# Gender Differences in the Post-College Pathways among China's Recent College Graduates: Constraints and Resources

Thesis

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#### Abstract

Using data from the Beijing College Students Panel Survey (BCSPS N=4,138), this study examines how the constraints (in the form of anticipated family formation) and resources (in the form of college experience) are associated with post-college plans and destinations among China's recent college graduates. Compared with their male counterparts, female college students are less likely to plan to go to graduate schools in their earlier college years and are more likely to enter labor market right after college completion. The multivariate analyses showed that anticipated earlier marriage have negative associations with aspirations to attend graduate schools for both men and women, while the anticipated age of parenthood has more pronounced associations with women's postcollege plans. In addition, better academic performance helps female students to achieve parity in terms of graduate education attendance, while women's concentration in less selective undergraduate institutions and female-dominated fields of study decrease their probabilities to pursue graduate education, relative to their male counterparts. These results indicate that young female college graduates in China face trade-offs between traditional family roles and further education investments when making early career decisions, despite their gains in educational attainment.

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#### Chapter 1. Introduction

Women have made tremendous progress in education over the past several decades across the world. Today, women outnumber men in the enrollment and completion of bachelor degrees in the majority of countries in the world (DiPrete and Buchmann, 2013; McDaniel, 2012). This reversal of gender gap in higher education has happened in China as well, such that more women than men enroll in colleges now (Wu and Zhang 2010; Yeung 2013). Researchers have discussed the changing gender stratification in education in China over time (Hannum and Xie 1994; Tsui and Rich 2002; Wu 2012; Ye and Wu 2011), but the consequences of the rising educational attainment of Chinese women relative to men are far less explored. How does the educational success of women impact their future plans beyond the receipt of college degree? And how do their post-college pathways in early adulthood compare to those of their male counterparts?

From a life course perspective, college completion is a marker of the transition to adulthood to enter labor market or to continue with additional education. Today young adults in China have choices regarding to whether to continue graduate education or to enter labor market (Li 2016; Min, Chen, and Wang 2018). Throughout the world, graduate education is becoming increasingly important in shaping social mobility and individual's life chances (Posselt and Grodsky, 2017; Torche, 2018; Wakeling and Laurison, 2017). As obtaining bachelor's degree is increasingly common, the opportunity to pursue graduate education is the new process of class-based advantage transmission and the level at which further educational stratification happens (Alon 2009; Mullen, Goyette, and Soares 2003; Posselt and Grodsky 2017; Li 2016). However, we know very little about how gender may play a role in shaping whether college degree recipients choose to continue graduate education or enter labor market after college completion in China yet.

Studies in the U.S. show that both the social contexts and resources individuals have influence their post-college pathways (Bobbitt-Zeher 2007; Dwyer, Hodson, and McCloud 2013; Mullen, Goyette, and Soares 2003; Perna 2004; Quadlin 2018). Within the contemporary Chinese context, women's progress in education has been coupled with the expansion of higher education (Treiman 2013; Wu and Zhang 2010; Yeung 2013), lower marriage rates of college-educated women than their male counterparts (Ji, 2015; Qian and Qian, 2014; Song and Fan, 2017), and rapidly changing gender role attitudes (Ji et al. 2017; Shu and Zhu, 2012). In light of the resurgence of patriarchal norms in postreform China (Ji et al. 2017) and the still pervasive universal-marriage tradition (Yeung and Hu 2013), young women may expect to be burdened with substantial childcare and household responsibilities when they consider their future. As they complete college education and have to choose between continuing graduate education and entering labor market, it is likely that young women would choose the most appropriate pathway to balance their educational investment and future family responsibilities (Allison and Ralston, 2018). At the same time, even though the gender gap in educational attainment

in China has narrowed, women still face disadvantages in the college experience.<sup>1</sup> For example, female college students continue to concentrate in female-dominated majors (He and Zhou 2018) and less selective institutions (Yeung 2013) in China. School selectivity and college major are important predictors of whether to go to graduate schools (Mullen et al., 2003) and whether to obtain a high-income job (Bobbitt-Zeher 2007). The disadvantages in these aspects of education may produce challenges for their educational and occupational trajectories. Therefore, the constraints from future family roles and different types of resources gained in college may produce a gendered post-college pathway for college graduates.

This study examines gender differences in post-college pathways among two recent cohorts of Chinese college students. With data from the Beijing College Students Panel Survey (N=4,138), I examine how female and male college graduates have different postcollege plans and arrive at different post-college destinations. I consider whether gendered constraints in future family roles and resources from college experience are related to these gendered post-college pathways. The findings should provide a better understanding of the relationship between educational attainment and life course trajectories among young women and men in a context of rapid social changes. In what follows, I will first discuss the context of contemporary China and why it is an important case to study the gender differences in the post-college pathways. The conceptual

<sup>&</sup>lt;sup>1</sup> In educational stratification literature, differences in the college experience beyond educational attainment is conceptualized as the horizontal dimension of stratification (Gerber and Cheung, 2008).

framework of this study and related literature will be talked next. After introducing the data and methods, I will talk about the major findings and conclusions in this study.

#### Chapter 2. The Case of China

The higher education in China is largely a state-run and public system. All high school students need to take the College Entrance Examination (CEE) to be admitted to colleges. There are two types of colleges students attend: two or three year short-cycle colleges which focus on vocational training and regular four-year academic colleges and universities (Yeung 2013). The latter type of colleges requires higher CEE scores and a degree from these institutions often leads to occupations with higher prestige and economic returns.

Consistent with the overall trend in the world, the gender gap favoring men in higher education in China declined and then reversed, such that women now outpace men in college enrollment<sup>2</sup> (Wu and Zhang, 2010; Yeung, 2013). Using sample data from population census in 1990 and 2000 and the mini-census in 2005, Wu and Zhang (2010) find that gender gaps in the transition to senior high school and to college have decreased over time. And women are more likely than men to be enrolled into colleges among the youngest cohorts. In 1990, 29 % of male high school graduates but only 24% of female high school graduates were admitted to college. However, by 2005, the female rate of transition to college increased to 54%, compared with 50% for males (See also Yeung

 $<sup>^2</sup>$  The completion rates of universities and colleges in China are as high as over 90% each year (Wu et al. 2016). Access to higher education largely guarantees a bachelor's degree for the vast majority of college students. Thus, researchers often use enrollment rates of colleges as the indicator of stratification.

2013). Studies show that both the institutional factors, such as the education expansion policy and one-child policy, as well as micro-level factors, including growing gender egalitarian attitudes, all contribute to the declining gender inequality in education (Hannum and Xie 1994; Tsui and Rich 2002; Wu 2012; Ye and Wu 2011). It is noteworthy that the female advantages in college enrollment are greater in less selective higher education institutions (Yeung 2013). They only achieve parity with men in more selective institutions (Yeung 2013). Moreover, female college students still concentrate in female-dominated college majors, like humanities and education, and they are underrepresented in science and technology field (He and Zhou 2018).

In terms of graduate education, the gender gap favoring men declined substantially in recent years as well. Figure 1 shows the gender gap in graduate education enrollment since 1997. There is a clear trend of increasing enrollment in graduate school for both men and women during this period. Women lagged behind men in graduate school enrollment in earlier years, attained parity in 2011, and then outpaced men from 2013 onward. Attaining graduate education impacts individuals' occupational opportunities after college completion in modern economies (Posselt and Grodsky, 2017; Torche, 2018; Wakeling and Laurison, 2017). Despite the studies examining women's progress in college enrollment, there are few studies looking at gender differences in whether to go to graduate schools in China yet.

Moreover, three contextual factors make contemporary China an important and interesting case to examine gender differences in post-college pathways. At first, it serves as a case of how higher education expansion shapes social stratification. The Chinese



Note: by thousand. Data is from National Education Statistics, 1997 – 2017.

Figure 1. Number of New Graduate Students Enrollment by Gender

government enacted a policy of higher education expansion in 1998. The fundamental purposes of this policy were to stimulate economic growth during the Asian financial crisis and to produce a more-educated labor force for further development of the country (Wu and Zhang, 2010; Yeung, 2013). There is evidence that the expansion benefitted people from urban areas (Wu and Zhang, 2010) and higher socioeconomic families (Yeung, 2013). Even though gender gaps in education had declined before the expansion, this policy extended access to higher education to women with less-educated parents and in rural areas (Z. Zhang and Chen, 2014). The mixed effects of the higher education expansion policy on college enrollments have been examined, but little is known about how the expansion may shape the after-college life trajectories of current college graduates.

Second, compared to those in other parts of the world, the post-college experience of Chinese young people are distinctive because they are occurring within a context of rapid transitions in gender norms. In post-reform China, there is a high level of acceptance of women's dual roles in family responsibilities and paid work, while still diverges on whether women could gain equal access as men to opportunities in work, education, and politics (Shu and Zhu, 2012). The market transition process in China since 1978 led to the declining of Marxist gender egalitarian ideology. The state no longer provides enough social services and promotes gender equality, but takes part in calling for the "second shift" of women to come home and bear more children. As a result, there is a prevalence of gender essentialism and traditional patriarchal norms after the market transition process (Ji et al. 2017). Moreover, because of the popularity of neo-liberalism and individualism among younger generations, family-work conflict is usually interpreted as personal choices and competence (Ji et al. 2017). Even though younger cohorts of women have reached parity in education with men, women in the post-reform period face more severe inequalities in other sections of public spheres, like lower labor force participation, persistent gender earnings gap, significant occupational segregation, and motherhood penalty (see a review for empirical evidence, Ji et al. 2017). When making educational and occupational decisions, young women have to consider the severe conflicts between work and family, brought by the resurgence of traditional patriarchal norms and acceptance of women's dual roles in family and paid-work.

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Third, younger cohorts in China today still face greater expectations for marriage and family obligations during the transition to adulthood, comparing with youths from other societies (Nelson and Chen 2007; Yeung and Hu 2013). Unlike the rapidly declining marriage rates in many developed societies, marriage by age 35 is nearly universal for cohorts born before 1976 (W. J. J. Yeung and Hu, 2013). This tradition of near-universal marriage in China is especially illustrated in the public discourse of highly-educated and unmarried women. Highly-educated women who have not married by their late 20s are often negatively portrayed as "leftover women" (Ji, 2015; Qian and Qian, 2014; Song and Fan, 2017) in contemporary China. Studies find that the marriage rates among college-educated women are lower than their male counterparts (Qian and Qian 2014; Song and Fan 2017), and they often experience clashes between progressive and traditional gender roles (Ji 2015). This tradition of universal marriage in China may impact post-college pathways of recent college graduates because more education can delay marriage age (Qian and Qian 2014; Song and Fan 2017). More education may even bear the risks of negative social stereotypes as "left-over" for women in marriage market (Ji 2015). These potential consequences of higher educational attainment on future family formation may be taken into consideration when women plan to make further educational investment.

As young people in China finish college education, the expected family-career conflicts and the universal marriage tradition may constrain them to choose among different pathways to adulthood. In what follows, I show how these institutional changes intersect with individual agency to produce gender differences in post-college pathways among China's recent college graduates.

#### Chapter 3. Literature Review

#### **Conceptual Framework**

Young college graduates in contemporary China face two major choices after college completion: pursuing graduate education and entering the labor market (Min, Chen, and Wang 2018; Li 2016). Graduate education is now becoming increasingly important in shaping social mobility and individual's life chances (Posselt and Grodsky, 2017; Torche, 2018; Wakeling and Laurison, 2017). Following human capital theory (Becker, 1962), pursuing graduate education is an investment to gain professional skills and advantages in future labor market. The choice between continuing graduate education and entering labor market is then a cost-benefit calculation for college graduates (Buchmann and Diprete, 2006; English and Umbach, 2016; Perna, 2004). When choosing to pursue graduate education or enter the labor market directly after college graduation, individuals have to make assessments of the constraints and resources they have to decide the value of graduate education and work positions in the labor market.

Meanwhile, from a life course perspective, pursuing graduate education is not simply about "educational continuation" but a life course choice about whether to stay or leave school (Posselt and Grodsky, 2017). Unlike a college degree, which is viewed as a must for success in modern economies, the choice to pursue graduate education is conditional on other life course decisions, such as marriage and childbearing. Female and male college graduates face different life course expectations in contemporary China. The cultural norms and gender role expectations in contemporary China talked above may shape young women's life course decisions differently with their male counterparts. Meanwhile, female and male college students also diverge on the college selectivity, academic performance, and field of study, i.e. the qualitative attributes of higher education. These different types of resources are acknowledged in different educational and occupational pathways. Therefore, we may expect to see gender differences in their constraints and resources to pursue graduate education.

Figure 2 presents the conceptual framework for this study. It distinguishes the postcollege pathway plans and post-college destinations, indicated by graduate attendance, employment in labor market, and unclear pathway (neither pursuing graduate education nor being employed). Graduate education is viewed as an investment on human capital, where differences in constraints and resources may both shape gendered pathways to pursue graduate education. Anticipated family formation constrain college students whether to have the aspiration<sup>3</sup> to attend graduate schools after college completion. In contrast, the ability to successfully attend graduate school is an indicator of enough resources to be on an advantaged pathway after college graduation.

<sup>&</sup>lt;sup>3</sup> Pursuing graduate education is an education-continuation decision composed of a series of processes, from aspiration, application, admission, enrollment, attendance, and attainment. Modeling each single process may suffer from sizable selection biases. Compared with those who attend graduate school, we know very little about students' plans to pursue graduate education (Posselt and Grodsky 2017). By distinguishing these processes, a more complete picture of stratification in the pathway to graduate education can be generated.



Figure 2. Conceptual Framework

#### Gender, Anticipated Family Formation, and Post-college Plans

Students' post-college plans reflect their aspirations to attend graduate schools and to enter labor market after college completion. Anticipated family formation is a potential source that constrain the educational and occupational pathways of Chinese women. According to the "family plans thesis", men and women deliberately adjust their career trajectories to meet their future family roles (Bass, 2015; Cech, 2016). Women not only conduct more mental work about future parenthood, but also downgrade their educational and occupational decisions to adjust to the anticipated intensive family responsibilities (Bass 2015). This perspective places family and career in a trade-off relationship and has received mixed empirical support (Bass 2015; Cech 2016; Allison and Ralston 2017). Based on interviews with 30 middle-class heterosexual and childless couples in their age of 25 to 34, Bass (2015) finds that consideration about future parenthood impedes these

women's educational decisions and job advancement opportunities, while plays very limited roles in these husbands' career decisions. Among the few husbands who take future parenthood into consideration, they choose occupations with higher earnings and prestige to meet the demands of the breadwinner role (Bass 2015). Drawing on interview data on 100 college students, Cech (2016), however, finds very little evidence for the family plans thesis. Respondents of this young sample, no matter what the gender is, seldom mentioned how future family formation influence their choices on college majors and future occupations (Cech 2016). Therefore, the validity of family plans these is conditional on individuals' life course stages and also what the specific career decision is.

In terms of educational expectation for graduate degrees, researchers find that expected family formation are strongly associated with college students' educational expectations of whether to attain graduate degrees (Allison and Ralston 2017). The earlier expected age of parenthood, the lower the educational expectation for graduate degrees (Allison and Ralston 2017). Moreover, future family caretaking arrangements have significant impacts on women's educational expectations, while are unrelated to men's educational expectations (Allison and Ralston 2017). These findings highlight the gendered effects of future family roles in shaping educational expectations.

As has talked above, women in contemporary China face intensive family responsibilities and severe family-career conflicts in adulthood (Ji et al. 2018) and there are negative stereotypes for highly-educated women in the marriage market (Ji 2015; Qian and Qian 2014; Song and Fan 2017). Consideration about future family roles may make further education investment less attractive for women who place family at greater values and expect family formation early. Therefore, women who want an earlier marriage and parenthood may choose to work first to balance their family expectations and career plans. For men, on the other side, considering about future family roles may have positive impacts for them to pursue a pathway which have the highest economic returns to take the bread-winner role. It is also possible that men do not consider family responsibilities when making early career decisions (Bass 2015; Allison and Ralston 2017).

- Hypothesis 1a: Female college students who expect to marry at earlier age are less likely to aspire to go to graduate schools, while male college students who expect to marry at earlier age are no less likely or more likely to aspire to go to graduate schools.
- *Hypothesis 1b: Female college students who expect to have children at earlier age are less likely to aspire to go to graduate schools, while male college students who expect to children at earlier age are no less likely or more likely to aspire to go to graduate schools.*

#### Gender, College Experience, and Post-college Destinations

The academic resources students gain in colleges are conceived as important resources in investing further education and obtain advantaged positions in labor market (Bobbitt-Zeher 2007b; Buchmann and Diprete 2006; Jade 2014; Li 2016; Quadlin 2018; Roksa and Levey 2010; Zhang 2005). Academic performance is consistent to have positive relationships with the possibility to attend graduate schools both in the U.S. and China (Mullen, Goyette, and Soares 2003; Li 2016). It can even mediate the relationship between family socioeconomic background and graduate school attendance (Mullen, Goyette, and Soares 2003; Li 2016). As female college graduates earn better grades than their male counterparts in China (Zhu 2018), we may expect female students to be more likely to attend graduate schools based on their advantages in academic performance.

At the same time, college selectivity is another robust factor in predicting the possibility to attend graduate schools. Students from higher quality and more selective undergraduate colleges are not only have higher probability to attend graduate schools (Mullen, Goyette, and Soares 2003) but also have higher probability to be enrolled in better-quality graduate programs (Zhang 2005). The females' advantages in college enrollment in China are only shown in less-selective college institutions in China (Yeung 2013). The disadvantage in college selectivity may impede female students to successfully attend graduate schools.

College major is another important factor shaping the possibility to attend graduate schools. Studies in the U.S. find that students majoring in field with less economic returns, such as liberal arts and education, are more likely to attend graduate schools and attain graduate degrees (Goyette and Mullen, 2006; L. Zhang, 2005). It is because of the expectation of lower earnings that students in less-paid college majors may choose to go to graduate school to increase their human capital and economic returns in labor market. (Eide and Waehrer 1998). The higher probability to go to graduate school is considered as an optional value of those less-paid college majors, which motivates students to choose those majors with less economic returns (Eide and Waehrer, 1998; L. Zhang, 2005). The gender segregation in field of study is salient in contemporary China. Female students are concentrated in humanities and education, while underrepresented in science and

engineering (He and Zhou, 2018). We may then expect to see gender differences in

graduate school attendance due to the gender segregation in field of study.

Taken above, the gendered college experience may play roles in different

directions in shaping the post-college pathways.

H2a: Female students are more likely to attend graduate schools because of their better academic performance.

H2b: Female students are less likely to attend graduate schools because of their concentration in less-selective institutions.

H2c: Female students are more likely to attend graduate schools because of their concentration in less lucrative college majors, like education and humanities.

#### Chapter 4. Data and Methods

#### Data

I use the Beijing College Students Panel Survey (BCSPS) to examine gender differences in the post-college pathways among China's recent college graduates. BCSPS followed two cohorts of college students who entered college in the year of 2006 (cohort 2006) and 2008 (cohort 2008) for five years since 2009. The population covers 170,000 college students from 54 public universities and colleges in Beijing. Based on this sampling frame, a sample of 5,100 students from 15 universities and colleges was generated in the first year of data collection. And 4,771 students were successfully interviewed in the first wave of data collection. The response rates are all over 80 % in the next three waves.

This data set is appropriate to address the above questions because it contains information on the sociodemographic backgrounds, college experience (such as field of study, school selectivity, and academic performance), and anticipated family formation. It includes several questions about post-college plans at the beginning of the survey and post-college destinations at the point of students' graduation. Meanwhile, because all these respondents attended colleges in Beijing, the effects of regional characteristics that may influence decisions on whether to attend graduate schools could be controlled, such as educational policies and labor market situations (He and Zhou 2018). While BCSPS is not a nationally representative survey, it offers variation in both the quality and quantity of education students receive in China because Beijing offers different tiers of higher education institutions that reflect the higher education system in the whole country.

For the analytic sample, I first deleted 25 cases with inconsistent gender across waves. For the remaining cases, there are about 17 % of cases with missing data in at least one variable included in the analysis. The dependent variable post-college destinations have 12.79% of missing cases, which is the highest missing proportion. I use multiple imputation to generate 10 complete datasets to conduct the analysis. All variables used in the analysis are included in the imputation models. To avoid the unnecessary random noise of imputed values of dependent variables, I restrict analysis to only those cases with observed values of dependent variables after imputation (Han, 2016; Von Hippel, 2007) . Results with and without imputation are consistent. The final analyzing sample is N=4,138.

#### Measures

The first analysis of this study examines gender differences in post-college plans. This dependent variable is a three-category indicator of whether the respondents plan to attend graduate school, enter the labor market, or has no clear plans after they graduate from colleges. Respondents were asked about their post-college plans in the first wave of the data when students in cohort 2006 were in the third year of college and students in cohort 2008 were in the first year of college.

The second analysis looks at gender differences in post-college destinations. The students were asked two questions in the end of their last school year in college when

they have applied for graduate schools or jobs. The two questions are "Are you going to attend the graduate school which has admitted you?" and "Have you signed a contract with any employers?" Based on these two questions, I create a nominal variable including three categories to indicate their post-college destinations: attend graduate school, employed, and others. The others category includes several situations in which the students were not being able to attend graduate school, were unemployed, did not apply for graduate school, or did not try to find a job. These situations all indicate an unclear pathway beyond college graduation.

Gender (1=female, 0=male) was measured by the question "Which gender are you?" Anticipated family formation is measured by a series of questions asked in wave 1 about respondents' expectations of marriage and parenthood. Respondents were first asked "Do you plan to get married in the future?" Responses include "1=I'm currently married", "2=No, I am not going to be married in the future", "3=Yes, I plan to get married in the future", "4=No, I do not expect to be married in the future", and "5=I have never thought of this question". For those who indicate willingness to get married in the future, they were further asked about the earliest age and the latest age of anticipated marriage. Based on these questions, I create a nominal variable including four categories: "1=Earlier Marriage", "2=Later Marriage", "3=Unclear Marriage", and "4=No Marriage". I use the earliest age of marriage they replied to determine whether it is earlier marriage or later marriage. I make the cutpoints between earlier marriage and later marriage at one standard deviation above mean. The cutpoint is at the age of 27 for women and 28 for men<sup>4</sup>. In other words, female respondents whose reported earliest marriage age is 27 and higher are coded as later marriage and whose earliest marriage age is lower than 27 are coded as earlier marriage. For men, 28 and higher are considered as later marriage. Respondents who reported currently married are coded as earlier marriage (N=1). Respondents who reported not going to be married and no expectation about getting married are coded as no marriage category. Respondents who reported never thinking about this question are coded into unclear category.

In term of anticipated parenthood, respondents were also asked similar questions. I also create a four-category variable to include information about anticipated parenthood: "1=Earlier Parenthood", "2=Later Parenthood", "3=Unclear Parenthood", and "4=No Child". The cutpoint of earlier parenthood is 28 for women and 30 for men. Respondents who currently have children are coded as earlier parenthood (N=3). Respondents who reported not going to have children and no expectation about having children are coded as no child category. Respondents who reported never thinking about this question are coded into not unclear category.

The other key independent variables for the second analysis are those pertaining to the students' college experience: 1) college academic performance, 2) college selectivity, and 3) field of study. College academic performance is measured by the rank of academic

<sup>&</sup>lt;sup>4</sup> I make different cutpoints for men and women because first, they face different expectations about marriage timing. Second, the legal age of marriage is also different for men and women. Moreover, from census data, the average age of first marriage is 25.07 for urban women and 26.92 for urban men in 2010 (NBS 2012). Considering respondents in this sample are all college educated, I construct the cutpoints using the age distribution of respondents, instead of using information from the census data.

achievement in class and Communist Party of China (CPC) membership. Respondents were asked in each wave to report their performance ranking in class and also their class size. I construct a percentile ranking indicator of academic performance considering class size and class ranking. Lower percentile means better academic performance. Following previous literature about higher education and stratification in China (Li 2016; Min, Chen, and Wang 2018), I include the Communist Party of China (CPC) membership as one indicator of college students' academic performance. Research finds that academic performance and participation in extra-curricular activities are the two most important criteria in recruiting student CPC members. The party recruitment is more of an intellectual elite grouping than social class reproduction in contemporary China (D. Li and Tang, 2016). Therefore, CPC membership can serve as a supplementary indicator of students' overall performance and resources gaining in college beyond academic performance. For the post-college plans, I use academic performance and CPC membership information in the first wave of data, when the questions about post-college plans were asked. For the post-college destinations, I use the information in their graduation years when the questions about post-college destinations were asked.

Following previous studies, college selectivity is measured by where the undergraduate institution fits in the higher education institution hierarchy in China. I create a three-category variable to indicate undergraduate institution selectivity: 1=Highly selective; 2=Selective; 3=Non-selective. The highly selective group are schools from the "Project 985", which requires the highest CEE scores to be admitted in. The second selective group are from "Project 211" which are the main key universities in China and comprise about 6 percent of higher education institutions in China. Schools in Project 985 and Project 211 often receive more funding from the government and requires higher CCE scores to be admitted.<sup>5</sup> Schools not included in Project 985 and Project 211 are coded as non-selective schools. In this sample of 15 schools, there are three schools which are in the Project 985 and seven schools which are in the Project 211. Field of study is measured by the college major respondents claimed in the first wave of the survey. I recoded the college majors into three broad fields: 1=Humanities, Education, and Art; 2=Management and Social Sciences; 3=Science and Technology.

I also include social demographic, family background, and academic variables that may impact the post-college pathways. Specifically, I control college attendance year (2006 or 2008), original *hukou* type (urban or rural), ethnicity (*Han* or other), and family background. *Hukou* is a special household registration system in China. Set up by the government in 1950s for controlling population movement, the *hukou* system classifies every citizen in China as "rural" or "urban" and identifies one's areas of residence. Residents with urban *hukou* show large advantages in educational attainment both before and after the higher education expansion (Yeung 2013). Respondents were asked to report their *hukou* type before college in the first wave of the survey. *Han* is the dominant ethnic group in China and there are other 55 ethnicities recognized as ethnic minorities. According to the census data in 2010, the total population of these 55 ethnicities

<sup>&</sup>lt;sup>5</sup> There are over 2,500 universities and colleges in China. Among them, only 39 universities and colleges are in the Project 985 and 112 universities and colleges are in the Project 211 (MOE 2017). For more information about the implementation of Project 211 and Project 985, see (Li, 2004).

comprised 8.49 % of the population in mainland China (NBS 2012). These ethnic minorities often live in less-developed and poorer areas. They also show large disadvantages in educational and occupational attainment (Hannum and Xie, 1998). Family background is measured by the highest educational attainment obtained by parents (middle school and less / high school and some college / college and higher).

#### Analysis

The two dependent variables in this study are both three-category nominal variables, so I run two series of **multinomial logistic regression models**, considering clusters of schools. I first run models to test the effects of anticipated family formation for the post-college pathway plans. As has talked above, the anticipated family formation has gender-specific effects for men and women. Therefore, I run this model by men and women respectively. I then use the *Stata* command *suest* to test the different effects of anticipated family formation for men and women.

For the second dependent variable, I run a series of nested models to test how different college experience may shape the gender differences in post-college destinations. The baseline model only includes gender and then I add social demographic and family background variables. The further models add academic performance, college selectivity, and field of study one by one. By noticing the coefficient changes of the gender variable, I can tell how the adding variables mediate the relationship between gender and post-college pathways. I also conduct post-estimation tests to examine whether the coefficient changes in different models are significant.

#### Chapter 5. Results

#### **Descriptive Statistics**

Table 1 presents means or proportions for all variables used in this study. I also conduct *t*-test to test whether the gender differences in means / proportions are significant. In terms of post-college plans, the vast majority of both men and women plan to attend graduate schools (the proportions are both larger than 50 %) and a relatively lower proportion of them plan to work immediately after college completion. The proportion of aspiring to attend graduate schools is significantly higher for male students than female students (p<0.01). When we look at post-college destinations, men and women show similar proportions (both are larger than 40 %) to attend graduate schools. This is consistent with the national overall trend of gender difference in graduate education enrollment (see Figure 1). There are slight gender differences in graduate men in graduate education enrollment. Moreover, women show significantly higher proportion to be employed after college completion (p<0.01).

In terms of anticipated family formation, there is a higher proportion of women (49.0 %) who reported earlier anticipated marriage age than men (42.3 %) and lower proportion of women (19.6 %) who reported a later anticipated marriage than men (23.9 %). In contrast to anticipated marriage, women reported higher proportion of later

Variables	Total	Men	Women	t-Test of Mean Difference
Post-college Plan				
Attend graduate school	.556	.579	.531	**
Go to work	.271	.261	.281	
Unclear	.173	.160	.188	*
Post-college Destinations				
Attend graduate school	.415	.423	.407	
Employed	.328	.308	.349	**
Others	.257	.269	.244	
Gender				
Male	.516	/	/	
Female	.484	/	/	
Anticipated Marriage				
Earlier marriage	.455	.423	.490	***
Later marriage	.218	.239	.196	**
Not clear now	.260	.284	.235	***
No marriage	.066	.054	.080	**
Anticipated Marriage Age	26.060	26.507	25.599	***
Ν	2,784	1,413	1,371	
Anticipated Parenthood				
Earlier parenthood	.340	.344	.336	
Later parenthood	.187	.158	.218	***
Not clear now	.372	.420	.321	***
No child	.101	.078	.125	***
Anticipated Parenthood Age	27.514	28.109	26.942	***
Ν	2,196	1,076	1,120	
Academic Performance Percentile (wave 1)	.437	.480	.391	***
Academic Performance Percentile (fourth year in college)	.407	.458	.352	***
Party Membership (wave 1)				
Yes	.158	.156	.159	
No	.842	.844	.841	

Table 1. Means or Proportions of Variables by Gender

Continued

Table 1. Continued

Variables	Total	Men	Women	<i>t</i> -Test of Mean Difference
Party Membership				
(fourth year in college)				
Yes	.344	.329	.361	*
No	.656	.671	.639	
School Selectivity (%)				
Non-selective	.294	.216	.376	***
Selective	.423	.485	.356	***
Highly Selective	.284	.299	.268	*
Field of Study (%)				
Humanities and Education and	170	000	255	***
Art	.170	.090	.235	
Social Sciences and	.286	.193	.385	***
Management	.200			4.4.4
Science and Technology	.544	.716	.359	* * *
Parent educational attainment				
Middle school and less	.179	.216	.139	***
High school and some college	.301	.304	.296	
College and higher	.520	.480	.564	***
Cohort				
2006	.485	.482	.488	
2008	.515	.518	.512	
Hukou Type				***
Rural	.282	.320	.242	
Urban	.718	.680	.758	
Ethnicity				*
Han	.888	.897	.877	
Non-Han	.112	.103	.123	
Ν	4.138	2,137	2.001	

Note: \*\*\*p<0.001; \*\*p<0.01; \*p<0.05; Descriptive statistics are estimated from imputed datasets.

anticipated parenthood (21.8 %) than men (15.8 %). Even though women reported younger mean age of anticipated marriage and parenthood, note that the earlier marriage / parenthood and later marriage / parenthood are constructed by different distributions within gender.

Women also show large advantages in the two academic performance indicators. A slightly higher proportion of women claimed party membership in this sample, both in earlier years and later years of college. In addition, women's overall academic performance percentile is significantly higher than men (p<0.001), which indicates that female students have better academic performance during college study. Women in this sample, are more likely from non-selective colleges, while men are more likely attend selective colleges, which show a gender gap in horizontal stratification of higher education (Gerber and Cheung, 2008; Yeung, 2013). The gender segregation in field of study is also salient in this sample. Consistent with previous studies (He and Zhou 2018), men are more concentrated in fields of science and technology. While in other fields of study, female students take higher proportions.

In terms of demographic information, this sample is largely urban residents and Han ethnicity. This is consistent with previous studies that higher education opportunities are more open for people in urban and advantaged families (Yeung 2013). Female students are also more concentrated in higher socioeconomic families. Even though the majority of this college-educated sample are from higher SES families, higher proportions of females (56.4%) are from families with parents who have a bachelor's degree and higher, comparing with males (48.0%). The descriptive statistics only tell us that there are gender differences in the overall patterns of post-college pathways. Male college students are more likely to develop aspirations to go to graduate schools, while female students are more likely to be employed after college completion. Multivariate analyses discussed in the following sections will indicate how different constraints and resources for men and women shape the gendered post-college pathways.

#### **Gender Differences in Post-college Plans**

Table 2 presents multi-nomial logistic regression results of anticipated marriage and parenthood on gender differences in post-college plans. As has talked above, I run the models separately for men and women. I also include controls of sociodemographic and educational backgrounds. Postestimation tests report whether coefficients are significantly different across models. As is shown in table 2, anticipated marriage is associated with post-college plans for both men and women. Comparing with people who reported earlier marriage, unclear about future marriage decreases the relative risk ratio of working relative to attending graduate schools for women by 40 % (p<0.01). For men, the relative risk ratio of working relative to attending graduate schools is higher for earlier marriage than both later marriage (p < 0.001) and unclear marriage (p < 0.05). In terms of the relative risk ratio of a unclear plan versus graduate school, earlier marriage also has significantly higher ratio than later marriage (p < 0.001) and unclear marriage (p<0.05) for women. For men, in contrary, earlier marriage has actually significantly lower risk ratio of unclear pathway relative to attending graduate schools than unclear marriage (p < 0.05). The majority of these coefficients are not significantly different for

	Work / Grad	uate School	Unclear / Grad	uate School
	RF	RR	RRF	ξ
	(S)	E)	(SE	)
	Women	Men	Women	Men
Anticipated marriage (earlier marriage omitted)				
Later marriage	0.761	0.681***	0.529***	0.737
	(0.14)	(0.08)	(0.10)	(0.15)
Unclear marriage	0.600**	0.686*	0.757*	1.408*
	(0.12)	(0.13)	(0.10)	(0.22)
No marriage	0.816	0.911	0.839	1.209
	(0.29)	(0.31)	(0.19)	(0.46)
Anticipated parenthood (earlier parenthood omitted)				
Later parenthood	0.691*	1.249	0.802	0.764
	(0.12)	(0.21)	(0.20)	(0.22)
Unclear parenthood	1.174	0.932	2.150***	1.225
	(0.22)	(0.17)	(0.46)	(0.20)
No child	1.049	1.481	1.467	1.453
	(0.23)	(0.31)	(0.34)	(0.47)
School selectivity (non-selective omitted)				
Selective	0.268***	0.392**	0.580**	0.468***
	(0.08)	(0.11)	(0.10)	(0.08)
				Continued

## Table 2. Multinomial Logistic Regression on Post-college Plans

### Table 2. Continued

Work / Grad	luate School	Unclear / Graduate School		
RF	RR	RRF	ł	
(S)	E)	(SE)	)	
Women	Men	Women	Men	
0.164***	0.112***	0.593**	0.441***	
(0.04)	(0.03)	(0.11)	(0.10)	
1.250	0.887	0.883	1.097	
(0.31)	(0.28)	(0.21)	(0.34)	
0.694	0.338**	0.727	0.543	
(0.17)	(0.11)	(0.13)	(0.19)	
8.133***	10.918***	2.617*	3.838***	
(2.55)	(2.83)	(1.01)	(1.18)	
0.817	0.596*	0.817	1.007	
(0.11)	(0.14)	(0.10)	(0.21)	
0.894	1.114	0.256***	0.334***	
(0.11)	(0.14)	(0.04)	(0.04)	
0.775	0.607***	0.933	0.819	
(0.15)	(0.08)	(0.21)	(0.17)	
0.805	0.704**	0.855	0.881	
(0.19)	(0.09)	(0.15)	(0.18)	
	Work / Grad   RF   (S)   Women   0.164***   (0.04)   1.250   (0.31)   0.694   (0.17)   8.133***   (2.55)   0.817   (0.11)   0.894   (0.11)   0.775   (0.15)   0.805   (0.19)	Work / Graduate SchoolRRR (SE)WomenMen $0.164^{***}$ $0.112^{***}$ $(0.04)$ $(0.03)$ $1.250$ $0.887$ $(0.31)$ $(0.28)$ $0.694$ $0.338^{**}$ $(0.17)$ $(0.11)$ $8.133^{***}$ $10.918^{***}$ $(2.55)$ $(2.83)$ $0.817$ $0.596^{*}$ $(0.11)$ $(0.14)$ $0.894$ $1.114$ $(0.11)$ $(0.14)$ $0.775$ $0.607^{***}$ $(0.15)$ $(0.08)$ $0.805$ $0.704^{**}$ $(0.19)$ $(0.09)$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	

Continued

	Work / Grad	uate School	Unclear / Graduate School		
	RR (SI	R E)	RRR (SE)		
	Women	Men	Women	Men	
Parental educational attainment (middle school and lower omitted)					
High school	0.565**	1.065	0.752	1.282	
	(0.12)	(0.18)	(0.17)	(0.27)	
Some college and higher	0.301***	0.441***	0.497**	0.746	
	(0.06)	(0.06)	(0.12)	(0.19)	
Constant	2.512*	2.510*	1.335	0.758	
	(1.18)	(1.12)	(0.54)	(0.31)	
Ν	2,001	2,137	2,001	2,137	

Note: Relative risk ratio (RRR) are reported; robust standard errors in parentheses; The effects of unclear marriage on the RRR of unclear versus graduate schools is significantly different for men and women ( $b_{unclear marriage/men} - b_{unclear marriage/women}=-.621, p=.029$ ); The effects of later parenthood on the RRR of work versus graduate schools is significantly different for men and women ( $b_{later parenthood/men} - b_{later}$ 

men and women except unclear marriage in the comparison of unclear pathway versus graduate school ( $b_{unclear marriage/men} - b_{unclear marriage/women}$ =-.621, p=.029). These results partially support hypothesis 1a. Earlier marriage decreases the posibility to aspire to go to graduate shools actually for both women and men, while has positive associations with aspiration to go to grduate schools for men than those with unclear marriage when choosing between unclear plan and attending graduate schools.

The associations between anticipated parenthood and post-college plans are, however, more pronounced for women. Later parenhood decreases relative risk ratio of work versus attending graduate schools for women by 30.9 % (p<0.05),while has no significant associations with men's post-college plans. The coefficients of later parenthood is also significantly different for women and men ( $b_{later parenthood/men} - b_{later}$ parenthood/women=-.592, p=.023). For the comparison between unclear plan versus attending graduate schools, unclear parenthood increases the relative risk ratio by 2.15 times for women (p<0.001) and still no significant associations with men. The coefficients of unclear parenthood is marginally significantly different for women and men ( $b_{later}$ parenthood/men –  $b_{later parenthood/women=-.562$ , p=.050). These results partially support hypothesis 1b. The associations between earlier parenthood and post-college plans is more pronouanced for women and have different directions between women anticipating later parenthood and unclear parenthood.

The gendered effects of anticiapted family formation are even more clear in Figure 3, which shows the predicted probabilities to aspire to attend graduate schools by anticiapted marriage and parenthood for men and women. All other variables are





Note: Astersks indicate significant differences comparing with earliear marriage / parenthood within gender; \*\*\*p<0.001; \*\*p<0.01; \*p<0.05; All other variables are at their means.

Figure 3. Predicted Probabilities of Planning to Attend Graduate Schools by Anticipated Marriage and Anticipated Parenthood

controlled at their means and the stars indicate significant within-gender differences than earlier marriage / parenthood. The probabilities of planning to attend graduate schools are higher for men than women in each anticipated family category (except later parenthood), which is consistent with men's higher probabilities to aspire to attend graduate schools overall. The anticipated marriage has similar associations for men and women. Later marriage increases both their probabilities to aspire to go to graduate schools. For women, unclear about future marriage also increases the probabilities to plan to attend graduate schools. The anticipated parenthood, however, show much more clear associations with women's aspiration to graduate schools. Comparing with earlier parenthood, later parenthood increases the probabilities to aspire to go to graduate schools and unclear parenthood decreases the probabilities for women. For men, however, the timing and certainty of parenthood does not influence their aspirations to graduate schools. In addition, planning not to have child did decreases their probabilities to aspire to graduate schools. This is consistent with the family plans thesis that men who anticipated parenthood did upgrade their career plan to meet their breadwinner roles (Bass 2015). Overall, anticipated earlier marriage decreases the probabilities of aspiration to graduate schools for both men and women. The timing and certainty about parenthood only shape women's aspirations to graduate schools, and men's aspiration is only influenced by whether to have child.

#### **Gender Differences in Post-college Destinations**

Table 3 shows a series of nested models on gender differences in post-college destinations. I add indicators of academic resources, i.e. academic performance, school selectivity, and field of study one by one to examine how these resources can mediate the relationship between gender and post-college destinations. I use *suest* command in *Stata* to test whether the coefficient changes of the gender variable are significant among these nested models.

Model 1 is the baseline model which only includes gender. We can see there are no significant gender differences in terms of going to work versus attending graduate school and others versus attending graduate school. Model 2 adds family background, sociodemographic indicators, post-college plans, and anticipated family formation. The gender variable is still not significant. We could see that the post-college plans have positive associations with the post-college destinations.

When the two variables of academic performance are added in Model 3, the gender variable becomes significant, both in the employed versus graduate school and others versus graduate school comparisons. The coefficient change of the gender variable is significant between Model 2 and Model 3 (p<0.001). Relative to attending graduate schools, the risk ratios of being employed for female students are higher than male students by 50.9 % (p<0.001) and also are more likely to be in the others category than male students by 22.9 % (p<0.05). When controlling for academic performance, females are disadvantaged in terms of attending graduate schools. This supports hypothesis 2a

	Employed / Graduate Schools					Others / Graduate Schools				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Female	1.180 (0.184)	1.134 (0.12)	1.509*** (0.14)	1.293* (0.15)	1.076 (0.10)	0.943 (0.113)	0.898 (0.09)	1.229* (0.13)	1.079 (0.13)	0.892 (0.09)
Party membership			0.700**	0.879	0.873			0.634***	0.740**	0.732**
memorenep			(0.09)	(0.10)	(0.10)			(0.07)	(0.08)	(0.08)
Academic performance percentile			11.756***	21.623***	23.445***			14.034***	21.843***	23.616***
1			(4.80)	(7.11)	(7.64)			(5.20)	(8.08)	(8.93)
School selectivity (non-selective omitted)										
Selective				0.268***	0.310**				0.295**	0.324*
TT: -1.1				(0.10)	(0.13)				(0.13)	(0.15)
selective				0.091***	0.087***				0.167***	0.161***
				(0.04)	(0.04)				(0.07)	(0.08)
Field of study (education and art and humanities omitted)										
sciences and					1.282					0.885
management					(0.28)					(0.16)
Science and					0.634					0.527**
technology					(0.16)					(0.12)
										Continued

Table 3. Multilnomial Logistic Regression on Post-college Destinations

## Table 3. Continued

	Employed / Graduate Schools						Others / G	Graduate Schools		
-	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Cohort 2006		1.051	1.010	1.032	1.034		1.542***	1.476***	1.500** *	1.516***
		(0.10)	(0.11)	(0.12)	(0.12)		(0.15)	(0.14)	(0.16)	(0.16)
Urban Hukou		1.083	0.983	1.024	1.000		1.291	1.164	1.185	1.152
		(0.16)	(0.12)	(0.12)	(0.11)		(0.21)	(0.16)	(0.17)	(0.16)
Han Ethnicity		0.828	0.929	0.884	0.918		0.598**	0.680	0.653	0.672
		(0.11)	(0.13)	(0.15)	(0.14)		(0.10)	(0.14)	(0.15)	(0.14)
Parental educational attainment (middle school and lower omitted)										
High school		1.026	1.015	0.904	0.890		1.008	0.992	0.915	0.901
		(0.12)	(0.11)	(0.10)	(0.10)		(0.12)	(0.11)	(0.11)	(0.11)
Some college and higher		0.541***	0.512***	0.536***	0.518***		0.674*	0.630**	0.651**	0.634**
		(0.08)	(0.08)	(0.07)	(0.07)		(0.12)	(0.11)	(0.10)	(0.10)
Post-college plans (not clear omitted)										
Work		4.075***	3.746***	2.630***	2.506***		2.425***	2.207***	1.660** *	1.604***
		(0.57)	(0.64)	(0.42)	(0.40)		(0.34)	(0.37)	(0.23)	(0.22)
Graduate school		0.374***	0.417***	0.437***	0.454***		0.443***	0.500***	0.519** *	0.542***
		(0.04)	(0.05)	(0.05)	(0.05)		(0.05)	(0.05)	(0.05)	(0.05)

Continued

## Table 3. Continued

	Employed / Graduate Schools					Others / Graduate Schools				
-	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Anticipate marriage (earlier marriage omitted)										
Later marriage		0.978	1.015	0.997	0.978		1.160	1.209	1.191	1.168
		(0.10)	(0.11)	(0.13)	(0.13)		(0.14)	(0.14)	(0.15)	(0.14)
Not clear now		0.839	0.788	0.858	0.873		1.106	1.034	1.093	1.105
		(0.12)	(0.13)	(0.17)	(0.17)		(0.20)	(0.18)	(0.21)	(0.21)
No marriage		1.120	1.063	1.230	1.212		1.473	1.380	1.542	1.507
		(0.32)	(0.30)	(0.40)	(0.40)		(0.32)	(0.31)	(0.39)	(0.38)
Anticipated parenthood (earlier parenthood omitted)										
Later parenthood		1.047	1.062	0.989	0.977		0.942	0.954	0.901	0.890
		(0.11)	(0.12)	(0.11)	(0.11)		(0.11)	(0.13)	(0.13)	(0.12)
Not clear now		1.034	1.047	0.997	0.992		0.996	1.005	0.967	0.959
		(0.14)	(0.14)	(0.14)	(0.14)		(0.18)	(0.18)	(0.17)	(0.16)
No child		1.386	1.321	1.106	1.093		1.214	1.152	0.989	0.970
		(0.28)	(0.26)	(0.21)	(0.21)		(0.27)	(0.24)	(0.21)	(0.20)
Constant	0.728	1.363	0.510	1.562	1.886	0.636	1.110	0.390**	1.103	1.683
-	(0.205)	(0.39)	(0.18)	(0.63)	(1.06)	(0.135)	(0.33)	(0.14)	(0.46)	(0.88)
Ν	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138	4,138

Note: Relative risk ratio (RRR) are reported; robust standard errors in parentheses; \*\*\*p<0.001; \*\*p<0.01; \*p<0.05.

that the overall better academic performance than male students increases the probalbilities to attend graduate shools for female students.

Adding school selectivity in Model 4, the relative risk ratio is diminished for the employed versus graduate school comparison and gender differences become insignificant in the others versus graduate school comparison. And both the coefficent changes are significant (p<0.001). In this model, female students only have slighty larger risk ratio of being employed than male students, relative to attending graduate schools (p<0.05). This supports hypothesis 2b that the gender differences in attending graduate schools can be partly attributed to the gender differences in college selectivity. We can find similar patterns in Model 4 when field of study is added. The gender variable becomes insignificant when controlling for field of study. Contrary to our hypothesis, students in science and technology are more likely to attend graduate schools relative to be in the others category (p<0.01). Thus, the gender differences of these academic resources shape the gendered post-college pathways in different directions.

#### Chapter 6. Conclusions and Discussions

Women's advantages in college education as a global phenomenon have been recognized by researchers in recent years (DiPrete and Buchmann 2013; McDaniel 2012), while less is known about the consequences of the progress women have made in their later life stages. By looking at gender differences in post-college plans and destinations, this study provides evidence of gendered post-college pathways among China's recent college graduates. Drawing data from Beijing College Students Panel Survey (BCSPS), this paper finds gender differences in the post-college plans and destinations. The descriptive statistics show that male students than female students are more likely to develop aspirations to attend graduate schools and female students are more likely to be employed after college completion. The multivariate analyses show that the anticipated marriage is associated with the post-college plans of both female and male students, while the effects of anticipated parenthood is more pronounced for female students' postcollege plans. The positive relationship between later parenthood and aspiration of graduate education is only found among female college students. In terms of post-college destinations, better academic performance helps female students to be more likely to attend graduate schools, while concentration in less-selective institutions and femaledominated majors have negative associations with the probabilities to attend graduate school for female students.

As a source of constraints for educational decisions, anticipated family formation shapes the aspiration whether to pursue graduate education differently for men and women. This result is consistent with research in the U.S. that when making early career decisions, young women would consider their family roles more and adjust their educational trajectories to family formation expectations (Bass 2015; Allison and Ralston 2018). Considering the resurrection of the patriarchal tradition and universal marriage tradition in post-reform China (Ji et al. 2017; Yeung and Hu 2013), future family formation may make women expect to conduct intensive family work and severe familywork conflicts. These constraints on women's decisions to invest advanced education may further play a role in shaping gender inequality in labor market, in spite of the educational progress women have made.

It is noteworthy, however, even though the anticipated age of parenthood only has associations with female students' post-college plans, anticipated marriage shows similar relationship for men and women and planning not to have child actually decreases men's probabilities to aspire to attend graduate schools. This finding calls attention on, first, the expectations of child care in households is highly feminized in contemporary China. The transition to parent roles bring intensive family obligations for women, so they have to choose a way to balance the need in career and family. Second, it also highlights the need to examine how anticipated family formation and expectations about future family roles may shape young men's career decisions. Expectation about having child upgrade men's career plans to meet the breadwinner roles (Bass 2015). A study in the U.S. find that work-family gender attitudes are also related to adolescent boys' educational expectation, while the relationship between future family formation and boys and young men's educational and occupation trajectories are undertheorized and under-examined (Davis and Pearce, 2007).

In terms of resources which shape post-college destinations, we see that they work in different directions to produce a gendered post-college pathway. Female students have gained sizable advantages in college academic performance, which help them to be more likely to attend graduate schools. Better academic performance not only help young female students to be more likely to be admitted in and complete colleges (Buchmann and DiPrete 2006), but also assist them in later educational trajectories.

However, despite the educational advantages college women have made, they still concentrate in less-selective colleges and female-dominated college majors. These are the competing forces which shape the gender differences in post-college destinations. Meanwhile, the post-college pathways among China's recent college graduates show distinctive patterns, comparing with the U.S. Studies in the U.S. find that students in female-dominated and less lucrative majors, like humanities and education, are more likely to attend graduate schools than other college majors (Eide and Waehrer 1998; Zhang 2005). Scholars conceptualize that it is because of the optional valued of attending graduate schools that students are motivated to choose these less-lucrative college majors. However, analyses in this study show that students in those female-dominated college majors are actually less likely to attend graduate schools and students majoring in science and technology are actually more likely to attend graduate schools. This distinctive pattern in China can be explained by the educational system and economic structure.

First, the quota of graduate education enrollment in science and technology is always larger than any other college majors. This is consistent with government's emphasis on development in technology (Yeung 2013). Second, those female-dominated college majors, like education and humanities, are not less-lucrative college majors in China. I conduct a supplementary analysis about the salary of first jobs among these college graduates. It turns out that students majoring humanities have the highest mean salary than students in other college majors. This is largely driven by the high mean salaries of students majoring in foreign language. It indicates that students in science and technology with bachelor's degree do not hold salary premium than students in other majors, which motivates them to pursue graduate degree with potential higher income.

This study has several limitations in terms of these findings and implications. First and foremost, there could be reverse causal relationship between anticipated family formation and post-college plans. How education impacts the family formation is a fundamental topic in studies of family and marriage (Qian and Qian 2014). It is difficult to identify the causal direction using this dataset, while the theories do implicate that consideration about family formation may shape young people's career decisions. Second, the post-college destinations were measured in the year of graduation and lacks longitudinal measurements to better understand the post-college trajectories men and women choose. It is possible that people shift their career decisions in response to life experiences in future life stages.

Despite these limitations, this study shows that young female students face tradeoffs between traditional family roles and further education investments. What is noteworthy is that among more recent cohorts, female college graduates have started to gain advantages in graduate school attendance than their male counterparts in recent years (see Figure 1). The potential factors can be the continuing better academic performance of female college graduates and higher returns of graduate education degrees for female workers (Li 2016). However, this study did show that gender roles and family-related responsibilities would continue impacting the everyday life of younger generation women in post-reform China. And it may have influential effects for future gender inequality in labor market and other public spheres.

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