

Has China Completed Demographic Transition?

Jiang Leiwen
Institute of Population Research
Peking University
Beijing 100871
China
Tel: +86-10-62755422
Fax: +86-10-62751976
Fax: ljjiang@pku.edu.cn

Word count: 8000

Has China Completed Demographic Transition?

In the past five decades, China has been experiencing dramatic population changes. The most recent report from the State Statistical Bureau shows that in the end of 2001, China has a population of 127,627,000, with birth rate 13.38‰, crude death rate 6.43‰, and natural growth rate 6.95‰. Undoubtedly, China has entered the low fertility stage. However, it is currently controversial among Chinese scholars on whether China has already completed demographic transition. Some of them propose that, judging by the quantitatively demographic indicators, China has already completed demographic transition and entered the stage of “post-demographic transition” (Li Jianmin 2000; Yu 2000, Zhao 2001), while others maintain that the judgment of completeness of China’s demographic transition lacks scientific bases and strong evidences, considering the enormous regional differences, utmost importance of institutional intervention on fertility decline, and fluctuation of fertility level, etc (Li Jianxin 2000; Ye 2001; Luo 2001). Summarizing the current discussions on this topic, there are mainly two questions to be answered: (1) Has China completed demographic transition? (2) Has China entered the “post-demographic transition” stage? This paper aims at contributing to the answers of these two questions.

In the next section, the paper firstly discusses China’s current demographic transition after a brief reviewing its population changes in the past five decades, and makes a tentative judgment of the completeness of the demographic transition. Then, it is followed by a discussion on China’s entrance of a stage of “post-demographic transition”. Adopting the theoretical framework of the “European second demographic transition” proposed by Van de Kaa (1994), this paper studies the evolution of China’s proximate determinants of changes in family formation and fertility against to the background of domestically and internationally socio-economic, political and cultural changes. Finally, some conclusions are reached.

1. Has China Completed Demographic Transition?

1.1 Theory, determinants and measurement

It is commonly understand that the theory of demographic transition has experienced an evolution process in the past century, and is still under reviewing and renovating (Landry 1909 and 1934; Thompson 1929; Notestein 1945; Blacker 1947; Leibenstein 1957; Coale and Hoover 1958). Given all the different statements and expressions, stripped to the essentials, the demographic transition theory states that societies experience modernization progress from a pre-modern regime of high fertility and high mortality to a post-modern one in which both are low (Dudley Kirk, 1996).

Modernization was considered as the crucial determinants of the transition, however, it is not clearly defined nor does it include the key question about causation in the early stage. Although the predecessor of the theory did not entirely ignore the importance of changes in norms and values, they are criticized to give too much attention to socio-economic factors as

causes of the transition, but insufficient attention to cultural factors. In addition, the demographic transition theory is mainly generalized from European demographic history.

When transition theory is applied to the experience of non-European countries, the regularities are impressive. In every instance, mortality has declined firstly, then followed by declining fertility, and resulted in a considerable acceleration of population growth. However, the transition has become much more rapid than it was in Western Europe; and the transition has occurred under strikingly diverse socio-economic conditions. While a high level of socio-economic development was often accompanied by fertility transition, transition is not a necessary pre-condition for development. In the developing world, the diffusion of modern medical technology and introduction of an effective family planning program contribute to fertility decline even at a very low level of modernization.

Predicted by the transition theory, there is a convergence in the population changes: all regions and countries of the world will eventually reach the state of low mortality, low fertility and low population growth, which refers to the completion of demographic transition. At the first stance, criteria for measuring the completeness of demographic transition are set by formal demographic indicators, while mechanism of socio-economic, cultural, institutional changes behind the decrement of the indicators is not directly taken into account. One may argue that decrease of those demographic indicators is always the result of the changes in the broader socio-economic, cultural, institutional, technological determinants. To a great extent, changes in the demographic indicators have already carried about the information on socio-economic, cultural and institutional alterations. Moreover, driven by the indirect factors, decrement of mortality and fertility in the modern world become irreversible once they reach the threshold of decline. For example, studies by the Princeton University European Fertility Project displays that once a country or a region attains 10% of decrease in fertility, the general fertility decline becomes a continuous process (Coale and Watkins 1986). Therefore, one would be confident to use the formal demographic indicators as the measurement of the completeness of the demographic transition.

However, it is controversial yet on which demographic indicators would be more efficient in measuring the stages of transition. The crude birth rate, death rate, and natural population growth rate are commonly used, whereas some demographers prefer to use the cohort or period total fertility rate and life expectancy at birth. While the former crude rates are affected by population age and sex compositions, the latter may be closer to the real levels of demographic events. Moreover, using these indicators for measuring the demographic transition stages in developing countries, one should be even more careful. Since comparing with the Western countries, fertility and mortality decline in developing countries are much more rapid. Given their younger population age structure, many developing countries have lower crude death rates than the developed countries, even though people of these countries are at much higher risk of death. Meanwhile, due to population momentum, the crude birth rate of these countries may stay at a rather high level even the average live birth per women has already dropped down below the replacement level. Using only crude rates can hardly capture the actual fertility or mortality levels of these countries. On the other hand, TFR or

life expectancy at birth also has their limitations. For example, even if cohort or period TFR of a developing country has dropped to below replacement level, its population may keep on growing for several decades due to population momentum. Therefore, using only TFR may underestimate the problems of population explosion. Hence, it is important to take into account both the crude rates and the comprehensive indicators of TFR and life expectancy as the measurement of the demographic transition.

After making the choices of indicators, the next question is: how low of the indicators is “low” enough for the indication of completeness of the demographic transition? There are not commonly accepted quantitative criteria. For example, United Nations adjusted its definition of “low” fertility level several times since 1960: the TFR of a low fertility country was set at 4.1 in 1965 (United Nations 1965), 2.5 in 1990 (United Nations 1990) and 2.1 in 1992 (United Nations 1992). Nowadays, a lot of demographers accept the replacement level of TFR as the criterion of low fertility. However, the replacement level of TFR varies by different mortality level and different sex ratio at birth. For example, the replacement level of TFR is about 2.05 when life expectancy at birth is 80, and 2.3 when life expectancy at birth is 65. Although life expectancy at birth in China is around 71 in 1995, China’s replacement level of TFR is 2.31 due to its exceptional high sex ratio at birth (Chen 1996). Whilst the criteria for setting “low” level of fertility is rather difficult, it is relatively easy to set the criterion for the low level of mortality. According to the experiences of European countries, when they completed demographic transition, the death rate dropped down to below 10‰, and the life expectancy at birth surpassed 65 years.

1.2 China’s Demographic Transition since 1950

Before the foundation of the People’s Republic in 1949, the type of population reproduction of China was characterized as high mortality and high fertility. The crude birth rate, crude death rate and natural population growth rate were 37‰, 20‰, and 17‰ respectively in 1950 (figure 1). In the same year, total fertility rate was 5.85 and life expectancy at birth was 39.1 (figure 2). After 1949, China entered a period of peace and construction, and started an accelerating process of demographic transition.

(figure 1 is about here)

(figure 2 is about here)

Similar to other countries, demographic transition in China commenced with mortality decline. From 1950, the crude death rate continuously declined except in the disastrous three-year of 1959-1961. In 1963, the crude death rate dropped down to below 10‰, and never got back over this level afterwards. Measured by the crude death rate, China reached the stage of low death rate in the mid of 1960s. However, judged by the indicator of life expectancy at birth, China achieved the 65 years of life expectancy at birth in around 1975. Therefore, one may confidently conclude that China reached the low level of death rate in the years of between the mid 1960s and 1970s.

Fertility decline in China was about 20 years later than mortality decline, but attained a low level within an even shorter period of time. During the period of 1950s and 1960s, the crude birth rate stayed above 30‰ except in the disastrous period of 1959-1961. Due to compensating effect, the crude birth rate was even as high as 43‰ in 1962, and TFR was 7.4 in 1963. Until the early 1970s, there was not any significant decline in fertility. However, from the early 1970s, there observed a precipitous drop in fertility level. The crude birth rate decreased from 33‰ in 1970 to 18‰ in 1979, while TFR jumped down from 5.8 to 2.7 in the same period. This dramatic decrement of fertility level was greatly attributed to the most efficient family planning policy introduced in the early 1970s. Both Chinese and foreign scholars admitted that family planning program was the main driving force, “which contributed to 60-70% of the fertility decline” (Ye 2001). In the 1980s, the crude birth rate did not keep on decreasing, but fluctuated and stayed above 20‰, while TFR was fluctuating but slightly declining and dropped to around 2.3 in the end of 1980s. However, the fertility level started to decline below replacement level from the early 1990s. Although many people are not confident with the statistics and believe that there are problems of under-report of the number of births, almost all the fertility surveys in China indicate a below replacement level of fertility; moreover, studies by many Chinese and international organizations (e.g. US Census Bureau 1999; ESCAP 1999; CPIRC 1999) and individual demographers (Zeng 1995; Attane and Sun 1999; Feeney and Yuan 1994) confirm that China has attained a fertility below replacement level. However, even though the TFR had dropped to below replacement level, the crude birth rate before 2000 was still above 15‰ which is the fertility level when most of the west European countries completed their demographic transition. From this perspective, demographic transition in China was not completed till the end of last century. However, the newest statistics gives a 13.38‰ of crude birth rate in 2001. Therefore, measured by indicators of either crude birth rate or TFR, China has already attained low fertility level at the turn of the new century.

1.3 On the Uncertainties of Completeness of Demographic Transition

While most of the demographers admitted that China's population as a whole has entered a stage of low fertility, low mortality and low natural growth, a number of scholars query the completeness of demographic transition in China. Criticism on the completeness of demographic transition in China is mainly threefold: (1) China's demographic transition is not an intrinsic process, therefore, fertility level is still instable and could rebound under certain circumstances; (2) China's fertility decline happened within a very short period, and need to be observed in a longer run; (3) given the huge regional disparities in terms of socio-economic development level and fertility control policies, demographic transition process in China is very unequal between different regions. We will discuss the three issues separately in the following sections.

1.3.1 socio-economic development and fertility decline

It is true that China started the rapid demographic transition when its socio-economic development level was still low. More importantly, effective family planning policy plays a

very important (or even the most important) role for the rapid fertility decline. Being influenced by the low socio-economic development level and Chinese traditional culture, the average desired family size of most Chinese people, particularly of the rural residents, is still distant from what the policy required. For example, the average desired family size of both rural and urban couples from almost all the surveys in the 1980s was significantly higher than that required by the policy¹ (Hermalin and Liu 1990). It is unquestionable that China could not have achieved the rapid fertility decline without the efficient family planning program. To a considerable extent, fluctuation of fertility level in the mid 1980s was induced by the adjustment of family planning policy. And, one can not completely exclude the possibility that changes in family planning policy might induce an increase of fertility beyond replacement level in the near future. Therefore, should we dismiss the thought of completed demographic transition in China?

From the past experiences of European and non-European countries, although fertility transition is often accompanied by socio-economic development, high socio-economic development is not a necessary pre-condition for demographic transition. Moreover, Princeton European Fertility Decline Project displays that in some regions, fertility decline was not tied closely to socio-economic modernization, but rather to diffusion within a specific cultural or linguistic regions (Coale and Watkins 1986). The family planning policy in China was formulated under the global recognition of the problem of “population explosion”. Ideological and technical diffusion of family planning program and contraceptive methods became the most important external forces for stipulating and implementing the regulations of fertility control in China. No matter the driving forces are endogenous or exogenous, they all contributed to the fertility decline and the completion of demographic transition.

Moreover, socio-economic development has been playing very important role in China’s demographic transition. It is evident that the fertility decline had already started in the mid 1960s in urban China where socio-economic development level is comparatively high (Wu 1986). The Chinese government policy before the early 1970s encouraged more births. When the family planning policy was introduced in the early 1970s, a lot of couples abided the new regulations without much difficulty. This is mainly due to the fact that intrinsic forces for demographic transition due to socio-economic development had already existed in many regions of China at that time. Without those intrinsic forces of socio-economic development, it could hardly imagine that the dramatic fertility decline would have smoothly achieved in the 1970s.

Similarly, the birth rate which fluctuated and even slightly increased in the 1980s also reflects the importance of socio-economic development in demographic transition, although Chinese government started to implement an even more rigid fertility control policy since the early 1980s. One-child policy is far distant from the desired family size of rural and urban couples, given the limited socio-economic development levels. Consequently, few people could really

¹ Considering the different policy requirements for urban and rural couples, and for Han people and ethnic minority groups, several studies resulted that the policy allowable births are 1.6-1.7 children per couple in average for the whole Chinese population. However, most of the surveys in the 1980s resulted in more than 2 desired children by each couple in average.

accept the rigid fertility restriction, but rather chose to escape from the policy control. Moreover, economic reform, rural household responsibility system, and increase of population migration enabled more people to escape from the policy control.

On the other hand, further socio-economic development and modernization in the 1980s and 1990s enhanced the acceptability of ideology of fewer children and adaptability of fertility control policy, which is the main reason why fertility declined to below replacement level in the early 1990s. As the continuous implementation of economic reform and open policy and establishment of the market-economy, China becomes a middle-income country and a WTO member at the beginning of the new millennium. Further socio-economic development will inevitably help to stabilize the low fertility and drive the fertility to an even lower level.

1.3.2 Rapidity of fertility decline and long term tendency

China's demographic transition was completed within a much shorter period than that of the most European Countries. Sometimes, rapidity stands for instability. However, comparing with some other Asian countries and regions who have already experienced demographic transition, China does not much differ from the others in terms of fertility decline (table 1). The number of years of completing fertility transition in China is only about 5 years less than that in Hong Kong, Singapore and Taiwan, 2 years less than that in Japan, and the same as in Thailand; the total amount of decrease in fertility of China in the period of fertility transition is significantly less than in other countries except in Japan; the annual decrease of China is exactly the same as that of Taiwan, Singapore and Thailand, and is close to that of Hong Kong. Therefore, China's fertility transition is not exceptionally rapid in the Asian settings. Given that there is little doubt that these Asian countries have completed demographic transition, why should one question the completeness of demographic transition in China by considering its rapidity of fertility decline? Furthermore, studies in the Western countries and in the east and south-east Asian Countries indicate that once fertility declines by more than 10%, the decrement in fertility will continue; when fertility dropped down to below replacement level, the tendency of fertility decline will not be reversed. As a matter of fact, many efforts of increasing fertility level in European countries have never achieved their goals in the long run (Van de Kaa 1987). A few non-European countries, e.g. Singapore, Japan start to worry about the continuous fertility decline and stipulate a pronatalist policy. The effect of this pronatalist policy may need to be traced for a longer period. Therefore, rapidity of fertility decline should not be regarded as the reason of instability of demographic transition in China. It seems that fertility decline in China would be mostly continue in the next decades.

(table 1 is about here)

1.3.3 Regional Disparities in Demographic Transition

Undoubtedly, one should take into account the huge regional disparities while conduct a study in China. Since China is a dual society with segregation between rural and urban residents.

Due to the differences in terms of socio-economic development levels and regulations on fertility control, rural population has higher fertility and mortality than their urban counterparts. Figure 3 shows that while the demographic transitions in both urban and rural follow the same pattern, fertility and mortality decline in the rural are slower than that in the urban. The crude death rate was already below 10‰ in the early 1950s in urban areas. However, it did not dropped down to below 10‰ until the end of 1960s in the rural. Since 1980, the crude death rate has been kept below 6‰ in the urban and below 7‰ in the rural. With regard to the fertility level, while TFR of the urban population is always lower, the crude birth rate was higher in the urban before 1963 due to the differences of age structure. There was a sharp decrease of fertility in the mid 1960s among urban population. However, significant fertility decline did not happen until the early 1970s in the rural, excluding the compensating effects of reproduction after the disastrous three-year of 1959-1961. In the mid of 1990s, the crude birth rate in the urban has declined to less than 15‰, while the crude birth rate was still 16.3‰ in the rural in the end of 1990s. Examining the TFR, it is 1.4 for the urban and 2.1 for the rural in 1999. Therefore, we may conclude that the urban China has definitely completed the process of demographic transition, whereas the rural area is just close to the end of transition.

Regional disparities do not only exist between rural and urban, but also exist between the east, central and west regions. Table 2 shows that in the end of last century, there are significant differences in demographic changes between the east, central and west. In general, the crude birth rate and crude death rate are the lowest for the east, the highest for the west, while it is in the middle in the central regions. These differences reflect their different socio-economic development levels and proportion of ethnic minorities who enjoy privileged fertility policy and are allowed to give more births than the Han population. One may say that demographic transition has been completed in the east and the central regions, while the west is also close to the end of the transition. New evidences show that fertility decline more sounds in the west and the central rural areas than in the east region. Therefore, even there are the huge regional differences, demographic transition has already completed in the most part of China; and the backward areas which have not yet completed the transition will catch up soon.

(Figure 3 is about here)

(Table 2 is about here)

2. Post-demographic transition?

2.1 The conceptual framework

Admitting the completion of China's demographic transition, some authors state that China has entered the stage of "post-demographic transition". However, to make such a judgment, it is important to understand the concept and mechanism of post-demographic transition firstly.

Although the authors of demographic transition theory named the stages of transition with

different terms, the last stage of the transition is proposed to be happened in the industrialized society with low fertility, low mortality and low growth rate. Ansley Coale (1973) divided the transition into three stages “pre-transition”, “transition” and “post-transition”. Richard Leete (1987) described the situation of demographic transition in the East and Southeast Asia using the term of “post-demographic transition” for the first time. According to Leete, a country would be regarded as a post-demographic transition country when its fertility fell to rather a low level and keep on at that level for certain period of time. It is clear that the stage “post-demographic transition” refers to a period after the completeness of demographic transition which is judged by formal demographic indicators. However, some social scientists try to make the distinction between the “demographic transition” and “post-demographic transition” by understanding the mechanism behind these two transitions. No infrequently, the mechanism of demographic transition in the contemporarily industrialized countries is referred to the phenomenon of post-modernity and post-materialism. One of the most important distinctions is embodied in the idea of the “European second demographic transition”, proposed by Van de Kaa and Lesthaeghe (1986 and afterwards).

Stressing a plethora of interconnected demographic changes and underlying mechanisms, Van de Kaa and Lesthaeghe have depicted the concept of “the second demographic transition” in several publications (e.g. Lesthaeghe and Van de Kaa 1986; Van de Kaa 1987, 1993, 1997, 1998, 1999; and Lesthaeghe 1995). The second demographic transition refers to the important changes in fertility and family behavior since the mid 1960s in European countries. In 1987, Van de Kaa observed four main shifts in the logical sequence of demographic changes comparing to the first demographic transition happened about one century ago: (1) shift from the golden age of marriage to the dawn of cohabitation; (2) shift from an era of the king-child with parents to that of the king-pair with a child; (3) shift from preventive contraception to self-fulfilling conception; and (4) shift from uniform to pluralistic families and households. Changes in fertility and family behavior were determined by a broad ideational and cultural change that took place in the west European countries since the 1960s.

Extending the ideas proposed by Hoffmann-Nowotny (1987), Van de Kaa (1993) establishes an explanatory framework for the second demographic transition, which studies the changes in three basic dimensions of social systems (structure, culture and technology) and their effects on individuals, primary groups and secondary groups. It is noted that market economies are compatible with the demographic trends observed. The higher living standard and greatly increased economic independence and security of individuals, the shift in values towards greater individualism and post-materialism, and “the second contraceptive revolution” are identified as having had profound impacts on the aspirations, life course and life style of the populations concerned. They have reduced the role and influence of secondary groups, have changed the institutional context and mental model of the family and couple, and make individuals seek self-fulfillment and pursue higher order needs. Rapid weakening of social control by institutions, and especially the process of secularization, has resulted in an increasing tolerance towards behavior once considered as “deviant”, such as non-marital sexual relationships, non-marital unions, births to single mothers, deliberate childlessness, or the acceptance of homosexuality. Most recently, Van de Kaa (2001) stresses that changes in

structure, culture and technology provide circumstances for people of the society to be willing, ready and able to practice the second demographic transition.

Based on the observation of demographic changes in west European societies between the mid 1960s and the end of 1990s, Van de Kaa (1997) constructed a summery overview of 15 logically ordered demographic phases, which can be used as indicators of demographic sequences in the second transition. The demographic indicators were used to measure demographic stages and processes in different European regions under the idea of the “second demographic transition”. Four groups of countries are in the sequence: (1) Northern and Western European countries; (2) Greece, Malta, Portugal, Spain and Yugoslavia in the Southern Europe; (3) most of the Eastern European countries; (4) remaining European countries not included in the first three groups, such as Albania, Turkey in the south, and Iceland and Ireland in the North (Van de Kaa, 1987). In the 1990s, there are growing numbers of studies on examining changes in the fertility and family behavior among the Southern and Eastern European countries under the framework of “Second demographic transition”, some of which appears in publication form, but mostly presented at academic conferences (the 1999 European Population Conference in Den Hague, the 2001 EURESCO Conference on “The second demographic transition in Europe” in Bad Herrenalb as examples). Moreover, some authors are considering the application of theoretical framework of the “Second demographic transition” to non-European social settings.

It is reminded that demographic transition has been considered a convergent process which started form the Western European countries and expanded to other European and non-European regions. If there is a “second demographic transition”, would it also be expanding from European countries to regions all over the world? If China has completed the first demographic transition and entered a stage of “post-demographic transition”, should this “post-demographic transition” phase posses the same characteristics as the “European second demographic transition”?

2.2 Has China been experiencing the second demographic transition?

2.2.1 Conditions for the second demographic transition

From the perspective of structural changes, according to Van de Kaa, the second demographic transition is a phenomenon of rich society or a social welfare state. It involves a shift from a manufacturing and goods producing economy to a service economy with expended sectors for education, health, communication and other information and government dominated activities. Automation and computerization play an increasingly important role; theoretical knowledge and fundamental research tend to drive the economy. The rise in living standard and degree of social security enable families and individuals to rest their economic security with the state, rather than with the church or within the family.

With respect to the changes of cultural process, it is described as a “silent revolution” in terms of the changing values and political styles in Western society where a strong emphasis on the

need for democratic decision making, tolerance, personal freedom, and individual rights are common. The right to seek self-fulfillment is particularly stressed. The process of individuation has profoundly influenced the value system and the attitudes of large parts of the population. The changes in the functioning of secondary groups formed on the basis of religion, denomination or other ideological orientations, has been considerable. The absence of strong guiding principles and the need for many people to establish their own set of norms has consequently and strongly affected pair bonding and family formation.

From the perspective of technological effects, the improvement in means of transportation enables people to acquire first-hand information about other countries and cultures and to be geographically mobile over vast distances. The rapid spread means of communication and information expose populations to ideas and thoughts they would not normally have heard of during their life time. The advancement in medical care and contraceptive techniques enables people to talk about contraception without too much embarrassment, brought contraception into the broader field of medical care and techniques and made it possible to contraception virtually perfect. The mastery of contraception and the freedom of the fear of pregnancy have had a direct impact on the norms governing sexual and reproductive behavior and consequently on demographic trends.

Is Chinese population willing, ready and able to practice the second demographic transition?

China is still in the middle of industrialization and modernization. Since introduction of the economic reform and open policy in the end of 1970s, China has been experiencing dramatic economic booming, and already entered the group of middle-income country in the end of last century. Although about two-thirds of Chinese people are still living in the rural areas, a big number of urban residents in the east coastal area are enjoying high standard of modern lives. Since the early of 1990s, Chinese government has been investing great effort to establish a market economic system which enables China's economy step into a new era of advancement. As China finalized all negotiations for entrance of the World Trade Organization and turns out to be a member of this largest global economic club, China will inevitably become more open to the outside and face the opportunities and challenges in the process of globalization. In the meantime, China is one of the countries with the biggest regional disparities in terms of socio-economic development level between regions in the world and in human history (Hu et al 1995). While the country is still characterized as a dual economy concerning the urban-rural segmentation, the socio-economic development situations in the east, the central and the west display features at significantly different levels. China as a whole is far away from becoming a rich country, it is even more distant from a social welfare state. Since only the urban residents benefit from the incomplete state insurance, while the majority of rural residents do not receive any protection of social welfare. Although the government is promoting a reform of social insurance system, China has to go rather a long way to reach the goal of social welfare state while the government is stressing the importance of the family in providing supports for its nuclear and extended members.

As its economy has been experiencing a great development, China is undergoing tremendous

social changes in terms of politic and cultural systems. As a matter of fact, the movements of “socialism transforming” in the 1950s and 1960s, which launched by the communist government and aimed at destroying ideologies of the feudalism, capitalism and revisionism, induced great changes in Chinese traditional culture, released people particularly women from the binding of the traditional clan and religions. Moreover, the ten-year Great Cultural Revolution seriously damaged the belief system of Chinese society. Since the introduction of economic reform and establishment of market economy, large number of the population face a vacuum of beliefs for not obeying Chinese traditional norms nor the Maoist orthodoxy. In the meantime, the western culture invades in the appearances of fashion, advancement, and modernity, and is easily accepted by the youth who admire the western life style. Even in the rural areas, the huge volume of migration of laborers enables younger generation of peasants to get ride of control of their conservative parents and the traditional binding hometown, and expose to the swift changes of values and norms in the more developed urban areas. After their going back to the rural home, the ideas, values and norms together with remittance are brought into the villages. Despite the comparative backward economic level, cultural diffusion plays an important role in changes rural and urban population’s views and norms in life cycles and life courses.

The technological advancement in communication, transportation and contraception enhanced the social changes in values and norms of fertility and family formation. Color television set has become popular in most regions of the country. China has become the country with the biggest number of users of mobile phone. In the end of last year, more than 26.5 million Chinese households have normal access to internet. More importantly, contraception is widely accepted by utmost of the population with the implementation of the family planning as China’s fundamental national policy. Contraceptive techniques and means are cheap and accessible in almost any corner of the country. Induced abortion is legal, freely decided and inexpensive to be conducted under conditions of unwanted pregnancy and failure in contraception. Undoubtedly, these technological changes and processes have been playing important roles for the diffusion of modern life styles and the Western ideologies which induce the changes in people’s values and norms of fertility and family formation.

Therefore, China’s population as a whole may not yet be ready or able to experience the second demographic transition. However, in the more developed urban areas, the condition for the transition is already there, and the underdeveloped regions will be able to follow the evolution due to the swiftly and quickly cultural diffusion and technological advancement in China.

2.2.2 Evidences of the second demographic transition in China

Following the logical sequences in fertility and family formation according to the idea of second demographic transition, late marriage, late childbearing of high parities, cohabitation, marriage dissolution, pre-marital and extra-marital sexual relations, childless form the main demographic indicators. The next section will present evidences and analysis to illustrate the phenomenon and process of the second demographic transition in China.

Later age at marriage

The mean age at first marriage of Chinese population in the past 50 years generally demonstrated an upward tendency. For Chinese women, it increased from 17.5 years in 1950 to 19.7 years in 1970. There observed a sharp increase since the early 1970s, and reached 22.67 years in 1979 given that China started the family planning policy characterized as “later marriage, longer interval (of births), and fewer children” in the 1970s. As China stipulated the “new marriage law” and lose the strict control on the minimum age at marriage in the early 1980s, the mean age at first marriage showed a downward tendency and stayed at 21.5 years in the mid of 1980s before it increased again in the end of 1980s and reached the level of 1979 in 1992. Since the end of 1980s, the mean age at first marriage has been increasing steadily.

(Figure 4 is about here)

If one may argue that the increase of age at marriage in the 1970s was mainly driven by the policy of “later marriage”, the increase since the end of 1980s stands for the effects of rapidly socio-economic development, changes in values and norms of life style and family formation. While the drop in age at first marriage in the early 1980s signifies that the externally policy-driven changes would hardly last for long upon the alterations in the government policies, we are more confident that increase of age at first marriage since the end of 1980s is resulted from the intrinsic changes in values, attitudes and norms of marriage. With the significant socio-economic development, establishment of market economy and continuous open policy, more and more young people are affected by the Western culture and modern life style. Particularly, in the urban, self-fulfillment orientation and increasingly severe competition of careers impel more and more young people postpone marriage. Large volume of out-migrants of young people from the backward rural areas, searching jobs in the developed coastal and urban areas, escaping from the control by their conservative parents and observing the new life style of their urban counterparts, very likely suspend the marriages till they become stable in the destination if they stay, or come back to their original village.

Looking at the situation of different regions, we observed from Table 3 that women’s age at first marriage in all the regions of China have been continuously increasing since 1995, although regional differences exist. In some big cities, like Beijing and Shanghai, women’s age at first marriage is above 25 years (25.88 years for Beijing, 25.22 years for Shanghai). A recent survey indicates that the preferred age of first marriage in the rural is 27.6 years for men and 25.6 years for women in the east province of Zhejinag, 25.3 and 24.5 years for women in the west provinces of Shaanxi and Yuannan.

Studies in European countries show that the age at first marriage decreased firstly in the pre-transitional period, while it continuously increased in the transitional period of the second demographic transition. We may refer China’s drop of the age at first marriage in the early 1980s as the pre-transitional phenomenon. Should we regard the continuously increasing age

at first marriage as one of the sign of the second transition? One may need a more time to see the trend.

(Table 3 is about here)

Cohabitation and Pre-marital and extra-marital sexual relations

Study on cohabitation in China has not really started yet. We do not have any statistics on this topic. However, several surveys on the values and attitudes of marriage and sex ask the questions concerning respondents' perspectives on cohabitation. A survey among 2719 urban residents aged 18-60 in China's six cities shows that 80% of the interviewees believe a significant increase of pre-marital cohabitation in China. Eighty three percent of them think that there will be significantly more people prefer unmarried for the whole life (Wang and Ling 2002).

A Ford Foundation sponsored research in Beijing, Guangzhou, Tianjin and other 9 cities of China reports that pre-marital sex among Chinese youth become common and happens at lower age (China Women Newspaper 2001). This survey shows that 79% of Chinese youth aged 21 ever had pre-marital sex. Moreover, this proportion is even higher than 80% among the rural youth.

A recent research studies the changes in pre-marital conception among Chinese women in the period of 1950 to 1987 (figure 5). It shows that the proportion of pre-marital conception of young people is very low from the very beginning of the People's Republic and kept at less than 1.6% level till the 1970s. Although it is still now, the proportion of pre-marital conception increased very fast since the late 1970s. Even we do not have exact data to calculate the proportion for the situation after 1987, we assume that the increase in the pre-marital conception continues in the 1980s and 1990s. Given the more popular and efficient use of contraception methods, the increase in pre-marital conception is resulted from the upsurge in pre-marital sex.

One of the above-mentioned surveys indicates that 53% of interviewee think that "there will be more people dating via internet"; 80% of them disagree the idea of "extra-marriage love will decrease" (Wang and Ling 2002). Another recent survey of 720 urban residents aged 15-59 shows that 6.7% of the interviewees accepted the idea of "to have children without marriage". In particular, 10.6% of never married women and 7.8% of Beijing women agree with this idea (Beijing Evening Newspaper, 2001). Therefore, although cohabitation and pre-marital sex in China is not as popular as in many industrialized countries, from the perspectives of young urban women as the vanguard of ideological innovation, one might be able to predict a further trend towards a shift from uniform marriage to preference of cohabitation in China.

(Figure 5 is about here)

Divorce

Divorce is not accepted by Chinese traditional ideology. Consequently, divorce rate was extremely low in China in contrast to the Western countries and other developing countries. Table 4 shows that the divorce rate (number of the divorcees divided by total population aged 15 and above) was still less than 1 per thousand in the mid 1980s. However, this rate has been going up quickly and steadily. In the ten years from 1985 to 1995, the divorce rate was doubled. Since the early 1990s, the number of new marriages decreases significantly, while the number of divorce increased continuously from 457,938 pairs in 1985 to 1,201,541 pairs. The newly promulgated “Marriage Law” in 2001 lowers the pre-condition for divorce which will inevitably help to bring about more divorces. Moreover, among the new marriages, the proportion of remarriage increased from 3% in 1985 to about 6% in 1999. A survey conducted in 6 major cities shows that 77.4% of 2719 urban residents believe that divorce will become easier in the future (Wang and Ling 2002). To some extent, in a monogamy system, there is increasing number of people accomplishing polygamy by experiencing more marriages, while others practice extra-marital sexual relationship. From either point of view, marriage in China is becoming less stable and the partnership is changing in diversified directions.

(Table 4 is about here)

Desired family size

Almost all surveys on fertility preferences in different regions of China consistently point out a continuous drop of desired family size (table 5). There are some people questionings on the reliability of these survey results since the respondents may understate their ideal family size. However, some authors (e.g. Whyte and Gu 1987) are fairly confident about the quality of the data given the sizable proportion of respondents who do report a preference for more than one child and the existence of differentials by socio-economic characteristics. We believe that understate of desired family size does exist in almost all the surveys which used face-to-face interview method (Hermalin and Liu 1990) in the one hand; in the other hand, the surveys undoubtedly convey the actual information on the respondents’ ideal family size. Moreover, we don’t intend to use the survey result as the respondents’ exact desired family size; instead, we use them to indicate the tendency of changes and regional disparities in desired family size of Chinese people.

Table 5 shows that the ideal family sizes in almost all the regions and all the time periods are significantly higher than those required by the policy. While the peasants wanted to have more than 2.5 children before the mid 1980s, the preferred number of children was generally smaller in the east than in the central and the west. And, the desired family size was always smaller in the urban than in the rural areas. The desired family size declines consistently and continuously in the whole period of 1980s and 1990s; and, the declines are sounder since the 1990s. Moreover, we believe that the problem of understate of the desired children is less serious in the later years since respondents feel more comfortable to express their ideas under the market economic system where government loses parts of its authorities. Consequently,

the drops in desired family size of Chinese people should be more sizeable than what it appears from the survey figures.

(Table 5 is about here)

Moreover, the surveys also suggest that the recent decrease of desired family size is more significant in the west rural areas than in the east and urban areas. Statistical report in a west county Xincheng, Shanxi shows that most of the rural women do not want to have more than one child. Xincheng County is one of the test fields in China where peasants are commonly allowed to have the second child under certain conditions. In year 2001, more than 80% of the 2797 couples who are eligible to have the second births give up the quotas, since they believe that more children will hinder their efforts in promoting the standard of living and in learning new techniques of agricultural production (Southern Morning Newspaper 2002).

We may boldly assume that the desired family size among the urban residents is significantly below the replacement level, while it is already close to the replacement level for the peasants.

Childless

In the past decades, Chinese traditional values of fertility have been facing great challenge. Gradually, the traditional ideas “more children, more happiness” and “raising sons for the elderly support” have been abandoned. To the extreme outpost, there is increasing number of people thinking about childless which is one of the important characteristics of the second demographic transition. A survey conducted in six major cities indicated that 70% of the respondents agree with the idea that “there will be more people living in DINK (double income, no kids) family”; In Beijing, 85% of the respondents agree with this opinion (Wang and Ling 2002). Another survey conducted in Beijing, Shanghai, Guangzhou and Chengdu indicates that about 20% of urban women agree with the idea of “do not need children even get married”; the more educated, the higher proportion of people hold this opinion (Beijing Evening Newspaper 2001). A survey conducted by Shanghai Academy of Social Science shows that, 14.3% of Shanghai white collar staff clearly state that they do not want to have a child; other 25.3% think that “it is not necessary to have children after marrying”; about 90% of those who wish to have children says that they would postpone to give the births (Yangtze Evening Newspaper 2001). Therefore, children are not the center of many families any more. And, there will be more people stand with childless.

3. Conclusion and Discussion

From the research, one should be confident that China as a whole has already completed the demographic transition in the end of last century, although there may be instability in future fertility levels, and significantly regional disparities in China. The studies of China's demographic transition once again evidently show that socio-economic development is not the necessary pre-condition for initiation of demographic transition. Cultural and Technological diffusions and institutional interventions may independently initiate the

transition. However, the demographic transition can never be completed without significantly socio-economic development.

Although China is not yet one of the second demographic transition country, evidence from some urban areas signifies the initiation of this second transition in China. This study indicates that the conditions, particularly the structural condition for the second demographic transition are not fulfilled yet in China. However, one may argue that the structural condition would not be an insurmountable obstacle for initiating the second demographic transition, given that the first demographic transition happened in many countries where socio-economic development levels were still low. Since cultural and technological diffusion played important role for the first demographic transition, one would also expect an accelerating process of the second transition induced by these diffusions. Superficially, the second demographic transition is still far away from the lives of Chinese people in most of the regions. However, one can hardly imagine how fast it would be for the people to be affected by the second transition. It is just like the fact that the most population projections underestimate the rapidity of fertility decline in China in recent years. Almost all the recent predictions or estimates generated significantly bigger population size than that reported by the 2000 census. Until today, there are still some scholars sticking to their predictions by stating that the census gives under-reported results. We are living in a society which is experiencing dramatic social changes. It is our researchers' perspectives which are often left behind the rapid social changes when we believe that changes in social values and norms are always lagging behind the socio-economic development.

It would boldly assumes that the second demographic transition would become a common phenomenon in China in the next decades. Although for the purpose of the continuity of family planning policy the government still stresses the importance of sustaining the low fertility level, some local governments are actually changing the regulations to loose the strict control over births since there are already many young people do not want to have children. It is properly still too early to talk about "the lowest low fertility" (Kohler et al. 2001) in China. However, we still think about the possibility that Chinese government will stipulate a policy to encourage childbearing in the not too far future. The bad news is that almost all the efforts of stimulating fertility by the governments of European countries could hardly exert the effect in the long run. From this point of view, our prediction might not be too early.

Finally, while we assume the expansions of second demographic transition in China, it should be noted that this transition may not exactly follow the path of that in European countries. A comparative study in Japan and the Netherlands shows that while the overall changes of demographic events for the same direction are clearly confirmed, in Japan cohabitation and childbearing outside of marital union is not as common as in the Dutch society (Matsuo 2001). Diversity is commonly observed in different cultures. It is always important to take into account the cultural personalities while we would mainly focus on the convergence of human population changes.

References:

- Attane, I. and Sun Minglei, 1999, Birth rates and fertility in China, how credible are recent data? *Population An English Selection*, vol. II, p251-260.
- Beijing Evening Newspaper 2001, Revolution on reproductive values of city women: giving birth without marriage, March 3.
- Blacker, C. P. 1947, Stages in Population Growth, *The Eugenics Review*, vol. 39, no. 3, p. 88-101.
- Chen Wei 1996, Comparative Study of China's Fertility Decline, PhD dissertation, Renming University.
- China Women Newspaper 2001, Investigation indicates that pre-marital sex happens at lower ages, Dec. 4.
- Coale, A. J. 1973: The demographic transition, *IUSSP, International Population Conference*, vol. 1, Liege, Belgium.
- Coale, A. J. and E. M. Hoover 1958, *Population growth and Economic Development in Low Income Populations*, Princeton University Press.
- Coale, A. J. and S. C. Watkins, 1986, *The Decline of Fertility in Europe*, Princeton University Press.
- Coleman, D. and R. Schofield (eds.) 1986, *The State of Modern Population Theory*, Forward from Malthus, New York.
- Demeny, P. 1972, Early fertility decline in Austria-Hungary, A lesson in demographic transition, in D. V. Glass and R. Revelle (eds.) *Population and Social Change*, London, 1972
- ESCAP 1999, *ESCAP Population Data Sheet, 1991-1999*.
- Fang Xianxin 1991, Community analysis on peasants' values and behavior of fertility and its determinants, *Journal of Population Studies*, no. 5.
- Feeney, G. and Yuan Jianhua 1994, Below replacement fertility in China? A close look at recent evidence, *Population Studies*, vol. 48, issue 3, p381-394.
- Feng Xiaotian 1990, Fertility preferences of one-child parents, *Population Research*, no. 5.
- Gao Ersheng and Gu Xianyuan 1984, Changes in fertility and its determinants in Shanghai city, *Population Research*, no. 1.
- Hermalin, A. I. and Xian Liu 1990, Gauging the validity of responses to questions on family size preferences in China, *Population and Development Review*, vol. 16, issue 2, p. 337-354.
- Jin Hehui 1995, Fertility decision right and fertility of rural women, *China Population Sciences*, no. 1.
- Kik, Dudley 1996, Demographic transition theory, *Population Studies*, vol. 50, no. 3, p 361-387.
- Kohler, H. P., J. A. Ortega and F. C. Billari 2001, Towards a Theory of Lowest-low Fertility, Rostock, MPIDR Working Paper WP-2001-032.
- Leete, Richard. 1987, The post-demographic transition in East and South East Asia: similarities and contrasts with Europe. *Population Studies*, vol. 41, no. 2.
- Leibenstein, H. 1957, *Economic Backwardness and Economic Growth*, Wiley Co., New York, 1957.
- Lesthaeghe, R. 1977, *The Decline of Belgian Fertility 1800-1970*, Princeton.

Lesthaeghe, R. 1995, The second demographic transition in Western countries: an interpretation, in Karen O. Mason and An-Magritt Jensen (eds.): *Gender and Family Change in Industrialized Countries*, Clarendon Press, Oxford, p 17-62.

Lesthaeghe, R. and D. Van de Kaa 1986, Twee demografische transitie's? In D. Van de Kaa and R. Lesthaeghe (eds.), *Bevolking: Groei en Krimp*, Deventer, Van Loghum Slaterus, p 9-24.

Li Fude 1992, Dramatic changes of fertility preference of Chinese women, *China Population Sciences*, no. 3.

Li Jianmin 2000, Has demographic transition completed in China, *Southern Population*, no. 2.

Li Jianmin 2000, The post-demographic transition, *Population Research*, no. 4.

Li Jianxin 2000, Questions on the post-demographic transition, *Population Research*, no. 6.

Li Shuzhuo 1998, Comparative studies on employment and fertility of Chinese rural women, *Population and Economics*, no. 1.

Liu Guoxia 1990, Economic condition and women fertility preference of Gansu Province, *Northwest Population*, no.1.

Lu Li 1990, Reducing benefits of children and fertility decline in the rural, *Population and Economics*, no. 3.

Matsuo, Hideko 2001, Is Japan a second demographic transition country? paper presented at the EURESCO Conference "The second demographic transition in Europe," Bad Herrenalb, Germany, June 23-28.

Notestein, F. W. 1945, *Population: The Long View, Food for the World*, The University of Chicago Press.

Sha Jicai (ed.) 1995, *Women Status in Contemporary China*, Peking University Press.

Shao Xiazheng 1999, Comparative studies on fertility preference before and after child-bearing among Chinese rural and urban families, *China Population Sciences*, no. 1.

Southern Morning Newspaper 2002, The fertility preference is silently changing, two thousand fertility quotas are left out, Jan. 7.

Sun Ying 1988, Fertility preference of today's women, *Journal of Population Studies*, no. 6.

Survey on China's rural family 1993, *Rural Families in Contemporary China*, Social Scientific Literature Press.

Tian Yuchun 1993, Family fertility preferences and fertility levels, *Population*, no. 6.

United Nations 1965, *Population Bulletin of the United Nations*, no. 7, Sales No. E. 64 XIII. 2.

United Nations 1990, *World Population at the Turn of the Century* (prepared by Leon Tabah as consultant to the United Nations), Sales No. E. 89, XIII.12.

United Nations 1992, *Patterns of Fertility in Low-Fertility Settings*, Sales No. E. 92. XIII. 11.

US Census Bureau 1999, *World Population Data Sheet*, PRB, 1991-1999.

Van de Kaa, Dirk 1987, Europe's Second Demographic Transition, *Population Bulletin*, vol. 42, no.1.

Van de Kaa, Dirk 1993, The second demographic transition revisited: theories and

expectations, in Gijs Beets et al. (eds.): Population and Family in Low Countries: Late Fertility and Other Current Issues, NIDI/CBGS Publication, no. 30.

Van de Kaa, Dirk 1997, Options and sequences: Europe's Demographic Patterns, Nethur-Demography Paper, no. 39, The Hague.

Van de Kaa, Dirk 1999, Europe and its population: the long view, in Dirk Van de Kaa (ed.): European Population: Unity in Diversity. Kluwer Academic, Dordrecht, p. 1-49.

Van de Kaa, Dirk 2001, Second demographic transition: concepts, dimension and new evidence, address delivered at the EURESCO Conference "The second demographic transition in Europe," Bad Herrenalb, Germany, June 23-28.

Van de Kaa, Dirk. 1998, Postmodern fertility preferences: from changing value orientation to new behaviour. Working Papers in Demography, no. 71, Australian National University, Research School of Social Sciences, Demography Program: Canberr.

Wang Feng, Yang Quanhe 1996, Age at marriage and the first birth interval: the emerging change in sexual behavior among young couples in China, Population and Development Review, vol. 22, Issue, 2, P. 299-320, Table 1, p. 303

Wang Shuxin 1994, Changes in fertility values of Beijing women, Population and Economics, no. 1.

Wang Xuefeng and Ling Fei 2002, Ninety percent of urban residents hold new values of marriage and believe an increase in extra-marital love, Beijing Evening Newspaper, Feb. 5.

Whyte, M. K. and S. Z. Gu 1987, Popular response to China's fertility transition, Population and Development Review, vol. 13, no. 3, p. 471-493.

Wu Cangping 1986, Theoretical explanation of fertility decline in China, Population Research, no.1

Yangtze Evening Newspaper 2001, New ideas help to expand the DINK family: Shanghai white collar are not willing to have children, Dec. 18.

Ye Mingde 2001, Questions on "China has entered post-demographic transition stage", China Population Sciences, no. 1.

Ye Yangzong 1988, Exploring into fertility values of contemporary peasants, Population Research, no. 4.

Yu Xuejun 2000, China has entered post-demographic transition stage, China Population Sciences, no. 2.

Zeng Yi 1995, Is fertility in China 1991-1992 far below replacement level, Population Studies, vol. 50, issue 1, p 27-34.

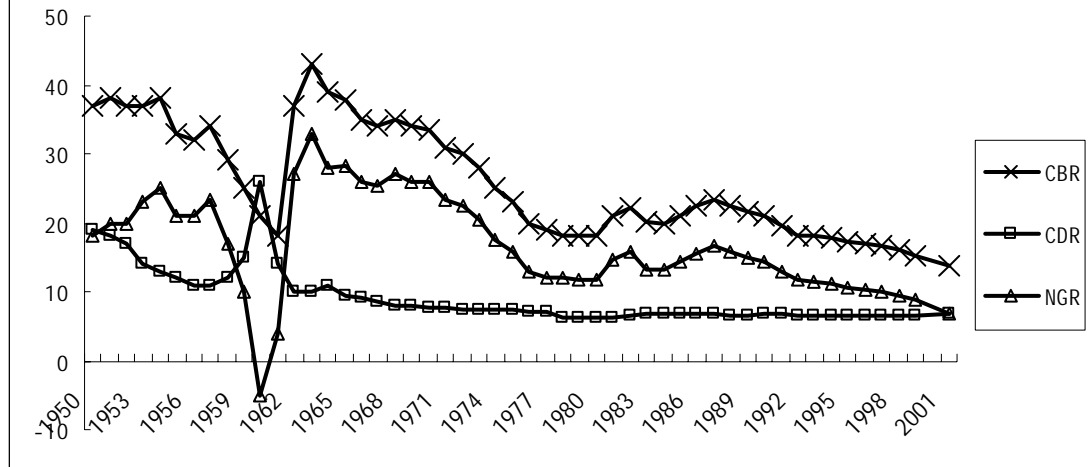
Zhao Jinghui 1997, Fertility preferences of China's urban population, Population Research, no. 5.

Zhou Changhong and Huang Lihua 1996, Comparative studies on fertility preferences of rural women with different family income, Population and Economics, no. 3.

Zhou Changhong and Xu Changxing 1998, Survey and analysis on fertility preference, motivation and determinants, Population and Economics, no. 6.

Zhou Lianfu 1997, Studies on the relationships between fertility and socio-economic factors, Journal of Population Studies, no. 5.

Figure 1 Crude birth rate (CBR), death rate (CDR) and natural growth rate (NGR) of China's population 1950-2001



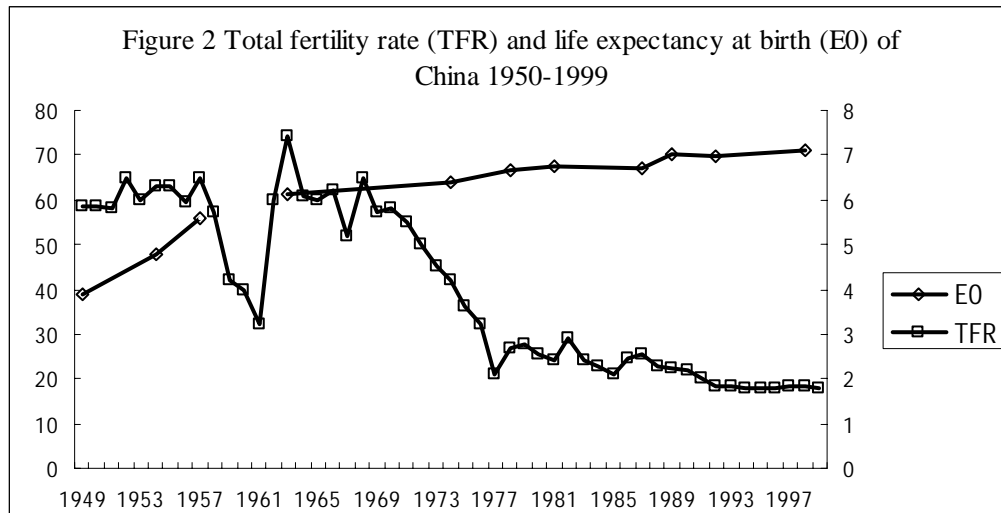


Table 1 Comparison of fertility decline between China and other Asian Countries

| <i>Country or region</i> | <i>Year</i> | | <i>TFR</i> | | <i>Years needed</i> | <i>Total amount of decrease</i> | <i>Annual decrease</i> |
|-----------------------------|-------------|-----------|------------|------|---------------------|---------------------------------|------------------------|
| | Start | End | Start | End | | | |
| China ^a | 1965-1970 | 1990-1995 | 5.94 | 1.95 | 25 | 3.99 | 0.16 |
| Taiwan ^b | 1955 | 1986 | 6.53 | 1.68 | 31 | 4.85 | 0.16 |
| Hong Kong ^a | 1960-1965 | 1990-1995 | 5.31 | 1.21 | 30 | 4.10 | 0.14 |
| Japan ^b | 1930 | 1957 | 4.71 | 2.02 | 27 | 2.69 | 0.10 |
| Singapore ^a | 1950-1955 | 1980-1985 | 6.40 | 1.69 | 30 | 4.71 | 0.16 |
| Thailand^a | 1965-1970 | 1990-1995 | 6.14 | 2.10 | 25 | 4.04 | 0.16 |

Sources: a. United Nations 1995, World Population Prospects: The 1994 Revision;

b. Griffith Feeney, 1994, East-West Center Reprint Series No. 313.

Figure 3 Comparison of demographic transition of rural and urban population in China, 1954-1999

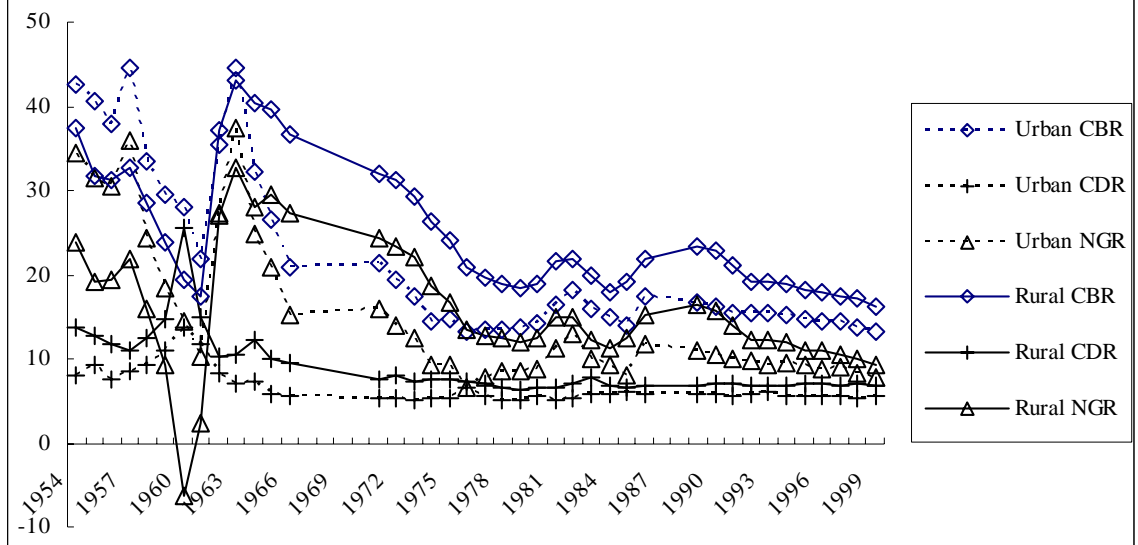


Table 2 Comparison of demographic indicators in the regions of China, 1999 (‰)

| Region | Crude birth rate | Crude death rate | Natural growth rate |
|-------------|------------------|------------------|---------------------|
| The east | 11.59 | 6.27 | 5.32 |
| The central | 13.36 | 6.41 | 6.95 |
| The west | 15.74 | 6.52 | 8.76 |

Note: 1. The east region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan; The central region includes Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan; The west region includes Neimenggu, Guangxi, Chongqing, Sichuan, Guizhou, Yunnan, Xizang, Gansu, Qinghai, Ningxia, Xinjiang.

2. For calculation of the means, it is weighted by the population size of all the provinces.

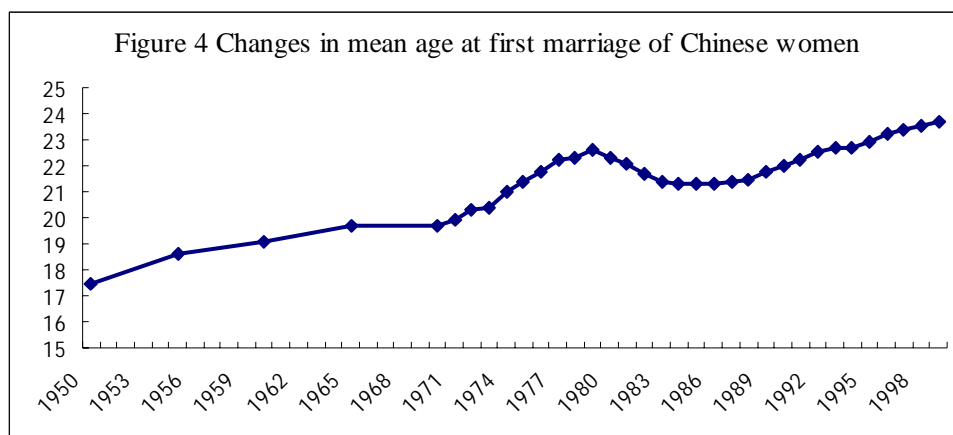


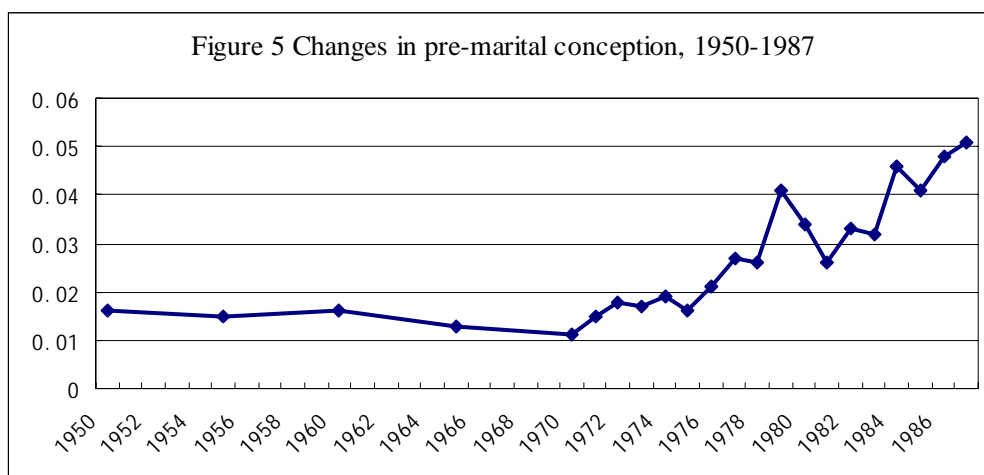
Table 3 Mean age at marriage of women by regions 1995-1999

| Region | | 1995 | 1996 | 1997 | 1998 | 1999 |
|-------------|----------------|-------|-------|-------|-------|-------|
| The East | Mean | 23.50 | 23.79 | 24.03 | 24.11 | 24.20 |
| | Std. Deviation | 0.62 | 0.62 | 0.61 | 0.63 | 0.63 |
| The Central | Mean | 22.90 | 23.10 | 23.25 | 23.42 | 23.41 |
| | Std. Deviation | 0.39 | 0.34 | 0.29 | 0.38 | 0.29 |
| The West | Mean | 22.45 | 22.71 | 22.79 | 23.11 | 23.20 |
| | Std. Deviation | 0.48 | 0.60 | 0.44 | 0.51 | 0.32 |
| China | Mean | 22.93 | 23.26 | 23.41 | 23.59 | 23.64 |
| | Std. Deviation | 0.67 | 0.69 | 0.70 | 0.67 | 0.63 |

Table 4 Changes in marriage and divorce, 1985-1999

| | New marriage (pair) | First marriage (person) | remarriage (person) | Divorce (pair) | Divorce rate (‰) |
|------|------------------------|----------------------------|------------------------|-------------------|---------------------|
| 1985 | 8290588 | 16076337 | 504839 | 457938 | 0.9 |
| 1986 | 8822935 | 17075107 | 570763 | 505675 | 0.9 |
| 1987 | 9247372 | 17880856 | 613888 | 581484 | 1.1 |
| 1988 | 8971750 | 17285077 | 658423 | 658551 | 1.2 |
| 1989 | 9351815 | 17959680 | 744150 | 752914 | 1.3 |
| 1990 | 9486870 | 18191303 | 782437 | 800037 | 1.4 |
| 1991 | 9509849 | 18203226 | 816472 | 829449 | 1.4 |
| 1992 | 9545047 | 18320957 | 769137 | 849611 | 1.5 |
| 1993 | 9121622 | 17470092 | 773152 | 909195 | 1.5 |
| 1994 | 9290027 | 17793306 | 786748 | 980980 | 1.6 |
| 1995 | 9297061 | 17760657 | 833465 | 1055196 | 1.8 |
| 1996 | 9339615 | 17817240 | 861990 | 1132215 | 1.8 |
| 1997 | 9090571 | 17259504 | 921638 | 1197759 | 1.9 |
| 1998 | 8866593 | 16753749 | 979437 | 1190214 | 1.9 |
| 1999 | 8799079 | 16593593 | 1004565 | 1201541 | 1.9 |

Source : State Statistical Bureau, China Statistical Yearbook 2000.



Source: Wang Feng, Yang Quanhe 1996, Table 1, p. 303

Table 5 Changes in desired family size by regions (the 1980s and the 1990s)

| Rural | | | | |
|----------------|-----------|-----------------|---------------------------------------|---|
| Year | Places | Interviewee | Average number of desired children | Source |
| <i>West</i> | | | | |
| 1987 | Gusu | Women | 2.69 | Liu Guixia, 1990 |
| 1991 | Shaanxi | Married men | 2.35 | Sha Jicai 1995 |
| | | Married women | 2.35 | |
| 1991 | Shanxi | Women | 2.30 | Li Shuzhuo 1998 |
| | Shaanxi | Women | 2.95 | |
| 1992 | Shaanxi | Peasants | 2.25 | Tian Yuchun 1993 |
| | Gansu, | | | |
| | Shaanxi, | | | |
| 1993 | Qinghai | Married men | 2.23 | Jin Hehui 1995 |
| | | Married women | 2.05 | |
| <i>Central</i> | | | | |
| 1986 | Jilin | Peasants | 2.49 | Survey on China's rural family 1993 |
| 1987 | Jilin | Women | 2.21 | Sun Ying 1988 |
| 1988 | Hunan | Peasants | 2.45 | Ye Yangzong 1988 |
| 1991 | Hunan | Peasants | 2.23 | Fang Xianxin 1991 |
| 1995 | Jilin | Peasants | 1.60 | Zhou Linfu 1997 |
| | | | | Survey on Hubei urban and rural residents 1998 |
| 1998 | Hubei | Peasants | 1.91 | |
| <i>East</i> | | | | |
| 1986 | Fujian | Peasants | 3.16 | Survey on China's rural family 1993 |
| | Zhejiang | Peasants | 2.34 | |
| | Shandong | Peasants | 2.18 | |
| 1989 | Shandong | Rich peasants | 1.91 | Lu Li 1990 |
| | | Poor peasants | 2.25 | |
| 1991 | Shandong | Married men | 2.26 | Sha Jicai 1995 |
| | | Married women | 2.21 | |
| 1994 | Zhejiang | Rich peasants | 1.90 | Zhou Changhong 1996 |
| | | Poor peasants | 2.10 | |
| 1998 | Zhejiang | Married men | 1.72 | Zhou Changhong 1998 |
| | | Married women | 1.70 | |
| Urban | | | | |
| Year | Places | Interviewee | Average number of desired children | Source |
| 1981 | Shanghai | Women | 1.70 | Gao Ersheng 1984 |
| | | Married men and | | |
| 1988 | Hubei | women | 1.84 | Feng Xiaotian 1990 |
| 1988 | Jilin | Married women | 1.76 | Lin Fude 1992 |
| | Ten | | | |
| 1992 | provinces | Married men | 1.71 | Shao Xiazheng 1999 |
| | | Married women | 1.65 | |
| 1994 | Beijing | women | 1.25 | Wang Shuxin 1994 |
| 1996 | Haerbing | Urban residents | 1.25 | Zhao Jinghui 1997 |
| | | | | Survey on Hubei urban and rural residents 1998 |
| 1998 | Hubei | Urban residents | 1.58 | |
| | Fourteen | | | |
| 1998 | cities | Urban residents | 1.53 | Feng Xiaotian 2002 |