Premarital Pregnancies in China: Trends and Determinants

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Abstract

Increased prevalence of premarital pregnancy is thought to be a key indicator of family change in East Asian societies. Drawing on retrospective data on women's pregnancy histories collected in 2016, we investigate prevalence, trends, and factors associated with premarital pregnancy in China. Overall, 12% of Chinese married women born between the 1970s and the 1990s have experienced at least one premarital pregnancy. Women in more recent cohorts are more likely than their counterparts born in the 1970s to have premarital pregnancies. Moreover, the cohort trend toward increased premarital pregnancies is largely because women with very low levels of education are increasingly more likely to have premarital pregnancies across cohorts. The diverging patterns of premarital pregnancy challenge the second demographic transition perspective that attributes family change in low-fertility countries to ideational change and the diffusion of innovative attitudes and behaviors from more advantaged groups to others.

Premarital Pregnancies in China: Trends and Determinants

Since the 1970s, China has experienced well-documented family changes, including a sharp decline in fertility from a total fertility rate of 5.8 in 1970 to below-replacement levels, a rise in age at first marriage, and a substantial increase in premarital cohabitation (Cai 2010; Yu & Xie 2015a, b). Despite the growing body of literature on family change in China, less is known about trends and determinants of premarital pregnancy. Demographic research in Western contexts tends to focus on nonmarital childbearing (e.g., Perelli-Harris & Gerber 2011; Upchurch et al. 2002), but East Asian societies, such as China, Japan, South Korea, and Taiwan, exhibit very low levels of nonmarital childbearing (Raymo et al. 2015). Despite low out-of-wedlock fertility rates, the share of Japanese women with premarital conceptions has increased dramatically in recent birth cohorts, which is thought to be a key feature of family change in Japan (Lesthaeghe 2010). However, we do not yet know whether similar change has occurred in China.

In China, nonmarital childbearing is illegal, with no official statistics available (Zhao & Basnyat 2018). Given legal discrimination against children born out of wedlock, nonmarital births are still rare and the link between marriage and procreation remains strong in China (Raymo et al. 2015). Meanwhile, a sexual revolution is occurring in China, reflected in part by the increases across birth cohorts in the proportion of men and women who have engaged in premarital sex (Parish et al. 2007; Xiao et al. 2011). Hence, there arises the question whether this revolution in sexual behavior has been accompanied by increases in the prevalence of premarital pregnancy across cohorts. In this study, we make use of recent retrospective pregnancy history data collected in 2016 to investigate prevalence, trends, and factors associated with premarital pregnancy in China. In addition, to assess whether change in premarital pregnancy provides evidence for the second demographic transition or a pattern of disadvantage in China (Perelli-

Harris & Gerber 2011), we examine the educational gradient in the level of premarital pregnancy across successive birth cohorts of Chinese married women.

Theoretical Perspectives and Hypotheses

Influenced by Confucian ideals of patriarchal dominance, Chinese society was historically traditional, placed a high value on female virginity, and denounced premarital sex (Zhou 1989). In recent decades, China has been undergoing a sexual revolution characterized by the growing acceptance and prevalence of premarital sex (Parish et al. 2007; Xiao et al. 2011; Zheng et al. 2011). Accordingly, we propose *Hypothesis 1: The likelihood of having premarital pregnancies increases across birth cohorts of Chinese married women*.

Premarital sex does not, however, necessarily lead to premarital pregnancies. Prior U.S. research has shown that less-educated women are more likely than the highly-educated to have a nonmarital birth by age 25; this class gradient in nonmarital births is partly because disadvantaged single women and men use contraception less consistently than their more advantaged counterparts (England 2016). Similar to U.S. women, highly-educated women in China likely have greater incentives to delay pregnancy and better knowledge about contraceptive methods to effectively avoid premarital pregnancies. In addition to individuals' own educational level, parental educational attainment is also an indicator of individuals' class background. Women growing up in educated families likely have lower rates of premarital pregnancies due to stricter parental control over their sexual activities, higher parental academic expectations, and better sexual communications between parents and their children (Byers et al. 2008; Hutchinson 2004). Thus, we propose the following two hypotheses:

Hypothesis 2: Among Chinese married women, the likelihood of having premarital pregnancies decreases with their educational levels.

Hypothesis 3: Among Chinese married women, the likelihood of having premarital pregnancies decreases with parental educational levels.

Despite the sexual revolution underway in China, these is the continued existence of sexual double standards: Men are free to engage in sexual experimentation whereas women remain relatively constrained in their behavior and are stigmatized for the loss of virginity before marriage (Parish et al. 2007). Therefore, the increase in the prevalence of premarital sex among women is mostly driven by more women in the younger cohorts engaging in sex with their fiancé or possible fiancé (i.e., premarital relationship that led to marriage or current relationship that might lead to marriage; Parish et al. 2007). In other words, Chinese women's premarital pregnancies most likely lead to shotgun marriages, especially considering that nonmarital childbearing is illegal in China. In China's sexual culture and gendered patterns of sexual behavior, we hypothesize that in addition to individual characteristics, spouse pairing patterns might as well shape women's likelihood of premarital pregnancies (Raymo & Iwasawa 2008). The theory of resources posits that the comparative resources that spouses bring to the marriage determine the distribution of power, with the spouse who contributes greater resources having greater marital power (Blood & Wolfe 1960). The idea of relative resources is central. The emphasis on education and the respect for age-based hierarchy are hallmarks of traditional Chinese culture (Faure & Fang 2008). Thus, in Chinese marriage, the relative education and age between the spouses likely symbolize spouses' relative status and power. Women in relationships with men who have more education or are much older than themselves may have less control over their sexual activities and less bargaining power in negotiating contraceptive

use, which may in turn lead to higher risks of premarital pregnancies. Thus, we propose *Hypothesis 4: Women married to husbands who are more educated or much older than themselves are more likely to have premarital pregnancies, compared with women who are similar to their husbands in terms of education or age.*

In hypothesizing how the educational gradient in the likelihood of premarital pregnancies change across birth cohorts of Chinese married women, we draw on two competing perspectives. According to the second demographic transition (SDT) perspective, the disconnection between marriage and procreation is a defining feature of family change in low-fertility countries, and moreover, the primary driver of this change is the cultural shifts toward postmodern attitudes and norms that emphasize individuality and self-actualization (Zaidi & Morgan 2017). Hence, if China is undergoing the second demographic transition, we would expect that premarital sex and conceptions that were previously very rare or absent (i.e., they are innovative) have gained increased prevalence due to the spread of novel, postmodern ideas from some segments in the population (usually those with more knowledge or resources, such as the highly-educated) to others (usually less privileged groups, such as the less-educated; Casterline 2001). Hence, if the increased prevalence of premarital pregnancies mainly reflects a second demographic transition that China is undergoing, we would expect *Hypothesis 5a: Across successive birth cohorts of Chinese married women, the highly-educated are increasingly more likely than their less-educated counterparts to have premarital pregnancies.*

In contrast, a large body of U.S. literature has found that the increasing family diversity is more in line with a pattern of disadvantage, rather than the SDT perspective that emphasizes the spread of innovative attitudes and behaviors (McLanahan 2004). For example, compared with their less-educated counterparts, more-educated individuals are increasingly more likely to

eventually marry but less likely to divorce or have nonmarital births (e.g., Cherlin 2010; Goldstein & Kenney 2001). In society with rising economic inequality, it has become more difficult for less-educated individuals to access resources; Furthermore, diverging patterns in marriage and childbearing between the more- and less-educated reinforce and reproduce social inequality (Lundberg et al. 2016). Hence, if the cohort trends in the educational gradient in premarital pregnancies mainly reflect a pattern of disadvantage, we would expect *Hypothesis 5b: Across successive birth cohorts of Chinese married women, the less-educated are increasingly more likely than their highly-educated counterparts to have premarital pregnancies.*

Data and Sample

We use data from the 2016 Survey of the Fertility Decision-making Processes in Chinese Families (referred to thereafter as SFDP). The 2016 SFDP was conducted by the Center for Population and Development Studies at Renmin University of China, aiming to better understand the impact of China's newly-implemented universal two-child policy on fertility (Qian & Jin 2018). The SFDP selected twelve cities in six provinces—Zhejiang, Sichuan, Shandong, Guangdong, Liaoning, and Hubei, by jointly considering the total fertility rate, sex ratio at birth, total population size, geographical location, and economic development level. In each city, 500 households were chosen using a multistage probability sampling design. First, three counties were randomly selected from every city. Second, two subdistricts (*jiedao*) in urban areas or townships (*xiangzhen*) in rural areas were selected from each county. Third, four to ten neighborhood communities (*juweihui*) or administrative villages (*cunweihui*) are selected. Finally, eight to ten households were selected from each neighborhood community or administrative village. Because China's universal two-child policy mostly affects urban

populations, the SFDP oversampled households living in urban areas. In each household, women were targeted for the main interview, and they needed to meet three major criteria to be eligible to participate: 1) currently married; 2) born between March 1, 1966 and March 1, 1996 (i.e., approximately 20–49 years old at the time of the survey); and 3) residing in the current location for more than six months. In the end, 5,972 women (5,136 in urban areas and 836 in rural areas) were successfully interviewed.

The main interview of the SFDP 2016 collected rich information from female respondents on pregnancy and birth history, parental attributes, and sociodemographic characteristics of both spouses. To the best of our knowledge, the SFDP is the only recent survey that has collected retrospective data on women's pregnancy histories. Hence, it is an ideal, timely dataset to understand premarital pregnancy in contemporary China.

We limit our sample to women who and whose husbands were both in their first marriage (N = 5,885), and then exclude 49 women who got married before age 15. We further drop 215 women who were born in the 60s, due to small sample sizes. After excluding 465 observations with missing data on the variables used in the analysis, we obtain a final sample of 5,156 women.

Variables

Our dependent variable is premarital pregnancy. The SFDP asked in which year and month each pregnancy started and ended, respectively, and the outcome of each pregnancy (i.e., miscarriage, induced abortion, and stillbirth). The survey also asked the year and month when the first marriage started. Based on the dates of pregnancies and marriage, we are able to create a dummy variable to measure premarital pregnancy, with married women who had any pregnancy that started prior to marriage formation coded as 1 and 0 otherwise.

Our independent variables include women's characteristics and their attributes relative to their husbands. Women's characteristics include birth cohort, education, and parental education. We use 10-year intervals to measure birth cohort (Brooks & Bolzendahl 2004), considering strong collective identity in China based on the decade of people's birth (as evidenced by the popularity of labels such as "the post-80's generation"). The birth cohort indicators include the cohorts born in the 1970s (reference), 1980s, and 1990s. Women's education is measured through three dummy variables: less than high school (reference), high school, and college or above. The SFDP asked the educational levels of women's father and mother. We code parental education as the highest educational level attained by either parent. Prior research has documented marked increases in educational attainment in China over the twentieth century (Treiman 2014). Not surprisingly, female respondents' parents tend to have relatively low levels of education. Hence, parental education is grouped into three categories: less than junior high school (reference), junior high school, and senior high school or above.

Women's attributes relative to their husbands include husband-wife age gaps and educational pairing of spouses. we group the husband-wife age gap into four categories: husband younger than wife by 2 or more years (≤ -2), husband-wife age difference within 1 year ($[-1, 1]$; reference), husband older than wife by 2 to 5 years ($[2, 5]$), and husband older than wife by 6 or more years (≥ 6). Similar to women's education, we classify the education of women's husbands into three levels: less than high school, high school, and college or above. By comparing the educational levels of women and their husbands, we create a set of dummy variables to capture the educational pairing of spouses: educational hypergamy where husband is more-educated than wife, educational homogamy where husband and wife have the same educational level (reference), and educational hypogamy where husband is less-educated than wife.

We also control for four other covariates, including a continuous measure of women's age at first marriage, women's *hukou* status before marriage (1 = rural *hukou*, 0 = otherwise), women as single child in their family (1 = yes, 0 = no), and six province indicators.

Methods

Because premarital pregnancy is a binary variable, we use logistic regression models in our analysis. To test Hypotheses 1 through 3, we first include cohort indicators, individual determinants of premarital pregnancy, and control variables. Next, to test Hypothesis 4, we add educational and age pairings of spouses. Finally, to adjudicate between Hypotheses 5a and 5b, we add the interaction terms between education and birth cohort.

Descriptive Results

Table 1 presents the descriptive statistics of the variables used in the analysis. Overall, about 12% of married women in our sample have at least one premarital pregnancy. About 30%, 47%, and 23% of women were born in the 1970s, 1980s, and 1990s, respectively. About 36% of women have a less than high school education, 35% have a high school education, and 29% have a college education or above. By comparison, women's parents are much less educated, with about 38%, 41%, and 22% of parents having less than a junior high school education, a junior high school education, and a senior high school education or above, respectively. About 40% of married women differ from their husbands in age by only one year, and half of the women in our sample are married to husbands who are older than themselves by two to five years. It is very uncommon for women to have large age gaps with their husbands, with only 3% of women older than their husbands by two or more years and 6% of women younger than their husbands by six

or more years. Consistent with prior research, homogamy is the defining feature of spouse's educational pairing patterns in China (Qian & Qian 2014), with about two-thirds of women having the same educational level as their husbands; meanwhile, educational hypergamy where the husband is more educated than the wife is more common than educational hypogamy where the wife is more educated than the husband (26% vs. 8%). Women's average age at first marriage in our sample is about 24 years. About 47% of women had rural *hukou* before marriage and 36% of women are the only child in their family.

Table 2 presents the percentage of women who have at least one premarital pregnancy by each of our main independent variables. Surprisingly, contrary to Hypothesis 1, we do not find significant cohort variation in premarital pregnancy ($p = 0.160$): The share of women having premarital pregnancy is about 11% in each cohort. As hypothesized, the percentage of women with premarital pregnancy decreases with women's education and parental education. It appears that the percentage of women with premarital pregnancy is the highest among those married to husbands who are older than themselves by 6 or more years. The variation in premarital pregnancy by the educational pairing of spouses is not significant at the 0.05 level ($p = 0.071$).

Results of Logistic Regression Models Predicting Premarital Pregnancy

Table 3 presents the results of logistic regression models predicting premarital pregnancy. In Table 2, we do not observe significant cohort variation in premarital pregnancy. However, Model 1 of Table 3 shows that after controlling for women's own education, parental education, age at first marriage, *hukou* status, and only-child status, women born in the 1980s and those born in the 1990s are 36% and 46%, respectively, more likely to have premarital pregnancy than women born in the 1970s ($b_{1980s} = 0.306$, $\exp(b) = 1.358$, $p < 0.01$; $b_{1990s} = 0.376$, $\exp(b) = 1.456$, $p <$

0.01). The difference in the results between Tables 2 and 3 is due to the inclusion of certain covariates in Table 3. According to Model 1 of Table 3, own education, parental education, and only-child status are all negatively associated with the odds of premarital pregnancy. Furthermore, as shown in Table 4, women born in the 1980s and 1990s have more education, are raised by better-educated parents, and are more likely to be the only child in the family, compared with women born in the 1970s. Despite the fact that women in more recent cohorts enjoy all these "protective factors," their raw percentage of having premarital pregnancy is not lower than that of the oldest cohort (Table 2). Therefore, after we hold these covariates constant, women in more recent cohorts are more likely than their counterparts born in the 1970s to have premarital pregnancy. Everything else being equal, Hypothesis 1 is supported: *The likelihood of having premarital pregnancies increases across birth cohorts of Chinese married women*.

In Model 1 of Table 3, although the coefficients for education are negative, indicating that more-educated women have lower odds of premarital pregnancy, neither coefficient is significant at the 0.05 level. Thus, Hypothesis 2 that *among Chinese married women, the likelihood of having premarital pregnancies decreases with their educational levels* is not well supported. Consistent with Hypothesis 3, the coefficients for parental education are significantly negative, indicating that women from more privileged families have lower odds of premarital pregnancy. Compared with women whose parents have less than a junior high school education, women with junior-high-school-educated parents are 25% [=1-exp(-0.294)] less likely to have premarital pregnancy, and women whose parents have a senior high school education or above are 47% [=1-exp(-0.626)] less likely to do so.

Despite not being the focus of this study, our control variables reveal interesting results as well. Delayed entry into first marriage is associated with increased odds of premarital

pregnancy ($b = 0.045$, $p < 0.01$), which is likely because women may postpone their marriage but not their sexual activities. Having rural *hukou* is also associated with higher odds of premarital pregnancy, suggesting that women from rural areas are not necessarily less active in premarital sex than women from urban areas ($b = 0.290$, $p < 0.01$). Being the only child in the family is associated with reduced odds of premarital pregnancy ($b = -0.449$, $p < 0.001$).

In Model 2, we add women's education and age relative to that of their husbands. In contrast to Hypothesis 4, the role of spouse pairing patterns in predicting women's premarital pregnancy is limited. The only significant result is that compared with women married to similarly-aged men, women married to men who are six or more years older than themselves are 69% more likely to have premarital pregnancy ($b = 0.523$, $\exp(b) = 1.687$, $p < 0.01$). This result suggests that women married to much older men may have less control over their sexual activities and less bargaining power in negotiating effective contraceptive use.

In Model 3, we add the interaction terms between education and cohort, and find that the interaction terms between education and the 1990s cohort are both significantly negative, suggesting that the relationship between education and premarital pregnancy has become more negative in the most recent cohort, as compared to the 1970s cohort. To facilitate interpretation, we present the predicted probabilities of premarital pregnancy by cohort and education in Figure 1, based on Model 3 of Table 3, with all the other variables set at their means. In the 1970s cohort, the likelihood of having premarital pregnancy is 9% for women with less than a high school education, 9% for women with a high school education, and 10% for women with a college education or above. Clearly, among women born in the 1970s, the predicted probability of premarital pregnancy does not vary by education. In the 1980s cohort, the least-educated women have a probability of 13% in terms of having premarital pregnancy, and for the other two

educational groups, the probability is 10%. Post-estimation test indicates that the educational differentials in the predicted probability of premarital pregnancy is not significant in the 1980s cohort either. In the youngest cohort, the likelihood of having premarital pregnancy is 19% for women with less than a high school education and 9% for both women with a high school education and those with a college education or above. Post-estimation test indicates that the probability of premarital pregnancy is significantly higher among the least-educated than among the other two educational groups in the 1990s cohort.

Figure 1 also suggests that the cohort trend toward the increased prevalence of premarital pregnancy is driven by the increases in premarital pregnancy among the least-educated across cohorts. Among women who have a high school education or above, the probability of having premarital pregnancies remain about 9-10%, regardless of birth cohort. Taken together, Hypothesis 5a derived from the SDT perspective is rejected but Hypothesis 5b based on a pattern of disadvantage is supported: *Across successive birth cohorts of Chinese married women, the less-educated are increasingly more likely than their highly-educated counterparts to have premarital pregnancies*. Hence, the changing educational gradient in premarital pregnancy mainly reflects a growing disadvantage faced by successive birth cohorts of Chinese women who receive little education and such diverging childbearing patterns may reproduce social inequality.

Discussion and Conclusion

In this study, we use recent retrospective pregnancy history data collected in 2016 to investigate prevalence, trends, and factors associated with premarital pregnancy in China. We find that overall, about 12% of Chinese married women have experienced at least one premarital pregnancy. Although the raw proportion of women who have premarital pregnancies does not

seem to increase across birth cohorts, the likelihood of having premarital pregnancies is indeed significantly higher in more recent cohorts than in the 1970s cohort after we control for women's education, parental education, and only-child status. It is worth noting that people born in the late 1980s and in the 1990s were still young in the survey year; accordingly, many of them were not married and thus excluded at the stages of sampling and data collection. As delayed entry into first marriage is positively associated with the odds of premarital pregnancy (Table 3), the estimates for the prevalence of premarital pregnancy among women born in the 1980s and 1990s are likely conservative. In other words, the cohort difference in the prevalence of premarital pregnancy may well be even more pronounced if retrospective data on pregnancy history are collected in a few years. In addition to birth cohorts, women with less-educated parents and married to much older husbands have higher odds of premarital pregnancy.

The relationship between women's education and their likelihood of having premarital pregnancies is more complex. In the youngest cohort, the likelihood of the least-educated women having premarital pregnancies more than doubles that of their more-educated peers doing so (19% vs. 9%), whereas in the two older cohorts, there is no significant educational gradient in the probability of having premarital pregnancies. This cohort difference in the link between education and premarital pregnancy also indicates that the increased prevalence of premarital pregnancy across cohorts is largely because the least-educated—married women with less than a high school education—are increasingly more likely to have premarital pregnancies across cohorts. Since less-educated women have become increasingly different from their more-educated counterparts in terms of pregnancy timing, the increase in premarital pregnancies in China is more in line with a pattern of disadvantage, and challenges the second demographic transition perspective that attributes family change in low-fertility countries to ideational change

and the diffusion of innovative attitudes and behaviors from more advantaged groups to others (Zaidi & Morgan 2017).

Admittedly, due to the sensitive nature of questions on premarital pregnancies, misreporting may exist. In cross-sectional surveys, differences between cohorts may reflect differences in the freedom of different age groups to report particular kinds of behavior, as opposed to capturing real behavior shifts over time (Parish et al. 2007). This misreporting issue is, however, minimized in this study, because the survey did not directly ask the sensitive question whether married women had ever engaged in premarital sex that led to pregnancies; instead, the survey, aiming to focus on fertility-related questions, asked the dates of each pregnancy as well as the dates of marriage (separately and much later in the questionnaire).

In sum, this study demonstrates that the more-educated and the less-educated follow differential trajectories in the context of China's emerging family diversity. By doing so, it extends and echoes prior research on family and inequality in other countries (McLanahan 2004; Perelli-Harris & Gerber 2011). Economic inequality in China has increased dramatically since the economic reform (Xie & Zhou 2014). Differential access to resources likely contributes to the growing disparities in the prevalence of premarital pregnancy between the least-educated married women and their more-educated counterparts. In the midst of the sexual revolution and drastic social change, the diverging patterns of pregnancy timing suggest a growing social divide between those with very low levels of education and those with more education in China. With the growing acceptance of diverse life styles and family forms in China, more research should be devoted to investigating whether people follow different trajectories depending on their class position and what the consequences are for children, family, and social inequality.

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Table 1. Descriptive Statistics of the Variables Used in the Analysis

	%/Mean
Premarital pregnancy	11.66%
Cohort	
Born in the 1970s	29.77%
Born in the 1980s	46.97%
Born in the 1990s	23.25%
Education	
Less than high school	36.09%
High school	35.01%
College or above	28.90%
Parental education	
Less than junior high school	37.82%
Junior high school	40.65%
Senior high school or above	21.53%
Husband-wife age gap	
≤–2	3.43%
[–1, 1]	40.50%
[2, 5]	50.10%
≥6	5.97%
Educational pairing of spouses	
Hypergamy	25.76%
Homogamy	66.14%
Hypogamy	8.11%
Age at marriage	23.63
	(3.09)
Rural hukou before marriage	46.76%
Single child	36.09%
Province	
Zhejiang	17.49%
Sichuan	17.15%
Shandong	14.72%
Guangdong	17.24%
Liaoning	16.89%
Hubei	16.51%

Notes: N = 5,156. Standard deviation is in parentheses.

Table 2. The Percentage of Women Having Premarital Pregnancy, by Key Independent Variables

	% Premarital pregnancy	Chi-square test
Cohort		$p = 0.160$
Born in the 1970s	11.40%	
Born in the 1980s	12.47%	
Born in the 1990s	10.34%	
Education		$p < 0.001$
Less than high school	15.05%	
High school	10.36%	
College or above	8.99%	
Parental education		$p < 0.001$
Less than junior high school	14.97%	
Junior high school	11.16%	
Senior high school or above	6.76%	
Husband-wife age gap		$p = 0.001$
≤–2	13.56%	
[–1, 1]	12.45%	
[2, 5]	10.18%	
≥6	17.53%	
Educational pairing of spouses		$p = 0.071$
Hypergamy	11.07%	
Homogamy	11.47%	
Hypogamy	15.07%	

Table 3. Logistic Regression Models Predicting Premarital Pregnancy

	M1	M2	M3
Cohort (ref. = Born in the 1970s)			
Born in the 1980s	0.306**	0.310**	0.419**
	(0.106)	(0.107)	(0.148)
Born in the 1990s	0.376**	0.403**	0.892***
	(0.140)	(0.142)	(0.199)
Education (ref. = Less than high school)			
High school	-0.194	-0.254*	-0.000
	(0.108)	(0.113)	(0.187)
College or above	-0.167	-0.260	0.173
	(0.132)	(0.141)	(0.263)
Cohort * Education			
Born in the 1980s * High school			-0.218
			(0.235)
Born in the 1980s * College or above			-0.402
			(0.296)
Born in the 1990s * High school			-0.807**
			(0.295)
Born in the 1990s * College or above			-1.007**
			(0.352)
Parental education (ref. = Less than junior high school)			
Junior high school	-0.294**	-0.290**	-0.300**
	(0.101)	(0.101)	(0.102)
Senior high school or above	-0.626***	-0.615***	-0.606***
	(0.151)	(0.151)	(0.151)
Husband-wife age gap (ref. = [-1, 1])			
≤–2		-0.143	-0.116
		(0.236)	(0.236)
[2, 5]		-0.124	-0.125
		(0.097)	(0.097)
≥6		0.523**	0.509**
		(0.171)	(0.171)
Educational pairing of spouses (ref. = Homogamy)			
Hypergamy		-0.131	-0.155
		(0.123)	(0.124)
Hypogamy		0.306	0.282
		(0.177)	(0.177)
Age at marriage	0.045**	0.050***	0.048**
	(0.015)	(0.015)	(0.015)

Rural hukou before marriage	0.290**	0.295**	0.304**
	(0.098)	(0.098)	(0.099)
Single child	-0.449***	-0.435***	-0.418***
	(0.111)	(0.111)	(0.111)

Notes: Standard errors are in parentheses. To save space, coefficients for province dummies are not shown, but results are available upon request.
***$p < 0.001$, **$p < 0.01$, *$p < 0.05$

Table 4. Percentage Distributions of Education, Parental Education, and Single-child Status, by Birth Cohort

	Cohort			Chi-square test
	Born in the 1970s	Born in the 1980s	Born in the 1990s	
Education				$p < 0.001$
Less than high school	52.51	32.74	21.85	
High school	34.33	33.90	38.12	
College or above	13.16	33.36	40.03	
Parental education				$p < 0.001$
Less than junior high school	53.49	34.15	25.19	
Junior high school	34.66	42.90	43.79	
Senior high school or above	11.86	22.96	31.03	
Single child	16.94	40.71	51.29	$p < 0.001$

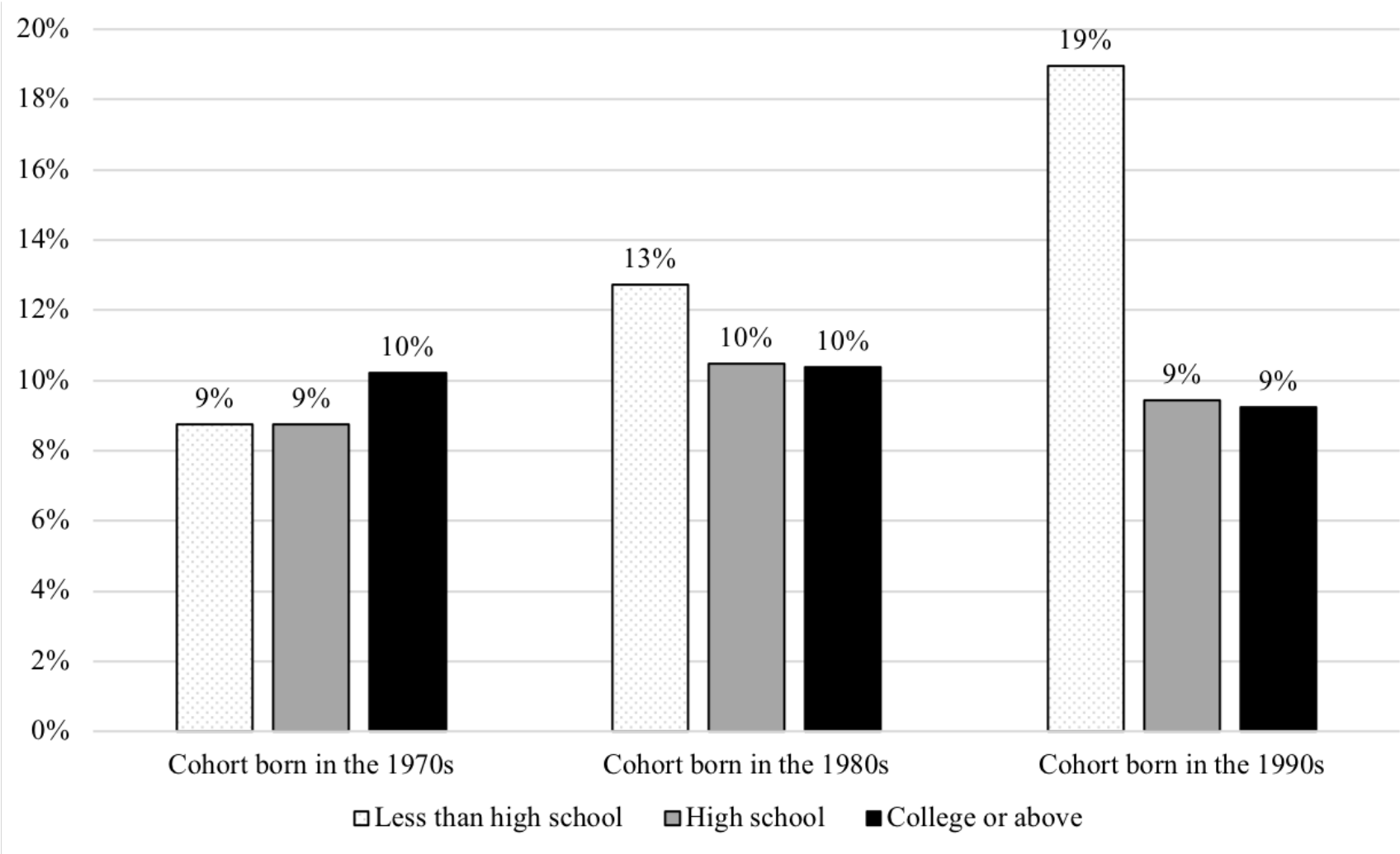

Figure 1. Predicted Probabilities of Premarital Pregnancy, by Education and Cohort

Notes: The predicted probabilities are calculated based on Model 3 of Table 3, with all the covariates set at their means.