

Cohabitation in China: Trends and Determinants

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ALTHOUGH THE ROLE and meaning of cohabitation in family systems vary substantially across countries and subgroups, cohabitation has become more prevalent globally in recent decades. In Western countries it has come to resemble marriage (Bumpass 1990; Cherlin 2004; Kiernan 2001; Lesthaeghe 1995; van de Kaa 1987). Cohabitation in China, however, has seldom been studied—mainly owing to the lack of suitable data. The topic stands in contrast to the many well-documented family changes China has experienced since the 1970s, including a sharp decline in fertility and a rise in age at first marriage (Xie 2011; Yu and Xie 2013).

In this study, we make use of cohabitation data collected in the 2010 and 2012 China Family Panel Studies, a nationally representative longitudinal household survey. Our results provide the first national estimates of the prevalence and determinants of cohabitation in China, highlighting the roles of ideational and institutional changes. We provide background on the place of cohabitation within wider demographic transitions over the past several decades, describe the trends and levels of cohabitation across successive birth cohorts in China, and estimate effects of demographic and socioeconomic determinants on cohabitation in China.

Cohabitation as a form of union

Cohabitation and the Second Demographic Transition

After attaining low mortality and fertility levels, usually seen as signaling completion of the demographic transition, developed countries in the 1970s began to experience further changes in family behavior, such as increases in nonmarital fertility, age at first marriage, and divorce. Some scholars viewed such family changes as inaugurating a new stage of demographic development, which they called the Second Demographic Transition (SDT) (van de

Kaa 1987). Cohabitation is considered one of the signature elements of the SDT (Lesthaeghe and Neidert 2006; McLanahan 2004; Sobotka, Zeman, and Kantorová 2003; Surkyn and Lesthaeghe 2004). While the prevalence of cohabiting unions varies by region, numerous studies have shown growing cohabitation rates during recent decades in both Western societies and some Asian societies (Dominguez-Folgueras and Castro-Martin 2013; Heuveline and Timberlake 2004; Raymo, Iwasawa, and Bumpuss 2009; Williams, Kabamalan, and Ogena 2007). The number of cohabitating couples in the United States, for example, increased from about 500,000 in 1970 to about 7 million in 2010 (US Census Bureau 2011), and the proportion of women aged 19–44 who ever cohabited increased from 33 percent in 1987 to 60 percent in 2010 (Manning 2013). Scholars have also observed a sharp increase in the prevalence of cohabitation across successive birth cohorts in many European countries (Dominguez-Folgueras and Castro-Martin 2013; Duvander 1999).

Several explanations have been proposed for the emergence of cohabitation in the US and other Western countries. Some posit an ideational basis, theorizing that increases in individualism and secularism, and a concomitant decline in religious observance, have contributed toward tolerance and adoption of cohabitation as a form of union (Lesthaeghe 1983; Lesthaeghe and Surkyn 1988; Rindfuss and VandenHeuvel 1990; Thornton 1988). A second explanation considers economic development (Cherlin and Furstenberg 1988). Industrialization and modernization have improved women's social status, leading to greater gender egalitarianism, more sexual freedom, and, specifically, a reduction in the stigma attached to unmarried sexual relations—all of which have increased the likelihood of cohabitation (Bumpuss 1990). A third explanation emphasizes the mutual reinforcement of concurrent social changes during the SDT. For instance, educational expansion has led to competition between post-secondary school enrollment and marriage, which has increased the age at first marriage in the US and other Western countries. This context and the growing acceptability of premarital sex mean that union formation is increasingly likely to begin with cohabitation rather than marriage.

Most research on cohabitation has focused on developed societies such as the US and European countries. Although new research has gradually shifted attention to cohabitation in developing societies such as the Philippines and Taiwan (Williams, Kabamalan, and Ogena 2007; Yang 2004), China has remained outside this line of investigation because, until recently, the requisite data were lacking. Despite many news reports discussing the wider acceptance of cohabitation in China (e.g., Zeng 2013), knowledge about its true prevalence level has been limited. Other indicators of Chinese family behaviors have shown tremendous changes in recent decades, including declining fertility rates, increasing age at first marriage, and rising divorce rates (Goodkind 2011; Peng 2011; Wang and Zhou 2010; Xie 2011; Yu and Xie

2013). Capitalizing on recently released Chinese data, our research provides the first national estimates of cohabitation rates in China.

Social origins and determinants of cohabitation

Following World War II, cohabitation gradually became an accepted form of union formation in the US and other Western countries. According to SDT theory, societies pass through several stages in accepting and adopting cohabitation. In the first stage, cohabitation emerges as a deviant behavior that few people accept. Later in the diffusion process, cohabitation is adopted by more people and functions as a prelude to (or trial) marriage. Cohabitation then shifts to being an alternative setting for childbearing. And ultimately, cohabitation and marriage become equivalent (Kiernan 2002). Countries are at different stages of acceptance, adoption, and interpretation of cohabitation (Heuveline and Timberlake 2004). In France, cohabitation is more prevalent and more like marriage than it is in the US, while in Spain it more often functions as a prelude to marriage.

The prevalence of cohabitation also varies substantially across subgroups in the US and other Western countries. Studies have found higher cohabitation rates among people with less education, fewer financial resources, and limited or no migration experience (e.g., Bumpass and Lu 2000; Katz 2001; Nock 1995; Thornton, Axinn, and Teachman 1995; Raymo, Iwasawa, and Bumpass 2009) and among couples who are less religious and more supportive of egalitarian gender roles (see Seltzer 2000 and Smock 2000 for reviews). Childhood background also influences later cohabitation experience, with several studies showing a higher prevalence of cohabitation among people growing up in divorced families and/or in families of lower socioeconomic status (Dominguez-Folgueras and Castro-Martin 2013; Jensen and Ahlburg 2004; Sassler and Schoen 1999; Thornton 1991; Thornton, Axinn, and Teachman 1995). Thus, research suggests that in industrialized societies, cohabitation is more common among people who hold liberal values and who are relatively disadvantaged—findings consistent with other work showing that couples with low economic prospects are more likely than their more-advantaged counterparts to choose cohabitation as a transitional step to marriage (Manning and Smock 1995). In addition, some studies have observed gender differences in the determinants of cohabitation. For instance, Axinn and Thornton (1993) found that mother's attitude toward cohabitation had a more significant effect on daughters' than on sons' premarital cohabitation experience, and a Norwegian study observed gender differences in the association between socioeconomic variables and the timing of first cohabitation (Wiik 2011).

Because cohabitation was already widely practiced in Western countries in the 1980s when researchers began to study it, its diffusion process in those

countries is difficult to discern. By contrast, the relatively recent emergence of cohabitation in China affords us an opportunity to study its social origins. Comparing the determinants of cohabitation in China with those documented in Western countries such as the US can also yield a better understanding of the spread of cohabitation as a new social phenomenon.

Theoretical framework and Chinese contexts

China has a long tradition of universal and early marriage as well as social intolerance of premarital cohabitation. Although premarital sex was strictly forbidden by traditional family norms until recently, family behaviors have undergone substantial changes in the post-1978 reform era, making China a fruitful setting in which to evaluate the diffusion of cohabitation and its growing place in the family system. Potentially related to this process are the major social and institutional changes China has experienced since 1978, such as the shift to a market economy and expansion of higher education. Many aspects of life have been affected by these changes, including attitudes, behaviors, and life styles (Davis 1992, 2000; Tang and Parish 2000; Yu and Xie 2013).

Ideational change and economic development provide two major theoretical perspectives on the emergence and diffusion of cohabitation. The ideational change perspective holds that changes in social norms have occurred that allow people to accept cohabitation as an individual's own choice. This viewpoint is best represented by what Thornton (2001, 2005) calls "developmental idealism," a system of ideas that reciprocally link the development of modern societies (industrialized, urbanized, educated, wealthy) and the development of modern families (marriage at mature age, gender equality, planned and low fertility). Developmental idealism specifies that freedom, equality, and consent are fundamental rights to be realized with development. Tacit in this theory is the proposition that family systems in more developed societies are farther advanced and may, in fact, be drivers of modern political and economic systems. This theory also implies that persons living in less-developed societies would be better off if they adopted the family behaviors and values prevalent in more developed societies. Studies of both developed and developing countries show that marriage, childbearing, and other family behaviors have been influenced by the forces of developmental idealism (Abbasi-Shavazi and Askari-Nodoushan 2012; Gerber and Berman 2010; Thornton et al. 2012; Thornton and Philipov 2009). For instance, analyzing data from the US, Egypt, Iran, Nepal, Argentina, and China, Thornton and Philipov (2009) found widespread belief in the mutual linkage between levels of fertility and socioeconomic development. That is, large proportions of people in these countries believed that development reduces fertility and that declining fertility leads to further development.

Post-1949 Chinese government propaganda promulgated a vision whereby the nation would progress through various stages of development before reaching a Communist utopia (Central Committee of the Chinese Communist Party 2012). In practice, modernization and development have always been major foci of government and party policies. Therefore, we expect that the beliefs and values of developmental idealism may be quite powerful in giving rise to family changes in China.

The economic development perspective emphasizes material opportunities and economic foundations for cohabitation. In traditional societies, children live with their parents until they get married. However, industrialization, expansion of higher education, migration, and other institutional changes associated with economic development lead to early departures of young adults from parental homes. Without parental supervision, young adults have more freedom to choose their own life styles, including such innovative behaviors as cohabitation. In addition, as women's education improves, women become more economically independent of men, and their economic gain from marriage declines. Cohabitation can then become an alternative form of intimate relationship. As shown by a number of studies, high living expenses, especially in large, more developed cities, make economic resources an ever more important determinant of marriage (e.g., Sweeny 2002). Cohabitation affords young adults a transitional state in which they may accumulate economic resources for marriage.

Economic development and ideational change, however, are not independent social forces. Economic development and modernization may lead to ideational change, and vice versa. In addition, some family changes are influenced by both economic and ideational factors. Fertility decline, for example, has been the result of both ideational factors such as the acceptance of birth control as a social norm and economic factors such as higher expenses of raising children (e.g., Cleland and Wilson 1987; Cleland 1985; Becker 1960, 1965, 1981; Caldwell 1982). Therefore, in what follows we do not attempt to separate out the unique influences of economic development and ideational change on cohabitation in China. Rather, we describe the broad Chinese contexts that are relevant to the study of cohabitation, including both ideational and institutional changes associated with economic development.

During the Mao era (1949–1976), China was isolated from Western countries. At the same time, people were required to follow the state's directives regarding family behaviors and fertility (Potts 2006). This closed-door policy was transformed by the economic reforms that began in 1978. Since then, Chinese have gradually become more familiar with Western culture through such channels as magazines, newspapers, radio and television programs, and the internet, as well as directly through travel. Chinese who accept developmental idealism may view the social, economic, cultural, and personal tendencies in the West, including elements of family life, as ideal objectives

for China. They may gradually adopt Western family values and practice associated behaviors, including cohabitation. Beyond individual values and behaviors, such openness to the West may change the broader ideological environment in China. Many recent studies in China have observed rising individualism, a common ideal in Western societies (Hansen and Svarverud 2013; Lu 1998; Yan 2009, 2010). Rising individualism may weaken the restrictions of traditional norms on individual behavior, and in particular may increase tolerance toward premarital sex, cohabitation, and unmarried childbearing. Moreover, given the growing importance attached to personal privacy in China (Wang 2011), relationships have become less vulnerable to the judgments of others.

In addition to greater openness to Western societies, economic development and institutional changes in China may have facilitated the diffusion of cohabitation. The economic reforms accelerated economic growth in China and stimulated large-scale migration to the cities. The household registration (*hukou*) system partitions the Chinese population into rural and urban residents, with the latter enjoying institutionalized social advantages over the former (Wu and Treiman 2007). Economic development, urbanization, and resumption and expansion of higher education in China increased rates of migration, especially by migrant workers and rural *hukou* university students, from rural to urban areas (Liang and Ma 2004; Wu and Treiman 2004). Whereas traditional family ideology predominates in rural areas, urban residents in China experience greater and earlier exposure to Western culture through such channels as foreign media. Urbanites may be more tolerant of cohabitation than rural residents, as personal privacy is greater and values are more pluralistic in urban areas. Lacking parental supervision, migrant youth are more likely to try novel behaviors such as premarital sex and cohabitation (Rosenfeld and Kim 2005). Moreover, seeking to reduce housing expenses, young couples in ongoing sexual relationships may consider living together a convenient choice. Thus, we expect that large-scale migration may play an important role in the emergence of cohabitation in China. A recent change in the law may also be contributing to the acceptance of cohabitation. The Chinese Marriage Law of 1980 referred to cohabitation as “illegal cohabitation,” while a 2001 amendment to the law changed the wording to “non-marital cohabitation,” and this decriminalization may have changed the public’s attitudes toward cohabitation.

Drawing on the ideological, economic, and institutional changes we have summarized, we expect that the determinants of cohabitation in China may be different from those in the US and other Western countries and that cohabitation is more common among Chinese with greater exposure to Western culture—for example, young people, persons with more advantaged educational and family backgrounds, and those from more developed regions of the country. We also expect that institutional changes resulting from eco-

conomic development in China, such as large-scale migration and educational expansion, affect individuals' premarital cohabitation behavior.

Data, methods, and measures

Data

In this study, we analyze data from the 2010 and 2012 waves of the China Family Panel Studies (CFPS), a nationally representative longitudinal survey of Chinese communities, families, and individuals, launched in 2010 by the Institute of Social Science Survey (ISSS) of Peking University.¹ The CFPS is the first nationally representative survey in China that includes information on respondents' cohabitation experiences as well as detailed information on demographic characteristics, family dynamics and relationships, education, and family background. In the baseline survey in 2010, 33,600 adults and 8,990 children in 14,798 households were interviewed. In 2012, the CFPS attempted to follow up on all the individuals in the baseline survey, as well as core new family members coresiding with original CFPS respondents. The final sample of CFPS 2012 consists of 44,693 individuals, including 36,063 adults and 8,630 children (Xie and Hu 2014). These data allow us to estimate the prevalence and social origins of cohabitation in China. We pool the two waves of CFPS data and construct a sample group with unrepeated individuals. For respondents interviewed in both 2010 and 2012 or newly included in 2012, we use their most recent information up to 2012. For those interviewed in 2010 only, we use their 2010 information.

Past studies have observed gender differences in the prevalence and determinants of cohabitation. In addition, the relationship between cohabitation and marriage—whether cohabitation resembles a prelude or an alternative to marriage—may vary by gender. To better understand the role played by cohabitation in the Chinese family system, we analyze the determinants of cohabitation separately for men and for women.

Methods and measures

Cohabitation is measured with a binary variable indicating whether the respondent had ever cohabited before first marriage. The question design regarding cohabitation in the CFPS suffers from two problems. First, information about cohabitation is solicited from respondents who are either married or cohabitating with a partner at the time of the survey. Second, those respondents who are currently married are asked about their previous cohabitation experience with their spouse only. Thus, no cohabitation information is collected from non-cohabiting respondents or from respondents who did not ultimately marry their cohabiting partners. Because China has

a tradition of early and universal marriage, we may partially solve the first problem by restricting our sample to adults born before 1980, among whom the unmarried rate is quite low (2.95 percent for males and 0.38 percent for females). Such an adjustment may make our sample more representative. An ideal solution to the second problem has not been found, though we believe that in China it is still quite rare for a person to have multiple cohabitation experiences, especially among those born before 1980. In addition, because Chinese society until recently treated cohabitation as a deviant or immoral behavior, cohabiting individuals, especially men, may be expected to treat cohabitation as a serious commitment to eventual marriage, and cohabiting couples are likely to have a very high chance of marrying. Therefore, while acknowledging that cohabitation prevalence in China may be slightly underestimated using the CFPS data, we have no good reason to suspect that our results for the determinants of cohabitation in China will be systematically biased.

We use a logistic regression model to study the effects of social origins on the likelihood of cohabitation. First, we use the respondent's education level and his/her father's education level and Chinese Communist Party (CCP) membership status to measure socioeconomic status and family background, respectively. In general, higher social status is associated with greater tolerance of nontraditional behaviors such as cohabitation (Thornton and Philipov 2009). In addition, education tends to broaden viewpoints by providing new knowledge about the outside world (Binstock et al. 2013). Thus we expect cohabitation experience to be more common among respondents with higher education and/or from higher-status families. Respondent's education is measured by years of schooling. Father's education level is divided into five categories of highest attainment: primary school or below (reference group), middle school, high school, college, and missing. We constructed a three-category measure of father's CCP membership status (CCP member, non-member, and missing).² Second, we introduced two categorical variables, residence/migration and CCP membership status, to evaluate the influence of institutional forces on cohabitation in China. As discussed above, factors such as more tolerant social norms, weak parental supervision, and high housing costs in urban areas should mean that urban residence and rural-to-urban migration are positively associated with premarital cohabitation. Thus, we construct a variable to measure residence/migration that has three categories: always lived in rural areas (rural *hukou* status at age 12 and lived in rural areas when interviewed), always lived in urban areas (urban *hukou* status at age 12 and living in urban areas when interviewed), and migration from rural to urban areas (rural *hukou* status at age 12 and living in urban areas when interviewed). Because CCP membership requires a thorough background investigation, and because the Party considered premarital sex and cohabitation immoral and decadent during

the Mao and early-reform eras, we expect party members to have a lower likelihood of premarital cohabitation than non-members. Finally, we used county-level GDP per capita in 2010 to measure regional economic development for each respondent. Because economic development is extremely unbalanced across regions in China (Hauser and Xie 2005; Kanbur and Zhang 2005), and because variations in regional development may lead to societal differences in the strength of traditional family ideology, we expect residents from more economically developed regions to be more tolerant of new family behaviors such as premarital sex and cohabitation. High housing costs in more developed regions also provide a material incentive for cohabitation.

In addition to the explanatory variables, we include various control variables. To examine changes in the prevalence of cohabitation over time, we divided our sample into five birth cohorts: before 1940, 1940–1949, 1950–1959, 1960–1969, and 1970–1979. Past studies suggest that cohabitation might vary by race/ethnicity, so we added minority status to our analysis (1 = minority). The CFPS has oversampled five provinces and municipalities: Shanghai, Liaoning, Henan, Gansu, and Guangdong. Thus, we control for these five oversampled “large provinces,” using the other “small provinces” as a reference group. The descriptive results are shown in the Appendix Table.

Results

Prevalence of cohabitation

In Table 1, we present the cohabitation rate (i.e., the proportion having cohabited) by explanatory variables for males and females separately.³ The first row shows that the prevalence of premarital cohabitation in our sample is 8.1 percent for males and 6.2 percent for females. The mean duration of cohabitation (not shown) is about 11 months. The results indicate that the prevalence of premarital cohabitation has been very low in China compared to other industrialized societies, and is even lower than in Japan, another Confucian country (Raymo et al. 2009).

As shown in Table 1, cohabitation is positively associated with level of education, father’s education, urban residence, migration experience, and non-membership in the CCP. We also observe a significant regional variation in cohabitation prevalence. For example, in Shanghai, a municipality with a highly developed economy and modern culture, the cohabitation rate is 12.5 percent for males and 13.3 percent for females, while in Gansu, a less-developed interior province with more traditional ideology and culture, it is only 1.7 percent for males and 1.2 percent for females.

To capture the trend of cohabitation in China, we calculate the cohabitation rate by birth cohort and marriage cohort, separately for men and women.

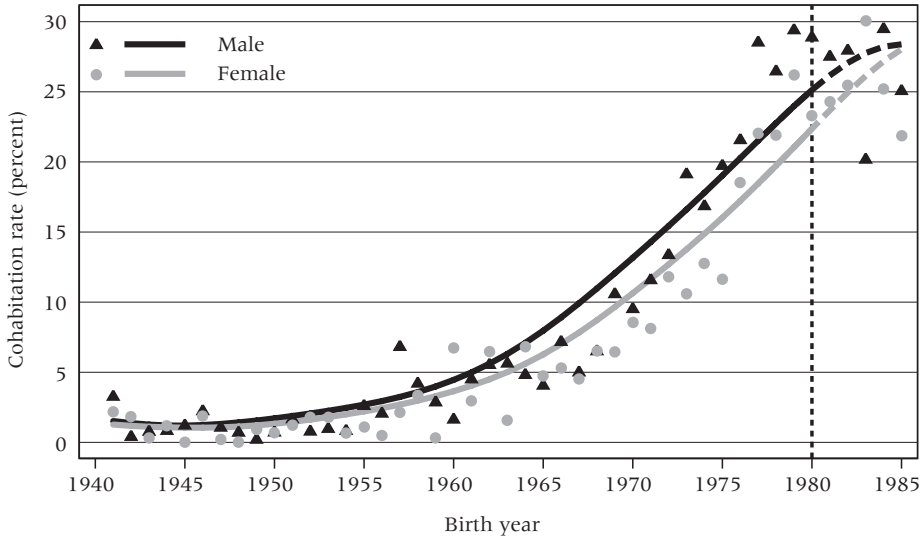
TABLE 1 Cohabitation rate (in percent) before first marriage by sex and other explanatory variables

	Males	Females
Total sample	8.1	6.2
Respondent's education		
Primary school	4.9	4.5
Middle school	9.2	8.2
High school	11.4	9.6
College	15.5	12.3
Residence/migration		
Always rural	6.4	5.2
Always urban	10.0	7.6
Rural-urban migrant	11.3	8.2
Respondent's CCP membership		
Non-member	8.2	6.2
Member	7.4	5.7
Ethnicity		
Han	8.2	6.4
Minority	6.2	4.4
Father's education		
Primary school	7.7	5.7
Middle school	12.3	9.9
High school	11.1	14.9
College	14.7	9.6
Missing	5.8	4.3
Father's CCP membership		
Non-member	8.0	5.9
Member	8.2	7.6
Missing	8.3	6.4
Region		
Small province	7.7	6.0
Shanghai	12.5	13.3
Liaoning	8.2	4.5
Henan	4.9	4.0
Gansu	1.7	1.2
Guangdong	15.3	11.1

SOURCE: 2010 and 2012 pooled CFPS data.

Results by birth cohort are given in Figure 1,⁴ and by marriage cohort in Table 2.⁵ The figure shows a substantial increase in cohabitation across birth cohorts, especially among those born after the 1970s. For the cohorts born after 1977, the cohabitation rate exceeds 20 percent. Table 2 shows a similar pattern across marriage cohorts. In the CFPS data, the prevalence of cohabitation among those who were married after 2000 is about 30 percent, reaching a level similar to those in some industrialized societies.

FIGURE 1 Cohabitation rate (in percent) by sex and birth year



NOTE: Lines drawn using locally weighted scatterplot smoothing with bandwidth of 0.8. SOURCE: 2010 and 2012 pooled CFPS data.

TABLE 2 Cohabitation rate (in percent) before first marriage by sex and marriage cohort

Marriage cohort	Males	Females
Before 1959	1.0	3.1
1960–1969	1.0	0.8
1970–1979	1.1	1.4
1980–1989	4.3	4.3
1990–1999	10.8	10.8
2000–2009	31.1	28.6
2010–2012	41.5	46.4
Observations	15,794	16,885

SOURCE: 2010 and 2012 pooled CFPS data.

Determinants of cohabitation

To examine whether the observed group differences in cohabitation rates are significant, we turn next to a multivariate analysis. We show estimated coefficients of the logit model for men in Table 3 and for women in Table 4. There are four parallel nested models in each table. In Model 1, we include only the respondent’s education and two basic demographic indicators; Model 2 adds family background variables; Model 3 further adds variables related to institutional factors; and Model 4, the full model, augments Model 3 with indicators for regional variation.

TABLE 3 Logit model of effect of identified factors on likelihood of premarital cohabitation for men

	Model 1: Education + demographic characteristics	Model 2: Model 1 + family background	Model 3: Model 2 + institutional factors	Model 4: Model 3 + regional variation
Respondent's years of schooling	0.032*** (0.008)	0.030*** (0.008)	0.026*** (0.009)	0.024** (0.009)
Father's education (Reference: Primary school)				
Middle school		0.064 (0.108)	0.047 (0.108)	0.048 (0.108)
High school		-0.059 (0.150)	-0.068 (0.150)	-0.062 (0.151)
College		0.392* (0.215)	0.407* (0.217)	0.410* (0.217)
Missing		0.104 (0.131)	0.102 (0.131)	0.109 (0.131)
Father's CCP membership (Reference: Non-member)				
Member		-0.089 (0.108)	-0.095 (0.108)	-0.095 (0.108)
Missing		0.079 (0.115)	0.021 (0.116)	0.020 (0.116)
Residence/migration(Reference: Always lived in rural area)				
Always lived in urban area			0.166 (0.107)	0.124 (0.108)
Rural-urban migrant			0.419*** (0.087)	0.383*** (0.089)
CCP member			-0.266** (0.120)	-0.249** (0.120)
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The coefficients of birth cohort across all models in Tables 3 and 4 represent the increase in cohabitation over time for both men and women, suggesting substantial changes in the pattern of union formation in China. In Models 1 and 2, both men's and women's years of schooling have a significant positive effect on the likelihood of premarital cohabitation, a relationship that runs counter to results from other studies of industrialized societies, which have shown a negative effect for education. Our result suggests that the social origins of cohabitation might vary by context. In China, cohabitation is still seen as an innovative behavior, and thus it may be more selective of highly educated people, who have had more contact with and are thus more accepting of Western culture. However, most of the education effects work through institutional factors and regional variation, because more highly educated Chinese are concentrated in more developed urban regions of China.

TABLE 3 (continued)

	Model 1: Education + demographic characteristics	Model 2: Model 1 + family background	Model 3: Model 2 + institutional factors	Model 4: Model 3 + regional variation
Birth cohort (Reference: Before 1940)				
1940–1949	0.195 (0.291)	0.218 (0.291)	0.238 (0.291)	0.244 (0.291)
1950–1959	0.638** (0.261)	0.678*** (0.262)	0.684*** (0.263)	0.689*** (0.263)
1960–1969	1.521*** (0.250)	1.564*** (0.251)	1.559*** (0.253)	1.573*** (0.253)
1970–1979	2.735*** (0.246)	2.782*** (0.248)	2.766*** (0.251)	2.781*** (0.251)
Minority	-0.139 (0.138)	-0.144 (0.138)	-0.102 (0.138)	-0.069 (0.139)
County-level GDP per capita (10,000 yuan)				0.147** (0.060)
Region (Reference: Small provinces)				
Shanghai	0.922*** (0.106)	0.900*** (0.107)	0.814*** (0.109)	0.677*** (0.122)
Liaoning	0.120 (0.120)	0.112 (0.121)	0.119 (0.121)	0.066 (0.123)
Henan	-0.537*** (0.135)	-0.533*** (0.135)	-0.543*** (0.136)	-0.516*** (0.136)
Gansu	-1.610*** (0.205)	-1.610*** (0.205)	-1.565*** (0.206)	-1.438*** (0.212)
Guangdong	0.578*** (0.107)	0.572*** (0.107)	0.512*** (0.108)	0.486*** (0.109)
Constant	-4.569*** (0.245)	-4.632*** (0.249)	-4.670*** (0.250)	-4.773*** (0.254)
Observations	14,779	14,779	14,779	14,779

*** p<0.01, ** p<0.05, * p<0.1

NOTE: Logit coefficients are shown in main entries of the table, with standard errors in parentheses.

Relative to Model 1, the inclusion of institutional and regional variables in Model 4 reduces the effect of education by half for men and to insignificance for women. In the full model, each additional year of schooling for men was associated with 2.4 ($e^{0.024}-1$) percent higher odds of cohabitation.⁶

For both men and women, father’s education has a positive effect, as shown in Model 4 in Tables 3 and 4. For men, relative to having a father with primary school or lower education, having a father with college education is associated with 50.7 percent higher odds of having cohabited; for women, it is associated with 45.9 percent higher odds of having cohabited. However, father’s political status as a CCP member has little effect on cohabitation for either men or women. This result implies that individuals in China who grew

TABLE 4 Logit model of effect of identified factors on likelihood of premarital cohabitation for women

	Model 1: Education + demographic characteristics	Model 2: Model 1 + family background	Model 3: Model 2 + institutional factors	Model 4: Model 3 + regional variation
Respondent's years of schooling	0.022** (0.008)	0.017* (0.009)	0.013 (0.010)	0.007 (0.010)
Father's education (Reference: Primary school)				
Middle school		0.064 (0.119)	0.043 (0.119)	0.033 (0.119)
High school		0.371** (0.148)	0.378** (0.148)	0.378** (0.149)
College		0.071 (0.270)	0.141 (0.272)	0.158 (0.273)
Missing		-0.045 (0.134)	-0.059 (0.135)	-0.061 (0.135)
Father's CCP membership (Reference: Non-member)				
Member		-0.077 (0.121)	-0.078 (0.121)	-0.073 (0.121)
Missing		0.145 (0.115)	0.099 (0.117)	0.107 (0.117)
Residence/migration (Reference: Always lived in rural area)				
Always lived in urban area			0.0645 (0.128)	0.0133 (0.129)
Rural-urban migrant			0.405*** (0.095)	0.344*** (0.097)
CCP member			-0.398* (0.243)	-0.384* (0.243)
Birth cohort (Reference: Before 1940)				
1940-1949	0.134 (0.301)	0.161 (0.302)	0.197 (0.302)	0.211 (0.302)
1950-1959	0.320 (0.271)	0.352 (0.272)	0.393 (0.272)	0.412 (0.272)
1960-1969	1.294*** (0.254)	1.318*** (0.256)	1.358*** (0.257)	1.395*** (0.258)
1970-1979	2.547*** (0.250)	2.551*** (0.253)	2.570*** (0.255)	2.611*** (0.255)

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up in higher-status families and thus had more exposure to Western culture may be more tolerant toward and more likely to accept cohabitation.

In all four models, migration is positively associated with the likelihood of premarital cohabitation. In Model 4, for example, the likelihood of premarital cohabitation for rural-to-urban migrants compared with rural

TABLE 4 (continued)

	Model 1: Education + demographic characteristics	Model 2: Model 1 + family background	Model 3: Model 2 + institutional factors	Model 4: Model 3 + regional variation
Minority	-0.288* (0.157)	-0.301* (0.157)	-0.278* (0.157)	-0.222 (0.158)
County-level GDP per capita (10,000 yuan)				0.238*** (0.069)
Region (Reference: Small provinces)				
Shanghai	0.972*** (0.114)	0.960*** (0.114)	0.885*** (0.117)	0.672*** (0.130)
Liaoning	-0.158 (0.143)	-0.161 (0.143)	-0.150 (0.144)	-0.227 (0.145)
Henan	-0.473*** (0.147)	-0.475*** (0.147)	-0.483*** (0.147)	-0.435*** (0.148)
Gansu	-1.802*** (0.259)	-1.798*** (0.259)	-1.763*** (0.259)	-1.570*** (0.265)
Guangdong	0.533*** (0.116)	0.527*** (0.116)	0.474*** (0.117)	0.436*** (0.118)
Constant	-4.523*** (0.243)	-4.558*** (0.249)	-4.643*** (0.251)	-4.834*** (0.257)
Observations	15,052	15,052	15,052	15,052

*** p<0.01, ** p<0.05, * p<0.1

NOTE: Logit coefficients are shown in main entries of the table, with standard errors in parentheses.

residents is 46.7 percent higher for men and 41.1 percent higher for women. However, for both men and women, after accounting for regional variations and other personal characteristics, there is no significant difference in the likelihood of premarital cohabitation between residents who always lived in rural areas and those who always lived in urban areas. CCP membership has a significant negative effect on cohabitation for both men and women. Model 4 results show that, compared to non-CCP members, male and female CCP members have, respectively, 22.0 percent and 31.9 percent lower odds of cohabitation.

The coefficients of regional variables indicate that individuals living in more developed areas were considerably more likely to have cohabited. The effects of other variables such as education and family background are to a large extent mediated by regional variation. As shown in Model 4 in Tables 3 and 4, each 10,000 yuan increase in GDP per capita is associated with 15.8 percent and 26.9 percent higher odds of local men and women having had premarital cohabitation experience. Moreover, there are significant provincial differences even after controlling for economic development: Shanghai residents and Gansu residents respectively have the highest and lowest likelihoods of premarital cohabitation. Such results suggest that in addition to economic development,

other differences such as regional culture and ideological norms may also influence the acceptance and practice of cohabitation in China.

In summary, our analysis leads to these main conclusions. First, in contrast to industrialized societies, cohabitation in China is more common among people with higher education and those from higher-status families. This suggests that, as an emerging idea or family behavior, cohabitation is more acceptable and more likely to be adopted by those with greater knowledge of Western societies. Second, institutional factors such as migration experience and being a CCP member affect the likelihood of premarital cohabitation—evidence that both socioeconomic conditions and ideological norms matter. Finally, residence in a region characterized by greater economic development has a positive effect on the likelihood of cohabitation, which also suggests the influence of exposure to Western culture.

Conclusion and discussion

The increasing incidence of nonmarital cohabitation has been one of the most prominent family changes since World War II in the United States and many European countries. Capitalizing on recently released, nationally representative survey data, we evaluated the prevalence and social origins of premarital cohabitation in China. Our descriptive results suggest that the prevalence of cohabitation is lower in China than in many Western countries and that the duration of cohabitation is shorter. However, cohort comparisons reveal that cohabitation in China has been increasing rapidly, especially among those born after 1970. Along with older ages at marriage, declining fertility rates, and increasing divorce rates, the rapid increase in cohabitation in China converges with trends in family behaviors observed in Western societies.

Through multivariate analyses, we find that both ideational changes and economic development are important contributors to the emergence of cohabitation in China. Our results show that cohabitation in China is more common among men with higher education and among men and women from higher-status families. However, we expect this pattern of cohabitation prevalence in China to be short-lived. In a recent study, scholars have observed that economic prospects are becoming a more important factor in marriage decisions in China, increasingly resembling past findings in the United States (Yu and Xie 2013). Therefore, it is likely that the determinants of cohabitation in China will change in the future, as cohabitation becomes more widely accepted as a form of union among people with insufficient economic resources to marry.

In addition, we found that modernization and urbanization have contributed to the adoption of cohabitation in China. Migration experience has a positive effect on cohabitation for both men and women. We also find that local economic development is positively associated with the likelihood of

residents' cohabitation experiences. In earlier comparative studies based on Western countries, regional variation in the prevalence of cohabitation has been mostly attributed to religious and cultural differences, while economic development has received less attention. Our results strongly support the proposition that modernization and economic development in China have led to profound family changes. Furthermore, we observe that premarital cohabitation has been affected by some institutional conditions that have not affected cohabitation in the US and other Western countries. In China, cohabitation is less common among CCP members, indicating the impact of political investigation on an individual's family behavior.

Our study has some limitations, the most prominent being that our data on cohabitation were limited largely to reports from married adults born before 1980. The post-1980s generation who grew up in the internet era behave and think very differently from older generations, and thus we expect to gain greater insight into cohabitation in China by including the post-1980s birth cohort in future analyses. In addition, in the absence of direct measures for ideology and norms, we are unable to distinguish between the effects of ideational changes and those of economic development. For instance, wider exposure to Western culture and the lack of the economic resources needed for marriage may both contribute to rural-to-urban migrants' higher premarital cohabitation rate, but we are not able to disentangle these two factors. More extensive investigation using qualitative methods may be fruitful in identifying the cultural and other institutional factors that explain the persistent regional differences even after accounting for levels of economic development. Finally, only the respondent's cohabitation experience with his or her current spouse was asked in the survey, which did not allow us to model cohabitation and marriage as competing risks or to develop a full picture of union formation choices. We hope to address these limitations in future studies when the necessary data become available.

APPENDIX TABLE Percentage distributions of explanatory variables

	Weighted		Unweighted	
	Male	Female	Male	Female
Birth cohort				
Before 1940	8.2	10.3	8.8	9.4
1940–1949	12.4	12.2	15.3	14.0
1950–1959	21.0	21.1	23.7	23.8
1960–1969	28.3	27.8	27.5	28.2
1970–1979	30.1	28.7	24.6	24.6
Respondent's years of schooling				
Primary school	45.3	63.1	47.5	64.7
Middle school	32.9	22.7	31.8	21.9
High school	14.3	9.6	14.1	9.2
College	7.6	46.3	6.7	4.1
Residence/ migration				
Always rural	62.9	62.6	64.8	63.6
Always urban	15.9	14.7	15.2	14.9
Rural–urban migrant	21.3	22.7	20.0	21.5
CCP membership				
Non-member	86.0	96.7	86.1	96.7
Member	14.0	3.3	14.0	3.3
Ethnicity				
Han	90.4	90.0	92.5	92.1
Minority	9.6	10.0	7.5	7.9
Father's education				
Primary school	67.5	64.9	66.4	63.9
Middle school	8.9	8.6	7.9	8.4
High school	4.6	4.3	4.1	3.9
College	1.6	14.0	1.5	1.4
Missing	17.5	20.8	20.1	22.4
Father's CCP membership				
Non-member	67.7	65.8	66.7	65.1
Member	12.2	12.0	11.2	11.4
Missing	20.1	22.2	22.0	23.5
N	14,789	15,061	14,789	15,061

NOTE: 2010 and 2012 cross-sectional weights were applied for calculating weighted summary statistics.
SOURCE: CFPS.

Notes

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1 For a more detailed description of the CFPS project, see Xie and Hu (2014).

2 Since the information on father's education and CCP membership status is missing for more than 20 percent of respondents, we did not drop the cases with missing values on these two variables. Instead we included a category indicating the missing value. We also tried to impute the two variables in our multivariate analysis and obtained similar results.

3 All descriptive statistics were weighted to be nationally representative.

4 To capture long-term changes, we extended the sample to all respondents born

before 1985. Note, however, that the reported cohabitation rates for individuals born between 1980 and 1985 are likely to be biased because a significant proportion of these individuals were not married at the time of survey but could be married later. For this reason, we use a dotted line in Figure 1 to indicate these potentially problematic estimates.

5 The sample for this analysis is not restricted to individuals born before 1980, as

we include all ever-married respondents in the CFPS.

6 To clarify whether education has a non-linear effect on premarital cohabitation, in a different specification we also added the squared form of schooling years. The coefficient of squared schooling years is not significant, suggesting a rough linear relationship between education and the likelihood of premarital cohabitation for men.

References

- Abbasi-Shavazi, Mohammad Jalal, and Abbas Askari-Nodoushan. 2012. "Family life and developmental idealism in Yazd, Iran," *Demographic Research* 26: 207–238.
- Axinn, William G. and Arland Thornton. 1993. "Mothers, children, and cohabitation: The intergenerational effects of attitudes and behavior," *American Sociological Review* 58(2): 233–246.
- Becker, Gary S. 1960. "An economic analysis of fertility," in *Demographic and Economic Change in Developed Countries: A Conference of the Universities—National Bureau Committee for Economic Research*. Princeton: Princeton University Press, pp. 209–231.
- . 1965. "A theory of the allocation of time," *Economic Journal* 75(299): 493–517.
- . 1981. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.
- Binstock, Georgina et al. 2013. "Influences on the knowledge and beliefs of ordinary people about developmental hierarchies," *International Journal of Comparative Sociology* 54(4): 325–344.
- Bumpass, Larry L. 1990. "What's happening to the family? Interactions between demographic and institutional change," *Demography* 27(4): 483–498.
- Bumpass, Larry L. and Hsien-Hen Lu. 2000. "Trends in cohabitation and implications for children's family contexts in the United States," *Population Studies* 54(1): 29–41.
- Caldwell, John C. 1982. *Theory of Fertility Decline*. London: Academic Press.
- Central Committee of the Chinese Communist Party. 2012. *Resolution of the Eighteenth National Congress of the Communist Party of China on the Revised Constitution of the Communist Party of China*.
- Cherlin, Andrew J. 2004. "The deinstitutionalization of American marriage," *Journal of Marriage and Family* 66(4): 848–861.
- Cherlin, Andrew J. and Frank F. Furstenberg Jr. 1988. "The changing European family: Lessons for the American reader," *Journal of Family Issues* 9(3): 291–297.
- Cleland, John. 1985. "Marital fertility decline in developing countries: Theories and the evidence," in John Cleland and John Hobcraft (eds.), *Reproductive Change in Developing Countries: Insights from the World Fertility Survey*. London: Oxford University Press, pp. 223–252. <http://www.ponline.org/node/415561>. Accessed June 26, 2015.
- Cleland, John and Christopher Wilson. 1987. "Demand theories of the fertility transition: An iconoclastic view," *Population Studies* 41(1): 5–30.
- Davis, Deborah S. 1992. "'Skidding': Downward mobility among children of the Maoist middle class," *Modern China* 18: 410–437.
- . 2000. "Reconfiguring Shanghai households," in Barbara Entwisle and Gail E. Henderson (eds.), *Re-Drawing Boundaries: Work, Households, and Gender in China*. Berkeley: University of California Press, pp. 245–260.
- Dominguez-Folgueras, Marta and Teresa Castro-Martin. 2013. "Cohabitation in Spain: No longer a marginal path to family formation," *Journal of Marriage and Family* 75(2): 422–437.
- Duvander, Ann-Zofie E. 1999. "The transition from cohabitation to marriage: A longitudinal study of the propensity to marry in Sweden in the early 1990s," *Journal of Family Issues* 20(5): 698–717.

- Gerber, Theodore P. and Danielle Berman. 2010. "Entry to marriage and cohabitation in Russia, 1985–2000: Trends, correlates, and implications for the Second Demographic Transition," *European Journal of Population* 26(1): 3–31.
- Goodkind, Daniel. 2011. "Child underreporting, fertility, and sex ratio imbalance in China," *Demography* 48(1): 291–316.
- Hansen, Mette Halskov and Rune Svarverud. 2013. *i China: The Rise of the Individual in Modern Chinese Society*. Copenhagen: Nordic Institute of Asian Studies.
- Hauser, Seth and Yu Xie. 2005. "Temporal and regional variation in earnings inequality: Urban China in transition between 1988 and 1995," *Social Science Research* 34: 44–79.
- Heuveline, Patrick and Jeffrey M. Timberlake. 2004. "The role of cohabitation in family formation: The United States in comparative perspective," *Journal of Marriage and Family* 66(5): 1214–1230.
- Jensen, Eric and Dennis Ahlburg. 2004. "Why does migration decrease fertility? Evidence from the Philippines," *Population Studies* 58(2): 219–231.
- Kanbur, Ravi and Xiaobo Zhang. 2005. "Fifty years of regional inequality in China: A journey through central planning, reform, and openness," *Review of Development Economics* 9(1): 87–106.
- Katz, Ruth. 2001. "Effects of migration, ethnicity, and religiosity on cohabitation," *Journal of Comparative Family Studies* 32(4): 587–599.
- Kiernan, Kathleen. 2001. "The rise of cohabitation and childbearing outside marriage in Western Europe," *International Journal of Law, Policy and the Family* 15(1): 1–21.
- .2002. "Cohabitation in Western Europe: Trends, issues, and implications," in Alan Booth, Ann C. Crouter, and Nancy S. Landale (eds.), *Just Living Together: Implication of Cohabitation on Families, Children, and Social Policy*. Mahwah, NJ: Erlbaum, pp. 3–31.
- Lesthaeghe, Ron J. 1983. "A century of demographic and cultural change in Western Europe: An explanation of underlying dimensions," *Population and Development Review* 9(3): 411–435.
- .1995. "The Second Demographic Transition: An interpretation," in Karen Oppenheim Mason and An-Magritt Jensen (eds.), *Gender and Family Change in Industrialized Countries*. Oxford: Clarendon Press, pp. 17–62.
- .2010. "The unfolding story of the second demographic transition," *Population and Development Review* 36(2): 211–251.
- .2011. "The 'Second Demographic Transition': A conceptual map for the understanding of late modern demographic developments in fertility and family formation," *Historical Social Research* 36(2): 179–218.
- Lesthaeghe, Ron J. and Lisa Neidert. 2006. "The Second Demographic Transition in the United States: Exception or textbook example?" *Population and Development Review* 32(4): 669–698.
- Lesthaeghe, Ron J. and Johan Surkyn. 1988. "Cultural dynamics and economic theories of fertility change," *Population and Development Review* 14(1): 1–45.
- Liang, Zai and Zhongdong Ma. 2004. "China's floating population: New evidence from the 2000 census," *Population and Development Review* 30(3): 467–488.
- Lu, Xing. 1998. "An interface between individualistic and collectivistic orientations in Chinese cultural values and social relations," *Howard Journal of Communication* 9(2): 91–107.
- Manning, Wendy D. 2013. "Trends in cohabitation: Over twenty years of change, 1987–2010" (Family Profiles 13-12), Bowling Green: National Center for Family and Marriage Research. <https://www.bgsu.edu/content/dam/BGSU/college-of-arts-and-sciences/NCFMR/documents/FP/FP-13-12.pdf>. Accessed June 26, 2015.
- Manning, Wendy D. and Pamela J. Smock. 1995. "Why marry? Race and the transition to marriage among cohabitators," *Demography* 32(4): 509–520.
- McLanahan, Sara. 2004. "Diverging destinies: How children are faring under the Second Demographic Transition," *Demography* 41(4): 607–627.
- Nock, Steven L. 1995. "A comparison of marriages and cohabiting relationships," *Journal of Family Issues* 16(1): 53–76.

- Peng, Xizhe. 2011. "China's demographic history and future challenges," *Science* 333(6042): 581–587.
- Potts, Malcolm. 2006. "China's one child policy," *British Medical Journal* 333(7564): 361–362.
- Raymo, James M., Miho Iwasawa, and Larry L. Bumpass. 2009. "Cohabitation and family formation in Japan," *Demography* 46(4): 785–803.
- Rindfuss, Ronald R. and Audrey VandenHeuvel. 1990. "Cohabitation: A precursor to marriage or an alternative to being single?" *Population and Development Review*: 703–726.
- Rosenfeld, Michael J. and Byung-Soo Kim. 2005. "The independence of young adults and the rise of interracial and same-sex unions," *American Sociological Review* 70(4): 541–562.
- Sassler, Sharon and Robert Schoen. 1999. "The effect of attitudes and economic activity on marriage," *Journal of Marriage and the Family* 61(1): 147–159.
- Seltzer, Judith A. 2000. "Families formed outside of marriage," *Journal of Marriage and Family* 62(4): 1247–1268.
- Smock, Pamela J. 2000. "Cohabitation in the United States: An appraisal of research themes, findings, and implications," *Annual Review of Sociology* 26: 1–20.
- Sobotka, Tomáš, Kryštof Zeman, and Vladimíra Kantorová. 2003. "Demographic shifts in the Czech Republic after 1989: A Second Demographic Transition view," *European Journal of Population* 19(3): 249–277.
- Surkyn, Johan and Ron J. Lesthaeghe. 2004. "Values orientations and the Second Demographic Transition (SDT) in Northern, Western and Southern Europe: An update," *Demographic Research* S3(3): 45–86.
- Sweeney, Megan M. 2002. "Two decades of family change: The shifting economic foundations of marriage," *American Sociological Review* 67(1): 132–147.
- Tang, Wenfang and William L. Parish. 2000. *Chinese Urban Life under Reform: The Changing Social Contract*. New York: Cambridge University Press.
- Thornton, Arland. 1988. "Cohabitation and marriage in the 1980s," *Demography* 25(4): 497–508.
- . 1991. "Influence of the marital history of parents on the marital and cohabitational experiences of children," *American Journal of Sociology* 96(4): 868–894.
- . 2001. "The developmental paradigm, reading history sideways, and family change," *Demography* 38(4): 449–465.
- . 2005. *Reading History Sideways: The Fallacy and Enduring Impact of the Developmental Paradigm on Family Life*. Chicago: University of Chicago Press.
- Thornton, Arland, William G. Axinn, and Jay D. Teachman. 1995. "The influence of school enrollment and accumulation on cohabitation and marriage in early adulthood," *American Sociological Review* 60(5): 762–774.
- Thornton, Arland and Dimiter Philipov. 2009. "Sweeping changes in marriage, cohabitation and childbearing in Central and Eastern Europe: New insights from the developmental idealism framework," *European Journal of Population* 25(2): 123–156.
- Thornton, Arland et al. 2012. "Knowledge and beliefs about national development and developmental hierarchies: The viewpoints of ordinary people in thirteen countries." *Social Science Research* 41(5): 1053–1068.
- US Census Bureau. 2011. "America's families and living arrangements." www.census.gov/population/www/socdemo/hh-fam/cps2011.html.
- van de Kaa, Dirk J. 1987. "Europe's Second Demographic Transition," *Population Bulletin* 42: 1–57.
- Wang, Hao. 2011. *Protecting Privacy in China*. Berlin: Springer.
- Wang, Qingbin and Qin Zhou. 2010. "China's divorce and remarriage rates: Trends and regional disparities," *Journal of Divorce and Remarriage* 51(4): 257–267.
- Wiik, Kenneth Aarskaug. 2011. "Socioeconomic differentials in the transition to first cohabitation in Norway," *International Review of Sociology* 21(3): 533–548.
- Williams, Lindy, Midea Kabamalan, and Nimfa Ogena. 2007. "Cohabitation in the Philippines: Attitudes and behaviors among young women and men," *Journal of Marriage and Family* 69(5): 1244–1256.

- Wu, Xiaogang and Donald J. Treiman. 2004. "The household registration system and social stratification in China: 1955–1996," *Demography* 41(2): 363–384.
- . 2007. "Inequality and equality under Chinese socialism: The *hukou* system and intergenerational occupational mobility," *American Journal of Sociology* 113(2): 415–445.
- Xie, Yu. 2011. "Evidence-based research on China: A historical imperative," *Chinese Sociological Review* 44 (1): 14–25.
- Xie, Yu and Jingwei Hu. 2014. "An introduction to the China Family Panel Studies (CFPS)," *Chinese Sociological Review* 47(1): 3–29.
- Yan, Yunxiang. 2009. *The Individualization of Chinese Society*. Oxford: Berg Publishers.
- . 2010. "The Chinese path to individualization," *The British Journal of Sociology* 61(3): 489–512.
- Yang, Ching-Li. 2004. "Fertility implication and estimate of cohabitation in Taiwan," *Taiwanese Journal of Sociology* (32): 189–213.
- Yu, Jia and Yu Xie. 2013. "Changes in the determinants of marriage entry in post-reform urban China," Research Report 13-802, Population Studies Center, University of Michigan, Ann Arbor.
- Zeng, Liming. 2013. "The psychology survey report: More than 90 percent of college students agreed to cohabit with partners," China News Service. <http://www.chinanews.com/sh/2011/03-14/2902825.shtml>