

# Race, Ethnicity, and the Changing Context of Childbearing in the United States

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## Abstract

In what ways do childbearing patterns in the contemporary United States vary for white, black, and Hispanic women? Why do these differences exist? Although completed family size is currently similar for white and black women, and only modestly larger for Hispanic women, we highlight persistent differences across groups with respect to the timing of childbearing, the relationship context of childbearing, and the extent to which births are intended. We next evaluate key explanations for these differences. Guided by a proximate determinants approach, we focus here on patterns of sexual activity, contraceptive use, and postconception outcomes such as abortion and changes in mothers' relationship status. We find contraceptive use to be a particularly important contributor to racial and ethnic differences in childbearing, yet reasons for varying contraception use itself remain insufficiently understood. We end by reflecting on promising directions for further research.

## INTRODUCTION

Childbearing patterns draw the attention of social scientists and policy makers because of their implications for future social trends and for inequality. From a demographic perspective, childbearing behavior matters because it directly determines the size and characteristics of the next generation (Martin et al. 2012). From a perspective of social stratification, childbearing behavior can also contribute to the transmission of inequality from one generation to the next. For example, as women's educational and labor force opportunities have improved, the ability to delay childbearing has become increasingly important and tied to women's and children's socioeconomic well-being (McLanahan 2004). Differences in the association between maternal education and patterns of childbearing also have implications for the distribution of resources in the next generation (Maralani 2013). Although racial and ethnic variations in childbearing are widely acknowledged, reasons for these differences remain inadequately understood (Smock & Greenland 2010).

Our review takes stock of knowledge on race, ethnicity, and the changing context of US childbearing. We begin with a rigorous assessment of contemporary racial and ethnic differences in childbearing patterns. Our approach is classically demographic, as social scientists too often seek explanations for phenomena that have not been adequately described (see also Landale et al. 2010). Guided by a proximate determinants framework, we next evaluate existing explanations for these differences. We focus here on sexual activity, contraceptive use, and postconception outcomes such as abortion and mother's relationship transitions. We end by reflecting on likely fruitful directions for further research. Throughout the review, we focus on childbearing of non-Hispanic white (hereafter "white"), non-Hispanic black (hereafter "black"), and Hispanic women, both because this has been the focus of prior work and because of limitations in the data on childbearing patterns among other racial and ethnic groups and among men. Hispanic women's childbear-

ing varies considerably by nativity status and by country of origin. Landale & Oropesa (2007) review evidence regarding these trends and differentials as well as the challenges to further work on Hispanic families in greater detail than is possible here. Finally, childbearing with multiple partners, a topic that has received considerable recent attention (e.g., Carlson & Furstenberg 2006, Smock & Greenland 2010), is beyond the scope of our review.

## TRENDS AND DIFFERENTIALS IN CHILDBEARING

### Completed Childbearing

Fertility rates among white, black, and Hispanic women have converged considerably since 1990. The total fertility rate (TFR), a common measure of completed childbearing, corresponds to the average number of children a hypothetical woman would be expected to have during her lifetime, given age-specific fertility rates prevailing in a particular year. TFRs for 1990 suggested that white women would be expected to have a total of 1.9 births in their lifetime, compared with 2.5 births among black women and 3.0 births among Hispanic women (see **Table 1**). Between 1990 and 2012, however, the TFR declined more rapidly for black and Hispanic women than for white women. Much of the decline for black and Hispanic women reflected reductions in childbearing among young women and teens. Fertility rates also fell during this period among white teens and young adults, but these declines were not as pronounced as for black or Hispanic women and were also offset by white women's greater increases in childbearing at older ages (see **Figure 1**).

As a result of these trends, expected family size is now similar for white and black women and only modestly larger for Hispanic women. Based on TFRs for 2012, a typical white woman is expected to have a total of 1.8 births, contrasted with 1.9 births for black women and 2.2 births for Hispanic women (see **Figure 2**).

**Table 1** Childbearing indicators for US women, by race and ethnicity: 1990 and 2012

Age-specific birth rates <sup>a</sup>	White, non-Hispanic			Black, non-Hispanic			Hispanic		
	1990	2012	(% change) 1990–2012	1990	2012	(% change) 1990–2012	1990	2012	(% change) 1990–2012
10–14 years	0.5	0.2	–60.0	5.0	0.8	–84.0	2.4	0.6	–75.0
15–19 years	42.5	20.5	–51.8	116.2	43.9	–62.2	100.3	46.3	–53.8
20–24 years	97.5	70.2	–28.0	165.1	109.0	–34.0	181.0	111.5	–38.4
25–29 years	115.3	104.4	–9.5	118.4	101.7	–14.1	153.0	119.6	–21.8
30–34 years	79.4	100.5	26.6	70.2	75.1	7.0	98.3	94.3	–4.1
35–39 years	30.0	46.8	56.0	28.7	38.9	35.5	45.3	51.6	13.9
40–44 years	4.7	9.1	93.6	5.6	9.6	71.4	10.9	13.2	21.1
45–49 years	0.2	0.6	200.0	0.3	0.7	133.3	0.7	0.8	14.3
<b>Total fertility rate<sup>b</sup></b>	1,850.5	1,761.5	–4.8	2,547.5	1,898.5	–25.5	2,959.5	2,189.5	–26.0
<b>Birth rate for unmarried women<sup>c</sup></b>	32.9	42.1	28.0	90.5	62.6	–30.8	89.6	72.6	–19.0
<b>Birth rate for married women<sup>d</sup></b>	94.1	87.2	–7.3	79.7	72.6	–8.9	120.0	76.5	–36.2
<b>Mean age of mother at first birth</b>	25.0	26.6	6.4	21.7	23.6	8.8	22.4	23.8	6.3

Source: Data from US Vital Statistics (Martin et al. 2013, Mathews & Hamilton 2009, Ventura & Bachrach 2000).

<sup>a</sup>Birth rates are births per 1,000 women in specified group. In 2012, birth rates for 45–49-year-old women are computed by relating births among all women aged 45 or older to the number of women aged 45–49.

<sup>b</sup>The number of children expected to be born to a hypothetical group of 1,000 women who survive to the end of their reproductive years and bear children at age-specific rates prevailing in a given calendar year.

<sup>c</sup>Births per 1,000 unmarried women aged 15–44. Birth rates for unmarried white and black women are not disaggregated by ethnicity, owing to data limitations. In 2012, the birth rate among unmarried non-Hispanic white women was 32.1, compared with 24.4 in 1990 (Martin et al. 2013, table 16).

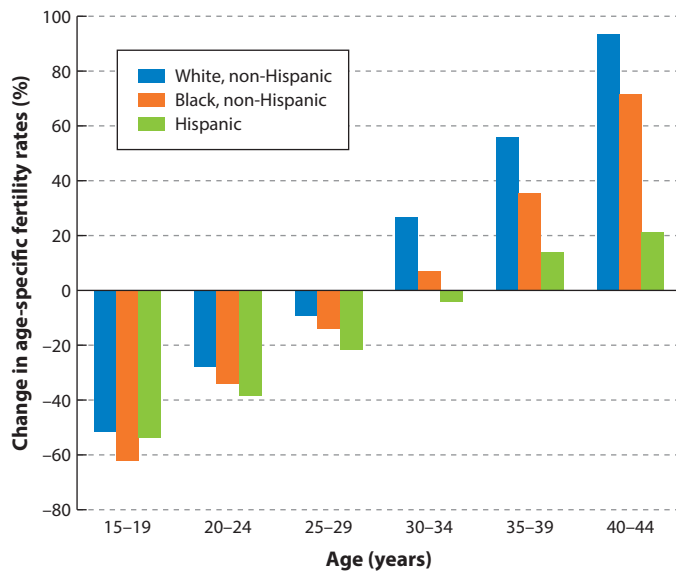
<sup>d</sup>Births per 1,000 married women aged 15–44. Birth rates for married white and black women are not disaggregated by ethnicity, owing to data limitations. Marital birth rates for 2012 are computed based on authors' tabulations of data presented in Martin et al. (2013, tables 11, 13–15).

Observed levels of completed fertility among women aged 40–44 tell a story similar to that of the TFR, with the total number of births again roughly similar for black and white women but modestly higher among Hispanic women [authors' tabulations from the 2010 June Current Population Survey (US Census Bur. 2010a)]. For the population of Hispanic women in the United States, fertility rates tend to vary by country of origin and nativity status. For example, contemporary fertility rates are lower for Cuban and Puerto Rican women than for Mexican or other Hispanic women. US-born Hispanic women currently bear children at about the same rate as other women born in the United States (Martin et al. 2012). The difference between Hispanic and non-Hispanic women in completed fertility reflects the relatively high fertility of immigrant Latinas (Parrado 2011), although fertility

rates among foreign-born women living in the United States began to fall dramatically in 2007 (Livingston & Cohn 2012).

Permanent childlessness remains rare in the United States for all racial and ethnic groups, but is least common among Hispanics. In 2010, only 12.4% of Hispanic women aged 40–44 had no children, compared with 20.6% of white women and 17.2% of black women (US Census Bur. 2010b, table 7). The relatively low rate of childlessness among Hispanic women, however, reflects very low rates of childlessness among foreign-born Hispanic women (10.0% of women aged 40–44).<sup>1</sup> Rates of childlessness

<sup>1</sup>Hayford's (2013) relatively higher estimates of childlessness among Hispanic women born between 1965 and 1968 at least partially reflect the author's sample limitation to native-born women and foreign-born women arriving in the United States before age 15.



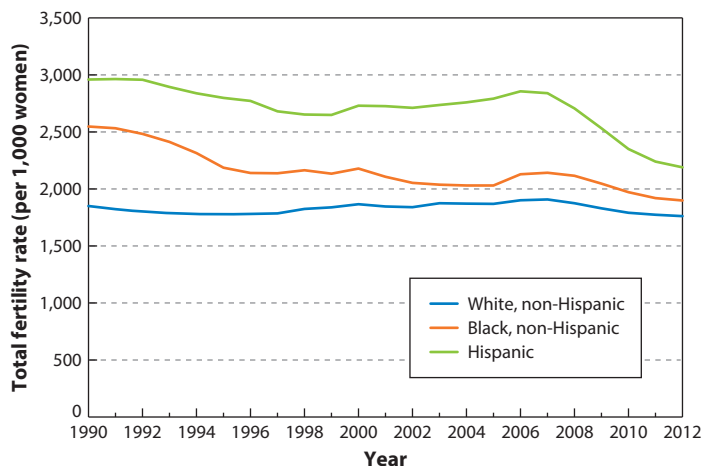
**Figure 1**  
Percent change in age-specific fertility rates, 1990–2012, by race and ethnicity.

among native-born Hispanic women (16.5% of women aged 40–44) more closely resemble those of white and black women (authors’ tabulations from US Census Bur. 2010a). Large families are most common among Hispanic women, with fully 42.5% of Hispanic women

aged 40–44 having had three or more births, compared with only 26.7% of white and 30.7% of black women in this age group (US Census Bur. 2010b, table 1). Yet again, the relatively high prevalence of large families among Hispanics primarily reflects exceptional patterns of childbearing among foreign-born women, 49.7% of whom have had three or more births. Only 30.2% of US-born Hispanic women aged 40–44 have had three or more births, a figure that closely resembles those for white and black women (authors’ tabulations from US Census Bur. 2010a).

### Timing of Childbearing

A shift toward later motherhood has been experienced by all major racial and ethnic groups in the United States since 1990, with rates of teen childbearing currently at a historic low (Martin et al. 2013). Yet meaningful disparities in the timing of childbearing persist. Childbearing tends to be concentrated earlier in life for black and Hispanic women than for white women. Teen childbearing is of particular concern because adverse health and social outcomes are observed among teen mothers and their children, although the extent to which these associations reflect preexisting differences between teens who become mothers versus those who do not remains a matter of debate (Kane et al. 2013, Santelli & Melnikas 2010). In 2006–2010, roughly 14% of white women of reproductive age reported having had a child before their twentieth birthday, compared with 33% of black women and 30% of Hispanic women (see Table 2). Among women aged 15–19, birth rates remain more than twice as high among black and Hispanic women as among white women (see Table 1). Among Hispanics, rates of teen childbearing tend to be higher among foreign-born than US-born women (Manlove et al. 2013).



**Figure 2**  
Total fertility rate, 1990–2012: US white, black, and Hispanic women. (Total fertility rate is expressed as the number of children expected to be born to a hypothetical group of 1,000 women who survive to the end of their reproductive years.)

### Relationship Context of Childbearing

The share of all US births occurring to unmarried women has increased considerably

**Table 2 Characteristics of women and births, by race, ethnicity, and education of respondent's mother: 2006–2010**  
National Survey of Family Growth

	% Women with a teen birth <sup>a</sup>	% Births in past 5 years occurring to mothers who are. . .				% Births in past 5 years reported by mothers as. . .			
		Married	Unmarried			Intended	Unintended		
			Total	Cohabiting	Unpartnered		Total	Mistimed	Unwanted
All women									
Total	19.5	59.7	40.3	23.4	16.9	62.9	37.2	23.4	13.8
< High school	31.9	51.3	48.7	28.7	20.0	57.9	42.2	23.8	18.3
High school/GED	29.0	59.0	41.0	24.5	16.6	62.8	37.2	23.6	13.6
Some college	15.6	60.9	39.1	23.2	15.9	62.8	37.2	25.9	11.3
4-year BA	7.9	74.5	25.5	12.5	13.0	71.8	28.2	18.0	10.2
White, non-Hispanic									
Total	13.9	71.7	28.3	19.2	9.1	69.3	30.6	21.3	9.3
< High school	27.2	58.4	41.6	21.9	19.8	64.7	35.3	25.3	10.0
High school/GED	16.4	68.9	31.1	22.4	8.7	66.1	33.9	21.9	12.0
Some college	11.9	72.9	27.1	20.0	7.2	68.4	31.7	23.5	8.2
4-year BA	5.7	83.9	16.1	9.5	6.6	78.9	21.1	15.9	5.2
Black, non-Hispanic									
Total	32.9	29.6	70.4	24.4	46.0	46.4	53.5	30.6	22.9
< High school	39.5	32.5	67.5	26.6	40.9	46.8	53.1	24.5	28.6
High school/GED	36.4	23.2	76.8	25.7	51.1	46.1	53.8	29.5	24.3
Some college	26.6	28.3	71.7	25.8	45.9	48.0	52.0	34.7	17.3
4-year BA	20.9	39.6	60.4	17.4	43.1	46.2	53.8	33.5	20.3
Hispanic									
Total	30.0	49.1	50.9	34.5	16.4	57.1	42.9	24.8	18.1
< High school	34.7	50.8	49.2	33.0	16.2	56.9	43.1	23.6	19.5
High school/GED	23.0	45.0	55.0	41.2	13.8	61.6	38.4	23.8	14.6
Some college	20.3	42.4	57.6	38.8	18.8	46.5	53.5	39.1	14.4
4-year BA	19.2	53.8	46.2	28.4	17.8	69.5	30.5	12.7	17.8

Source: Authors' tabulations, 2006–2010 National Survey of Family Growth.

<sup>a</sup>Sample limited to women aged 20–45 at time of interview.

in recent decades. In 2012, roughly 41% of all births occurred to unmarried mothers, compared with 28% of all births in 1990 (Martin et al. 2013). Levels of nonmarital childbearing also vary considerably across racial and ethnic groups, accounting in 2012 for roughly 29% of recent births to white women but fully 72% of births to black women and 54% of births to Hispanic women (Martin et al. 2013). This

represents a large increase since 1990 in the share of births occurring to unmarried women among white and Hispanic mothers (17% and 37% of all births in 1990, respectively), but relative stability in the share of births occurring to unmarried women among black mothers (67% of all births in 1990) (Ventura & Bachrach 2000). Levels of nonmarital childbearing also vary by nativity status within the population

of Hispanic women, accounting for 56% of recent births to US-born Hispanic women but a somewhat lower 47% of births to foreign-born Hispanic women (Martinez et al. 2012).

The share of births occurring to unmarried women reflects birth rates among both married women and unmarried women, as well as the relative sizes of these populations. Focusing on birth rates for unmarried women offers another perspective on change and variability in the relationship context of childbearing. Birth rates for unmarried white, black, and Hispanic women have converged since 1990, reflecting sharp increases among whites but declines among black and Hispanic women (**Table 1**). In 2012, however, birth rates for unmarried women remained considerably higher among blacks and Hispanics than among white women.

Although discussions of the relationship context of childbearing often focus on legal marriage, many nonmarital births actually occur to parents who live together. Among white mothers, roughly 19% of all recent births occurred to unmarried parents who lived together, compared with 24% of births to black mothers and 35% of Hispanic mothers (Martinez et al. 2012, table 12). Births to cohabiting parents thus represent roughly two-thirds of all recent nonmarital births to white mothers and Hispanic mothers, but only slightly over one-third of recent nonmarital births to black mothers. Racial and ethnic differences in childbearing among “solo” mothers—mothers who are neither married nor living with a romantic partner—are particularly pronounced. Whereas births to solo mothers represent only 9% of all births to white women and 16% of all births to Hispanic women (including 20% of births to US-born and 14% to foreign-born Hispanic women), they represent fully 46% of all births to black women (Martinez et al. 2012, table 12).

### **Mistimed and Unwanted Childbearing**

Unintended childbearing is associated with an array of negative outcomes for mothers and

their children (Logan et al. 2007). Although intentions regarding pregnancy and childbirth are complex and difficult to measure, particularly when based on retrospective reports (Edin et al. 2007, Kavanaugh & Schwarz 2009, Trussell et al. 1999), births are generally classified as unintended when they are reported as having been unwanted or mistimed (occurring too soon) at the time of conception. Although relatively little work considers the rate of unintended childbearing directly, Finer & Henshaw (2006) estimate that the unintended birth rate (i.e., the number of unintended births per 1,000 reproductive-age women) is more than twice as high among black and Hispanic women (35 and 40, respectively) as among white women (17). As a share of all births, recent births to black women are substantially more likely to be unintended (53.5%) than are births to white women (30.7%), with Hispanic women falling roughly midway in the share of births that are unintended (42.9%) (Mosher et al. 2012). Furthermore, after having had one unintended birth, black and Hispanic women are substantially more likely than white women to go on to have another unintended birth (Wildsmith et al. 2010). Unintended childbearing accounts for the modestly higher completed fertility observed among black than white women (Musick et al. 2009).

Prior work also explores racial/ethnic differences in unintended childbearing by relationship status. Births to married women are significantly less likely to be intended among blacks and Hispanics than among whites (Guzman et al. 2010, Musick 2002). In contrast, there are few racial/ethnic differences in the proportion of births that are unintended among unmarried women, with the exception of a relatively high share of unintended births among unmarried foreign-born Hispanic women (Guzman et al. 2010). Yet, again, the proportion of births that are intended reflects both levels of intended and unintended childbearing. For example, the higher proportion of unintended births among married black women could be due to lower rates of intended fertility within marriage for

blacks, rather than higher rates of unintended fertility among married blacks. Future research should investigate racial differences in unintended fertility rates by marital status, as well as by age and socioeconomic standing.

Although births to teen mothers are more likely both to occur outside of marriage and to be unintended than are births to relatively older mothers, understanding racial and ethnic differences in childbearing requires looking beyond teen births alone. Data from the 2006–2010 National Survey of Family Growth (NSFG) indicate that births to non-teen mothers (older than 19) are less likely to be intended when they occur to black and Hispanic mothers than to white mothers (authors' tabulations from the NSFG; see <http://www.cdc.gov/nchs/nsfg.htm>). Moreover, even for teen mothers, levels of subsequent nonmarital childbearing and unintended childbearing later in life are higher among black women than among white women. Hispanic women again generally fall between black and white women with respect to these indicators (authors' tabulations from the NSFG).

### **Socioeconomic Variability in Childbearing**

Social scientists sometimes mistakenly attribute characteristics to racial and ethnic groups that instead relate to socioeconomic status (see also Furstenberg 2009, Raley & Sweeney 2009). As teen births, nonmarital births, and unintended births are all relatively more common among economically disadvantaged women (Manlove et al. 2013, Martinez et al. 2012, Mosher et al. 2012), we ask whether racial and ethnic differences in these childbearing experiences are easily explained by the relatively greater economic disadvantage experienced by black and Hispanic than by white women. If so, we would expect to observe similar childbearing behavior within groups of white, black, and Hispanic women who share a common social class background.

To investigate the extent to which racial and ethnic differences in childbearing described above persist throughout the social class distribution, we again turn to our own analysis of data from the 2006–2010 NSFG. These results are displayed in **Table 2**. Because the amount of schooling a woman accumulates may itself be a consequence of prior childbearing outcomes (e.g., teen mothers who drop out of high school), we focus here on levels of schooling completed by women's mothers (i.e., social background), rather than schooling eventually accumulated by the women themselves. In this way, we minimize problems of causal ordering, although mother's education (like women's own education), is unlikely to fully capture variability in socioeconomic standing. We return to this point later.

In short, we see that racial and ethnic gaps in teen childbearing, nonmarital births, and the extent to which a birth was intended by its mother clearly persist throughout the social background distribution (see **Table 2**). This suggests that racial and ethnic differences in these key aspects of childbearing behavior are not fully explained by social background. It is worth noting, however, that racial and ethnic differences tend to be most pronounced among advantaged women. We are particularly struck by the exceptionally low levels of teen childbearing, nonmarital childbearing, and unintended births among white women with the most highly educated mothers.

### **Trends and Differentials: What Do We Know?**

In sum, after 20 years of declining fertility among black and Hispanic women, total completed family size appears to be more similar than different for white, black, and US-born Hispanic women. That said, we identify three key racial/ethnic differences in contemporary patterns of US childbearing that warrant further attention. First, childbearing tends to occur earlier in life—and substantially more often during the teen years—among



black and Hispanic women than among white women. Second, the relationship context of childbearing differs considerably across groups. Black women are more likely than white or Hispanic women to bear their children outside of marriage, and indeed, outside of any coresidential romantic union. Finally, the prevalence of unintended childbearing is considerably higher among black and Hispanic women than among white women. We also note that racial and ethnic differences in these three key aspects of childbearing persist even within groups from similar social class backgrounds (as reflected by mother's education), although differences in birth timing, the relationship context of births, and unintended childbearing tend to be more pronounced among women from the most advantaged social backgrounds. This observation is noteworthy, particularly given that recent attention to potential racial and ethnic differences in childbearing and to broader family patterns has often focused only on relatively disadvantaged populations (e.g., Carlson et al. 2004, Edin & Kefalas 2005).

## EXPLANATIONS

Social scientists offer a range of explanations for racial and ethnic differences in childbearing. For example, some suggest that discrimination and economic disadvantage limit black and Hispanic opportunities for success, providing teens with few reasons to delay childbearing (e.g., Hayes 1987). Macro-level processes such as mass incarceration and deindustrialization also constrain marriage, at least for blacks, leaving a higher proportion of blacks at risk of nonmarital childbearing (Wilson & Neckerman 1987). Another set of common explanations for racial and ethnic differences in childbearing focuses on racial and ethnic differences in attitudes. Some posit that African American culture may be more open to sexual relationships and childbearing outside of marriage either as a legacy of slavery and many generations of poverty (Moynihan 1965) or (less pejoratively) as a result of cultural roots in Western Africa (Pagnini & Morgan 1996, Therborn 2004). In

contrast, Hispanic cultures are purported to value marriage and childbearing more highly (East 1998, Erickson 1998), which may be why these groups marry early despite economic disadvantage (Oropesa et al. 1994).

In short, the set of social and economic factors contributing to racial and ethnic variability in childbearing is varied and complex. To better understand the specific mechanisms underlying key racial and ethnic differences in childbearing, we turn to a modified proximate determinants framework. This classic demographic approach focuses attention on the relatively small set of factors that directly determine whether a birth occurs to a particular woman at a particular time. Within this framework, social, economic, and cultural influences on fertility, such as those described above, must operate through one or more of these proximate determinants. A proximate determinants approach is useful partly because it breaks the childbearing process into stages, simplifying the analytical question at hand.

## A Proximate Determinants Framework

In contrast to outcomes such as marriage or migration, fertility is the result of an unusual social process, one that allows us to identify a set of specific conditions necessary for the outcome to occur. Demographers have organized these into a proximate determinants framework (Bongaarts 1978, Davis & Blake 1956). Although the specific determinants included in the framework have varied over time and across applications, at its broadest level a proximate determinants approach directs attention to factors that intervene before, during, and after the time of a possible conception. Nearly all births (98.5%) today are a result of sexual activity, despite growing use of in vitro fertilization technology (CDC et al. 2012). Thus, one set of proximate determinants describes sexual activity. Whether sexual activity results in a pregnancy depends on a host of factors, most prominently contraceptive use and sterilization, but also possibly (postpartum) fecundity. We refer



to this set of proximate determinants as conception factors. A final set of proximate determinants describes postconception factors, such as whether a pregnancy is carried to term (rather than miscarried or aborted). Depending on the specific childbearing outcome considered (e.g., nonmarital childbearing), marriage of a single mother may be considered as another relevant postconception factor.

As described above, racial and ethnic differences in overall levels of fertility have declined substantially in previous years. Nonetheless, substantial differences remain with respect to birth timing, relationship context, and unintended childbearing. Although a proximate determinants framework has been applied to explain racial and ethnic differences in the fertility of specific age or marital status groups (e.g., teens, unmarried women), it is less often used to explain variability in unintended childbearing. Below, we focus on key proximate determinants of fertility when explaining racial and ethnic variability in all three types of outcomes. We first identify which proximate determinant(s) are most important contributors to racial and ethnic differences in childbearing. We then turn to the question of how more distal social, economic, and cultural processes influence racial and ethnic variability in these most salient proximate determinants.

## Explaining Variation in Teen Childbearing

Rates of teen childbearing continue to be higher for black and Hispanic youth than for whites, but less so today than in 1990. Between 1991 and 2011, levels of sexual activity declined for black adolescents but did not change meaningfully among young Hispanic or white women [authors' tabulations based on the Youth Risk Behavior Surveillance System (CDC 1991–2011)]. Despite this convergence, black teens remain more likely than white or Hispanic teens to be sexually active, although differences are relatively modest. Roughly 44% of never-married black girls aged 15–19 report having had sex in the past year, compared with

38% of whites and Hispanics (Martinez et al. 2011, table 2).

Increases in contraceptive use, and especially condoms, have been more dramatic than shifts in sexual activity in recent decades (Santelli et al. 2009). Yet racial and ethnic disparities in contraceptive use remain. As of 2006–2010, roughly 89% of sexually active never-married white girls aged 15–19 used any form of contraception in the past three months, compared with 81% of black and 80% of Hispanic girls in the same age range (Martinez et al. 2011, table 12). Black and Hispanic girls are also considerably less likely than white girls to rely on the most highly effective methods of contraception (Martinez et al. 2011, table 12). Unlike the condom, highly effective reversible methods such as the birth control pill and intrauterine device (IUD) do not require interventions at the time of intercourse. This makes them more convenient to use, less dependent on the cooperation of a male partner, and less vulnerable to potentially impaired decision making under conditions of sexual arousal (Ariely 2009). These differences are reflected in considerably higher contraceptive failure rates under conditions of typical use for condoms than for methods such as the pill or IUD (Trussell 2011).

Although conception factors, such as patterns of contraceptive use and effectiveness, tend to increase the rates of teen pregnancy for blacks relative to whites, abortion (a postconception factor in the proximate determinants framework) offsets some of this gap. In other words, were it not for differences in abortion patterns, we would expect the racial/ethnic gap in teen childbearing to be larger still. In 1990, the abortion ratio (the ratio of abortions to all teen pregnancies ending in a live birth or abortion) was similar for whites and blacks, but since then it has declined for whites while it has held steady for blacks (Kost & Henshaw 2012). The abortion ratio for Hispanics is lower than for whites, and thus both conception and postconception factors lead to lower teen fertility rates among whites as compared with Hispanics (Kost & Henshaw 2012).

In sum, declines in teen sexual activity and increases in contraceptive use helped to reduce teen fertility and contributed to a general convergence in teen fertility rates among white, black, and Hispanic women. Yet considerable racial and ethnic differences persist in the prevalence of teen childbearing. For never-married women, only about 10% of the black-white difference in the teen fertility rate, and 5% of the Hispanic-white difference, can be explained by group differences in sexual activity (Kim & Raley 2013). Generally, improvement in contraceptive use has been the most important factor contributing to the decline in teen pregnancy over time (Santelli et al. 2007, Santelli & Melnikas 2010), and evidence suggests that conception factors are also key proximate determinants for racial and ethnic differences in teen fertility rates today (Kim & Raley 2013), although more research is needed to confirm.<sup>2</sup>

### Explaining Variation in Relationship Context

In 1980, all three proximate determinants—sexual activity among unmarried women, conception factors (e.g., contraceptive use patterns), and postconception factors (e.g., marriage in response to pregnancy)—were important to the higher levels of nonmarital fertility among blacks. Unmarried white women were less likely than black women to be sexually active (Cutright & Smith 1988). This was partly because white women had a later age at first sex, but it was also because most white women married within a short time of becoming sexually active. Unmarried white women in their twenties were also about twice as likely as unmarried black women these ages to be using contraception. Moreover, premarital pregnan-

cies were substantially less likely to be followed by a marital birth (shot-gun or dependent marriages) among black than white women, and unmarried black women were less likely to intentionally abort their pregnancies (Cutright & Smith 1988). Nonetheless, research strongly points to the decline in postconception marriage as the primary factor contributing to the growth in premarital fertility among black and white women coming of age in the 1960s through the 1980s (England et al. 2013).

Analyses of more recent periods suggest that postconception marriage is no longer as central to understanding racial and ethnic variation in nonmarital fertility rates because today relatively few premarital conceptions are followed by a marital birth. Among cohabiting white women who become pregnant, fewer than one-quarter marry before the birth (Lichter 2012). The proportion is even smaller among unmarried women who are not cohabiting, 13% (Lichter 2012). Consequently, racial and ethnic differences in postconception marriage can account for less than 20% of the difference in the nonmarital fertility rates of young white women compared with black or Hispanic women (Kim & Raley 2013).

In addition, sexual activity outside of marriage has become more similar among white, black, and Hispanic women, partly because declines in sexual activity among adolescents have been especially steep for black youth (Martinez et al. 2011). More importantly, cohabitation among unmarried women has increased substantially since the 1980s, especially among white and Hispanic women. Today, unmarried white and Hispanic women are more likely than blacks to be in a cohabiting relationship (Copen et al. 2012). Thus, racial and ethnic differences in the proportions of unmarried women who are sexually active are even more modest than they were in the 1980s.

As the level of unmarried sexual activity has increased and postconception marriage has declined, births to cohabiting women increased and racial/ethnic differences in nonmarital fertility rates have become more muted (Martinez et al. 2012). Considering relationship context

<sup>2</sup>Manlove and colleagues (2013) find contraceptive consistency, but not effectiveness of contraceptive method, to be associated with a reduction in the risk of a teenage birth. Yet, as argued above, these features of contraceptive use are strongly related, with method failure rates under typical use conditions strongly related to ease of consistent use.

more broadly, however, we noted earlier that fertility among solo women (i.e., unmarried and not cohabiting) continues to be higher among blacks than whites or Hispanics. Although differences in sexual activity and postconception marriage play a modest role, evidence points to conception factors as the most important for understanding racial and ethnic variation in solo fertility. Among sexually active solo women aged 15–24, pregnancy rates for whites are a quarter of the rate for blacks and half that for Hispanics (Kim & Raley 2013). Among both cohabitators and sexually active singles, black and Hispanic women are also less likely than white women to use any form of contraception (authors' tabulations, 2006–2010 NSFG).

### Explaining Variation in Unintended Childbearing

We previously noted that black and Hispanic women have higher levels of unintended childbearing than whites, whether one measures this as the proportion of pregnancies or births that are unintended or the rate of unintended pregnancies. To our knowledge, a proximate determinants framework has not been applied to unintended fertility, although it could be. For example, the unintended birth rate (i.e., the number of unintended births divided by the number of reproductive-age women) can be expressed as a function of the proportion of women who do not intend to become pregnant and the birth rate among these women. Similar to overall fertility, the birth rate among women who do not intend to become pregnant is a function of levels of sexual activity, contraception, and postconception factors (e.g., abortion, miscarriage). This analysis could be stratified by age or by relationship status to identify the life stages where racial and ethnic differences are largest. Of course, identifying which women are intending a birth is complicated. We return to this issue below.

Although we found no such analysis, prior work does suggest what it might find. Sexual activity is unlikely to be a key factor. We have already established that racial and ethnic dif-

ferences in the proportion of women who are sexually active in a given month are modest, and there is little reason to expect that this would be different among women not intending to become pregnant. Likewise, postconception factors, specifically abortion, do not appear to contribute to racial and ethnic differences in the unintended fertility rate. Black women with unintended pregnancies are more likely—and Hispanic women no less likely—to intentionally abort than are white women (Finer & Zolna 2014). Thus, racial and ethnic differences in the unintended pregnancy rate are larger than differences in the birth rate (Finer & Zolna 2014).

This leaves conception factors as the most likely to explain racial and ethnic variation in fertility rates among women not intending a birth. Among white women at risk of an unintended pregnancy, 9.5% are not using contraception, compared with 10.4% of Hispanic women (US-born and foreign-born women are similar) and 17.2% of black women (Jones et al. 2012, table 3). The period of infertility following pregnancies might also play some role, at least with respect to differences between blacks and whites. Many unintended births follow a previous delivery by fewer than 18 months (Gemmell & Lindberg 2013), and rates of breast-feeding, which temporarily lowers the risk of conception, are lower among blacks and Hispanics than among whites (Scanlon et al. 2010). To date, however, these differences remain insufficiently understood.

Despite what we might learn from applying a proximate determinants framework, the approach assumes that fertility intentions are measureable and temporally precede sexual activity, pregnancy, and miscarriage or abortion. Many women do not have fully formed intentions when they become pregnant (Santelli et al. 2003), and distinctions between intended and unintended pregnancies may be blurred (Bachrach & Newcomer 1999). Moreover, pregnancy intentions are not necessarily the same as feelings about a pregnancy, and both feelings and intentions might affect contraceptive use. Complicating matters further, women often hold both positive and negative feelings

about a potential pregnancy simultaneously (Miller et al. 2013) and are sometimes influenced by their perceptions about how their partner would feel about a pregnancy (Aiken & Potter 2013). Altogether, this makes the measurement of unintended pregnancy challenging and variable depending on approach and whether data are collected before or after pregnancy occurred (Trussell et al. 1999).

These concerns complicate the analysis of racial and ethnic differences in unintended pregnancy because the alignment between feelings and intentions may vary by race and ethnicity. Hispanic women are more likely than white women to report that they are happy about an unintended pregnancy (Hartnett 2012), and Hispanic women who experience contraceptive failure are more likely than similar whites to report disparate feelings and intentions (Aiken & Potter 2013). More work is needed on the correspondence between pregnancy feeling and intentions, how this varies by race/ethnicity, and how it relates to effective contraceptive use.

## Determinants of Contraceptive Use

Although sexual activity and postconception factors are also important to consider, we argue above that conception factors—and particularly contraceptive use—emerge as the most salient proximate determinants of racial and ethnic differences in teen childbearing, the relationship context of births, and unintended pregnancy. Moreover, potential barriers to contraceptive use arguably fall more squarely within the control of policy makers than other proximate determinants of fertility. We thus shift our focus now to more causally distal sources of racial and ethnic variability in childbearing: the social, economic, and cultural determinants of contraceptive use differentials.

Roughly half of women experiencing an unintended pregnancy used contraception during the month of conception, with most using a method inconsistently or incorrectly (Frost & Darroch 2008). Among contraceptive users, black and Hispanic women are less likely than white women to rely on the most effective

methods. For example, black and Hispanic women are more likely than white women to rely on condoms for birth control and less likely to rely on more highly effective reversible methods such as the birth control pill or IUD (Jones et al. 2012). Racial and ethnic differentials in use of effective contraception are magnified for women under age 25 or who are unmarried. For example, among sexually active single women aged 20–24, 4% of whites are using no method of contraception, compared with 18% of blacks and 15% of Hispanics (Kim & Raley 2013).

A variety of explanations for racial and ethnic disparities in contraceptive use have been considered. Differences between white and black women in contraceptive nonuse or choice of a highly effective method generally cannot be explained by background factors such as parity, insurance coverage, relationship status, or measures of socioeconomic standing such as education or family income (Dehlendorf et al. 2011, Gaydos et al. 2010, Huber & Huber 2009, Jacobs & Stanfors 2013, Manlove et al. 2011, Shih et al. 2011). Some evidence suggests, however, that socioeconomic factors may be a larger part of the explanation for disparities in contraceptive use between Hispanic and white women (Jacobs & Stanfors 2013). Other work suggests that the determinants of racial and ethnic differences in contraceptive use patterns may vary by age. For example, analyses of data from a large convenience sample of women from the St. Louis area point to similar levels of long-acting reversible contraceptive method use among black and white teens, but not relatively older women, when economic barriers to use of these methods are removed (Mestad et al. 2011, Secura et al. 2010). Although intriguing, the generalizability of these results should be confirmed with population-based samples.

Some measures of physical health and health behaviors that are associated with contraceptive use patterns also tend to vary across racial and ethnic groups. For example, obesity and diabetes are associated with an increased likelihood of contraceptive nonuse, both overall and relative to use of the birth control pill (Chuang et al. 2005, Huber & Huber 2009,

Vahratian et al. 2009). These patterns may reflect clinical guidelines regarding an elevated risk of negative health outcomes associated with combined hormonal contraceptive use for women with these and other specific health conditions (CDC 2010). Yet results from at least one study suggest that the association of contraceptive nonuse with obesity and diabetes results from sociodemographic factors rather than these conditions themselves (Vahratian et al. 2009). Moreover, relatively lower levels of contraceptive use among black and Hispanic women than white women are generally found to persist even after controlling for such differences in health status (Chuang et al. 2005, Huber & Huber 2009, Vahratian et al. 2009).

Differences in motivation to avoid pregnancy also appear unlikely to explain broad racial gaps in use of effective contraception. For example, in a pooled sample of unmarried women and men aged 18–29, foreign-born Hispanics were less likely than whites to say they would feel upset were they to become pregnant, but blacks were more likely than whites to report that they would be upset by an unplanned pregnancy once adjusting for differences in background factors such as school enrollment, educational attainment, and sexual experience (Hayford & Guzzo 2013). Moreover, among women with a recent unintended birth, white women are substantially more likely than Hispanic or black women to indicate that not using contraception at the time of conception was at least partially the result of not really minding if they became pregnant (Mosher et al. 2012). There is some evidence, however, that differences in motivation to avoid pregnancy may be relatively more important for understanding racial contraceptive use differentials among teens than among relatively older women. Among girls (and also boys) aged 15–19 who have never been married, a greater share of whites than Hispanics or blacks report that they would feel very upset if they became pregnant (or got a female pregnant) now (Martinez et al. 2011). This study does not adjust for basic background factors such as prior childbearing or socioeconomic background, however, and

the nature of selectivity introduced by limiting the sample to unmarried individuals differs for those aged 15–19 (e.g., Martinez et al. 2011) versus 18–29 years (Hayford & Guzzo 2013). More research is needed to determine if racial and ethnic differences in strength of motivation to avoid pregnancy vary by factors such as age, relationship status, gender, and socioeconomic standing. This work again highlights the complex nature of intentions and feelings regarding a possible pregnancy.

Some of the difference in use of effective contraception might stem from women's beliefs about their ability to become pregnant. Many young women underestimate their chances of getting pregnant after sex, which may weaken motivation to use effective contraception. Among unmarried young adults, white women are only about half as likely as black and Hispanic women to think that they may be infertile. Fully one-third of young unmarried Hispanic women report that it is extremely likely or quite likely that they are infertile (Kaye et al. 2009). Reasons for these differences remain insufficiently understood, however, and efforts to clarify their role in contraceptive use patterns are limited. Yet among women who had a recent unintended birth, the belief that pregnancy was not a possibility was cited by nearly half of Hispanic women as a reason for not using contraception at conception, compared with 35% of white women and 25% of black women (Mosher et al. 2012, table 6).

Racial and ethnic differences in contraceptive knowledge and attitudes may also play some role in contraceptive use differentials. For example, black and Hispanic women are substantially more likely than white women to underestimate the contraceptive effectiveness of the birth control pill (Kaye et al. 2009). The contribution of these perceptions to racial and ethnic differences in contraceptive use remains insufficiently understood. The ominous history of birth control in the United States—including the testing of early formulations of the birth control pill and coercive or compulsory sterilization policies that disproportionately affected the poor and racial

and ethnic minorities (Gordon 2002, Roberts 1997)—may also provide important context for contemporary attitudes toward contraception. Among young unmarried women, blacks and Hispanics are more likely than whites to express distrust toward the government's role in promoting contraceptives and ensuring contraceptive safety (Rocca & Harper 2012). These differences, however, do not appear to explain racial and ethnic differentials in contraceptive effectiveness (Rocca & Harper 2012).

A number of studies also report that black women express greater fear of side effects from birth control, and particularly from hormonal contraceptives, than do white women (Coles et al. 2011, Guzzo & Hayford 2012, Kaye et al. 2009). Although expecting negative side effects is associated with reduced use of hormonal and long-acting reversible contraceptive methods (Frost et al. 2012), the specific contribution of beliefs regarding contraceptive side effects to racial and ethnic differences in contraceptive choice remains unclear. Black women with a recent unintended birth are substantially more likely than white or Hispanic women to report fear of side effects of birth control as a reason for not having used contraceptive at the time of conception (reported by roughly 20% of black women, compared with 11% of Hispanic women and 12% of white women) (Mosher et al. 2012, table 6). Yet among women who have ever used hormonal contraception, racial and ethnic disparities in discontinuing the method due to dissatisfaction with side effects are no longer statistically meaningful once adjusting for differences in social background (Littlejohn 2012).

Rates of sexually transmitted infection (STI) vary substantially across racial and ethnic groups, with rates of new HIV diagnosis among black women a remarkable 20 times higher than among white women and five times higher than among Hispanic women (CDC 2013). Can the relatively higher use of condoms versus more highly effective pregnancy prevention methods among blacks and Hispanics than whites be explained by differential exposure to the risk of STIs? Condoms provide protection against

STIs, whereas more effective methods of pregnancy prevention such as the birth control pill or IUD do not. Although STI risk behaviors, such as having multiple or new sex partners, are associated with an increased likelihood of condom use and reduced likelihood of using one of the most effective contraceptive methods, racial and ethnic differences in contraceptive use differentials are generally found to persist even after controls for such behaviors (Jacobs & Stanfors 2013, Manlove et al. 2011). The research tends to focus on individual-level behavioral risk factors for STIs, paying relatively little attention to geographic or community-level variability in STI risk. Yet some research suggests that condom use is responsive to the state-level prevalence of AIDS (Ahituv et al. 1996).

In addition to potentially increasing STI risk, having a new partner may also make it more difficult to anticipate sex. Not expecting sex was reported more often by black women than by white or Hispanic women as a reason for not using contraception at the time of a conception preceding an unintended birth (Mosher et al. 2012, table 6). Increasing use of birth control methods that do not require interventions at the time of sex (e.g., hormonal methods, IUDs) would thus seem to have a particularly important role in reducing unintended pregnancy among black women.

The most effective contraceptive methods require access to a medical professional, and the fact that blacks and Hispanics have lower access to high-quality medical care relative to whites is well established (Smeadley et al. 2003). A small but growing body of research considers the role played by health-care providers in directing patients toward specific methods. To date, however, results are mixed, and studies focus primarily on counseling regarding highly effective method choices, such as sterilization or intrauterine contraception (e.g., Borrero et al. 2009, Dehlendorf et al. 2010). Other research suggests that problems obtaining birth control contribute to higher rates of contraceptive nonuse among black than white adolescents (Coles et al. 2011). More research is needed



in this area, particularly with respect to decisions to use condoms versus more effective contraceptive methods and the specific barriers to contraceptive access faced by women of color.

## DISCUSSION

After decades of convergence, completed family size in the United States is now similar for white, black, and native-born Hispanic women. Yet black and Hispanic women remain more likely than white women to have a teen birth, to give birth outside of marriage or outside of any coresidential union, and to have an unintended birth. Demographic research evaluates the relative importance of three sets of proximate determinants for understanding these differences: sexual activity, contraception, and postconception factors such as abortion or marriage in response to a pregnancy. The weight of existing evidence points to contraception as the most important proximate determinant contributing to racial and ethnic differences in these three key aspects of childbearing.

Black and Hispanic women are less likely than white women to consistently use effective, reversible contraception. Although reasons for these differences are not currently well understood, research points to several possible explanations. For example, relationship instability may make it difficult to anticipate sex and increase the incentives to use methods that can also reduce the risk of STIs. Relatively little is known about how racial and ethnic differentials in contraceptive use are shaped by counseling from individual health-care providers or the policy and geographic contexts of contraceptive accessibility, affordability, and STI risk. More information is also needed about the role played by beliefs regarding the risk of pregnancy after sex, the effectiveness of specific contraceptive methods, and the likelihood of side effects from contraceptive use. The development of more comprehensive explanations for racial and ethnic contraceptive use differentials would benefit from new data collection efforts that combine large and representative samples with

information about the communities in which individual contraceptive decision makers are embedded (e.g., STI risk exposure) and clear information on key aspects of reproductive attitudes and beliefs. Moreover, remarkably little work considers how processes generating racial and ethnic differences in contraceptive use may play out differently across groups defined by age or by socioeconomic standing.

The alignment, and sometimes misalignment, of reported childbearing intentions versus feelings about a pregnancy also remains a critical area for future investigation. Black and Hispanic women's expressed intentions may reflect their economic and social circumstances and not align well with their feelings, a situation that might interfere with effective contraception. Husbands' and partners' feelings about a potential pregnancy, or about contraception, might influence women's ability to realize their intentions or may lead to inconsistencies between women's own pregnancy intentions and feelings.

Socioeconomic status accounts for some of the association between race/ethnicity and fertility. Poverty and low levels of maternal education are clearly associated with higher rates of teen, nonmarital, and unintended fertility. Controlling for these background characteristics often reduces but does not eliminate racial and ethnic differences. This is partly because our measures of socioeconomic status are not comprehensive and often focus on factors most relevant to the lower end of the spectrum. This review indicates that racial/ethnic differences in childbearing patterns are greatest among women from the most advantaged backgrounds—a point that is often overlooked, particularly in research that focuses only on relatively disadvantaged populations (e.g., Edin & Kefalas 2005). Advantage in the family of origin (measured by maternal education) translates into lower levels of unintended fertility for whites, but less so for Hispanics and not at all for blacks (**Table 2**). Fewer than half of births to black women whose mothers have a college degree are intended, compared with nearly 80% among white women with



college-educated mothers. Hispanics fall in the middle. Some of the answer to this puzzle lies in racial inequalities in the middle class, not among the young and poor, the group that has received by far most of the attention. Racial and ethnic variability in social and economic resources is not limited to the bottom end of the social class spectrum and likely underlies racial/ethnic differences in contraceptive use patterns. More refined measures of such resources at the individual, family, and community levels are needed (Manlove et al. 2013).

A proximate determinants framework identifies conception factors as centrally important for understanding racial and ethnic differences in childbearing today. Although it is important to understand childbearing experiences among disadvantaged women, we also highlight the significance of racial and ethnic differences in childbearing among relatively advantaged

women. It appears that dramatic shifts in use and availability of highly effective reversible contraceptive methods—ushered in by the birth control pill's arrival in the contraceptive marketplace in the early 1960s—may have most revolutionized the lives of advantaged white women. Future work should consider the complex ways in which social institutions, as well as resources and risks embedded in local communities, appear to better support the efforts of white, advantaged women to achieve the families they desire. More attention is also needed to the broader social, economic, and cultural determinants of contraceptive use decisions among both women and men. At the same time, explaining the reasons for racial and ethnic differences in contemporary childbearing will require an improved understanding of the complex underpinnings of intentions and feelings regarding childbearing.

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