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# A Dream Deferred: African American Women's Diminished Socioeconomic Returns of Postponing Childbearing from Teenage to Adulthood

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**Abstract:** Background: Brookings Institution has identified postponing childbirth from teenage to adulthood as a major strategy that is needed for upward social mobility of women. However, according to the Minorities' Diminished Returns (MDRs), the associations between aspirations, investments, behaviors, and socioeconomic position (SEP) may be diminished for marginalized groups such as African Americans. Objective: To extend the existing knowledge on the MDRs, the current study had two aims: First to compare White and African American women for the association between postponing childbearing to adulthood and SEP in a national sample of American women. Second, to test correlates of postponing childbearing to adulthood and SEP at birth with long term outcomes 15 years later when the child was 15 years old. Methods: For this longitudinal study, data came from the Fragile Families and Child Well-being Study (FFCWS), a national longitudinal prospective study in the United States (US) that followed an ethnically diverse sample of women from childbirth for 15 years from 1998 to 2016. For the first aim, this study included 2679 women composed of 723 Whites and 1956 African Americans. For the second aim, among 1842 individuals who had available data 15 years later, we measured various economic, behavioral, and mental health outcomes when the child was 15 years old. For aim 1 we ran linear regression. Postponing childbearing to adulthood was the independent variable. The dependent variable, SEP (poverty) was treated as a continuous measure with higher score indicating more poverty. Confounders included marital status and delivery characteristics. For the aim 2, we ran Pearson correlation test (exploratory analysis) to test if baseline SEP correlates with future outcomes. Results: Postponing childbearing from adolescence to adulthood was associated with higher SEP in adulthood, net of all confounders including marital status and education. We found a significant interaction between postponing childbearing from adolescence to adulthood and race on SEP, suggesting that the economic reward of postponing childbearing may be weaker for African American women than for White women. Conclusions: Although postponing the age at childbirth is a recommended strategy for women who wish to maximize their chance of upward social mobility, this strategy may be associated with smaller economic returns for African American women than White women. The results can also be interpreted as MDRs in investments in terms of a postponing childbearing. In a fair society, the same investment should be similarly rewarded across diverse racial groups. In the reality, however, the US society differently rewards White and African American women who postpone childbearing. Research should explore the roles of social stratification, blocked opportunities, and concentrated poverty in explaining the unequal return of such an investment for African American and White women.

**Keywords:** population groups; ethnic groups; income; maternal age; childbirth; teenage pregnancy

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*“What happens to a dream deferred?*

*Does it dry up*

*Like a raisin in the sun?*

*Or fester like a sore—*

*And then run?*

*Does it stink like rotten meat?*

*Or crust and sugar over—*

*like a syrupy sweet?*

*Maybe it just sags*

*like a heavy load.*

*Or does it explode?”*

Langston Hughes

## 1. Introduction

Teenage pregnancy has been described as children having children [1]. Teenage pregnancy is one of the major risk factors contributing to the health and wellbeing of mother and the child [2]. Teenage pregnancy is associated with inadequate prenatal care [3]. In general, worse outcomes are seen for child birth [4] as well as child development [1,5,6] in children born to younger mothers than older mothers. Teenage pregnancy is also a risk factor for maternal mortality [7]. Teenage pregnancy is a risk factor for perinatal depression [8]. Teenage mothers tend to show lower levels of positive parenting and coparenting [6,9,10]. As a result of all the health problems associated with teenage pregnancy, there has been a tremendous interest and investment in reducing teenage pregnancy [11,12]. However, existing programs aimed at preventing teenage pregnancy have not had much success [12,13].

One social group highly affected by teenage pregnancy is African Americans [14,15]. In fact, pregnancy among teenagers has been proposed as one of the mediators for poor health and economic outcomes among African American women in the United States. Higher prevalence of teenage pregnancy in African Americans is believed to be one of the contributing factors to racial and ethnic variation in maternal and child outcomes such as maternal and infant mortality [16,17]. Thus, postponing pregnancy from adolescence to adulthood has been a public health goal in African American communities [18–20].

Teenage pregnancy composes half of first non-marital births in the US. It is a strong predictor of additional out of wedlock births, even during adulthood. If we want to prevent out-of-wedlock childbearing and the growth of single-parent families, the teenage years are a good place to start [21]. According to the Brookings Institution, postponing childbearing from adolescence to adulthood is a key strategy to maximize the chance for upward social mobility for women [22] and helps poor women become middle-class [22]. However, recent research has questioned this premise [23]. At least some preliminary results may suggest that the economic reward of postponing childbearing may be reduced for African American women compared to White women [23]. Teenage pregnancy may partially explain some of the undesired birth consequences of low socioeconomic position (SEP) as well as undesired outcomes for African American children and their mothers [24]. Therefore, a better understanding of how SEP differentials contribute to maternal age differences between Whites and African Americans is warranted [25].

Prevention of teenage pregnancy means a shift in the timing of pregnancy from adolescence to adulthood. Postponing childbearing until adulthood is associated with higher readiness of women

for parenthood [26]. So a major recommendation and target in public health is to reduce teenage pregnancies and increase adulthood pregnancies [24]. Compared to teenage parents, adult parents show higher levels of maternal protection toward the child, establish a higher level of mother–child closeness and bond, family functioning, and family stability [27]. Postponing childbearing also leads to higher economic stability [27].

In the United States (US), early childbearing is a known risk factor for socioeconomic disadvantage [28]. Teenage pregnancy is believed to be closely associated with worse socioeconomic position (SEP) indicators [29] such as poverty and low income [30]. Although teenage pregnancy affects economic development of both parents, the undesired economic effects of teenage pregnancy are more detrimental for mothers [28]. Low SEP (e.g., poverty) is both a cause and a consequence of early childbearing [6,31].

According to the Minorities' Diminished Returns (MDRs) framework, racial and ethnic minority populations, particularly African Americans, gain less tangible outcomes from their aspirations, decisions, behaviors, as well as SEP [32]. That is SEP showed weakened associations for African Americans, which is an indicator of a relative disadvantage of African American than White Americans [32]. To give some examples, positive coping and mastery generates less health and life expectancy for African Americans than Whites [33]. High SEP has shown weaker correlations with drinking [34], smoking [35], diet [36], exercise [37], depressive symptoms [38], and body mass index (BMI) [39] for African Americans than Whites. Some recent research has shown that the association between maternal age and SEP (poverty) [28] may also be diminished for African Americans than Whites [23]; however, more research is needed to support this position.

We are aware of one single study that has tested the MDRs for the association between age of childbearing and family SEP [23]. The study used a national data set of racially and ethnically diverse mothers at delivery, the authors tested if the age at childbirth is differently associated with SEP (poverty). The study did not study teenage pregnancy as it treated age as a continuous measure, while wealth and various sources of income such as welfare were controlled for. The study showed that African American women are at triple jeopardy. Not only does their family income and age of pregnancy tend to be lower than White women. However, when they postpone their pregnancy their SEP does not show as much of a difference as with White women. That means any incremental postponing of the childbearing showed diminished returns in terms of family income for African American women, after controlling for marital status and welfare dependency. However, that study did not compare pregnancies during adolescence and adulthood. The study, modeled the effect of each additional year as a postponement of childbearing, which could be from adolescence to adulthood, or within early adulthood, or within late adulthood [23]. As the implication of one-year postponement in childbearing is much higher in adolescence than adulthood, there is still a need for a study that categorically compares pregnancies during adolescence versus adulthood on SEP among African American and White women.

## 2. Objectives

In a well-established national study of maternity in the US, the present study had two aims: First, to explore MDRs in the association between postponing childbearing from adolescence to adulthood (timing of childbirth) and SEP by comparing African American and White women, and second, to test correlates of postponing childbearing to adulthood and SEP at birth with long term outcomes 15 years later when the child was 15 years old. As suggested by the MDRs literature [40], a weaker association was expected between postponing childbearing from teenage to adulthood on SEP for African American than White women, net of education, marital status, and delivery characteristics.

## 3. Methods

The current study used the Fragile Families and Child Wellbeing Study (FFCWS) data. FFCWS is a longitudinal study (1998–2016), evaluates economically fragile families. Although detailed information

about sampling and methods of the FFCWS is accessible elsewhere [41], we concisely describe the methods of FFCWS here.

The FFCWS study protocol was approved by the Princeton University Institutional Review Board (IRB). Written informed consent was provided by all participants after being informed of the purpose of the study. Data were collected, kept, and analyzed namelessly. Also, respondents were financially compensated.

### 3.1. Sample

Participants were mothers from urban areas in the US. Mothers were selected from 20 US cities with at least a population size of 200,000. Participants were enrolled randomly in the FFCWS from all births in hospitals. Non-married African American and Hispanic couples were oversampled in FFCWS [41]. The majority of the FFCWS samples were minority families, non-marital, and low SEP. The FFCWS is a national sample but is not representative of the US public. There were 2407 African American, 1354 Hispanic, and 894 White mothers in the FFCWS sample.

The current analysis consisted of African American and White women only. For the aim 1, we included individuals if we had valid data on their SEP (e.g., poverty status), maternal age at childbirth, as well as marital status and other covariates. For the aim 1, the analytical sample contained 2679 women including 723 White and 1956 African American women. For the aim 2, we ran the analysis on a subsample that had data at age 15. This included 1842 individuals who had data 15 years later.

### 3.2. Independent Variable (Aim 1)

Our key independent variable was dichotomous. Postponing childbearing from adolescence to adulthood was coded as 0 for teenage pregnancy (14–19) and 1 as pregnancy at age 20 or later [42]. This variable was calculated based on the maternal age at childbirth that varied between 14 to 47 years.

### 3.3. Dependent Variable (Aim 1)

The dependent variable in our study was SEP (poverty status). Poverty status (family SEP) was treated as a continuous variable, with a higher score indicating higher SEP.

### 3.4. Confounders (Aim 1)

Covariates in this study included marital status, baby sex, and delivered a low birth weight baby (babies who are born weighing less than 5 pounds, 8 ounces, or 2500 g). Marital status was a dichotomous that was reported by women (married 1, all other situation 0). All covariates were measured as dichotomous variable (no 1, yes 0). All measured used self-reported data.

### 3.5. Moderator (Aim 1)

Race/ethnicity was the central moderator. Race/ethnicity was self-identified. This was a dichotomous variable, with White = 0 (reference category) and African American = 1.

### 3.6. Correlates of SEP and Timing of Pregnancy (Aim 2)

We included 15 outcomes measured at age 15: family income, youth BMI, youth grade, youth commitment to activities of the school, parent–youth risk communication, parenting stress, youth depression, youth positive emotions, youth anxiety, and youth impulsivity. These outcomes were applied to test as correlates of family SEP at birth. We expected all of these outcomes to be correlated with family SEP at birth.

### 3.7. Analysis

For this study, SPSS version 22.0 (SPSS Inc., Chicago, IL, USA) was used for data analysis. For aim 1, frequency (%) and mean (standard deviation: SD) were reported for descriptive characteristics.

Also, Chi square and independent sample t test were applied to evaluate differences of descriptive characteristics in White and African American women. Two linear regression models were conducted in the overall sample. Both modes were performed in the pooled sample. *Model 1* only contained the main effects and *Model 2* contained the interaction between postponing childbearing from teenage to adulthood and race/ethnicity. In both models, SEP was the dependent variable (higher score higher SEP), postponing childbearing from teenage to adulthood was the independent variable (0/1), race was the focal moderator (0/1), and marital status and delivery characteristics were the controls. We reported regression coefficients (b), standard error (SE), 95% confidence intervals (CI), and p value. For aim 2, we tested correlations between timing of pregnancy (postponing childbearing) and baseline SEP with a wide range of behavioral and health outcomes of the youth at age 15. For these tests, we used Pearson correlation test (exploratory). *p*-values equal or less than 0.05 were considered significant.

#### 4. Results

##### 4.1. Aim 1

This study included 2679 women, of whom, 723 were White and 1956 were African American. Descriptive variables in the pooled sample and for each race are provided in Table 1. Postponing childbearing from adolescence to adulthood and SEP were higher in White than African American women. Most White women were married, while most African American women were unmarried. Having a low birth weight (LBW) baby was also higher in African American than White women.

**Table 1.** Descriptive statistics in the pooled sample and by race (n = 2679).

	All		White		African American	
	n	%	n	%	n	%
<b>Race</b>						
White	723	27.0	723	100.0		
African American	1956	73.0			1956	100.0
<b>Sex of the baby</b>						
Male	1403	52.4	382	52.8	1021	52.2
Female	1276	47.6	341	47.2	935	47.8
<b>Marital Status <sup>*,b</sup></b>						
Not Married	1969	73.5	286	39.6	1683	86.0
Married	710	26.5	437	60.4	273	14.0
<b>Delivered Baby Weight <sup>*,b</sup></b>						
Normal	2280	87.8	651	92.6	1629	86.1
Low Birth Weight	316	12.2	52	7.4	264	13.9
<b>Pregnancy</b>						
Teenage	268	10.0	38	5.3	230	11.8
Adult	2411	90.0	685	94.7	1726	88.2
			<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>
<b>Age <sup>*,a</sup></b>	26.06	6.12	28.49	6.34	25.16	5.78
<b>SEP <sup>*,a</sup></b>	2.45	2.65	4.51	3.44	1.70	1.78

Socioeconomic Position (SEP); SD: Standard Deviation; CI: Confidence Interval. \* *p* < 0.05 for comparison of African Americans and Whites; <sup>a</sup> Independent sample t test; <sup>b</sup> Chi square test.

Table 2 indicates the findings of two linear regression models in the overall sample with postponing childbearing from adolescence to adulthood as the independent variable and SEP as the dependent

variable. *Model 1* only entered the main effects of race, postponing childbearing from adolescence to adulthood, and covariates. *Model 2* contained the above main effects as well as an interaction term between race/ethnicity and postponing childbearing from teenage to adulthood. *Model 1* suggested that postponing childbearing from teenage to adulthood was associated with higher SEP, net of covariates. *Model 2* showed an interaction between race and postponing childbearing from teenage to adulthood, suggesting a weaker association between postponing childbearing from adolescence to adulthood and SEP in African American than White women.

**Table 2.** Linear regression model in the pooled sample.

	Model 1 Main Effects						Model 2 Model 1 + Interactions					
	B	SE	B	95% CI	t	p	B	SE	b	95% CI	t	p
Race (African American)	-0.27	-1.60	0.11	-1.81 -1.40	-15.21	<0.001	-0.14	-0.83	0.37	-1.56 0.09	-2.21	0.027
Baby (Female)	0.02	0.11	0.08	-0.05 0.28	1.36	0.175	0.02	0.11	0.08	-0.05 0.28	1.37	0.171
Married	0.42	2.48	0.11	2.27 2.69	23.05	<0.001	0.41	2.45	0.11	2.24 2.67	22.66	<0.001
Low Birth Weight	-0.01	-0.08	0.13	-0.33 0.17	-0.61	0.542	-0.01	-0.07	0.13	-0.32 0.18	-0.55	0.586
Delayed Pregnancy	0.03	0.29	0.14	0.01 0.56	2.04	0.041	0.11	1.01	0.36	0.29 1.72	2.77	0.006
Delayed Pregnancy x Race							-0.15	-0.84	0.39	-1.60 -0.07	-2.15	0.031
Intercept		2.65	0.16	2.33 2.97	16.24	<0.001		1.99	0.35	1.30 2.67	5.68	<0.001

Outcome: Socioeconomic Position (SEP); SE: Standard Error; CI: Confidence Interval.

#### 4.2. Aim 2

As Table 3 shows, family SEP at baseline (birth) showed significant correlation with all outcomes at age 15 namely family income, BMI, grade, parenting stress, commitment to activities of the school, risk communication, youth depression, youth positive emotions, youth anxiety, and youth impulsivity.

**Table 3.** Correlation matrix between family SEP at baseline (birth) and a wide range of parent and youth outcomes 15 years later.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Family SEP (At Birth)	1	0.14 **	-0.47 **	0.02	0.55 **	-0.08 **	0.40 **	-0.15 **	0.29 **	-0.09 **	-0.14 **	-0.13 **	-0.11 **	0.05 *	-0.09 **	-0.19 **
2 Postponed Pregnancy from Teen to Adults		1	-0.10 **	0.02	0.19 **	-0.03	0.07 **	0.03	0.08 **	0.01	-0.06 *	-0.01	-0.05 *	0.06 *	-0.04	-0.02
3 Race (NHB)			1	0.01	-0.47 **	0.09 **	-0.29 **	0.18 **	-0.24 **	0.12 **	0.15 **	0.07 **	0.07 **	0.02	0.03	0.13 **
4 Child Sex (Female)				1	0.02	0.05 **	-0.00	0.07 **	0.12 **	-0.04	0.02	-0.06 **	0.07 **	-0.07 **	0.04	-0.02
5 Family Structure (Married) (At Birth)					1	-0.11 **	0.30 **	-0.14 **	0.23 **	-0.11 **	-0.17 **	-0.07 **	-0.11 **	0.03	-0.08 **	-0.14 **
6 Low Birth Weight						1	-0.07 **	0.01	-0.01	0.05 *	0.01	0.00	0.03	0.04	0.04	0.01
7 Family Income (Year 15)							1	-0.15 **	0.21 **	-0.07 **	-0.10 **	-0.08 **	-0.10 **	0.08 **	-0.07 **	-0.11 **
8 BMI (Year 15)								1	-0.07 **	-0.00	0.04	0.06 *	0.10 **	-0.08 **	0.09 **	0.09 **
9 Grade (Year 15)									1	0.14 **	-0.07 **	-0.13 **	-0.16 **	0.09 **	-0.15 **	-0.29 **
10 Commitment to activities of the school (Year 15)										1	0.07 **	-0.06 **	-0.21 **	0.41 **	-0.18 **	-0.16 **
11 Risk communication (Year 15)											1	-0.02	-0.01	0.02	-0.02	0.03
12 Parenting Stress (Year 15)												1	0.13 **	-0.11 **	0.12 **	0.16 **
13 Youth Depression (Year 15)													1	-0.48 **	0.67 **	0.35 **
14 Youth Positive Emotion (Year 15)														1	-0.30 **	-0.12 **
15 Youth Anxiety (Year 15)															1	0.43 **
16 Youth Impulsivity (Year 15)																1

NHB: Non-Hispanic Black; BMI: Body Mass Index; SEP: Socioeconomic Position. \*  $p < 0.05$ , \*\*  $p < 0.01$ .

## 5. Discussion

In a national sample of American women, postponing childbearing from adolescence to adulthood was associated with higher SEP. However, the association between age of childbearing and SEP is diminished for African American women, relative to White women. This means that relative to White women, African American women may gain less SEP from postponing childbearing from teenage to adulthood. Thus, postponing childbearing may have a less significant impact on the economic opportunities among African American women than White women. Our aim 2 also showed that family SEP at birth is associated with all outcomes such as family income, youth BMI, youth grade, youth commitment to activities of the school, parent-youth risk communication, parenting stress, youth depression, youth positive emotions, youth anxiety, and youth impulsivity. This highlights the importance of the diminished return of delaying childbirth from teenage to adulthood in shaping future inequalities across domains.

The results observed in this study are in line with the MDRs framework [40]. For African American women, SEP is considerably lower on average, they have a higher percentage of pregnancies during the teenage-age years and postponing childbearing from teenage age to adulthood is associated with a smaller increase in their SEP. This is an indicator of multiple layers of disadvantage. Not only is SEP lower on average for African Americans, but postponing the age of reproduction from adolescence to adulthood does not result in a significant SEP increase. That means, reproductive decisions may have a diminished return in terms of upward social mobility for African American women than White women. We attribute this to structural factors rather than individual level decisions as they may not drastically change the life conditions of African American women in constrained contexts.

According to the findings reported here, SEP is lower for African American women, regardless of timing of pregnancy. That means, with teenage or adulthood pregnancy, African American women struggle with a substantially lower SEP than White women. However, for White women, not only is baseline SEP higher, postponing pregnancy from adolescence to adulthood translates to an even greater increase in SEP. This contrasting situation is unfair and is reflective of multiple jeopardies for African American women: Poor outcome even when the behavior (to postpone maternity age) should be rewarded by the society.

Another finding in this study was that teenage pregnancy is more common in African American than White women. Research has frequently documented the same pattern [18–20,43]. The second finding was MDRs of postponing maternity on SEP. An extensive body of research has documented MDRs of educational attainment [38] and income [44] on depression among African Americans versus Whites. High SEP African Americans report poor self-rated mental health [45]. Educational attainment [46] and employment [47] also show a weaker link with mortality in African Americans than Whites. Similarly, African Americans with high SEP (education and income) show high prevalence of obesity, chronic disease, and other health problems [48]. Finally, some studies show poor health behaviors of high SEP African Americans [35].

MDRs result in transgenerational transitions of inequalities. That means, not only do MDRs affect mothers but also their children and youth. In different studies, high maternal SEP has had weaker effects on impulsivity [49], chronic disease [50], obesity [51], anxiety [52], self-rated health [53], and depression [54], school attachment [55], aggression [50], tobacco use [50], and GPA [56] for African American than White children and youth. All these studies suggest that health, development, and behaviors of high SEP African American youth suffer across domains.

Minorities' Diminished Returns (MDRs) are not specific to a particular sex, age group, or race. Similar MDRs are shown for Hispanics [57], Asian Americans [58], Native Americans [59], LGBTs [60], and even marginalized White people [61]. These diminished effects of SEP are systemic and not limited to a particular SEP indicator or an outcome [61]. These are being seen across SEP resources, health, behavioral, and economic outcomes. They also exist for all marginalized groups, broadly defined including the poor and marginalized Whites [61]. Such a systemic nature of the MDRs suggest that the root cause of the MDRs is structural rather than behavioral or cultural. This means we should not

blame the culture or behavior of the victim but address the societal, environmental, and contextual barriers that hinder economic development and health of marginalized groups.

Findings from a study conducted to investigate the importance of race and SEP in pregnancy age for African American and white teenagers showed there was no significant difference between African Americans and Whites during better economic times [19], which is not consistent with the results of the current study. These differences may be due to age and racial differences of the samples between the two studies; however, additional research is required to better understand this discrepancy in the field.

The exact mechanisms by which racial differences in the associations between behaviors—SEP and SEP-outcomes emerge are not well known. Differential benefits of SEP, human sources, aspirations, and investments may be due to structural and systemic racism that hold racial and ethnic minorities back and cause them to experience diminished returns [62]. Considerable research has shown that an increase in SEP increases rather than decreases exposure to race-related discrimination for African Americans [63–65]. High SEP may also increase vulnerability of African Americans to discrimination [66]. Discrimination is a universal risk factor across domains [67–70] and may minimize the health advantages from SEP resources and protective effects of SEP among African American adults [71]. Another explanation is that high SEP African Americans are more likely to have low SEP during childhood than high SEP Whites. This is important given the role of childhood SEP as a risk factor for poor outcomes in adulthood. Thus, low childhood SEP may reduce the benefits of adulthood SEP for African Americans [72]. Finally, high SEP African Americans are more likely to be surrounded by Whites at school and in the workplace, which increases their perceived discrimination [73].

Another explanation is racial segregation [74], poor neighborhoods [61], and racial and ethnic composition of the neighborhoods [73], as well as density of resources [75–77]. Thus, the daily experience of African Americans and Whites differ at neighborhoods, schools, workplaces, and health care facilities. In such context with high neighborhood stress, segregation, crime, poverty, and social disorder, African American youth and young adults face constrained opportunities and choices. In this context, postponing sex and avoiding pregnancy may be very difficult [19].

As explained by Bandura's social learning theory [78], behavior is socially learned. That means, individuals adopt behaviors that are common in their social network and peers. In segregated neighborhoods with low opportunities, peers may reduce the effects of SEP for high SEP African Americans [19]. However, the high risk profile of high SEP individuals in poor neighborhoods is not specific to African Americans and also seen for marginalized Whites who live in poor neighborhoods [61]. The present research was unable to investigate the effects of context, discrimination, and racial composition of the neighborhood, which should be considered in future research.

Teenage pregnancy was associated with lower SEP. Previous studies have established the undesired effect of teenage pregnancy as a universal risk factor for a wide range of outcomes such as low income, welfare dependency, fewer job opportunities, as well as lower living standards [79]. Several factors may contribute to the economic problems that may arise as a result of teenage pregnancy. As the result of early motherhood, the youth would be required to leave their education or job as a function of maternity [80]. As a result, they will experience a gap in their participation in the education and labor market [80]. They may also experience additional difficulties with marriage and intimate relations, as well as with their own parents [9]. As a result, they may experience higher levels of stress, conflict and may experience some interruption in their work. All these factors may reduce the economic return for mothers, particularly teenage moms [81]. They may also have fewer opportunities when they return to the labor market. Thus, the labor market may return their effort with a lower pay. They may also be faced with various levels of adversities, constraints, and frictions in their search for upward educational, and occupational mobility [80]. As a result, teenage moms face additional barriers against their upward social mobility at least for several years which has considerable implications for their economic and human development as well as financial well-being [79].

African Americans tend to face blocked opportunities in the US [82,83], and African American mothers are not an exception to this rule [84–86]. Female African Americans report high levels of

discrimination at schools [73] and jobs [87] across the age spectrum. They do not have access to the same opportunities that White women access. This seems to be a pattern regardless of age of childbearing. A fair society similarly rewards various racial groups for similar behaviors. However, in the US, postponing age of childbearing is not similarly rewarded economically for African American and White women. This is another indication of inequalities that are common in the lives of racial and ethnic minorities in the United States. Addressing health inequalities should go beyond equalizing access to SEP and address the everyday living conditions of African American and White women. Therefore, specific policies and programs should aim to decrease societal and structural obstacles that are causing diminished returns for African American families.

These results have implications for policy and public health. It is essential to design, implement, and evaluate public and economic policy solutions that can undo the diminished returns of SEP for racial and ethnic minorities particularly African Americans. There is also a need for programs and policies that take appropriate measures to reduce the structural differences between the lives of racial and ethnic groups. It is still unknown what type of social and public policies would be able to reduce the diminished returns for African Americans. Such interventions are needed to eliminate the economic, behavioral, and health disparities across racial groups. Addressing health inequalities should go beyond equalizing SEP. Similarly, there is a need to reduce teenage pregnancies in the lives of minorities. Such efforts may be a major part of the efforts to promote equality across racial and ethnic groups. To remove the persistence of racial health disparities in the US, MDRs should be addressed, and to address MDRs, policies should directly target the social stratification, racism, and discrimination. A multilevel intervention is needed to reduce the role of race as a social determinant of health in the US.

Given the association between low SES, teenage pregnancy, and poor parenting, to improve population level parenting, there is a need to reduce teenage pregnancy so women can become mothers when they have higher education and income (SEP) [25]. However, this strategy may be less relevant to African Americans than Whites.

In the US, one of the most racial and ethnic diverse countries, over 3 million infants are born each year [88]. In recent decades, the US has experienced a considerably raise in populations SEP (e.g., education attainment and income) as well as age at childbirth [28]. However, racial groups have not similarly benefitted from this change in the timing of childbearing [89]. It has been shown that in industrial and developed countries such as the US, the experienced decline in teenage pregnancy and the observed delay in the childbearing age is a less pronounced trend in less educated women [90]. At the same time, the cost of early childbearing is particularly higher for low-educated than for highly-educated women [91]. Early childbearing is considerably more common among African American than White women [92]. Currently, the mean maternal age of African American women (24.8 years) remains considerably lower compared to White women (27.4 years) [93]. Between 2006 to 2010, one third of African American women in their reproductive phase had a teenage pregnancy, defined as a pregnancy before their 20th birthday [94]. This statistic is much lower in White women (14%) [94].

Racial differences in the association between individual aspirations/investments and SEP are neither acceptable nor fair. This is also clearly against the American Dream. A core element of the American dream is that all individuals can achieve their goals. However, in the current reality the dream is deferred for a large proportion of Americans who are marginalized. Policies should help equalize the living conditions and access to the opportunity structure of African American and White girls and women, among other groups. Such goals may require structural and societal changes across institutions that have a role in shaping peoples' SEP. These include urban planning, educational institutions, the police and correctional system, as well as the labor market. Equalizing the treatment by these institutions is needed if we wish to equalize and reduce the economic and health inequalities between African American and White women.

Currently, residential segregation systematically hinders African Americans' access to various opportunities. In the current context, postponing childbearing will have a less than expected effect on

generating income (SEP) for African American women with high aspirations. As such, prevention of early childbearing and teenage pregnancy in the African American community result in less than expected upward social mobility both for the mother and for their child.

### Limitations

This study had several limitations. First, the association reported here is not causal. Data on repeated measures of SEP and maternity age should be collected over time. The link between SEP and age of pregnancy are bidirectional. The underlying mechanisms behind differential association between SEP and postponing pregnancy from adolescence to adulthood by race was not studied. Structural factors such as racial and ethnic composition of the neighborhood, area level SEP, and job availability could impact behaviors and choices of populations and maternal age of women is not an exception. While the present study was limited to White and African American women, future research may study other ethnic groups. In addition, we only studied one SEP indicator, namely poverty status. Other SEP indicators such as education, employment, and wealth should be investigated in future work. Finally, due to an imbalanced sample size of White and African American women, we did not perform race-specific models to avoid bias due to differential statistical power by race. Despite all these limitations, this is the second study documenting that SEP and child-bearing timing may have differential associations for White and African American women. Another strength was using a national sample and large sample of African Americans.

## 6. Conclusions

After conducting the analysis, the authors conclude that the recommended strategy of postponing the age at childbirth may be associated with smaller economic returns for African American women than White women suggesting that there are structural inequalities and social stratification that systemically reduces the opportunities for African American communities, regardless of the variation in individual behaviors. In line with the MDRs, African American and White women differ in the association between postponing pregnancy from adolescence to adulthood and SEP, with a change in the childbearing age and SEP showing stronger association among White than African American women. This racial difference is beyond the effect of marital status and may reflect structural inequalities and social stratification that systemically reduces the opportunities for African American communities, regardless of the variation in individual behaviors.

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