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Jing Kong April 7, 2016

Is Higher Education a Disadvantage for Women in the Marriage Market?

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a thesis submitted to the Faculty of Emory College of Arts and Sciences
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Abstract

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Using data from Integrated Public Use Microdata Series (IPUMS-USA), in this paper, I use linear ordinary least squares model to evaluate the relationship between women's education and their marital status. The study finds evidence that women with higher degrees are less likely to get married, and will get married at later age. In addition, women with higher education are more likely to have a spouse with a bachelor degree or above. Moreover, compared to women who study "Science, Math and Technology", women who study "Art and Humanities" are less likely to get married.

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I. Introduction

Nowadays, there is a low marriage rate in the United States, only half of all adults in the United States are currently married, and the median age at first marriage has never been higher for brides (26.5 years) and grooms (28.7 years), according to a new Pew Research Center analysis of U.S. Census data. In the United States, the declines have occurred among all age groups, but are most dramatic among young adults. Today, just 20% of adults ages 18 to 29 are married, compared with 59% in 1960. Over the course of the past 50 years, the median age at first marriage has risen by about six years for both men and women (D'Vera Cohn et al. 2011).

The customs of marriage has undergone significant changes in recent decades as women have surpassed men in education and earnings growth. These changes in gains have been accompanied by gender role reversals in both the spousal characteristics and the economic benefits of marriage.

Moreover, for more than a century, women often had a hard time choosing between an education and a husband. Of women who graduated from college before 1900, more than

three-quarters remained single. As late as 1950, one-third of white female college graduates ages 55 to 59 had never married, compared with only 7 percent of their counterparts without college degrees (Fry and Cohn 2011).

American women face "a radically shrinking pool of what are traditionally considered to be 'marriageable' men — those who are better educated and earn more than they do." As Kate Bolick wrote in an article in The Atlantic last fall, educated women worry that their high education are pushing away potential partners, and pundits claim that those who do marry will end up with unsatisfactory matches. They point to outdated studies suggesting that women with higher earnings than their husbands do more housework to compensate for the threat to their mates' egos, and that men who earn less than their wives are more likely to experience erectile dysfunction (Stephanie Coontz 2012).

Although there are some studies describing the trend in delayed marriage and non-marriage including likely reasons for these trends, those studies do not prove the accurate effects of women's education on women's marriage status and other social characteristics. This paper focuses on women's marriage trend in recent years in the United States, specifically during the

period 2001-2013. In addition, the paper focuses on women with higher education. Finally, the paper adds women's major field as an independent variable in regression models trying to find if women's major field also has some effects on those dependent variables including their marriage age and their husbands' education.

In this paper the following questions are emphasized: 1) How does education/degree affect women's marriage? 2) For those women ever married, how does education/degree affect marriage ages? 3) What is the impact of education/degree on the number of children of those married women? 4) For those married women, what's the education of their husband?

The remainder of the article is organized as follows. Section 2 presents literature review and hypotheses based on previous studies. Section 3 describes the dataset and illustrates the model to be estimated. Section 4 summarizes the results. Section 5 is the discussion.

II. Literature Review

2.1 Women's education and marriage

According to Berna M. Torr (2016), when gender specialization was high, there was a negative relationship between education and marriage for women. College-educated women were the least likely to be currently married and most likely to be never married. Declines in specialization were accompanied by a transition in this relationship. By 2000, when gender specialization was low, there was a positive relationship between education and marriage for women. College-educated women were most likely to be currently married, in part because they were more likely to stay married or remarry after divorce or widowhood. This transition occurred earlier and more completely for black women than for white women.

However, based on the Pew Research Center analysis of census and American Community Survey, Integrated Public Use Microdata Series (IPUMS), Wendy Wang and Kim Parker (2014) argue that the relationship between education and marital status has changed considerably over time, and the patterns among men and women have reversed. In 1960, men of various education levels were about equally likely to have never been married. Today, there is considerable

disparity in the shares of never-married men along educational lines. Men with a high school education or less are much more likely than men with advanced degrees to have never married (25% vs. 14%). For women, the opposite trend has occurred. In 1960, women with advanced degrees (31%) were about four times as likely to have never married as women with a high school education or less (7%). These educational gaps have closed over time, and today women of different educational backgrounds are almost equally likely to have never been married. (See Figure 1) This study implicates that women with higher education degree tend to marry later or remain unmarried nowadays (See Figure 2). In this paper, we further study the relationship between women's education degrees and their marriage statuses. In particular, we look at women with high education degree (PhD's).

2.2 Marrying Up and Down

According to paper in Asian demography in The Economist, higher education leaves the best-educated women with fewer potential partners. In most Asian countries, women have always been encouraged to "marry up," i.e., marry a man of higher income or education. Marrying up was necessary in the past when women could not get an education and female

literacy was low. However, now that many women are doing as well or better than men at school, those at the top—like the "golden misses"—find the marriage market unwelcoming. Either there are fewer men of higher education for them to marry, or lower-income men feel intimidated by their earning power (as well as their education). As Singapore's former president Mr. Lee once said: "The Asian man…preferred to have a wife with less education than himself." I believe that this culture tradition is a possible reason to explain the "left-over" women phenomenon. So in this paper I will further study the education degree of PhDs' husbands and see if there is relationship between couples' education background.

However, there is a different view on this problem. Belinda Luscombe believes, the educational balance among married couples has tipped towards women. Wives are more likely to be the better-educated partner. The trend is particularly sharp among newlyweds; in 2012 almost 40% of college-educated women were married to a man without a degree.

2.3 Women's education and their spouses' employment status

As Richard Fry and D'Vera Cohn (2011) discovered, the stagnant incomes of married women without high school diplomas reflect the poor job prospects of the less educated men in

their pool of marriage partners. These less educated married women, now, are far less likely than in the past to have a spouse who works — 77% in 2007, compared with 92% in 1970. This paper focuses on the correlation between women with a higher education specifically college or above, and their spouses' employment statuses.

III. Data and Empirical Strategy

Here, we will consider data from the Integrated Public Use Microdata Series (IPUMS-USA) that consists of more than fifty high-precision samples of the American population drawn from fifteen federal censuses and from the American Community Surveys (ACS) of 2000-2014. These samples, which draw on every surviving census from 1850-2000, and the 2000-2014 ACS samples, collectively constitute a rich source of quantitative information on long-term changes in the American population. The present study focuses on women with college degree living in the USA. The dataset consists a sample of 1,454,000 households /31951,000 persons from survey year 2001 to 2013.

The basic framework of the analysis will utilize linear ordinary least squares model to predict the relationship between dependent variables and independent variables. This following model addresses the four questions mentioned in the first section:

(1) $y_i=\beta_0+\beta_1 educ_i+\beta_2 race_i+\beta_3 empstat_i+\beta_6 degfield_i+\varepsilon$

we will run several different regression models by changing the dependent variable y. In particular, y will be 1) Marriage status 2) Age of marriage 3) Ever had child 4) Number of children 5) Spouse is PHD 6) Spouse is Bachelor above degree 7) Spouse's employment Status. The index i represents different persons in the dataset.

All 7 regressions have same independent variables: "Education/Degree," "Race," "Employed Status," and "Field of Degree." In order to prevent multicollinearity, a base case is removed in each dependent variable. The dependent variable *educ* denotes "Education/Degree" which includes "1 or more years of college", "Associate's degree", "Bachelor Degree", "Master's degree", "Professional degree beyond a bachelor's", and "Doctoral degree"(*i* from 1 to 6). Here the base case is "Bachelor Degree"(*i*=3) is dropped; Dependent variable *race* denotes "Race" includes "Black", "Asian" and "others"(*i* from 1 to 4) . Here "White"(*i*=1) is dropped as base

case. Dependent variable *empstat* denotes "Employed Status" includes "Employed", "Unemployed" and "Not in the Labor Force" (i from 1 to 3)where "Not in the Labor Force"(i=3) is dropped as base case. Dependent variable *degfield* denotes "Field of Degree" includes "Science, Math and Technology", "Art and Humanities", "Social Science", "Trades and Personal Services", "Public and Social Services", "Multi/Interdisciplinary Studies", "Health and Medicine", "Business" and others(i from 1 to 9). Here " Science, Math and Technology"(i=1) is dropped as base case.

IV. Results

Table 1 presents summary statistics for all variables for regressions of analysis. All the independent variables are indicator variables for which the value is either 0 or 1 except for variables "Marriage Age of Women" and "Number of Children." As seen in the table, on average the U.S. women's age of marriage is 27.7 years. Women in the sample have on average 0.74 children where the range of children is from 0 to 9. It could mean that during 2001-2013, many U.S women are not likely to have kids.

Table 2 and Table 3 mainly present how does education/degree affects women's marriage status and marriage age. There are four key takeaways for the first regression. As seen in the table, comparing women with a Bachelor's degree to women with a higher degree, women with a higher degree are less likely to get married, especially those with Doctoral degree. Women with a Doctoral degree are 2.2 percentage points less likely to get married (Table 2) and will get married at later age (around 2 years later than those with Bachelor degree from Table 3). Women with a Master degree are 0.7 percentage points less likely to get married (Table 2) and their marriage age will be about 0.67 years later than women with a Bachelor degree (Table 3). Regarding to race, Asian women are 0.3 percentage points less likely to get married than White women but more likely to get married than Black or other women. Not surprisingly, employed women are more willing to get married comparing to unemployed women. The last takeaway from the table is about the women's field of study. The statistics shows that comparing to women who study "Science, Math and Technology," women who study "Art and Humanities" are 3.4 percentage points less likely to get married. Women who study "Health and Medicine" are 3.8 percentage points more and "Business" 1.7 percentage points more likely to get married. This

relationship between discipline of study and marriage is significant. However, Business women tend to get married later than women in the science. (about 0.40 years later).

Table 4 and Table 5 show the impact of education/degree on the number of children of those married women. Women with Doctoral degrees are less likely to have a child (Table 4) and tend to have fewer children (Table 5) comparing to women with Bachelor degree. Moreover, Asian women are more likely to have a child but tend to have fewer children. In addition, employed women are more likely to have a child but tend to have less child comparing to unemployed women and women who are not in the labor force. More interestingly, women with Art and Humanities and Trades and Personal Services are not tend to have a child and tend to have fewer children in comparison to women with a major in Science, Math, or Technology.

Table 6 and Table 7 represent the relationship between married womens' education and their husbands' education. In comparison to women with a Bachelor degree, women with a higher degree are more likely to have husband with a doctoral degree especially for women with a doctoral degree (with coefficient 0.26 from Table 6) compared to women with Master (with coefficient 0.036) or other degree. In addition, Asian women are more likely to marry husband

with doctoral degree. From Table 6, we knows that women who study Science, Math and Technology are more likely to marry a husband with a Doctoral degree comparing to women in other study field.

As seen in Table 7, women with higher education are more likely to have a spouse with a bachelor degree or above. Women with doctoral degree increase the likelihood of having a bachelor (or above) husband by 19.2 percentage points comparing to women with college degree. Moreover, Asian women are more likely to have a husband with bachelors degree or higher than any other group of women. Similar to the result of Table 6, women who are not in the labor force have an increased the likelihood of marrying a bachelor/above husband. As for the field of study, the result is also similar to Table 6.

Table 8 presents the relationship between womens's education and their spouses' employment status. Although it shows that women with higher degree are less likely to marry an unemployed husband but this change is not significant. Surprisingly, unemployed women's spouses are more likely to be employed. Finally, women who study Art and Humanities or

Business are likely to have employed spouse in comparison to Math and Science women, although this relationship is not obvious.

V. Discussion

Based on the results in the previous section, there are five key takeaways. First, compared to women with Bachelor's degree, women with higher degrees are less likely to get married, and will get married at later age, especially, if the women has a doctoral degree. This result supports the trend mentioned by Wendy Wang and Kim Parker in ("Barely Half of U.S. Adults Are Married – A Record Low.") that women with higher education degree tend to marry later or remain unmarried nowadays. From the perspective of economics, women now with a higher education are more likely to have a higher income and in return they have more time and choices to choose their spouses. From the perspective of customs, women tend to "marry up" and this leads to the difficulty of finding a "better" husband for women with higher education especially PhDs. They do not have many choices academically and with the increase in share of women PhDs, it takes longer for them to enter marriages.

Secondly, women with higher education are more likely to have a spouse with a bachelor degree or above. Specifically, women with doctoral degree have an increased likelihood of having a bachelor (or above) husband dramatically comparing to women with college degree. This tendency corroborates the "Marry Up" hypothesis discussed in the literature review section. This can be explained by the social customs. Although the share of highly education women is increasing, those women with a higher education still want to "marry up" especially for PhDs. This result also explains the decrease in marriage rate and the delay of marriage age of high education women.

Thirdly, Black women are less likely to get married than White women and Asian women. Moreover, Asian women are more likely to have a husband with bachelor or above degree than White, Black and other women. The low percentage of Black women marriage rate mentioned in the above section can be caused by the social and economic problems. Black women still are a minority in the U.S. and equality is still a major issue. Also, the average education and income is low for Black women, it also accounts for the lower marriage rate. One possible reason for Asian

women are more likely to have a husband with bachelor or above degree can be the "Marry Up" customs are more popular in Asian customs.

Fourthly, although it shows that women with higher degree are less likely to marry an unemployed husband but this change is not significant. Surprisingly, different from what mentioned in the literature review, unemployed women's spouses are more likely to be employed. This result could be explained by the large number of housewives in the U.S. Furthermore, in order to support the family, at least one needs to have a job and income.

Finally, compared to women who study "Science, Math and Technology", women who study "Art and Humanities" are less likely to get married. One possible explanation is that Art people are less likely to earn enough money to support a family at a young age even not at an older age. Moreover, the working time can be long and living habits can be different for art people so that they cannot commit much time in family.

VI. Limitations

The major limitation of the paper is if there is a causal effect. For example, the independent variables women's employment status can correlate with omitting variables such as women's

income including in the error term. This can be improved by introducing an instrumental variable, which allow consistent estimation when the independent variables are correlated with the error terms of a regression relationship.

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Figure 1

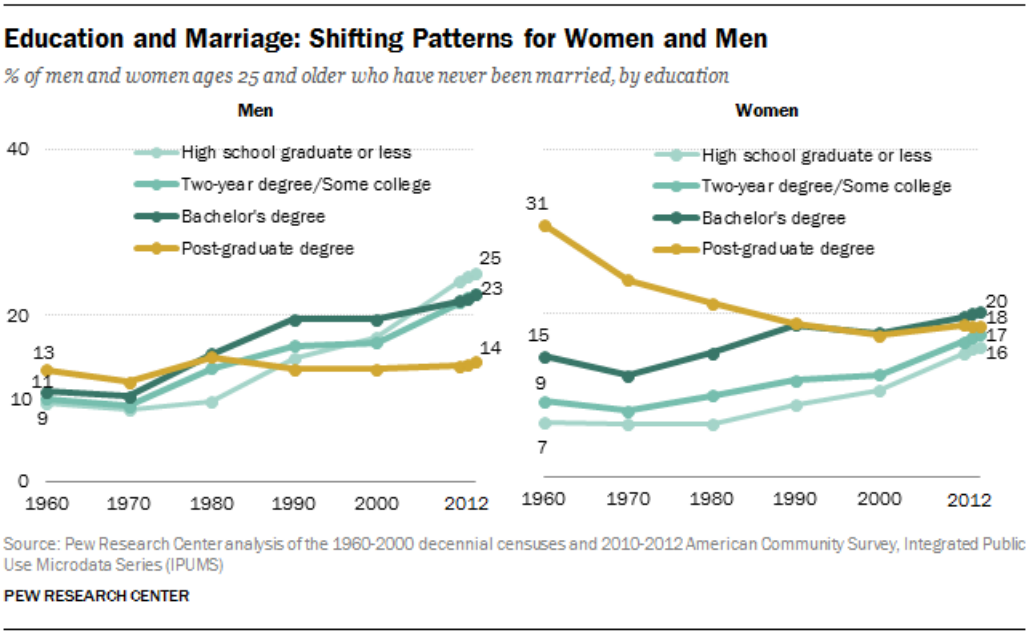
Education and Marriage: Shifting Patterns for Women and Men
% of men and women ages 25 and older who have never been married, by education
Men
Women
High school graduate or less
Two-year degree/Some college
Bachelor's degree
Post-graduate degree
40
20
10
0
1960
1970
1980
1990
2000
2012
25
23
14
13
11
9
31
15
9
7
20
18
17
16
Source: Pew Research Center analysis of the 1960-2000 decennial censuses and 2010-2012 American Community Survey, Integrated Public Use Microdata Series (IPUMS)
PEW RESEARCH CENTER

Figure 2


Median Age at First Marriage, 1960-2011
in years
28.7
26.1
Men
26.5
22.8
23.9
Women
20.3
1960
1970
1980
1990
2000
2010
Source: Current Population Survey, March and Annual Social and Economic Supplements.
PEW RESEARCH CENTER

Figure 3

	Full IPUMS Samples			Customize Sample Sizes		
	Households (1000s)	Persons (1000s)	Density (%)	Households (1000s)	Persons (1000s)	Density (%)
All Samples						
2001 ACS	515	1192	0.43	515	1192	0.43
2002 ACS	462	1075	0.38	462	1075	0.38
2003 ACS	516	1195	0.42	516	1195	0.42
2004 ACS	515	1194	0.42	515	1194	0.42
2005 ACS	1245	2878	1.0	1245	2878	1
2006 ACS	1344	2970	1.0	1344	2970	1
2007 ACS	1360	2995	1.0	1360	2995	1
2008 ACS	1373	3001	1.0	1373	3001	1
2009 ACS	1383	3031	1.0	1383	3031	1
2010 ACS	1398	3062	1.0	1398	3062	1
2011 ACS	1485	3112	1.0	1485	3112	1
2012 ACS	1477	3113	1.0	1477	3113	1
2013 ACS	1476	3133	1.0	1476	3133	1
Total	**14549**	**31951**		**14549**	**31951**	

Table 1 Summary Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
Marriage status	6366263	0.781	0.414	0	1
Age of marriage	2933486	27.679	8.852	8	94
Ever have child	6366263	0.412	0.492	0	1
Number of childen	6366263	0.742	1.062	0	9
Employed Status					
Employed	6366263	0.655	0.475	0	1
Unemployed	6366263	0.035	0.184	0	1
Not in the Labor Force	6366263	0.310	0.463	0	1
Race					
White	6366263	0.808	0.394	0	1
Black	6366263	0.090	0.286	0	1
Asian	6366263	0.059	0.236	0	1
others	6366263	0.043	0.203	0	1
Education/Degree					
1 or more years of college	6366263	0.314	0.464	0	1
Associate's degree	6366263	0.160	0.367	0	1
Bachelor's degre	6366263	0.338	0.473	0	1
Master's degree	6366263	0.143	0.350	0	1
Professional degree beyond a bachelor's	6366263	0.028	0.166	0	1
Doctoral degree	6366263	0.015	0.123	0	1
Field of Degree					
Science, Math and Technology	3200775	0.066	0.248	0	1
Art and Humanities	3200775	0.068	0.251	0	1
Social Science	3200775	0.211	0.408	0	1
Trades and Personal Services	3200775	0.001	0.026	0	1
Public and Social Services	3200775	0.019	0.135	0	1
Multi/Interdisciplinary Studies	3200775	0.020	0.140	0	1
Health and Medicine	3200775	0.057	0.232	0	1
Business	3200775	0.084	0.278	0	1
others	3200775	0.475	0.499	0	1
Spouse education					
Bachelor or above	3604294	0.491	0.500	0	1
Below bachelor	3604294	0.509	0.500	0	1
Spouse's Employment Status					
Employed	3604233	0.779	0.415	0	1
Unemployed	3604233	0.027	0.163	0	1
Not in Labor Force	3604233	0.194	0.395	0	1

Table 2

	Dependent Variables: Marriage Status			
	(1)	(2)	(3)	(4)
Independent Variables				
Education/Degree				
1 or more years of college	-0.006***	0.003***	0.001***	0.012***
	(0.000)	(0.000)	(0.000)	(0.001)
Associate's degree	0.027***	0.031***	0.032***	0.034***
	(0.000)	(0.000)	(0.000)	(0.001)
Master's degree	-0.009***	-0.008***	-0.006***	-0.007***
	(0.000)	(0.000)	(0.000)	(0.001)
Professional degree beyond a bachelor's	-0.011***	-0.012***	-0.010***	-0.015***
	(0.001)	(0.001)	(0.001)	(0.001)
Doctoral degree	-0.030***	-0.030***	-0.025***	-0.022***
	(0.001)	(0.001)	(0.001)	(0.002)
Race				
Black		-0.146***	-0.143***	-0.155***
		(0.000)	(0.000)	(0.001)
Asian		0.002***	-0.001	-0.003***
		(0.001)	(0.001)	(0.001)
Others		-0.043***	-0.043***	-0.050***
		(0.001)	(0.001)	(0.001)
Employed Status				
Employed			-0.045***	-0.045***
			(0.000)	(0.000)
Unemployed			-0.074***	-0.075***
			(0.001)	(0.001)
Field of Degree				
Art and Humanities				-0.034***
				(0.001)
Social Science				0.001
				(0.001)
Trades and Personal Services				0.002
				(0.007)
Public and Social Services				-0.006***
				(0.002)
Multi/Interdisciplinary Studies				-0.000
				(0.002)
Health and Medicine				0.038***
				(0.001)
Business				0.017***
				(0.001)
Constant	0.781***	0.792***	0.824***	0.808***
	(0.000)	(0.000)	(0.000)	(0.001)
Observations	6,366,263	6,366,263	6,366,263	3,200,775
R-squared	0.321	0.332	0.334	0.375

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3

	Dependent Variable: Age of marriage			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	-0.203***	-0.257***	-0.263***	-0.247***
	(0.013)	(0.013)	(0.013)	(0.025)
Associate's degree	-0.397***	-0.417***	-0.427***	-0.403***
	(0.015)	(0.015)	(0.015)	(0.027)
Master's degree	0.606***	0.598***	0.592***	0.673***
	(0.015)	(0.015)	(0.015)	(0.017)
Professional degree beyond a bachelor's	1.474***	1.475***	1.467***	1.540***
	(0.031)	(0.031)	(0.031)	(0.034)
Doctoral degree	2.032***	2.009***	1.989***	2.035***
	(0.039)	(0.039)	(0.039)	(0.043)
Race				
Black		1.214***	1.184***	1.200***
		(0.019)	(0.019)	(0.021)
Asian		0.375***	0.379***	0.327***
		(0.021)	(0.021)	(0.024)
Others		0.672***	0.657***	0.664***
		(0.027)	(0.027)	(0.029)
Employed Status				
Employed			0.223***	0.215***
			(0.012)	(0.014)
Unemployed			1.176***	1.101***
			(0.030)	(0.032)
Field of Degree				
Art and Humanities				0.747***
				(0.030)
Social Science				-0.380***
				(0.025)
Trades and Personal Services				1.058***
				(0.223)
Public and Social Services				0.371***
				(0.046)
Multi/Interdisciplinary Studies				-0.150***
				(0.045)
Health and Medicine				-0.157***
				(0.031)
Business				0.399***
				(0.029)
Constant	27.630***	27.510***	27.341***	27.372***
	(0.009)	(0.009)	(0.012)	(0.025)
Observations	2,933,486	2,933,486	2,933,486	2,458,628
R-squared	0.052	0.053	0.054	0.055

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4

	Dependent Variable: Ever had child			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	0.026***	0.025***	0.025***	0.049***
	(0.000)	(0.000)	(0.000)	(0.001)
Associate's degree	0.040***	0.040***	0.040***	0.057***
	(0.001)	(0.001)	(0.001)	(0.001)
Master's degree	-0.011***	-0.011***	-0.011***	-0.011***
	(0.001)	(0.001)	(0.001)	(0.001)
Professional degree beyond a bachelor's	-0.008***	-0.009***	-0.009***	-0.012***
	(0.001)	(0.001)	(0.001)	(0.001)
Doctoral degree	-0.046***	-0.048***	-0.048***	-0.039***
	(0.001)	(0.001)	(0.001)	(0.002)
Race				
Black		0.035***	0.035***	0.032***
		(0.001)	(0.001)	(0.001)
Asian		0.043***	0.043***	0.039***
		(0.001)	(0.001)	(0.001)
Others		0.034***	0.034***	0.029***
		(0.001)	(0.001)	(0.001)
Employed Status				
Employed				-0.053***
				(0.001)
Unemployed				-0.057***
				(0.001)
Field of Degree				
Art and Humanities				-0.021***
				(0.001)
Social Science				0.024***
				(0.001)
Trades and Personal Services				-0.052***
				(0.009)
Public and Social Services				0.025***
				(0.002)
Multi/Interdisciplinary Studies				0.016***
				(0.002)
Health and Medicine				0.066***
				(0.001)
Business				0.020***
				(0.001)
Constant	0.400***	0.393***	0.393***	0.399***
	(0.000)	(0.000)	(0.000)	(0.001)
Observations	6,366,263	6,366,263	6,366,263	3,200,775
R-squared	0.226	0.227	0.227	0.258

Standard errors in parentheses

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

Table 5

	Dependent Variable: Number of Children			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	0.058***	0.055***	0.045***	0.110***
	(0.001)	(0.001)	(0.001)	(0.002)
Associate's degree	0.067***	0.065***	0.066***	0.112***
	(0.001)	(0.001)	(0.001)	(0.002)
Master's degree	-0.045***	-0.045***	-0.036***	-0.042***
	(0.001)	(0.001)	(0.001)	(0.002)
Professional degree beyond a bachelor's	-0.031***	-0.031***	-0.017***	-0.033***
	(0.002)	(0.002)	(0.002)	(0.003)
Doctoral degree	-0.130***	-0.130***	-0.104***	-0.101***
	(0.003)	(0.003)	(0.003)	(0.004)
Race				
Black		0.018***	0.025***	0.019***
		(0.001)	(0.001)	(0.002)
Asian		-0.002	-0.018***	-0.022***
		(0.002)	(0.002)	(0.002)
Others		0.064***	0.062***	0.055***
		(0.002)	(0.002)	(0.002)
Employed Status				
Employed			-0.220***	-0.210***
			(0.001)	(0.001)
Unemployed			-0.211***	-0.187***
			(0.002)	(0.003)
Field of Degree				
Art and Humanities				-0.035***
				(0.003)
Social Science				0.068***
				(0.002)
Trades and Personal Services				-0.107***
				(0.020)
Publich and Social Services				0.049***
				(0.004)
Multi/Interdisciplinary Studies				0.052***
				(0.004)
Health and Medicine				0.165***
				(0.003)
Business				0.037***
				(0.003)
Constant	0.723***	0.719***	0.872***	0.789***
	(0.001)	(0.001)	(0.001)	(0.002)
Observations	6,366,263	6,366,263	6,366,263	3,200,775
R-squared	0.235	0.235	0.242	0.278

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6

	Dependent Variable: Spouse has bachelor degree or above			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	-0.372***	-0.360***	-0.363***	-0.434***
	(0.001)	(0.001)	(0.001)	(0.002)
Associate's degree	-0.326***	-0.318***	-0.316***	-0.389***
	(0.001)	(0.001)	(0.001)	(0.002)
Master's degree	0.085***	0.087***	0.093***	0.089***
	(0.001)	(0.001)	(0.001)	(0.001)
Professional degree beyond a bachelor's	0.122***	0.118***	0.127***	0.155***
	(0.001)	(0.001)	(0.001)	(0.002)
Doctoral degree	0.201***	0.195***	0.211***	0.192***
	(0.002)	(0.002)	(0.002)	(0.003)
Race				
Black		-0.139***	-0.133***	-0.127***
		(0.001)	(0.001)	(0.002)
Asian		0.137***	0.130***	0.124***
		(0.001)	(0.001)	(0.001)
Others		-0.099***	-0.100***	-0.094***
		(0.001)	(0.001)	(0.002)
Employed Status				
Employed			-0.109***	-0.105***
			(0.001)	(0.001)
Unemployed			-0.116***	-0.115***
			(0.002)	(0.002)
Field of Degree				
Art and Humanities				-0.011***
				(0.002)
Social Science				-0.080***
				(0.001)
Trades and Personal Services				-0.100***
				(0.014)
Public and Social Services				-0.153***
				(0.003)
Multi/Interdisciplinary Studies				-0.046***
				(0.003)
Health and Medicine				-0.106***
				(0.002)
Business				-0.092***
				(0.002)
Constant	0.639***	0.636***	0.710***	0.771***
	(0.000)	(0.000)	(0.001)	(0.001)
Observations	3,604,294	3,604,294	3,604,294	1,757,076
R-squared	0.161	0.171	0.180	0.188

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 7

	Dependent Variable: Spouse is PHD			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	-0.022***	-0.020***	-0.020***	-0.053***
	(0.000)	(0.000)	(0.000)	(0.001)
Associate's degree	-0.019***	-0.017***	-0.017***	-0.050***
	(0.000)	(0.000)	(0.000)	(0.001)
Master's degree	0.039***	0.039***	0.040***	0.036***
	(0.000)	(0.000)	(0.000)	(0.000)
Professional degree beyond a bachelor's	0.030***	0.028***	0.029***	0.028***
	(0.001)	(0.001)	(0.001)	(0.001)
Doctoral degree	0.286***	0.284***	0.286***	0.264***
	(0.001)	(0.001)	(0.001)	(0.001)
Race				
Black		-0.009***	-0.008***	-0.007***
		(0.000)	(0.000)	(0.001)
Asian		0.045***	0.044***	0.039***
		(0.000)	(0.000)	(0.001)
Others		-0.002***	-0.002***	-0.002**
		(0.001)	(0.001)	(0.001)
Employed Status				
Employed			-0.013***	-0.014***
			(0.000)	(0.000)
Unemployed			-0.008***	-0.011***
			(0.001)	(0.001)
Field of Degree				
Art and Humanities				-0.014***
				(0.001)
Social Science				-0.038***
				(0.001)
Trades and Personal Services				-0.033***
				(0.005)
Public and Social Services				-0.038***
				(0.001)
Multi/Interdisciplinary Studies				-0.032***
				(0.001)
Health and Medicine				-0.038***
				(0.001)
Business				-0.045***
				(0.001)
Constant	0.031***	0.028***	0.036***	0.070***
	(0.000)	(0.000)	(0.000)	(0.001)
Observations	3,604,294	3,604,294	3,604,294	1,757,076
R-squared	0.060	0.063	0.064	0.067

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8

	Dependent Variable:Spouse is employed			
	(1)	(2)	(3)	(4)
VARIABLES				
Education/Degree				
1 or more years of college	0.009***	0.008***	0.008***	0.013***
	(0.000)	(0.000)	(0.000)	(0.001)
Associate's degree	0.006***	0.006***	0.006***	0.010***
	(0.000)	(0.000)	(0.000)	(0.001)
Master's degree	-0.001***	-0.002***	-0.002***	-0.003***
	(0.000)	(0.000)	(0.000)	(0.000)
Professional degree beyond a bachelor's	-0.003***	-0.003***	-0.003***	-0.005***
	(0.001)	(0.001)	(0.001)	(0.001)
Doctoral degree	-0.001	-0.001	-0.002***	-0.005***
	(0.001)	(0.001)	(0.001)	(0.001)
Race				
Black		0.020***	0.019***	0.021***
		(0.000)	(0.000)	(0.001)
Asian		0.008***	0.008***	0.008***
		(0.000)	(0.000)	(0.001)
Others		0.012***	0.012***	0.015***
		(0.000)	(0.000)	(0.001)
Employed Status				
Employed			0.011***	0.015***
			(0.000)	(0.000)
Unemployed			0.064***	0.072***
			(0.001)	(0.001)
Field of Degree				
Art and Humanities				0.004***
				(0.001)
Social Science				0.001
				(0.001)
Trades and Personal Services				0.008
				(0.006)
Publich and Social Services				0.001
				(0.001)
Multi/Interdisciplinary Studies				0.001
				(0.001)
Health and Medicine				0.003***
				(0.001)
Business				0.003***
				(0.001)
Constant	0.025***	0.023***	0.014***	0.015***
	(0.000)	(0.000)	(0.000)	(0.001)
Observations	3,604,233	3,604,233	3,604,233	1,757,058
R-squared	0.003	0.004	0.007	0.009

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1