Couple Agreement on Intendedness of Births: An Update and Extension using the 2006-2010 National Survey of Family and Growth

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Abstract

This research examines couples' agreement on intendedness of births with the national representative survey of the 2006-2010 NSFG and compares this to an analysis of the 1988 NSFG. I used the pregnancy file and women's file to examine the associations among birth intendedness, women's characteristics and birth order. Among all births, 54% were jointly wanted and 25% were jointly unwanted by the 2006-2010 NSFG. Jointly wanted births decreased and jointly unwanted births increased compared to the 1988 NSFG survey. The births for which couples disagreed about intendedness also have increased. Births to teenage mothers and to women not in union are more likely to be jointly unintended compared to births to older mothers and to women in union. Considering the effects of joint intendedness on mothers and children, the increase in births that are not planned by both parents needs more attention.

Introduction

This article examines couples' agreement on the intendedness of births using the 2006-2010 National Survey of Family Growth (NSFG) and compares it to a parallel analysis using the 1988 NSFG (Williams 1994). The comparison shows that the percentage of births in which the mother says that both parents wanted the birth has declined from 69 % to 54 %. Substantial increases occurred in the percentage of births that only one parent wanted and in the percentage that neither parent wanted. The research found that births to women out of union are significantly more likely to be jointly unintended and that women's age at birth seems to have a strong effect on the joint birth intendedness compared to the 1988 NSFG.

Previous research has found that couples' intendedness has many effects. For example, mistimed pregnancy by mother or father has a negative influence on children's social development (Saleem and Surkan 2013). Moreover, when parents' intendedness was not concordant—for instance, if the mother wanted the pregnancy, but father did not—this also had a negative influence on the children's social development (Saleem and Surkan 2013). Couples' agreement on intendedness influences children's health, as well (Korenman, Kaestner, and Joyce 2002). Children who only the mother wanted or only the father wanted at conception have a higher risk of negative health outcomes than children whose parents jointly wanted them (Korenman, Kaestner, and Joyce 2002). Also, when parents were not in agreement on intendedness or both of them did not want the pregnancy, the risk of inadequate prenatal care and negative births outcome increases (Hohmann-Marriott 2009).

The American experience of family formation and childbearing has become more diverse in recent decades with the increase in cohabitation and the number of nonmarital births (Ventura 2009). Since 1988, union formation among U.S. people has changed, as cohabitation became

more common (Copen et al. 2012) and people experience more unions over life (Lichter 2012 Childbearing among cohabiting women: Race, pregnancy, and union transitions). Multiple-partner fertility is common in the United States (Cherlin 2012). Considering the changes in births and union formation that has occurred between 1988 to the current, this present research is significant to understand the modern couples' intention of births. In this research I have updated the distributions of couples' agreement on the intendedness on births by the 2006-2010 NSFG and compared them to the Williams' work using the 1988 NSFG. I conducted multinomial logistic regressions and calculated predicted probabilities and compared this to Williams' work. Finally, I ran additional models with family backgrounds. To account for the change in the union formation, I used a more detailed union formation variable with never married not cohabiting, cohabiting, ever married, and currently married at birth in addition to ever-married and married variables.

Data

I used the 2006-2010 National Survey of Family Growth (NSFG). This survey is conducted by the Center for Disease Control and Prevention's National Center for Health Statistics (Mosher, Jones, and Abma 2012). The 2006-2010 NSFG collected data from a national sample of men and women on "factors affecting birth and pregnancy rates, including contraception; infertility; marriage, divorce, and cohabitation; pregnancy outcomes; and health" (Mosher, Jones, and Abma 2012). This includes 12,279 women and 10,403 men between 15-44 years old. The overall response rate 78% for females and 77% for males (Centers for Disease Control and Prevention). The 2006-2010 NSFG is based on a "nationally representative, multistage, area probability sample" (Mosher, Jones, and Abma 2012). All female respondents were asked about each of their pregnancies that they have had and information about the

pregnancies, such as the date of conception and pregnancy outcome (Centers for Disease Control and Prevention). The unit of analysis of the pregnancy file is a birth. I merged the pregnancy file and female file for this analysis.

The 2006-2010 NSFG contains measure of intendedness of pregnancy for both men and women. Women were first asked whether they stopped using birth control before pregnancy. Then, they were asked the reason of stopping the birth control. If the answer is because they wanted to become pregnant, they were asked about the timing of pregnancy. Those who said that they did not stop contraception because they wanted to become pregnant were asked the question about their intendedness: If they answered no to the question of whether they wanted to have a(nother) baby at any time in the future, the pregnancy is unwanted (Mosher, Jones, and Abma 2012). Women were also asked their perception of the father's intendedness of the pregnancy. The question asked was, "Right before you became pregnant, did the father want you to have a baby at any time in the future?" If yes, she was asked a follow-up question: "So would you say you became pregnant sooner than he wanted, at about the right time, or later than he wanted?" (Mosher, Jones, and Abma 2012). As in the 1988 NSFG analysis, the unit of analysis is a birth within 5 years of the survey date to reduce recall bias. Further, I dropped cases where women answered their intention as "Didn't care, indifferent" and "Don't know, not sure" and kept births where women's intendedness of births was clear. I also dropped cases where women answered a father was indifferent to their birth because of the unclearness of the intention and the number of cases were small.

Method

To replicate the analysis of the 1988 NSFG, I created a couple agreement variable by combining respondent's and perceived father's intendedness. I created 5 categories: births

wanted by both (jointly wanted births); birth which women were not sure about men's intendedness (births man's intention unknown); births only men wanted; births only women wanted; and births neither wanted (births jointly unintended). "Birth wanted by both" includes births which both parents thought pregnancy occurred at the right time or overdue or one parent thought the pregnancy occurred the right time and the other parent thought it was overdue. The "neither wanted" category includes births both parents thought were unwanted or too soon, or one thought it was too soon and the other thought it was unwanted. The 2006-2010 NSFG provides two intendedness variables. One is compatible to the 1988 NSFG, and the other is compatible the 1995 NSFG and the 2002 NSFG. The difference is that intendedness questions of 1995 NSFG and 2002 NSFG has an additional follow-up question for respondents who answered that their births was "unwanted at the time of conception" (Abma et al. 1997). This is to clarify whether the woman really meant that she does not want to become pregnant ever. Particularly younger women (younger than 20) reported their first birth unwanted, but this implied in the first survey that they do not want to have any children ever, yet still some of them said their second child was wanted. This follow-up question, however, only influences a small number of cases. The 2006-2010 NSFG provides an old version of intendedness variables. I examined the distributions and did the same analysis with old intendedness variables, but the results were not statistically different. Although the 2006-2010 NSFG provides the information for how much mistimed the birth was, I did not use this information because the 1988 NSFG analysis does not have the detailed information on the mistimedness. I created two race categories. One is with black, non-Hispanic white, and white Hispanic excluding other to replicate Williams' analysis. The other is with Hispanic, non-Hispanic black, non-Hispanic white, and other for update. Education is categorized as fewer than 12 years education, 12 years education, 13-15 year's

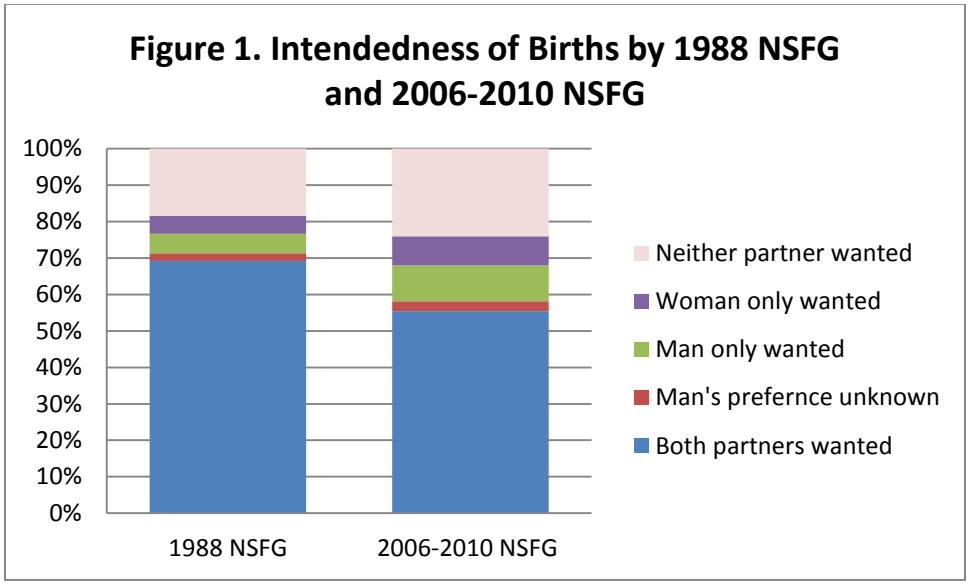
education, and 16 years and more education. I created two union status variables. Marital status is categorized as ever-married and never-married to match Williams' analysis. The other is a more detailed union status, which considers cohabitation; currently married, divorced, separated, or widowed; cohabiting; and never married, not cohabiting. Age at births is categorized as younger than 20 years old, between 20 and 24, between 25 and 29, and 30 years and older. Birth order is categorized as first birth, second birth, and third birth and higher. For additional analysis, I added family background of women. They are woman's mother's highest degree of education completed, whether women were living with their parents all time, and religion in which a women was raised.

First I examined the distributions of intendedness by women's race, education, marital status, and age at birth to compare the distributions against the Williams' article. I first used a race with 3 categories: black, non-Hispanic white, and Hispanic white. I then examined the distribution with a whole sample with a race variable that included the categories black, white, Hispanic and others and also using a more detailed union status variable. After the examination of the distributions, I performed multinomial logistic regression with race, woman's education, marital status at birth, age at birth and number of births to replicate Williams' analysis and then with an alternative race and union status variables. After the multinomial logistic regression, I calculated the predicted probabilities controlling for variables in the model. Finally, I performed multinomial logistic regression with additional family background variables. I used sampling weights provided with the 2006-2010 NSFG; and I conducted the analyses using the svy command by Stata12 to adjust for a sampling design. The percent of missing cases was very small, so I deleted these cases with missing values.

Results

Table 1 and Table 2 show the distributions of births by parents' intendedness status by race, education of woman, marital status, age at birth and birth order within 5 years from the each survey for the 2006-2010 NSFG and the 1988 NSFG.

The top panel a of Table 1 shows the distributions of births by parents' intendedness with Williams' race and marital status categories (Williams' categories), and the lower panel b of Table 1shows an additional distributions by detailed race and union status (2006-2010 categories). The distributions of the 2006-2010 NSFG with two different samples are not significantly different, so I present the distributions of 2006-2010 race and union categories only in a lower panel b of Table 1.



By the 2006-2010 NSFG, the panel a in Table 1 shows that 55.4% of births are wanted by both parents, 2.7% of births are the man's preference unknown, 9.8% of births are wanted only by the man, 8.0% are wanted only by the woman, and 24.0% are unintended by both parents. As Figure 1 shows, births jointly wanted decreased from 69.2% to 55.4%, and birth jointly unintended

increased from 18.4% to 24.0%. Furthermore, births wanted by one parent increased over time from 10.3 % to 17.8%.

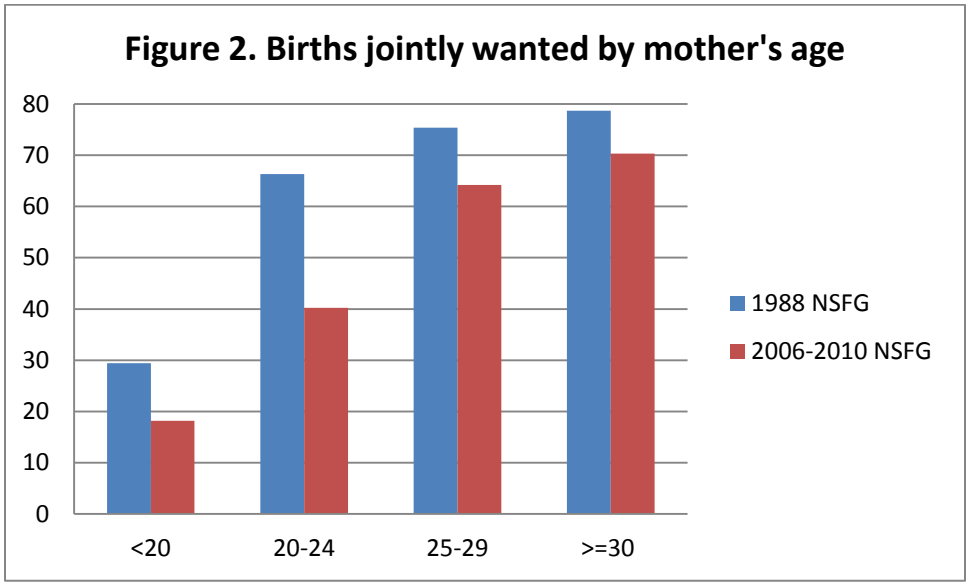
Births to black women are less likely to be jointly wanted by parents and births to white or other women are more likely to be jointly wanted. Births to black or Hispanic women are more likely to be wanted only by a father by the 2006-2010 NSFG. The overall trend of low percentage of joint intendedness by births to black women and high percentage of joint unintendedness is the same with both surveys.

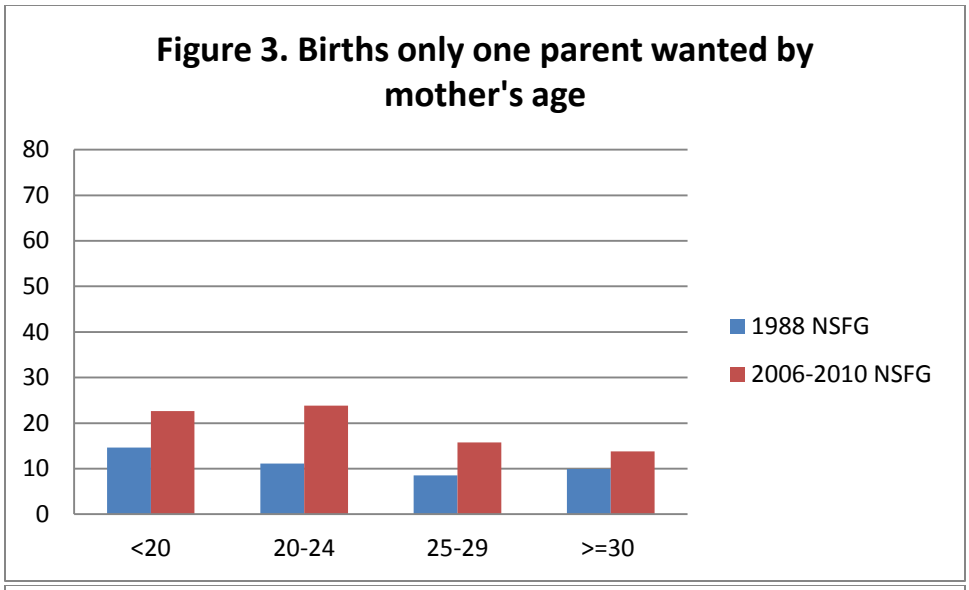
The intendedness of births by women's education shows that births to women with college education and more are more likely to be jointly wanted compared to births to women with different education levels. Among births to a woman with college education and more, almost 80% of births are jointly wanted, whereas the percent of jointly wanted births to a woman with other educational levels is around 40 % to 50%. This difference of intendedness between women with or without college education became pronounced with the 2006-2010 NSFG.

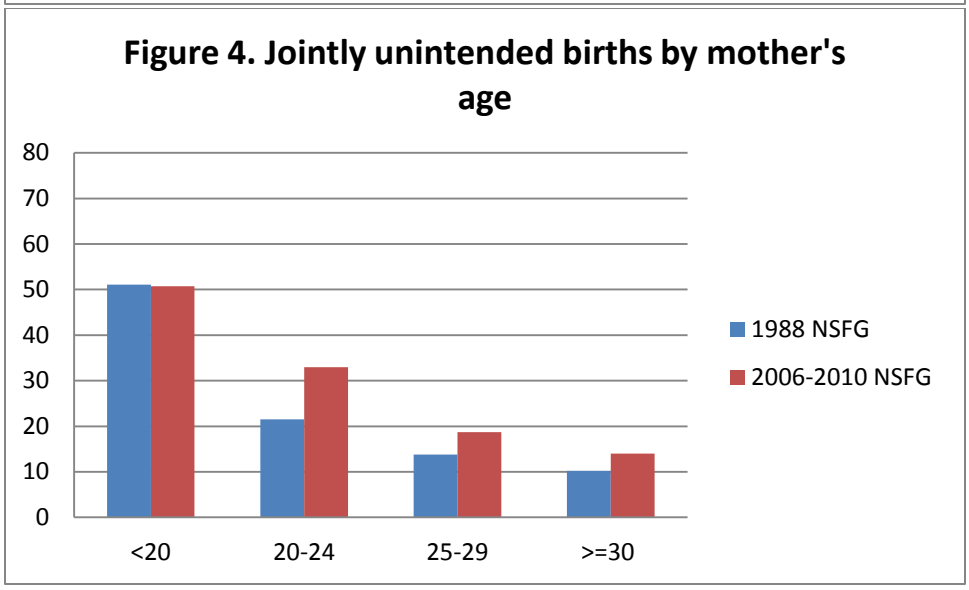
Births to married women are more likely to be jointly wanted and less likely to be jointly unwanted or to be wanted by only one parent. Almost 70% of births to married women (Table 1, Panel b) are jointly wanted, whereas 18.5 % of births to never-married and not cohabiting women, 22.9% of births to ever married women, and 38.7% of births to cohabiting women are jointly wanted. The opposite is seen to jointly intended births. Marital births are much more likely to be jointly intended compared to non-marital births. The trend is the same over the years.

Figure 2 to 4 shows the distributions of births by mother's age at birth. The 2006-2010 NSFG shows that 18.2% of births to women younger than 20 and 40.3% of women between age 20 and 24 are jointly wanted, but more than 60% of births to women 25 years and older are jointly wanted. The percent of jointly unintended births is particularly high to births to women

under 20 years old (50.7%). Moreover, 8.5% of births to women under age 20 are man's preference unknown. 18.7% of births to women under 20 and 14.9% of births to women between 20-24 are wanted only by the man. There might be a change in the effects of age on births. It seems that with the 1988 NSFG, the difference was between women 21 and younger versus women age 21 and older; but with the 2006-2010 NSFG, the change appears to be between women younger than 25 years old versus women age 25 and older. Births jointly wanted to age younger than 24 decreased from the older cohort. Particularly, jointly wanted births by women between age 20 to 24 declined sharply from 66.3% to 40.3%. Still, as the women's age at birth increases, the births are less likely to be jointly unintended, less likely to be within discordant couple, and more likely to be jointly intended in both surveys.







The distributions of intendedness of births by birth order are similar with the 2006-2010 NSFG, but the effects were more pronounced with the 1988 NSFG.

Table 3 presents the results of the multinominal logistic regression of the log odds that a birth was (a) wanted only by the man, (b) wanted only by the woman, (c) the man's preference was unknown, or (d) both unwanted relative to the reference category of jointly wanted, and (e) wanted only by the woman relative to the reference category of only the man wanted by the

2006-2010 NSFG with categories that Williams used (Table 3. Panel a) and the 2006-2010 categories (Table 3. Panel b). The model includes race, women's education, marital status (union status), age at birth and birth order. I omitted the coefficients of education, age and birth order from the panel b because the significance and the magnitudes were similar to the results of the panel a. Table 4 presents the results of the multinomial logistic regression of the log odds that a birth was (a) wanted only by the man, (b) wanted only by the woman, (c) the man's preference was unknown relative to the reference category of jointly wanted, and (d) wanted only by the woman relative to the reference category of only the man wanted from William's article.

Births to black women is significant with Williams' categories (Table 3, Panel a) net of demographic characteristics. The odds of births to black women to be wanted only by the man relative to births to be jointly wanted is significantly higher than births to white women. The effects of race is similar to the model with the 2006-2010 NSFG category (shown in panel b of Table 3). The results suggest that the effects of race might have decreased over the years.

Education is partially significant net of demographic characteristics. Births to women with college education is much less likely to be jointly unwanted or wanted only by the woman relative to being jointly wanted compared to births to women with some college education. Overall, women's education does not have large effects on birth intendedness for both surveys.

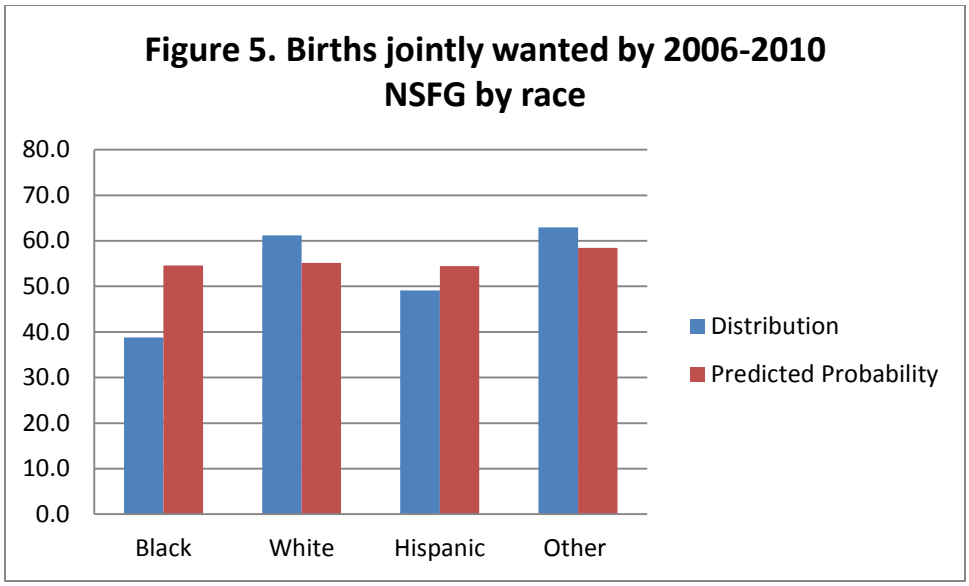
Marital status (Table 3, Panel a) and union status (Table 3, Panel b) are significantly related to the odds of births intendedness net of demographic characteristics. Births to ever-married women are much more likely to be jointly unwanted, to be wanted by one parent, or with man's preference unknown to the woman. Panel b of Table 3 shows that births to women out of union are significantly more likely to be unwanted, to be wanted only by one parent, or with

father's intention unsure by mother relative to jointly wanted births compared to births to currently married women. The odds of births to be jointly unintended is more than 5 times if women were never married and not cohabiting compared to currently married women. Both surveys suggest that births to married women or to women in union are more likely to be jointly wanted and less likely to be unintended jointly or to be wanted by only parent.

Net of covariates, age at birth shows significance in all categories except 'only woman wanted' relative to jointly wanted births. Overall, the higher the age of women at birth, the less likely births are jointly unwanted, only wanted by the man, or the man's preference is unknown. As the age of women increases, births are less likely to be wanted only by the woman relative to being wanted only by the man. The effects of age at births seem to have increased its significance and magnitudes from the 1988 NSFG to the 2006-2010 NSFG particularly on the births that only the father wanted.

Net of covariates, birth order is partially significant. Births that are third or higher are more likely to be that the woman was not sure about the father's birth intention, and that both parents were unintended relative to jointly wanted births compared to the second births.

Tables 5 and 6 shows the predicted probabilities controlling for variables in multinomial logistic regression of the 2006-2010 NSFG and the 1988 NSFG presented in Table 3 and Table 4. The panel a of Table 5 is with Williams' categories of race and union formation and the Panel b of Table 5 is with the 2006-2010 categories.



As Figure 5 shows, the probabilities of joint intendedness of births by race was not significantly different after controlling for demographic characteristics, particularly with jointly wanted births with the 2006-2010 NSFG. Compared to the results of Table 6 of Williams, the results suggest that the race effects were reduced over the years on intendedness of births.

Overall the probabilities of joint intendedness of births by women's education was not significantly different controlling for demographic characteristics with the 2006-2010 NSFG in Table 5, particularly on jointly unintended births. Compared to the results of Table 6 of Williams, the results suggest that women's education effect was reduced over the years on intendedness of births.

Predicted probabilities by union status show smaller difference among union status after controlling women's demographic characteristics than the distributions, but overall the pattern is the same as the distributions of Table 1 with both Williams' category and the 2006-2010 category.

Table 7 shows the log odds of multinomial logistic regressions with additional women's family background in the model. The family background was not significant, so I omitted these

variables from the table. The coefficients did not change the direction and magnitudes over all, but the log odds of births to Hispanic women to be wanted only by the father relative to jointly wanted births compared to births to white women became significant after we controlled for women's family background.

Discussion

Understanding a couple's birth intention is an important topic in many aspects. Birth intendedness impacts children's health and social development and women's maternal health. This paper examined the joint intendedness of births in the United States by the 2006-2010 NSFG and compared these results to the results reported by Williams by the 1988 NSFG.

The results revealed a continuation of strong trends as well as new directions of joint intendeness. Although jointly intended births remains the highest among all births, they have decreased from the 1988 NSFG to 2006-2010 NSFG. Jointly unintended births and births only one parent wanted have increased. Almost 1 out of 4 births is unintended by both parents with the 2006-2010 NSFG, an increase from 1998 NSFG. Considering the adverse influence on social and health outcomes of parent's intendedness on births, this trend of a decrease in jointly wanted births is troublesome.

Union status and women's age at birth remain a strong factor influencing intendedness of births even after the consideration of women's demographic characteristics and family background. Particularly, births to women younger than 20 years old are much more likely to be unwanted by both parents, more likely to be wanted only by the man, or less likely to be jointly wanted. Controlling for women's demographic characteristics and family background, almost 1 out of 2 births to a teenage mother is unintended or unplanned. The results suggest that teenage women might be having a birth even though they were not feeling ready but that they did so

because their partner wanted. This implies a lack of negotiating powers within a couple's relationship. Once I controlled for women's demographic characteristics, the chance of jointly unintended births to teenage women decreased and the chance of jointly intended births to them increased. This implies that teenage women's birth planning is more vulnerable to their surroundings. Having an unintended child at young age could bring more difficulties to the life of a young woman particularly when they cannot expect help from a father of a child. Moreover, their children's life chance might be compromised.

Births are more planned and intended if women are in a union. However, there is a large gap between marital births and births to cohabiting women. Births to married couples are highly wanted by both parents over the years, showing a strong contrast to births to never-married and not-cohabiting women. Married couples are more ready to have a child, and this trend did not change. Births to cohabiting women are less wanted compared to births to married women even though they are in union. The timing of the conception after the cohabitation might be an important factor to think about. For example, almost 20% of women became pregnant within the first year of their first premarital cohabitation (Copen et al. 2012). If pregnancy happened within a year of cohabitation, this might be an indication of an unintended birth. The timing of pregnancies after cohabitations could affect the couple's readiness to have a child. Births to women out of union are much less likely to be jointly intended. The difference is striking but not surprising.

The effects of race seem to have declined between the 1988 NSFG and the 2006-2010 NSFG, but the chance of births to black mothers to be jointly intended still is lower than women in other race and ethnicity categories. However, the probability of having a jointly wanted birth

to black women is not significantly different from births to other race and ethnicity women in the 2006-2010 NSFG.

The research comes with limitations. The 1988 NSFG and the 2006-2010 NSFG are cross-sectional surveys and not free from recall bias (Mosher, Jones, and Abma 2012). Furthermore, intendedness of men is reported by women. There might be a discrepancy between these men's real attitudes towards intendedness of births and a perceived one by the women. An optimistic woman might report a man's intendedness more favorably, as is her wish, and the opposite might be true, too. Also, we have to caution that unintendedness at conception does not necessarily mean that the birth itself is not wanted. Women and men might feel happy and a birth might be wanted even though they did not think so at the time of conception.

Considering the adverse influence of social and health outcomes by parent's intendedness of births, the decrease in jointly wanted or planned births and an increase in unplanned births by both parents are troublesome. Further research to examine the dynamics of a couple will be needed to understand the couple's agreement and its further impact on children, women and men.

Table 1. Distributions of U.S. Births by Intendedness of Parents by Demographic Characteristis, NSFG 2006-2010

Characteristics	Both partners wanted	Man's prefernce unknown	Man only wanted	Woman only wanted	Neither partner wanted	Total
Panel a.						
U.S. births (in 000s)	10010	495	1765	1448	4341	18058
Total	55.4	2.7	9.8	8.0	24.0	100
Race						
black	38.8	4.0	17.6	8.7	31.0	100
	[34.4,43.3]	[2.7,6.0]	[14.5,21.1]	[6.8,10.9]	[27.0,35.2]	
Non Hispanic White	61.2	2.3	7.1	7.8	21.6	100
	[57.0,65.3]	[1.4,3.8]	[5.7,8.8]	[6.4,9.5]	[18.4,25.1]	
Hispanic	51.4	2.9	11.6	8.2	26.0	100
	[46.8,56.0]	[1.6,5.1]	[8.6,15.3]	[6.6,10.0]	[21.6,31.1]	
Education						
<12 years	40.7	3.9	14.3	8.7	32.4	100
	[35.5,46.1]	[2.1,7.2]	[11.2,18.1]	[6.3,12.0]	[27.4,37.9]	
12 years	44.3	3.5	12.9	10.1	29.2	100
	[39.3,49.5]	[2.3,5.1]	[10.3,16.1]	[7.5,13.4]	[25.1,33.6]	
13-15 years	48.7	3.2	9.4	9.8	28.9	100
	[42.5,54.9]	[1.6,6.4]	[7.4,11.9]	[7.4,12.9]	[23.6,34.9]	
>=16 years	76.6	1.2	4.8	5.0	12.4	100
	[71.8,80.8]	[0.6,2.7]	[3.3,6.9]	[3.8,6.7]	[9.3,16.2]	
Marital Status						
Never Married	29.3	5.4	15.2	10.5	39.7	100
	[26.0,32.8]	[4.0,7.4]	[12.9,17.8]	[8.1,13.4]	[35.8,43.7]	
Ever Married	69.1	1.4	6.9	6.7	15.9	100
	[65.9,72.1]	[0.7,2.5]	[5.4,8.8]	[5.8,7.9]	[13.6,18.5]	
Age						
<20	18.2	8.5	18.7	4.0	50.7	100
	[13.9,23.4]	[5.1,13.8]	[14.2,24.1]	[2.3,6.8]	[44.8,56.8]	
20-24	40.3	2.9	14.7	9.1	33.0	100
	[35.6,45.1]	[2.0,4.3]	[12.1,17.8]	[7.2,11.4]	[28.6,37.7]	
25-29	64.2	1.4	7.3	8.4	18.7	100
	[59.7,68.5]	[0.7,2.5]	[5.4,9.8]	[6.6,10.8]	[15.5,22.3]	
>=30	70.3	1.9	5.6	8.2	14.0	100
	[66.1,74.2]	[0.9,4.0]	[4.1,7.7]	[6.2,10.6]	[11.1,17.5]	
Birth order						
	51.8	3.2	9.1	7.2	28.7	100
First	[46.7,56.8]	[1.8,5.6]	[7.0,11.7]	[5.5,9.4]	[24.6,33.2]	
Second	57.9	1.7	11.1	7.4	21.9	100
	[53.6,62.0]	[1.0,2.8]	[8.6,14.3]	[5.6,9.7]	[18.2,26.1]	
Third or higher	56.3	3.2	9.3	9.0	22.2	100
	[52.2,60.4]	[1.9,5.2]	[7.4,11.6]	[7.1,11.3]	[19.2,25.6]	
Panel b.						
U.S. births (in 000s)	11477	574	2057	1590	5113	20810
Total	55.2	2.8	9.9	7.6	24.6	100
	[52.3,58.0]	[2.0,3.8]	[8.7,11.2]	[6.7,8.7]	[22.3,27.1]	
Race						
Black	38.8	4.0	17.6	8.7	31.0	100
	[34.4,43.3]	[2.7,6.0]	[14.5,21.1]	[6.8,10.9]	[27.0,35.2]	
White	61.2	2.3	7.1	7.8	21.6	100
	[57.0,65.3]	[1.4,3.8]	[5.7,8.8]	[6.4,9.5]	[18.4,25.1]	
Hispanic	49.1	2.5	12.1	7.9	28.4	100
	[45.4,52.8]	[1.5,4.0]	[9.9,14.7]	[6.4, 9.7]	[24.3,32.9]	
Other	63.0	4.2	7.9	2.8	22.1	100
	[52.1,72.6]	[2.1,8.2]	[4.5,13.7]	[1.4,5.7]	[15.2,31.0]	
Union Status at Birth						
Married	71.7	1.2	6.6	4.9	15.6	100

	[68.6,74.6]	[0.7,2.2]	[5.3,8.1]	[4.0,6.0]	[13.4,18.1]	
Divorced, Widowed, Separated	22.9	6.9	13.3	20.6	36.3	100
	[16.2,31.5]	[1.8,23.1]	[7.1,23.3]	[13.3,30.3]	[25.3,49.0]	
Cohabiting	38.7	3.2	13.9	10.5	33.8	100
	[34.6,43.0]	[2.1,4.7]	[11.6,16.5]	[8.2,13.2]	[29.2,38.8]	
Not Married, Not cohabiting	18.5	7.9	16.8	11.6	45.3	100
	[14.9,22.6]	[4.9,12.4]	[13.7,20.4]	[8.4,15.8]	[40.7,50.0]	

Table 2. Distributions of U.S. Births by Intendedness of Parents by Demographic Characteristis, NSFG 1983-1988 from Williams (1994)

Characteristics	Both partners wanted	Man's prefernce unknown	Man only wanted	Woman only wanted	Neither partner wanted	Total
U.S. births (in 000s)	6953	208	546	494	1851	10052
Total	69.2	2.1	5.4	4.9	18.4	100
Race						
Black	44.9	6.9	11.1	6.8	30.3	100
White non-Hispanic	73.6	1.4	4.5	4.3	16.2	100
White Hispanic	66.2	0.6	5.2	7.7	20.2	100
Education						
<12 years	50.7	2.6	3.6	7.6	35.4	100
12 years	65.8	2.6	6.3	5.7	19.7	100
13-15 years	72.6	2.1	7.5	3.7	14.1	100
>=16 years	83.9	0.8	3	3.1	9.2	100
Marital Status						
Never Married	34.7	7.4	8.6	11.4	37.8	100
Ever Married	73.5	1.4	5	4.1	16	100
Age						
<20	29.4	4.9	5.8	8.8	51.1	100
20-24	66.3	1.1	7.5	3.6	21.5	100
25-29	75.4	2.3	5.4	3.1	13.8	100
>=30	78.7	1.2	4.6	5.3	10.2	100
Birth order						
First	68.9	1.7	5.7	5.2	18.5	100
Second	75.5	1.5	5.1	4	13.9	100
Third or higher	58.3	3.9	5.6	5.9	26.3	100

Table 3. The Results of Multinomial Logistic Regression: NSFG 2006-2010

The log odds of birth intention by parents net of demographic characteristics

	(a) Only man wanted (vs. Jointly wanted)			(b) Only women wanted (vs. Jointly wanted)			(c) Man's prefernce unknown (vs. Jointly wanted)			(d) Both Unwanted (vs. Jointly wanted)			(e) Only woman wanted (vs. Only Man wanted)		
Panel a.	β	SE		β	SE		β	SE		β	SE		β	SE	
Race															
Black	0.73	(0.21)	**	-0.04	(0.24)		0.04	(0.24)		0.06	(0.18)		-0.77	(0.25)	**
White Hispanic	0.23	(0.22)		-0.16	(0.21)		-0.26	(0.40)		-0.09	(0.20)		-0.39	(0.29)	
(Non-Hispanic White)															
Education															
<12 years	0.01	(0.24)		-0.07	(0.26)		-0.56	(0.47)		-0.32	(0.19)		-0.08	(0.31)	
12 years	0.13	(0.21)		0.05	(0.23)		-0.29	(0.42)		-0.19	(0.18)		-0.08	(0.29)	
>=16 years	-0.54	(0.31)		-0.89	(0.26)	**	-0.68	(0.61)		-0.70	(0.24)	**	-0.36	(0.36)	
(13-15 years)															
Marital Status															
Never-Married	0.73	(0.22)	**	1.08	(0.22)	***	1.64	(0.30)	***	1.11	(0.15)	***	0.35	(0.29)	
(Never-Married)															
Age															
<20	0.94	(0.27)	**	-0.36	(0.30)		1.92	(0.35)	***	1.06	(0.19)	***	-1.29	(0.32)	***
25-29	-0.92	(0.23)	***	-0.12	(0.22)		-1.04	(0.34)	**	-0.73	(0.19)	***	0.79	(0.28)	**
>=30	-1.07	(0.22)	***	0.01	(0.24)		-0.60	(0.39)		-0.93	(0.20)	***	1.08	(0.31)	**
(20-24)															
Birth order															
First	-0.47	(0.23)	*	0.06	(0.23)		0.04	(0.40)		-0.05	(0.16)		0.53	(0.29)	
Third or higher	0.19	(0.21)		0.21	(0.21)		1.30	(0.34)	***	0.42	(0.18)	**	0.03	(0.29)	
(Second)															
Constant	-1.50	(0.26)	***	-1.99	(0.27)	***	-3.69	(0.47)	***	-0.64	(0.21)	**	-0.49	(0.30)	
N=3853															
Panel b.															
Race															
Black	0.60	(0.23)	*	-0.32	(0.26)		-0.28	(0.26)		-0.10	(0.19)		-0.92	(0.26)	**
Hispanic Others	0.31	(0.18)		-0.23	(0.19)		-0.27	(0.37)		0.05	(0.17)		-0.54	(0.25)	*
Others	0.02	(0.32)		-1.09	(0.39)	**	0.35	(0.41)		-0.08	(0.26)		-1.11	(0.49)	*
(Non Hispanic White)															
Union Status at Birth															
Divorced, Widowed, Separated	1.47	(0.31)	***	2.37	(0.32)	***	2.69	(0.82)	**	1.74	(0.28)	***	0.90	(0.41)	*

Cohabiting	0.73	(0.18)	***	1.26	(0.20)	***	1.20	(0.36)	**	0.88	(0.17)	***	0.52	(0.27)	
Not Married, Not cohabiting	1.34	(0.29)	***	2.23	(0.33)	***	2.70	(0.33)	***	1.77	(0.20)	***	0.89	(0.36)	*
(Married)															
Constant	-1.64	(0.27)	***	-2.34	(0.26)	***	-3.55	(0.38)	***	-0.78	(0.22)	**	0.86	(0.25)	**
N= 4500															

*p<.05; **p<.01; ***p<.001
Reference category: Italic in ()

Table 4. The Results of Multinomial Logistic Regression: NSFG 1988 (Williams 1994)

The log odds of birth intention by parents net of demographic characteristics

	(a) Only man wanted (vs. Jointly wanted)		(b) Only women wanted (vs. Jointly wanted)		(c) Man's prefernce unknown (vs. Jointly wanted)		(d) Only woman wanted (vs. Only Man wanted)	
Race								
Black	1.122	***	0.13		1.214	***	-0.993	*
White Hispanic	0.3		0.317		-0.959		0.017	
(Non-Hispanic White)								
Education								
<12 years	-0.848		0.495		-0.424		1.344	**
12 years	-0.174		0.439		0.118		0.613	
>=16 years	-0.881	*	-0.236		-0.489		0.645	
(13-15 years)								
Marital Status								
Never-Married	0.527		1.35	***	1.565	**	0.824	
(Ever-Married)								
Age								
<20	0.672		0.763		1.53	**	0.091	
25-29	-0.179		-0.541		0.22		-0.361	
>=30	-0.321		0.016		-0.778		0.337	
(20-24)								
Birth order								
First	0.128		0.234		-0.055		0.106	
Third and higher	0.489		0.554		1.601	***	0.065	
(Second)								
Constant	-2.51	***	-3.196		-4.416	***	-0.687	
x2=327.4(55)***								

*p<.05; **p<.01; ***p<.001

Table 5. Predicted Probabilities of U.S. Births net of Demographic Characteristics by Parent's Intendedness, NSFG2006-2010

	Both intended			Man's preference unknown			Only man wanted			Only woman wanted			Both unintended		
Panel a.															
Race															
black	52.0	[47.4 ,	56.6]	2.7	[1.4 ,	4.0]	14.6	[11.1 ,	18.0]	7.4	[5.6 ,	9.3]	23.4	[19.9 ,	26.9]
Non Hispanic White	55.9	[52.7 ,	59.2]	2.9	[1.6 ,	4.3]	7.9	[6.4 ,	9.4]	8.5	[6.6 ,	10.4]	24.8	[21.6 ,	27.9]
White Hispanic	56.9	[52.4 ,	61.4]	2.4	[1.0 ,	3.7]	10.2	[7.2 ,	13.1]	7.4	[5.8 ,	9.0]	23.2	[18.8 ,	27.6]
Education															
<12 years	53.6	[48.7 ,	58.5]	2.4	[0.8 ,	4.0]	10.7	[7.7 ,	13.6]	9.6	[6.2 ,	13.1]	23.8	[19.7 ,	27.9]
12 years	50.8	[46.7 ,	54.9]	2.8	[1.9 ,	3.8]	11.1	[8.6 ,	13.6]	10.2	[7.4 ,	13.0]	25.1	[21.4 ,	28.7]
13-15 years	49.2	[44.0 ,	54.4]	3.5	[1.0 ,	6.0]	9.3	[6.9 ,	11.6]	9.3	[6.6 ,	12.0]	28.7	[23.6 ,	33.7]
>=16 years	63.6	[58.5 ,	68.7]	2.7	[0.4 ,	5.1]	7.8	[4.9 ,	10.7]	5.2	[3.5 ,	6.8]	20.7	[16.2 ,	25.2]
Marital Status															
Never Married	39.9	[35.3 ,	44.5]	4.6	[3.0 ,	6.2]	10.9	[8.9 ,	12.9]	11.7	[8.3 ,	15.2]	32.9	[28.0 ,	37.7]
Ever Married	63.2	[60.2 ,	66.2]	1.6	[0.6 ,	2.6]	9.4	[7.1 ,	11.7]	6.6	[5.5 ,	7.7]	19.1	[16.7 ,	21.6]
Age															
<20	27.0	[20.5 ,	33.6]	9.0	[2.5 ,	15.4]	17.6	[11.3 ,	23.9]	2.7	[1.2 ,	4.3]	43.6	[36.3 ,	51.0]
20-24	47.3	[42.6 ,	52.0]	2.7	[1.5 ,	3.8]	13.2	[10.4 ,	16.1]	7.6	[5.8 ,	9.3]	29.2	[24.8 ,	33.7]
25-29	62.0	[57.7 ,	66.3]	1.4	[0.6 ,	2.1]	7.5	[5.3 ,	9.6]	9.4	[7.0 ,	11.8]	19.8	[16.1 ,	23.5]
>=30	63.5	[59.7 ,	67.4]	2.2	[0.7 ,	3.6]	6.6	[4.6 ,	8.6]	11.1	[7.9 ,	14.2]	16.7	[12.8 ,	20.5]
Birth order															
First	59.9	[56.4 ,	63.5]	2.0	[0.9 ,	3.0]	7.4	[5.5 ,	9.3]	8.5	[6.3 ,	10.7]	22.3	[18.9 ,	25.7]
Second	57.9	[54.2 ,	61.6]	1.7	[0.9 ,	2.6]	11.0	[8.4 ,	13.6]	7.6	[5.6 ,	9.6]	21.8	[17.9 ,	25.7]
Third or higher	50.8	[47.3 ,	54.3]	4.8	[2.4 ,	7.2]	10.5	[8.3 ,	12.7]	7.8	[6.0 ,	9.7]	26.1	[22.6 ,	29.5]
Panel b.															
Race															
Black	54.6	[49.8 ,	59.4]	2.3	[1.3 ,	3.3]	14.3	[10.6 ,	18.0]	6.5	[4.8 ,	8.2]	22.3	[18.8 ,	25.9]
White	55.2	[51.9 ,	58.4]	3.1	[1.6 ,	4.5]	7.9	[6.4 ,	9.5]	8.9	[7.0 ,	10.9]	24.9	[21.8 ,	28.1]
Hispanic	54.4	[51.1 ,	57.8]	2.3	[1.2 ,	3.4]	10.6	[8.4 ,	12.7]	7.0	[5.6 ,	8.4]	25.7	[21.8 ,	29.6]
Other	58.4	[50.9 ,	65.9]	4.7	[1.7 ,	7.7]	8.7	[4.5 ,	12.9]	3.3	[1.0 ,	5.6]	24.9	[17.8 ,	31.9]
Union Status at Birth															
Married	66.3	[63.4 ,	69.3]	1.4	[0.6 ,	2.2]	8.7	[6.8 ,	10.7]	4.7	[3.7 ,	5.7]	18.8	[16.3 ,	21.3]
Divorced, Widowed, Separate	25.7	[18.0 ,	33.5]	6.8	[-2.3 ,	15.9]	12.7	[4.8 ,	20.7]	18.6	[11.4 ,	25.8]	36.0	[24.7 ,	47.4]
Cohabiting	45.5	[40.7 ,	50.3]	2.9	[1.8 ,	4.1]	11.5	[9.3 ,	13.6]	11.1	[8.5 ,	13.8]	29.0	[23.7 ,	34.2]
Not Married, Not cohabiting	26.5	[20.6 ,	32.3]	7.1	[3.3 ,	11.0]	11.5	[8.3 ,	14.7]	16.6	[10.1 ,	23.1]	38.3	[32.0 ,	44.6]

95% CI in []

Table 6. Predicted Probabilities of U.S. Births net of Demographic Characteristics by Parent's Intendedness, 1988 NSFG (Williams 1994)

Characteristics	Both partners wanted	Man's prefernce unknown	Man only wanted	Women only wanted	Neither partner wanted	Total
Race						
Black	39.8	8.2	10.6	6.1	35.3	100
White non-Hispanic	67.4	2	4.7	4.4	21.5	100
White Hispanic	60.8	0.9	5.4	7.4	25.5	100
Education						
<12 years	42.5	4.3	4.3	7.3	41.6	100
12 years	56.3	4.4	7.4	5.7	26.2	100
13-15 years	61.6	4	9	3.8	21.6	100
>=16 years	75.7	2	3.6	3.2	15.5	100
Marital Status						
Never Married	25.8	10.9	8.3	9.5	45.5	100
Ever Married	66.4	2.2	6.2	4.1	21.1	100
Age						
<20	23	8	6.6	7.6	54.8	100
20-24	57.2	3	7	5.6	27.2	100
25-29	69.2	4	6.3	3.2	17.3	100
>=30	73.9	1.9	5.9	5.8	12.5	100
Birth order						
First	61.9	2.5	6.9	5.6	23.1	100
Second	68.9	2.1	6.2	4.4	18.4	100
Third or higher	46.4	6.6	6.6	5.3	55.1	120

Table 7. The Results of Multinomial Logistic Regression: NSFG 2006-2010

The log odds of births intention by parents net of demographic characteristics and family background

	Man's prefernce unknown (vs. Jointly wanted)			Only man wanted (vs. Jointly wanted)			Only women wanted (vs. Jointly wanted)			Both Unwanted (vs. Jointly wanted)			Only woman wanted (vs. Only Man wanted)		
	β	SE		β	SE		β	SE		β	SE		β	SE	
Race															
Black	-0.38	(0.33)		0.53	(0.26)	*	-0.32	(0.29)		-0.18	(0.22)		-0.86	(0.27)	**
Hisipanic	-0.18	(0.45)		0.56	(0.19)	**	-0.33	(0.24)		-0.04	(0.18)		-0.89	(0.29)	**
Other	0.40	(0.44)		0.05	(0.34)		-1.31	(0.44)	**	-0.09	(0.27)		-1.35	(0.56)	*
(Non-Hispanic White)															
Education															
<12 years	-0.59	(0.41)		-0.26	(0.20)		-0.27	(0.22)		-0.36	(0.19)		-0.01	(0.27)	
12 years	-0.25	(0.37)		-0.04	(0.19)		-0.04	(0.22)		-0.20	(0.17)		0.00	(0.25)	
>=16 years	-0.46	(0.41)		-0.46	(0.29)		-0.75	(0.26)	**	-0.62	(0.24)	**	-0.29	(0.33)	
(13-15 years)															
Marital Status	2.65	(0.88)	**	1.51	(0.32)	***	2.28	(0.32)	***	1.70	(0.28)	***	0.77	(0.44)	
Never-Married	1.16	(0.35)	**	0.83	(0.18)	***	1.25	(0.21)	***	0.86	(0.17)	***	0.42	(0.27)	
(Never-Married)	2.68	(0.36)	***	1.46	(0.28)	***	2.21	(0.34)	***	1.75	(0.21)	***	0.75	(0.38)	
Age															
<20	1.50	(0.33)	***	0.79	(0.26)	**	-0.53	(0.29)		1.00	(0.21)	***	-1.30	(0.33)	***
25-29	-1.02	(0.36)	**	-0.83	(0.23)	***	-0.15	(0.22)		-0.78	(0.18)	***	0.68	(0.27)	**
>=30	-0.72	(0.31)	*	-0.90	(0.21)	***	0.07	(0.23)		-0.91	(0.19)	***	0.98	(0.26)	***
(20-24)															
Birth order	-0.09	(0.37)		-0.32	(0.23)		0.10	(0.23)		0.02	(0.16)		0.41	(0.28)	
First	0.91	(0.32)	**	0.29	(0.20)		0.28	(0.20)		0.51	(0.16)	**	-0.01	(0.28)	
Third or higher															
(Second)															
Constant	-3.56	(0.68)	***	-2.01	(0.29)	***	-2.19	(0.34)	***	-0.67	(0.27)	*	-0.18	(0.35)	
N=4366															

*p<.05; **p<.01; ***p<.001

Reference category: Italic in ()

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