

Children of Immigrants and Nonmarital Fertility in the United States

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Abstract

There is vast research on the patterns and consequences of nonmarital fertility; but relatively little is known about how the patterns of nonmarital fertility vary according to the immigrant generational status of young adult Americans. This paper examines differences in the risk of experiencing a nonmarital first birth between children of immigrants and children of native-born Americans. Results from the longitudinal data and event history models show that children of immigrants are less likely to have a nonmarital first birth compared to children of native-born Americans. A range of demographic and mitigating factors drive these nonmarital fertility patterns but do not fully account for the differences. I provide possible explanations for children of immigrants' lower risks of experiencing a nonmarital first birth. This study provides new insights into differentials into the family context faced by the next generation of Americans.

Keywords: *Children of immigrants; nonmarital fertility; event history analysis; United States*

Introduction

Family demographers demonstrate that the retreat from marriage is fueling the patterns of nonmarital fertility in contemporary America (e.g., England et al. 2013; Gray, Stockard and Stone 2006; Lichter et al. 2014). Studies also show that nonmarital fertility patterns vary distinctively across social groups. For example, blacks and Hispanics have higher risks of experiencing a nonmarital first birth than whites (Lichter et al. 2014; Schneider and Gemmill 2016; Sweeney and Raley 2014). Further, young adults with poor socioeconomic status (SES) have higher risks of experiencing a nonmarital first birth compared to their counterparts with better SES (Cherlin et al. 2016; Gibson-Davis and Rackin 2014). What is lacking in the literature is how the patterns of nonmarital fertility vary according to the immigrant generational status of young adult Americans. This is surprising given the considerable debate within and outside of academia on the sociodemographic outcomes of children of immigrants in the United States. Children of immigrants represent a large share of young adults today and expect to make up 18.4 percent of the total U.S. population by 2050 (Pew Research Center 2012). The goal of this paper is to examine how the nonmarital fertility patterns of children of immigrants compare to children of native-born Americans. The findings have implications for the well-being of the next generation of Americans because children born out-of-wedlock are often deprived of the known benefits (such as access to parental resources) conferred by marriage (Cancian, Meyer and Cook 2011; Crosnoe and Wildsmith 2011; Kearney and Levine 2017; McLanahan 2004).

According to the segmented assimilation theory, children of immigrants' risks of experiencing a non-marital birth depend on their mode of incorporation into the US society. Children of

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immigrants who assimilate into the middle-class society may be less likely to experience a nonmarital birth, whereas those who incorporate into the impoverish underclass of the society may have higher risks of experiencing a nonmarital birth compared to children of native-born Americans (Portes and Zhou 2001; Haller, Portes and Lynch 2011; Rumbaut 2005). Researchers are yet to empirically examine these arguments in the context of contemporary nonmarital fertility patterns. This study asks two basic research questions. First, are there any differentials in the risks of experiencing a nonmarital first birth between children of immigrants and children of native-born Americans? Second, what are the factors responsible for these differentials?

I answer these questions by examining how the nonmarital fertility of contemporary children of immigrants compare to children of native-born Americans. I draw data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to examine the entry into nonmarital parenthood for young adults who are the children of immigrants and native-born. This dataset is particularly suitable for two reasons. First, researchers agree that the social outcomes of children of immigrants are best understood through a longitudinal study, partly because the processes that ensure children of immigrants' incorporation into mainstream American society unfold over time (see Alba et al. 2011; Haller et al. 2011; Glick 2010). However, to the best of my knowledge, no study has explicitly examined nonmarital fertility patterns among children of immigrant (relative to children of nonimmigrants) across the life course. Second, using Add Health allows the inclusion of some key factors (e.g., social capital, neighborhood enclaves) that are salient predictors of nonmarital fertility among children of immigrants (see Haller et al. 2011; Portes and Rumbaut 2011; Rumbaut 2005). This study provides new insights into differentials into the family context faced by the next generation of Americans.

Background

Nonmarital fertility became an influential subject in America when the baby-boomers reached young adulthood (England et al. 2013). There has since been extensive research on the patterns and consequences of nonmarital childbearing (e.g., Lichter et al. 2014; Schneider and Gemmill 2016). Today, more than 40% of all births are nonmarital (Cherlin et al. 2016; England et al. 2013; Lichter et al. 2014). This new fertility pattern has negative implications on young adults. For example, children born to unmarried parents are deprived of salient social and economic resources necessary for their wellbeing (Bumpass and Lu 2000; Kearney and Levine 2017; Manning 2015; McLanahan 2004). Nonmarital first births also decrease unmarried mothers' marriage chances (Lichter et al. 2014; Edin and Tach 2012). Moreover, Guzzo and Furstenberg (2007) showed that young adults with a nonmarital first birth are substantially more likely to go on to have another nonmarital birth (with a new partner). However, research is not known about the nonmarital fertility patterns of contemporary children of immigrants—an important demographic segment of the American population (Johnson and Lichter 2010; Lichter 2013).

Prior studies have mainly focused on teen and early births and found that children of immigrants have lower risks of having a teen birth compared to children of native-born Americans (see Glick et al. 2006; Goldberg 2018). Other researchers have also examined the racial and ethnic differences in nonmarital fertility and found that Hispanics have higher patterns of nonmarital fertility than native-born whites are (see DeLeone, Lichter, Strawderman 2009; Landale et al. 2007, 2010; Oropesa and Landale 2004; Wildsmith and



Raley 2006). These researchers argued that socioeconomic conditions and changes in attitudes towards family building explain much of the higher patterns of nonmarital fertility among Hispanics. In the context of immigrant fertility, Adesera and Ferrer (2014) showed that in Canada, immigrant women (regardless of their country of origin) may eventually experience fertility patterns that are similar to their native-born peers. Beyond these prior studies, however, research is not clear about the patterns of nonmarital fertility among young adult Americans with immigrant and native-origins (Glick 2010; Landale and Oropesa 2007), although Landale and Huan (1996) may be a close study. They used pooled origin-destination data from surveys conducted in Puerto Rico and New York to compare the risks of nonmarital fertility between second-generation Puerto Ricans in New York and their non-migrant counterparts in Puerto Rico. They found that second-generation Puerto Ricans had higher risks of experiencing a nonmarital birth compared to their counterparts in Puerto Rico. A comparison of the Landale and Huan findings to those of the other empirical studies suggests that children of immigrants and children of native-born Americans may have diverging patterns of nonmarital fertility. The present study therefore builds on these studies by examining and explaining the nonmarital fertility patterns of children of immigrants, compared to children of native-born Americans. Several theories offer insights into the social outcomes of children of immigrants in the United State than could be feasibly considered in the present study. But here, I focus and draw on the segmented assimilation perspective to examine the relationship between immigrant generational status and experiencing a nonmarital first birth.² The following section explains in detail the segmented assimilation theory and its application to children of immigrants' nonmarital fertility patterns.

Segmented Assimilation Theory

The segmented assimilation theory argues that the United States is a stratified and unequal society, and so contemporary immigrants and their children will incorporate into different “segments” of the society. The theory postulates that contemporary children of immigrants have three pathways to assimilate into American society: upward assimilation, downward assimilation, and selective acculturation (Portes and Zhou 1993; Portes and Rumbaut 2001; Portes and Fernandez-Kelly 2008; Zhou and Gonzales 2019). Each path has a different influence on nonmarital fertility. *Upward assimilation* refers to children of immigrants who, through the support of their middle-class parents, ascend into the ranks of upper social class where, eventually, they would have lower chances of experiencing a nonmarital birth because SES is negatively associated with the risk of a nonmarital childbirth. This argument is consistent with prior empirical research showing that children of immigrants (relative to nonimmigrants) are less likely to experience a teen birth (e.g., Glick et al. 2006; Goldberg 2018). The second pathway, *downward assimilation*, describes children of immigrants who join in large numbers the urban underclass of American society (Portes and Rumbaut 2001; Zhou and Gonzales 2019), where nonmarital childbearing looms large (Edin and Kelafas 2011; South and Crowder 2010). *Selective acculturation* occurs when immigrant-origin young adults gradually learn American ways to upward social mobility, while retaining the cultural values and beliefs of their immigrant parents (e.g., Rumbaut 1994; Fernandez-Kelly 2008). These cultural values inoculate children of immigrants against any risks of experiencing a nonmarital

² I focus on the segmented assimilation model because, I believe, its argument better portrays the social and economic heterogeneity of nonmarital childbearing existing among contemporary young adult Americans. Also, the segmented assimilation perspective on nonmarital fertility complements such theories as the straight-line assimilation perspective which predicts upward social mobility for children of immigrants.

birth, especially among young adults with poor socioeconomic backgrounds. The idea of selective acculturation is consistent with the straight-line assimilation perspective which argued that children of immigrants may be less likely to have a nonmarital birth because they have two understanding of how the world in America works: that is, children of immigrants are taking advantage of the sociocultural and economic opportunities in post-civil rights America and at the same time drawing inspirations from the values, beliefs, and expectations from their immigrant parents to overcome negative behavioral outcomes such as nonmarital births (see Alba and Nee 2003; Drouhot and Nee 2019; Hirschman 2005).

While most researchers agree that, partly due to racial discrimination, selective acculturation, has the potential to reduce nonmarital births among contemporary children of immigrants, Portes and his collaborators have consistently emphasized a downward assimilation for most contemporary children of immigrants (see for example Portes and Rumbaut 2001; Portes and Zhou 1993). They suggest that children of immigrants have higher patterns of nonmarital fertility partly because many today's children of immigrants assimilate into the racialized impoverished population of the American society (Haller et al. 2011; Rumbaut 2005). This paper examines how each of these three "segments" of assimilation may support the nonmarital childbearing patterns of children of immigrants (relative to nonimmigrants) in the United States. In the context of the upward or selective assimilation, I expect lower or similar risks of nonmarital births among children of immigrants relative to nonimmigrants. In contrast, the downward "segment" of assimilation is supported if children of immigrants have higher risks of experiencing a nonmarital birth compared to children of native-born Americans.

Immigration and Nonmarital fertility

Several demographic and mitigating factors predict nonmarital childbearing and these factors may confound the relationship between immigrant generational status and nonmarital fertility. This section draws on the immigration and family demography literatures to explain each of these factors and how they may confound nonmarital childbearing among children of immigrants in America. I categorize these confounding factors into two groups: demographic confounding factors (including race/ethnicity and family background indicators) and mitigating confounding factors (including ethnic enclaves and social capital, religiosity, and educational aspiration or expectation).

Demographic Factors

Race and ethnicity. Prior studies have shown racial differences in nonmarital fertility. Blacks and Hispanics have higher nonmarital fertility patterns than whites and Asians (see Lichter et al. 2014; Gibson-Davis and Rackin 2014; Sweeney and Raley 2014; Schneider and Gemmill 2016). Wildsmith and Raley (2006) showed that Mexican-American women are more likely to experience a nonmarital birth relative to native-born whites, although these patterns are currently declining (Schneider and Gemmill 2016). Among immigrants, Hispanic immigrants have higher patterns of nonmarital fertility than other immigrant groups and may be driving the patterns of nonmarital births among children of immigrants in the country. Much of the higher Hispanic nonmarital fertility is driven by the fact that Hispanic immigrants have higher fertility levels than other immigrant groups (Lichter et al. 2012; Parrado and Morgan 2008). These patterns suggest higher nonmarital births for children of Hispanic immigrants relative to children of Asian and European immigrants. The patterns also suggest that children of



immigrants may be more likely to have a nonmarital first birth compared to children of native-born Americans.

Family background. Scholars have consistently shown that family structure is an important determinant of nonmarital fertility, and that young adult Americans raised in two parent households have lower risks of experiencing a nonmarital first birth compared to their counterparts with single parents (see e.g., Carlson et al. 2013; Cherlin et al. 2016; Hofferth and Goldschneider 2010). Similarly, among immigrants, children raised by single immigrant parents may have higher chances of experiencing a nonmarital first birth compared to those raised in intact families (Haller et al. 2011; Portes et al. 2005; Rumbaut 2005). Research showed that second generation immigrant Mexicans and blacks are more likely to be raised in single parent household than their Asian counterparts (Landale, Thomas and Van Hook 2011; Van Hook and Glick 2007), suggesting that children of Hispanic and black immigrants may be more likely to experience a nonmarital first birth compared to their counterparts with Asian-born parents. Nevertheless, generally, children of immigrants are more likely to be raised in unstable families than children of nonimmigrants (Hall, Musick, and Yi 2019; Haller et al. 2011; Portes and Rumbaut 2001; Portes et al. 2005).

Family SES is also an important factor influencing nonmarital fertility. Prior studies have shown that there is a negative association between family SES and nonmarital fertility (e.g., Cherlin et al. 2016; Gibson-Davis and Rackin 2014; Lichter et al. 2014). Further, family SES is heterogeneous across racial groups of immigrant parents (Bean 2016; Iceland 2014; Randell and Parker 2014), which may influence nonmarital birth patterns among children of immigrants. Differences in family SES largely emanate from parents' country of origin and how immigrant parents are received into mainstream American society (Douhot and Nee 2019; Van Hook and Glick 2007). Children of Asian and European immigrants may have better family SES than children of Hispanic and black immigrants. However, more generally, children of immigrants have poor family SES, and may experience higher risks of a nonmarital birth relative to children of native-born Americans. The language children of immigrants speak at home may also influence their risks of a nonmarital birth, partly because home language measures language-assimilation and suggests a degree of control immigrant parents have over their children (Bleakley and Chin 2010; Fernandez-Kelly 2008; Foner and Dreby 2011; Portes and Fernandez-Kelly 2008; Rumbaut, Massey, and Bean 2006). Heritage language is therefore important for the maintenance of the cultural values and beliefs of immigrant parents and may inoculate children against a nonmarital birth (Foner 1997; Neckerman and Lee 1999; Rumbaut, Massey, and Bean 2006). As such, I expect speaking a foreign language at home to reduce the risk of a nonmarital birth.

Mitigating Factors

Demographic factors alone are insufficient for understanding the social and reproductive outcomes of children of immigrants (Alba and Nee 2003; Alba et al. 2011; Haller et al. 2011; Portes and Rumbaut 2011; Rumbaut 2005). Researchers also suggest some mitigating factors that could protect children of immigrants from nonmarital births despite their relatively poor social and economic background characteristics (selective acculturation). I account for salient mitigating factors such as neighborhood concentration (ethnic enclaves), social capital, religiosity, and educational aspiration (Alba and Nee 2003; Portes and Zhou 1993; Portes and Rumbaut 2001; Portes et al. 2005).

Ethnic enclaves and social capital. Immigrants are more likely to be residentially segregated than the native-born (Johnson and Lichter 2010; Iceland and Scopiliti 2008). Neighborhood segregation allows immigrants to form social networks that help instill cultural and moral values about sexual behavior (Foner 1997; Xie and Greenman 2011; Zhou 2004). Ethnic enclaves also facilitate shared monitoring of children, which may protect children against nonmarital births (Reshick et al. 1997; Denner et al. 2007). Relatedly, social capital is an important contextual factor that may protect children of immigrants against nonmarital births (Portes 1998; Neckerman and Lee 1999; Fernandez-Kelly and Schauffler 1994; Hardie and Seltzer 2016). Social capital allows immigrant families and community members to have interconnected child monitoring and close ties with immigrants' origin, thereby reinforcing cultural and family messages about childbearing. In short, these structures may lower the risks of experiencing nonmarital childbearing among children of immigrants (Denner et al. 2001; Resnick et al. 1997).

Religiosity. Religious involvement is an important immigrants' path to social integration into mainstream America (Foner and Alba 2008; Garcia 2018; Voas and Fleischmann 2012) and facilitates upward social mobility for children of immigrants (Portes and Rumbaut 2001). Religious attendance provides children of immigrants with social networks that ensure good moral upbringing and protects children against "dangerous and destructive behavior" (Blankson and Zhou 1995). It also provides a milieu for social, financial, and surrogate parental support for children of immigrants (Cadge and Ecklund 2007; Foner and Alba 2008), especially for those with poor family backgrounds. Religiosity could therefore supplant poor background characteristics to reduce risks of nonmarital childbearing among children of immigrants (Portes and Rumbaut 2001). As such, I expect religiosity to be negatively associated with nonmarital fertility.

Educational aspiration. Children of immigrants have higher educational aspirations and complete more years of schooling relative to children of native-born Americans (Feliciano and Lanuza 2017; Glick and White 2014; Hirschman 2001; Portes et al. 2005; Kao and Tienda 1998). Several reasons account for this association. Some studies suggest that immigrant parents' own educational attainment (and expectation for their children) play important role in their children's educational aspirations (Drouhot and Nee 2019; Feliciano and Lanuza 2017; Feliciano and Rumbaut 2005; Glick and White 2004). Other studies also explain that the neighborhood and ethnic values towards education could positively influence children of immigrants' educational aspirations, thereby protecting them against nonmarital fertility (Feliciano 2005; Glick et al. 2006; Liu and Xie 2016). I therefore expect educational aspiration to be negatively associated with a nonmarital first birth. This is to also say that, ultimately, I also expect to see a negative association between educational attainment and nonmarital fertility partly because educational attainment is an important SES indicator, and SES is negatively associated with experiencing a nonmarital birth (Cherlin et al. 2016).

Current Investigation

While research on the patterns and implications of nonmarital fertility are well-documented, I am not aware of any empirical literature about the different patterns of nonmarital fertility between contemporary children of immigrants and children of native-born Americans. The segmented assimilation theory suggests that children of immigrants, depending on their mode of incorporation into US society, may have divergent risks of experiencing a nonmarital birth. Children of immigrants experiencing upward, or selective assimilation may have relatively



lower risks of experiencing a nonmarital birth, compared to children of the native-born (see Kanisntz et al. 2008; Landale and Oropesa 2007; Waters et al. 2010). In contrast, children of immigrants in the downward segment of the American society may have higher risks of experiencing a nonmarital birth (see Haller et al. 2011; Portes and Rumbaut 2001; Rumbaut 2005). This paper tests these contradictory hypotheses by integrating two important substantive areas (children of immigrants and nonmarital fertility) that have not been studied before, even though these are renowned areas in immigration studies and family demography. Based on the segmented assimilation perspective and prior empirical studies, I expect to see significant differences in nonmarital fertility patterns between children of immigrants and nonimmigrants. I also expect demographic and mitigating factors (e.g., family background, neighborhood concentration, social capital, religiosity, and educational aspiration) to drive the nonmarital fertility differences between children of immigrants and children of native-born Americans.

Data and Methods

Data

I draw data from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a study that began with a nationally representative sample of students from 80 high schools and 52 feeder middle or junior high schools through a disproportionately stratified, school-based, clustered sampling design. The first wave took place in the 1994–1995 schoolyear, where 20,745 students (and parents of these students) were randomly selected for in-home interviews. A Wave 2 interview was conducted a year later in 1996. Wave 3 was conducted in 2002, and the fourth wave interview took place in 2008 (with respondents' ages 24 to 32), at which time 15,373 respondents (80.3% response rate) from the original Wave 1 sample participated. I use data from Waves 1 and 4. Although respondents had not completed their childbearing years by Wave 4 and are potentially right censored (Allison 2014), Cherlin et al. (2016:754) argued that age 32 "...is old enough that the vast majority of the cohort's lifetime number of nonmarital first births will have occurred". As such, I cap the age of the respondents at 32. Cherlin et al. (2016) showed that about 96% and 92% of all nonmarital births occur before women and men, respectively, reach age 30. For marital births, 78% of marital births occur before women reach age 30; and 70% for men of the same age. These high percentages of nonmarital and marital births suggest minimal bias for right-censoring (Min and Taylor 2018).

Sample

I define nonmarital fertility as births occurring to never married women and men between Wave 1 and Wave 4. As such, consistent with prior studies (see Cherlin et al. 2016; Carlson et al. 2013; Min and Taylor 2018), I eliminate all respondents who have ever been pregnant or made someone pregnant in Wave 1 ($n = 821$). For each person, the first observation was for only respondents who had reached age 16 (Guo 1993)³. Consequently, I exclude persons who had given birth after Wave 1 but prior to age 16 ($n = 127$). Persons who had been married at Wave 1 or prior to age 16 are also excluded ($n = 79$). Some variables had missing cases (n

³The goal is to ensure that only single (never married) young adults were observed over time. In addition, marriage or childbearing under age 16 are considered extenuating instances in American family life.

= 937; 6.1% missing). I exclude these invalid and missing responses⁴ (see Wright 2018; Carlson et al. 2013 for similar analysis). The final analytic sample was 14434, with 69933 women and 72754 men. As required, I create person-years file for the analysis (Allison 2014).⁵ The risk period for first birth begins at the age of 16 and ends when respondents have a first birth. Respondents who do not have a birth remain in the risk set until their age at Wave 4. The analysis sample is partitioned by gender, with all analyses conducted separately for women (69,944 person-year observations) and men (72,769 person-years).

Measures

Dependent Variable

Add Health Wave 4 collected detailed information on births for respondents, including the union status within which every child was born. The dependent variable was therefore created using respondents' union status at first birth in Wave 4. I identified whether adolescents were married, cohabiting, or single at the time of their first birth. Like Carlson et al. (2013), I code union status at first birth as three dummy variables: [0] no birth—those without a child. [1] Marital first birth—young adults whose first birth occurred in a married union. [2] Nonmarital first birth—a combination of young adults not living with a partner and those cohabiting at first birth (see also Cherlin et al. 2016).

In addition to several other important reasons, I use first births to minimize recall bias. A major limitation of measuring male fertility is the tendency on the part of men to underreport births particularly nonmarital births (Joyner et al. 2012). This limitation is managed by using first births, a major life course trajectory for young adults. Most young adults could provide accurate accounts (and their lived experiences) of their first birth, and the union status at the time of the child's birth (Edin and Nelson 2013; Augustine et al. 2009).

Independent Variable

Immigrant generation status was determined using the child and parents' country of birth as indicated at Wave 1. I create three dummy variables for the generational status: 1.5-generation, second-generation, and third or higher generation. 1.5-generation was foreign-born young adults who had at least one foreign parent. US born young adults with at least one foreign parent are second-generation. The third-plus generation was US born young adults born to native-born parents. Both 1.5 and 2nd generations are considered children of immigrants throughout the analyses (Feliciano and Lanuza 2017; Glick et al. 2006).

Confounding factors

Below is a description of all the confounding/control variables and their measurements. All variables were measured at Wave 1, except for educational attainment which was measured at Wave 4. Prior immigration and demographic scholarships informed the decision on these control variables.

Demographic variables

Race and ethnicity. Measured in Wave 1, race/ethnicity referred to the race and ethnic background of the respondent. I code race and ethnicity into five dummy variables: white,

⁴ Results are consistent using multiple imputation for all missing values.

⁵ The discrete time period is defined as the calendar year, which is also the duration variable for the event history analysis.



black, Hispanic, Asian, and other.⁶ Family socioeconomic status (SES), measured as a continuous variable, is a composed variable that was created based on income, occupation, and education of the parents in the parental questionnaire at Wave 1 (Ford, Bearman and Moody 1999). It ranges from the lowest SES (1) to the highest SES (10). Family structure is measured using four dummy variables: two biological/adopted parents, stepparent, single parent, and other family forms (e.g., grandparents, other relatives). I code language as a dichotomous variable: 1 for young adults who primarily spoke English at home, and 0 for other languages spoken at home. To capture how the risk of having a nonmarital and marital birth changes over the risk period, I include a time-varying variable for age.⁷ Given a curvilinear relationship between age and the hazard of first birth, I also include in the models an age-squared term (Allison 2014). I also control for young adults' educational attainment, measured at Wave 4, which serves as the basic indicator of young adults' socioeconomic resources.⁸ I code educational attainment as four dummy variables: less than high school, high school, some college, and college.

Mitigating variables

Immigrant enclave is defined as the percentage of US-born residing in the neighborhood. Immigrant enclave is measured as a dummy variable: [1] ethnic enclave of 70% or more US born neighbors, and [0] for neighborhoods with less than 70% US-born (see Xie and Greenman 2011 for similar analysis). Religiosity is measured based on three item questions about religious service attendance, prayer, and importance (Cronbach's $\alpha = .87$). Social capital is obtained based on eight item questions about how much respondents felt they received care and support from family, friends, teachers, and neighbors (Cronbach's $\alpha = .79$). Educational aspiration is measured based on two item questions about preference and probability of going to college (Cronbach's $\alpha = .82$).

Analytical Strategy

The analysis involves two stages. At the first stage, I use life table methods to estimate the cumulative risk probabilities of nonmarital and marital first births by immigrant generational status, separately for women and men (Figure 1a & 1b). At the second stage, I use discrete-time multinomial logit models to predict the likelihood of having a first birth outside of marriage versus within marriage, compared with no birth, the reference category (see Carlson et al. 2013; Cherlin et al. 2016).⁹ Hence, I estimate the general statistical model as:

$$\log \left(\frac{P_{ijt}}{P_{i0t}} \right) = \alpha_j(t) + \beta_j x_i + \gamma_j z_{it} + \delta_j w_{it}$$

Where $j = 0$ to 2 with reference category being state 0; i indicates respondent i ; t is a measure of time such that $t = 1$ if the respondent was age 16, $t = 2$ if the respondent was age 17 and

⁶ Hereafter, I refer to these dummy racial/ethnic variables as just white, black, Hispanic, Asian, and other.

⁷ Age variable was created using age at first birth and young adults' age at Wave 4.

⁸ For this study, I exclude income and employment status (other indicators of socio-economic resources) partly because they are highly correlated with education. Also, factors such as income and employment may be highly unstable during young adulthood. That said, the results are similar with the inclusion of these variables.

⁹ However, to ensure robustness of the nonmarital fertility findings I also conducted supplementary analyses using marital first birth as the reference category, separately for women and men. The supplementary findings comparing nonmarital births versus marital births are consistent with the nonmarital fertility patterns presented here.

so forth until the last period of observation in any first birth at Wave 4. $\alpha_j(t)$ is some function of t . X_i is a vector of time-constant sociodemographic characteristics (immigrant generational status, race/ethnicity, family SES, family structure, educational attainment, language spoken at home, and age & age²) of individual i ; Z_{it} is a vector of mitigating characteristics (social capital, religiosity, and educational aspiration) of individual i at time t ; and W_{it} is percentage of neighborhood residents who are US-born for individual i at age t . Again, the analyses are conducted separately for women and men.

Results

Descriptive Statistics

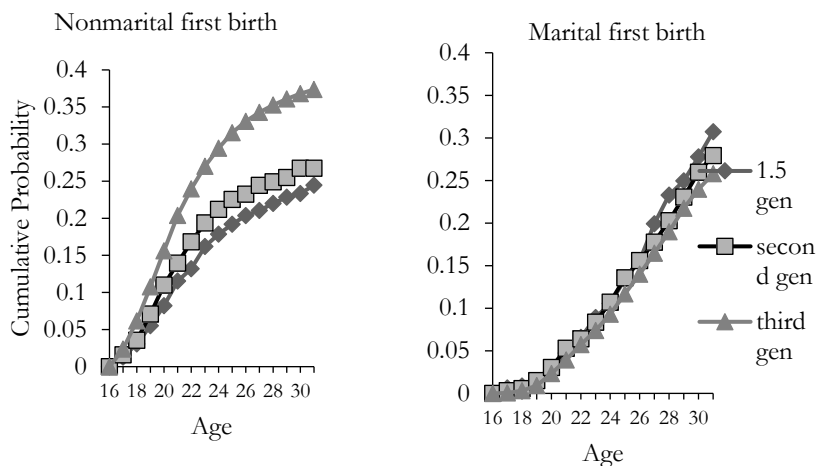
Figure 1a and 1b plot sets of cumulative hazard probabilities of nonmarital and marital first births by the immigrant generational status of young adult women and men, respectively.¹⁰ (Table A1 in the appendix shows the descriptive statistics.) In Figure 1a, I present cumulative probabilities of women's nonmarital and marital first births by generation groups. The results (Figure 1a) show that while the third-plus generation has the highest cumulative probability of experiencing a nonmarital first birth, 1.5 generation immigrant young adults are the least likely to experience a nonmarital first birth. Second generation immigrants, although sandwiched between third and 1.5 generation young adults, have risks of experiencing nonmarital first births that are closer to 1.5 generation groups than the third generation. In the case of marital first births (Figure 1a), there is a miniscule difference in the hazard risks of marital first birth by generational groups, although 1.5 generation immigrant women are more likely to experience a marital first birth by age 31, followed by second generation women, and lastly the third generation. That said, these differences are extremely small.

¹⁰ I conducted additional analysis to determine the confidence intervals for the figures (Tables B1 and C1 respectively). The intervals indicate no difference for marital births (as expected based on the figures) but significant differences exist for nonmarital births by age 30 for both women and men.

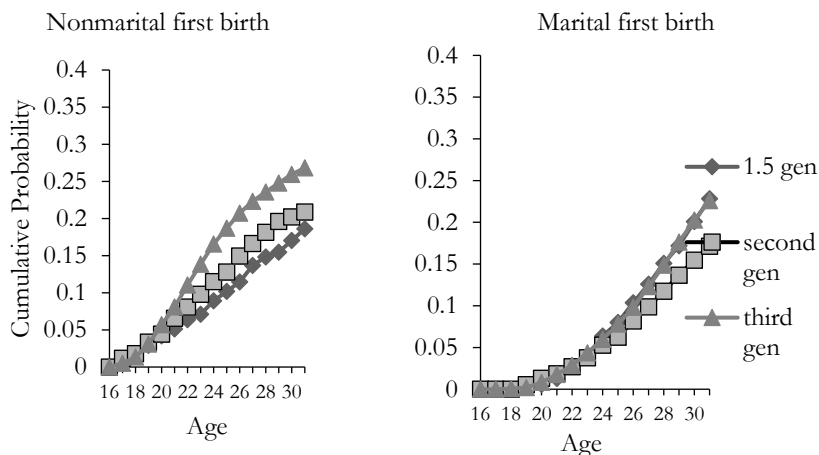


Figure 1. Cumulative probabilities of nonmarital and marital first births among young adults

a. Women



b. Men



Similarly, for men, Figure 1b shows that third-plus generation men have the highest probability of experiencing a nonmarital first birth, followed by second generation immigrant men. 1.5 generation immigrant men are the least likely to experience a nonmarital first birth. In the case of marital first birth, except for second generation men who have lower risks of experiencing marital first births beginning at age 25, there is no difference in the probability of experiencing a marital first birth, by men's generation groups.

Figure 1a and 1b suggests that children of immigrants may have lower risks of experiencing a nonmarital first birth compared to children of the native-born. This finding is consistent with the upward social mobility and selective acculturation pathways proposed by the segmented assimilation theory. However, it could be argued that children of immigrants' relatively lower nonmarital fertility risks could be due to a confounding association between the immigrants' generational status, nonmarital fertility and other demographic and mitigating characteristics

of young adult Americans. To account for such a possibility, I estimated discrete-time hazard models with multinomial logits while adjusting for the salient demographic and mitigating factors that intersect the demographic literature and the segmented assimilation perspective.

Multivariable Regression

In Tables 1 and 2, I present discrete-time multinomial logit models predicting first births separately for women and men. (Tables B2, B3, C2 and C3 also provide supplementary regression analyses for children of immigrants only, separately for men and women.) As discussed earlier, the major goal of this paper was to examine whether there is any relationship between the immigrant generational status of young adults and their risk of experiencing a nonmarital first birth. And to determine factors that might explain these nonmarital fertility patterns.¹¹ Table 1 shows the results of first birth models for women. Model 1 shows that the probability of experiencing a nonmarital first birth versus no birth is significantly lower for children of immigrants (1.5 and second generations) than children of native-born Americans (the third-plus generation). For example, controlling for race and ethnicity, age and age-squared, second-generation immigrants have odds of experiencing a nonmarital first birth (versus no birth) that are 44% [exp (-.580)-1] lower than the third-plus generation. Further, 1.5 generation immigrants have significantly 48% [exp (-.685)-1] lower odds of experiencing a nonmarital first birth versus no birth, compared to their third-plus generation counterparts. However, there is no significant relationship between immigrant generation status and the chance of experiencing a marital first birth versus no birth in model 1, suggesting that marital first birth may not be dependent on the generational group a young adult belongs. Race, age, and age-squared were statistically significant predictors of both marital and nonmarital births versus no birth.

Table 1. Multinomial logistic discrete-time hazards of nonmarital first birth for **women** based on their immigrant generational status

	Nonmarital Births						Marital Births					
	vs no birth			vs. No birth			vs. No birth			vs. No birth		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	β	β	β	β	β	β	β	β	β	β	β	β
Independent variables												
Intercept	-12.229	***	-12.535	***	-11.940	***	-18.774	***	-18.979	***	-20.118	***
Immigrant status (ref. 3 rd + gen)												
1.5 generation	-0.685	***	-0.444	***	-0.383	**	0.143		0.094		0.117	
Second generation	-0.580	***	-0.275	**	-0.229	*	0.043		0.063		0.096	
Race/Ethnicity (ref. White)												
Black	0.881	***	0.747	***	0.793	***	-0.977	***	-0.985	***	-1.112	***
Hispanic	0.697	***	0.445	***	0.493	***	-0.110		-0.350	***	-0.342	***
Asian	0.131		0.225		0.287	*	-0.696	***	-0.671	***	-0.660	***
Other	0.565	***	0.379	***	0.394	***	-0.406	**	-0.437	**	-0.440	**
Family SES												
			-0.055	***	-0.049	***			-0.056	***	-0.060	***
Family structure (ref. Both parents)												
Step parent			0.393	***	0.380	***			0.025		0.099	
Single parent			0.249	***	0.243	***			-0.204	**	-0.137	*
Other			0.460	***	0.453	***			0.063		0.144	
Education (ref. < High school)												
High school			-0.480	***	-0.445	***			0.292	#	0.266	#
Some college			-0.641	***	-0.562	***			0.103		0.056	
College			-2.059	***	-1.950	***			-0.515	**	-0.593	***
English at home			0.318	**	0.245	*			-0.127		-0.126	
Age	0.866	***	0.946	***	0.952	***	1.164	***	1.225	***	1.209	***

¹¹Supplementary analyses using marital first birth as the reference category were also conducted, separately for women and men (not shown, but available on request). The supplementary results were consistent with the nonmarital fertility findings presented here.



Age ²	-0.021	***	-0.022	***	-0.022	***	-0.021	***	-0.022	***	-0.022	***
70% US born					0.236	**					0.174	#
Religiosity					-0.012	#					0.069	***
Social capital					-0.016	***					0.018	*
Educational expectation					-0.039	**					-0.005	
Person-years	69933		69933		69933		69933		69933		69933	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

In Model 2, I added family background characteristics, to determine any changes in the focal independent variable. The segmented assimilation perspective suggests that family background factors are important predictors of a nonmarital first birth. And that these factors vary significantly between children of immigrants and their native-born counterparts. These characteristics were added to determine any changes in the risk of experiencing a nonmarital first birth versus no birth, when comparing the generation status of young adult women. Model 2 shows that despite controlling for family SES, family structure, and English spoken at home, the second generation and 1.5 generational immigrant women still have significantly lower odds of experiencing a nonmarital first birth versus no birth, compared to their native-born counterparts. However, the probability that a young adult has a nonmarital first birth has decreased by 35% for 1.5 generation and 52 % for the second-generation immigrants, after controlling for family background characteristics. These reductions partly suggest the importance of background factors in predicting nonmarital fertility for children of immigrants. Consistent with prior studies, family SES and educational attainment were significantly negatively associated with experiencing both nonmarital and marital first births versus no birth. In the case of family structure, focusing on nonmarital first birth versus no birth, growing up with a stepparent, single parent or other family members increases the probability that a young adult would have a nonmarital first birth, compared to women who grew up with intact parents. Women who spoke English at home have higher probability of experiencing a nonmarital first birth versus no birth, compared to their counterparts who spoke other languages at home.

Model 3 added the percentage of residents in the neighborhood who were US born, religiosity, social capital, and educational aspiration. Previous studies have shown that immigrant neighborhood concentration, religiosity, social capital, and educational aspiration act as protective mechanisms in reducing the risks of having a nonmarital birth, particularly for the 1.5- and second-generation immigrants. Hence, I hypothesized that controlling for these factors may lead to no difference in the risk of experiencing a nonmarital first birth, when comparing children of immigrants to their native-born counterparts. However, Model 3 shows that adding these protective factors to Model 2 did not change the statistically significant negative association for 1.5- and second-generation immigrant women and nonmarital first birth, compared to their third-generation counterparts. Children of immigrants had significantly lower hazards of experiencing a nonmarital first birth versus no birth, adjusting for all other factors. Although controlling for all other sociodemographic characteristics further reduced the coefficients of 1.5- and second-generation immigrants; partly suggesting the importance of the mitigating factors in explaining nonmarital first births.

Similarly, Table 2 shows the multinomial logit discrete-time hazards of first birth for men only. Model 1 shows that both 1.5- and second-generation immigrant men are less likely, compared to children of the native-born, to have a nonmarital first birth, adjusting for race and ethnicity, age and age square. Also, second generation immigrants are less likely to experience a marital first birth versus no birth, controlling for race & ethnicity and age & age-

squared. In Model 2, adding family background factors to model 1 still showed that children of immigrants have lower hazards of experiencing a nonmarital first birth versus no birth compared to children of the native-born. Although adding these background factors reduced the coefficients for 1.5- and second-generation immigrants by 39% and 46%, respectively. Family SES and educational attainment were negatively associated with both nonmarital and marital first birth. Speaking English at home significantly increases the hazards of a nonmarital birth for men. In model 3 (of Table 2), adding 70% US born residents, religiosity, social capital and educational aspiration, reduce the coefficients of nonmarital first birth for the 1.5 generation. Also note those second-generation men now have similar risks of experiencing a nonmarital first birth as the third generation. The patterns suggest that these mitigating factors may have mediating effects on nonmarital births among young adult immigrant men. That said, of all the mitigating factors, only neighborhood concentration and educational aspiration was significantly associated with the risks of experiencing a nonmarital first birth versus no birth, adjusting for other factors.

Table 2. Multinomial logistic discrete-time hazards of nonmarital first birth for **men** based on their

	Nonmarital Births vs No birth						Marital Births vs No birth					
	Model 1		Model 2		Model 3		Model 1	Model 2	Model 3			
	β		β		β		β	β	β			
Independent variables												
Intercept	-17.018	***	-16.738	***	-16.590	***	-22.821	***	-22.966	***	-23.867	***
Immigrant status (ref. 3 rd + gen)												
1.5 generation	-0.595	***	-0.370	*	-0.300	#	0.098		0.046		0.104	
Second generation	-0.442	***	-0.239	*	-0.175		-0.231	*	-0.239	#	-0.181	
Race/Ethnicity (ref. White)												
Black	0.984	***	0.844	***	0.885	***	-0.730	***	-0.717	***	-0.808	***
Hispanic	0.683	***	0.445	***	0.536	***	-0.215	*	-0.372	**	-0.354	**
Asian	-0.094		0.093		0.173		-0.582	***	-0.512	**	-0.458	**
Other	0.134		0.062		0.072		-0.149		-0.175		-0.169	
Family SES												
Family structure (ref. Both parents)												
Step parent			0.107		0.095				0.070		0.117	
Single parent			0.024		0.026				-0.323	***	-0.273	**
Other			0.227	#	0.236	*			0.182		0.227	
Education (ref. < high school)												
High school			-0.427	***	-0.428	***			0.282	#	0.278	#
Some college			-0.658	***	-0.621	***			0.486	***	0.446	**
College			-1.954	***	-1.889	***			-0.146		-0.217	
English at home			0.304	*	0.239	#			-0.075		-0.125	
Age	1.123	***	1.158	***	1.159	***	1.399	***	1.425	***	1.411	***
Age ²	-0.024	***	-0.024	***	-0.024	***	-0.025	***	-0.025	***	-0.025	***
70% US born					0.334	**					0.287	*
Religiosity												
					-0.004						0.049	***
Social capital												
					-0.006						0.015	#
Educational expectation												
					-0.032	**					-0.007	
Person-years												
	72754		72754		72754		72754		72754		72754	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

Robustness Checks

The analyses above collapsed children of immigrants together, irrespective of the race and ethnic origin of young adults. However, due to the sharp race and ethnic differences in nonmarital fertility patterns in the US, a likely question would be, “what happens if the models in Tables 1 and 2 were separated by race and ethnicity?” That is, would I find children of immigrants of each racial group to be at lower risks of nonmarital first birth if they were compared to their co-ethnic native-born counterparts? Add Health allowed us to answer this



question among Hispanics.¹² The findings in the robustness check (results not shown) were consistent with the analyses presented in Tables 1 and 2. Children of Hispanic immigrants have lower risks of experiencing a nonmarital first birth compared to their co-ethnic native-born counterparts, controlling for other factors. These results are consistent with previous studies (Kasinitz et al. 2008; Alba and Nee 2003).

Discussion and Conclusion

This paper examined the relationship between children of immigrants and nonmarital first birth. Research on the patterns and consequences of nonmarital fertility are well-documented but it remains unclear how nonmarital fertility patterns vary according to the immigrant generational status of young adults Americans (Schneider and Gemmill 2016; McLanahan 2004; Lichter et al. 2014). Using Add Health, I drew on the segmented assimilation theory to provide a comprehensive portrait of the nonmarital fertility patterns of children of immigrants compared to children of native-born Americans.

I hypothesized that children of immigrant would have divergent nonmarital fertility trajectories, depending on which segment of the US society they assimilate into. Immigrant-origin young adults with upward assimilation or selective acculturation will have lower risks of experiencing a nonmarital first birth, whereas those experiencing a downward assimilation are more likely to experience a nonmarital first birth compared to their peers with native-born parents. The findings from the cumulative hazard probabilities showed that children of immigrants (relative to nonimmigrants) have lower risks of experiencing a nonmarital first birth. This finding is consistent with prior research on early childbearing among children of immigrants (Glick et al. 2006; Goldberg 2018). But at the same time the findings seem to support both the upward assimilation and selective acculturation modes of incorporation into the US society, as posited by the segmented assimilation theory. To determine which of these assimilation paths actually support children of immigrants' nonmarital fertility patterns I account for some confounding factors.

Based on prior literature, I expected that controlling for family background factors (especially family SES and educational attainment) would eliminate any significant association between children of immigrants and nonmarital first birth. On the contrary, the study showed that children of immigrants are still less likely to experience a nonmarital first birth compared to children of native-born Americans, after controlling for the background factors (Model 2 of Tables 1 and 2). Similarly, adding neighborhood concentration and other mitigating factors did not eliminate the significant association between children of immigrants and nonmarital first births. It is worth mentioning, however, that controlling for the background and mitigating factors diminishes the effect of the association between immigrant generation status and nonmarital fertility, particularly among men, implying the importance of these factors in explaining the nonmarital fertility patterns among children of immigrants relative to nonimmigrants.

The findings in this paper offer several interpretations in the context of nonmarital fertility among children of immigrants. Overall, the results show that children of immigrants are less

¹² I am unable to conduct in-depth analyses and racial comparisons for other racial categories due to problems with cases especially for 1.5- & second-generation blacks, Asians, and other groups.

likely to experience a nonmarital first birth compared to children of native-born Americans, even after controlling for all demographic and mitigating factors; suggesting that unmeasured individual characteristics or cultural factors may underlie the observed nonmarital fertility patterns. I am unable to determine these factors in the present study. The selective acculturation perspective (consistent with straight-line assimilation theory) posits that children of immigrants' lower nonmarital childbearing risks may be due their parental background and belief practices (Hirschman 2005). That is, there is a possibility that children of immigrants are having two understandings of how the world in America works: they are in America but not of America. As such, Hirschman and others explain that children of immigrants may be drawing inspiration from the background and beliefs of their immigrant parents and simultaneously taking advantage of the enormous socioeconomic opportunities available in post-civil rights America to assimilate upwards (Alba et al. 2011; Fernandez-Kelly 2008; Hirschman 2005). These inspirations and opportunities may therefore be protecting children of immigrants against the risks of experiencing a nonmarital birth, compared to children of native-born Americans (see Kao and Tienda 1998; Liu and Xie 2016). Similarly, Xie and Greenman (2011) suggest that it is possible that immigrant parents are well aware of the negative consequences of these sexual behaviors in American society, and so employ stringent measures that inoculate their children from these risks (see also Drouhot and Nee 2019; Foner 1997). That said, the present study was unable to empirically examine these factors and arguments. Future research in this area is therefore needed. The lack of statistically significant difference between the 1.5- and second-generation young adults in the supplementary analyses (specifically Tables B2, B3, C2 and C3) suggests that all children of immigrants (whether born in America or not) may have this double understanding of the American society, but that is not enough evidence to support these arguments.

These findings contribute to our assessments of nonmarital childbearing for children of immigrants but there are few data limitations. First, because Add Health is a sample of youth on school rosters, one should be wary when interpreting the findings. The results presented here may apply mainly to non-college young adults. By Wave 4, when young adults were between ages 24-32, it could be that majority of the births to college graduates might not have taken place since the average age at first birth for college graduate women is around 30. This may influence the immigrant generational patterns of union status at first birth presented in this paper; partly because of the negative association between educational attainment and nonmarital fertility. Second, the data did not allow us to conduct robust analysis on variations of nonmarital births among children of immigrants according to their country of origin. Future research on nonmarital fertility patterns based on the country of origin is therefore recommended. Similarly, even though Add Health allowed us to conduct sensitivity analysis on the generational heterogeneity of nonmarital first births for Hispanics, it is possible that there might be differences in the heterogeneity of immigrant generational status and nonmarital first births when children of black and Asian immigrants were compared to their co-ethnic native-born counterparts. Future research using larger sample should examine these racial heterogeneities of nonmarital birth patterns by immigrant generational status. The results and sensitivity analyses in this study are consistent with a prior cross-sectional study among young adult New Yorkers (Kasinitz et al. 2008; Waters et al. 2010), which found that within each racial category (white, black, Hispanic, Asian) children of immigrants may be less likely to experience negative behavioral outcomes such as nonmarital fertility. However, future



research should extend the findings in this study using larger immigrant heterogeneous sample among racial groups.

This study nevertheless provides a robust basis to understanding children of immigrants' nonmarital fertility patterns. Considering the current political and academic debates concerning children of immigrants, this study provides a national portrait of their nonmarital fertility patterns. The study also provides new insights into differentials into the family context faced by the next generation of Americans. The paper suggests that despite their probably relatively poor backgrounds (Portes and Zhou 1993; Portes and Rumbaut 2001), children of immigrants have lower risks of nonmarital births than their counterparts with native-born parent in the United States.

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Appendices

Table A1: Means and Standard Deviations of the Variables Used in the Analyses

	Women		Men	
	Mean	SD	Mean	SD
First birth				
No birth	0.941	0.236	0.962	0.191
Marital birth	0.025	0.155	0.017	0.129
Nonmarital birth	0.035	0.183	0.021	0.144
Generation status				
Third+ generation	0.792	0.406	0.786	0.410
1.5 generation	0.080	0.272	0.081	0.272
Second generation	0.128	0.334	0.134	0.340
Race/Ethnicity				
White	0.555	0.497	0.564	0.496
Black	0.184	0.387	0.165	0.371
Hispanic	0.149	0.356	0.155	0.362
Asian	0.060	0.238	0.067	0.249
Others	0.052	0.222	0.049	0.217
Family SES	5.867	2.712	5.873	2.642
Family Structure				
Both parents	0.598	0.490	0.591	0.492
Step parents	0.143	0.350	0.157	0.364
Single parents	0.226	0.418	0.220	0.414
Other	0.034	0.180	0.033	0.178
Education				
Less high school	0.035	0.184	0.073	0.261
High school	0.104	0.104	0.173	0.378
Some college	0.399	0.40	0.428	0.495
College	0.462	0.462	0.326	0.468
English at home				
No	0.099	0.299	0.102	0.302
Yes	0.901	0.299	0.898	0.302
Age	21.524	3.768	21.999	3.844
US-born residents				
Above 70%	0.129	0.335	0.135	0.342
Below 70%	0.871	0.335	0.865	0.342
Religiosity	9.698	3.330	9.069	3.472
Social capital	30.633	3.681	30.132	3.839
Educational Aspiration	9.047	1.658	8.493	2.042
Person-years	69933		72754	
N	7670		6764	

Source: Add Health Wave 1 and 4

Table B1: Multinomial logistic discrete-time hazards of nonmarital versus marital first birth for women based on their immigrant generational status

Nonmarital Births vs Marital births						
	Model 1		Model 2		Model 3	
	β		β		β	
Independent variables						
Intercept	6.546	***	6.444	***	8.178	***
Immigrant status (ref. 3 rd + gen)						
1.5 generation	-0.828	***	-0.538	**	-0.500	**
Second generation	-0.623	***	-0.338	**	-0.324	*
Race/Ethnicity (ref. White)						
Black	1.857	***	1.732	***	1.905	***
Hispanic	0.808	***	0.795	***	0.835	***
Asian	0.828	***	0.896	***	0.947	***
Other	0.970	***	0.816	***	0.834	***
Family SES			0.002		0.012	
Family Structure (ref. Both parents)						
Step parent			0.368	***	0.282	**
Single parent			0.453	***	0.380	***
Other			0.397	*	0.310	#
Education (ref. < High school)						
High school			-0.772	***	-0.711	***
Some college			-0.744	***	-0.617	***
College			-1.545	**	-1.358	***
English at home			0.445	**	0.371	*
Age	-0.298	*	-0.279	*	-0.257	*
Age ²	0.000		0.000		-0.001	
70% US born					0.061	
Religiosity					-0.081	***
Social capital					-0.034	***
Educational expectation					-0.033	#
Person-years	69933		69933		69933	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

Table B2: Multinomial logistic discrete-time hazards of women's nonmarital first birth among children of immigrants only

	Nonmarital Births vs No birth						Marital Births vs No birth					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	β		β		β		β		β		β	
Independent variables												
Intercept	-11.976	***	-12.026	***	11.528	***	-16.425	***	-16.068	***	-16.768	***
Immigrant status (ref. 1.5 gen)												
Second generation	0.113		0.187		0.161		-0.067		-0.017		-0.026	
Race/Ethnicity (ref. White)												
Black	0.886	**	0.849	**	0.856	**	-0.875	*	-0.792	*	-0.840	*
Hispanic	0.803	***	0.599	**	0.686	**	0.289		-0.033		0.018	
Asian	0.194		0.405	#	0.516	*	-0.376	*	-0.360	#	-0.311	
Other	0.476		0.459		0.449		-0.410		-0.409		-0.394	



Family SES	-0.042	#	-0.034		-0.048	*	-0.042	#
Family Structure (ref. Both parents)								
Step parent	0.734	***	0.751	***	0.007		0.049	*
Single parent	0.253	#	0.278	#	-0.440	**	-0.398	
Other	0.453	#	0.494	#	0.282		0.344	
Education (ref. < High school)								
High school	-0.577	*	-0.567	*	-0.293		-0.348	
Some college	-1.004	***	-0.890	***	-0.763	**	-0.757	**
College	-2.443	***	-2.280	***	-1.542	***	-1.517	***
English at home								
Age	0.756	***	0.838	***	0.965	***	1.043	***
Age ²	-0.018	***	0.019	***	-0.017	***	0.019	***
70% US born			0.244	*			0.212	#
Religiosity			-0.006				0.039	*
Social capital			0.000				0.020	
Educational expectation			-0.097	**			0.056	
Person-years	14563		14563		14563		14563	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

Table B3: Multinomial logistic discrete-time hazards of **women’s** nonmarital birth versus marital birth among **children of immigrants only**

	Nonmarital Births vs Marital Births					
	Model 1		Model 2		Model 3	
	β		β		β	
Independent variables						
Intercept	4.449		4.042		5.240	
Immigrant status (ref. 1.5 gen)						
Second generation	0.180		0.204		0.187	
Race/Ethnicity (ref. White)						
Black	1.761	***	1.640	***	1.695	***
Hispanic	0.514	*	0.632	*	0.668	*
Asian	0.571	#	0.765	*	0.826	**
Other	0.886	*	0.868	*	0.844	*
Family SES						
Family Structure (ref. Both parents)						
Step parent			0.727	**	0.702	**
Single parent			0.693	**	0.677	**
Other			0.172		0.149	
Education (ref. < High school)						
High school			-0.284		-0.219	
Some college			-0.241		-0.133	
College			-0.901	*	-0.763	*
English at home						
Age	-0.210		-0.205		-0.197	
Age ²	-0.001		-0.001		-0.001	
70% US born					0.032	
Religiosity					-0.045	
Social capital					-0.020	
Educational expectation					-0.041	
Person-years	14563		14563		14563	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

Table C2: Multinomial logistic discrete-time hazards of **men's** nonmarital first birth among **children of immigrants only**

Independent variables	Nonmarital Births vs No birth						Marital Births vs No birth					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	β		β		β		β		β		β	
Intercept	-12.316	***	-11.718	***	-11.580	***	18.07 2	***	-17.908	***	-18.218	***
Immigrant status (ref. 1.5 gen)												
Second generation	0.171		0.131		0.128		0.317	*	-0.260	#	-0.263	#
Race/Ethnicity (ref. White)												
Black	0.915	**	0.837	*	0.905	**	1.938	**	-2.086	**	-2.144	**
Hispanic	0.786	**	0.532	*	0.654	*	0.036		-0.348		-0.302	
Asian	-0.032		0.104		0.248		0.456	*	-0.490	*	-0.451	#
Other	-0.262		-0.254		-0.162		0.190		-0.237		-0.227	
Family SES			-0.051	#	-0.040				-0.048	#	-0.049	
Family Structure (ref. Both parents)												
Step parent			0.038		0.047				0.027		0.066	
Single parent			0.166		0.212				-0.068		-0.023	
Other			0.394		0.414				0.758	**	0.795	**
Education (ref. < High school)												
High school			-0.343		-0.330				-0.025		-0.031	
Some college			-0.513	*	-0.424	*			0.265		0.251	
College			-1.586	***	-1.432	***			-0.428		-0.465	
English at home			0.340	*	0.293	#			-0.063		-0.123	
Age	0.624	**	0.640	**	0.642	**	1.016	***	1.032	***	1.016	***
Age ²	-0.012	**	-0.013	**	-0.013	**	0.017	**	-0.017	**	-0.017	**
70% US born					0.304	*					0.254	#
Religiosity					0.025						0.049	*
Social capital					0.000						-0.008	
Educational expectation					-0.096	**					0.013	
Person-years	15575		15575		15575		1557 5		15575		15575	

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4

Table C3: Multinomial logistic discrete-time hazards of **men's** nonmarital birth versus marital birth among **children of immigrants only**

Independent variables	Nonmarital Births vs Marital Births					
	Model 1		Model 2		Model 3	
	β		β		β	
Intercept	5.761		6.189		6.638	
Immigrant status (ref. 1.5 gen)						
Second generation	0.488		*	0.391	#	0.391
Race/Ethnicity (ref. White)						
Black	2.853		***	2.923	***	3.049
Hispanic	0.822		**	0.880	**	0.955
Asian	0.424			0.594		0.699
Other	-0.073			-0.017		0.065
Family SES						
				-0.003		0.009
Family Structure (ref. Both parents)						
Step parent				0.011		-0.019
Single parent				0.234		0.235
Other				-0.365		-0.382



Education (ref. < High school)				
High school		-0.317		-0.299
Some college		-0.778	*	-0.675
College		-1.158	**	-0.967
English at home		0.402	#	0.416
Age	-0.392	-0.393		-0.375
Age ²	0.005	0.005		0.004
70% US born				0.050
Religiosity				-0.024
Social capital				0.007
Educational expectation				-0.109
Person-years	15575	15575		15575

Note: #p<.10; *p<.05; **p<.01; ***p<.001, Source: Add Health Wave 1 and 4