

## **Black-White Differences in Pregnancy Desire during the Transition to Adulthood\***

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### **Abstract**

This paper explores race differences in the prospective desire to avoid pregnancy or become pregnant using survey data on a random sample of 914 young women (ages 18-22) living in a Michigan county and qualitative analyses of 60 semi-structured interviews with a subsample of the women. Desire for pregnancy, indifference, and ambivalence are very rare, but are more prevalent among Black women. Qualitative analyses reveal that Black and white women do not differ with regard to whether they have specific family size and pregnancy timing desires. Compared to prospective measures of their pre-conception feelings about a potential pregnancy, pregnant Black women's retrospectively measured recollections of those pre-conception feelings were increasingly positive more frequently than pregnant white women's feelings were increasingly positive. Young women's consistent (over repeated interviews) expression of strong desire to avoid pregnancy and correspondingly weak desire for pregnancy, along with the lack of strong race differences in these desires, lead us to conclude that a "planning paradigm" – where young women are encouraged and supported in implementing their pregnancy desires – is probably appropriate for the majority of young women, and is similarly appropriate for Black and white young women.

### **Keywords**

Race differences, racial inequality, racial disparities, pregnancy desire, pregnancy, unintended

pregnancy, undesired pregnancy

According to nationally representative survey data, Black-white disparities in unintended pregnancy are large—Black<sup>1</sup> women retrospectively report 64% of their pregnancies as unintended, while the corresponding percentage for white women is only 38% (Finer and Zolna 2016). The unintended pregnancy rate for Black women is nearly two and a half times higher (79 per 1,000) than for white women (33 per 1,000) (Finer and Zolna 2016). The large race disparities in unintended fertility, as well as high overall levels of unintended fertility in the United States, have prompted ongoing public health efforts to reduce unintended fertility, but also growing concerns over whether women actually form fertility intentions and plans (Aiken et al. 2016; Gómez et al. 2019). In particular, persistent race differentials in unintended pregnancy rates motivate a closer examination of how the concept and its measurement differ for Black and white women.

If Black women are less able to fulfill their childbearing desires<sup>2</sup> than white women, this is an important social justice issue. However, many researchers have argued that the apparent Black-white disparity in undesired pregnancy arises from misunderstanding Black women's pregnancy desires. For example, it may be that young Black women want pregnancies, but later tend to report those pregnancies as undesired because they are reluctant to admit that they wanted a child (Dash 2003; Kearney and Levine 2012). Or, Black women may be less likely than white women to formulate specific desires related to pregnancy, or more likely to have feelings about pregnancy that fall somewhere between being clearly wanted or not wanted, and dichotomous measures tend to categorize those in-between pregnancies as undesired (Borrero et al. 2015; Kemet, Lundsberg, and Garipey 2018). Finally, a third possibility that has largely been

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<sup>1</sup> We capitalize the word “Black” to emphasize that it is an identity rather than a color (as “African American” is capitalized). Because most white people do not consider “white” an identity, we do not capitalize it. For further discussion, see <https://www.nytimes.com/2014/11/19/opinion/the-case-for-black-with-a-capital-b.html>.

<sup>2</sup> The most commonly used measures of “unintended” childbearing (including in the National Survey of Family Growth's) ask whether women *wanted* to get pregnant. Thus, we use the term “undesired.” This is consistent with other research (e.g., see (Kost, Maddow-Zimet, and Kochhar 2018; Kost and Zolna 2019).

ignored is that Black women's feelings about their pregnancies may become increasingly negative over the course of their pregnancy or after their child is born, relative to white women's more stable or increasingly positive feelings about their pregnancies, particularly if they experience discrimination or other negative responses to their pregnancies. Any of these possibilities could lead to an overestimate of racial inequality in unintended pregnancy.

To address this gap in knowledge, we consider three research questions. First, we address whether young Black women prospectively (before pregnancy) express more desire for pregnancy than white women. Second, we consider whether Black women's pregnancy desire is less likely to be dichotomous by assessing whether Black women are more frequently ambivalent or indifferent toward pregnancy than white women. Third, we test whether Black women who were prospectively pronatal, ambivalent, or indifferent toward pregnancy are more likely than similar white women to retrospectively report their pregnancies as undesired. We draw on two types of data to measure pregnancy desires: (1) unique survey measures of prospective desire *for* pregnancy and desire to *avoid* pregnancy, and (2) open responses to in-person semi-structured interview questions about whether, how many, and when they want (or not) a(nother) baby. We focus on a particularly important point in the life course – the transition to adulthood, ages 18 through 22, the age group where rates of undesired childbearing are highest (Finer and Zolna 2016).

## **POTENTIAL RACE DIFFERENCES IN DESIRE FOR PREGNANCY**

Our first research question examines the extent to which young Black women have more or less desire for pregnancy than their white counterparts. Our reasoning for this hypothesis is based on Arline Geronimus' influential ideas about *weathering* (Geronimus 1992; Geronimus 2003; Geronimus et al. 2006), a biopsychosocial framework for understanding early health

deterioration among Black Americans due to discrimination and stress. Geronimus uses this framework to explain why older Black women have less healthy births (e.g., lower birthweight and higher infant mortality) than Black women who enter motherhood young, as well as why different race/ethnic minority groups generally tend to become parents at ages that minimize their group-specific health risks (Geronimus 1992; Geronimus 1987). If young Black women are aware of the potential negative consequences of delaying childbearing, they may *want* to enter motherhood while young to maximize their chances of a healthy pregnancy and birth. In addition, given higher morbidity and mortality rates at younger ages among Black relative to white people, a younger age at first birth may also maximize the chances that parents and other family members are available to help care for the baby.

Even young Black women with high educational aspirations and potential may prefer younger first births if they are aware that highly educated Black women also experience the effects of weathering (Geronimus et al. 2006; Schoendorf et al. 1992). Further, most causal analyses demonstrate only small negative consequences of teen childbearing on educational outcomes, and few, if any, negative consequences for parenting quality (Fletcher and Wolfe 2009; Geronimus and Korenman 1992; Hotz, McElroy, and Sanders 2005; Kane et al. 2013; Lee 2010). Even if young childbearing does slightly reduce their educational attainment, Black women already face more limited opportunities for education than white women. Consequently, what economists call “opportunity costs” of young childbearing are likely lower for Black women.

A second, related reason that young Black women (as well as older Black women) may have a stronger desire for motherhood is because they disproportionately live in concentrated poverty in impoverished neighborhoods (Lichter, Parisi, and Taquino 2012), and uncertainty and instability of all types are endemic to this concentrated poverty. Burton and Tucker (2009) and

Levine (2013) describe the instability and insecurity that pervade the lives of poor Black women—employment opportunities that are limited to intermittent and low-wage jobs, few alternatives (e.g., stably employed husbands) to reduce their breadwinner burden, transient living conditions, anxiety about serious relationships, fear of death, and general mistrust. Because women view children as an available path to stability for themselves and hopefully for the fathers as well, motherhood is valued and sought after (Burton 1990; Edin and Kefalas 2005). This is also consistent with demographers’ “uncertainty-reduction” theory that having children is a key source of stability for individuals whose other options for making life seem more predictable and secure (e.g., marriage, careers, retirement savings) are limited (Friedman, Hechter, and Kanazawa 1994).<sup>3</sup> Thus, women living in uncertain conditions, such as those experienced by many Black women in the United States, may desire pregnancy at a younger age than other women. Due to residential segregation and discrimination in the Black population, even at high levels of income and/or education, these race differences may exist regardless of socioeconomic characteristics.

Weathering and uncertainty/instability form the basis of our first hypothesis:

*H1: Black women have more desire for pregnancy (and/or correspondingly less desire to avoid pregnancy) during young adulthood than their white counterparts.*

However, women’s feelings about pregnancy are complex, and there has been considerable debate about their appropriate measurement, including many calls for more

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<sup>3</sup> There is also a long history of macro-level hypotheses that fertility increases during stable prosperous economic periods and decreases during the uncertain/unstable periods of economic downturns (for a review, see Sobotka, Skirbekk, and Philipov 2011). However, consistent with our hypothesis and the uncertainty-reduction assumption’s individual-level focus, other researchers have found an interaction effect with education—highly educated women postpone parenthood in times of uncertainly, while those with less education respond to uncertainty by entering parenthood (Kreyenfeld 2010).

complex measurement strategies (Klerman 2000; Kost and Lindberg 2015; Rackin and Morgan 2018; Santelli 2003; Santelli et al. 2009). Researchers have also questioned whether the concept of pregnancy desire itself is equally complex across different groups of women (Borrero et al. 2015; Foster et al. 2008; Moos et al. 1997; Stones, Stulberg, and Bello Kottenstette 2017). For example, Kemet and colleagues (Kemet et al. 2018) recently wrote that “pregnancy intention may not be entirely representative of the multidimensional and intersecting social, emotional, cognitive and contextual aspects of pregnancy that *Black and Hispanic women* face,” and that “traditional measures of pregnancy intention [desire] may offer an incomplete representation of *Black and Hispanic women* in particular” [emphases added].

More broadly, there is general concern that these concepts, especially planning, apply primarily to white women, with their corresponding socioeconomic advantage. In a recent theoretical critique of what they call the “planning paradigm,” Aiken and colleagues (Aiken et al. 2016) emphasized that the complexity and fluidity of pregnancy desires, along with differing norms, stigma, and levels of fatalism, may make the entire concept of pregnancy planning, and thus attempts to measure unintended pregnancy, inapplicable for some groups of women. The implicit suggestion is that some women let things unfold naturally—they decide not to decide—and thus have younger first births. Empirically, this circumstance might be observed as indifference toward pregnancy—low desire for pregnancy and low desire to avoid pregnancy.

In contrast, Geronimus suggests that Black women are not less intentional or planful than white women. However, Black communities’ support of young parenthood could encourage young births, especially when parenthood norms are buttressed by higher rates of religious attendance and the corresponding pro-family and pro-childbearing orientation of religious groups (Chatters et al. 2009; Lincoln and Mamiya 1990; Mollborn 2017; Steensland et al. 2000). Thus, if young Black women simultaneously internalize local norms *and* the conflicting norms of



society against young parenthood, they may have ambivalence—positive *and* negative feelings—about young pregnancy (Mollborn 2017; Sennott and Yeatman 2018). Indeed, researchers have documented high levels of ambivalence among some urban minority women (Aiken and Potter 2013; Cutler et al. 2018; Francis et al. 2015; Yoo, Guzzo, and Hayford 2014). Alternatively, if the conflicting messages cause them to internalize *neither* set of norms, indifference about young pregnancy may be the result.

Thus, our second hypothesis:

*H2: Young Black women are more indifferent and/or ambivalent about pregnancy than their white counterparts.*

Finally, we also consider a third potential race difference in pregnancy desires—that regardless of their prospective desire for pregnancy, Black women become more negative about their pregnancies after conception. There are at least two reasons this may be the case: the material conditions in which young Black women experience their pregnancies, and the cultural stigma attached to young, Black pregnancies.

First, young Black women have less access to stable high-paying jobs, to partners with stable high-paying jobs, and to partners more generally, relative to white women (Raley, Sweeney, and Wondra 2015; Wilson 2012). They are less likely to be married when they conceive, compared to white women, and their intimate relationships may be more conflictual or partner-dominated than white women's (Broman 2005). Many young women hope to change these circumstances – their own employment, their partner's employment, or the quality of their relationship – before becoming pregnant, or between conception and the baby's birth (Edin & Kefalas 2005). If young Black women are less able to improve these circumstances than white

women, they may be more likely than white women to become more negative toward their pregnancies as they come to grips with these circumstances.

Second, although young Black women have likely experienced racism in the past, they may be unprepared for the intersectional stereotyping – based on their identities as young, Black, and (likely) unmarried – they experience as a result of their pregnancies (Cole 2009; Rosenthal and Lobel 2016). Negative attitudes toward young black mothers are fueled by pernicious stereotypes about promiscuity (“Jezebel”) and public assistance (“welfare queen”) (West 2008; Woodard and Mastin 2005). As a result, they may experience discrimination by their reproductive health care providers (Shavers et al. 2012), employers (Kennelly 1999), peers (Rosenthal and Lobel 2016), and others.

Thus, based on material conditions and stigma, we hypothesize that:

*H3: Young Black women’s feelings about their pregnancies may be more likely than white women’s feelings to become increasingly negative after conception.*

## **DATA AND METHODS**

### ***Study Design***

The Relationship Dynamics and Social Life (RDSL) study was based on a simple random sample of the population of young women, ages 18–19, residing in Genesee County, Michigan. The sample of 1,003 young women was drawn from driver’s license and personal ID card records. A 60-minute face-to-face baseline survey interview was conducted between March 2008 and July 2009 to assess sociodemographic characteristics, attitudes, and early experiences related to pregnancy. Sampled respondents were mailed a \$5 bill in an advance letter and were paid \$30 to participate in the baseline interview. The response rate was 84% (94% of located respondents

agreed to participate).

At the conclusion of this baseline interview, respondents were invited to participate in a 2.5-year follow-up study with weekly online or telephone surveys assessing intimate relationships, sex, contraceptive use, pregnancy desire, and pregnancy. They were offered additional incentives to participate in the weekly surveys: \$5 per interview for the first four weeks, and afterwards \$1 per interview with \$5 bonuses for on-time completion of five interviews in a row. In all, 992 of the baseline interview respondents (99%) agreed to participate in the follow-up study and completed their first follow-up interview at the conclusion of the baseline interview. Of these respondents, 953 (96%) completed at least one survey after the baseline interview; 84% remained in the study for at least 6 months; 79% continued for at least 12 months; and 75% continued for at least 18 months. The follow-up study concluded in January 2012 and yielded 58,594 weekly interviews. The analytic sample for these analyses is described in greater detail below.

The RDSL Principal Investigator and Research Assistants conducted semi-structured interviews throughout the study period, beginning in August 2009 and concluding in June 2011. All interviews were transcribed verbatim and text was categorized by topic in NVivo. The interviews lasted 60-90 minutes, and respondents were paid \$40 for participating. The first set of semi-structured interviews was conducted with respondents who reported a pregnancy during the study period. To ensure breadth in the information collected, four types of respondents were chosen, until approximately 10 interviews had been conducted with each group: poor white, poor non-white, non-poor white, and non-poor non-white. Receipt of public assistance was used to identify poor respondents, and survey questions about self-identified race (described below) indicated white and non-white respondents. Forty-five interviews were conducted with pregnant respondents. Two did not consent to be recorded, and the recorder malfunctioned for another

interview. Two additional interviews did not result in usable data—one respondent seemed to be fabricating or dramatically embellishing her stories, and the other was non-participatory and distracted. Two respondents were neither Black nor white, and we omit those interviews from this analysis. In total, we use 38 transcribed and coded interviews; 19 of the women were Black and 19 were white.

At the conclusion of the weekly follow-up study, 32 respondents with high model-based estimates of propensity for pregnancy, but who did not experience pregnancy during the study, were identified for comparison interviews. These interviews were also spread across race and public assistance categories. One respondent became pregnant before the interview (we include this woman in our analysis). Nineteen of the women were Black and thirteen were white.

### *Measures*

*Survey Measures of Pregnancy Desire.* In each weekly survey when they were not pregnant, young women were asked multiple questions about their prospective pregnancy desire. In this analysis, we use two of those questions to create multiple measures of prospective desire for a potential pregnancy. The questions and response options are as follows:

*Desire for pregnancy:* How much do you want to get pregnant during the next month? (0 = not at all want through 5 = really want)

*Desire to avoid pregnancy:* How much do you want to avoid getting pregnant during the next month? (0 = not at all want to avoid through 5 = really want to avoid)

These two questions were preceded by an introduction, designed to encourage mis-matching reports of the different desires, “You know, getting pregnant and having a baby is a big event, one that has a lot of consequences. Most people your age have some positive and some negative feelings about getting pregnant and having a child. For this reason we are going to ask you first

how much you want to get pregnant, using a scale from 0 to 5. Then we are going to ask you how much you want to avoid getting pregnant, using a scale from 0 to 5.”

We use these questions to create two dichotomous measures of pregnancy desire. First, because respondents rarely gave non-zero responses to the question about desire for pregnancy, and because any non-zero response strongly predicted subsequent pregnancy (Miller, Barber, and Gatny 2013), we code scores of 1, 2, 3, 4, or 5 (anything but zero desire) as 1 for *any desire for pregnancy*. Similarly, we code a score of 5 (strongest possible desire) in response to the question about desire to avoid pregnancy as 1 for *strongest desire to avoid pregnancy*.

We also use these two questions to create a *categorical combined measure of pregnancy desire* based on previous research using these questions (Miller et al. 2013). First, desire for pregnancy and desire to avoid pregnancy are dichotomized into strong (the top half of response categories: 3, 4, 5) and weak (the bottom half of response categories: 0, 1, 2). Next, we combine these two dichotomies into the following four categories: *pronatal* = strong desire for pregnancy + weak desire to avoid pregnancy; *ambivalent* = strong desire for pregnancy + strong desire to avoid pregnancy; *indifferent* = weak desire for pregnancy + weak desire to avoid pregnancy; and *antinatal* = weak desire for pregnancy + strong desire to avoid pregnancy. We further divide *antinatal* into two categories. *Strong antinatal* is the special case in which the desire for pregnancy was the weakest category (0) and the desire to avoid pregnancy was the strongest category (5). The remainder of the antinatal category is called *moderate antinatal*. We also created a measure of each respondent’s *modal categorical combined pregnancy desire*, indicating her most frequent category throughout her weekly interviews.

In each weekly survey, respondents were asked, “Do you think there might be a chance that you are pregnant right now?” Respondents who answered “yes” were asked, “Has a pregnancy test indicated that you are pregnant?” When they reported a pregnancy, a series of

questions asked them to remember whether they wanted a pregnancy before they conceived. Pregnant women were asked, “Before you found out you were pregnant, did you want to become pregnant at some time in the future?” Those who said no are coded as undesired. Those who said yes were asked, “Did you become pregnant at about the right time, earlier than you wanted, or later than you wanted?” Those who responded “at about the right time” are coded as desired. Those who responded “earlier than wanted” are coded as undesired. Only three respondents answered “later than wanted” about their pregnancy, which precludes coding them as a separate category. Thus, because they likely have more in common with desired pregnancies than with undesired pregnancies, we code them as desired.

For women who reported a pregnancy, we create a measure of change in pregnancy desire by comparing a measure of their retrospective recollection of pre-conception pregnancy desire to their prospective categorical combined measure of pregnancy desire, as reported in the interview prior to the estimated week the pregnancy was conceived. (The estimated date of conception is based on the week the pregnancy was reported, the due date {which was updated during the weekly interviews}, the father as identified by the respondent, the weeks in which she had sex with the father, and/or the birth date {if during the study period}). *Change in pregnancy desire* is coded in two ways, as shown in Figure 1. Method A is conservative in regard to change – only switches from antinatal to desired (became more positive) and from pronatal to undesired (became more negative) are coded as change. Method B codes those switches as changes, as well as from ambivalent/indifferent to desired (became more positive) and from ambivalent/indifferent to undesired (became more negative).

[Figure 1]

***Semi-Structured Interview Measures of Pregnancy Desire.*** The interviewers asked semi-structured interview respondents how many children they wanted when their family was

complete (*number*) and when (if ever) they wanted a(nother) pregnancy in the future (*timing*). Women were not explicitly asked whether they had mixed feelings (ambivalence) or lack of feelings (indifference) about these childbearing desires. However, we inductively developed two categories while reading the transcripts—“specific” and “vague” responses (and “not applicable” for women who were not asked a specific question), with vague responses indicating potential indifference. For number, we coded as specific any number or range of two numbers (e.g., two or three children). For timing, we considered any response that gave a specific number of years or a specific age, or a range of up to two years, as a specific response (e.g., age 21, or ages 25-27).

**Demographics.** In the baseline survey, all respondents were asked, “Which of the following groups describe your racial background? Please select one or more groups: American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Black or African American, or White.” Those who chose multiple groups were asked which of the groups “best describes your racial background?” Our measure is coded 1 for *Black* and 0 for *white*. (The 8% of respondents who indicated Latina ethnicity in a preceding question are coded according to their response to the question about race.) Two percent of the respondents reported another race (Asian, Pacific Islander, or Native American) or did not identify a race; they are not included in our analyses.<sup>4</sup>

Birthdate was taken from the driver’s license and personal ID card records used to choose the sample, and verified at the baseline interview. Birthdate and the date of the baseline interview were used to create the continuous variable *age at baseline*, which is coded in exact

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<sup>4</sup> We recognize the inherent limitations in this dichotomous simplification of Black and white women’s race. Women’s conceptualization of their race can be nuanced, and it varies over time and space (Alba, Insolera, and Lindeman 2016; Saperstein and Penner 2012). We focus on this simplified categorization for parsimony, with the hope that this research will spur additional research on this complex topic. In addition, we focus exclusively on *race* and not *ethnic* differences, again for parsimony. All respondents who indicated Latina ethnicity also indicated that they were either Black or white, and their small numbers preclude a separate analysis. Removing the Latina women from the analysis does not change the results or our conclusions.

years.

Respondents who indicated that religion was “very important” or “more important than anything else” are coded as *highly religious*.

***Childhood Disadvantage.*** We use four indicators of *childhood disadvantage*: mother had a teen birth; mother had less than a high school education; grew up in a non-two-parent family (grew up with one biological parent only or in another arrangement, such as with grandparents or an aunt); and/or received public assistance during childhood.

***Current Socioeconomic Characteristics.*** *High school GPA* is included as a continuous variable to indicate educational attainment up to the time of the baseline interview as well as the potential for future attainment. Respondents were coded as *receiving public assistance* if they reported receiving assistance at the time of the baseline interview from at least one of the following sources: WIC (Women, Infants and Children Program), FIP (Family Independence Program; temporary assistance to families with children), cash welfare, or food stamps.

***Adolescent Experiences Related to Pregnancy.*** Four dichotomous variables represent adolescent experiences (before the baseline interview) related to pregnancy: age at first sexual intercourse  $\leq 16$ , two or more sexual partners, ever had intercourse without using contraception, and had one or more pregnancies. All questions were asked at the baseline interview and referred to the past.

### ***Missing Data***

***Survey Data.*** Because the questions about pregnancy desire refer to the upcoming month, only weekly interviews that were completed more than 30 days after the prior interview (4%) result in a gap in the continuous record of pregnancy desire. For those periods, we use the pregnancy desires from the prior interview. Women skipped the questions about pregnancy



desire very infrequently (<1% of weeks), but they were not asked about their pregnancy desire when they thought they might be pregnant (5% of non-pregnant weeks). In those cases, we use the measure of pregnancy desire from the interview before they thought they might be pregnant.

Missing data for all other variables is multiply imputed (using *mi* in Stata) with 10 iterations (by default). The percent of cases multiply imputed is presented in Table 1.

Overall, our analytic sample is 53,063 weekly interviews with 914 respondents, 597 white and 317 Black, who reported 224 pregnancies during the study period. Ten pregnancies are missing data on the dependent variable – recollection of pre-conception desire for pregnancy – those pregnancies are not included in our regression model (described below). We also conducted a sensitivity analysis where that variable is multiply imputed. We report those results below.

***Semi-Structured Interview Data.*** Eight Black respondents and two white respondents were not asked *any* of the questions about pregnancy number or timing desires. In some cases, the interviews focused on other topics the respondents wanted to discuss (e.g., a pregnant respondent’s relationship with her partner and plans for the baby). In others, the interviewer felt that the respondent was discouraging her from asking about specific childbearing desires (e.g., if the respondent made it clear her current pregnancy was unplanned and causing her significant anxiety). And in some cases, another person was present in the interview (e.g., a child or partner). In all, we use 30 interviews with Black women and 30 interviews with white women in our analyses (out of 38 interviews with Black women and 32 interviews with white women).

In some cases, the opportunity to ask about one or more of the topics did not arise naturally during an interview. For example, one young woman said that she “maybe wanted to be a mom someday” (vague response), which did not flow naturally into asking her *when* she wanted a pregnancy. In addition, if the respondent said she did not want additional children

(specific response), she was not asked *when* she wanted additional children or about her reasons for delaying pregnancy. In all, six Black women and two white women were not asked how many children they wanted; five Black women and eight white women were not asked about when they wanted a(nother) pregnancy.

### ***Analytic Strategy***

To test hypotheses 1 and 2, we began by examining the frequency distributions of the survey measures of desire for pregnancy and desire to avoid pregnancy, including ambivalence and indifference. We used bivariate regression to determine whether differences were statistically significant by race (because *t*-tests and chi-square tests are not readily available when using Stata's *mi* procedure).

Next, further focusing on hypothesis 2, we present our inductive qualitative analysis of number and timing desires, using the semi-structured interview data to look for evidence of indifference or spontaneous mentions of ambivalence. For these analyses, we extracted the excerpts that were in any way related to pregnancy desire, read them in their entirety, and developed categories based on the data (see description of measures, above). We present tabulations, separate by race, in Figure 2, and give representative examples of verbatim responses in Table 3.

Next, to test hypothesis 3, we first present cross-tabulations of prospective and retrospective pregnancy desire, for pregnant women, stratified by race. We next estimate two multinomial logistic regression models of change over time in pregnancy desire, which compare the log-odds of being in two categories – became increasingly negative, and became increasingly positive – to the reference category: no change. We report coefficients, which represent the estimated additive effect of the independent variable on the log-odds of increasing desire versus

no change and decreasing desire versus no change. In the text, we also convert these log-odds into additive probabilities for ease of interpretation.

## RESULTS

### *Sample Characteristics*

Table 1 describes the characteristics of the sample—overall and separately by race. Twenty-two percent of the young women got pregnant during the study period – 24% of Black women and 18% of white women (significant difference,  $p = .028$ ). Thirty-five percent of the sample was Black. Average age at the baseline interview was 19.19 years.

Other demographic research has compared the full RDSL sample to the NSFG’s nationally representative sample of 18- and 19-year-old women (Ela and Budnick 2017), demonstrating that the RDSL sample is similar to the corresponding NSFG sample, with a few exceptions. The RDSL women are slightly more religious (58% vs. 45%), more likely to have a mother who gave birth as a teen (37% vs. 29%), and more likely to have experienced a teen pregnancy themselves (25% vs. 19%). However, the proportion of the sample that is Black in RDSL is nearly double the proportion of Black respondents in NSFG’s sample (35% vs. 16%), which likely at least partially explains these discrepancies.

[Table 1]

The mean high school GPA in the sample was 3.16, with 3.05 for Black women and 3.21 for white women. Twenty-six percent were receiving public assistance at the time of the baseline interview, including 41% of Black women and 18% of white women.

In addition to adolescent pregnancies, Black women had more adolescent experiences related to pregnancy, on average, than white women. Fifty-two percent of the sample had sexual

intercourse at age 16 or younger, or more specifically, 62% of Black women and 47% of white women. Seventy percent of Black women and 54% of white women had two or more sex partners, and 61% of Black women and 41% of white women had sex without birth control. The only exception was living with a cohabiting partner at the time of the baseline interview—only 9% of Black women were doing so, compared to 17% of white women.

### ***Desire for Pregnancy and Desire to Avoid Pregnancy (Hypothesis 1)***

Table 2 shows descriptive statistics for the multiple survey measures of pregnancy desires. Overall, both Black and white women had low desire for pregnancy during these ages—only 38% of women ever expressed any (non-zero) desire for pregnancy. Mean desire for pregnancy was .24 on a scale from 0 (not at all) to 5 (really want).

[Table 2]

Even among the 337 women who ever expressed any desire for pregnancy, the strength of that desire was low—the mean was .64 (on the scale of 0 to 5). The consistency of their desire was low, as well—they expressed such desire in only 21% of their weekly interviews.

The only significant race difference in desire for pregnancy is that more Black women ever had *any* (non-zero) desire for pregnancy than white women (46% vs. 33%, respectively). However, they did not differ in terms of the strength or consistency of their desire.

Correspondingly, desire to avoid pregnancy is very high at these ages. Fewer than half (45%) of the women ever had anything less than the strongest desire to avoid pregnancy. The mean desire to avoid pregnancy was 4.73, on a scale from 0 (not at all) to 5 (really want to avoid). Even among the 404 women who, at some point, had something other than the strongest desire to avoid pregnancy, desire to avoid pregnancy was strong (mean = 4.41) and relatively consistent (mean = 79% of interviews).

The only race difference in desire to avoid pregnancy is that more Black than white women ever had something other than the strongest desire to avoid pregnancy—54%, versus 41% of white women. However, those women did not differ in the strength of their desire to avoid pregnancy or in the consistency of their desire to avoid pregnancy.

### ***Ambivalence and Indifference (Hypothesis 2)***

Table 2 also shows that women's desire for pregnancy and desire to avoid pregnancy tend to align—women reported zero desire for pregnancy and the strongest desire to avoid pregnancy (strong antinatal) in the vast majority (91%) of their weekly interviews. Moderate antinatal desire was the next most common combination, but occurred in only 3% of interviews. Pronatal desire—strong desire for pregnancy and correspondingly weak desire to avoid pregnancy—occurred in 2% of interviews. Overall, inconsistent responses to the two questions were quite rare (3%): 2% for ambivalence (strong desire for pregnancy and strong desire to avoid pregnancy) and 1% for indifference (weak desire for pregnancy and weak desire to avoid pregnancy).

The frequencies for Black and white women are similar and differ in only in the inconsistent categories: Black women more frequently expressed ambivalence (4% vs. 2%) and indifference (2% vs. 1%). Although both categories were very rare among both Black and white women, the race differences are statistically significant. Thus, Black women expressed inconsistent desires more frequently than white women.

Looking at the modal measure of categorical pregnancy desire for each woman, the inconsistent categories are even rarer. That is, although women occasionally expressed discrepant levels of desire for pregnancy and to avoid pregnancy, to do so regularly was quite rare—only 1% ( $n = 13$ ) of women were most frequently ambivalent, and only two women were

most frequently indifferent. The race difference in being modally ambivalent is not statistically significantly different from zero. It is impossible to calculate the race difference in indifference, because only two women were modally indifferent (one Black and one white).

In the semi-structured interviews, no women expressed ambivalence—for example, no one expressed desire for both a large and a small family, or desire to have a pregnancy soon but also a desire to wait. Instead, we assess whether women gave vague responses to the questions as a potential indicator of indifference.<sup>5</sup>

In all, 24 Black women and 28 white women reported on the total *number* of children they wanted. Figure 2 shows that roughly similar proportions—54% ( $n = 13$ ) of the Black women and 46% ( $n = 13$ ) of the white women—gave specific answers. Table 3 provides examples of vague and specific responses by Black and white respondents. All responses were easily coded as vague or specific. For example, “*Three, my current two kids plus one more*” (specific) and “*I want to be a mom in the future*” (vague).

[Figure 2]

[Table 3]

Overall, 25 Black women and 22 white women reported on *when* they wanted to have a child (*another* child for those who were currently pregnant). Figure 2 shows that 68% of Black women and 59% of white women gave specific answers. Many women gave a specific age, or even more frequently a two-year window (e.g., 26-27), which was coded as specific. Vague responses were easily identified. Table 3 provides examples of vague and specific responses by Black and white respondents. For example, “*Age 25 to 26*” (specific) and “*There is no perfect age*” (vague).

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<sup>5</sup> Recall that this analysis uses two distinct subsets of the survey respondents—women who were currently pregnant and otherwise similar women who never reported a pregnancy during the study. We discuss this in the Limitations section, below.

***Change over Time in Pregnancy Desire (Hypothesis 3)***

Table 4 shows the cross-tabulation of prospective and retrospective pregnancy desire, separate for pregnant Black and white women, using both methods of coding change (see description in Measures, above). Note that in both methods, we combine the ambivalent and indifferent categories because they are so uncommon among the pregnant mothers.

[Table 4]

As Panel A shows, although pregnant Black women were substantially less likely to have been prospectively pronatal than white women (4% vs. 19%; see “Total” columns), they retrospectively reported similar proportions of their pregnancies as desired at the time of conception (17% and 19%, respectively; see totals for “Desired” columns). In other words, Black women did *not* become more negative about their pregnancies over time. In fact, 77% (3% + 74%) of pregnant Black women had stable pregnancy desires, while 14% became more positive and only 9% became more negative. Among white women, 72% (9% + 63%) remained stable, and the pattern of change was reversed – while 10% became more positive, a larger percent (18%) became more negative.

Multinomial logistic regression models, shown in Table 5, confirm that Black women are less likely than white women to become increasingly negative about their pregnancies after conception, and that Black and white women do not differ in their log-odds of becoming increasingly positive about their pregnancies. Model 1 shows the bivariate association between race and changing pregnancy desire, which is not statistically significant (both p values are between .05 and .10). However, Model 2 indicates that once control variables are added to the model, the race difference is significant and substantial, with Black women having 1.26 lower log-odds than white women of becoming increasingly negative about their pregnancies. (Note that 1.26 lower log-odds translates into an odds ratio of .28, or a 72% lower odds.) This is

because young women whose mothers did not graduate from high school are particularly unlikely to become more negative about their pregnancies, and are in fact likely to become more positive, and these women are overrepresented among young Black mothers.

We also re-estimated the multinomial logistic regression model using method B (shown in Panel B of Figure 1 and Table 4), instead considering ambivalent or indifferent women as becoming more positive if they retrospectively reported their pregnancies as desired and becoming more negative if they retrospectively reported their pregnancies as undesired (rather than coding them as “no change”). Under this scenario, only one Black woman (1%) became more negative toward her pregnancy after conception, while 12 white women (10%) did so.

## **DISCUSSION**

Our analyses contribute to the understanding of whether young Black women’s pregnancy desires differ from white women’s. We found some evidence that Black women have more desire for pregnancy or lower desire to avoid pregnancy at these young ages – they are more likely than white women to ever have any non-zero desire for pregnancy, and more likely to ever have anything but the strongest desire to avoid pregnancy. However, the Black and white women who ever had any non-zero pregnancy desire, or who ever had anything but the strongest desire to avoid pregnancy, did not differ from one another in terms of the strength or frequency of their desires. Overall levels of desire for pregnancy were very low and overall levels of desire to avoid pregnancy were very high, even among this group. We also found slightly more ambivalence and indifference among Black women in the survey measures of desire, although both are rare at these ages, regardless of race. In the semi-structured interviews, no women spontaneously described any ambivalence. However, a sizable minority of women – more Black than white – did not give specific answers about how many children they wanted or when they



wanted a(nother) pregnancy, which may indicate indifference. Thus, although some small differences exist in pregnancy desires between Black and white women, our analyses provide only weak support for the hypotheses that young Black women are more likely to desire pregnancy than young white women, or that Black women have less specific or less focused desires.

The vast majority of young women in the RDSL sample have no desire for pregnancy and the strongest possible desire to avoid pregnancy, and they report those feelings the vast majority of the time. A majority of pregnant women, both Black (74%) and white (63%), prospectively reported that they did not want a pregnancy and, after they conceived, retrospectively recalled that they did not want their pregnancy before it was conceived. Black women were more likely than white women to become increasingly positive and were less likely than white women to become increasingly negative (Table 5). Black women were also more likely to become increasingly positive than to become increasingly negative (Table 4). White women, on the other hand, became increasingly negative more often than they became increasingly positive.

Although our results can be loosely interpreted as consistent with the idea that weathering or instability leads Black women to want pregnancy more than white women at these young ages, we did not find particularly strong evidence of this race difference. We also found very limited evidence that young Black women's feelings about pregnancy are more ambivalent and/or indifferent than young white women's, and evidence from the semi-structured interviews of the opposite. And finally, we found no evidence, and some evidence to the contrary, that Black women become more negative (or report more negative feelings to survey interviewers) about their pregnancies after they are conceived.

Longitudinal measurement of pregnancy desires is relatively rare (for exceptions see

(Jones et al. 2015; Ray et al. 2018), and thus we do not know of other analyses of survey data that have explored race differences in a dynamic way. Most of the qualitative analyses demonstrating high levels of indifference and ambivalence among underrepresented minority groups have also had a retrospective focus – asking women to look back at their pregnancies and describe their feelings at the time of conception. It may be that the prospective questions in our semi-structured interviews elicit less ambivalent or indifferent responses than retrospective approaches. Further, RDSL’s retrospective questions about pre-conception pregnancy desire were asked while the women were still pregnant, as soon as they reported their pregnancies. It may be that Black women become more negative about their pregnancies over a longer period time, and their memories of their pre-conception feelings become more negative as well, but the RDSL questions were asked before they experienced the stigma and discrimination associated with being a young Black pregnant woman. Future research should further address the dynamics inherent in these feelings.

Other researchers have speculated that young women who actually wanted a pregnancy may retrospectively report their pregnancies as having been undesired because of the stigma they perceive to be associated with wanting a pregnancy at such a young age (Kearney and Levine 2012). Our finding that Black women’s pregnancy desire was more likely to become more positive than to become more negative suggests the opposite – perhaps young Black women who did not want a pregnancy reported their pre-conception desire as pronatal because they did not want to admit failing to prevent an undesired pregnancy. At the least, our finding that white women were the opposite of Black women – more likely to become more negative rather than more positive – suggests that this social desirability bias is no more prevalent for Black than for white women. Overall, stronger prospective desires for pregnancy, less dichotomous pregnancy desires, and/or changes in pre- and post-conception pregnancy desire are unlikely to explain the

large race disparity in (retrospective) undesired pregnancy. Future research should explore other explanations, such as whether Black women who want to avoid pregnancy are less able than their white peers to do so.

## **LIMITATIONS**

The present study has important limitations. The RDSL has a narrow geographic focus (a single county in Michigan) and the sample is not nationally representative; however, Michigan falls around the national median in measures of cohabitation, marriage, age at first birth, completed family size, nonmarital childbearing, and teenage childbearing (Lesthaeghe and Neidert 2006). More important, the county has a large Black population (about 35%), and the proportion of Black residents in the major city within the county is even higher. The United States has 65 cities that are at least 25% Black, representing at least 10 million of the 39 million Black residents in the United States. Thus, the women in the RDSL sample live in neighborhoods with similar racial composition as the neighborhoods of many Black people in the United States. On the other hand, the study includes only a small number of Latinas, who were classified as either white or Black in our analyses—a limitation that we hope motivates future researchers to implement similar studies on larger and more diverse populations.

Our semi-structured interview respondents represent specific experiences. RDSL interviewed the first group soon after they reported a pregnancy, and thus they may have been particularly likely to have concrete feelings about pregnancy. The second group of respondents—those who avoided pregnancy during the study – could also be especially likely to have concrete feelings about pregnancy. Thus, interviews with these two subgroups may not generalize to the views or experiences of all young women. As a result, they are not useful for estimating the overall level of indifference (or ambivalence) in the U.S. population, but are more

useful for examining racial differences in those levels between otherwise similar groups of women.

Feelings about pregnancy are highly related to women's age, and the age distribution of pregnancies differs by race. Although 24% of the Black women in our sample got pregnant during the study period, compared to 18% of white women, the percent of pregnancies that Black and white women retrospectively remembered as undesired was similar – 83% and 81%, respectively. This is consistent with other research showing that the Black-white disparity in (retrospective) undesired pregnancy is partially explained by age – younger pregnancies are more likely to be remembered as undesired, and Black women have younger pregnancies, on average (Kim, Dagher, and Chen 2016). Thus, there may be larger race differences in pregnancy desire at ages even younger than the RDSL sample. Future research should continue to examine this important racial disparity, at both younger and older ages.

## **CONCLUSIONS**

If undesired births occur among women who cannot or do not want to form specific childbearing desires or intentions, then imposing a “planning paradigm” on all women could be inappropriate (Aiken et al. 2016). However, the majority of young women in our analyses were quite specific and consistent about what they want in terms of childbearing. Although Bachrach and Morgan (2013:abstract) speculate that people “do not necessarily have fertility intentions,” but rather “form them only when prompted by specific situations,” relatively few Black or white young women had not thought about what they wanted in terms of childbearing before we asked the questions. In contrast, most of them readily gave specific responses to questions about what they wanted, particularly in terms of timing, and their survey responses were remarkably consistent over time. But we did find some women who did not have specific desires related to

childbearing, or who held ambivalent or indifferent desires for pregnancy. Thus, we agree with Aiken and colleagues (Aiken et al. 2016) that some women may simply not want to plan ahead for pregnancy, or may want to “roll the dice” and leave a random element to when they get pregnant. However, we argue that the “planning paradigm” appears to be appropriate for the majority of young women and does not appear to be differentially applicable to Black and white women.

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**Table 1 .** Characteristics of the Relationship Dynamics and Social Life Sample

	Total Sample n = 914 women					Black only n = 317	White only n = 597
	Mean	SD	Minimum	Maximum	% multiply imputed	Mean	Mean
<b><i>Pregnancy during study period</i></b>	.22		0	1	0%	.24	.18
<b><i>Demographics</i></b>							
Black	.35		0	1	0%		
Age at baseline	19.19	.57	18.12	20.34	0%	19.18	19.20
Highly religious	.58		0	1	0%	.83	.44
<b><i>Childhood disadvantage<sup>a</sup></i></b>							
Mother had a teen birth	.37		0	1	3%	.56	.27
Mother's education less than high school	.09		0	1	4%	.12	.07
Grew up in a non-two-parent family	.46		0	1	0%	.70	.34
Received public assistance during childhood	.36		0	1	0%	.53	.27
<b><i>Current Socioeconomic Characteristics</i></b>							
High school GPA	3.16	.60	0	4.17	6%	3.05	3.21
Receiving public assistance	.26		0	1	0%	.41	.18
<b><i>Adolescent Experiences Related to Pregnancy (index summing the following experiences before the RDSL study began)</i></b>	1.84	1.49	0	4	4%	2.31	1.60
Age at first sex 16 years or less	.52		0	1	<1%	.62	.47
Two or more sex partners	.60		0	1	3%	.70	.54
Ever had sex without birth control	.48		0	1	1%	.61	.41
One or more pregnancies	.25		0	1	<1%	.39	.18
<b><i>Living with partner (at baseline interview)</i></b>	.14		0	1	0%	.09	.17

**Table 2.** Descriptive Statistics for Measures of Pregnancy Desires (Relationship Dynamics and Social Life dataset)

	Total Sample					Black only	<i>p</i> for diff ↔	White only
	n = 53,063 weekly interviews with 914 women					n = 14,529 weekly interviews, 317 women		n = 38,534 weekly interviews, 597 women
	<i>n</i>	Mean	SD	Minimum	Maximum	Mean		Mean
<b><i>Desire for Pregnancy</i></b>								
Ever had any desire for pregnancy	914	.38		0	1	.46	***	.33
Mean desire for pregnancy	914	.24	.02	0.00	5.00	.27		.23
Mean desire for pregnancy, among women with any desire at any time	337	.64	.05	0.01	5.00	.58		.68
Proportion of weeks with any desire for pregnancy, among women with any desire at any time	337	.21	.02	.01	1.00	.19		.22
<b><i>Desire to Avoid Pregnancy</i></b>								
Ever had anything other than the strongest desire to avoid pregnancy	914	.45		0	1	.54	***	.41
Mean desire to avoid pregnancy	914	4.73	.02	0	5.00	4.67		4.76
Mean desire to avoid pregnancy, among women who ever had anything other than the strongest desire to avoid pregnancy	404	4.41	.04	0	4.99	4.39		4.42
Proportion of time with strongest desire to avoid pregnancy, among women who ever had anything other than the strongest desire to avoid pregnancy	404	.79	.01	0	0.99	.79		.79
<b><i>Categorical Combined Measure of Pregnancy Desire</i></b>								
	53,063							
Strong antinatal		.91		0	1	.89		.92
Moderate antinatal		.03		0	1	.03		.03
Ambivalent		.02		0	1	.04	**	.02
Indifferent		.01		0	1	.02	***	.01
Pronatal		.02		0	1	.03		.02
<b><i>Modal Categorical Combined Measure of Pregnancy Desire</i></b>								
	914							
Strong antinatal		.94		0	1	.93		.95
Moderate antinatal		.02		0	1	.03		.02
Ambivalent		.01		0	1	.02		.01
Indifferent		.00		0	1	<sup>a</sup>		
Pronatal		.02		0	1	.02		.02

**Note:** \*\*  $p < .01$ , \*\*\*  $p < .001$ , significance of variable indicating race in pooled race bivariate regression models predicting each variable listed.

<sup>a</sup> In the un-imputed data, only 2 respondents were modally indifferent. One was white, one was Black.

**Table 3.** Examples of Responses to Semi-Structured Interview Questions about Desired Number of Children and Timing of (Next) Pregnancy

	<b>Specific</b>		<b>Vague</b>	
	<b>Black</b>	<b>White</b>	<b>Black</b>	<b>White</b>
<b>Number</b>	<ul style="list-style-type: none"> <li>• <i>Three, my current two kids plus one more</i></li> <li>• <i>Two, that's the American family</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>...Three...or two – I want a boy and a girl</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>I want to be a mom in the future</i></li> <li>• <i>At least one</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>I might want to be a mom someday</i></li> <li>• <i>Maybe one more</i></li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>• <i>I'll wait a couple of years. Let me at least lose some more weight and then try it again</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Age 25 to 26</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>I want to wait</i></li> <li>• <i>I'm not ready now</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>There is no perfect age</i></li> <li>• <i>I want to do it right next time</i></li> </ul>

**Table 4.** Tabulation and Cross-Tabulation of Prospective and Retrospective Pregnancy Desire among Pregnant Women, separate by Race (n = 214 pregnancies, Relationship Dynamics and Social Life dataset)

**Panel A** (Method A of coding change in pregnancy desire, including ambivalent/indifferent as change)

		Retrospective Recollection of Pre-Conception Desire					
		Black women			White women		
		Desired	Undesired	Total	Desired	Undesired	Total
Prospective Desire	Pronatal	3 (3%)	8 (9%)	4 (4%)	11 (9%)	22 (18%)	23 (19%)
	Ambivalent/Indifferent	13 (14%)	70 (74%)	80 (85%)	12 (10%)	75 (63%)	84 (70%)
	Antinatal	6 (6%)	1 (1%)	4 (4%)	14 (12%)	12 (10%)	23 (19%)
	Total	16 (17%)	78 (83%)	94 (100%)	23 (19%)	97 (81%)	120 (100%)

**Panel B** (Method B of coding change in pregnancy desire, *not* including ambivalent/indifferent as change)

Prospective Desire	Pronatal	6 (6%)	1 (1%)	4 (4%)	14 (12%)	12 (10%)	23 (19%)
	Ambivalent/Indifferent	10 (11%)	77 (81%)	80 (85%)	9 (8%)	85 (71%)	84 (70%)
	Antinatal	16 (17%)	78 (83%)	94 (100%)	23 (19%)	97 (81%)	120 (100%)
	Total	16 (17%)	78 (83%)	94 (100%)	23 (19%)	97 (81%)	120 (100%)

Note: Shaded areas are coded as "no change" in prospective versus retrospective desire; white areas indicate change.

**Table 5.** Multinomial Logistic Regression Models Predicting Change in Pregnancy Desire among Pregnant Women, by Race and Sociodemographic Characteristics (coefficients, standard errors in parentheses, n = 214 pregnancies, Relationship Dynamics and Social Life dataset)

	Model 1		Model 2	
	Became Increasingly Negative versus No Change	Became Increasingly Positive versus No Change	Became Increasingly Negative versus No Change	Became Increasingly Positive versus No Change
Black	-.85 (.45)	.24 (.47)	-1.26 (.51) *	.37 (.61)
Highly religious			.54 (.42)	-.18 (.61)
Mother had a teen birth			.05 (.42)	.04 (.45)
Mother's education less than high school			-.35 (.65) ***	1.16 (.65) *
Grew up in a non-two-parent family			.28 (.47)	.32 (.51)
Received public assistance during childhood			.58 (.42)	.48 (.48)
Adolescent experiences related to pregnancy (index)			.23 (.17)	.29 (.25)
Constant	-1.36	-1.97	-2.64	-3.38 (1.02)
Pseudo-R <sup>2</sup>	.01		.06	

\* p < .05; \*\*\* p < .001; two-tailed tests.

**Figure 1** Coding of Change in Pregnancy Desire among Pregnant Women, from Prospective to Retrospective Measure

**Panel A** (Method A of coding change in pregnancy desire, including ambivalent/indifferent as change)

		Retrospective Recollection of Prospective Desire	
		Desired	Undesired
		Prospective Desire	Pronatal
Ambivalent/Indifferent	same		same
Antinatal	more positive		same

**Panel B** (Method A of coding change in pregnancy desire, *not* including ambivalent/indifferent as change)

Prospective Desire	Pronatal	same	more negative
	Ambivalent/Indifferent	more positive	more negative
	Antinatal	more positive	same



**Figure 2.** Proportion of Semi-Structured Interview Respondents who gave Vague and Specific Responses, by Race (RDSL dataset)

