

Race-Ethnic Differences in the Non-marital Fertility Rates in 2006-2010

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Abstract

Research in the 1980s pointed to the lower marriage rates of blacks as an important factor contributing to race differences in non-marital fertility. Our analyses update and extend this prior work to investigate whether cohabitation has become an important contributor to this variation. We use data from the 2006–2010 National Survey of Family Growth (NSFG) to decompose race-ethnic differences in non-marital fertility rates into three types of factors based on relationship status, pregnancy rates by relationship status, and marriage following a non-marital pregnancy. We find that the pregnancy rate among single (not cohabiting) women is the biggest contributor to racial-ethnic variation the non-marital fertility rate and that higher proportions of women using no method of contraception among racial minorities explains the majority of the race-ethnic differences in pregnancy rates.

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In the United States, racial/ethnic differentials in non-marital fertility are substantial. In 2010 the non-marital fertility rate among white unmarried women ages 15–44 was 32.9 per 1,000; among black women it was about twice as high at 65.3 per 1,000. Among Hispanics, the non-marital fertility rate is even higher at 80.6 per 1,000 (Martin, Hamilton, Ventura, Osterman, Wilson, and Mathews 2012). To investigate the sources of racial/ethnic differences in the non-marital fertility rate, prior research used decomposition techniques to determine the relative importance of four factors: differences in sexual activity, contraceptive use, abortion, and marriage following a non-marital pregnancy (Cutright and Smith 1988). This research established that, in the 1980s, racial differences in non-marital sexual activity and in marriage following a premarital pregnancy were important contributors to black-white differentials in the non-marital fertility rate.

Since 1980, however, the black-white gap in non-marital fertility has narrowed, as the birth rate for unmarried white women has increased more steadily than it has for unmarried black women (Martin et al. 2012; Ventura and Bachrach 2000). Related, over this time period there has been a substantial increase in the age at marriage, cohabitation, and non-marital childbearing, especially among cohabitators. As a consequence, the relative contribution of each component to racial differences in non-marital fertility may have changed. For example, marriage in response to a non-marital pregnancy (postconception marriage) has declined substantially (Bachu 1999; England, Shafer, and Wu 2012) and this may no longer be as important a factor as it once was. Thus, an update would be informative, but other demographic changes demand that we also extend the analysis in two ways.

First, prior to 1990s, a common view of non-marital or premarital childbearing was that most single mothers or fathers raised their child(ren) by themselves (Smock and Greenland 2010), but this picture no longer reflects the current couple context of non-marital births, where often an unmarried mother lives with the father of their child. A growing proportion of women is cohabiting and some have suggested that disadvantaged and/or racial minority women may be using cohabitation as an alternative to

marriage. Thus, cohabitation may be an increasingly important factor contributing to race differences in non-marital fertility.

Second, the Hispanic population increased substantially in the U.S. since 1980 (Landale and Oropesa 2007). The growth in the Hispanics combined with high rates of non-marital fertility for this population supports an extension beyond the black-white dichotomy. Our analysis uses data from the 2006–2010 National Survey of Family Growth (NSFG) to decompose race-ethnic differences in non-marital fertility rates into three types of factors based on relationship status, pregnancy rates by relationship status, and marriage following a non-marital pregnancy.

Background and Conceptual Framework

The proximate determinants of fertility (Bongaarts 1978) can be separated into three groups: those that describe sexual activity, those that relate to rates of pregnancy given sexual activity, and those that shape the likelihood that a pregnancy results in a live birth. Unfortunately, because survey data are not a reliable source of information on pregnancies not carried to term (Jagannathan 2001; Jones and Forrest 1992; Jones and Kost 2007), we focus our analyses on the first two types of factors, although we consider the potential implications of the third in our discussion. Similar to Cutright and Smith (1988) our approach adapts this framework to consider three types of proximate determinants of *non-marital* fertility: sexual relationship status (single not sexually active, single sexually active, and cohabiting), rates of pregnancy given relationship status, and the likelihood of marriage following a non-marital pregnancy. We discuss each of these in turn below.

Sexual Relationship Status

Prior research found that among unmarried women, blacks were more likely than whites to be sexually active and this contributed to their lower non-marital fertility rates, especially among teens (Cutright and Smith 1988), but we expect that this factor is less relevant today. In the 1980s white women delayed sexual initiation to older ages than black women. Today, however, race differences in age at first sex are smaller. In 1988, about 50% never married white women ages 15–19 had ever had sexual

intercourse while the corresponding percentage was 60 for black women. In 2006–2010, the percent sexually experienced for white and black women in the same age group was 42 and 46, respectively (Martinez, Copen, and Abma 2011). Moreover, race differences in sexual activity among unmarried women in their 20s, already small in the 1980s, may have further decreased as non-marital cohabitation became increasingly common. Cohabiting women are much more likely than single women to be sexually active (Waite 1995) and among unmarried women, Non-Hispanic Whites are more likely than Blacks to be currently cohabiting (Copen, Daniels, Vespa, and Mosher 2012).

The higher rate of non-marital fertility among Hispanics is not likely to be due to their earlier initiation of sexual activity, as the proportion of Hispanic teens who ever had sex is only slightly higher than for whites and lower than for blacks (Martinez et al 2011). Yet, the proportion of unmarried women cohabiting is higher for Hispanics than for blacks or whites (Copen et al. 2012). Altogether this suggests that sexual relationship status is likely to be less relevant for explaining black-white differences in non-marital fertility today than previously, but higher levels of cohabitation among Hispanics may be an important contributor to the Hispanic-white differential.

Pregnancy Rates by Relationship Status

In contrast, we anticipate that race-ethnic differences in pregnancy rates among sexually active unmarried women contribute to both the black-white and the Hispanic-white differentials. In the 1980s, differences in contraceptive use accounted for about a quarter of black-white differences in the non-marital fertility rate among women in their 20s (Cutright and Smith 1988). Recent research shows that single white women have higher rates of contraceptive use than either blacks or Hispanics (Sweeney 2010) and this should result in higher pregnancy rates among black and Hispanic women.

One important question, however, is whether black-white differences in non-marital pregnancy rates are driven primarily by higher pregnancy rates among cohabitators. Some have suggested that for the disadvantaged, especially Hispanics, cohabitation may serve as an alternative to marriage (Loomis and Landale 1994; Manning and Landale 1996; Wildsmith and Raley 2006). For example, cohabiting Mexican American women have higher fertility rates compared to cohabiting whites or blacks. Moreover,

cohabitation increases planned fertility, especially among Hispanics (Musick 2002). Thus we expect that the pregnancy rate within cohabiting unions is especially important to the relatively high non-marital fertility rates of Hispanics and may contribute to black-white differences as well.

Another important question is whether race-ethnic differences in non-marital pregnancy rates are largely explained by differences in contraceptive use or if they arise from differences in miscarriage and abortion, how consistently or effectively contraception is used. Our analysis indirectly addresses this question describing race-ethnic differences in contraceptive use among sexually active single and cohabiting women and examining how closely they track variation in nonmarital pregnancy rates.

Postconception Marriage

In the 1980s, the black-white difference in the proportion of women marrying following a non-marital conception explained a third of the race differential in non-marital fertility among teens and a substantial proportion of the gap among women in their 20s (Cutright and Smith 1988). Since then postconception marriage has declined for white women, and some evidence suggests that they may not have declined for blacks or Hispanics. Between the early 1980s and 1990s, the percentage of nonmarital pregnancies to women age 15-29 that resulted in a marital birth declined from 39% to 29% for whites, increased from 7.3 % of 10% for blacks, and increased from 21 % to 26 % for Hispanics (Bachu 1999). Yet, the most recent estimates suggest that racial and ethnic differences in post-conception marriage have not disappeared. Among women cohabiting at the time of conception, 23 % of whites married prior to the birth compared to less than 10 % among blacks and Hispanics (Lichter 2012). In sum, although we expect that post-conception marriage continues to contribute to racial and ethnic differences in non-marital fertility, it may matter less than it once did.

Prior research gives us reason to expect that factors contributing to non-marital fertility vary by race and ethnicity and over time. The goal of this research is to understand the relative importance of relationship status, pregnancy rates, and postmarital conception to race-ethnic differentials today. An analysis of proximate determinants is a first step towards understanding the broader social and economic factors that produce differences in the family experiences of children. .

Method

This research relies on national probability samples from the 2006–2010 National Survey of Family Growth (NSFG), which are large and representative of U.S. civilian noninstitutional population of men and women age 15–44. The 2006–2010 NSFG interviewed 12,279 women and collected detailed monthly information on fertility, relationship status (i.e., cohabitation, marriage), contraceptive use, and sexual activity for three years prior to the survey year. Because our demographic decomposition methods do not produce confidence intervals, it would be best to use data describing the entire population rather than a sample. Unfortunately, population-level data with information on cohabitation, sexual activity, and births among cohabitators are not available and so we use the NSFG, which has a large enough sample as well as the necessary information for our decomposition analysis.

To begin, we used monthly information about sexual activity, contraceptive use, marital and fertility histories to create a person-month data file describing women's characteristics in each month for the three years prior to interview (517,203 person months). We excluded person months when sexual activity information was not available (1,259 person months). We also excluded person months lived prior to age 15 and after age 34 (151,450 person months) because having a non-marital birth is rare outside this age range (results from decomposition analysis for women ages 35 and above are available upon request). In addition, we excluded person months if respondents are currently married (93,125 person months). If women had already been pregnant before age 15 (3 births and 6 pregnancies), these pregnancies and births were not included. We also excluded women who are not Non-Hispanic white, Non-Hispanic black, or Hispanics (25,057 person months).

Table 1 shows the distribution of person months by age. Altogether, 249,418 person months are experienced by unmarried women between ages 15 and 34. Of these, 58,978 person-months were spent in cohabiting relationships (not shown). 1,508 fertile pregnancies were conceived by unmarried women, and 1,175 births occurred outside of marriage.

[Table 1 about here]

Table 1 also describes the estimated annual *non-marital fertility rate* per 1,000 women ages 15–34 by age and race-ethnicity. Our estimates show that between age 15 and 34 the nonmarital fertility rate is highest among Non-Hispanic Blacks, followed by Hispanics. We compared our estimates to those from published NCHS reports (Martin et al. 2010) and find that our estimates are lower than published estimates of Hispanic nonmarital fertility rates at these ages. Prior analyses also indicate that the NSFG produces lower estimates of the overall fertility rate for Hispanics compared to vital events data, although not significantly so (Martinez, Daniels, Chandra 2012). It may be that our analyses misrepresent Hispanic-white differences in non-marital fertility rates, but we are unable to determine whether the discrepancy between our estimates is due to error in the NSFG or error in birth certificate data. In any event, the black-white gap in the non-marital fertility rate is highest among the 15-19 age group and then continuously declines as age increases, while the same gap between Hispanic and whites shows a U-shape pattern across age groups.

Analytic Strategy

The nonmarital fertility rate can be expressed as a function of the distribution of unmarried women by sexual relationship status, pregnancy rates by sexual relationship status, and the probability of a post-conception marriage by relationship status:

$$\text{Nonmarital fertility rate}_{ij} = (R_{sij} * S_{sij} * P_{sij} * U_{sij}) + ((1 - R_{sij}) * P_{cij} * U_{cij}) - \text{equation 1}$$

In this equation, R_s and S_s describe the proportion single among unmarried women and the proportion sexually active among single women respectively. The proportion of unmarried women that are cohabiting is expressed as $1-R_s$ and we assume that all cohabiting women are sexually active. P_s is the pregnancy rate among sexually active single women and P_c is the pregnancy rate among cohabitators. U_s and U_c describe the proportion unmarried at child birth among women who became pregnant while single and cohabiting. Finally, i and j denote the race/ethnicity and age group, respectively. For example, *Nonmarital fertility rate*_{w15–19} indicates the non-marital fertility rate for white women ages 15–19.

We separate the non-marital fertility rate by age group because past research found that the relative importance of each component might varied by women's age (Cutright and Smith 1988).

We begin the analysis by showing racial/ethnic differences in the six determinants of non-marital fertility by age group. After that, we use a decomposition technique developed by Das Gupta (1993) to estimate the relative importance of each of the components in equation 1 to race-ethnic differences in the nonmarital fertility rate. In addition, we produce estimates of contraceptive use by race-ethnicity among sexually active single and cohabiting women who are not pregnant. In this analysis our measure of contraceptive use is based on the respondent's report of the most effective method used and has three categories, very effective method, other method, and no method. The very effective category includes sterilization, IUD, and pill, and other hormonal methods, while other method includes male and female condom, withdrawal, and other methods (Sweeney 2010; Trussell 2011). Ideally we would also explore race-ethnic variation in fertile pregnancy rates for these contraceptive use categories as this would provide indirect information on the potential role of abortion, contraceptive effectiveness and/or infecundity. Unfortunately, the number of pregnancies within some of these categories is too small to produce reliable estimates. Thus, we graph contraceptive use patterns alongside non-marital pregnancy rates to show how closely they covary.

Results

Our six determinants of the non-marital fertility rate are described in Table 2. The columns present each of the determinants and the rows represent each age and racial/ethnic group. As can be seen from Table 2, 92 percent of person-months lived by unmarried white women between age 15 and 19 were spent outside of a coresidential relationship. Among white singles ages 15-19, 24 percent are sexually active in a given month. About 6 non-marital fertile pregnancies occurred per 100 sexually active white singles ages 15-19, and 65 percent of these pregnancies are followed by a non-marital birth.

[Table 2 is about here]

The proportion sexually active among single women varies significantly across race-ethnic groups, with blacks somewhat more likely to be sexually active compared to whites and Hispanics. The

proportion of unmarried women cohabiting is significantly lower for blacks and higher for Hispanics compared to whites. Non-marital pregnancy rates for sexually active singles and cohabitators are higher for blacks and Hispanics than for whites. Fertile pregnancy rates are higher for cohabitators than sexually active singles, but the difference between cohabitators and sexually active singles is substantially greater for whites than for blacks or Hispanics. Lastly, the marriage rate following a non-marital pregnancy for both singles and cohabitators is low across all age and race/ethnic groups, and differences are often not statistically significant.

Table 3 presents the results of the decomposition of non-marital fertility rates. Each number represents the proportion of the racial-ethnic difference that is due to a specific factor. For example, the 0.66 in the non-marital pregnancy rate among single row indicates that 66% of the black-white difference in the non-marital fertility rate among 15–19 age group is due to black-white differences in the non-marital pregnancy rate among sexually active single women. The results indicate that by far the biggest contributor to the black-white gap in the non-marital fertility rates across most ages is differences in the non-marital pregnancy rate among sexually active single women. This might be surprising since pregnancy rates among cohabitators are so much higher than among sexually active singles. Yet, the high pregnancy rates are offset by the fact that unmarried women spend much more time outside coresidential relationships than cohabiting. The exception is at age 25–29 when cohabitation is most common and pregnancy rates among cohabiting women become more important to ethnic variation in non-marital fertility. In contrast, percent sexually active and post-conception marriage contributes relatively little to black-white differences in non-marital fertility.

[Table 3 about here]

The right panel of this table shows that, like the black-white comparison, the pregnancy rate for sexually active singles accounts for most of the Hispanic-white gap. The non-marital pregnancy rates for cohabitators are the main contributor to black-white and Hispanic-white differences in the non-marital fertility rate only for the 25–29 age group. Note that the proportion single accounts for a negative

proportion of the black-white difference. This means that relatively lower levels of cohabitation among black unmarried women suppress black-white differences in non-marital fertility. In contrast, Hispanics' higher levels of cohabitation contribute slightly to their higher non-marital fertility rates. Altogether, we learn that in 2006–2010 sexual activity and marriage following a non-marital pregnancy are no longer major contributors in racial differences in the non-marital fertility rate. Cohabitation matters largely because fertility rates among cohabitators are higher for minority women than whites. Yet, even more important than pregnancy rates among cohabitators is the pregnancy rate among sexually active singles.

Prior research indicates that black and Hispanic women are more likely than white women to not use any method of contraception (Frost, Singh, and Finer 2007; Mosher and Jones 2010), and Sweeney (2010) employed multivariate regression techniques to show that race-ethnic differences in contraceptive use do not vary by marital-cohabitation status. Taken together these results suggest that white unmarried women are more likely than blacks and Hispanics to use contraception, but the magnitude of the differences or how closely they correspond to race differences in non-marital pregnancy rates is unknown.

Table 4 presents patterns of contraceptive use among sexually active single and cohabiting women who are not currently pregnant. Across all race-ethnic groups, the majority of unmarried women uses some form of contraception. Nonetheless, race-ethnic differences in contraceptive use, are large, significant, and consistently in the direction of elevating minority women's risk of pregnancy relative to white women. Among sexually active single women in their early 20s, for example, 4 percent of white women use no contraception compared to 18 percent of black women and 15 percent of Hispanic women. Levels of contraceptive use are lower among cohabitators compared to sexually active singles, across all race-ethnic groups. This likely accounts for cohabitators' much higher pregnancy rates (Table 2), but contraceptive use patterns are only one of potentially many factors contributing to race-ethnic variation in fertile pregnancy rates. Infecundity, frequency of sexual activity, consistency of contraceptive use, as well as abortion can also contribute, but we do not have as good data on these potential factors.

To indirectly address the potential role of these other factors, Figure 1 describes race-ethnic variation in contraceptive use among sexually-active single and cohabiting women by age and race-

ethnicity (solid bars) next to estimates of fertile pregnancy rates (striped bars). Among sexually active singles, race-ethnic variation in the proportions of women who are using no contraception correspond fairly closely to race-ethnic variation in pregnancy rates, especially among younger women. Among older women, differences in contraceptive use are greater than differences in pregnancy rates. This might be due to race-ethnic variation in abortion or fecundity.

[Figure 1 is about here]

The bottom section of Figure 1 shows the percentage of women using no contraception and pregnancy rates for cohabiting women. Much higher percentages of cohabiting women use no contraception relative to sexually active singles and their pregnancy rates are higher. More importantly for our purposes, race-ethnic variation in fertile pregnancy rates among cohabitators echo differences in the proportion of women using no contraception. Why aren't pregnancy rates higher among cohabitators given their relatively low levels of contraceptive use (or why are pregnancy rates among sexually active singles not even lower)? Sexual frequency should be higher among cohabitators and I can see no reason why to expect that abortion rates would be higher among cohabitators than sexually active singles. I can't think of a plausible explanation for this pattern.

Conclusion and Discussion

The main goal of this paper was to examine the relative importance of relationship status, pregnancy rates, and postconception marriage to racial/ethnic differences in non-marital fertility in 2006–2010. This effort represents an update of prior work in that it incorporates cohabitation and considers fertility patterns among Hispanics. Our analysis provides us with several findings. First, unlike in 1980, today sexual activity contributes little to racial differences in non-marital fertility. Likewise, marriage following a non-marital pregnancy also does not contribute to racial differences in non-marital fertility, largely because of declines in marriage among white women.

The second finding is that black-white differences in the non-marital fertility rates are driven largely by differences in the non-marital pregnancy rates among sexually active singles. More importantly, the proportion of women not using contraception is the main factor in racial/ethnic differences in the non-

marital pregnancy rates among sexually active singles. On the other hand, cohabitation appears to play little role in racial differences in the non-marital fertility rates at most ages

Lastly, for Hispanic-Non-Hispanic White differences, cohabitation also plays a smaller role than we anticipated. As we expected, among cohabiting women, Hispanics are more likely to cohabit and have higher pregnancy rates than Non-Hispanic whites, and this contributes to their higher non-marital fertility rates. The pregnancy rate among sexually active single women, however, contributes more to Hispanic-white differences than do differences in the pregnancy rates among cohabiting women except among women in the 25-29 age group.

We applied same decomposition techniques to investigate the women's SES differences in the non-marital fertility rate by using mother's education as a proxy for women's SES¹ (results not shown but available upon request). In general, we reached similar conclusions; the non-marital pregnancy rate among sexually active singles is the main contributor to women's SES differences in the non-marital fertility rate in 2006-2010. In addition, the proportion of women not using any contraception is the main contributor to women's SES differences in the non-marital pregnancy rates among sexually active singles only except teenagers, where the pregnancy rate among women using no contraceptive method is the main factor.

Like other studies, this study has some limitations. First, even among individuals who are sexually active in a given month, the frequency of sexual intercourse varies by each individual. The risk of pregnancy is probably much higher for women with more frequent sexual intercourse than for women with less in that given month. Therefore, we may be underestimating the importance of sexual activity, although there is no reason to expect race-ethnic differences in sexual frequency in a month. Second, individuals using any contraception in a given month do not necessarily use the method consistently or

¹ In measuring women's SES, for women with young age groups, scholars often use maternal education instead of women's own education, which does not accurately represent their SES (i.e., income, occupation, and education) and also might be a function of their fertility experiences (Schoen, Robert, Nancy S Landale, Kimberly Daniels, and Yen-Hsin Alice Cheng. 2009. "Social Background Differences in Early Family Behavior." *Journal of Marriage and Family* 71:384-395, Wildsmith, Elizabeth and R Kelly Raley. 2006. "Race-Ethnic Differences in Nonmarital Fertility: A Focus on Mexican American Women." *Journal of Marriage and Family* 68:491-508.)

correctly. This is especially important among women who do not use very effective contraception in the risk of having a non-marital pregnancy. However, consistent contraceptive use among teen women do not differ by race/ethnicity (Hopkins, White, and Samsel 2012; Manlove, Ryan, and Franzetta 2004).

Despite these limitations, by decomposing the non-marital fertility and pregnancy, this paper locates the most important determinants of racial/ethnic difference: contraceptive use. Whether women use any contraception or not, may be related to their access to contraception or it may reflect women's and/or partners' motivations to prevent pregnancy, which are related to their social status and opportunities in our society. This difference in contraceptive use might represent their occupational or educational aspirations, marital expectations, or identity. Women with advantaged social backgrounds are more likely to pursue higher education and employment (Cherlin 1999), so they use contraceptives not to interrupt their aspirations by having a child outside of marriage or at early age. In addition, women with high expectations of marriage may use more effective contraceptives to postpone their childbearing until after marriage. On the other hand, if women think their chance to meet marriageable men is low in the near future and their expectation to have a birth within marriage is low, they might not have strong motivations to use contraception to postpone their childbearing after marriage. Further, having a child birth outside of marriage might be not accepted as normal or be more stigmatized in some racial and class groups such as middle class white women, while the same behavior may be less stigmatized among racial minorities with disadvantaged background. It is highly possible that becoming a single mother for middle class white women is unexpected by family, friends, and neighbors. Further research needs to examine which social factors are related to different women's motivations to use contraceptives (or more effective methods), and how this relationship contributes to racial differences in non-marital fertility.

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Table 1. *Description of Sample and Non-Marital Fertility Rate by Race/ethnicity and age group*

Variables	Age group				Total (15-34)
	15-19	20-24	25-29	30-34	
Unweighted Number of Person Months	85,375	69,844	57,134	37,065	249,418
Unweighted Number of Non-marital Pregnancy	347	577	388	196	1,508
Unweighted Number of Non-marital Birth	280	438	305	152	1,175
Age Group (weighted %)	36.77	29.89	19.64	13.70	249,418
Race-ethnicity (weighted %)					
White	37.83	30.91	18.43	12.83	126,577
Black	32.12	29.12	23.27	15.49	63,539
Hispanics	37.61	27.25	20.21	14.93	59,302
Non-marital Fertility Rate (weighted)					
Non-Hispanic White	21.91	49.13	50.22	31.40	36.76
Non-Hispanic Black	73.55	128.50	113.14	59.86	96.64
Hispanics	74.70	85.21	103.59	81.86	84.47
B/W Ratio	3.36	2.62	2.25	1.91	2.63
H/W Ratio	3.41	1.73	2.06	2.61	2.30

Note: The non-marital fertility rate is the annual number of births to unmarried women per 1,000 unmarried women.

Table 2. Description of six determinants in the non-marital fertility by race-ethnicity and maternal education (weighted)

	Single			Cohabitation			Non-marital Fertility Rate (All Single)	Non-marital Fertility Rate (Cohabitors)
	(1) Proportion Single	(2) Proportion Sexually active	(3) Non-marital Pregnancy Rate	(4) Proportion Unmarried	(5) Non-marital Pregnancy Rate	(6) Proportion Unmarried		
Race/Ethnicity								
Non-Hispanic White								
15-19	0.92	0.24	0.06	0.65	0.21	0.86	7.82	14.10
20-24	0.73	0.45	0.06	0.70	0.18	0.68	14.91	34.22
25-29	0.59	0.44	0.09	0.82	0.11	0.69	19.10	31.12
30-34	0.68	0.46	0.01	0.59	0.12	0.76	2.73	28.67
Non-Hispanic Black								
15-19	0.94	0.32 *	0.22 *	0.91	0.24	0.85	60.25	13.30
20-24	0.74	0.57 *	0.26 *	0.85	0.26 *	0.55	91.28	37.22
25-29	0.69 *	0.62 *	0.14 *	0.94	0.22 *	0.81	57.71	55.44
30-34	0.76 *	0.54 *	0.09 *	1.02	0.14	0.70	36.72	23.14
Hispanics								
15-19	0.90	0.23	0.25 *	0.90	0.35 *	0.83	46.62	28.08
20-24	0.66 *	0.45	0.13 *	0.69	0.21	0.81	27.64	57.57
25-29	0.50 *	0.45	0.12	0.88	0.19 *	0.83	23.91	79.68
30-34	0.57 *	0.54 *	0.12 *	0.80	0.14	0.87	28.97	52.89

Note: The non-marital fertility rate is the annual number of births to unmarried women per 1,000 unmarried women. Six determinants are included in decomposition on the non-marital fertility rate. * indicates a chi-squared test shows the contrast between black/Hispanic women and white women are statistically significant at $p < .05$.

Table 3. Decomposition results of Six Factors Affecting Racial/ethnic Differences in Non-marital Fertility

Age Group	Black vs. White				Hispanic vs. White			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
(1) Proportion Single/Cohabiting	-0.05	-0.01	-0.11	-0.19	0.07	0.23	0.13	0.17
(2) Proportion Sexually Active among Single	0.16	0.13	0.19	0.09	-0.02	-0.01	0.01	0.05
Single								
(3) Non-marital Pregnancy Rate	0.66	0.70	0.26	0.75	0.61	0.43	0.13	0.44
(4) Proportion Unmarried	0.19	0.11	0.08	0.29	0.15	-0.01	0.03	0.09
Cohabitation								
(5) Non-marital Pregnancy Rate	0.05	0.16	0.48	0.14	0.20	0.15	0.53	0.15
(6) Proportion Unmarried	0.00	-0.10	0.11	-0.08	-0.01	0.21	0.18	0.11
Total	1	1	1	1	1	1	1	1

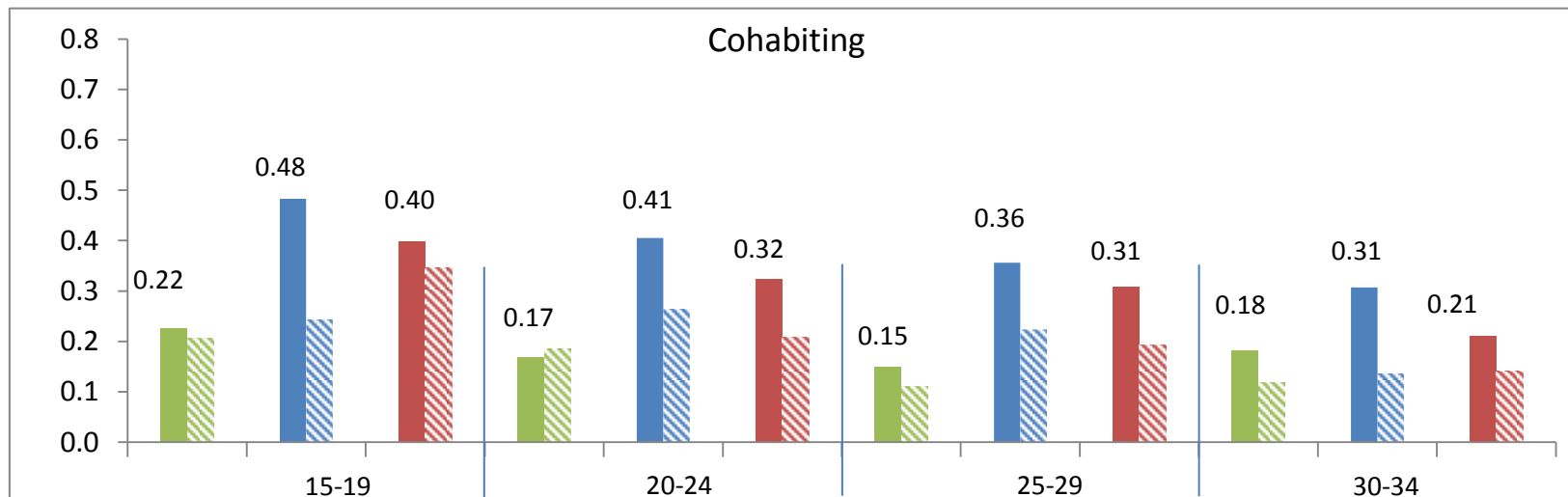
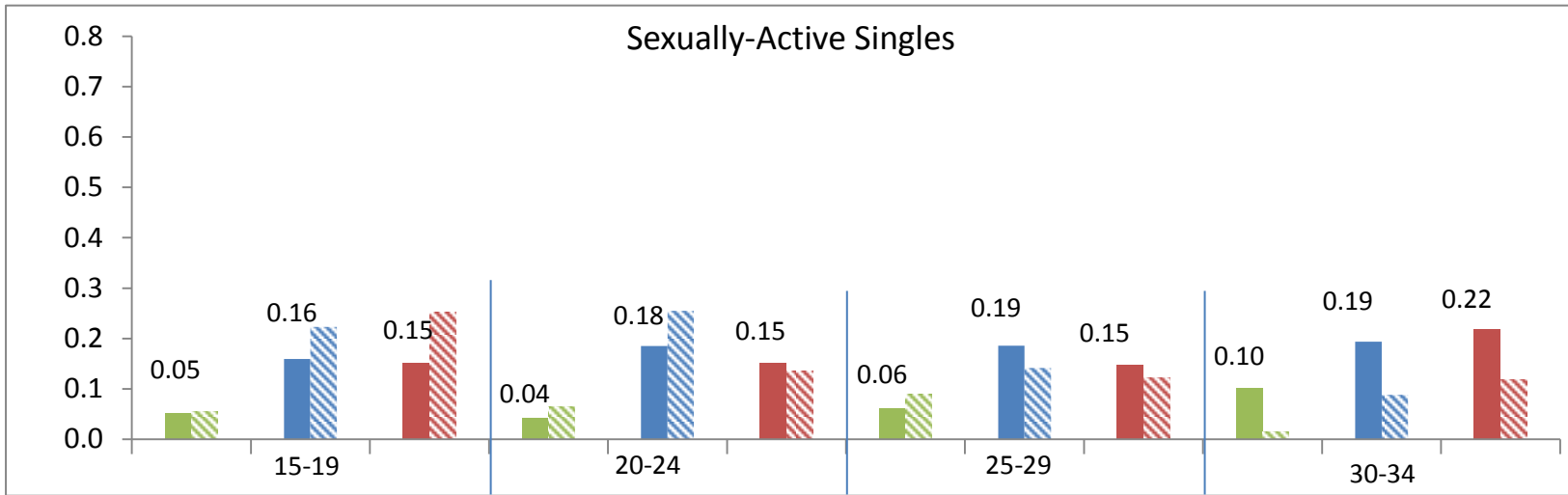
Note. Six factors are used for decomposition on the non-marital fertility rate by race/ethnicity and by age groups. The sum of six determinants (total) should be 1.

Table 4. Description of Contraceptive Use Patterns (weighted)

	Sexually Active Single			Cohabitor		
	No Method	Other Method	Very Effective	No Method	Other Method	Very Effective
Non-Hispanic White						
15-19	0.05	0.36	0.59	0.22	0.30	0.48
20-24	0.04	0.28	0.68	0.17	0.22	0.61
25-29	0.06	0.30	0.64	0.15	0.24	0.61
30-34	0.10	0.17	0.73	0.18	0.15	0.67
Non-Hispanic Black						
15-19	0.16 *	0.51 *	0.33 *	0.48 *	0.28	0.23 *
20-24	0.18 *	0.43 *	0.39 *	0.41 *	0.24	0.36 *
25-29	0.19 *	0.36 *	0.45 *	0.36 *	0.22	0.42 *
30-34	0.19 *	0.25 *	0.55 *	0.31 *	0.19 *	0.50 *
Hispanics						
15-19	0.15 *	0.45 *	0.40 *	0.40 *	0.24 *	0.36 *
20-24	0.15 *	0.50 *	0.34 *	0.32 *	0.22	0.46 *
25-29	0.15 *	0.40 *	0.46 *	0.31 *	0.22 *	0.47 *
30-34	0.22 *	0.24 *	0.54 *	0.21 *	0.21 *	0.58 *

Note. Sample includes women at risk of pregnancy (not currently pregnant). Significant test (chi2 test) has been applied to see racial/ethnic differences in contraceptive use patterns (* $p < .05$ – the reference group is non-Hispanic white)

Figure 1. Percent using no contraception by age, race-ethnicity, and sexual relationship



Percent using no contraception
 Pregnancy Rate
 White
 Black
 Hispanic