

Sexual Self-Efficacy during the Transition to Adulthood:  
The Long Arm of Childhood, the Power of Looking Ahead, and Racialized Disadvantage.

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**Abstract**

A growing literature documents the importance of sexual self-efficacy for pregnancy risk among young adult women in the United States. I use longitudinal data from the Relationship Dynamics and Social Life (RDSL) study to examine the association between socioeconomic disadvantage and sexual self-efficacy in heterosexual relationships among women aged 18 to 22 years. I extend existing research in three ways: by (1) distinguishing between prior and current public assistance receipt (2) accounting for the role of prospective socioeconomic status, and (3) assessing racial/ethnic differences in the effects of socioeconomic status. In general, the results indicate that receiving public assistance is negatively associated with sexual self-efficacy, but this association depends on the timing and duration of public assistance receipt. Perceived expectations of their socioeconomic status, however, are positively associated with sexual self-efficacy. With respect to the black-white difference, for sexual self-efficacy, receiving public assistance during childhood is more negative for black women, whereas perceived life expectation is more positive for white. These findings suggest that socioeconomic status can influence sexual self-efficacy and future research should pay more attention to the life course socioeconomic factors and to a racialized disadvantage.

**Keywords**

socioeconomic disadvantage, life course, sexual self-efficacy, black-white difference, RDSL

## INTRODUCTION

The major problem is not teaching people safer sex guidelines, which is easily achievable, but equipping them with skills and *self-beliefs* that enable them to put the guidelines consistently into practice in the face of counteracting influences. - Bandura (1994)

Unintended pregnancy rates are highest among socioeconomically disadvantaged women (Carlson and England 2011; Finer and Zolna 2011, 2016). Much of the growing body of research on unintended fertility has documented that low sexual self-efficacy, also sometimes referred to as contraceptive self-efficacy (Longmore et al. 2003), is a prime candidate for increasing the risk of an unintended pregnancy (Cheng et al. 2014; England 2016; England, McClintock, and Shafer 2011; Lewis, Ross, and Mirowsky 1999; Longmore et al. 2003). To date, however, most research on the social structural correlates of sexual self-efficacy has examined only *current* socioeconomic status (SES). Yet sexual self-efficacy is embedded within longer, durable behavioral trajectories that arise out of particular social constraints (England 2016). Understanding how young unmarried women who feel empowered to refuse unprotected sex differ from young women who do not is essential for developing a more complete picture of unintended pregnancy in the United States.

This article focuses on unmarried women's sexual self-efficacy at ages 18 to 22 because this period is particularly crucial for its density of decisions. Decisions about college, careers, relationships, and family formation during this period, for example, may have lifelong implications for trajectories, by shaping later life events, experiences, and transitions (Elder, Johnson, and Crosnoe 2003; Rindfuss et al. 1988). Furthermore, sexual self-efficacy during this period predicts not only contraceptive use and pregnancy risk (England 2016; Levinson 1986; Longmore et al. 2003), but also later-life behavioral outcomes such as general health, the number of friends, and personal income (Cheng et al. 2014).

In this spirit, this study examines variation in young adult women's sexual self-efficacy, their perceived chances that they could resist unprotected sex, conditioned on their socioeconomic history and prospective socioeconomic status. This contextualization of young adult's sexual self-efficacy with historic and prospective SES is then stratified by race given racial differences in reproductive health behaviors: contraceptive attitude and contraceptive use (Barber, Yarger, and Gatny 2015; Kusunoki et al. 2016). To observe the various socioeconomic factors affecting young women's sexual self-efficacy, I draw on recently available longitudinal data from Relationship Dynamics and Social Life study (RDSL), based on a random sample of 1,003 18- and 19-year-old

women in a county in Michigan. The rich data set includes baseline survey interviews and quarterly follow-up surveys about sexual self-efficacy across 2.5 years. It is important to take a long view of the experiences of socioeconomic conditions to understand how both childhood and early adult conditions affect sexual self-efficacy during the transition to adulthood and to compare the link between black and white with different norms surrounding family life and inequality.

## SEXUAL SELF-EFFICACY AND SOCIOECONOMIC DISADVANTAGE

Empirically, self-efficacy has been imbued with multiple dimensions ranging from notions of sense of control to self-regulation (Gecas 1989). It is an umbrella term used to describe two main aspects of the ability to align one's behavior with his or her goals (See Ross and Mirowsky 2013, for a review.) One aspect involves locus of control, or the belief that you can have an effect on important life outcomes (Bandura 1982; Gecas 1989; Rotter 1966). The other is self-regulation, being able to make oneself do something onerous but necessary to achieve a given goal. Self-regulation is similar to deferred gratification (Mischel and Ayduk 2004), emotional self-regulation (Baumeister et al. 2006) and grit (Duckworth and Gross 2014) in psychology. Drawing on both of these perspectives (i.e., the motivation to perceive oneself as self-determining, and the expectation that one can execute specific tasks), I view self-efficacy in terms of individuals' perceptions of agency, mastery, control, and competence in dealing with their social, and specifically their sexual world (Gecas 1989).

Consistent with the causal attribution approach, however, I view self-efficacy as behaviorally specific. For instance, economic self-efficacy as a domain specific measure of efficacy and mastery is a powerful predictor of educational attainment (Grabowski, Call, and Mortimer 2001; Lee and Mortimer 2009) Sexual self-efficacy refers to cognitive and behavioral efforts to manage specific demands as opposed to global perceptions of efficaciousness with respect to contraceptive use in sexual relationships (Cheng et al. 2014; Longmore et al. 2003).

Sexual self-efficacy may translate into gender agency. Women's fertility control is not merely a domain within the control of women, but that legal and societal norms around gender relations and female fertility influence fertility patterns (MacKinnon 1983; Pallitto and O'Campo 2005). Sexual self-efficacy may foster young women's abilities to make decisions based on their needs, rather than those of others. Girls who feel empowered to navigate interactions which are personally pleasurable may be able to resist gendered pressures that damage their mental and physical health and limit their educational and career progress (Hamilton and Armstrong 2009).

Early expectations of sexual self-efficacy have cascading effects into adulthood, contributing to stratification process. Those with high expectations of sexual self-efficacy were more likely to report consistent condom use and avoid teenage pregnancy (England 2016; England et al. 2011). Teenage girls' higher expectations of sexual self-efficacy were significantly linked to better young adult mental and physical health (Cheng et al. 2014). Greater pleasure and sexual self-efficacy expectations were associated with higher levels of education, and greater sexual self-efficacy was associated with higher levels of personal income as young adults (Cheng et al. 2014).

The extent to which women's sexual self-efficacy not only contributes to stratification process but reflects it. Sexual self-efficacy can be considered as a resource like many valuable resources, which is not equally distributed to everyone. Disadvantage falls along the lines of established disparities and may play a role in ossifying them. Among women, sexual disadvantage is linked to marginalized status. Less privileged, minority females, especially in the South, have limited expectations of sexual self-efficacy (Fine and McClelland 2006). Class differences in sexual self-efficacy are attributable not only to disparities in the flow of sexual information but also to the class differences in a family structure. Young women from less privileged families, many of whom are non-white, may find it more difficult to escape sexual stereotypes and enact femininities which are less subject to sanction (Armstrong et al. 2014).

Self-efficacy can be eroded if an individual repeatedly encounters difficult life events. Generally, socioeconomic status is negatively related to a sense of powerlessness and positively related to a sense of mastery and control (Mirowsky and Ross 1983). Numerous studies have found that people who experience economic hardship are less likely to have sense of control, with poverty leading to feelings that life is out of one's control and reducing self-efficacy and self-regulation (England 2016; Mirowsky and Ross 1983; Ross and Mirowsky 2006, 2013). Self-regulation also tends to be lower among those living in poverty or in poor neighborhoods (Kim et al. 2013; Raver, Blair, and Willoughby 2013; Sharkey et al. 2012). Also, this might be because the middle class uses more time-intensive parenting strategies (England and Srivastava 2013; Lareau 2003) and it leads to the development of self-efficacy. For instance, some of the extra time spent on childrearing by middle-class parents is used to develop children's self-regulation when parents bring their children's attention back to something like their homework over and over. It may develop persistence with onerous tasks and it has a positive influence on sexual behaviors (England 2016; England et al. 2016).

## SEXUAL SELF-EFFICACY WITHIN THE LIFE COURSE

Most research on the social structural correlates of perceived control, however, looks at *current* socioeconomic status (Mirowsky and Ross 1983; Ross and Mirowsky 2006, 2013). Previous literature paid little attention to the historically contingent constraints within which individuals develop and exercise agency (Shanahan and Elder Jr. 2002). The self exists expressly in the ever-passing present, a moment whereby the individual interprets situations and symbols as well as his or her past and future (Mead 2002). Anticipation and memory are both shaped by the current moment, a moment that immediately becomes past as the actor plans and reacts to current situations. One's past is not a stable part of the self, but subject to reinterpretation based on current circumstances. Agentic actions involve differential orientations toward the present and the future (Hitlin and Elder 2007).

This is consistent within the models of women's reproductive autonomy. Temporal orientations are an essential aspect of gender interaction in women's fertility behaviors and form the basis for developing an understanding of the gender agency that bridges multiple life course trajectories. Women who have a "planful" competence and are more inclined to think of consequences before acting (Clausen 1991) use contraception more consistently (England 2016; Longmore et al. 2003). This life course agency involving individual orientations toward potential self-capacities for constructing and engaging in successful long-term plans prevents women from avoiding giving birth if becoming a parent is in tension with their goals.

Sexual self-efficacy during the transition to adulthood is embedded within much longer and durable behavioral trajectories that arise out of particular social constraints (England 2016). This is consistent with the view that socioeconomic status is not a static but a dynamic experience (Killewald, Pfeffer, and Schachner 2017; Wu 1996). Life course theory offers major insights into how to approach the socioeconomic determinants of young adult women's sexual self-efficacy. The theory advocates for situating short-term transitions within long-term trajectories. In other words, transitions may occur as the culmination of experiences that unfold during long periods of time, necessitating a long view rather than a narrow window. Indeed, continuous or repeated experiences of public assistance receipt during long periods can be highly developmentally disruptive to young women, regardless of whether they are currently experiencing family poverty (Elder 1994, 1998; Elder et al. 2003; Elder and Rockwell 1979). Socioeconomic histories rather than point-in-time conceptualizations of receiving public assistance during young adulthood better capture the developmental risks that young women face.

Drawing inspiration from these studies, I contend that considering the timing and duration of receiving public assistance offer the potential to deliver new insights in sexual self-efficacy research. Consequently, the first aim of this study is to test the hypothesis that (1) young adult women who received public assistance during childhood are less likely to have sexual self-efficacy and (2) young adult women who received public assistance for a longer period of time during childhood are more likely to have lower sexual self-efficacy compared to counterparts.

Another insight from life course theory is that expectations about the future shape an important basis for self-assessments of life course agency, implying that the dimensions of a person's worldview that transcend specific domains may predict a range of life course outcomes (Hitlin and Elder 2007; Hitlin and Kirkpatrick Johnson 2015). I assume greater flexibility on the part of young women with respect to developing, maintaining, and potentially altering their perceptions of their current and future capacities. The extent to which holding such perceptions is itself a social force (Frye 2012). This sense of agentic possibility has important life course consequences, for example, the ability to damp down impulses which contribute to suboptimal long-term outcomes (e.g. inconsistent contraceptive use or unprotected sexual intercourse). This dovetails with Bandura's (1982) focus on the importance of forethought for understanding agentic action. I suggest that a proper understanding of agency's potential power within the life course necessitates moving beyond domain-specific expectations. Using a scale of life expectations in their own socioeconomic status, I explore the potential influence of a sense of optimism about one's future family income on sexual self-efficacy. This insight leads to a next set of hypotheses: young adult women who expect to have a middle-class family income by 30 are more likely to have higher sexual self-efficacy. Figure 1 offers a visual representation of the theoretical framework.

## BLACK-WHITE DIFFERENCE IN SEXUAL SELF-EFFICACY

The life course theory encourages the contextualization of both transitions and trajectories within social environments and institutions spanning micro-level processes, such as interpersonal relations and local environments, up to macro-level forces, such as cultural, economic, and political structures (Crosnoe and Johnson 2011; Elder et al. 2003; Smith et al. 2018). The goal in this paper is to use these insights of life course theory to elucidate why some young adult women have high sexual self-efficacy and otherwise similar women do not, specifically by conceptualizing the socioeconomic context as an experiential trajectory focusing on black-white differences.

The literature on black-white differences in fertility outcomes has long acknowledged population heterogeneity. With respect to a premarital birth, researchers have found that black women are more likely to have a premarital birth than white women with similar characteristics (Barber et al. 2015; Bumpass and McLanahan 1989; Kusunoki et al. 2016). Black women had the highest unintended pregnancy rate among all racial and ethnic groups, more than double that of non-Hispanic white women (Finer and Zolna 2011). They are more likely to have negative attitudes toward contraception and to expect unprotected sex in the upcoming year (Barber et al. 2015) and are more reluctant to refuse unwanted sex (Weitzman and Mallory 2019). As a result, the association between life course socioeconomic factors and sexual self-efficacy may be dampened for black young women. This expects us to see the black-white difference in terms of socioeconomic disadvantage effects within the life course.

Research to date has provided limited insights on population heterogeneity in life course dynamics. Studies have yet to incorporate the racialized dimension of life course socioeconomic factors (Elder 1994; Elder et al. 2003). First, due to data limitations, most studies have not examined sexual self-efficacy with respect to black-white differences. This omission is unfortunate because it has masked the opportunity to understand the role of SES in these differences. Second, studies have yet to incorporate the timing and the duration of receiving public assistance in assessing population heterogeneity in the associations of socioeconomic disadvantage on sexual self-efficacy.

The third aim of this study, therefore, is to examine whether the links of public assistance receipt during childhood and prospective SES with sexual self-efficacy differ in magnitude between black and white. Although a thorough empirical investigation of mechanisms is outside the scope of this study, I hypothesize that race structure will come together to differentiate those links in ways that disadvantage black women and advantage white women.

## DATA AND METHODS

### *Data*

I used data from the Relationship Dynamics and Social Life Study (Barber et al. 2018, 2015; Ela and Budnick 2017; Kusunoki et al. 2016; Weitzman et al. 2017), which included a 50-minute baseline interview and 5-minute interviews conducted on a weekly basis for two and a half years via a secure website or phone. Respondents were randomly selected from the Department of State's driver's license and Personal Identification Card database in one racially and socioeconomically diverse Michigan County and enrolled between 2008 and 2009. Therefore, these data were from a



representative, population-based sample of women who were 18 to 20 years old and who were residing in one Michigan county at the time of the baseline survey. Although the results generalize to a single county in Michigan, the respondents are roughly comparable to the US population of 18 to 19 year old women at the time of data collection (See Clark 2018, for detail).

RDSL provides unique insight into the association between socioeconomic disadvantage and sexual self-efficacy based on a life course framework. First, the main strength of this data set is its large and broad set of psychological attitude measures in a longitudinal design (Barber et al. 2015). The data document detailed changes in young women's behaviors and attitudes across several domains of life that occur rapidly in early adulthood, including intimate relationships, sexual behavior, and contraceptive use for 2.5 years. Second, the data allow us to capture black-white differences in sexual attitudes in a longitudinal design because a relatively large population of young black women and a range of sociodemographic characteristics among both black and white women are included in the sample.

Because this paper aims to measure both constant and time-varying indicators predicting sexual self-efficacy among unmarried early adult women, I limited the sample to respondents who completed at least one follow-up interview and who were not pregnant or married at baseline. In addition, I limited my sample to weeks in which the respondent was not married and neither was nor believed she was pregnant during the course of 1 year. The decision to restrict the data to the first year of the survey reflected concerns about higher rates of attrition for more disadvantaged respondents (Barber et al. 2018; Weitzman et al. 2017). This yields a final sample of 4,523 person-weeks across 874 respondents. Young women aged between 18 and 22 years are in the person-quarters analyzed.

### *Measures*

#### *Dependent variables.*

Every quarter, respondents were asked three questions: (1)“If you decided to have sex, what are the chances that you could get your partner to withdraw or “pull out” before ejaculating or coming?”, (2)“If you decided to have sex, what are the chances that you could get your partner to use a condom?”, and (3)“Imagine being with a partner and you both want to have sexual intercourse, but you have no birth control available. What are the chances that you could stop yourself once you were highly aroused or turned on?” Respondents answered between 0 and 100. Since sexual self-efficacy itself is a broad and an umbrella term (England 2016), I first calculate the Cronbach's alpha

( $\alpha=.62$ ) but it shows questionable internal consistency. Given this alpha and that the first two questions refer to controlling partner behavior, while the last question is about self-regulation, I collapse responses to the former two.

#### *Independent variables.*

Three indicators of life course socioeconomic factors included whether young adult women received public assistance during childhood, a categorical variable of duration of childhood public assistance, and a chance of having a middle-class income by age 30. Childhood public assistance is measured in two ways: a binary measure of whether the respondent's family received public assistance during childhood and a categorical measure of how much of the time that respondent's family received public assistance. The result is a categorical measure that included the following: not received, short and some of the time, and most and all of the time. A chance of having a middle-class income by age 30 is measured with the question "What are the chances that you will have a middle-class family income by age 30?" This is ranged from 0 to 100 in an original scale. But it is coded from 0 to 10 scales to improve the interpretation.

#### *Covariates.*

*Socioeconomic status.* Socioeconomic factors include mother's education, parental annual income, receiving public assistance during young adulthood, respondent's total income, college enrollment status and employment (Gecas 1989; Ross and Mirowsky 2006, 2013). Maternal education is a categorical measure that included the following: completed less than high school, completed high school and some college, and graduated from a 4-year postsecondary school. Parental annual income is a binary measure indicating whether their annual income is over \$75,000. Receiving public assistance during young adulthood is also a binary measure. Respondent's income has the following three categories: not enough money to make ends meet, just enough money, and some money left over. Education and employment were first assessed at baseline and then every 3 months. Respondents' answers carry over each week until the question was asked again. Education is a binary measure whether the respondent enrolled in a 4-year postsecondary school or not. Employment has the following three groups: not employed, employed but not on career path, and employed on career path. This variable is derived from two separate questions about the respondents' employment status and whether her employment was "part of a longer-term career plan".

*Demographic background.* Respondents were asked a series of question to assess additional demographic characteristics: age, religiosity, mother's age at first birth, whether respondents did not grow up with two biological/step parents, race, and parental monitoring. Age is a continuous measure using respondents' birthday. Importance of religion is a binary measure from the question, "How important if at all is your religious faith to you?" Respondents who reported that their faith was "somewhat important" or "not important" were coded 0. Mother's age at first birth is a binary measure whether the respondent's mother was younger than 20 years old at her first birth. "Respondents did not grow up with two biological/step parents" is a binary variable that referred to the respondent's family background. Race is measured with a dummy for whether the respondent was African American. In the sample, 97% of respondents identified as either White or African American. Other racial groups are excluded because of a lack of observations. Parental monitoring is included because class differences in parenting styles may create differences in sexual self-efficacy (England 2016; England et al. 2016). It ranges from 0 to 3 scale and was a summation of scores. I construct several binary indicators: whether a parent or guardian was at home always or most of the time when you left for school, when you returned from school, and when you went to bed.

*Emotional well-being.* This paper assesses emotional well-being with the following three scales: loneliness, self-esteem and locus of control. Loneliness, self-esteem, and locus of control range from 0 to 16. For loneliness, respondents were asked on a scale from 0 to 4 how often they lacked company, had someone to turn to, felt left out, or felt close to someone. Self-esteem scale was constructed based on Rosenberg scale (Rosenberg 2015). It was determined by how often a respondent felt satisfied or positive about herself and how often she felt not proud or like a failure. Higher scores indicated higher self-esteem. Locus of control is based on the perceived stress scale (Cohen 1983) and is determined by how often she felt unable to control important things, confident about handling problems, things going her way, difficulties she could not overcome. This variable allows me to parse out sexual self-efficacy from self-efficacy in general. Also, the reverse coded locus of control scale can also be regarded as a Perceived Stress Scale. The correlations between locus of control scale and each sexual self-efficacy are around .13, indicating that efficacy in general and sexual self-efficacy are only loosely correlated.

*Adolescent experiences and attitudes with sex and pregnancy.* These variables include measures of relationship status, whether the respondent had a sex before age 16 years, attitudes toward contraception and pregnancy desire. I construct a binary measure whether they are in a relationship. Being in a relationship refers to whether the respondents are engaged, in a special romantic

relationship, and in an emotional or physical contact with someone. I treat "not partnered" weeks as the reference group. Another binary variable indicates whether the respondent's age was before 16 years old when they had first sexual intercourse. With respect to attitude toward contraception, respondents were asked several statements concerning contraception on a ordinal scale ranging from 1 to 5, 1=strongly agree to 5=strongly disagree). The questions are the following: "If a woman asks her partner to use a condom, he will think that she doesn't trust him.", "Using birth control is morally wrong.", "In general, birth control is too much of a hassle to use.", "Using birth control is likely to make a woman feel sick.", "Using birth control interferes with sexual enjoyment.", "If a girl uses birth control, she is looking for sex.", "In general, birth control is too expensive to buy.", "It takes too much planning ahead of time to have birth control on hand when you're going to have sex." I recode each variable to 0 to 4 scale and summarize them into one scale ranging from 0 to 32. With respect to pregnancy desire, each week respondents were asked "How much do you want to get pregnant during the next month?" Respondents answer between 0 (not at all) and 5 (really want to).

In the model, several variables could potentially be highly in a way that might introduce multi-collinearity our models. However, a correlation of all covariates revealed that most correlations are well below .30 (available upon request).

### *Analytic Strategy*

Due to the panel structure of the RDSL data with the dependent variables assessed every three months (12 weeks), person-quarters are the units of analysis. I began by estimating random-effects models (REM).

$$Y_{it} = \beta_0 + \beta_{1-2}LIFE_{it} + \beta_{3-6}SES + \beta_{7-12}DEMOGRAPHIC + \beta_{13-15}Emotion + \beta_{16-19}ATTITUDE + \nu_{oi} + \epsilon_{it}$$

Young women's sexual self-efficacy outcomes, Y at journal  $t$  for women  $i$  is estimated as a function of a measure of childhood poverty (whether it is a dichotomous measure of receiving public assistance during childhood or a categorical measure indicating the duration of it) and perceived expectations about having a middle-class family income by age 30, a vector of time-constant covariates (variables measured at baseline), a vector of time-varying covariates (measured at that same week), and random effects. REM analyzes both the within and between-respondent components of an effect explicitly (Bell and Jones 2015; Wooldridge 2016). REM are chosen

because of how they addressed correlated errors within respondents. That is, REM assigns respondent-specific coefficients and accounts for the difference between each young adult women's average sexual self-efficacy and the average across all respondents. The model also addresses correlated errors within weeks by assigning week-specific coefficients accounting for the difference between women's sexual self-efficacy in a given week and their average across all weeks (Weitzman et al. 2017). Thus, when interpreting the coefficients of the time-constant covariates measured at baseline only, I refer to the effects in terms of respondents. When explaining the coefficients for time-varying covariates (perceived expectations about having a middle-class family income by 30, age, education, employment, relationship status, attitude toward contraception and pregnancy desire), it is crucial to keep in mind that these coefficients reflect a combination of differences within persons across weeks and between-person differences in whether or how often the women was in a given state.

The aims of this study are twofold. First is to estimate the associations between sexual self-efficacy and each of the following predictors: (a) the timing of receiving public assistance, (b) the duration of receiving public assistance, and (c) perceived expectations on their future family income. Second is to determine the link between how the socioeconomic factors and efficacy vary by race. Because the correlation between whether the respondent received public assistance during childhood and the categorical measure of its duration are highly correlated (higher than .9), I run the REM with these predictors in separate models. To investigate heterogeneous responses to life course socioeconomic factors by race, I replicated the previous specifications separately for each subgroup and then conduct post-estimation tests to compare the equality of coefficients between black and white.

### *Sensitivity Test*

As a sensitivity test, I rerun these models (a) with a factor loading score constructed by all three sexual self-efficacy variables and (b) with each three sexual self-efficacy variables, respectively. I found the results to be similar with regard to magnitude, direction, and statistical significance (available upon request). Because REM produces unbiased estimates under the assumption that key independent variables are uncorrelated with the random effects and the idiosyncratic error, I use a woman fixed-effects model (FEM) by using only time-varying predictors: having a middle-class family income by 30, age, education, employment, relationship status, attitude toward contraception and pregnancy desire. Although time-constant variables cannot be included by themselves in a fixed

effects model, they can be interacted with variables that change over time (Bauer and Curran 2005). Thus, I add an interaction term between perceived expectations of future family income and a dummy variable capturing whether the respondent is black (to predict how race moderates the association between future expectations and sexual self-efficacy). In all tables, I identify whether coefficients are significant at .001, .01, or .05 levels using one-tailed tests. Throughout the analysis, I compute robust standard errors to correct for within-individual correlation.

## RESULTS

Table 1 displays descriptive statistics of the analyzed variables by receipt of public assistance and duration of receiving public assistance during childhood. First, women who received public assistance for most of the time or all of the time report lower levels of efficacy compared to those who for short time and some of the time. Second, on average, compared to non-recipients, young women who received public assistance report lower sexual self-efficacy. Third, young adult women are more efficacious at controlling partner's behaviors than their own behaviors. Those who did not receive any public assistance during childhood reported around 88% confidence that they could get their partner to use withdrawal and condom, which was 15 percentage points higher than the chances they could stop themselves once aroused if no birth control is available.

### *Aim 1*

I test the first set of hypotheses about the disparities in exposure to (1) the receipt of public assistance, and (2) the duration of public assistance during childhood. As I mentioned earlier, because of the high correlation (above .9) between two independent variables, I estimate the model that predicted whether receiving public assistance is reversely associated with sexual self-efficacy (Table 3) and the one that predicted the association between the duration of receiving public assistance and sexual self-efficacy (Table 4), respectively. Both tables predicting the sexual self-efficacy outcomes control for socioeconomic status, demographic background, emotional well-being and adolescent experiences and attitudes with sex and pregnancy.

Table 3 and Table 4 provide support for the first aim of this study. Young women who received public assistance as a child have a statistically significantly lower level of efficacy. They are 3% less likely to believe that they could get their partners to use withdrawal/condom and 4% less likely to be confident that they could stop themselves after once aroused in Table 3.

All the models in table 4 indicate that duration of receiving public assistance decreases young adult women's sexual self-efficacy outcomes. The estimates are statistically significant in all variables related to the duration of receiving public assistance and reported bigger coefficients for those who experienced child poverty for most of the time and all of the time, suggesting that there is a cumulative disadvantage in sexual self-efficacy because of receiving public assistance net of other covariates. Young women who received public assistance during childhood for most of the time and all of time report lower levels of efficacy outcomes (-4.16 and -5.2, respectively).

In terms of current socioeconomic status, I find that only the respondent's current income has a significant association. Compared to their reference group (who reported that they do not have not enough money), young women who said that they have just enough money report higher levels of efficacy ( $b=3.75$  in table 3,  $b=3.79$  in table 4) in stopping themselves once aroused if no birth control is available. Receiving public assistance as a young adult demonstrates a similar pattern in that it decreases the women's perceived chances that she could get her partner to use withdrawal/condom and stop herself if there is no birth control available, but it does not retain its statistical significance in the saturated model. Thus, it may be that childhood is a critical time in terms of shaping women's sexual self-efficacy, suggesting early life socioeconomic status has far-reaching associations (long arm) with women's sexual self-efficacy.

#### *Aim 2.*

Table 3 and 4 present results for the second aim, which describe the linkage between perceived expectation of future family income and sexual self-efficacy. In table 3 and table 4, perceived expectation of family income is consistently associated with higher levels of sexual self-efficacy. A comparison of coefficients for perceived expectation in Table 3 and 4 indicated that regardless of which types of childhood poverty variables are controlled for, it is statistically significant. This suggests that optimistic expectations about future socioeconomic status not only matters for income and health (Hitlin and Kirkpatrick Johnson 2015) but also matters in women's sexual self-efficacy.

Findings from the main analysis suggests that (1) receiving public assistance as a child and, for more at childhood, lower women's sexual self-efficacy during the transition to adulthood; and (2) an optimistic perception of future family income increases women's sexual self-efficacy. The former implies there is a long arm of childhood poverty effect; the latter implies the power of looking ahead, both of which have documented in the life course literature.

*Aim 3.*

Because the purpose of the subgroup analysis is to examine whether socioeconomic history and prospective socioeconomic status effects differ by race, I replicate the previous specifications separately for each subgroup. The post-estimation test to compare the equality of coefficients shows that although the regression coefficients between receiving public assistance and sexual self-efficacy do not significantly differ by race, the association between perceived expectation about future family income and sexual self-efficacy significantly differ by race at .05 level.

Table 5 and 6 report the results, which suggest that black-white differences depended on the outcome examined. Although the coefficient of receiving public assistance during childhood is not statistically significant for blacks (in table 5), the associations between duration of receiving public assistance during childhood and the perceived chances that women could get their partner to use withdrawal/condom are larger for blacks. The coefficients of receiving public assistance for short time and some of the time are statistically significant for whites only. On the other hand, the coefficients of receiving public assistance during childhood for a longer term are statistically significant for blacks only.

Taken together, the results in Table 5 and 6 suggest that the sexual self-efficacy of white young women is more sensitive to shorter term of public assistance receipt, while that of black women is more sensitive to longer term of receiving public assistance during childhood. Consistent with this, figure 2 shows the predicted probability of sexual self-efficacy by duration of receiving public assistance and race. In terms of getting partner to use withdrawal/condom, among those who report no childhood public assistance, there are very small differences by race. White women who received public assistance during childhood for short time or some of the time report around 80% confidence that she can get her partner to use withdrawal/condom, while black women in the same condition report higher sexual self-efficacy. But this pattern is reversed for those who received public assistance during childhood for a longer period of time. Black women are less sexually efficacious among women who received public assistance for most of the time or all of the time. The pattern of black women's lower sexual self-efficacy among those who received public assistance during childhood for most of the time or all of the time is also revealed in terms of stopping herself after arousal.

With respect to perceived expectation about their future family income, broadly speaking, the coefficients are statistically significant and salient for whites. In table 5 and 6, for white women, an one point increase of perception about future family income is associated with .75 percentage



increase in terms of getting her partner to use withdrawal/condom and .82 percentage increase in stopping herself once aroused if no birth control is available. For black women, although perception about future family income is positively associated with their perceived chance of getting her partner to use withdrawal/condom ( $b=.40$  in table 5,  $b=.43$  in table 6), the coefficient is smaller than white and it is not statistically significant only in table 6.

Overall, these findings suggest that women who grew up with extreme socioeconomic disadvantage (those whose families received public assistance during childhood) are much more likely to have lower sexual self-efficacy during early adulthood and women who expect a higher chance of having a middle-class family income by 30 are much more likely to have a higher sexual self-efficacy. However, this pattern is pronounced for white women only.

#### *Robustness check*

To add nuance to the interpretation of REM, I analyze FEM using only time-varying covariates in the model. To estimate racial variation in the estimate, I add the interaction term between perceived expectation about their future family income and an indicator for black women, which allowed the model to capture the time-invariant characteristic (race) in the fixed effects model.

Table 7 reports the coefficients from FEM. Figure 3 is the predicted sexual self-efficacy by race based on FEM. Because I put the interaction term between perception about future family income and a dummy variable for black, the coefficients of perception about future family income refer to white only. For white women, the results show that the coefficients of perception about future family income are positive and statistically significant. For black women, the coefficients show that there is a negative association. A one unit increase in perceived expectation about their future family income on women's sexual self-efficacy that she could stop themselves one aroused was associated with a 1.25 percent decrease for black women. Black women tend to have a lower level of sexual self-efficacy (Figure 3). This suggests that the effect of perceived expectation on sexual self-efficacy decreases for black women. But it is statistically significant only for the variable indicating the chances that women could stop themselves once aroused.

## DISCUSSION

I argue sexual self-efficacy during the transition to adulthood is a short-term attitude that emerges from dynamic and contextual life course trajectories. Considering that many women may overestimate their sexual self-efficacy, this estimate is likely a conservative representation of how

young women actually are in practice. First, oriented by a life course perspective (Crosnoe and Johnson 2011; Elder 1994; Elder et al. 2003) in this study, I looked back to childhood to explore the connection between family history of poverty and sexual self-efficacy during young adulthood. More economically insecure family histories, as measured by the timing and duration of receiving public assistance, would lower women's perceived ability to refuse unprotected sex. Second, perceived life expectations of socioeconomic status are positively associated with sexual self-efficacy. Third, I place young women not only within the micro-level context of their families but also within racial structure in the United States. On the basis of structural differences, I evaluate whether the negative link between family history of receiving public assistance and sexual self-efficacy is more pronounced for black women and whether the positive link between perceived expectations for future family income and sexual self-efficacy is more salient for white women.

The major contribution of this study is that I situate short-term transitions of sexual self-efficacy within long-term trajectories. Previous literature on sense of control have documented that current socioeconomic status, as measured by occupation, family income, neighborhood poverty, education and employment, are key predictors on sense of control. However, in terms of sexual self-efficacy during the transition to adulthood, they are not statistically significant. Socioeconomic histories matter.

Also, this study bridges the prospective expectation and sexual self-efficacy literature. Once central to stratification research, the focus on expectations diminished in large part due to a shift of focus toward the importance of resources and structural position for explaining life course outcomes. Expectations, however, have enjoyed somewhat of a resurgence recently, with renewed attention to their formation, durability, and impact on attainment (Andrew and Hauser 2011). Following this, I present evidence that prospective socioeconomic expectation influences a range of sexual self-efficacy outcomes. Consideration of future orientation broadens the empirical understanding of sexual agency with sociology.

The analysis also reveals that the association between life course socioeconomic factors and women's sexual self-efficacy may differ by race/ethnicity. Previous studies have documented that there are substantial black-white differences in terms of reproductive health attitudes and outcomes: unintended pregnancy, attitudes toward contraceptive use and sex, and willingness to refuse unwanted sex (Barber et al. 2015; Kusunoki et al. 2016; Weitzman and Mallory 2019). The results for black women's sexual self-efficacy are consistent with prior research.

As noted earlier, this empirical research on sexual self-efficacy shows how social constraints work through personal characteristics and how they are durable. This link is important because according to England (2016), without the link between social structure and sexual self-efficacy, scholars could fall into a fallacy that recognizing the role of personal characteristics in leading to an unintended pregnancy entails blaming victims for their lack of sexual self-efficacy and their behavioral outcomes.

Sexual self-efficacy during the transition to adulthood is a life course phenomenon of great interest to the public and a major target of policy. Social psychology literature has assumed that self-efficacy is malleable. From a policy perspective, contraceptive use theoretically may be enhanced by participation in intervention programs that promote self-efficacy (Bandura 1994; Longmore et al. 2003). Often policy approaches are isolated to short-term particular cause. The findings from this paper, however, suggests that at transition to adulthood, young adult's sexual attitudes have a lifelong origin.

The present study has important limitations that we hope will encourage further research. It is notable that the narrow geographic focus (a single county in Michigan) of the RDSL study. The RDLS is not nationally representative. But with respect to the family formation behaviors, this data is not an outlier (Barber et al. 2018; Clark 2018). Michigan falls around the national median in measures of cohabitation, marriage, age at first birth, completed family size, nonmarital childbearing, and teenage childbearing (see Lesthaeghe and Neidert 2006). Thus, the women in the RDSL sample live within a similar racial composition as many African Americans 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 the analyses—a limitation that I hope motivates future researchers to implement similar studies on larger and more diverse populations.

Due to data limitation, the presence of sexual health clinics, access to birth control, communication about sexuality, and emphasis on sexual pleasure cannot be framed in this paper. For example, impoverished, with high concentrations of poor and minority people, were most likely to adopt abstinence-only programming to access federal dollars, consistent with evidence reporting the failure of abstinence-only programming to meet its goals as well as the costs of poverty and limited access to secular healthcare on women's sexual health (Fine and McClelland 2006). Future research should take a consideration these factors predicting women's sexual agency.

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Figure 1. Theoretical Framework

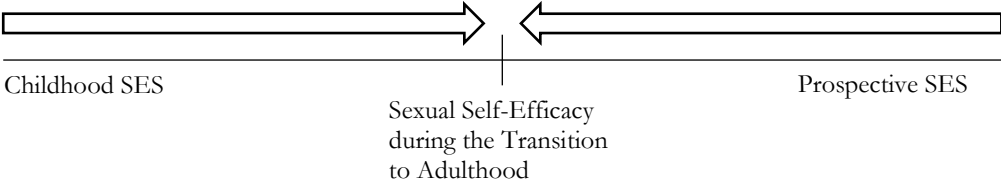


Table 1. Sexual Efficacy Outcomes, by Receiving Public Assistance during Childhood (RDSL study 2008 to 2012)

	Public Assistance Receipt		
	Not received	Short and some of the time	Most and all of the time
What are the chances that you could...			
A. Get your partner to use withdrawal and condom	88.32	77.79	76.55
B. Stop yourself once aroused	75.02	69.41	55.73

Note: N=4,523 person-weeks across 874 respondents from the Relationship Dynamics and Social Life Study, 2008-2010.

Table 2. Descriptive Statistics From the Relationship Dynamics and Social Life Study, 2008-2010 (N=4,523 person-weeks from 874 women)

	All		White		Black	
	Mean or %	S.D.	Mean or %	S.D.	Mean or %	S.D.
<i>Dependent variables: Sexual Self-Efficacy</i>						
Getting partner to use withdrawal and condom (0-100)	84.42	19.04	85.4	14.68	82.17	26.76
Stop self after aroused if no birth control is available (0-100)	71.18	29.95	71.36	30.19	70.75	30.01
<i>Predictors: Life course Socioeconomic Factors</i>						
Receiving public assistance during childhood (0/1)	0.31		0.23		0.5	
Duration of receiving public assistance during childhood						
Not received	0.69		0.77		0.5	
Short time and some of the time	0.2		0.17		0.28	
Most and all of the time	0.11		0.06		0.22	
Expect to have a middle-class family income by 30 (0-10)	7.28	2.33	7.42	2.16	6.95	2.66
<i>Predictors: Socioeconomic status</i>						
Mother's education						
Less than high school	0.06		0.05		0.09	
High school grad or some college	0.68		0.65		0.75	
College grad	0.26		0.3		0.16	
Parents' annual income over 75,000 dollars (0/1)	0.23		0.29		0.09	
Receiving public assistance as a young adult (0/1)	0.22		0.15		0.37	
Income security						
Not enough money	0.16		0.15		0.19	
Just enough money	0.33		0.31		0.37	
Some money left over	0.51		0.54		0.45	
Education						
Enrolled in 4-year postsecondary (0/1)	0.39		0.43		0.28	
Employment status						
Not employed	0.34		0.3		0.45	
Employed on a career path	0.11		0.11		0.12	
Employed not on a career path	0.54		0.59		0.43	
<i>Predictors: Demographic background</i>						
Age (18.25-22.68)	20.03	0.94	20.05	0.94	19.98	0.93
Importance of religion (0/1)	0.56		0.44		0.85	
Biological mother less than 20 years old at first birth (0/1)	0.3		0.21		0.53	
Grew up with a single parent (0/1)	0.4		0.29		0.68	
Black (0/1)	0.29					
Parental monitoring (0-3)	2.52	0.74	2.52	0.73	2.5	0.78
<i>Predictors: Emotional well-being (measured at baseline)</i>						
Loneliness (0-16)	7.67	1.33	7.51	1.25	8.07	1.44
Self esteem (0-16)	10.93	2.25	10.78	2.19	11.3	2.37
Locus of control (0-16)	9.17	3.2	9.1	3.23	9.32	3.14
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>						
Being in a relationship (0/1)	0.65		0.68		0.6	
Age at first sex 16 years or less (0/1)	0.44		0.4		0.54	
Positive attitudes toward contraception (0-32)	25.19	4.31	25.67	4.12	24.04	4.53
Desire for pregnancy (0-5)	0.2	0.82	0.18	0.79	0.25	0.91

Table 3. Coefficients From Random-Effects Regressions Predicting Sexual Self-Efficacy (Dichotomous model)

	Unstandardized $\beta$ Coefficient	
	What are the chances that you could...	
	Get your partner to use withdrawal and condom	Stop yourself once aroused
<i>Predictors: Life course Socioeconomic Factors</i>		
Receiving public assistance during childhood (0/1)	-3.00**	-4.01*
Expect to have a middle-class family income by 30 (0-10)	0.57**	0.43*
<i>Predictors: Socioeconomic status</i>		
Mother's education		
Less than high school	Reference	Reference
High school grad or some college	-2.43	-3.73
College grad	-2.79	-1.01
Parents' annual income over 75,000 dollars (0/1)	-0.41	-2.38
Receiving public assistance as a young adult (0/1)	-0.64	-1.30
Income security		
Not enough money	Reference	Reference
Just enough money	1.81	3.75*
Some money left over	2.59	3.32
Education		
Enrolled in 4-year postsecondary (0/1)	0.68	-1.01
Employment status		
Not employed	Reference	Reference
Employed on a career path	1.07	-1.53
Employed not on a career path	-0.56	-1.42
<i>Predictors: Demographic background</i>		
Age (18.25-22.68)	-1.29***	-1.73**
Importance of religion (0/1)	-0.36	1.71
Biological mother less than 20 years old at first birth (0/1)	0.41	-1.92
Grew up with a single parent (0/1)	3.26**	3.09*
Black (0/1)	0.04	0.74
Parental monitoring (0-3)	0.56	2.04*
<i>Predictors: Emotional well-being (measured at baseline)</i>		
Loneliness (0-16)	-0.48	-1.10*
Self esteem (0-16)	0.38	0.30
Locus of control (0-16)	0.37*	0.64**
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>		
Being in a relationship (0/1)	0.54	-1.62*
Age at first sex 16 years or less (0/1)	1.23	-4.64**
Positive attitudes toward contraception (0-32)	0.33***	0.53***
Desire for pregnancy (0-5)	-1.17*	-1.83**
Constant	91.05***	91.62***

Note: In all models, N=4,523 person-weeks across 874 respondents from the Relationship Dynamics and Social Life Study, 2008-2010. Robust standard errors have been omitted from this table and are available upon request.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (one-tailed tests)

Table 4. Coefficients From Random-Effects Regressions Predicting Sexual Self-Efficacy (Duration Model)

	Unstandardized $\beta$ Coefficient	
	What are the chances that you could...	
	Get your partner to use withdrawal and condom	Stop yourself once aroused
<i>Predictors: Life course Socioeconomic Factors</i>		
Duration of receiving public assistance during childhood		
Not received	Reference	Reference
Short time and some of the time	-2.66*	-3.89*
Most and all of the time	-4.16**	-5.20*
Expect to have a middle-class family income by 30 (0-10)	0.57***	0.43*
<i>Predictors: Socioeconomic status</i>		
Mother's education		
Less than high school	Reference	Reference
High school grad or some college	-2.65	-3.94
College grad	-3.04	-1.25
Parents' annual income over 75,000 dollars (0/1)	-0.41	-2.40
Receiving public assistance as a young adult (0/1)	-0.56	-1.21
Income security		
Not enough money	Reference	Reference
Just enough money	1.85	3.79*
Some money left over	2.54	3.27
Education		
Enrolled in 4-year postsecondary (0/1)	0.69	-1.01
Employment status		
Not employed	Reference	Reference
Employed on a career path	1.10	-1.50
Employed not on a career path	-0.57	-1.43
<i>Predictors: Demographic background</i>		
Age (18.25-22.68)	-1.30***	-1.73**
Importance of religion (0/1)	-0.38	1.70
Biological mother less than 20 years old at first birth (0/1)	0.40	-1.92
Grew up with a single parent (0/1)	3.32**	3.17*
Black (0/1)	0.14	0.85
Parental monitoring (0-3)	0.55	2.03*
<i>Predictors: Emotional well-being (measured at baseline)</i>		
Loneliness (0-16)	-0.47	-1.09*
Self esteem (0-16)	0.38	0.30
Locus of control (0-16)	0.38*	0.64**
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>		
Being in a relationship (0/1)	0.54	-1.62*
Age at first sex 16 years or less (0/1)	1.25	-4.62**
Positive attitudes toward contraception (0-32)	0.33***	0.53***
Desire for pregnancy (0-5)	-1.17*	-1.83**
Constant	91.35***	91.98***

Note: In all models, N=4,523 person-weeks across 874 respondents from the Relationship Dynamics and Social Life Study, 2008-2010. Robust standard errors have been omitted from this table and are available upon request.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (one-tailed tests)

Table 5. Coefficients From Random-Effects Regressions Predicting Sexual Self-Efficacy (Dichotomous model by Race)

	Unstandardized $\beta$ Coefficient			
	What are the chances that you could...			
	Get your partner to use withdrawal and condom	Stop yourself once aroused	Get your partner to use withdrawal and condom	Stop yourself once aroused
	White		Black	
<i>Predictors: Life course Socioeconomic Factors</i>				
Receiving public assistance during childhood (0/1)	-3.33*	-3.13	-2.25	-3.84
Expect to have a middle-class family income by 30 (0-10)	0.75**	0.82**	0.40	-0.07
<i>Predictors: Socioeconomic status</i>				
Mother's education				
Less than high school	Reference	Reference	Reference	Reference
High school grad or some college	-3.78	-2.62	1.34	-4.09
College grad	-4.63*	-0.65	3.49	-0.68
Parents' annual income over 75,000 dollars (0/1)	0.14	-3.04	-4.93	1.23
Receiving public assistance as a young adult (0/1)	-0.31	0.33	-1.82	-3.71*
Income security				
Not enough money	Reference	Reference	Reference	Reference
Just enough money	5.16**	6.36*	-3.99*	-1.01
Some money left over	4.99*	5.64*	-1.04	0.02
Education				
Enrolled in 4-year postsecondary (0/1)	0.40	-0.96	1.83	-0.90
Employment status				
Not employed	Reference	Reference	Reference	Reference
Employed on a career path	1.48	-1.77	0.26	-1.42
Employed not on a career path	0.20	-1.51	-2.19	-0.32
<i>Predictors: Demographic background</i>				
Age (18.25-22.68)	-1.51***	-1.98**	-0.92	-1.18
Importance of religion (0/1)	0.09	2.96*	-2.79	-2.38
Biological mother less than 20 years old at first birth (0/1)	0.31	0.38	0.80	-4.88*
Grew up with a single parent (0/1)	4.56**	2.50	0.85	4.44*
Parental monitoring (0-3)	0.30	1.39	1.19	3.20*
<i>Predictors: Emotional well-being (measured at baseline)</i>				
Loneliness (0-16)	-0.41	-0.61	-0.26	-1.35
Self esteem (0-16)	0.55	0.56	0.09	-0.20
Locus of control (0-16)	0.17	0.58*	0.82**	0.99*
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>				
Being in a relationship (0/1)	0.03	-1.94*	1.47	-0.70
Age at first sex 16 years or less (0/1)	0.87	-7.62***	2.04	1.01
Positive attitudes toward contraception (0-32)	0.38**	0.58***	0.24	0.47*
Desire for pregnancy (0-5)	-1.18*	-1.88**	-1.37*	-1.81
Constant	91.57***	85.42***	85.50***	91.72***

Note: In all models, N=3,202 person-weeks across 571 white respondents and N=1,321 person-weeks across 303 black respondents from the Relationship Dynamics and Social Life Study, 2008-2010. Robust standard errors have been omitted from this table and are available upon request.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (one-tailed tests)

Table 6. Coefficients From Random-Effects Regressions Predicting Sexual Self-Efficacy (Duration Model by Race)

	Unstandardized $\beta$ Coefficient			
	What are the chances that you could...			
	Get your partner to use withdrawal and condom	Stop yourself once aroused	Get your partner to use withdrawal and condom	Stop yourself once aroused
	White		Black	
<i>Predictors: Life course Socioeconomic Factors</i>				
Duration of receiving public assistance during childhood				
Not received	Reference	Reference	Reference	Reference
Short time and some of the time	-3.88*	-3.90	-0.79	-2.47
Most and all of the time	-2.26	-1.92	-4.79*	-6.67*
Expect to have a middle-class family income by 30 (0-10)	0.75**	0.82**	0.43*	-0.06
<i>Predictors: Socioeconomic status</i>				
Mother's education				
Less than high school	Reference	Reference	Reference	Reference
High school grad or some college	-3.66	-2.49	0.57	-4.92
College grad	-4.49*	-0.48	2.60	-1.63
Parents' annual income over 75,000 dollars (0/1)	0.12	-3.09	-5.14*	1.01
Receiving public assistance as a young adult (0/1)	-0.34	0.29	-1.51	-3.38*
Income security				
Not enough money	Reference	Reference	Reference	Reference
Just enough money	5.10**	6.30*	-3.79	-0.80
Some money left over	4.97*	5.62*	-1.18	-0.17
Education				
Enrolled in 4-year postsecondary (0/1)	0.39	-0.98	1.84	-0.91
Employment status				
Not employed	Reference	Reference	Reference	Reference
Employed on a career path	1.49	-1.77	0.66	-1.04
Employed not on a career path	0.21	-1.50	-2.25	-0.38
<i>Predictors: Demographic background</i>				
Age (18.25-22.68)	-1.51***	-1.98**	-0.98	-1.24
Importance of religion (0/1)	0.10	2.97*	-3.09	-2.66
Biological mother less than 20 years old at first birth (0/1)	0.33	0.42	0.85	-4.81*
Grew up with a single parent (0/1)	4.59**	2.56	1.10	4.72*
Parental monitoring (0-3)	0.31	1.40	1.11	3.11*
<i>Predictors: Emotional well-being (measured at baseline)</i>				
Loneliness (0-16)	-0.43	-0.64	-0.28	-1.38
Self esteem (0-16)	0.56	0.57	0.05	-0.25
Locus of control (0-16)	0.16	0.57*	0.85**	1.01*
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>				
Being in a relationship (0/1)	0.02	-1.95*	1.47	-0.71
Age at first sex 16 years or less (0/1)	0.83	-7.65***	2.01	0.97
Positive attitudes toward contraception (0-32)	0.38**	0.59***	0.26*	0.48*
Desire for pregnancy (0-5)	-1.18*	-1.88**	-1.36*	-1.80
Constant	91.67***	85.58***	87.68***	94.06***

Note: In all models, N=3,202 person-weeks across 571 white respondents and N=1,321 person-weeks across 303 black respondents from the Relationship Dynamics and Social Life Study, 2008-2010. Robust standard errors have been omitted from this table and are available upon request.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (one-tailed tests)

Table 7. Coefficients From Fixed-Effects Regressions Predicting Sexual Self-Efficacy

	Unstandardized $\beta$ Coefficient	
	What are the chances that you could...	
	Get your partner to use withdrawal and condom	Stop yourself once aroused
<i>Predictors: Life course Socioeconomic Factors</i>		
Expect to have a middle-class family income by 30	0.50*	0.66*
Expect to have a middle-class family income by 30 X Black	-0.65	-1.25*
<i>Predictors: Socioeconomic status</i>		
Receiving public assistance as a young adult (0/1)	0.05	0.31
Education		
Enrolled in 4-year postsecondary (0/1)	-0.62	-2.54*
Employment status		
Not employed	Reference	Reference
Employed on a career path	0.62	-1.88
Employed not on a career path	-0.71	-1.62
<i>Predictors: Demographic background</i>		
Age (18.25-22.68)	-1.21**	-1.58**
<i>Predictors: Adolescent experiences and attitudes with sex and pregnancy</i>		
Being in a relationship (0/1)	-0.31	-2.11*
Positive attitudes toward contraception (0-32)	0.17	0.10
Desire for pregnancy (0-5)	-0.58	-1.32
Constant	101.11***	104.08***

Note: In all models, N=4,523 person-weeks across 874 respondents from the Relationship Dynamics and Social Life Study, 2008-2010. Robust standard errors have been omitted from this table and are available upon request.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (one-tailed tests)



Figure 2. Predicted Probability of Sexual Self-Efficacy by Duration of Receiving Public Assistance and Race

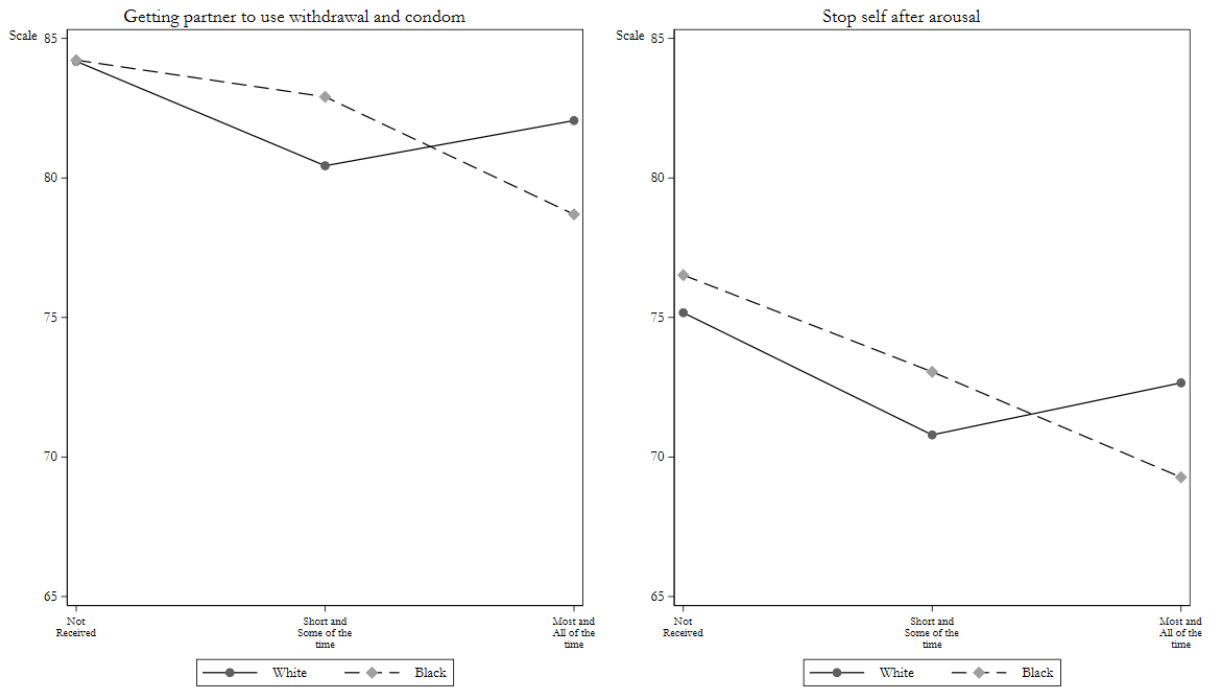
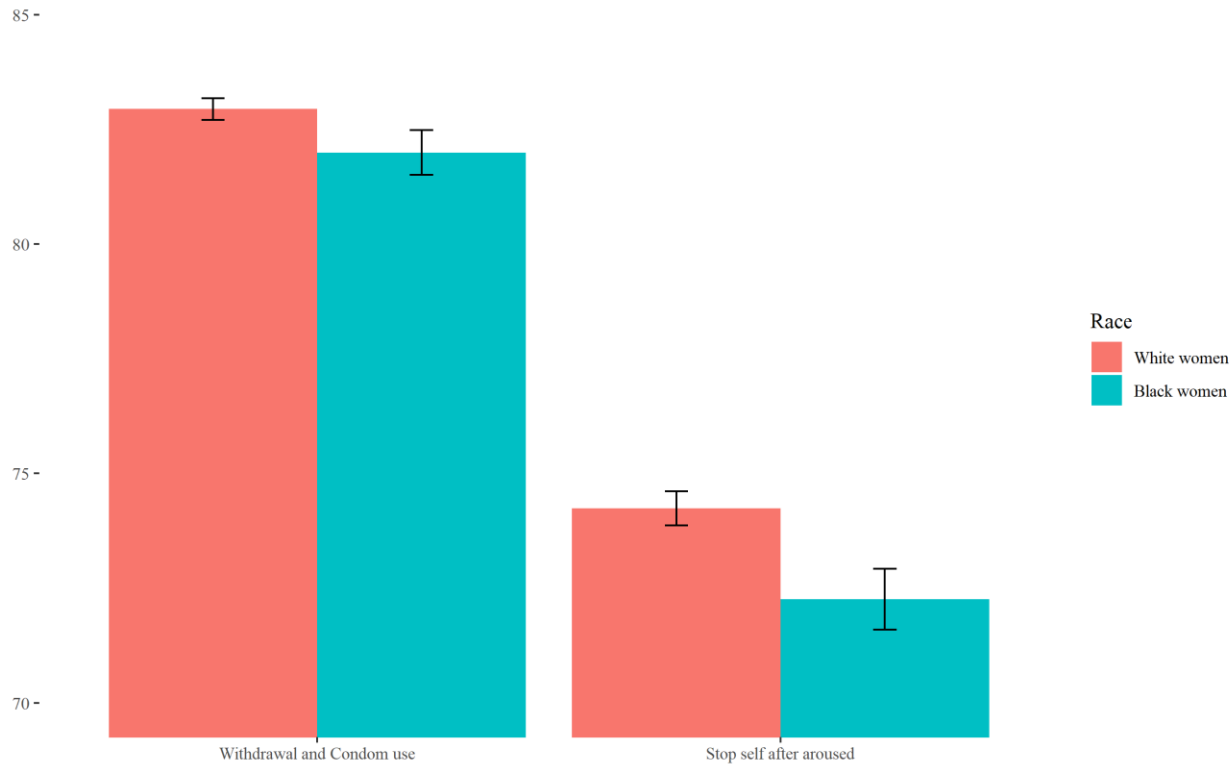


Figure 3. Predicted Sexual Self-Efficacy by Race



Notes: Predictions derived from fixed effects models (shown in Table 7).