly. Meanwhile, people's education level was largely improved after the "Cultural revolution". People's attitudes toward marriage and family were considerably changed. All the socio-economic changes have impacts on Chinese household formation and composition which have attracted worldwide attention. In general, family is defined as a unit with blood related people sharing the same living resources; household is defined as a unit with people either in blood related or non-related with each other to live in the same dwelling. In this study, household is used as the analytical unit. How did household formation and composition change in the process of socioeconomic and demographic transition? What are the causes of the changes and what factors are related to Chinese household composition? This paper aims to answer those questions.

2. Literature review

Researchers from various areas have contributed to the study on family and household. Since the 1960s, knowledge on family has been largely enriched due to the development of research technology and data availability.

Industrialization and urbanization which are derived from modernization theory are seen as the major incentives of family change by many researchers. Goode (1964) argues that most countries in the world had undergone a transition from the traditional family system to conjugal family system. He argued that industrialization and urbanization are the major causations of family change.

Family functions and family needs are deemed to be the inherent incentives of family changes by some researchers. Becker (1991) suggested that traditional extended families and

close kinship relations had been gradually replaced by individualism and nuclear familialism. His arguments provided an explanation on the changes in family household from the perspective of family economic benefits under different economic development level.

Some researchers argued that the ideological factor is the main causation in family change. Lesthaeghe suggested that the changes in people's ideology in the context of demographic transition and economic development are highly correlated with changes in family (Lesthaeghe, 2006; Lesthaeghe, 2010). Similarly, John Bongaarts (2001) agreed that demographic factors such as marriage and fertility are related to household size and composition in developing countries. In addition, the changes in family size and composition are more associated with people's new ideologies rather than economic growth in John Caldwell's study on the demographic changes in Western Africa (Caldwell, 1976).

With different cultural background, different societies follow different family formation rules. Hajnal (1982) argues that people's marriage patterns, household composition and kinship relations within the household are quite distinct between the households following different formation system. Therefore, he argues that the major causations of family changes should be the changes in ideologies and specific family formation rules rather than the global industrialization and urbanization.

In terms of Chinese family formation, Fei attributed Chinese family is under "feedback model" in which financial flows between two generations are required. The relationship between generations can be displayed as: F1 $\longleftrightarrow$ F2 $\longleftrightarrow$ F3 $\longleftrightarrow$ FN (F stands for generation), which means F1 foster F2 and F2 look after F1 when F1 get old (Fei, 1983 & Zeng, 1991: 14). Zeng agreed that Chinese family follows different formation rules with Western societies. And he predicted that when fertility decline to below replacement level, the proportion of complex family might rebound due to the Chinese family formation system (Zeng, 1991).

Discussions on family and household continue recently. Existing research and observations on family changes in the Western world has enriched our knowledge on family change and established theoretical framework for the exploration of Chinese family change. Chinese family follows cultural specific formation rules and has its own characteristics in the context of rapid economic development. Thus study on Chinese changes in family and household should take factors with Chinese characteristics into account.

3. Research design

As noted above, there are some research gaps on Chinese family and household. Various issues on household formation and composition during the last two decades of the 20th century have not been studied due to data or methodological limitations. The changes in household size and household composition during the societal transition and the impacts of socioeconomic and demographic factors on household formation and composition are particularly worth studying. This study aims to fill the gaps and particularly focuses on exploring the changes in household formation and composition during the rapid economic development, and trying to shed light on the major factors which are closely related to Chinese household formation and composition.

3.1 Data

The study area is Heilongjiang Province. This study will use data collected by China's 1982, 1990, 2000 and 2010 censuses. Among them, the data for 1982 and 1990 are 1 percent census sample and for 2000 are the 1 thousandth census sample. Because the detailed census data of the 2010 are not yet available, only some tabulated results will be used. These census data contain basic individual level information such as date of birth, sex of the household members, their relationship to household head, marital status, educational attainment, and registration information and so on. Those four sample census data include 71329, 97941, 10131 and 13000088 family households respectively.

Heilongjiang lies in the northeast of China near Russia. Owing to its geographic location, people in Heilongjiang have both cultural and economic contacts with the Western world earlier than other regions in China. The northeast is one of the regions which first began industrializing in China. Economy in the northeast had been ahead of the rest regions in the early decades of the People's Republic. Since the economic reform in the late 1970s, it slightly lost its leading place because the government has focused on supporting the economic development of coastal areas. As one of the first industrializing regions, changes in Heilongjiang households in the context of the rapid economic development are interesting to study.

3.2 Method

Conventional demographic and statistical analysis is employed in this study. The main unit of analysis is household, and individual is used as the unit of analysis for analyzing kinship relations in household. The term "household" in this study is most likely to define as "residential family". Collective households have been excluded because this study focuses on family households. Due to the restriction imposed by the data, Hammel & Laslett's household classification scheme will be slightly modified to classify households by structure. The classification of household type is mainly based on the number of "conjugal family unit" (CFU) within household. Co-resident people who are related through marriage or parent-child relationship compose a CFU. Hammel and Laslett classified six family household types which are solitaries, no family, simple family households, extended family households, multiple family households and indeterminate (others) to analyze household structure (Hammel & Laslett, 1974). The first five types are adopted. Because it is difficult to distinguish extended and multiple family households due to coding issue in census, they are combined as complex family household in this study.

4. Changes in household size and composition

Changes in household size and composition since China's economic reform will be presented in the following four segments in this section. Household composition in this paper is in the perspective of generation structure, coresidential patterns, kinship structure within household and household type.

4.1 Household size

Number of people live in household is a basic and direct indicator for observing changes in households. Household size in Heilongjiang was found decreased in this case study. Table 4.1 showed the distribution of household size and average number of household members from 1982 to 2000. The mean household size decreased largely from 4.49 to 2.84 within four decades. In 1982, households with 4 members have the highest proportions (20.88%). However, household size distribution gradually skewed to two or three-people households in four decades. Three-people households replaced four-people households have become the most general in the beginning of the 21th century.

Table 4.1 Distribution of Household by Size (%), 1982-2000

	1982	**1990**	**2000**	**2010**
1	5.18	2.91	4.86	12.88
2	9.02	9.72	19.93	28.85
3	17.26	29.99	42.18	35.11
4	20.88	28.13	19.21	12.58
5	19.54	16.92	9.30	7.44
6	13.91	7.62	3.09	2.20
7	8.03	3.00	0.86	0.60
8	3.79	1.10	0.32	0.22
9	1.46	0.38	0.14	0.06
10+	0.93	0.23	0.11	0.04
Mean household size	**4.49**	**3.91**	**3.24**	**2.84**
Total number of households	**71329**	**97941**	**10131**	**13000088**

4.2 Generation structure

4.2.1   Generation distribution

People's residential patterns and family complexity can be reflected by generation structure within the household. Generation structure presented in Table 4.2 shows that intergenerational changes in households are mainly reflected by the increase and decrease proportions of one and two-generation households. In 1982 and 1990, two-generation households have the highest proportions. One-generation households increased 25% during the last four decades. Two generations households are still the most general, but the proportions decreased from 73.81% in 1982 to 50.39% in 2010. The proportion of three and more generations households was 14.28% in 1982 and rose to 15.11% in 1990 and then dropped to 13.42% in 2010.

Table 4.2 Household Distribution by Generation (%), 1982-2010

	1982	**1990**	**2000**	**2010**
One generation	11.91	10.70	22.45	36.19

Two generations	73.81	74.18	62.73	50.39
Three and more generations	14.28	15.11	14.83	13.42
Total number of households	**71329**	**97941**	**10131**	**13000088**

4.2.2   Coresidential patterns

People's lifestyle and living arrangements changed during the rapid economic development. Number of dependent people in household will be used as the indicator to see the changes in people's living arrangement and coresidential patterns. Dependent people in this paper are defined as young children who are under 15 and old people who are 60 and above. In this study, one dependent person in household is found to have gradually become the mainstream in Heilongjiang. The proportion of living with only one dependent person increased from 26.02% in 1982 to 45.49% in 2000. Additional, the proportion of households without dependent people increased from 15.06% in 1982 to 31.63% in 2000. Table 4.3 shows the proportions of households with children and old people respectively. The proportion of households without children nearly doubled, it largely increased from 23.06% in 1982 to 44.95% in 2000. It is surprised that the proportion of households with less than one child reached 89.80% in 2000. It is a reflection of the falling fertility in some degree.

Table 4.3 Distribution of Households by Number of Children and Old People within Household (%), 1982-2000

		1982	1990	2000
Live with children	No child	23.06	27.81	44.95
	1	24.29	40.17	44.85
	2 and more	52.65	31.77	10.20
Live with old people	No old people	80.41	81.3	77.93
	1	14.9	13.25	13.57
	2 and more	4.68	5.44	8.5
Total number of households		**71,329**	**97,941**	**10,131**

4.2.3   Dependency in household

The percentage of dependent people in households is another indicator which can reflect generation structure within household. Table 4.4 displays the percentages of dependent people within households, 0 stands for no dependent people in households and 100% stands for all people in households are dependent people. The proportions of no dependent people in households doubled during the two decades. Moreover, the proportions of households with all members are dependent increased remarkably from 2.96% to 6.95% during the two decades. All children under 15 in one household seem not common in any country in the world, and the evidences above have shown that the proportion of household without children increased significantly. Therefore, the main contributors of this kind of household should be old people over 60. Among all the conditions, households with 50%-74% members are dependent people are the most general in 1982, but in 1990 and 2000, more general situation is to have 25%-49% dependent people in one household.

Table 4.4 The Proportions of Households with Dependent people (%), 1982-2000

	1982	**1990**	**2000**
0%	15.06	19.1	31.63
1%-24%	5.56	7.19	4.72
25%-49%	30.77	38.32	38.89
50%-74%	44.36	31.96	17.85
75%-99%	1.29	0.42	0.37
100%	2.96	2.98	6.55
Total number of households	**71,329**	**97,941**	**10,131**

4.3 Kinship structure in the household

Household structure and complexity can be indicated by kinship relations within household. Table 4.5 shows the ratio of kinship relationship to the household head. Relationship exploration uses individual as the analysis unit in this section. It is observable in the table that although child and child-in-law have the highest ratio among all the relationships, it dropped largely from 230.28 in 1982 to 108.02 in 2000. It means that there were over 2 children or

children-in-law in one household in 1982 but it dropped to around one child or child-in-law in one household in 2000. Almost all the relationships have a lower ratio in 2000. The overall decline of the members' relationship to the household head is a sign of household simplistic in China.

Table 4.5 Ratio of Household Members' Relationship to Household Head (per 100 households), 1982-2000

	1982	1990	2000
Head	100.00	100.00	100.00
Spouse	83.99	89.51	86.72
Child or child-in-law	230.28	171.78	108.02
Parent or parent-in-law	14.13	12.13	10.81
Grandparent	0.46	0.38	0.21
Grandchild	9.24	10.26	10.84
Other or non-relative	11.14	6.76	7.64
N	**320,437**	**382,772**	**32,848**

4.4 Household type

Table 4.6 is a distribution of household type. Simple family household is the major household type in China, and the proportion of simple household increased from 69.92% in 1982 to 73.27% in 2000. The proportions of extended and multiple family household decreased from 23.29% in 1982 to 20.19% in 2000. Though the proportion of solitary household is 5.18% in 1982, it dropped rapidly to 2.91% in 1990 and then increased to 4.86%. From the overall changes in household type, the proportion of complex family household is reducing and there is an increasing trend of simple and non-family households.

Table 4.6 Distribution of Household type, 1982-2000 (%)

	1982	1990	2000
Solitary	5.18	2.91	4.86
No family	1.61	1.05	1.69
Simple family	69.92	74.37	73.27

Extended and multiple family	23.29	21.67	20.19
Total number of households	**71329**	**97941**	**10131**

As mentioned earlier, changes in household size and composition illustrate that new evidences have shown in Heilongjiang household since the economic reform: household size shrank, fewer generations and dependent people in household, simpler kinship relations and household type. Those new evidences have also shed light on characteristics in Chinese family and household which are different with the Western world. Major factors which contributed to the changes in household are needed to be further studied. The following paragraphs particularly focus on explaining the changes in household.

5. Major factors which are closely related to household formation and composition

Researchers from diverse areas have studied on the causation and factors contribute to changes in household composition. This section concentrates on finding out the major factors which are closely related to changes in household formation and composition in the context of rapid economic development.

5.1 Urban-rural differentials in development and household formation and composition

Nationwide economic level has undergone a tremendous leap forward since the reform. Although economic gaps between urban and rural are narrowing, urban-rural variations cannot be neglected in household study. Different levels of economic development led to variations in people's education level and marriage and family behaviors and so on. Therefore, a comparative analysis of urban-rural areas can help us to understand the relationship between economic development and household formation and composition.

Table 5.1 shows the distribution of households by number of dependent people and generation structure. For the number of dependent people in household, it is obvious that households with fewer dependent people have a higher proportion in 2000. Urban-rural differentials are manifest. Urban areas always have the fewer dependent people in household than rural areas. In 2000, for example, the proportion of household with one and fewer dependent people is 82.26% for urban and 70.92% for rural; the proportion of households with three and more dependent people is only 3.54% for urban and 7.03% for rural. In terms

of generation in household, Table 5.1 shows that one-generation households have a higher proportion in urban. Two and more generations households have higher proportions in rural areas. In addition, the changes are more significant in urban households than in rural households. An interesting phenomenon which is notable in Table 5.1, three generations households increased in rural areas during the two decades. It might be explained by the increase of "left behind family" households in rural owing to large-scale internal migration. Though study on this issue is interesting and necessary, to what extent migration has effects on household composition is not the focus of this paper.

Table 5.1 Distribution of Households by Number of Dependent People and Generation (%), 1982-2000

|		Urban			Rural		
		1982	**1990**	**2000**	**1982**	**1990**	**2000**
Number of dependent people	1 and fewer	51.70	62.78	82.26	37.72	53.59	70.92
	2	26.82	26.25	14.20	27.41	31.25	22.05
	3 and more	21.48	10.97	3.54	34.87	15.16	7.03
Generation	One generation	12.91	11.37	25.75	11.59	9.47	18.46
	Two generations	73.95	73.89	62.49	73.76	74.73	63.02
	Three and more generations	13.13	14.75	11.76	14.65	15.79	18.52
	Total number of households	**17107**	**63615**	**5537**	**54222**	**34326**	**4594**

To sum up, households in both urban and rural are moving toward the same direction in the perspective of the number of dependent people and generation structure in household. However, variations in household composition between urban and rural areas are significant. First, urban households have fewer dependent people and generations. Second, the changes in household composition are more significant in urban areas. The variations between urban and rural areas shed light on the relationship between economic development and household composition. Differences in economic development are responsible for the changes in household composition.

5.2 Marriage patterns, post-marriage residential patterns and household composition

Marriage patterns have undergone a dramatic change. As mentioned earlier, people's attitudes toward premarital sex, cohabitation and divorce are different from the past. The changes in marriage patterns are specifically reflected by rising age at marriage, increased divorce rate and marital fertility reduction (Zhang & Gu, 2007). Although age at marriage has experienced several fluctuations due to family planning program and the implementation of marriage law in the second half of the 20th century, there is still an increasing trend based on existed research results (Coale et al., 1991; Zeng, 1991; Wang & Yang, 1996). Marriage is the premise of family formation in many places. Although cohabitation has become prevalent, marriage should still be regarded as an indispensable step in family formation (Lesthaeghe, 2010). The following paragraphs focus on exploring changes in marriage patterns and how marriage patterns and post-marriage residential patterns related to Chinese household formation and composition.

Figure 5.1 shows residential patterns of both single women and currently married women. Household members are different in one's life course. For example, children leave parental home when they grow up and old people join in to seek for aging support from their married children. Therefore, the differentials in pre- and post-residential patterns are evident in the figure.

Figure 5.1 Distribution of Women's Residential Patterns by Marital status and Age Group (%), 1982 and 2000
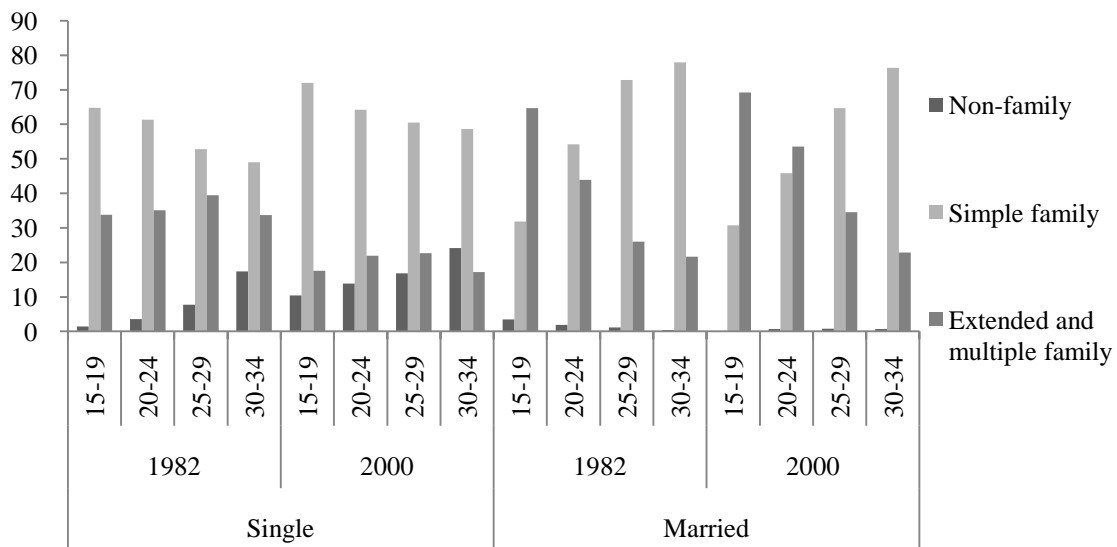
Age at first marriage and the proportion of marriage are used for finding out the changes in marriage patterns. Although age at first marriage is not available in 1982 and 1990 census,

the changes can be observed through the proportions of marriage in different age groups. The proportions of married women in all age groups dropped significantly. Among women aged between 15 and 19, for example, the proportion of marriage dropped from 4.84% in 1982 to 1.03% in 2000. The evidence illustrates that people get married later. Postponed marriage implies that people stay longer in the parental home. Therefore, for single women, it is obvious that the proportion of simple family household increased. For currently married women, postponed marriage means newly married women have higher proportions in every age group than in the past. Therefore, the proportions of simple family household should increase as well.

To sum up, marriage is closely related to people's residential patterns and household composition. The differences in pre- and post-marriage residential patterns among women in the same age shed light on the relationship between marriage and household composition. Recent evidence has shown that the proportions of married people have dropped in every age group and people get married later. For both single and currently married women in the same age, there should be a decrease in the proportion of complex family households. However, it is interesting that more currently married women live in complex family households than in the past. It cannot be simply explained by the changes in the marriage pattern. Additional factors related to household formation and composition might provide the answers which will be further discussed in the following sections.

5.3 Falling fertility and changes in household size and composition

As examined in the previous section, people's age at marriage has increased. Postponed marriage leads to postponed parenthood in general. Empirical studies indicated that rapid fertility decline has occurred since the early 1970s which was due to the nationwide family planning program introduced by the Chinese government. Childbearing and child rearing as important functions of family have major impacts on household size and composition. This section focuses on discussing the relationship between fertility decline and changes in household size and composition.

Based on censuses, fertility decline is remarkable in Heilongjiang. For example, the number of children ever born dropped from 3.23 in 1982 to 1.32 in 2000 among women aged between 30 and 39, and dropped from 5.10 to 1.91 among women aged between 40 and 49. Mean household size and average number of children in household are displayed in Table 5.2 for

further exploring the relationship between fertility decline and household size. Average number of children in household and mean household size among married women in the younger age group reflects the relationship between fertility decline and household size. Among women who are under 19-year-old, for example, the average number of children in household dropped from 1.23 in 1982 to 0.23 in 2000; meanwhile, the average number of people in household dropped from 4.93 in 1982 to 3.92 in 2000. It is obvious that the shrinking household size is closely related to fertility decline among young married people. However, for married women in the older age group, fertility decline and the decrease in number of children in the household are not the only reason for the changes in household size. In 2000, for example, though women in their forties have much fewer children in the household than women in their thirties, there is no big difference in mean household size between women in the two age groups. In summary, remarkable fertility decline and shrinking of household size has been found in this study. It is obvious that the shrinking of household size has accompanied fertility decline based on the analysis of the average number of children in household and mean household size.

Table 5.2 Distribution of Mean Household Size and Mean Number of Children in Household by Ever Married Women's Age Group, 1982-2000

	1982		1990		2000	
	MHS	**MNC**	**MHS**	**MNC**	**MHS**	**MNC**
Under 19	4.93	1.23	4.65	0.83	3.92	0.23
20-29	4.35	1.56	4.03	1.22	3.74	0.87
30-39	5.24	2.70	4.21	1.73	3.60	1.18
40-49	5.80	1.83	4.72	0.87	3.50	0.39
N	**59,365**		**84,547**		**8,086**	

MHS: mean household size MNC: mean number of children in household

5.4 Education and changes in marriage and fertility behaviors

Education is another major factor which is generally considered to be closely related to changes in household formation and composition through affect people's marriage and fertility behaviors. This section concentrates on exploring the relationship between schooling and people's marriage and fertility behaviors.

Education level has risen remarkably in the last two decades of the 20th century. In 1982, only 0.42% women aged between 15 and 49 had a higher education level; however, the proportions of higher educated women reached 71.53% in 2000. Table 5.3 shows the educational level of single and married women in 1990 and 2000. It is clear in the table that people's schooling level has impacts on marriage patterns. Women with higher schooling level get married later than lower educated women. In both 1990 and 2000, women have a higher level of education are more likely to be unmarried than women with a lower education level in every age group. Among women aged between 20 and 24 in 2000, for example, the proportion of marriage is only 45.46% for women with higher schooling level and is 71.03% for women with lower education level.

Table 5.3 Distribution of women by education level, marital status and age group (%), 1982-2000

		1990			2000		
		20-24	25-29	30-34	20-24	25-29	30-34
Lower than junior middle school	**Single**	30.51	2.34	0.32	28.97	2.58	1.03
	Married	69.49	97.66	99.68	71.03	97.42	98.97
N		16664	13950	12382	214	387	485
Higher than secondary high school	**Single**	58.66	6.48	1.36	54.54	8.93	1.99
	Married	41.34	93.52	98.64	45.46	91.07	98.01
N		4,180	5,737	4,252	1,014	1,220	1,208

Figure 5.2 displays the relationship between education and marital fertility. First, fertility decline is significant for both higher and lower educated women and the gaps in average number of children per woman between lower and higher educated women are narrowing. For example, the average number of children dropped from 5.2 in 1982 to 2.38 in 2000 among women in their forties with a lower education level; and dropped from 3.04 in 1982 to 1.54 in 2000 among women with higher education level. Second, women with higher schooling level have fewer children than women who have lower education level in all age groups. In 2000, although the gap in average number of children has narrowed women with

higher schooling level aged between 40 and 49 have almost one fewer children than women with lower education in the same age group in average.

Figure 5.2 Mean Numbers of Children per Women by Education Level and Age Group, 1982 and 2000
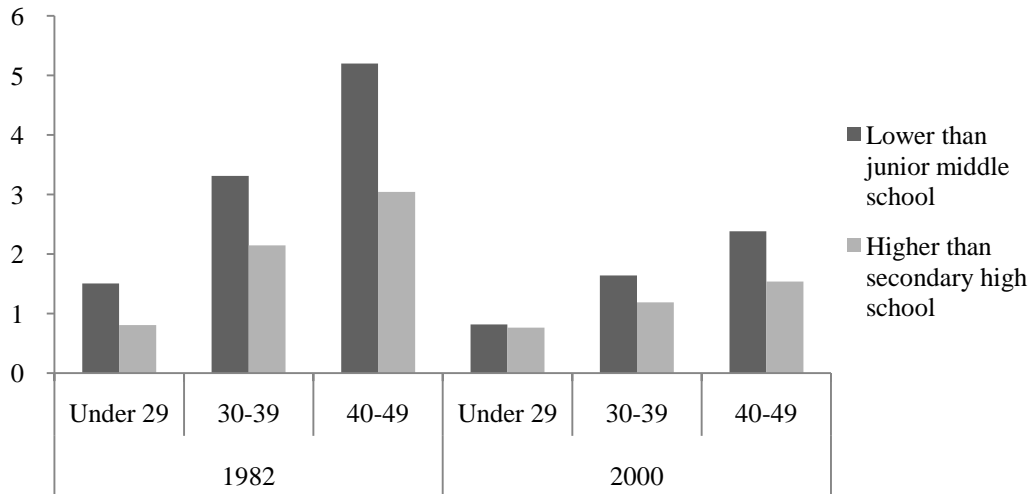
In summary, education is one major factor which is closely related to people's marriage and fertility behaviors. The results above show the proportions of marriage and parenthood are lower among women with higher education level. Women who have a higher education level are more likely to get employed and to have a higher position in a career than less educated women. Marriage and family are no longer the only way for women to survive in the society. The benefits they can get from marriage and family reduced. Therefore, the attractiveness of early marriage and having children is declined especially for well educated women.

5.5 Household formation system, fertility change and household composition

As mentioned in section 5.2, the proportion of living in complex family household has increased from young married women's point of view. However, the total proportions of complex family household decreased which has been observed in section 4.4. To explain the "paradox", it is necessary to analyze it in the context of changes in Chinese household formation system and demographic transition in recent decades.

In traditional China, "feedback model" played an important role in family formation owing to a low level economic development. Large and complex family households were in general widespread and "Four generations live under the same roof" was seen as a symbol of

happiness of people in the past. Although joint family households composed by three or four generations decreased sharply in the past decades, filial piety is still a heavy value in Chinese society. The government has emphasized the obligation of supporting elderly people in law and encouraged young people to live with old people by reducing the burden on social service. According to empirical studies on family structures, joint family system has been gradually replaced by stem family system since the 1950s (Logan et al., 1998 & Logan and Bian, 1999 & Whyte, 2003). People have two general living arrangements when they are getting old. Some old people share the same dwelling and living resources with one of their married children and grandchildren and are financial supported by other children who live separately. Other people live with their children one by one in their late years. For example, one old couple might have two married sons. They live with one of their sons for several months or years and then move to the other son's place for another several years. Under this family system, only one married son live with his old parents and others live in simple family household at the same time. However, as mentioned earlier, fertility has declined dramatically since the 1970s and largely decreased household size (see Table 5.2). The following paragraphs focus on discussing the impacts of falling fertility and decreasing desirability of coresidence on household formation and composition.

Zeng provided four fertility and propensity of coresidence modes which are showed in Figure 5.3 for analyzing the changes in proportion of nuclear family (simple family household in this paper) (Zeng, 1991: 135-136). As mentioned earlier, China's fertility rate has declined remarkably since the 1970s and dropped below replacement level in the 1990s. However, one thing should be noted first. Zeng argued that fertility decline has a "lagged effect" on household structure (Zeng, 1991). It means that birth fertility level of people living in complex family household is not the fertility level when they participated in the census. In this study, it means young generations living in complex family household in 1982 and 2000 are the people who were born in 1960s and 1980s respectively. Therefore, changes in fertility between 1960s and 1980s are actually the indicators on exploring the relationship between the demographic transition and household composition in this section. The TFR was around 6 in 1960s and was around 2.5 in 1980s (Tu, 2000). That is to say, fertility has declined from a high level to a low level, but is still above replacement level from the perspective of people living in complex family in 1982 and 2000. In addition, the proportion of aged people living in complex family household has dropped from 62.93% in 1982 to 51.85% in 2000.

Figure 5.3 Zeng's Simple Illustration of Changes in Proportion of Nuclear Families Caused by a Decline of Fertility
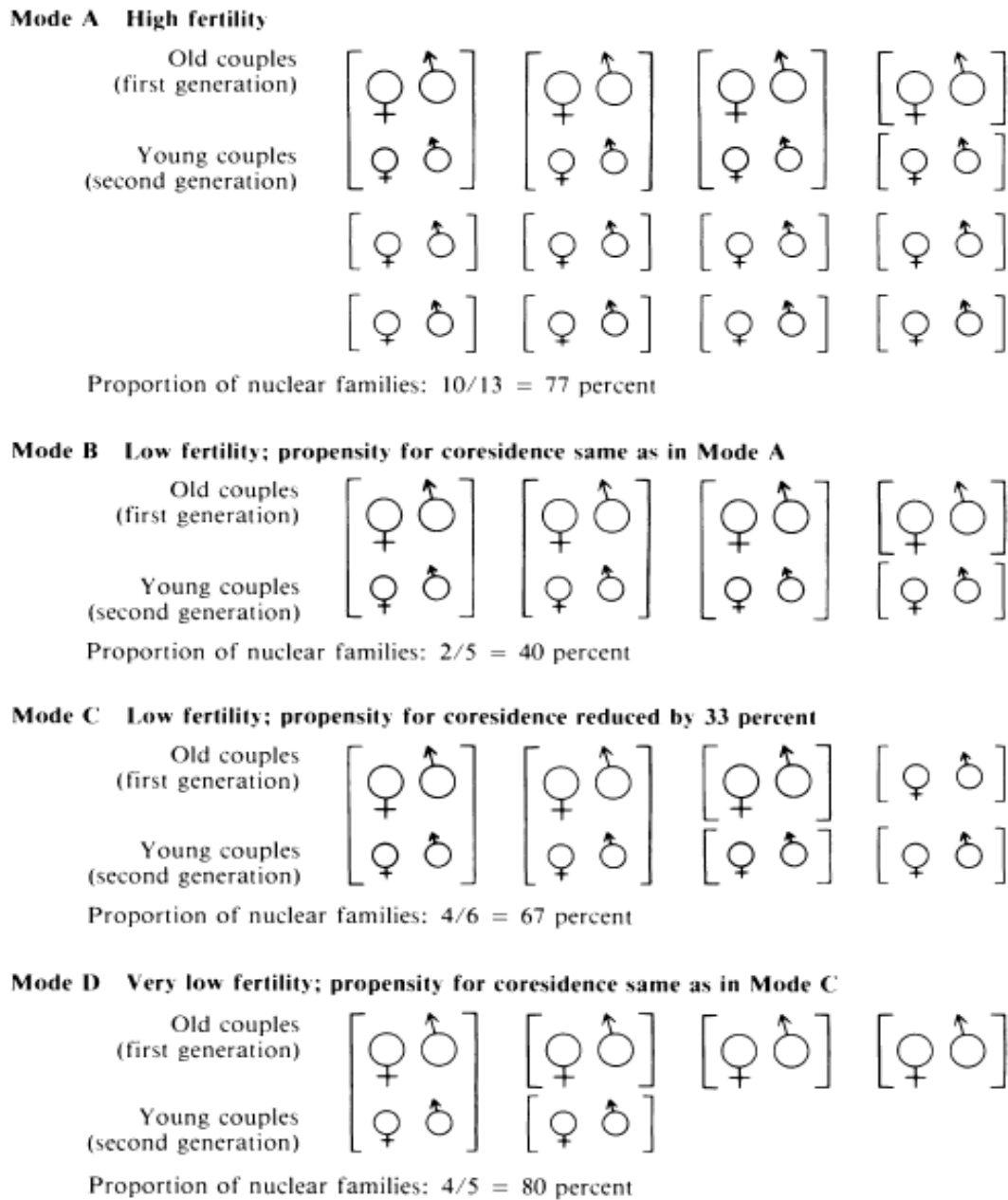
Back to the question which was brought up earlier, the increased proportion of complex family household from young generation's point of view can be explained sufficiently by Zeng's simulations. Zeng took a hypothetical example for explaining the impacts of fertility

decline on changes in nuclear family. The example is applied to this study on complex family household as well. In high fertility mode in 1982, one old couple has 3 sons in average. If the old couple lives with one of their married sons, there will be one complex household and two simple family households. From the perspective of the young generation, the proportion of living in complex family household is 33%. In low fertility mode (above replacement level) in 2000, one elderly couple has one son in average. If the desirability of coresidence does not decrease dramatically, there will be one complex household and no simple family household. From the perspective of the young generation, the proportion of living in complex family household is 100%. It is clear in Figure 5.3 that the proportion of living in complex family household has increased from the young generation's point of view. That is to say, the increase in proportion of complex family household from young generation's point of view is mainly due to the smaller number of siblings. Young people are less likely to leave parental home in the context of fertility decline.

In summary, evidence in this section shows changes in household formation and composition are highly related to fertility decline. Although the overall changing trend of China's household seems comparable with Western countries, the changes in the internal household structure are very different. Further study on family and household formation and composition is necessary in the coming future.

6. Conclusion

In the context of China's rapid economic development since the late 1970s, this paper takes Heilongjiang Province as the study area discussed the changes in family and household and the major factors closely related to household formation and composition in the last two decades of the 20th century.

The main data utilized in this study are sample census data for 1982, 1990 and 2000. Part of tabulated summarized results from 2010 censuses is used as well. Findings have shown households are smaller and simpler, and four major factors are related to household formation and composition: economic level, marriage, fertility and education were discussed in the paper. In addition, some noteworthy characteristics in household formation and composition have surfaced in the findings as well. Chinese family formation system is different from the Western countries. Due to the rapid economic development, joint family system has been gradually replaced by the stem family system. Living with one of married sons to seek elderly

care is still in general based on Chinese "feedback model". Both propensity of coresidence and fertility have declined since the 1970s. In the observation of household composition and people's residential patterns, the proportions of living in complex family household are contrary from different points of view between young and old generations.

Family and household are closely related to people's daily life and are an interesting and important topic for researchers from many areas. In-depth further research on family and household is crucial especially in the context of rapid societal development. Findings in this study have provided some forecasts on the changes related to family and household in the coming future. For example, due to the lagged effects of fertility, below replacement fertility impacts on household formation and composition have not yet surfaced in this study. Changes in household structure must have been surfaced in recent years. More detailed social and economic causations of the changes are yet to be explored in the future.

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