# Effects of Children on Remarriage Prospects in China*

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**Abstract**

Drawing on data from Chinese Longitudinal healthy Longevity Survey, this article examines the effects of having children on remarriage prospects in China from 1949 to 2002, focusing in particular on how this relationship varied across historical periods in response to shifts in state policies. Varying amounts of child-rearing cost were redistributed under different state policies, which as we show, lead to the vacillations of the effect of having children on remarriage. In addition, the analysis shows marked gender differences in the rate of remarriage. Women are generally at a disadvantage in the marriage market after marital dissolution.

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## 1 Introduction

Rates of divorce and of remarriage have been rising dramatically since at least the 1980s in China. Between 1985 and 2007, divorce rate had more than tripled, to 1.59 couples out of every 1,000 people; while there is also an increasing share of remarriages in annul registered marriages, from 3.04% in 1985 to 10.24% in 2007 (NBSC, 2008). Since many divorces involve children, and remarriage—while common—is not universal, it is important to study how children affect their parents' entry into remarriage. Children from a prior marriage have commonly been considered as a deterrent of remarriage. A large amount of demographic, sociological and economic studies conducted in western developed countries have provided evidence of detrimental effect of children on remarriage (e.g., Becker, Landes, and Michael, 1997; Furstenberg, and Spanier, 1984; Buckle, Gallup, and Rodd, 1996; Bumpass, Sweet, and Martin, 1990). The presence of children from a prior marriage can reduce the likelihood of remarriage, even when controlling for socioeconomic and demographic characteristics (Koo, Suchindran, and Griffith, 1984; Smith, Zick, and Duncan, 1991; Wu, 1994).

To explain the channel through which children have a negative effect on remarriage of their divorced or widowed parents, scholars have articulated several theoretical perspectives, such as economic theory (Becker et al., 1977), social exchange perspective (Wu, 1994), and evolutionary theory (Buckle et al., 1996). Among them, however, the most prevailing explanation for the effect of children is the framework of utility maximization and the marriage market, proposed by Becker et al. (1977) who emphasized that the probability of remarriage depended directly on the expected gain from remarriage. Within Becker's framework, children are viewed as a capital specific to a particular marriage, which increase the cost to a prospective spouse. Children may also deter the search for a spouse, because of constraints on their mothers' time (Becker et al., 1977).

Increasingly, however, evidence shows that the negative effect from children is neither universal nor inevitable, particularly in developed countries. Rather, it is contingent on demographic, socioeconomic, and political factors that might alter the amount of the cost of children from a previous marriage to a potential spouse. China indeed provides a particularly interesting case. On the one hand, China, unlike western countries, is still strongly influenced by Confucian culture, which has created the traditional Chinese family system. On the other hand, China has experienced frequent and large scale political and social changes, since the establishment of People's Republic of China in 1949. All these changes and social

culture may influence how children from prior marriages affect remarriage of their parents, and characterize such pattern of the effect of children much different from western developed countries.

Using data from Chinese Longitudinal healthy Longevity Survey (CLHLS), we examine the relationship between having children and remarriage in Communist China, focusing in particular on how this relationship varied across historical periods in response to shifts in state policies. Moreover, gender may interact with children in influencing the likelihood of remarriage. Specifically, we want to address the following questions: Does having children have a negative effect on remarriage in China? If any, does the answer differ for sons and daughters? Does the negative effect of children hold true for both men and women? How do state policies affect the relationship between having children and remarriage?

## 2 Comparison of effects of having children on remarriage in China and Western countries

The impact of children on the process of remarriage is an important topic of research in western developed countries, particularly the United States (e.g., Becker et al., 1978; Koo and Suchindran, 1980; Koo et al., 1984; Furstenberg, and Spanier, 1984; Wu, 1994; Buckle, Gallup, and Rodd, 1996; Bumpass, Sweet, and Martin, 1990; Lundberg and Rose, 2003). In general, having children can lower the likelihood of remarriage. Consequently, the number of children has already become a standard variable in studies of remarriage patterns. Compared to western developed countries, the previous literature on remarriage patterns in contemporary China has relatively neglected the impact of having children on remarriage, even though having children strongly affects the chance of getting remarried.

Yet through making a distinction between China and Western developed countries in social context and practice of institution, we can still portrait a picture of effects of having children on remarriage prospects in China. Here are the main characteristics that we think distinguish China in nature from western developed countries in the effects of children.

The first is gender, both child and parent gender. On the children side, there is no significant effect of child gender on the mother's remarriage probabilities when the children are born within a previous marriage in western societies (Lundberg and Rose, 2003). This presumably reflects the fact that most fathers continue to play an important social and recreational role in their son's lives after divorce (Lundberg and Rose, 2003). Alternatively, this may be fundamentally due to the absence of a significant difference of rearing cost between having boys and having daughters in western societies. However, when

it comes to child-rearing cost in China, having a son relative to having a daughter increases the amount to a prospective spouse at least in two ways. Chinese parents traditionally should pay for their sons, but not for their daughters, all wedding expenditure (such as betrothal gift, wedding gift, wedding reception, and housing, to name a few), which is a very high amount heightening the obstacles for remarriage. To be more important, the presence of a son reduces its mother's chances of remarrying more than does the presence of a daughter. Here, a reduced propensity to remarry appears to be associated with China's patrilineal and patriarchal system, in which the son is normally seen as belonging to his biological father's rather than his stepfather's family. We expect, therefore, that the likelihood that a divorced or widowed person will remarry may also depend on the gender composition of his/her children in China.

On the parental side, gender may mediate the effect of children on remarriage. In western developed societies, children usually live with their mothers after their parents' divorce. Thus, the detrimental effect of children has been found to be stronger for women, whereas weaker and insignificant for men (Becker et al., 1977; Wu, 1994; Glick and Lin, 1987; Buckle et al., 1996). For example, in Canada, children can reduce the likelihood of remarriage by 17% for women, but with no effect on remarriage prospects for men (Wu, 1994). On the contrary, in societies with patriarchal structure, such as China and most other East Asian countries, children (especially sons) should always live in the agnatic families, even when their fathers pass away. A different social context would lead us to expect a smaller or no significant effect of children for Chinese women, in particular before the 1980s, when New China had not implemented the opening-up policy. Of course, things are changing, especially after the economic reform, and children are getting more likely to live with their mothers after their parents' divorce.

Finally, in any examination of what happened in contemporary China, policy changes must be considered. Unlike western societies, a salient feature of Communist China is its frequent shifts of state policies, especially during the Mao era. Under different policies, different amount of childrearing cost were indeed redistributed by the state. In other word, public policies can affect the cost of children from a prior marriage to a potential spouse, and eventually determine calculated outcome of benefits and cost of remarriage. On the initial stage of state building process since 1949 in socialist China, the centralized state almost monopolized all the resources through collectivization and nationalization. This centralization allows the state to allocate and redistribute resources on an unparalleled scale, and thus entrench into all facets of individual life to an unprecedented degree, from basic necessities to life chances (Zhou, 2004).

Because of the state's strong grip on people's daily life, the state can redistribute a large percentage of child-rearing cost through social policies (Duggan, 2003). For example, the government subsidies (e.g. free schooling and free or low cost nursing) may enable parents to raise children on a low budget, thus weakening the importance of financial duties and the negative effect of children on remarriage. As a result, it is likely that political changes over the past half century have altered the direct cost of raising children, and thus have influenced the role of children in the remarriage.

## 3 Historical backgrounds

Childrearing costs consist of nonmaterial expenditures such as emotional support, parental time, and attention, as well as material expenditures such as nutrition, clothing, housing, education, health care, and transport. Let's put nonmaterial costs aside, and pay special attention to material costs that are more related with state policies in China. In terms of material childrearing cost, there is somewhat difference of the crux of the matter: basic necessities (e.g. nutrition, clothing and health care) account for the largest proportion during the Mao era, because Chinese people still struggled for having adequate food and clothing at that time; in contrast, after 1978 people gradually lead a well-off life, and education expenditure and health care absorb the largest part of childrearing cost.

No matter which era of Communist China you live in, Mao era, Deng era, or Post-Deng Era, the state influences the childrearing process of the family in China. Frequent political changes over the past six decades have changed education cost, health care, and food expenditure of children to their parents. The vacillation of social policies regarding to children rearing cost can be reasonably well captured by distinguishing three periods in Communist China history: 1949-1965, 1966-1977, and 1978-2002. Childrearing cost varied a lot across these three historical periods. Distinctive state policies characterized each of these historical periods. They provide the historical context in which we examined variations in the association between having children and the likelihood of remarriage.

**Period 1: the early years after the transition to communism (1949-1965)**

The first period from 1949 to 1965 was a time of economic recovery and national building, as well as a time of the practice of socialism. Through collectivization and nationalization, the state began to exert control over the allocation of both the means of production and the means of subsistence. During the period of economic recovery, the primary goal was to promote rapid economic growth. In response to

Mao's idea of accelerating the movement toward true communism, the Chinese state adopted "rushed growth" strategies in industrialization (e.g., diversion of labor to steel production) and agriculture (e.g., creation of people's communes), resulting in an economic collapse and a nationwide Great Famine, when the government mobilized enormous resources for rapid economic growth (Zhou, Moen, and Tuma, 1998; Hannum and Xie, 1994). After three years of economic decline from 1958 to 1960, Liu Shaoqi and Deng Xiaoping took control of national affairs, and adjusted the extremely equalitarian policies and unreasonable output targets.

During this period the state policies actually emphasized social equality, even pursing equalitarianism in income distribution. The establishment of people's commune means that equalitarianism reached the peak. Every child could receive yearly food rations since its birth, even though he didn't contribute to the production. At the same time, the state promoted educational equality through a substantial expansion of access to education, especially for peasant and working class (Lu and Treiman, 2008). Children can get access to education at very low expense. Therefore, parents did not need to spend a lot in bringing up children during this period.

**Period 2: Cultural Revolution (1966-1977)**

This was the period of Cultural Revolution and its immediate aftermath, during which Mao Zedong returned to earlier emphasis on ideological egalitarianism and collectivist production. Despite many high schools and colleges closed their doors during this period, ironically, the educational equality got its peak in China (Zhou et al. 1998; Lu and Treiman, 2008). All schools of different levels received financial aid from the government, and schooling expenditures of children were relatively low for parents. For students attending colleges, they could obtain monthly subsides from the government, which could cover the cost of daily life.

With regard to redistribution system, the state again concentrated on the socialist equality among social groups. In the urban areas, to mobilize resources for industrialization, the state implemented "Low pay, social welfare" policies. During this period, urban people always lived a life of low cost. In the rural areas, people engaged in team-based collective production, and were rewarded according to family size and work points. It is noteworthy the rural distribution system characterized itself by egalitarianism—in a production team, means of subsistence, for the most part, were evenly distributed among the communism members. This implies that parent could benefit a lot from their children, rather than spend a lot for their children.

Consequently, the raising cost of children remained low during this period. Nevertheless, it is noteworthy that this was also the period of economic stagnation, marked by deprivation, even of economic and social necessities. Although the cost of bringing up a child was low, people might still take control of their family size to reduce family expense, because family resources were relatively very limited. In this light, having children discouraged prospective mates who were hesitant to assume the responsibilities of raising their predecessors' offspring.

**Period 3: Post-Mao Economic reform (1979-2002)**

During this period, the economic reforms were introduced, initially in the rural areas in the late 1970s, and then in the urban areas starting in the early 1980s. The market-oriented reform emphasizes economic efficiency and personal competition, and lead to rapid economic development. Undoubtedly, Chinese standard of living increased markedly throughout this period.

In accordance with business and economic reforms, the state also implemented a series of reforms in the fields of education and health care. When it comes to educational reforms, after 1978 the foundation of education financing was changed from a centralized system with a narrow revenue base to a decentralized system with a more diversified revenue base, resulting in an increase in education fees (Lu, and Treiman). As a consequence, tuition fees become the biggest expenditure for many families in rural areas. In terms of health industry, it also experienced a market-guided reform during this period. Health care was no longer free; on the contrary, its price became unreasonable. Medical fee has become the second heaviest burden for poor families. The rise of tuition fee and medical care directly lead to the rise of child-rearing cost. Thus, child-rearing costs have soared during this period; and, children get more expensive than they did in the past.

## 4 Hypotheses

In summary, political changes over the past half century appear to have altered the direct cost of raising children and thus have affected the incentive and the obstacles of a prospective spouse to remarry. We therefore expect there are sharp differences of children's effect on the likelihood of remarriage across these three periods. Besides, we expect child gender to be associated with the probability of remarriage, as well as parent gender in China. We formalize these expectations in the following hypotheses.

***Hypothesis 1:*** Like western developed societies, the presence of children generally reduces the likelihood of remarriage in China.

***Hypothesis 2:*** The detrimental effect of having children should vary by gender. It is weak or insignificant for men but stronger for women.

***Hypothesis 3:*** The negative effect of having children depends on the gender composition of a person's offspring. Having a son relative to having a daughter reduces the likelihood of parent's transition to remarriage.

***Hypothesis 4***: During the period emphasizing in opportunity distribution and life chances (Periods 1 and 2), the negative effect of having children should be negligible. In contrast, during the period characterized by personal competition and economical efficiency (Period 3), the negative effect should be stronger.

## 5 Data and method

### *Data*

The hypotheses were tested by using data from the 2002 CLHLS, in which pregnancy and marital histories, as well as a wide variety of other information were collected, for a random selected sample of 16,064 people aged 65 or older, and 4,364 adult children of sampled elder in 22 of the 31 provinces of China. We derive the target population (including people who married at least once and whose first marriages dissolved) from these two supplementary data sources. The marital histories included the date of all marriages, divorces, and remarriages to respondents up to the time of interview. The pregnancy histories, which included the dates of all live births and other pregnancy outcomes up to the time of interview, were used to calculate the number of children at the time of divorce or widowhood. We restricted the study to dissolution from first marriages and entry into second unions. People whose first marriages dissolved at the age of more than 45 years old and before 1949 were excluded from the analysis, in order to obtain a clearer picture of the effect of children already alive in contemporary China, as well as to distinguish underage children from adult children. The final sample in our analysis contains 443 men and 553 women.

### *Measures*

The dependent variable in this study is remarriage, which is a dichotomous variable (0=not remarried, 1=remarried), in a given time duration since marital dissolution. This time duration is measured from the

date of divorce or widowhood to the date of second marriage. Where remarriage has not occurred, time duration is measured from the date of dissolution to the survey data. In other words, those who had not experienced remarriage are censored at the time of the survey. 43.98% of respondents have successfully moved from the category of "previously married" to "remarried" between 1949 and 2002.

The key independent variable is the number of children, sons, and daughters. Because we believed that the effect of these factors would not linear, as well as the state has maintained its family planning policy to keep a low birth rate since the late 1970s, we group them into the following classes: 0, 1, 2+ children. Other independent variables included in the analysis were as follows:

Gender, a dummy variable, was coded male=0 and female=1

Age at dissolution was included as a set of dummy variables. Following other literature (Koo et al., 1984), we classify this factor into three categories: less than 26, 26-34, and 35-45.

Type of dissolution, a dichotomous variable, was coded 0 if respondents' first marriages ended in divorce and 1 if respondents' first marriages ended in widowhood.

Education was measured by the years of schooling in elder's questionnaire, but by the education levels in children's questionnaire. To make use of the education information, we recoded the education into four levels: illiteracy, elementary school, junior high school, and senior high school or above.

Occupation was constructed on the basis of the respondent's work history. For those who have retired, occupation refers to main occupation before age 60; for those who remain active in labor market, occupation refers to current occupation. Because both job mobility across work organization in urban China and the *hukou* mobility in rural China were very low, especially before the middle of 1990s, it is not problematic to use the main or current occupation as a proxy of the occupation between the time of marital dissolution and remarriage. For the sake of simplicity, we classified occupation into four categories: farmer=1 (those worked in agriculture, fishery or forest sector), worker=2 (those worked as staff, service workers, and industrial worker), cadre=3 (those engage in governmental or professional jobs), and others=4. Likewise, father's occupation was also measured as a 4-category variable: farmer, worker, cadre, and others.

Region refers to one of the three regions in China. According to NBSC definition, data was classified into three regions: western region=1, central region=2, and eastern region=3. Table 1 presents descriptive statistics for all these variables.

***Method***

To investigate changes in the effect of children, we used logistic regression models for event history analysis, which can be expressed as follows:

$$Log\left(\frac{RM_{it}}{1-RM_{it}}\right) = a_t + \beta_{CHN} CHN_{it} + \beta_i x_{it1} + \cdots + \beta_k x_{itk} \qquad (1)$$

Where $RM_{it}$ denotes the conditional probability that individual *i* remarriages at time *t.* This probability can be called a discrete-time hazard. $CHN_{it}$ is the number of kids (children, sons or daughters) at the time of marital dissolution. $X_{it1}$ to $X_{itk}$, refer to the other independent variables.

To test whether having children has a negative effect on remarriage, we examine the sign and significance of parameters in equation (1). To test whether the effect of children on remarriage varied over time, we conduct a series of Wald tests of the equality of coefficients of children's effect in the three historical periods. The null hypothesis is that the effect of children did not vary across the three periods. Rejection of the null hypotheses offers support for the argument that genuine changes occurred and directed us to examine the direction of the changes over time.

## 6 Having children and the transition to remarriage

***The number of children***

We begin our analyses by presenting the impact of the number of children on the chance of the transition to remarriage. Table 2 reports the discrete-time logistic regression parameter estimates of the number of children on the probability of getting remarried. As is shown in Table 2 Column 1, the number of children at the time of marital dissolution has a significant impact on remarriage. As we hypothesized, it negatively affects remarriage prospects. Specifically, for those who have only one child, the chances of remarriage are about 24 percent ($e^{-0.273}$-1) lower than those who have no children; meanwhile, for those with the largest number of children (2+), the chances of remarriage are about 53.93% ($e^{-0.775}$-1) lower than those without.

Because it is possible that the association between the chance of remarriage and children differ by gender, we performed the analysis separately for men and women (see Table 2 Columns 2 and 3). The number of children has a significant negative impact on remarriage for women, and a negative, but generally insignificant, effect for men. Women who had children at marital dissolution show significantly lower probabilities of remarriage than do childless women. Indeed, the chances of remarriage can be

reduced by about 32% ($e^{-0.384}$-1) if a woman had only child, and by about 66% ($e^{-1.081}$-1) if a woman had two or more children when her first marriage ended. Although the number of children is generally not significant for men, the sign on the estimates are in the expected direction. On the whole, these results are consistent with our hypothesis 1 and 2.

Some other factors are also of interest (see Table 2). Generally, individuals with more education had a greater probability of remarriage than those with less. But close scrutiny at education attainment reveals that this effect is gender-specific. There is little distinguishable pattern by educational attainment for women. However, this is not true for men; in contrast, Table 2 attests to a fairly substantial difference in the likelihood of remarriage by level of education: the higher the education level, the higher the probability of entry into remarriages. Consistent with past researches (Wu, 1994; Koo et at., 1984; Bumpass et al., 1990; Smock, 1990), education has little effect on a woman's remarriage prospects. Further, similar pattern was found among occupation: occupation status has a significant positive effect for men; it has, however, a generally negative but insignificant effect for women. There can be two reasons for these two effects. One possibility is that the absence of a significant effect of education in transitions to remarriage may reflect the fact that women with higher education are less economically dependent and thus have lower demand for (financial) gains from marriage (Wu, 1994; Koo et al., 1984). Alternatively, a highly educated woman also has a reduced pool of eligible mates in the remarriage market because her standard for the minimum acceptable match is also increased (Wu, 1994).

Age at marital dissolution exerts a significant on remarriage for both men and women. We find that age at dissolution is negatively related with remarriage. The likelihood of remarriage for women who were age 35 and over at the time of dissolution is about 93 percent ($e^{-2.648}$-1) lower than women who were under 26 at dissolution. Age at dissolution also exhibits a negative effect for men, but there is no significant difference between the two younger groups in chances of remarriage. Specifically, for a man whose first marriage dissolved after age 34, the probability of remarriage is 73% ($e^{-1.316}$-1) lower than for a man whose first marriage dissolved before age 26. Moreover, this negative effect seems larger for women. In terms of age at dissolution, why would men have relatively better chance of remarrying than women? One explanation is that men whose marriages dissolved in their later life may have a higher regard for family life and thus a higher desirability of remarriage. Another explanation is that age reduces the pool of eligible

mates at faster speed for women rather than for men, because women tend to marry men older than themselves.

***The gender of children***

We now turn to the effect of child gender on the likelihood of remarriage. In Table 3, we show the discrete-time logistic regression models of the impact of the number of sons (daughters) on parent's probability of remarriage for all, men and women, respectively. The coefficients on the number of sons—one, and two or more—are significantly negative as one might expect, shown in column (1) of Table 3; while the coefficients on the number of daughters are generally negative, but only significant for those with largest number of daughters (2+), listed in column (4) of Table 3 . Keep in mind that sons cost more than daughters to prospective mates, both money and emotion. When it comes to money, wedding expenses have traditionally been taken care of by the bride's family. Therefore, the stepparent should always pay more on stepsons rather than stepdaughters. When it comes to emotion, stepdaughters would marry out one day, while stepsons would live with/near their stepparent but not belong to their stepfathers' decent groups. The estimated coefficients suggest the apparent differences in the effects of sons and daughters. All p values for tests of equality of the respective coefficients for sons and daughters are well above 0.05.

Further, when we estimate separate models by gender, in columns (2) and (3) for the number of sons, and in columns (5) and (6) for the number of daughters, respectively, we find that the coefficient estimates increase in magnitude for women, but decrease for men, which are consistent with hypothesis 3. A significant negative effect was only found among women with two or more daughters; while daughters have no significant effect on the probability of their fathers' remarriage, though the sign on the estimates in the expected direction. We find that having two or more daughters reduces the probability of being involved in remarriage by 56 percent ($e^{-0.811}$-1) for women. As expected, the number of sons has a significant negative effect, especially for women. Actually, the likelihood of remarriage for women has two sons or more at the time of dissolution is about 68 percent ($e^{-1.148}$-1) lower than women without. For a man who has two sons or more at dissolution, the probability of entry into remarriage is 47% ($e^{-0.629}$-1) less than for a man having no son.

In sum, the mothers of sons appear somewhat less likely to have married than do the fathers of sons; while the mothers of daughter also less likely to have married than do the fathers of daughters. Compared

with parents having daughters, parents having sons are generally disadvantage in remarriage market. We have claimed that the effect of children on remarriage might vary across periods in response to policy shifts in China. We therefore estimate separate models by period in the following part of the article.

***Children effects by period***

In this section, we explore the relationship between having children and the transition to remarriage across the three periods. Table 4 provides the coefficients from discrete-time logistic regression models of probability of remarriage separately by period, which generally support the premise that: the effect of children varies across periods in response to policy shifts. In the first periods, there are no substantial negative effects of having children. Specifically, net of other factors, for those who had only one child at the time of dissolution, they were even more likely to get remarried than childless people, during this period. As expected, in the third period, having children has a significant negative impact on the probability of remarriage; those with only one child are 70 percent ($e^{-1.212}$-1) less likely to enter into remarriage than those without. In contrast to our expectation, though, the presence of children has a significant and substantially negative effect on remarriage in the second period of the Cultural Revolution. There can be one explanation for this. When encountering economic hardship, people tend to control family size. During the Cultural Revolution characterized by economic stagnation and social disruption, one additional child could cause heavy burden to a family, even though child-rearing cost was very low. Indeed, the growing negative effect of having children was evident in China's fertility pattern: fertility decline started from 1966 rather than 1978, the year in which family planning policy was implemented (Wei, 2007).

To assess temporal changes in children' effect, we performed Wald tests of hypotheses of theoretically having children had the same effect in the three periods. Formal statistical tests between each two periods confirm that the observed difference in the effects of having children across periods (Period 1 vs. Period 2, $p<0.01$; Period 1 vs. Period 3, $p<0.01$; however Period 2 vs. 3, p above 0.1).

From this table, we can find some other interesting things. Gender differences in the transition rates to remarriage followed a pattern with great fluctuations. Starting with the initial gender gap in the first period, gender gap was relatively small, though women were generally at a disadvantage in the remarriage market, compared to men. Conversely, during the second period of the Cultural Revolution, women became more likely to find spouses in the marriage markets, when their first marriage dissolved. In the reform era (the

third period), disadvantage of women in transition to remarriage reappeared; moreover, gender gap in transition widened.

To explain these zigzags of transition rate over time, we need knowledge about the historical context across these periods. Recall that the first period is the early years after the transition to communism, yet the traditional ideas of marriage remained prevailing, "a woman should be faithful to husband till death". It was difficult to remarry for a woman, especially when her husband was absent by way of death rather than through divorce. The second one was a period of the Cultural Revolution designed to promote social equality and reduce status difference. During this period, the Women's Liberation Movement flourished, and gender inequality got its peak in all ways of life. On the other hand, children always lived in the agnatic families. So it is not surprising that the likelihood of getting remarried were higher for women than for men. In the third period, the inferiority of women in the rate of remarriage reemerged and appeared to return to the patterns in the pre-Cultural Revolution period. It appears, however, this disadvantage is due to the fact that nowadays the majority of mothers obtain sole custody of children after divorce, and thus the detrimental effect of children should be stronger for women, whereas weaker for men[1].

**7 Conclusions**

Using data from Chinese Longitudinal healthy Longevity Survey, we examine the relationship between children and remarriage in Communist China. Our findings may shed some light on our understanding of how children are functioning and the role that gender factor play during the process of remarriage.

Because of its distinctive history and social culture, China has provided us an unusual opportunity to explore the impact of institutional changes in shaping the process of remarriage. In contrast to developed nations, the effects of having children have varied over time in China in response to vacillations in state policies. In general, when the state kept economy growing and state policies emphasized egalitarianism in opportunity distribution, there would be a weaker association between having children and the chances of remarriage, whereas in times of economic shrinking, and during the periods emphasizing personal competition and economical efficiency, there would be a stronger negative association between having children and remarriage.

[1] Unfortunately, there is no information about which side children choose to live in after their parents' marriage dissolved. And thus our analysis can not go further.

Additionally, the analysis shows marked gender differences in the rate of remarriage. Relative to men, women are generally at a disadvantage in the marriage market after marital dissolution. Specifically, women are more sensitive to age increase; it seems that women are competing in the marriage market mostly for men in a restricted age range—the younger the better. The detrimental effect of having children is stronger for women, whereas weaker for men. Moreover, holding other factors constant, women with good socioeconomic prospects (measured by education attainment and occupation status) will not increase the ability to attract a mate, when their first marriage dissolved; but this is not true for men.

Finally, our findings provide strong evidence of greater negative effects of having sons on remarriage. For entry into remarriage, divorced or widowed parents with daughters have somewhat advantages, compared to their counterparts.

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Table 1 Descriptive Statistics on the Covariate (percentage) for those at Risk of Remarriage, by Historical Periods

| | All | 1949-1965 | 1966-1977 | 1978-2002 |
|---|---|---|---|---|
| *Number of children* | | | | |
| 0 | 18.57 | 22.04 | 9.94 | 12.58 |
| 1 | 21.39 | 18.34 | 18.01 | 37.74 |
| 2+ | 60.04 | 59.62 | 72.05 | 49.69 |
| *Number of sons* | | | | |
| 0 | 37.85 | 37.28 | 22.36 | 32.08 |
| 1 | 29.02 | 30.47 | 26.09 | 45.91 |
| 2+ | 33.13 | 32.25 | 51.55 | 22.01 |
| *Number of daughters* | | | | |
| 0 | 34.04 | 39.35 | 26.09 | 43.40 |
| 1 | 32.23 | 26.63 | 32.92 | 35.22 |
| 2+ | 33.73 | 35.02 | 40.99 | 21.38 |
| Age at dissolution | | | | |
| ⩽25 | 9.54 | 11.98 | 4.35 | 4.40 |
| 26-34 | 30.42 | 33.29 | 18.53 | 30.19 |
| 35 and over | 60.04 | 54.73 | 77.02 | 65.41 |
| *Female* | 55.52 | 57.25 | 63.35 | 40.25 |
| *Type of dissolution* | | | | |
| Divorced | 22.79 | 19.82 | 14.91 | 43.40 |
| Widowed | 77.21 | 80.18 | 85.09 | 56.60 |
| *Education* | | | | |
| Illiteracy | 52.41 | 57.84 | 53.42 | 28.3 |
| Elementary | 28.82 | 30.62 | 29.19 | 20.75 |
| Middle school | 10.24 | 5.92 | 6.83 | 32.08 |
| High school or above | 8.53 | 5.62 | 10.56 | 18.87 |
| *Occupation* | | | | |
| farmer | 55.02 | 55.92 | 61.49 | 44.65 |
| worker | 18.07 | 16.86 | 13.66 | 27.67 |
| Cadre | 11.35 | 11.39 | 10.56 | 11.95 |
| other | 15.56 | 15.83 | 14.29 | 15.72 |
| *Father's occupation* | | | | |
| farmer | 75.2 | 77.66 | 77.02 | 62.89 |
| Worker | 11.14 | 9.62 | 9.32 | 19.5 |
| Cadre | 7.63 | 5.92 | 5.59 | 16.98 |
| Other | 6.02 | 6.8 | 8.07 | 0.63 |
| *Region* | | | | |
| Western region | 17.37 | 20.12 | 21.12 | 1.89 |
| Central region | 19.08 | 23.96 | 15.53 | 1.89 |
| Eastern region | 63.55 | 55.92 | 63.35 | 96.23 |
| *N transition* | 438 | 307 | 40 | 42 |
| *N in risk set* | 996 | 676 | 161 | 159 |

**Table 2**. Discrete-Time Logit Models for Remarriage Prospects , 1949-2002

| | All | | Men | | Women | |
|---|---|---|---|---|---|---|
| | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* |
| *Number of Children* | | | | | | |
| 1 | -0.273+ | 0.145 | -0.266 | 0.218 | -0.384 | 0.277 |
| 2+ | -0.775*** | 0.134 | -0.335+ | 0.201 | -1.081*** | 0.218 |
| *Age at dissolution* | | | | | | |
| 26-34 | -0.560*** | 0.151 | -0.381 | 0.241 | -0.941*** | 0.237 |
| 35 and over | -1.804*** | 0.172 | -1.316*** | 0.267 | -2.648*** | 0.240 |
| *Education* | | | | | | |
| Elementary | 0.525*** | 0.118 | 0.642*** | 0.190 | 0.174 | 0.220 |
| Middle school | 0.960*** | 0.183 | 1.358*** | 0.245 | 0.333 | 0.401 |
| High school or above | 0.713*** | 0.237 | 0.606*** | 0.308 | 0.140 | 0.521 |
| *Occupation* | | | | | | |
| worker | 0.302* | 0.142 | 0.618** | 0.202 | -0.228 | 0.253 |
| Cadre | 0.755*** | 0.180 | 1.134*** | 0.204 | -0.321 | 0.491 |
| other | -0.312+ | 0.176 | -1.019** | 0.378 | -0.033 | 0.216 |
| *Father's occupation* | | | | | | |
| worker | -0.509* | 0.200 | -0.014 | 0.249 | -0.454 | 0.314 |
| Cadre | -0.743** | 0.239 | -0.636 + | 0.368 | 0.249 | 0.284 |
| Other | -0.606* | 0.262 | -0.121 | 0.352 | -0.206 | 0.379 |
| *Region* | | | | | | |
| Central region | 0.326+ | 0.167 | 0.073 | 0.238 | 0.468+ | 0.263 |
| Eastern region | 0.109 | 0.137 | 0.190 | 0.191 | -0.075 | 0.235 |
| Constant | -2.508*** | 0.201 | -3.035*** | 0.305 | -1.719*** | 0.342 |

*Note*: None is the omitted category for number of children, less than 26 for age at dissolution, illiteracy for education, farmer for occupation, farmer for father's occupation, and western region for region.

+p<0.1, *p<0.05 **p<0.01 ***p<0.001

**Table 3**. Discrete-Time Logit Models for Remarriage Prospects, 1949-2002

| | Model 1 | | | | | | Model 2 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All | | Men | | Women | | All | | Men | | Women | |
| | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* | *Coef.* | Robust *SE* |
| *Number of sons* | | | | | | | | | | | | |
| 1 | -0.476*** | 0.117 | -0.168 | 0.193 | -0.834*** | 0.200 | | | | | | |
| 2+ | -0.936*** | 0.144 | -0.629** | 0.210 | -1.148*** | 0.216 | | | | | | |
| *Number of daughters* | | | | | | | | | | | | |
| 1 | | | | | | | -0.162 | 0.130 | -0.222 | 0.186 | -0.099 | 0.202 |
| 2+ | | | | | | | -0.714*** | 0.141 | -0.333 | 0.205 | -0.811*** | 0.224 |
| *Age at dissolution* | | | | | | | | | | | | |
| 26-34 | -0.626*** | 0.143 | -0.411+ | 0.217 | -1.080*** | 0.238 | -0.654*** | 0.148 | -0.448* | 0.220 | -0.948*** | 0.227 |
| 35 and over | -1.869*** | 0.163 | -1.299*** | 0.240 | -2.848*** | 0.253 | -1.935*** | 0.165 | -1.383*** | 0.238 | -2.735*** | 0.229 |
| *Education* | | | | | | | | | | | | |
| Elementary | 0.519*** | 0.118 | 0.683*** | 0.191 | 0.035 | 0.209 | 0.574*** | 0.117 | 0.664*** | 0.190 | 0.187 | 0.214 |
| Middle school | 1.052*** | 0.184 | 1.399*** | 0.251 | 0.368 | 0.398 | 0.952*** | 0.178 | 1.319*** | 0.233 | 0.251 | 0.393 |
| High school or above | 0.640** | 0.228 | 0.583*** | 0.312 | -0.205 | 0.544 | 0.769*** | 0.228 | 0.620* | 0.307 | 0.292 | 0.479 |
| *Occupation* | | | | | | | | | | | | |
| worker | 0.375** | 0.142 | 0.698*** | 0.201 | -0.099 | 0.243 | 0.361* | 0.143 | 0.660*** | 0.195 | -0.114 | 0.253 |
| Cadre | 0.760*** | 0.180 | 1.104*** | 0.204 | -0.257 | 0.497 | 0.838*** | 0.181 | 1.166*** | 0.197 | -0.278 | 0.475 |
| other | -0.249 | 0.177 | -1.003*** | 0.380 | 0.064 | 0.207 | -0.284 | 0.176 | -1.055** | 0.386 | 0.045 | 0.209 |
| *Father's occupation* | | | | | | | | | | | | |
| worker | -0.554 | 0.202 | -0.087 | 0.255 | -0.407 | 0.310 | -0.542** | 0.202 | -0.018 | 0.258 | -0.522 | 0.322 |
| Cadre | -0.742 | 0.240 | -0.611+ | 0.366 | 0.255 | 0.293 | -0.803*** | 0.233 | -0.627+ | 0.365 | 0.120 | 0.277 |
| Other | -0.748 | 0.261 | -0.092 | 0.374 | -0. 425 | 0.384 | -0.562* | 0.259 | -0.095 | 0.354 | -0.213 | 0.380 |
| *Region* | | | | | | | | | | | | |
| Central region | 0.247 | 0.166 | 0.035 | 0.232 | 0.364 | 0.257 | 0.345* | 0.166 | 0.085 | 0.260 | 0.423+ | 0.252 |
| Eastern region | 0.085 | 0.137 | 0.122 | 0.190 | -0.090 | 0.225 | 0.108 | 0.138 | 0.186 | 0.193 | -0.035 | 0.223 |
| Constant | -2.497*** | 0.196 | -3.031*** | 0.300 | -1.637*** | 0.308 | -2.688*** | 0.194 | -3.074 | 0.313 | -2.206 | 0.280 |

*Note*: None is the omitted category for number of sons, none for number of daughters, less than 26 for age at dissolution, illiteracy for education, farmer for occupation, farmer for father's occupation, and western region for region.

+p<0.1, *p<0.05 **p<0.01 ***p<0.001

**Table 4**. Logistic Regression Models of Probability of Remarriage, Separately by Period

| | 1949-4965 | | 1966-1977 | | 1978-2002 | |
|---|---|---|---|---|---|---|
| | *Coef.* | Robust SE | *Coef.* | Robust SE | *Coef.* | Robust SE |
| *Number of children* | | | | | | |
| 1 | 0.443** | 0.188 | -0.98 | 0.770 | -1.102* | 0.515 |
| 2+ | -0.019 | 0.194 | -1.196+ | 0.709 | -0.581 | 0.652 |
| ***Female*** | -0.370** | 0.172 | 1.040* | 0.504 | -1.212* | 0.494 |
| *Age at dissolution* | | | | | | |
| 26-34 | -0.443** | 0.183 | —[a] | | —[a] | |
| 35 and over | -1.143*** | 0.216 | -2.474*** | 0.465 | -1.015** | 0.367 |
| *Type of dissolution* | | | | | | |
| widowed | -0.600*** | 0.186 | -1.992+ | 0.622 | 0.443 | 0.499 |
| *Education* | | | | | | |
| Elementary | 0.264+ | 0.156 | -0.231 | 0.483 | -0.226 | 0.628 |
| Middle school | 0.978*** | 0.283 | -0.335 | 0.690 | 0.563 | 0.569 |
| High school or above | -0.003 | 0.353 | -0.671 | 0.726 | 0.560 | 0.831 |
| *Occupation* | | | | | | |
| worker | 0.123 | 0.184 | 0.668 | 0.628 | 0.963+ | 0.572 |
| Cadre | -0.109 | 0.225 | 1.485* | 0.681 | 1.701** | 0.633 |
| Other | -0.251 | 0.208 | 0.979 | 0.626 | -0.928 | 0.835 |
| *Father's occupation* | | | | | | |
| worker | 0.053 | 0.240 | -2.252** | 0.745 | -0.614 | 0.695 |
| Cadre | -0.622+ | 0.358 | -0.292 | 0.713 | 0.153 | 0.642 |
| Other | -0.615+ | 0.356 | -1.949* | 0.876 | —[a] | |
| *Region* | | | | | | |
| Central region | 0.522** | 0.197 | 0.950+ | 0.566 | —[a] | |
| Eastern region | 0.201 | 0.174 | -0.344 | 0.523 | —[a] | |
| Constant | -1.447*** | 0.261 | 0.878 | 0.878 | -2.684*** | 0.528 |

*Note*: None is the omitted category for number of children, less than 26 for age at dissolution, divorced for type of dissolution, illiteracy for education, farmer for occupation, farmer for father's occupation, and western region for region.

a ≤25 and 26-34 were combined in Periods 2 and 3, because of small number in the these two categeories. This is also the reason why we omitted the region variable in Period 3.

+p<0.1, *p<0.05 **p<0.01 ***p<0.001