

Although data from 2010 shows a general trend of decline in nonmarital fertility, it coincides with a downward trend in overall fertility, and nonmarital births still represent over 40% of all births in the United States, up more than 10% from 1990 (Martin, Hamilton, Ventura, Osterman, Wilson, & Matthews, 2012). Nonmarital fertility is associated with subsequent poor outcomes for both the unwed mothers and their children. Mothers who have their first children outside of marriage are less likely to get married (Harknett & McLanahan, 2004), and are at greater risk for receiving welfare (Driscoll et al., 1999), future relationship instability (Bzostek et al., 2012), depression, low self-esteem, and poor overall health (Amato & Kane, 2011). Children born to unwed mothers are at greater risk for living in poverty, experiencing multiple family structure transitions, and poor educational, behavioral, and emotional outcomes compared to children born to married mothers (Brown, 2004; Carlson & Corcoran, 2001).

Researchers have determined a variety of factors associated with increased risk of nonmarital fertility and outcomes which lead to nonmarital fertility, including family structure (Hofferth & Goldscheider, 2010), parenting style, risky sexual behaviors (Pears, Pierce, Kim, Capaldi, & Own, 2005), timing of first sex, drug use (Pears et al., 2005), delinquency (Woodward, Fergusson, & Horwood, 2001), and educational attainment (Upchurch et al., 2002). Yet to be examined is how the presence of specific risk factors may combine to represent distinct pathways to nonmarital fertility. In the current study we examine distinct pathways to nonmarital fertility based on the presence of various individual and family-level risk factors. Importantly, not all non-marital births result in further disadvantage for the parents or children. Determining combinations of risk factors during adolescence which lead to nonmarital fertility in adolescence and emerging adulthood may lead to more effective prevention and intervention strategies to reduce this phenomena.

Using the National Longitudinal Survey of Youth 1997 (NLSY97) we limited the sample to participants who experienced a non-marital birth between the years 1997 and 2001 ( $N = 1043$ ). Most participants were female (68%). In 1997 participants reported being on average 15.6 years old ( $SD = 1.23$ , range = 13–17). In terms of race and ethnicity, most reported being African American (45%), followed by non-black/non-Hispanic (29%), Hispanic (26%), and mixed race (1%). In relationship to non-marital births, 65% of participants were classified as emerging adults (18-25) when they gave birth and 35% were classified as adolescents (13-17).

In order to assess the different pathways to non-marital births we employed latent class analysis. This is a form of statistical classification that determines different groups based on dichotomous predictor variables. In order to determine class membership we used nine predictor variables: Family structure – two biological parents (0=*no*, 1=*yes*); Family structure – single parent (0=*no*, 1=*yes*); Risky sexual behavior (0=*no*, 1=*yes*); Drug use index (0=*low*, 1=*high*); Authoritarian parenting (0=*no*, 1=*yes*); Receive high school diploma (0=*no*, 1=*yes*); Age of first sexual experience (0=*early teens*, 1=*late teens*); Arrested ever (0=*no*, 1=*yes*); Age of non-marital birth (0=*adolescence*, 1=*emerging adulthood*).

We determine the number of classes through goodness-of-fit criteria (i.e., entropy, Akaike Information Criteria (AIC), and Bayesian Information Criteria (BIC); Muthen & Muthen, 2000; Shelvin et al, 2007; Kohl & Macy, 2008) statistical tests (i.e., Vuong-Lo-Mendell-Rubin Likelihood Ratio Test, Lo-Mendell-Rubin Adjusted Likelihood Ratio Test), and the usefulness/interpretability of the classes (Muthen & Muthen, 2000). Based on these results (Table 1), we determined that three groups best captured the data.

Table 1

*Results of the Goodness-of-fit criteria and statistical tests to determine number of groups.*

Class #	AIC	BIC	Entropy	Vuong-Lo-Mendell-Rubin Likelihood Ratio Test	Lo-Mendell-Rubin Adjusted Likelihood Ratio Test
1	12512.896	12557.445	--	--	--
2	12021.487	12115.534	.804	p < .001	p < .001
3	11911.573	12055.119	.667	p < .001	p < .001
4	11864.340	12057.384	.638	p < .1056	p < .1094
5	11832.752	12075.295	.708	**	**
6	11832.561	12124.603	.704	**	**

\*\* likelihood ratio test were not conducted due to the AIC, BIC, and entropy results.

Each group was classified based on their probability of experiencing each of the predictor variables (table 2). We labeled the three groups based on the risk of having a non-marital birth based on the literature. Group 1 was labeled “*high risk*” and represented 31.9% of the sample; Group 1 lived outside of a two-parent household, a 65% chance of living in a single parent home, 45% chance of having a risky first sexual experience, 70% chance of engaging in high drug use, 67% chance of not having an authoritative parent, 77% chance of not receiving a high school diploma, a 73% chance of early first sex, an 84% chance of having been arrested, and a 41% chance of an adolescent nonmarital birth. Group 2 was labeled “*medium risk*” and represented 38.9% of the sample. This group lived outside of a two biological parent home, had a 71% chance of living with a single parent, 33% chance of risky first sex, 33% chance of high drug use, 55% chance of non-authoritative parenting, 45% chance of no high school diploma, 33% chance of early first sex, 26% chance of having been arrested, and 37% chance of an adolescent nonmarital birth. Group 3 was labeled “*low risk*” and represented 29.2% of the sample. Group 3 had an 87% chance of living with two-biological parents, none lived in single-parent families, a 41% chance of risky first sex, 49% chance of high drug use, 48% chance of non-authoritative parenting, 38% chance of having a high school diploma, 40% chance of early first sex, 40% chance of having been arrested, and 28% chance of an adolescent nonmarital birth.

Table 2

*Probabilities of members of each group experiencing each predictive variable.*

<b>Class</b>	<b>Two Bio Parents</b>	<b>Single Parent</b>	<b>Risky First Sexual Experience</b>	<b>High Drug Use</b>	<b>Non- Authoritative Parenting Style</b>	<b>No High School Diploma</b>	<b>Early First Sex</b>	<b>Has been Arrested</b>	<b>Adolescent NMB</b>
Group 1 (high)	0.0	0.65	0.47	0.70	0.67	0.77	0.73	0.84	0.41
Group 2 (med)	0.0	.71	0.33	0.33	0.55	0.45	0.33	0.26	0.37
Group 3 (low)	0.87	0.0	0.41	0.49	0.48	0.38	0.40	0.40	0.28

Results indicate that nonmarital births during adolescence and emerging adulthood occur within distinct contexts of low, medium, or high risk based on indicators of individual and family functioning leading up to the event. After identifying distinct pathways to nonmarital fertility, the step in this area of research is to examine how these pathways may predict later outcomes and functioning for young unwed parents and their children.