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## Divorce Chinese Style

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# Divorce Chinese Style

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**Abstract:** This study investigates Chinese-style divorce during China's transformation period from 1970 to 2012. Specifically, the study examines the trend development of divorce, and demonstrates how marriage formation pathways and individual socioeconomic characteristics are associated with the likelihood of divorce across time. Event-history analysis is applied to longitudinal data from the China Family Panel Studies (2010-2012 waves). The results show a threefold increase in divorce from the pre-1990s to the 1990s. Surprisingly, the trend shifted to a plateau toward the 2000s. When cohabitation was in its initial stage of diffusion, individuals who cohabited prior to marriage had a substantially higher likelihood of divorce. As cohabitation became an increasingly prevalent practice in the 2000s, its effect on divorce weakened. The role of socioeconomic characteristics in divorce also varies across time. This study enriches our knowledge of family dynamics in contemporary Chinese society.

## Introduction

China's economic reform and opening-up policies since the late 1970s have been accompanied by remarkable demographic changes, such as the delay and decline of marriage, the rise of cohabitation, the increasing diversification of marriage pathways, and the rise of divorce (Ma & Rizzi, 2016; Mu & Xie, 2014; Wang & Zhou, 2010; Yeung & Hu, 2013; Yu & Xie, 2015a, 2015b). National data show that the crude divorce rates in China increased steadily during the 1990s. The speed of this increase accelerated after the turn of the new century, from 0.98 per thousand in 2001 to 2.79 per thousand in 2015 (NBS 2017).

Existing research on divorce in the context of China has largely relied on aggregated data. Zeng & Wu (2000) demonstrated a substantial rise in general divorce rates from 1982 to 1990. Wang & Zhou (2010) documented a steady increase in refined crude divorce rates from 1979 onward. However, the aggregated data cannot truly reflect the development of divorce because these data ignore the actual numbers of the population at risk for divorce, the age structure of the population, and other socioeconomic and demographic factors.

Based on individual-level data collected in Shanghai, Shaanxi, and Hebei in 1985 and a multivariate hazards model, Zeng et al. (2002) estimated the socio-demographic determinants of divorce for the 1955-1985 period. This article serves as the basis for examining divorce in China from an individual-level perspective. The authors found that early marriage and arranged marriage were associated with a high risk of divorce. Education did not play a significant role in divorce propensity. Furthermore, the number of children was negatively associated with the risk of divorce. The divorce level in urban areas was higher than that in rural areas. Due to the lack of follow-up data, we know little about divorce patterns and trends after 1985, a significant period in Chinese history with remarkable social and economic changes.

In this study, based on individual-level data from the China Family Panel Studies, we update knowledge about divorce in the context of China from three perspectives. First, we investigate how the divorce trend has developed in the past five decades, from 1970 to 2012, and discuss how socioeconomic and institutional factors at the macro level may have helped to shape the trend development. Second, we explore how marriage formation type is associated with the likelihood of divorce. In particular, we examine the roles of premarital cohabitation and conception in divorce. This is the first study in the literature on China to

address how marriage formation pathways are related to divorce propensity. Third, we examine the association between individual socioeconomic characteristics and divorce.

## **Theoretical framework**

### ***Trends of divorce***

The societal characteristics of the Second Demographic Transition (SDT) comprise industrialization, modernization, the rise of female educational attainment and economic autonomy, the value of tolerance, and norm change. With these societal conditions fulfilled, innovative family behaviors emerged, including the reduction of marriage, the rise of cohabitation, and the rise of divorce (Lesthaeghe, 2010; Lesthaeghe & Neels, 2002; Surkyn & Lesthaeghe, 2004; van de Kaa, 2011).

European societies have witnessed a steady rise of divorce from the middle of the 20<sup>th</sup> century, though variations exist across regions. The divorce rates of Southern Europe (except Portugal) have been rather low and steadily increasing, whereas the rates of Western and Northern Europe, especially Scandinavia, increased a great deal faster (Sardon, 2006). After reaching a peak at around 2000, the divorce trend in the latter region more or less levelled off or even slightly declined in some places (Andersson & Kolk, 2016; Sardon, 2006; Thomson & Eriksson, 2013). The shift from an increase to a plateau also occurred in the US, but at an earlier time. After a substantial increase from the 1950s to the early 1980s, the divorce trend of the US shifted to a plateau toward the early 1990s (Bumpass & Sweet, 1989; Castro Martin & Bumpass, 1989; Goldstein, 1999; Raley & Bumpass, 2003; Teachman, 2002).

In China, marriage was traditionally arranged by parents (Ye, 1992). Upon marriage, the woman would move to her husband's family and depend on her husband for economic resources (Murphy, Tao & Lu, 2011). Divorce was rather uncommon. If a marriage did fail, only the husband could initiate a divorce (Lang, 1946). Shortly after the establishment of the People's Republic of China in 1949, the first *Marriage Law* was launched in 1950. The law regulated that coerced or arranged marriages were forbidden and that everyone should enjoy the freedom to marry and divorce (Croll, 1981). Along with the land reform that guaranteed women's right to own land, women in unhappy marriages started initiating divorce (Alford & Shen, 2003; Platte, 1988).

Nonetheless, the divorce rates of China remained at a rather low level during the 1960s and 1970s. It was argued that the legal procedure of "mediation" provided by the court, the work unit, the residents' committee, and family members as a necessity in the process of

divorce impeded the rise of divorce (Platte, 1988). Under the 1981 *Marriage Law*, the requirement for mediation was abandoned, which simplified the divorce procedure (Huang, 2005; Platte, 1988). According to Firedberg (1998), the liberalization of legislation, which simplified the divorce procedure, should lead to an increase in divorce rates. In 2001, the amendment to the law stated that unilateral divorce was allowed in circumstances of domestic violence and extramarital relationships. The innocent party could seek damages from the guilty party (Sun & Zhao, 2016). This divorce reform may led to an increase in divorce as well.

China's remarkable socioeconomic changes since the late 1970s may play an important role in shaping the development of the divorce trend. The year of 1978 marked a turning point in contemporary Chinese history: in that year, the country started its economic reform and opened itself up to foreign investment. Its transformation to "market socialism" not only yielded industrialization and economic development but also resulted in immense changes in Chinese society (Chen, 2002; Jackson, 1992). The expansion of education and the prosperity of the job market provided both women and men with opportunities to seek personal achievements (Alford & Shen, 2003; Dommaraju & Jones, 2011; Yeung & Hu, 2013; Wang, 2001; Wang & Zhou, 2010). Furthermore, exposure to Western ideas and culture gave rise to changes in attitudes toward marriage, divorce, and the standards for a happy family. The Chinese have become more open and more tolerant of different lifestyles, including divorce (Wang & Zhou, 2010; Yu & Xie, 2015b).

Hypothesis 1: Based on the theory of the SDT and the divorce trend development in Western societies and given China's substantial socioeconomic changes since the late 1970s as well as the liberalization of the divorce procedure from 1981, we expect to see a rise in the divorce trend in China from the 1980s onward.

### ***Union formation type and divorce***

A large body of research has addressed the link between union formation type and divorce, particularly in the context of industrialized societies. Christensen & Meissner (1953, 1956) were the first to address the link between premarital conception and divorce. They found a disproportionately higher likelihood of divorce among couples who entered marriage subsequent to pregnancy in the US. Studies of different developed societies have consistently supported this knowledge (see Christensen, 1960, 1963; Coombs & Zumeta, 1970; Furstenberg, 1976; Teachman, 1982 for the context of the US; Balakrishnan et al., 1987 for the context of Canada; Liu, 2001 for the context of Sweden). According to Balakrishnan et al.

(1987), the process of courtship and dating allows couples to evaluate each other as potential partners and parents and provides the possibility to terminate the relationship if one party does not find the other suitable. Conceiving a child during the dating period increases the social cost of ending the relationship and the likelihood of marrying a partner that would have otherwise been rejected. In addition, marriage following unplanned conception is likely to occur at a time in a couple's lives when they have not yet accumulated sufficient economic resources to sustain a stable family life.

From the 1970s, as cohabitation emerged and developed into a common family behavior in industrialized societies, the role of cohabitation in marriage dissolution began to draw attention in social science research. Researchers often view cohabitation as a testing period to evaluate the compatibility of a relationship (Bumpass & Sweet, 1989; Bumpass et al., 1991). Cohabitation offers couples an opportunity to learn about each other, strengthen their bonds, and make a more "informed" choice to marry, which should increase their chances of a successful marriage (Lyngstad & Jalovaara, 2010; Smock, 2000). In other words, cohabitation should function to screen out risky relationships, specifically inappropriate matches (Dush, Cohan, & Amato, 2003). The prevalence of cohabitation and of separation of cohabiting relationships before marriage indirectly help to limit the rise of divorce (Bumpass and Sweet, 1989; Goldstein, 1999).

Nonetheless, empirical research has proved with remarkable consistency that cohabitation prior to marriage is closely associated with a higher likelihood of divorce (Balakrishnan et al., 1987; Bennett, Blank, & Bloom, 1988; Booth & Johnson, 1988; Dush, Cohan, & Amato, 2003; Hall & Zhao, 1995; Hoem & Hoem, 1992; Lillard, Brien, & Waite, 1995; Smock, 2000; Thomson & Colella, 1992). There are several explanations for these findings. First, self-selection is commonly used to account for the higher divorce rates of premarital cohabiters. Individuals who cohabit to test a relationship may have lower-quality relationships than those who feel no need to test the relationship (Thomson & Colella, 1992). Second, those who cohabit may have a weaker commitment to the institution of marriage than non-cohabiters and may therefore be more likely to dissolve a problematic marriage (Bennett, Blank, & Bloom, 1988; Thomson & Colella, 1992). Third, for some cohabiters, cohabitation is a way to signal liberal, individualistic values (Hoem & Hoem, 1992). When confronting difficulties in marriage, those who view themselves as individuals who share a life are more likely to leave the relationship than those who view themselves as two halves of a couple (Thomson & Colella, 1992).

The effect of cohabitation on divorce varies across time and contexts. Research shows that in contexts in which cohabitation is in its initial stage of diffusion, people who start a union by cohabitation have higher likelihood of divorce than others. When cohabitation becomes a majority behavior and a modal way of marriage entry, the effect of cohabitation on divorce weakens (Brown et al., 2006; de Vaus et al., 2005; Hewitt & De Vaus, 2009; Lyngstad & Jalovaara 2010; Manning & Cohen, 2012; Reinhold, 2010; Smock, 2000).

In China, direct marriage (without premarital conception or a prior period of cohabitation) has been the predominant type of marriage formation. In the 1960s and 1970s, more than 70% of all first marriages were direct marriages; the remaining 30% of marriages were subsequent to premarital conception (Ma & Rizzi, 2016). As cohabitation emerged as an innovative family behavior in the 1980s and quickly spread, marriage pathways became more diversified (Ma & Rizzi, 2016; Yu & Xie, 2015b). In the 2000s, 50% of first marriages were formed directly, 26% of marriages were subsequent to premarital conception without a prior period of cohabitation, and the remaining 24% were preceded by cohabitation or a combination of cohabitation and conception (Ma & Rizzi, 2016). Between 2010 and 2012, approximately 40% of marriages were formed through cohabitation (Yu & Xie, 2015b).

Based on findings regarding the effect of premarital cohabitation and conception on divorce in Western societies, given the diffusion process of cohabitation in China from an innovative family behavior to an increasingly accepted family behavior, and given the long existence of marriage subsequent to pregnancy in Chinese society, we expect the following:

Hypothesis 2a: During the initial stage of cohabitation diffusion, the association between cohabitation and divorce should be strongly positive; when cohabitation becomes an increasingly prevalent behavior, the role of cohabitation in divorce should weaken.

Hypothesis 2b: The association of premarital conception (without cohabitation) and divorce should be positively stable during our entire observation period.

### ***Socioeconomic status and divorce***

Individuals' socioeconomic characteristics are important indicators of marriage stability. The literature has demonstrated the importance of education, a frequently used proxy for socioeconomic status, for divorce. According to Becker (1981), as women's opportunities in education and the labor market improve, they depend less on marriage for economic gains. Hence, women with more education more easily terminate an unhappy marriage. Furthermore, divorce is costly. The highly educated may have more socioeconomic resources

to handle divorce and life after divorce (Blossfeld et al. 1995). However, some researchers argue that the highly educated may have stable marriages because they are more likely to find a matching partner and to have higher communication skills, which are important grounds for marriage stability (Hoem, 1997).

The effect of socioeconomic status on divorce may vary across time and contexts. According to Goode's theory of modernization (1960, 1972, 1993), during the early stages of modernization when social and economic barriers for divorce are high, people with better socioeconomic resources, such as the highly educated, are more prone to divorce, largely because they have resources to manage life after divorce. As the level of modernization increases, this positive relationship should disappear. Instead, divorce should become more affordable for those with fewer socioeconomic resources. Empirical research has confirmed the theory of modernization (see Chan & Halpin, 2005 for UK; Hoem, 1997 for Sweden; Härkönen & Dronkers, 2006 for 17 European countries). For example, a comparative study of Härkönen and Dronkers (2006) on European societies shows positive relationships between education and divorce in contexts in which the social and economic costs of divorce are high and no or negative relationships when the costs are lower.

In China, educational attainment functions as an important indicator of socioeconomic characteristics. The large-scale higher education expansion started in 1999 after the implementation of the college expansion policy (Meng, Shen & Xue, 2013; Yeung & Hu 2013). Prior to the expansion, the proportion of the Chinese population with higher educational attainment was rather low. In 1978, the gross enrollment ratio to tertiary education was only 0.72%. This figure rose to approximately 40% by 2014 (World Bank, 2016). Hence, during the 1970s, the 1980s, and most of the 1990s, secondary school educational attainment could be viewed as a high educational level.

Another important indicator for individual socioeconomic characteristics in China is *hukou* (household registration) status. China's population is divided into agricultural (or rural) *hukou* and non-agricultural (or urban) *hukou*. Social welfare services are tightly bound to one's *hukou* status. Normally, those with urban *hukou* enjoy better socioeconomic resources than do those with rural *hukou*. It has been argued that this system is one of the main driving forces behind social inequality in China (Wu and Treiman 2004).

Based on Goode's theory of modernization and given China's specific contexts in economic development, education expansion, and the rural-urban *hukou* division system, we hypothesize the following:



Hypothesis 3: During the early stages of China's economic reform (the 1970s-1980s), individuals with better economic resources, such as those who were secondary educated and urbanites, should be at a higher risk of divorce than others. As China's modernization level increased, especially over the turn of the new century, individuals with fewer socioeconomic resources, such as those with low education and those who were rural born should become active practitioners of divorce.

## **Data and methods**

The data used for the analyses come from the China Family Panel Studies (CFPS waves 2010 and 2012), launched by the Institute of Social Science Survey of Peking University. CFPS is a nationwide, comprehensive, longitudinal social survey intended to serve research needs on a variety of subjects in contemporary China. It gathers a wealth of information, including individuals' life history with regard to educational attainment, cohabitation, civil status change and childbearing. In 2010, 14,960 households from 25 provinces were interviewed, and 85% were followed in 2012.

We apply event-history analysis (or hazard regression model) to test our hypotheses. Our observation starts at the month of first marriage and stops at the month of divorce. If there is no occurrence of divorce, the observation censors at 25 years after marriage, spousal death, or the last interview, whichever comes first. Episodes before 1970 were left truncated due to an insufficient number of observations during those periods. Hence, our observation period ranges from 1970 to 2012. Altogether, 32,169 ever-married respondents (including 16,619 women and 15,550 men) are included in the analysis. Within our observation window, 911 divorces occurred, accounting for 3% of all first marriages.

Table 1 presents the descriptive statistics of the variables used for analysis. Duration of marriage is the basic time factor for this study. A large share of divorces occurred from three to 15 years into married life.

Calendar periods are grouped into the 1970s-1980s, the 1990s, and the 2000s. The 1970s and the 1980s were categorized into one group due to small number of divorce cases during this period. On one hand, these calendar periods represent a consecutive process of China's economic development and modernization, from the commencement of economic reform and opening up to the deepening stage of the reform and the period of economic take-off that led China to become one of the world's largest economies. On the other hand, these periods

represent a diffusion process of cohabitation in Chinese society, from a marginalized and then innovative practice to a socially acceptable family behavior.

Marriage type is constructed according to two demographic markers: premarital cohabitation and conception. Based on whether our respondents cohabited with their first spouse prior to marriage and whether the conception of the first live birth predated the first marriage (subtracting nine months from the month of the first live birth to obtain the timing of conception), we categorize marriage type into four exclusive marriage formation pathways. Individuals who entered marriage without a prior period of cohabitation or premarital conception are labelled “direct marriage”; those who entered marriage subsequent to conception (without cohabitation) are labelled “conception marriage”; those who cohabited prior to marriage (without premarital conception) are specified as “cohabitation marriage”; and those who experienced both cohabitation and conception prior to marriage are specified as “conception and cohabitation marriage” (or C+C marriage). The descriptive statistics in Table 1 show that 62% of our sample entered marriage directly, and 33% entered marriage after conceiving the first child. The rest entered marriage via cohabitation or a combination of cohabitation and conception.

Education and *hukou* origin are used as proxies for individuals’ socioeconomic characteristics in this study. Education is grouped into primary or below, secondary, and tertiary. Table 1 shows that 52% of our studied population are low educated, 46% are secondary educated, and only 2% obtained tertiary education. Having no access to our respondents’ *hukou* status change before the occurrence of divorce, we use *hukou* status at age 12 as a time-fixed variable. We find that 86% of our sample have a rural *hukou* origin, which is in line with the distribution of China’s rural population.

Some variables are controlled for, including parity (time-variant variable), age at marriage (15-19, 20-24, 25-29, and 30+ years), how couples met (by themselves, via introduction by friends and relatives, via arrangement by marriage agency or parents, and other), ethnicity (Han ethnic group and other ethnic groups), parents’ education (primary or below and junior secondary or above), and parents’ political status (communist or other party members and the general public).

Table 1 shows that 41% of our sample are one-child parents, 58% entered their first marriage when they were 20-24 years, and 74% met their spouse through introductions by friends and relatives. In addition, 92% of our sample are Han Chinese, which is consistent

with the ethnic distribution of the Chinese population. Most of our respondents' parents were general public with low educational attainment.

Table 1. *Descriptive Statistics for Covariates Used for Analysis*

<b>Variables</b>	<b>Person-months</b>	<b>%</b>	<b>Divorces</b>	<b>%</b>
Duration of marriage				
0-1 year	36,955	16%	41	5%
1-3 years	42,132	19%	129	14%
3-6 years	38,261	17%	171	19%
6-10 years	34,625	15%	200	22%
10-15 years	30,024	13%	211	23%
15-20 years	24,862	11%	104	11%
20-25 years	20,548	9%	55	6%
<b><i>Main explanatory variables</i></b>				
Calendar periods				
1970-89	82,092	36%	104	11%
1990-99	57,767	25%	299	33%
2000-12	87,548	38%	508	56%
Marriage type				
Direct marriage	141,088	62%	566	62%
Conception marriage	74,056	33%	240	26%
Cohabitation marriage	6,530	3%	72	8%
C+C marriage	5,733	3%	33	4%
Education				
Primary or below	118,062	52%	330	36%
Secondary	103,825	46%	551	60%
Tertiary	5,520	2%	30	3%
<i>Hukou</i> origin				
Rural	195,954	86%	621	68%
Urban	31,453	14%	290	32%
<b><i>Control variables</i></b>				
Parity				
No child	47,735	21%	260	29%
1 child	93,206	41%	501	55%
2 children	55,951	25%	120	13%
3+ children	30,515	13%	30	3%

Table 1. *Continued*

<b>Variables</b>	<b>Person-months</b>	<b>%</b>	<b>Divorces</b>	<b>%</b>
Age at marriage				
15-19	29,608	13%	85	9%
20-24	132,525	58%	479	53%
25-29	55,429	24%	278	31%
30+	9,845	4%	69	8%
How couples met				
By themselves	43,709	19%	223	24%
Introduced	168,808	74%	617	68%
Arranged	10,596	5%	40	4%
Other	4,294	2%	31	3%
Ethnicity				
Han ethnic group	209,984	92%	828	91%
Other ethnic groups	17,423	8%	83	9%
Father's education				
Illiterate or primary	189,554	83%	661	73%
Junior secondary or above	37,853	17%	250	27%
Mother's education				
Illiterate or primary	211,487	93%	767	84%
Junior secondary or above	15,920	7%	144	16%
Father's political status				
Communist/other party	30,229	13%	152	17%
General public	197,178	87%	759	83%
Mother's political status				
Communist/other party	5,696	3%	51	6%
General public	221,711	97%	860	94%

*Source: Authors' own calculations based on CFPS (2010-2012)*

## Findings

### *Results of main effects models*

Table 2 presents the estimated relative risks of divorce in China for the period of 1970-2012 from the main effects models. Model 1 is the simplest model, including the basic time factor and calendar periods. Model 2 involves variables of prime interest, including marriage type, education, and *hukou* origin. Model 3 and Model 4 further include parity and other control variables stepwise.

The estimate for calendar periods shows a remarkable variation in the divorce trend. Model 1 reveals a threefold increase in the divorce risk from the 1970s-1980s to the 1990s. However, the increasing speed substantially slowed toward the 2000s. The involvement of other variables in Models 2-4 gradually reduces the magnitude of the association between calendar periods and divorce, although it does not make a significant difference for the trend development. Model 4 shows that the divorce trend more or less shifted to a plateau from the 1990s to the 2000s.

The estimations in Models 2-4 demonstrate a close association between marriage formation type and divorce. Model 2 shows that relative to direct marriage, conception marriage has a 21% lower risk of ending in dissolution. When the time-varying parity progression is included in the analysis (see Model 3), the negative association between conception marriage and divorce becomes positive. The involvement of other variables in Model 4 does not significantly change the pattern. All else equal, individuals who conceived their first child prior to marriage had a 19% higher risk of divorce than those who entered marriage directly. In addition, Models 2-4 consistently show a positive association between cohabitation and divorce. Individuals who cohabited prior to marriage had a 110% higher risk of divorce than those who entered marriage directly (see Model 4). Relative to the same group, those who not only cohabited but also conceived a child prior to marriage had a 95% higher risk of divorce.

These findings indicate that the role of cohabitation in divorce is notably strong. Cohabitation and a combination of cohabitation and conception prior to marriage substantially increase the likelihood of divorce. The role of premarital pregnancy alone (without cohabitation) is visible but is not as strong as the role of cohabitation.

Our estimations for individuals' socioeconomic characteristics show important results. Models 2-4 consistently show that individuals with a secondary educational level are most

likely to divorce, whereas those who are tertiary educated have the lowest divorce risk. In addition, urbanites have a 57% higher likelihood of experiencing divorce than the rural born when all other covariates are standardized.

Our estimations for other covariates demonstrate compelling results. The estimate for the basic time factor - duration of marriage in Model 4 shows that the risk of divorce is rather low within the first year of marriage, whereas it increases significantly thereafter. The risky stage of marriage occurs between three and 15 years into marriage. After 15 years of marriage, the likelihood of divorce shifts toward a decline.

In addition, children have a protective effect on marriage stability. The more children our respondents have, the less likely they are to divorce. Age at marriage does not make a significant difference to the divorce propensity. Arranged marriage is more likely to end in dissolution, although the estimation is not statistically significant. Minority ethnic groups have a 37% higher divorce likelihood than do Han Chinese. Furthermore, father's and mother's educational attainment significantly increases their children's divorce propensity. The father's political status does not influence children's divorce propensity, whereas that of the mother substantially increases children's likelihood of divorce.

To explore the divorce trend development in more detail, we replaced calendar periods in Model 4 with single years while standardizing for all other covariates (see Appendix 1). Although the estimated trend tends to fluctuate largely due to the reduction of observations within each calendar year, the trend development is still worth noting. In the 1970s, divorce was rather uncommon. An increase in divorce began in the 1980s and accelerated remarkably in the 1990s. From the late 1990s onward, the rising trend bent into the shape of roller coaster. Two downward spikes are visible after 1997 and 2008, the outbreak of the Asian Financial Crisis and the recent Global Economic Recession, respectively. Although the negative effect of the two crises on China was relatively limited (Ba, 2003; Das, 2013), the simultaneity of the potential economic uncertainty at the societal level and the divorce reduction seemingly suggests that couples may reduce their likelihood of divorce when confronting economic challenges. Additionally, the upward trend of divorce in the early 2000s may imply a propelling role of the 2001 divorce policy reform.

Table 2. *Relative Risks of Divorce, China, 1970-2012*

	<b>Model 1</b>			<b>Model 2</b>			<b>Model 3</b>			<b>Model 4</b>		
	Haz. Ratio	Std. Err.		Haz. Ratio	Std. Err.		Haz. Ratio	Std. Err.		Haz. Ratio	Std. Err.	
Duration of marriage												
0-1 year	0.65	0.12	*	0.64	0.11	*	0.35	0.06	***	0.35	0.06	***
1-3 years	1			1			1			1		
3-6 years	0.86	0.10		0.89	0.10		1.45	0.17	**	1.47	0.18	***
6-10 years	0.73	0.08	**	0.77	0.09	*	1.65	0.20	***	1.72	0.21	***
10-15 years	0.60	0.07	***	0.66	0.08	***	1.68	0.20	***	1.80	0.22	***
15-20 years	0.31	0.04	***	0.35	0.05	***	0.99	0.14		1.09	0.16	
20-25 years	0.19	0.03	***	0.22	0.04	***	0.64	0.11	**	0.72	0.13	
<i>Main explanatory variables</i>												
Calendar periods												
1970-89	1			1			1			1		
1990-99	3.36	0.38	***	3.13	0.36	***	3.13	0.36	***	3.03	0.36	***
2000-12	4.42	0.48	***	3.86	0.44	***	3.50	0.41	***	3.15	0.37	***
Marriage type												
Direct marriage				1			1			1		
Conception marriage				0.79	0.06	**	1.17	0.10	*	1.19	0.10	*
Cohabitation marriage				2.31	0.30	***	2.17	0.28	***	2.10	0.28	***
C+C marriage				1.40	0.26		1.96	0.36	***	1.95	0.36	***
Education												
Primary or below				0.82	0.06	**	0.87	0.07		0.87	0.07	
Secondary				1			1			1		
Tertiary				0.73	0.14		0.70	0.13		0.60	0.12	**
<i>Hukou</i> origin												
Rural				1			1			1		
Urban				2.39	0.19	***	1.76	0.14	***	1.57	0.14	***
<i>Control variables</i>												
Parity												
No child							1			1		
1 child							0.24	0.02	***	0.25	0.02	***
2 children							0.09	0.01	***	0.09	0.01	***
3+ children							0.05	0.01	***	0.05	0.01	***

Table 2. *Continued*

	<b>Model 1</b>		<b>Model 2</b>		<b>Model 3</b>		<b>Model 4</b>		
	Haz. Ratio	Std. Err.	Haz. Ratio	Std. Err.	Haz. Ratio	Std. Err.	Haz. Ratio	Std. Err.	
Age at marriage									
15-19							1.13	0.14	
20-24							1		
25-29							1.12	0.09	
30+							1.28	0.17	
How couples met									
By themselves							1		
Introduced							0.98	0.08	
Arranged							1.33	0.24	
Other							1.57	0.30	*
Ethnicity									
Han ethnic group							1		
Other ethnic groups							1.37	0.16	**
Father's education									
Illiterate or primary							1		
Junior secondary or above							1.28	0.11	**
Mother's education									
Illiterate or primary							1		
Junior secondary or above							1.33	0.14	**
Father's political status									
Communist/other party							0.93	0.09	
General public							1		
Mother's political status									
Communist/other party							1.46	0.22	*
General public							1		
Log likelihood	-4848.70		-4737.66		-4526.70		-4501.33		
Prob > chi2	0.00		0.00		0.00		0.00		

Notes: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Source: Authors' own calculation based on CFPS (2010-2012)

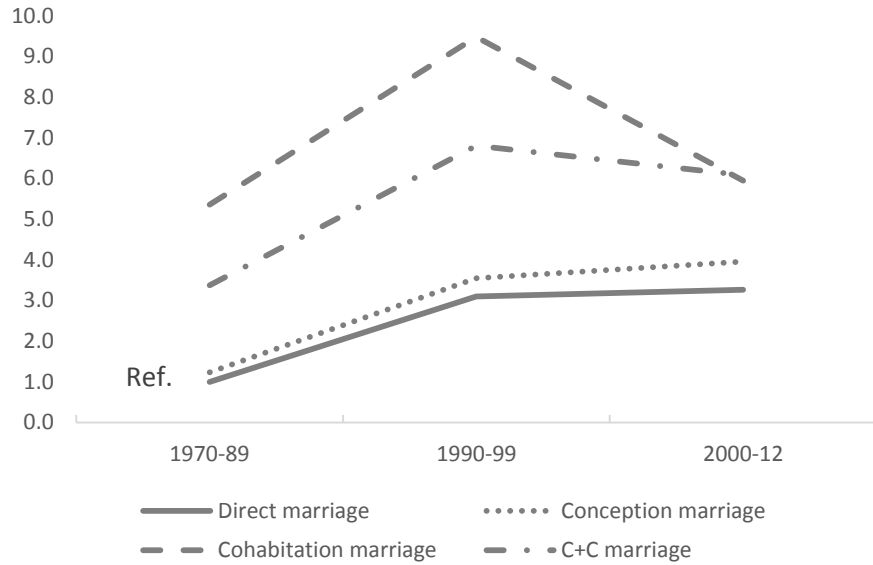


### ***Results of interaction models***

To investigate how the association between marriage formation type and divorce may vary across time, we estimated the interaction term of marriage type and calendar periods while standardizing for all other covariates based on Model 4. The results are presented in Figure 1 (see Appendix 2 for the estimates and level of significance). First, we can see that individuals who cohabited (without conceiving a child) prior to marriage had the highest likelihood of divorce over the entire observation period. They were followed by cohabiters who conceived a child before marriage. The divorce patterns and trends for direct marriage and conception marriage resemble each other, with those who conceived a child prior to marriage having a slightly higher risk of divorce than those who entered marriage directly. Furthermore, Figure 1 displays an over-time variation of the association between marriage type and calendar periods. From the 1970s to the 1990s, a significant surge in divorce occurred among all types of marriage groups. However, a diversity of trend development occurred toward the 2000s. The trend for cohabitation marriage substantially declined, and the trends for direct marriage, conception marriage, and C+C marriage more or less plateaued.

These results suggest that when cohabitation was a marginal or an innovative family behavior during the 1970s-1990s, its positive role in divorce was rather pronounced. When cohabitation became an increasingly prevalent practice in the 2000s, its positive effect on divorce substantially reduced. In comparison, the role of premarital conception in divorce was visible but rather weak during the entire observation period. In addition, people who entered marriage via a combination of cohabitation and conception prior to marriage had lower divorce risks than cohabiters who did not conceive a child. This finding reflects the protective effect of having a child on marriage stability.

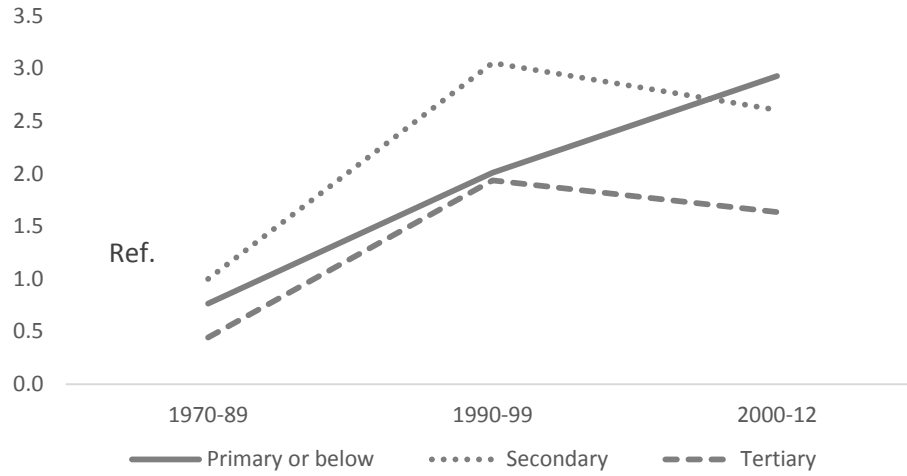
FIGURE 1. INTERACTIVE EFFECT OF MARRIAGE TYPE AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, DIRECT MARRIAGE).



*Source: Authors' own calculation based on CFPS (2010-2012 waves)*

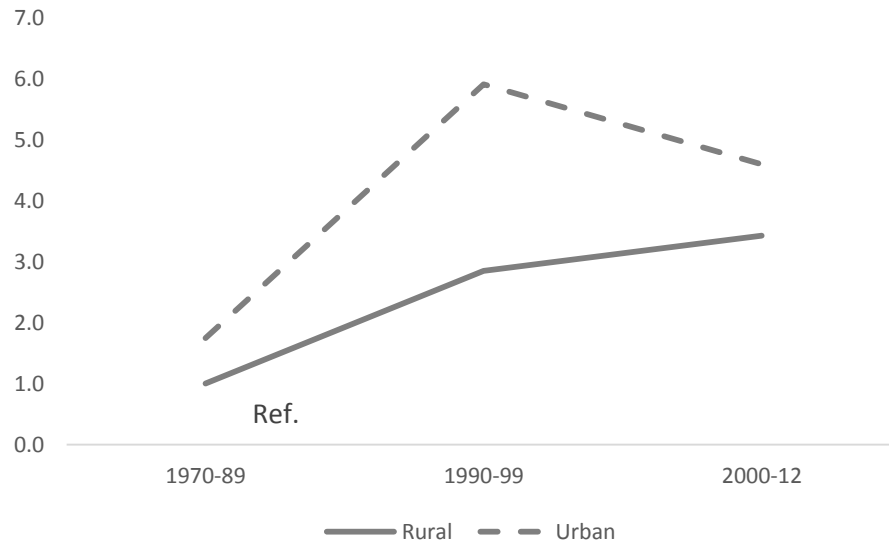
Figures 2 and 3 demonstrate how the effect of socioeconomic characteristics on divorce may change over time (see Appendices 3a and 3b for exact estimates and level of significance). Figure 2 presents the interactive effect of education and calendar periods on divorce while standardizing for all other covariates in Model 4. It shows that during most of the observation periods, the secondary educated had higher likelihood of divorce than others did, whereas the tertiary educated were the least likely to divorce. The divorce trends for all education groups experienced a notable escalation from the pre-1990s to the 1990s. Toward the 2000s, the trends developed in different directions. The divorce trends for the secondary and tertiary educated plateaued, whereas the trend for the low educated continued to increase significantly and even surpassed that of the secondary educated.

FIGURE 2. INTERACTIVE EFFECT OF EDUCATION AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, SECONDARY EDUCATION).



*Source: Authors' own calculation based on CFPS (2010-2012 waves)*

FIGURE 3. INTERACTIVE EFFECT OF *HUKOU* ORIGIN AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, RURAL ORIGIN).



*Source: Authors' own calculation based on CFPS (2010-2012 waves)*

Figure 3 demonstrates how *hukou* origin and calendar periods interactively affect divorce likelihood (based on Model 4). It shows that urbanites were at the forefront of divorce over the entire observation period. During the 1990s, when the rise of divorce was particularly conspicuous, urbanites had a significantly higher likelihood of divorce than the rural born. In the 2000s, when the divorce trend for the urbanites shifted downward, the trend for the rural born continued to increase, and the gap between urbanites and the rural-born narrowed.

## **Discussion and conclusion**

In this study, we explored divorce patterns and trends in China. We enrich knowledge of divorce in the Chinese context by focusing on the period 1970-2012, when substantial socioeconomic and demographic changes occurred. Based on previous research and theoretical frameworks, we proposed four hypotheses. To test these hypotheses, we applied event-history analysis to longitudinal data from the China Family Panel Studies (2010-2012 waves).

Our estimations for calendar periods and single years from the main effects models partially confirmed Hypothesis 1. We found a slow increase of divorce in the 1980s and an elevated increase of divorce during most of the 1990s. The marriage policy change in 1981, which simplified the divorce procedure, arguably contributed to the slight increase of divorce in the 1980s. China's economic development, the increasing autonomy of women, the increasing openness of Chinese society to the West, and the increasing tolerance of divorce played important roles in elevating the trend of divorce in the 1990s. As predicted by the SDT theory, with the societal conditions of the SDT fulfilled, the demographic features of the SDT, including the rise of divorce, manifested.

Surprisingly, the rise of divorce shifted to a plateau in the 2000s. This shift from an increase to a plateau is similar to findings for the developed Western and Northern European countries. Our estimation for single years demonstrated a roller-coaster trend of divorce during 2000-2012. Although the fluctuation might be due to the small number of observations within each calendar year, the two downward spikes after 1997 and 2008

support the argument for the negative effect of economic uncertainty on divorce (see Cohen, 2014). It seems that when confronting economic challenges at the societal level, couples tended to restrain their divorce propensity and strengthen family bonds to overcome difficult economic situations. In addition, the upward trend of divorce in the early 2000s may be partially due to the propelling effect of the 2001 divorce policy reform, which allows for unilateral divorce in certain circumstances. When updated data are available, future research may investigate whether the roller-coaster divorce trend that we observed in this study for the 2000s is a stable trend or only a random variation.

Our estimation for marriage type from the main effects models showed that relative to direct marriage, conception marriage and cohabitation-related marriage (including cohabitation marriage and C+C marriage) were at a higher risk of ending in divorce. The positive role of cohabitation in divorce was particularly notable, whereas the role of premarital conception alone was rather weak.

Our estimation for the interactive term of marriage type and calendar periods confirmed Hypothesis 2a. During the 1980s and 1990s, when cohabitation emerged and quickly spread in China, individuals who cohabited before marriage had a substantially higher likelihood of divorce than others did. In the 2000s, when cohabitation became an increasingly prevalent family behavior, the effect of cohabitation on divorce notably reduced. The findings for the Chinese context resemble findings for developed Western and Northern European countries. They consolidate existing knowledge that when cohabitation is a minority practice, its effect on divorce is strong. As cohabitation becomes common practice, its effect on divorce weakens.

In addition, Hypothesis 2b was confirmed. The positive role of premarital conception on divorce was stable and visible across the entire observation period, although its role was rather weak. The divorce trend of conception marriage almost paralleled that of direct marriage over time. This is arguably because conception marriage has vigorously existed in contemporary Chinese society for a long time as a second dominant marriage behavior.

Our findings also confirmed Hypothesis 3 and supported Goode's theory of modernization. During China's early stages of economic development, namely, the initial and deepening stages of economic reform in the 1970s-1980s and the 1990s, individuals with better economic resources, such as those who were secondary educated and urbanites, were more likely to divorce than others were. (Prior to China's education expansion which began from the late 1990s, the proportion of population who obtained tertiary education was rather small. The secondary educated could be viewed as a group with more socioeconomic resources.) Over the turn of the new century, as China developed into a leading world economy and its level of modernization reached a new milestone, the divorce trends for the secondary and tertiary educated as well as urbanites declined, whereas individuals with fewer socioeconomic resources, such as the low educated and the rural born became active practitioners of divorce.

This study enriches our knowledge of divorce patterns and trends in contemporary Chinese society. Some of our findings resemble those for developed societies in the West, such as the shift of the divorce trend from a rise to a plateau and the over-time changes of the effect of cohabitation as well as socioeconomic characteristics on divorce. It is notable that it took the US and the Western and Northern European societies approximately 40-50 years to complete the rise to a plateau process, whereas it took China only 20 years to reach this plateau.

Some findings of this study are typical of Chinese society. The role of premarital conception (without cohabitation) in divorce was rather weak over the entire observation period. We argue that the long existence of conception marriage as an important marriage formation behavior in Chinese society is an important factor that drives the divorce trend for conception marriage closer to that of direct marriage.

This study has limitations. We were unable to estimate directly how the separation of unsuccessful cohabitation unions prior to first marriage may influence first marriage stability. Nevertheless, we argue that the increasing prevalence of cohabitation and the accordingly increasing dissolution of unsuccessful cohabiting relationships prior to marriage contributed to the plateau of divorce in the 2000s by removing the disruptions that would have occurred after marriage. In addition, due to a lack of information on

migration history, to avoid an anticipatory analysis, we used our respondents' *hukou* status at age 12 as an indicator of divorce. As a robustness check, we used *hukou* status change between age 12 and the interview time. The estimated results for those who did not change *hukou* status resemble the results of this study. Those who changed *hukou* status from rural to urban had a 37% higher risk of divorce than those who continuously held a rural *hukou* status. In addition, we attempted to model for women and men, respectively. The estimated results from the main effects models and the interaction models resemble the results presented in this paper.

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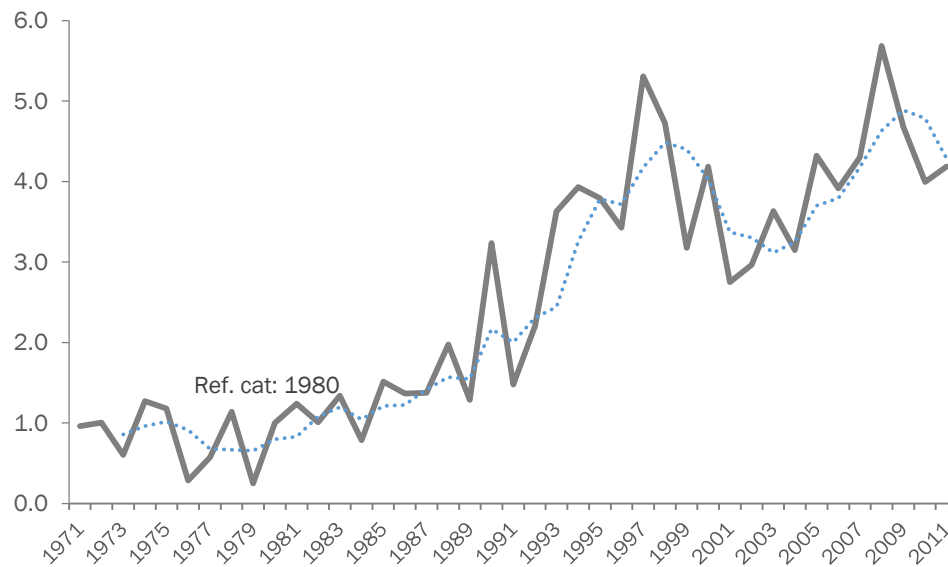
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APPENDIX 1. RELATIVE RISKS OF DIVORCE BY SINGLE YEARS WITH FIVE-YEAR MOVING AVERAGE (CHINA, 1970-2012) (REFERENCE CATEGORY: 1980).



Source: Authors' own calculation based on CFPS (2010-2012 waves)

APPENDIX 2 INTERACTIVE EFFECT OF MARRIAGE TYPE AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, DIRECT MARRIAGE).

	Haz. Ratio	Std. Err.	P>z
1970-89, Direct marriage (Ref.)	1		
1970-89, Conception marriage	1.2	0.32	
1970-89, Cohabitation marriage	5.3	2.69	***
1970-89, C+C marriage	3.2	3.21	
1990-99, Direct marriage	3.1	0.42	***
1990-99, Conception marriage	3.5	0.59	***
1990-99, Cohabitation marriage	9.6	2.71	***
1990-99, C+C marriage	6.7	2.86	***
2000-12, Direct marriage	3.3	0.44	***
2000-12, Conception marriage	4.0	0.61	***
2000-12, Cohabitation marriage	6.0	1.11	***
2000-12, C+C marriage	6.1	1.43	***

Notes: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Estimates for other variables resemble results presented in Model 4, Table 2 and are thus not shown

APPENDIX 3a) INTERACTIVE EFFECT OF EDUCATION AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, SECONDARY EDUCATION).

	Haz. Ratio	Std. Err.	P>z
1970-89, Primary or below	0.77	0.16	
1970-89, Secondary (Ref.)	1		
1970-89, Tertiary	0.44	0.45	
1990-99, Primary or below	2.01	0.38	***
1990-99, Secondary	3.06	0.52	***
1990-99, Tertiary	1.94	0.85	
2000-12, Primary or below	2.93	0.53	***
2000-12, Secondary	2.61	0.45	***
2000-12, Tertiary	1.64	0.44	

Notes: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Estimates for other variables resemble results presented in Model 4, Table 2 and are thus not shown

APPENDIX 3b) INTERACTIVE EFFECT OF *HUKOU* ORIGIN AND CALENDAR PERIODS ON DIVORCE, CHINA (1970-2012) (REFERENCE CATEGORY: 1970-89, RURAL ORIGIN).

	Haz. Ratio	Std. Err.	P>z
1970-89, Rural (Ref.)	1		
1970-89, Urban	1.75	0.41	**
1990-99, Rural	2.85	0.39	***
1990-99, Urban	5.91	0.96	***
2000-12, Rural	3.43	0.46	***
2000-12, Urban	4.60	0.76	***

Notes: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Estimates for other variables resemble results presented in Model 4, Table 2 and are thus not shown