Community Context and Race/Ethnic Differences in Non-Marital Fertility

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Abstract

Drawing from theory based on Black-White differences, this research uses the NSFG and the NSFG-CDF to look at the role that structural/economic factors play in maintaining Mexican American/White differences in non-marital fertility. Multilevel event history models are employed. While many county level variables have a 'baseline relationship' with non-marital fertility, controlling for race/ethnic specific unemployment rates do the most to reduce race/ethnic differences in the risk of a non-marital birth. Importantly, there are significant interactions between individual level socioeconomic status and county level characteristics on the risk of a non-marital birth. While Mexican American women of low socioeconomic status are no different than White women, higher SES Mexican American women have 5 times the risk compared to otherwise similar White women. Additionally, county level variables are more strongly linked to the risk of a non-marital birth among women of higher socioeconomic status.

Introduction

Numerous previous studies have documented the socioedemographic determinants of Black/White differences in non-marital fertility (Wu 1996; South and Crowder 1999; South.1996; South 1999; Billy and Moore 1992). Less research investigates non-marital fertility among Mexican Americans, yet the little we know about Mexican American non-marital fertility suggests that rates are high. In 1997, the overall fertility rate for Mexican origin women was 116.6 births per 1,000 women aged 15-44 compared to 55.8 for White women and 71.9 for Black women. While much of this fertility occurs within marriage, a significant portion is outside of marriage; roughly 39% of all births to Mexican origin women are to unmarried women, compared to 21.5% for White women and 69.4% for Black women (Ventura et al. 1999). Research has documented the increase in non-marital fertility for all groups of women over time (Bachu 1999; Bachrach et. al 2000). However, while Black/White differences have recently narrowed somewhat, Hispanic/White differences are continuing to grow (South 1999).

In response to continued race/ethnic differences in family formation, a large body of research has begun to examine how social context, such as neighborhood opportunities and environment may play a role in the continued race/ethnic differences in family formation patterns (Brewster 1994a; Brewster 1994b; Baumer and South 2001; Hogan and Kitagawa 1985; Lichter et al 1992; Wilson 1987). Research on urban poverty and the family generally focuses on two sets of mechanisms linking context to individual behavior, *instrumental mechanisms* that describe how individual agency is limited by neighborhood opportunity, such as marriage markets and labor markets, and *socialization mechanisms* which describe how neighborhoods socialize those who grow up in them (Small and Newman 2001). This paper explores the role

that *instrumental mechanisms* play in linking community context to non-marital fertility for Mexican American women.

This is of particular concern as all poor persons, including Hispanics, are overrepresented in high poverty and mid poverty areas (Kingsley and Pettit 2003; Jargowsky 1997). In 1990 the Mexican origin population comprised 14% of the population of high poverty areas, but only 5% of the overall national population (Jargowsky 1997). Though the non-marital fertility behavior of immigrants is in itself interesting and offers important information about how immigrant groups adapt over time, this project will focus on U.S. born Mexican Americans and the 1.5 generation (those who migrated to the U.S. before age 12). This limits the likelihood that race/ethnic differences in non-marital fertility will be associated with the immigration experience itself (Stephen and Bean 1992; Oropesa, Lichter, and Anderson 1994; Bean, Swicegood, and Berg 2000).

Background

Community Disadvantage and Non-Marital Fertility

Research linking instrumental mechanisms to family formation behaviors has drawn primarily from two perspectives. The first emphasizes differences in non-marital fertility due to differences in rates of marriage (Wilson 1987; South and Lloyd 1992, South 1996). A lower level of male labor force attachment in high poverty neighborhoods results in lower marriage rates among African American women. As a result, they spend a greater period of time at risk of a non-marital birth. The second perspective focuses more specifically on the characteristics of women. This research explores the impact that instrumental mechanisms have on the sequencing of family formation behaviors of women such as childbearing, marriage, and divorce (Brewster 1994a; Billy and Moore 1992; South 1996). It suggests that context helps shape the pathways

through which young women transition to adult status (Luker 1996; Brewster 1994a, Brewster 1994b).

The first perspective draws largely from the work of Wilson (1987), which argues that increased non-marital fertility is a result of declines in marriage, which in turn, is due to the concentrated urban poverty of Blacks. The "underclass", more recently called the "ghetto poor", is characterized by single parent families, welfare dependency, joblessness, and increased 'social pathologies' (Wilson 1987; Van Haitsma 1990). A critical characteristic of this group is the scarcity of "marriageable men," or men with characteristics conducive to marriage such as stable employment and steady income. Wilson (1987) argues that declining economic opportunities in the inner city not only reduced the pool of men with steady jobs but also contributed to the isolation of the poor from the middle class. This led to the corresponding isolation of men from role models, resources, and job networks that would increase employment opportunities (Small and Newman 2001). As a result young men are not interested in marriage, as they do not earn enough to sufficiently support a family.

This theory suggests that disadvantaged communities characterized by a dearth of "marriageable men" should have decreased local marriage rates. It is perhaps less clear how a dearth of marriageable men impacts non-marital fertility rates. However, this may occur in two ways. First, to the extent that the availability of marriageable men is related to marriage, a dearth of men may decrease the likelihood that a premaritally pregnant woman will marry, increasing the non-marital fertility rate (Anderson 1990; South 1996). Secondly, it is possible that a woman who perceives a lack of potential mates may choose not to wait for marriage and choose to bear a child out of wedlock. Pregnancy and childbearing provide women a route to adult status in an environment where marriage is unlikely (Anderson 1990). Conversely, a woman in a community

with a surfeit of "marriageable men" may be more likely to wait until marriage to have a child, as there is a greater overall chance of marriage. If this is the case, women in communities with more "marriageable men" will have a lower risk of a premarital birth.

There are two components to Wilson's concept of "marriageable men". The first reflects the actual number of men relative to women while the second reflects the employment status of these men. South and Lloyd (1992a) find modest effects of mate availability, measured as the number of men relative to women, on nonmarital fertility rates, such that a decreased availability of men increases the nonmarital fertility rate. They argue that one reason why this effect is small is that it is actually comprised of two countervailing forces. While the increased number of men may increase the legitimation of unwed pregnancies, it is possible that more men may also increase the risk of premarital sex and thus, of premarital childbearing. Indeed, Billy and Moore (1991) do find positive effects of the sex ratio on the risk of adolescent premarital sex. South (1996: p. 266) additionally argues that an abundance of mates "might also reduce the costs of non-marital fertility". Costs may be reduced because women who get pregnant and have a child prior to marriage may not face as many disadvantages in marriage opportunities when there are a large number of possible partners. In his 1996 study, he finds that the sex ratio has a small positive impact on non-marital fertility rates, at least among White women. Therefore, it must be kept in mind that a measure of "marriageable men", which includes the employment status of the men, may also have countervailing effects. While high levels of male unemployment may discourage marriage and increase nonmarital fertility, a large number of men relative to women may actually increase nonmarital births offsetting the discouraging effects of unemployment somewhat.

High poverty neighborhoods are generally characterized by low labor force attachment among African American men (Wilson 1987; Van Haitsma 1990), and unemployment is what makes men unattractive marriage partners. However, joblessness among Mexican origin men is actually quite low; it is underemployment that is high, accompanied by low earnings (Bureau of Labor Statistics 2001; DeAnda 1994). DeAnda (1994) finds that there are twice as many underemployed Mexican origin men as there are White men, concentrated particularly among the young and poorly educated. So, though the pattern is somewhat different for Black and Mexican origin men, both groups are disadvantaged in the labor market in a way that might discourage marriage. In fact, Forste and Tienda (1996) find that Mexican origin women are more likely to attribute declines in marriage and increases in non-marital fertility to declining economic opportunities rather than to changes in the value of marriage as an institution.

Focusing more specifically on the characteristics of women, other research suggests that increased neighborhood disadvantage may impose structural constraints limiting women's educational and economic opportunities in communities, impacting the rate of births to unmarried women (Brewster 1994a; Brewster 1994b; Van Haitsma 1990; Hogan and Kitagawa 1985). Becoming a parent has traditionally been one of the most important transitions of young adulthood (Rindfuss, Morgan, and Swicegood 1988). However, important normative constraints regarding the ordering and timing of events suggests that women should first complete their education, attain a good job, marry, and then have a child (Jenks 1992; Erickson 1998). However this ordering of events varies by race/ethnicity and socioeconomic status. Women who live in disadvantaged communities are faced with structural constraints, such as limited educational and employment opportunities, which may encourage women to choose alternate pathways to adulthood. Brewster (1994a: 410), adopting this perspective argues that,

> In communities that do not provide teens with the resources necessary for educational and occupational attainment or contact with adults who exemplify the behaviors and values associate with conventional models of social and economic success, young women may judge the negative consequences of sexual activity {such as a non-marital birth} to be remote or unimportant relative to its immediate benefits as an affirmation of adulthood. However, where the social and economic resources necessary for the attainment of desired adult statuses are available to adolescents, these consequences may appear less problematic.

Brewster (1994a) finds that controlling for neighborhood differences in the labor market experiences of women do reduce the Black/White differences in age at first sex. Abma and Krivo (1991) also find some evidence that among Mexican origin women, community level economic constraints are associated with higher levels of overall fertility, particularly for women under 30. This perspective is further supported in ethnographic research that looks specifically at Chicana adolescents in southern California. Dietrich (1998) finds that while virginity followed by having children within a marriage is the socially expected norm, many young women have children out of wedlock in an attempt to achieve emancipation from their families and to achieve adult status. "For the majority of the girls in the varrio, motherhood is perceived as a sign of adulthood…Some girls consider motherhood as the only desirable career path available to them" (p. 73), when their alternative is no employment, or at best low skill, low paying jobs. This suggests that Mexican American/White differences in non-marital fertility may be associated with differences in community level educational and employment opportunities for women. Women who live in communities with a lack of economic and/or educational resources, limiting their ability to follow the normatively proscribed path to adulthood, may choose alternate routes to adulthood, including parenthood outside of marriage.

The above observations motivate the first two research questions that will be addressed in this chapter:

Q1. *To what extent are differences in the non-marital fertility rate among Blacks, Mexican Americans and Whites attributable to contextual level differences in the availability of marriageable men?*

Q2: *To what extent are differences in the non-marital fertility rate among Blacks, Mexican Americans and Whites attributable to contextual level differences in the opportunity structure for women?*

Community Context - Hispanics

The experience of Hispanic populations within the U.S. is clearly distinct from that of Blacks and thus there is some question in the literature regarding whether or not the theories discussed above can be applied to Hispanics (Moore and Pinderhughes 1993). Moore and Pinderhughes (1993), and the contributing authors to the volume they edit, suggest that economic restructuring, residential stability, and immigration/concentration effects may lead to different expectations regarding the relationship between social context and individual behavior among Hispanic populations.

Moore and Pinderhughes (1993) argue that economic restructuring has affected Hispanic communities differently than Black communities, and this has depended largely on the location of the community within the U.S. In particular, they have been affected by the growth in the service sector, which has accompanied the decline in traditional manufacturing. As mentioned above, despite a strong attachment to the labor market, many poor Hispanics are working in low paying service jobs or in the informal sector where wages are especially low and work may be intermittent. It may be that in the case of Mexican Americans male full time labor force participation rates, rather than measures of labor force detachment, may have a stronger impact on the risk of a non-marital birth as a woman judges her potential mates on stable employment rather than any employment.

Some of the Mexican origin communities, such as the border towns in Texas and Albuquerque, are characterized by relatively high levels of residential stability, in contrast to the middle class flight in urban Black communities discussed by Wilson (1987). This stability is argued to anchor a sense of community within the disadvantaged and promote strong ties of ethnic culture and family relations (Gonzales 1993, Valdez 1993). Thus, it is expected that areas with higher residential stability will have lower levels of non-marital fertility, particularly for Mexican Americans.

Immigration also plays a prominent role in shaping the local community, though it may have somewhat countervailing effects. It has been argued that immigration has changed the economic opportunities for Mexican Americans, with immigrants offering direct competition for jobs at wages unacceptable to native-born Mexican Americans (Moore and Pinderhughes 1993; Moore and Vigil 1993; Valdez 1993). This may drive down the employment opportunities for native-born men and women, thereby increasing the risk of a non-marital birth among Mexican American women. At the same time it has been argued that a high level of immigration, even into poor largely minority neighborhoods, fosters a strong sense of community and promotes businesses and economic opportunity for the residents in these neighborhoods (Rodriguez 1993), In contrast to the detrimental "social isolation" experienced by African Americans in poor neighborhoods, these communities may actually be economically and socially vital, despite their poverty. This perspective suggests that high levels of immigration will protect Mexican Americans against some of the deleterious outcomes associated with community disadvantage.

These three factors are expected to more important for Mexican Americans than for non-Hispanic Whites or Blacks. This discussion motivates additional research questions that will be addressed in this chapter:

Q3: To what extent do differences in rates of male full-time employment, residential stability, and the concentration of immigrants explain differences in the non-marital fertility rates between Mexican Americans and Whites in particular?

One important implication of Wilson's argument is that there exists an interaction between context and individual level disadvantage, such that a poor woman will fare much worse in a high poverty neighborhood than a poor woman in a low poverty neighborhood (Wilson 1987; Small and Newman 2001; Jenks 1992). Wilson (1987) argues that these concentration effects will increase the likelihood of being unemployed and becoming a parent out of wedlock, among other things. Additionally, it may be the case that women with more individual and familial resources will be less influenced by the characteristics of where she lives, or more able to protect herself against community disadvantage (Sucoff and Upchurch 1998). Because minority women are more likely to experience socioeconomic disadvantage and to reside in disadvantaged areas, controlling for this interaction may further reduce race/ethnic differences in non-marital fertility rates. As a result I explore whether or not the effects of community level characteristics vary by individual socioeconomic status. I do this in two ways. First, I explore individual interaction terms for each of the community level characteristics across individual socioeconomic status. Secondly, I look at the above research questions separately by socioeconomic status.

In summary this paper looks at the relationship between contextual structural/economic characteristics of an area and overall levels of non-marital fertility, paying particular attention to the non-marital fertility of Mexican American women. Does the fact that Mexican American women live disproportionately in disadvantaged communities contribute to higher non-marital fertility relative to White women? In addition to the availability of marriageable men and the opportunity structure available to women, this chapter explores the role of male full time

employment, immigration, and residential stability on race/ethnic differences in non-marital fertility, characteristics identified as particularly important for Hispanic populations. Lastly, this analysis specifically explores Wilson's claim that poor women fare particularly poorly in disadvantaged areas.

Data and Methods

The individual-level data for the analysis in this chapter come from the 1995 wave of the National Survey of Family Growth (NSFG), a periodic household survey of 10,847 civilian, noninstitutionalized U.S. women ages 15-44 that focuses on gathering retrospective data related to fertility, family formation, and contraception. Information is gathered on the educational, work, marital, cohabitational, and fertility history of each woman in the survey. Additionally, information on the living arrangements of each woman experienced while growing up is collected. The analysis uses these retrospective histories to determine whether and at what age respondents experienced a non-marital birth.

The NSFG also collected information on respondent's residence history between 1990 and the 1995 interview. By combining this information with census data and other sources NCHS has constructed a supplementary data set, the NSFG-CDF, which includes information aggregated at the county, census tract, and block group level. Importantly, these data are linked to the respondent's residence in 1990, 1993, and 1995, which allows for the construction of time varying contextual variables. Because this information is only collected from 1990 onwards, the analysis is restricted to women who experienced time at risk of a non-marital birth since 1985. Additionally, women who do not have a county identifier are removed from the sample[1]. Thus,

[1] 304 women were missing county identifiers, roughly 6% of the eligible women. This does not vary significantly by race/ethnicity.

for this set of analyses, the sample is comprised of 4,733 women: 3172 non-Hispanic whites, 1193 non-Hispanic blacks, and 368 Mexican Americans. To measure the non-marital fertility rate, a person half-year file is created in which observations are censored at first pre-marital birth, marriage, or date of interview. This sample consists of 64,811 person half years contributed by the women. A dichotomous variable is created that takes on a value of 1 if a first pre-marital birth occurred within that six-month period.

Race/ethnicity is represented by three dummy variables: non-Hispanic white, non-Hispanic black, and Mexican American, including both native born Mexican origin women and those who immigrated to the U.S. before age 12 (the 1.5 generation). Though the primary interest in this study is in the role that contextual level variables play in race/ethnic differences in non-marital fertility rates, other individual and family level variables associated with non-marital fertility are included in the models as controls. The retrospective data allows for these control variables to be measured throughout each woman's life at six month intervals, thus while some variables will remain constant across the lifecourse, others will be allowed to vary as they change. I control for religious background, cohabitational status, school enrollment, full time and part time employment, parental education, and family structure.

One of the unanswered questions in research looking at the relationship between community level factors and individual level outcomes is at what spatial scale community context should be measured (Teachman and Crowder 2002; Sampson et al 2003; Dreier et al 2001). While there are strengths and weaknesses associated with each level of measurement used, Billy, Brewster, and Grady (1994: 985) argue that,

> Labor force opportunities pertain to areal units larger than neighborhoods but smaller than states, since these boundaries generally define the distance most people are willing to travel for work.

Because this particular chapter focuses on marriage markets and the economic opportunities available to women in their communities, I measure context at the county level. This unit fits the definition above and is broad enough to encompass marriage markets and labor markets.

County Level Measures

Two sets of variables are included in the analyses that attempt to measure economic/structural opportunity for men and women. The first set measures the marriage market, or the availability of marriageable men to women in a local community. These variables have been linked not only to transitions to marriage, but have also been implicated in differences in non-marital fertility rates. The second set of variables attempts to measure the employment opportunities available to women in a community. This may signify the availability of alternate routes to adulthood for younger women, delaying fertility. A third set of variables measures the contextual characteristics Moore and Pinderhughes (1993) identified as particularly important to Hispanic populations. These variables are listed in Table 3.1.

Many studies have looked at the relationship between the sex ratio and family formation behaviors (Fossett and Kiecolt 1991; Lichter et al.1992; South and Lloyd 1992; South 1996). Generally, the sex ratio measures the proportion of men to women within a certain geographical area. Interestingly, there has been little consensus in the literature as what restrictions the sex ratio should include, such as those based on age, race/ethnicity, labor force status, earnings, employment, education, or marital status. In this analysis I employ three variations of the sex ratio, an approach guided by Fossett and Kiecolt (1991: 954), who suggest that this is appropriate when "a single best measure is not dictated by theory." First, I use the race/ethnic specific sex ratio of employed men aged 15-44. However, as discussed above, Mexican American men

actually have low levels of unemployment, rather it is earnings that are quite low. As a result, I additionally use the overall sex ratio of men aged 15-44 with adequate earnings. Adequate earnings are identified as earnings of at least 185% of the poverty rate. Lastly, I use the overall sex ratio of unmarried men aged 15-44. Though Fossett and Kiecolt (1991) find that sex ratios based on the unmarried population do not differ much from those based on the whole population, some argue that is inappropriate to include individuals who are not actively in the marriage market. These last two measures are not race/ethnic specific, and the last one does not include restrictions based on labor market characteristics. So, while the first two are measures of "marriageable men", the last is actually a measure of the sheer number of men relative to the number of women. Each of these three measures is logged when included in the analysis.[2]

The second set of variables attempts to measure the economic/labor force opportunities available to women in a county. While many researchers measure female employment opportunity in an area by looking at the proportion of women in an area that is employed, this may inadequately measure opportunity. Rates of female employment increased over the latter part of the twentieth century, yet many women are not in 'career' jobs, but are in jobs with little opportunity for upward mobility (Sweet 1981). Sweet (1981) argues that is important to distinguish between the quantity of jobs available to women and the quality of these jobs. In the case where we are interested in whether female job opportunities provide an alternate route to adulthood for women, the quality of jobs available to them may be quite important.

I use several measures to tap at labor market opportunities for women. The measures I choose are largely based on the work of Deseran, Li, and Wojtkiewicz (1991) who look at the

[2] This centers the sex ratio at the value of 0. Additionally, this gives symmetry to the measure so that negative and positive sex ratios have equal strength when included in the model. Prior to logging, a sex ratio is bounded by 0 and infinity; logged, the sex ratio is bounded by negative infinity and positive infinity.

relationship between local labor markets and women's full time labor force participation. I focus most closely on two of their measures, the economic vitality of an area and the industrial composition of an area. Economic vitality, indicating increased opportunities for all people, is positively related to the employment possibilities of women because "expansions in the economy have disproportionately benefited those at the bottom of the employment queue" (p. 8). Measures of the economic vitality of an area looked at in this analysis are the overall unemployment rate, the race/ethnic specific unemployment rate, and the female labor force opportunity index, a measure constructed by the NSFG. This measure indicates the expected number of jobs for female workers relative to the potential supply of female workers. A higher score indicates more employment opportunities for women.

Several measures will be used to measure the industrial composition, or the quality of employment available to women, in a county. Deseran et al. (1991) find that the proportion of people employed in manufacturing is positively related to women's labor force participation. Based on this work, the analyses include a measure of the proportion employed in manufacturing. Two additional measures developed by McLaughlin et al (1999) are used to tap at the quality of employment opportunities for women within each county. These two are the proportion of jobs for women in the county that are high quality and the proportion that are low quality. In this case poor quality jobs for women are those in agriculture, the retail trade, personal services, business and repair services, and entertainment and recreation services. High quality jobs are those in transportation, communications and utilities, public administration, and professional services. It is expected that the greater the proportion of high quality jobs in a community will lower the non-marital fertility rate. Conversely, lower skill jobs may be less of a deterrent to childbearing than are higher skill jobs, and thus the greater the proportion of low

quality jobs in a community the higher the non-marital fertility rate. Additionally, the urban/rural status of the county is controlled for.

A last set of variables will measure the characteristics identified by the research in the Pinderhughes and Moore (1993) volume as particularly relevant for the Mexican origin population. The rate of male full time employment measures the intermittency of work available to men in each county. Residential stability is measured as the proportion of county residents who lived in the same county five years ago. And lastly, the proportion of the county residents that are immigrants is used to measure the effect of immigration in a community.

Statistical Analyses

There are expected to be at least two levels of variation in the dependent variable; variation at the individual level due to a woman's own characteristics as well as her family background as well as at the county level due to differences in opportunities for men and women. Models that incorporate both levels of variation will be represented as random and fixed effects in multilevel models (generalized linear mixed models). These models are specifically designed to allow for the simultaneous examination of group level and individual level variables on individual level outcomes. For this analysis I will use PROC GLIMMIX in SAS.

For the analyses discrete-time proportional hazards models predicting non-marital fertility rates are estimated using logistic regression (Allison 1984). The models are set up to allow a half-year lag between the time-varying explanatory variables and the dependent variable. So, the models predict the hazard of a first non-marital birth within the next half-year, controlling for characteristics within the current half-year.

I first run unconditional multi-level models to partition the variance in the risk of a nonmarital first birth into individual and county level components. I next include individual and family level variables and specifically examine whether there are reductions in race/ethnic differences in the odds of a non-marital birth with their inclusion. I then progressively adjust this model for specific county level measures, measuring opportunity for men and women. These models determine which county level variables have an independent relationship with non-marital fertility. Lastly, I conduct a series of analyses that look at the interaction between individual socioeconomic status and county level disadvantage. For ease of interpretation, models are run separately for women of higher socioeconomic status (women with at least one parent with at least some college) and lower socioeconomic status (women with no parent with greater than a high school degree).

Results

Descriptive Results

Figure 1 depicts a survival analysis of the timing to first non-marital birth by race/ethnicity. For all women, the risk of a non-marital birth is highest in late adolescence and early adulthood, as indicated by the greater steepness of the curves at the earlier ages. At all ages Mexican American women's age specific risk of non-marital fertility is higher than for Whites, though not as high as for Blacks. As seen in Table 1, Black and Mexican American women are more disadvantaged across a number of individual level outcomes relative to White women. They are both less likely to have parents with high levels of education and less likely to be in intact families when growing up. However, Mexican American women are much more disadvantaged in terms of parental education while Black women are in terms of family background. Relative to White women, Mexican American women are much less likely to be

enrolled in college at age 20; however they are somewhat more likely to be employed full time. Research has documented that the recent increase in fertility within cohabiting unions has accounted in part for the increase in pre-marital fertility (Bumpass and Lu 2000). We see here that Black and Mexican American women are much less likely to have ever cohabited outside of marriage than White women, yet previous research documents an interaction. Mexican origin women are much more likely and Black women much less likely than White women to have a birth within a cohabiting union.

Table 2 presents the descriptive statistics for the counties in which these women live. The first two rows describe the overall socioeconomic characteristics of the counties. Confirming previous research we see that minority women live in communities with a lower median household income than do White women, even when community is defined as a county, and these differences are much more pronounced when we look at race/ethnic specific median household income. The rest of the table more closely focuses on the county level variables that are used in the analysis. Looking first at marriage market variables, we can see looking at the sex ratio of unmarried men that Mexican American women have the most favorable markets, though for all groups of women there appears to be a surplus of men. Though the availability of men drops when the race/ethnic specific measure of employed men is measured, Mexican American women still maintain an advantage. However, when the sex ratio is restricted to those men (not race/ethnic specific) with adequate earnings we see that minority women are the most disadvantaged, with Mexican American women being slightly more disadvantaged than Black women. This reflects the lower earnings of Mexican American men.

Looking next at measures of women's economic opportunity, we see that Black and Mexican American women live in counties with higher unemployment rates than White women.

In terms of job type and availability, minority women live in communities with a lower proportion of people employed in manufacturing. To the extent that manufacturing offers favorable job opportunities for minority women with a lower level of skills, Mexican American women are the most disadvantaged of all. At the same time, Mexican American women live in communities with the greatest proportion of people employed in poor quality jobs. If low skill jobs are less of a deterrent to a non-marital birth, this difference may explain at least part of the Mexican American/White difference in non-marital fertility. All women overwhelmingly live in urban areas, though Mexican American women are the most concentrated in these areas. Regarding the last three county level characteristics, we see that Mexican Americans live in counties with the lowest proportion of men employed full time and, not surprisingly, the highest proportion of immigrants. Interestingly, Blacks tend to live in counties characterized by the highest levels of residential stability.

Regression Analysis

I first run a null multilevel model. This model includes no explanatory variables and determines whether counties vary significantly in their rate of non-marital fertility. This model is shown in the first column of Table 3. The bottom of the table, under the section Random Effects, gives the variance of the intercept, or the county level variance. In this case, the between county variance has a statistically significant value of .36, which tells us that counties do differ in their non-marital fertility rates[3]. The rest of the models in this table progressively add the individual

[3] The intraclass correlation is often calculated to determine the relative importance of the two sources of variation, between context and within context. The formula for this correlation coefficient is:
ρ_I = (population variance between macro units/total variance) = $\tau^2 / (\tau^2 + \sigma^2)$
This coefficient is defined by Snijders and Bosker (1999) as the "proportion of variance that is accounted for by the group level" (p. 17). However, this definition only holds for continuous outcome variables where the level 1 residual variance is constant across groups. With a dichotomous outcome, the individual level variance is determined by the mean. Because the mean varies across counties, each county will have a different individual level variance. However, one can interpret the parameter σ^2 to be the "average residual variance across counties" and proceed to

level and county level variables. Model 2 serves as a baseline model, controlling for race/ethnicity. In this model we see that Blacks are 4.8 times more likely to have a non-marital birth than are White women while Mexican American women are roughly 2.5 times as likely.

Model 3 adds the rest of the individual level variables. Controlling for these variables reduces the race/ethnic differences somewhat, though relatively large differences in non-marital fertility rates remain. Women with parents who went beyond high school have much lower levels of non-marital fertility than those who did not. Working full or part time or being enrolled in high school or college all significantly reduce non-marital fertility. Being a fundamentalist protestant slightly increases the likelihood of having a non-marital birth. Not surprisingly, women who cohabited in the six months prior to the birth have much higher levels of non-marital fertility, though there are strong race/ethnic differences in this tendency. Black cohabitors have much lower levels of non-marital fertility than White cohabitors, while Mexican American cohabitors have much higher non-marital fertility than White cohabitors. However, even among the non-cohabitors, large race/ethnic differences remain. Once individual level variables are controlled for there is a reduction in the county level variance in non-marital fertility, to .25, however this variance remains statistically significant.

In the next stage of the analysis, each county level variable is added to the model to determine which have an independent effect on non-marital fertility rates and race/ethnic differences in non-marital fertility. Results from models where the county level variable was

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calculate the intraclass correlation with this definition in mind (Snijders and Bosker 1999; Mosher et al, 2003). Because the logistic distribution for the level one residual has a variance of $\pi^2/3=3.29$, an alternative definition of the intraclass correlation coefficient with an intercept variance, τ^2, is : $\tau^2/(\tau^2 + 3.29)$. An advantage of this particular definition is that it can be extended to define the residual intraclass correlation, or the intraclass correlation controlling for any number of explanatory variables. Given this definition and a county level residual variance of .36, the intraclass correlation coefficient is .0986. This indicates a relatively small but statistically significant level of similarity among women living in the same county.

significantly related to non-marital fertility rates are presented as odds ratios in Table 4. Of the three sex ratios looked at, only the race/ethnic specific sex ratio of employed men is significantly related to non-marital fertility. Women who live in counties with a higher relative number of employed men have a substantially lower risk of a non-marital birth. Controlling for this reduces Black/White differences though does little to change Mexican American/White differences (compared to model 3 in Table 3). This is not surprising given that Mexican American women have the most favorable race/ethnic specific sex ratio of employed men. Perhaps somewhat surprising is that the sex ratio of men with adequate earnings is not significantly associated with non-marital fertility, a measure that Mexican American women were most disadvantaged on. Also interesting is that the sex ratio of unmarried men, with no labor force restrictions, is not significantly related to the non-marital fertility rate. This is counter to the finding by South (1996) and suggests that the employment status of men in an area, and not the sheer number of men, is the important factor here.

The economic vitality of a county is important. Both measures of the unemployment rate were significantly associated with non-marital fertility rates. The higher the unemployment rate in the county the greater likelihood a women has of having a non-marital birth. Controlling for this variable does reduce the race/ethnic differences in non-marital fertility, though the race/ethnic specific measure does so more than the general measure. The more job opportunities for women, as indicated by the female labor force opportunity index, the lower the risk of a non-marital birth. Regarding industrial composition, only the measure of the percentage of people employed in high quality jobs is marginally associated with non-marital fertility, however controlling for this does nothing to reduce race/ethnic differences in non-marital fertility.

Of the three variables identified as particularly important for Hispanics by Moore and Pinderhughes (1993) only increased residential stability is associated with an increased risk of a non-marital birth, and this is counter to expectations. Controlling for residential stability reduces Black/White differences, as they live in the most stable counties, but exacerbates Mexican American differences in non-marital fertility. Interestingly, the male full time employment rate is not significantly associated with the risk of a non-marital birth. Yet this is not surprising given that the sex ratio of men with adequate earnings was not significantly associated with non-marital fertility, and these two variables measure somewhat similar factors. It was hypothesized that these last three variables may be especially important for Hispanic groups, thus interactions between each of these variables and race/ethnicity were explored. Of these variables only the proportion of immigrants in a county differentially impact non-marital fertility. A larger percentage of immigrants lowers the risk of a non-marital birth for White women, yet actually increases the risk slightly for Mexican American and Black women (marginally significant for Mexican Americans). This lends more support to the argument that immigrants may be driving down employment opportunities for native-born minorities, thereby increasing the risk of a non-marital birth. In general, with the exception of the interaction model, the inclusion of each of these variables only slightly reduces the county level variance in non-marital fertility.

Table 5 show the results from the final 4 models that include all county and individual level variables, because the unemployment rate and race/ethnic specific unemployment rate are so highly correlated, these are looked at separately. The first two models add all the significant county level variables, while the second two models additionally add the interaction. Because the race/ethnic specific unemployment rate has more explanatory power than the unemployment rate, I focus discussion on the 2nd and 4th models. When all variables are included in the model

together (Model 2), residential stability and the race/ethnic specific unemployment rate remain significantly related to non-marital fertility. Though the effect of the ratio of employed men to women is significant when in a model alone, in the full model this effect goes away. This is likely because the unemployment rate is picking up the employment part of the effect, and we know from the earlier analysis that the imbalance of men to women alone does not account for much difference in non-marital at the county level. The economic vitality of an area, as measured by unemployment rates, appears to be more directly associated with non-marital fertility than the quality of jobs available to women.

This analysis demonstrates that a variety of structural/economic county level variables are associated with increased rates of non-marital fertility above and beyond individual level characteristics. However, with the exception of the race/ethnic specific unemployment rate, these variables do little to explain the county level variance in non-marital fertility and little to reduce race/ethnic differences. It may be the case that particular structural/economic variables may do more to explain race/ethnic differences for particular sub-populations. If the effect of being poor on nonmarital fertility is especially large when one lives in a poor neighborhood it isn't enough to control for individual SES and community level disadvantage, an interaction term is needed. A series of analyses (not shown) confirms that significant interactions exist between individual socioeconomic status and several county level characteristics on the risk of a non-marital birth, including the race/ethnic specific sex ratio of employed men, the unemployment rate, the race/ethnic specific unemployment rate, and the proportion of people employed in poor quality jobs.

In part for ease of interpretation, Table 6 presents the odds ratios from multilevel models predicting the risk of a non-marital birth for women of lower socioeconomic status and higher

socioeconomic status separately, controlling for individual level characteristics. First, it is interesting to note that there is much more level-2 variance among women whose parents have gone beyond high school high relative to those of lower socioeconomic status. This suggests that there is a much greater similarity among higher socioeconomic status women living in the same counties than among lower socioeconomic status women. Secondly, Black/White and Mexican American/White differences are much larger among women of higher socioeconomic status. In fact, the differences between Mexican American and White women since 1985 is almost as large as it is for Black and White women while in the lower socioeconomic sample the difference between Mexican American and White women does not even attain statistical significance. Though not the focus if this paper, it is interesting to note that the bulk of the difference between lower SES Mexican American and White women in non-marital fertility is due to the higher fertility within cohabiting unions among Mexican American women. However, there are no significant race/ethnic interactions between cohabitation and non-marital fertility among high socioeconomic status women, though the smaller coefficients are in the correct direction. It is clear that minority women and in particular, Mexican American women, do not gain from increases in socioeconomic status in the same way that White women do. The next set of analyses looks at the effect of county level structural/economic variables on race/ethnic differences in non-marital fertility within these sub-populations. These results are shown in Table 7 and 8.

There are substantial differences in the effect of county level characteristics by socioeconomic status. As seen in Table 7 the unemployment rate, the female labor force opportunity index, and residential stability are significantly associated with non-marital fertility among lower socioeconomic status women (yet each loses significance when included

simultaneously). Keeping in mind that there is little Mexican American/White difference to explain, none of the county level variables does much to reduce race/ethnic differences in non-marital fertility among lower socioeconomic status women. However, among women of higher socioeconomic status, many more county level variables are associated with both the risk of a non-marital first birth and with race/ethnic differences in the risk of a non-marital first birth, as seen in Table 8.

There are several things to note in this table. First, both the race/ethnic specific sex ratio and the race/ethnic specific unemployment rate are strongly associated with the risk of a non-marital birth in this sample and controlling for these factors reduce race/ethnic differences substantially. Secondly, the industrial composition of an area, as measured by the proportion employed in poor quality jobs, is significantly associated with the risk of a non-marital birth, though does somewhat less to reduce race/ethnic differences in non-marital fertility. Lastly, while residential stability similarly impacts both groups of women, the proportion of immigrants and the male full time employment rate emerge as important among higher socioeconomic status women, but only when included as interactions with race/ethnicity. Living in an area with a greater proportion of immigrants increases Mexican American women's risk of a non-marital birth. A higher male full time employment has no impact on the risk of a non-marital birth for White and Mexican American women, but significantly reduces the risk for Black women.

This picture changes somewhat in the full models. The bottom panel presents three 'full' models. The first includes no interactions, the second the race/ethnic-immigration interaction, and the third the race/ethnic-male full time employment interaction. Only the race/ethnic-immigration interaction maintains significance with the inclusion of the other county level variables, however this interaction is not significant for Mexican Americans. This is likely

because areas with a larger proportion of immigrants also have higher unemployment rates. As a result I focus on the model with no interaction terms. Here, the inclusion of the race/ethnic specific unemployment rate wipes out the effect of the sex ratio, as it did in the full sample. Interestingly, the only other county level variable that retains significance in this sample is the proportion of women employed in poor quality jobs. This variable is not significant for women of lower socioeconomic status. It may be the case that jobs identified as poor quality (agriculture, the retail trade, personal services, business and repair services, and entertainment and recreation services) are jobs only women of higher socioeconomic status consider unacceptable enough to encourage them to seek alternate routes to adulthood. Controlling for all these factors together substantially reduces race/ethic differences in non-marital fertility. From the baseline model in Table 6, this model reduces the Black/White difference by 64% ((5.12-2.15)/5.12) and the Mexican American/White difference by 52% ((4.48-2.15)/4.48).

From the analyses above we see that different factors influence the non-marital fertility of poor and nonpoor women. Interestingly, race/ethnic differences in non-marital fertility are larger among higher socioeconomic status women and are more strongly associated with community characteristics. So, while this supports Wilson's claim of an interaction between context and socioeconomic status, the results run counter to expectations. The fact that there is no significant difference between poor Mexican American women and poor White women in the risk of a non-marital birth is itself an important finding. This is similar to the finding of McLaughlin and Lichter (1997) that poor Black women have the same probability of marriage as poor White women controlling for differences in a variety of factors including mate availability. Similar to the argument they make, this finding provides some counter evidence to stereotypes that race/ethnic differences (at least Mexican American/White differences) in non-marital fertility are

primarily the result of high non-marital fertility among poor Mexican Americans relative to poor Whites.

The fact that Mexican American/White differences in non-marital fertility are concentrated among women of higher socioeconomic status is equally important. These differences are not only due to do the fact that Mexican American women live in more disadvantaged communities, but also to the fact that women of higher socioeconomic status are particularly susceptible to community disadvantage. This finding is in part consistent with the work done by Sucoff and Upchurch (1998) that focuses on the association between neighborhood context and the risk of adolescent childbearing among Black adolescents. They test the hypothesis that teens from affluent families will benefit more from living in an affluent neighborhood than will teens from low socioeconomic status families. This perspective suggests that there is a person-environment fit, and that more affluent teens are more able to fit in with the lifestyle of their more affluent neighbors. Less advantaged teens do not have the resources to capitalize on this community advantage. Though I look at measures of community disadvantage, rather than advantage, the interaction models suggest that person-environment fit is important particularly for more affluent women. In this case, women of higher socioeconomic status are particularly impacted by community disadvantage suggesting a greater person-environment mismatch. The fact that the industrial composition is significantly related to the risk of a non-marital birth lends support to this interpretation. The non-marital fertility of higher socioeconomic status women is particularly impacted by an increase in poor quality jobs. Nonetheless, though reduced substantially, Mexican American/White differences remain among higher socioeconomic status women once these county level characteristics are controlled.

Discussion

This paper explored whether the instrumental mechanisms identified as important in previous research explaining Black/white differences in marriage and non-marital fertility played a similar role in explaining Mexican American/white differences. Based on the work of Wilson (1987), I looked at the role that the availability of marriageable men played. Though Mexican American men tend to have higher levels of employment than Black men, Mexican origin women still cite the lack of economic opportunity, particularly intermittent and low paying employment, for men as a contributing factor to the increase in non-marital fertility. Additionally, in response to research suggesting that a lack of alternate routes to adulthood for women (and in particular, adolescent women) encourages early, and often non-marital, childbearing, I looked at variables that measured the economic vitality and industrial composition in an area. Lastly, I looked at the role of variables indicated by research that suggests that the theoretical relationship between context and individual behavior needs to be amended for Mexican Americans to take into account the intermittent employment of Mexican American men, the high levels of immigration, and the role of residential stability.

Of all the marriage market variables looked at, only the race/ethnic specific measure of employed men was significantly associated with non-marital fertility rates. In this case, an increase in the sex ratio decreased the risk of a non-marital birth. Controlling for this in the full sample did nothing to reduce Mexican American/White differences in non-marital fertility though it did for Black/White differences. However, this effect went away when the unemployment rate was included in models. Decreased economic vitality, as measured by the unemployment rate, increased the risk of a non-marital birth for all women. This might indicate a reduced availability of marriageable men, particularly for Black women. However, it may also

provide evidence that women's employment opportunities discourage nonmarital fertility. While employment opportunity for women may lower the risk of a non-marital birth, the quality of opportunity appears to be less important. Variables measuring the quality of jobs were weakly associated with non-marital fertility rates, at least in the full sample. Lastly, of the measures suggested by Moore and Pinderhughes (1993) guiding question 3, only residential stability was associated with non-marital fertility in the full sample. This effect was counter to expectations, with areas of higher stability having higher levels of non-marital fertility. In fact in this sample Mexican Americans were the least stable group, and thus Mexican American/White differences were somewhat exacerbated when this factor was controlled. This may reflect more recent declines in residential stability in Mexican American communities (Moore and Pinderhughes 1993).

However, there were important differences in these relationships by individual level socioeconomic status. Mexican American/White differences (and Black/White differences) were largest among those of higher socioeconomic status. In fact, the difference between Mexican Americans and Whites was not significant among those of lower socioeconomic status. County level variables had a large impact on race/ethnic differences for those of higher socioeconomic status; in particular the economic vitality of an area as measured by the race/ethnic specific unemployment rate. Additionally, industrial composition was important. Higher SES women in areas with a higher proportion of people employed in poor quality jobs had an increased risk of a non-marital birth. In fact, once these variables are controlled, Mexican American women had slightly higher non-marital fertility than Black women. It seems clear that higher socioeconomic status does not offer minority women the same 'protection' it does for White women; however

the amount of protection it does offer varies substantially by a county's characteristics, in particular the race/ethnic specific unemployment rate.

Wilson argues that poor women, who are disproportionately of minority status, will do particularly poorly in disadvantaged neighborhoods. As discussed earlier this is a class-based perspective for race/ethnic differences in family formation processes. This analysis does provide some support for class based arguments, though in a somewhat different way than suggested by Wilson. The fact that among women of lower socioeconomic status there is no significant difference in the non-marital fertility between Mexican American and White women, coupled with the fact that Mexican American women are more likely to be poor, suggests that part of the Mexican American/White difference in non-marital fertility is class based. At the same time there are large Mexican American/White differences among women of higher socioeconomic status, and it is this group that is particularly susceptible to the conditions of their community context. These results suggest that there may be more going on. While some researchers continue to focus on the behaviors of women of lower socioeconomic status, arguing that there is a growing minority middle class who are doing fine, this analysis suggests that this more advantaged group may actually not be doing that fine and are particularly subject to the economic conditions of their social context.

Clearly, of particular importance for minority women of high SES is the race/ethnic specific unemployment rate. This variable by far does the most to reduce race/ethnic differences in non-marital fertility. Yet, while this indicates that the economic vitality of an area is important this analysis is unable to get at why. This analysis also suggests that measures of the overall county experience really do not do an adequate job of indicating opportunity for all people. The experience of individuals within a county varies substantially by race/ethnicity. As seen in the

descriptive and multivariate analyses, the overall unemployment rate masks much heterogeneity in the race/ethnic specific unemployment rate. The same is true for the sex ratio. This suggests that there is an additional level of context, below the county, to be taken into account. Thus while Blacks, Whites, and Mexican Americans may live within the same county, the opportunity structure varies for each group such that there exists a 'Black' county, a 'White' county, and a 'Mexican American' county. Aside from the one measure of the sex ratio and the race/ethnic specific unemployment rate, I am unable to construct race/ethnic specific measures of other variables used in this analysis because these variables are not available on the NSFG-CDF. Future work is going to explore the role of more localized contexts, measured at the level of the census tract. As census tract boundaries are considered the best measure of neighborhood, variables measured at this unit of analysis may provide a better approximation of the social context, and may not be characterized by such heterogeneity. Importantly, this analysis will allow me to look more closely at the role of other contextual variables. While broader contexts, such as counties, are considered the best spatial scale at which to measure the instrumental mechanisms linking context to family formation behaviors, research also emphasizes the importance of socialization mechanisms, or the factors that help socialize individuals.

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Figure 1: Survival to First Non-Marital Birth

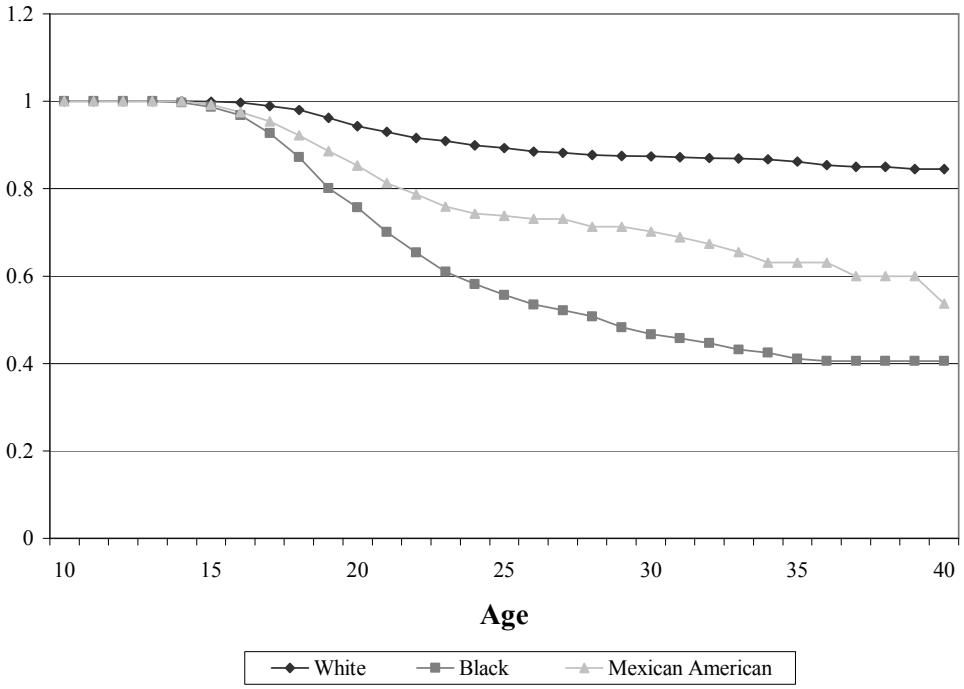

Table 1: Percent Distribution of Individual Level Independent Variables by Race/Ethnicity

	White (n=3,172)	Black (n=1,193)	Mexican American (n=368)
	%	%	%
Religion			
Mainstream Protestant	29.7	11.3	5.4
Fundamentalist Protestant	24.8	71.6	6.3
Catholic	33.2	9.4	80.5
Other Religion	12.3	7.7	7.9
Parental Education			
Less than High School	7.3	18.1	42.8
High School	39.0	40.7	30.3
Some College	19.0	16.9	14.9
College Graduate	34.5	24.1	12.0
Family Structure at Age 14			
Two parent	69.9	45.0	63.3
One parent	15.9	35.0	19.6
Step parent	12.6	12.8	13.0
Other Family Type	1.6	7.2	4.1
Ever Cohabited before Marriage	38.1	30.6	26.4
Enrolled in High School - Age 17	92.3	90.9	86.1
Enrolled in College - Age 20	59.4	42.1	47.0
Working Full Time - Age 20	40.1	34.5	44.3
Working Part Time - Age 20	31.3	25.2	29.0
Cohort			
Born before 1965	27.4	23.5	18.2
Born Between 1965-1970	48.0	53.1	52.2
Born after 1970	24.6	23.5	29.6

Table 2: Descriptive Statistics on Community Level Variables by Race/Ethnicity

	White (n=3,172)	Black (n=1,193)	Mexican American (n=368)
Socioeconomic Status			
Median Household Income	31,148	29,755	30,315
Race/Ethnic Specific Median HH Income	32,566	20,390	24,159
Marriage Market			
Race/Ethnic Specific Sex Ratio - Employed Men	0.73	0.51	0.79
Sex Ratio of Unmarried Men	1.16	1.05	1.19
Sex Ratio of Men with Adequate Earnings	0.76	0.66	0.64
Women's Economic Opportunities			
Unemployment Rate	0.06	0.07	0.08
Race/Ethnic Unemployment Rate	0.05	0.14	0.11
Female Labor Force Opportunity Index	0.07	0.07	0.07
% Jobs - High Quality	35.00	37.10	35.00
% Jobs - Low Quality	29.60	28.20	32.20
% Jobs in Manufacturing	18.40	17.30	15.10
% Urban	82.0	92.0	96.0
Other Characteristics			
Male Full Time Employment Rate	0.53	0.52	0.51
Proportion HH Living in Same County 5 Years ago	0.79	0.81	0.79
Proportion Foreign Born	0.06	0.09	0.16

Table 3: Odds Ratios from Multilevel Event History Models, No County Level Variables

	Null Model			Baseline - Race/Ethnicity			Full Individual Level Model		
		standard			standard			standard	
Fixed Effects	odds ratio	error	p	odds ratio	error	p	odds ratio	error	p
Intercept	-4.41	0.05	***	-4.99	0.06	***	-3.71	0.10	***
Race/Ethncity (White)									
Black				4.78	0.07	***	4.26	0.09	***
Mexican American				2.54	0.13	***	1.75	0.16	***
Age (17-20)									
less than 17							0.28	0.11	***
21-25							0.63	0.10	***
greater than 25							0.23	0.10	***
Period									
Per 3							0.56	0.09	***
Family Structure at age 14 (Two parent)									
Single or Step Parent							1.27	0.07	***
Other							1.95	0.13	***
Parental Education (<= High School)									
Some College							0.72	0.09	***
College Graduate							0.48	0.10	***
Employment and Schooling									
Enrolled in High School							0.40	0.10	***
Enrolled in College							0.27	0.12	***
Employed							0.64	0.07	***
Religion (All Other)									
Fundamentalist Protestant							1.21	0.08	*
Cohabiting prior to birth							4.00	0.12	***
Cohabitation*Black							0.58	0.17	***
Cohabitation*Mexican American							2.36	0.25	***
URBAN							1.32	0.12	*
Random Effects									
Intercept	0.36	0.059	***	0.16	0.05	***	0.25	0.056	***
Intraclass Correlation Coefficient	0.10			0.05			0.07		

***p<.001, **p<.01, *p<.05

Note: based on 64,811 person half years in 795 counties

Table 4: Odds Ratios, County Level Measures and the Risk of a Non-Marital Birth

	Sex Ratio - Race/Ethnic Specific Employed Men			Unemployment Rate			Race/Ethnic Specific Unemployment Rate			Female Labor Force Index			% Employed in High Quality Jobs			Residential Stability			Interaction - Proportion of Residents that are		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1																					
Intercept	-4.14	0.17	***	-4.30	0.20	***	-4.17	0.16	***	-3.29	0.26	***	-3.52	0.26	***	-5.56	0.48	***	-4.49	0.25	***
Race/Ethncity (White)																					
Black	3.51	0.13	***	4.16	0.09	***	3.03	0.13	***	4.25	0.09	***	4.33	0.09	***	4.17	0.09	***	7.02	0.22	***
Mexican American	1.80	0.16	***	1.66	0.16	**	1.37	0.17	^	1.72	0.16	***	1.76	0.16	***	1.80	0.16	***	3.36	0.33	***
Cohabiting prior to birth	4.00	0.12	***	4.00	0.12	***	3.98	0.12	***	4.03	0.12	***	4.02	0.12	***	4.06	0.12	***	4.07	0.12	***
Cohabitation*Black	0.57	0.17	***	0.58	0.17	***	0.58	0.17	***	0.57	0.17	***	0.58	0.17	***	0.57	0.17	***	0.57	0.17	***
Cohabitation*Mexican American	2.38	0.25	***	2.39	0.25	***	2.40	0.25	***	2.36	0.25	***	2.34	0.25	***	2.38	0.25	***	2.37	0.25	***
LEVEL 2																					
Log Sex Ratio	0.584	0.243	*																		
Unemployment Rate				1.054	0.019	**															
Race/ethnic Specific Unemployment							1.041	0.011	***												
Female Labor Force Opportunity Index										0.887	0.041	**									
% Employed in High Quality Jobs													0.987	0.007	^						
Residential Stability																1.020	0.006	***			
Proportion Immigrants																			0.868	0.050	**
Proportion Immigrants*Black																			1.153	0.058	*
Proportion Immigrants*Mexican American																			1.264	0.124	^
Random Effects																					
Intercept	0.225	0.055	***	0.227	0.554	***	0.209	0.054	***	0.227	0.055	***	0.241	0.056	***	0.229	0.056	***	0.252	0.057	***
Intraclass Correlation Coefficient	0.064			0.065			0.060			0.065			0.068			0.065			0.071		

***p<.001, **p<.01, *p<.05, ^p<.10

64,811 person half years, 795 counties

Table 5: County Level Measures and the Risk of a Non-Marital Birth - Full Models

	Full Model - Unemployment			Full Model - Race/Ethnic Specific Unemployment			Full Model - Unemployment,			Full Model - Race/Ethnic Specific Unemployment,		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1												
Intercept	-4.82	0.73	***	-4.82	0.72	***	-4.95	0.85	***	-4.9867	0.80	***
Race/Ethncity (White)												
Black	4.08	0.14	***	3.47	0.16	***	6.49	0.23	***	5.58	0.24	***
Mexican American	1.74	0.16	***	1.46	0.19	*	2.92	0.33	**	2.38	0.35	*
Cohabiting prior to birth	4.06	0.12	***	4.05	0.12	***	4.11	0.12	***	4.09	0.12	***
Cohabitation*Black	0.57	0.17	***	0.57	0.17	***	0.56	0.17	***	0.57	0.17	***
Cohabitation*Mexican American	2.38	0.25	***	2.39	0.25	***	2.38	0.25	***	2.39	0.25	***
LEVEL 2												
Log Sex Ratio	0.926	0.301		1.181	0.326		0.847	0.308		1.088	0.334	
Unemployment Rate	1.027	0.028					1.023	0.303				
Race/ethnic Specific Unemployment				1.031	0.015	*				1.031	0.015	*
Female Labor Force Opportunity Index	0.972	0.060		0.964	0.052		0.964	0.071		0.961	0.057	
% Employed in High Quality Jobs	0.992	0.008		0.996	0.008		0.992	0.008		0.995	0.008	
Residential Stability	1.013	0.007	*	1.014	0.007	*	1.012	0.007	^	1.012	0.007	*
Proportion Immigrants							0.919	0.057		0.917	0.054	
Proportion Immigrants*Black							1.155	0.057	*	1.158	0.057	*
Proportion Immigrants*Mexican American							1.205	0.123		1.187	0.123	
Random Effects												
Intercept	0.224	0.056		0.218	0.055		0.218	0.055	***	0.230	0.056	***
Intraclass Correlation Coefficient	0.064			0.062			0.062			0.065		

***p<.001, **p<.01, *p<.05, ^p<.10

64,811 person half years, 795 counties

Table 6: Multilevel Event History Models, No County Level Variables, Lower and Higher SES

	Lower Socioeconomic Status (n=31,880 person half years)			Higher Socioeconomic Status (n=32,931 person half years)		
Fixed Effects	odds ratio	standard error	p	odds ratio	standard error	p
Intercept	-3.83	0.16	***	-5.12	0.26	***
Race/Ethncity (White)						
Black	4.06	0.11	***	5.12	0.15	***
Mexican American	1.25	0.19		4.48	0.25	***
Age (17-20)						
less than 17	0.30	0.14	***	0.22	0.17	***
21-25	0.72	0.11	**	0.50	0.16	***
greater than 25	0.25	0.12	***	0.22	0.18	***
Period						
Per 3	0.56	0.10	***	0.52	0.15	***
Family Structure at age 14 (Two parent)						
Single or Step Parent	1.22	0.08	*	1.57	0.12	***
Other	1.71	0.15	***	3.70	0.25	***
Parental Education (<= High School)						
Some College				1.44	0.11	***
College Graduate						
Employment and Schooling						
Enrolled in High School	0.39	0.12	***	0.36	0.16	***
Enrolled in College	0.27	0.16	***	0.29	0.16	***
Employed	0.63	0.09	***	0.62	0.12	***
Religion (All Other)						
Fundamentalist Protestant	1.17	0.09	^	1.45	0.13	**
Cohabiting prior to birth	3.86	0.14	***	4.62	0.18	***
Cohabitation*Black	0.56	0.20	**	0.86	0.30	
Cohabitation*Mexican American	3.30	0.29	***	0.94	0.51	
URBAN	1.32	0.13	*	1.52	0.23	^
Random Effects						
Intercept	0.30	0.07	***	1.28	0.23	***
Intraclass Correlation Coefficient	0.08			0.28		

***p<.001, **p<.01, *p<.05, ^p<.10

Table 7: Low Socioeonomic Status - County Level Variables

	Lower Socioeconomic Status											
	Model 1			Model 2			Model 3			Full Model		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1												
Intercept	-4.15	0.23	***	-3.27	0.30	***	-5.08	0.57	***	-4.54	0.83	***
Race/Ethncity (White)												
Black	3.98	0.11	***	4.05	0.11	***	4.00	0.11	***	3.99	0.11	***
Mexican American	1.19	0.20		1.23	0.19		1.28	0.19		1.24	0.20	
Cohabiting prior to birth	3.85	0.14	***	3.89	0.14	***	3.91	0.14	***	3.91	0.14	***
Cohabitation*Black	0.56	0.20	**	0.56	0.20	**	0.56	0.20	**	0.56	0.20	**
Cohabitation*Mexican American	3.36	0.29	***	3.29	0.29	***	3.33	0.29	***	3.34	0.29	***
LEVEL 2												
Unemployment Rate	1.05	0.02	*							1.02	0.03	
Female Labor Force Opportunity Index				0.90	0.05	*				0.95	0.06	
Residential Stability							1.02	0.01	*	1.01	0.01	
Random Effects												
Intercept	0.29	0.07	***	0.29	0.07	***	0.29	0.08	***	0.29	0.08	***
Intraclass Correlation Coefficient	0.081			0.080			0.081			0.081		

***p<.001, **p<.01, *p<.05, ^p<.10

Note: Models control for all other individual level factors

n=31,880 person half years

Table 8: High Socioeconomic Status - County Level Variables

	Higher Socioeconomic Status														
	Model 1			Model 2			Model 3			Model 4			Model 5		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1															
Intercept	-5.67	0.31	***	-5.62	0.37	***	-5.83	0.30	***	-4.18	0.53	***	-6.09	0.57	***
Race/Ethncity (White)															
Black	2.76	0.22	***	4.89	0.14	***	1.77	0.25	***	4.97	0.14	***	5.10	0.15	***
Mexican American	4.33	0.24	***	4.19	0.23	***	2.07	0.28	***	4.34	0.23	***	4.18	0.23	***
LEVEL 2															
Race/Ethnic Specific Sex Ratio of Employed	0.20	0.46	***												
Unemployment Rate				1.08	0.04	^									
Race/Ethnic Specific Unemployment							1.13	0.02	***						
Female Labor Force Opportunity Index										0.63	0.08	*			
Percent in Low Quality Jobs													1.03	0.02	*
Percent in High Quality Jobs															
Proportion Foreign Born (logged)															
Residential Stability															
Random Effects															
Intercept	1.15	0.23	***	1.34	0.24	***	1.25	0.24	***	1.25	0.23	***	1.23	0.23	***
Intraclass Correlation Coefficient	0.26			0.29			0.28			0.28			0.27		
	Model 6			Model 7			Model 8			Model 9			Model 10		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1															
Intercept	-4.24	0.51	***	-5.63	0.40	***	-7.26	0.90	***	-5.95	0.45	***	-5.50	0.86	***
Race/Ethncity (White)															
Black	5.11	0.15	***	5.09	0.14	***	4.92	0.14	***	8.18	0.38	***	60.05	1.15	***
Mexican American	4.47	0.23	***	4.65	0.23	***	4.61	0.23	***	13.42	0.58	***	1.40	1.88	
LEVEL 2															
Race/Ethnic Specific Sex Ratio of Employed															
Unemployment Rate															
Race/Ethnic Specific Unemployment															
Female Labor Force Opportunity Index															
Percent in Low Quality Jobs															
Percent in High Quality Jobs	0.97	0.01	^												
Proportion Foreign Born (logged)				0.88	0.07	^				0.80	0.09	*			
Residential Stability							1.03	0.01	*						
Proportion Foreign Born*Black										1.16	0.11				
Proportion Foreign Born*Mexican American										1.55	0.24	^			
Proportion Males Employed Full Time													1.01	0.02	
Full Time*Black													0.95	0.02	*
Full Time*Mexican American													1.02	0.04	
Random Effects															
Intercept	1.22	0.22	***	1.21	0.22	***	1.36	0.24	***	1.18	0.22	***	1.40	0.24	***
Intraclass Correlation Coefficient	0.27			0.27			0.29			0.26			0.30		

Table 8 (continued): High Socioeonomic Status - County Level Variables

	Full Model, Race/Ethnic			Full Model, Race/Ethnic			Full Model, Race/Ethnic		
Fixed Effects	odds ratio	SE	p	odds ratio	SE	p	odds ratio	SE	p
LEVEL 1									
Intercept	-9.08	1.64	***	-10.35	1.71	***	-10.11	1.77	***
Race/Ethncity (White)									
Black	1.84	0.28	*	3.24	0.42	**	3.52	1.39	
Mexican American	2.15	0.31	*	5.01	0.66	*	0.10	2.07	
LEVEL 2									
Race/Ethnic Specific Sex Ratio of Employed	0.91	0.65		0.85	0.66		0.78	0.68	
Race/Ethnic Specific Unemployment	1.12	0.03	***	1.13	0.03	***	1.13	0.03	***
Female Labor Force Opportunity Index	1.11	0.10		1.21	0.11	^	0.99	0.12	
Percent in Low Quality Jobs	1.03	0.02	^	1.04	0.02	*	1.04	0.02	*
Residential Stability	1.02	0.01		1.02	0.01		1.02	0.01	
Proportion Foreign Born (logged)				0.77	0.10	*			
Proportion Foreign Born*Black				1.22	0.12	^			
Proportion Foreign Born*Mexican American				1.38	0.25				
Proportion Males Employed Full Time							1.03	0.02	
Full Time*Black							0.99	0.02	
Full Time*Mexican American							1.06	0.04	
Random Effects									
Intercept	1.32	0.24	***	1.20	0.23	***	1.25	0.23	***
Intraclass Correlation Coefficient	0.29			0.27			0.28		

***p<.001, **p<.01, *p<.05, ^p<.10

Note: Models control for all other individual level factors

n=32,931 person half years