

EDUCATIONAL ADVANTAGE AND UNINTENDED PREGNANCY

by

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Chapter 1

Introduction

This dissertation combines quantitative and qualitative approaches to examine the role of educational advantage and disadvantage in contributing to the social patterning of pregnancy intention status in the U.S. This project is comprised of three papers: 1) Critical Literature Review and Theoretical Overview, 2) a Quantitative Analysis, 3) a Qualitative Analysis. The critical literature review and theoretical overview examine the contextual influencers of fertility, pathways between educational advantage and fertility patterns, validity of pregnancy intention status measures, and empirical evidence on the association between unintended pregnancy and adverse maternal, infant, and child health outcomes.

The quantitative analyses examine how educational advantages relate to the incidence and prevalence of unintended births in the United States. These analyses will use the National Longitudinal Survey of Youth – 1979, which is a nationally representative sample of youth who were between the ages of 14 and 22 in 1979. This survey has a longitudinal design, detailed information on respondents' youth background, and detailed fertility schedules for female respondents, which makes it ideal for this type of analyses.

The qualitative study examines data collected from semi-structured interviews with women about their youth background, including educational experiences, and fertility histories. I interview a non-representative sample of non-institutionalized, English-speaking women who

have experienced a pregnancy. The purpose of these interviews will be to further develop theory and hypotheses regarding youth background and fertility planning.

Chapter 2

Critical Literature Review of Unintended Pregnancy and Theoretical Overview of Educational Advantage and Fertility Intention

2.1 Review of Literature Review

In order to understand how this study contributes to the literature on unintended fertility, it is important to be familiar with the current state of that literature. To date, there is a large body of evidence that documents the variation of maternal, infant, and child health outcomes along groups defined by race, ethnicity, and socioeconomic status (Bryant, Worjolah, Caughey, & Washington, 2010; Friedman et al., 1993; Lieberman, Ryan, Monson, & Schoenbaum, 1987; MacDorman & Mathews, 2011). For example, racial and ethnic disparities continue to exist for infant mortality, low birth weight, and preterm birth, with African-American infants at most risk (MacDorman & Mathews, 2011). In addition to demographic disparities in maternal, infant, and child health outcomes, maternal behaviors continue to be of concern, as well (Lieberman et al., 1987; Paneth, 1995; Wasserman, Shaw, Selvin, Gould, & Syme, 1998).

Unfortunately, there is little progress in the reduction of adverse outcomes, such as low birth weight and pre-term birth, among disadvantaged populations despite the amount of research and interventions within the realm of maternal and child health. Recently, interest in the impact of unintended pregnancy and birth on maternal, infant, and child outcomes has increased, exemplified by its announcement as a national health concern in Healthy People 2020 (Brown, 1995a; Center for Disease Control and Prevention, 2010). Unintended fertility is concentrated among disadvantaged populations and is associated with a host of adverse maternal behavioral,

infant, and child outcomes, such as late prenatal care enrollment and poor child development (Crissey, 2005; Kost, Landry, & Darroch, 1998).

Unobserved factors that affect the selection into unintended fertility and impact such outcomes could potentially overestimate the effect of unintended fertility on such outcomes. As it is currently measured, the most common pregnancy intention assessments only capture women's contraceptive behaviors and desired timing for conception. However, pregnancy planning and anticipation is complex, in which more proximal psychological factors, like attitude and intention, reflect macro-level circumstances that may not be captured in most studies. These factors may contribute to the unobserved heterogeneity, or differences, between women who have unintended pregnancies and those who do not. In order to better understand the issue of pregnancy intention and design appropriate interventions, it is important to understand the prevailing conceptualization and measurement of pregnancy intention and its relation to disadvantaged populations.

A review of the literature on pregnancy intention was conducted in an effort to gauge how well empirical evidence supports the current conceptualization of unintended pregnancy as a public health problem and causal factor in adverse infant, maternal, and child development outcomes. The review provides background for the study by familiarizing the reader with the state of the literature on unintended pregnancy. Studies were identified if they assessed the social patterning of unintended pregnancy, the relationship between unintended pregnancy and health outcomes, or were conceptual papers that insightfully discussed the study of unintended pregnancy. The following research questions guided the literature review: Is the evidence to support the idea that unintended pregnancy causes adverse outcomes based on research designs that control for unobserved heterogeneity? What are the factors that contribute to the

concentration of unintended pregnancy among women deemed disadvantaged? In light of these factors, is the prevalent conceptualization of “unintended pregnancy” valid for these particular populations? The review includes a brief description of current pregnancy intention definitions and measurements and a critical review of empirical evidence on unintended pregnancy and outcomes.

2.12 Measurements and Validity

Pregnancy intention assessments are designed to gauge a woman’s fertility plans before conception and are of interest to demographers and public health practitioners who are concerned with fertility patterns and family planning (J. Santelli et al., 2003). Accurate measures that are valid for a heterogeneous population is essential; however, the measurement of pregnancy intention poses challenges, including the inconsistency of measurements across survey instruments (Gipson, Koenig, & Hindin, 2008; Petersen & Moos, 1997; J. Santelli et al., 2003) and the validity of current pregnancy intention measures. I explore the validity of pregnancy intention measures later in the chapter, but first touch on the definition of unintended pregnancy.

The most common definition used by organizations in the United States, such as the Institute of Medicine (IOM), is derived directly from the definition and measurement used by the National Survey of Family Growth (NSFG). According to the NSFG, unintended pregnancies are pregnancies that are either “mistimed” or “unwanted” and measured by retrospective questions that assess the timing and desire for children. A mistimed pregnancy is a pregnancy that occurs later or earlier than desired, although there are organizations that exclude pregnancies that occurred later than desired. An unwanted pregnancy is one that occurs when no children or no more children are desired. Variation in pregnancy intention assessments between survey

instruments and continuing modification of assessments often make comparing results between surveys difficult if not impossible (Petersen & Moos, 1997).

Petersen and Moos discuss these inconsistencies and present the various pregnancy intention assessments from the following surveys: the National Survey of Family Growth (NSFG), National Fertility Survey (NFS), National Natality Survey (NNS), National Longitudinal Survey of Youth (NLSY), Pregnancy Risk Assessment Monitoring System, (PRAMS) National Maternal and Infant Health Survey (NMIHS). Table 3.1 is adapted from Petersen and Moos and presents the variety of the questions used by surveys to assess pregnancy intention. Nearly all surveys incorporate the desired timing of pregnancy, with the exception being the Surveys of Young Women, and utilize the word “want” in order to probe respondent recall of pre-pregnancy *feelings*, which may not necessarily measure pre-pregnancy or fertility *intentions*. Yet the items differ by content as well as the quantity of items. The PRAMS, NNS, and NMIHS gauges feelings in relation to timing of pregnancy, while the NLSY gauges both feelings in regards to the timing of pregnancy and feelings of ambivalence. The NSFG incorporates contraception non-use or misuse into its pregnancy intention assessment and the NFS has an extensive list of eleven items in which a respondent chooses one in order to best describe pre-pregnancy feelings.

2.13 Validity

The validity of pregnancy intention assessments has been open to question for quite some time. As a psychological measure that theoretically measures an abstract construct - pregnancy intention - it is important that current pregnancy intention assessments adhere to the principles of validity for instruments. Simply, validity refers to the ability of a measurement to do what it is intended to do. In the case of pregnancy intention assessments, their validity is based on their

ability to capture a woman's intention to have a pregnancy before conception. Validity is usually divided into three types - content/face, criterion/predictive validity, and construct validity (Allen & Yen, 1979), however recent thinking suggests that all validity types should be considered under one overarching framework of "construct validity" (Cook & Beckman, 2006). Construct validity relates to the usefulness of an assessment through its reflection of a construct, while content and predictive validity are thought of to be sources of evidence for construct validity. I will examine the validity of pregnancy intention assessments using this perspective.

In the case of current pregnancy intention assessments, the most often cited violation of construct validity is the built-in recall bias in retrospective surveys (Gipson et al., 2008; T. Joyce, Kaestner, & Korenman, 2000; Petersen & Moos, 1997; J. Santelli et al., 2003). Retrospective assessments may not capture true pregnancy intentions as feelings may become more positive in response to news of pregnancy, or *ex post rationalization* (Rosenzweig & Wolpin, 1993; Westoff & Ryder, 1977). Even more, social desirability may affect responses, in that women may respond in a manner that gives the impression that a pregnancy was well timed or wanted. A few surveys attempt to limit recall bias by narrowing time between delivery and survey date (M. K. Moos, Petersen, Meadows, Melvin, & Spitz, 1997), but *ex post rationalization* can occur during pregnancy or immediately after birth, making such efforts futile.

Pregnancy intention is a complex and abstract psychosocial construct that may not be appropriately captured by current assessments (Tversky & Fox, 1995). Qualitative studies suggests that the domain of the pregnancy intention construct is comprised of more than just contraceptive behavior *per se*, but contextual factors that impact contraceptive behavior, such as sexual self-efficacy, perception of pregnancy costs, and social norms (Kendall et al., 2005; Luker, 1975; M. K. Moos et al., 1997; Stanford, Hobbs, Jameson, DeWitt, & Fischer, 2000;

Williams et al., 1997). Even more, evidence shows that these terms, “unintended,” “intended,” “planned,” etc., are more salient among women who are older and highly educated (Barrett & Wellings, 2002) suggesting that these terms and measurements are biased, which is another validity violation (Cook & Beckman, 2006).

Finally, validity is not a static property of an instrument but a hypothesis about the ability of an assessment to measure a certain construct – as more evidence supports this hypothesis of inference, the better one can be sure that an instrument is valid for a certain construct (Cook & Beckman, 2006). As previously stated, the testing of predictive validity can be used to confirm construct validity of a certain instrument for a specific construct. The predictive value of current assessments of pregnancy intentions has been challenged by numerous studies that show that there are discrepancies between reproductive intentions and outcomes of fertility behaviors and births (J. Santelli et al., 2003). Furthermore, as previously discussed, there is evidence that women sometimes change pregnancy intention status from unintended to intended (T. Joyce et al., 2000); thus true pre-pregnancy intentions may not be predictive of later pregnancy intentions, feelings, and attitudes. The later review of the empirical evidence will show that there is very little evidence, besides bivariate statistics, to support the hypothesis that current assessments of pregnancy intentions are actual measurements of the construct “pre-conception pregnancy intentions.”

2.2 Unintended Pregnancies and Disadvantaged Status

Unintended pregnancy is disproportionately concentrated among disadvantaged women in the United States and the most current national data provide evidence that this trend continues to increase (Finer & Henshaw, 2006; Finer & Zolna, 2011). Unintended pregnancy rates are

highest among women who are African-American, Latino, low-income, and with low education; rates have increased among these groups in recent years - while decreasing among higher-advantaged women - generating increasing disparity (Finer & Henshaw, 2006). The correlation between disadvantaged status and unintended pregnancy is consistently confirmed in other studies (Bescondes & Laraque, 2004; Finer, 2010; Mosher, Jones, & Abma, n.d.; Musick, England, Edgington, & Kangas, 2009; Orr, James, & Reiter, 2008).

Finer and Henshaw analyzed 2002 NSFG data to find that the unintended pregnancy rate declined among adolescents, college graduates, and the wealthiest women, while increased among poor and less educated women. Finer and Zolna later repeated this work adding the 2006-2008 NSFG data and 2008 national survey of abortion patients and data on births from the National Center for Health Statistics (Finer & Zolna, 2011). According to this data, the rate of unintended pregnancy increased from 50 per 1000 women to 52 per 1000 women. Black women had an unintended pregnancy rate of 67% in 2001 and 2006, while the rate of unintended pregnancy increased from 80% to 82% from 2001 to 2006 for Hispanic women. Rates of unintended pregnancy are closely linked to poverty status and education, as well. In 2001, the rate of unintended pregnancy for women whose income was <100% of the poverty level was about four times that of women whose income was >200% of the poverty line. By 2006, the rate increased among women who lived below the poverty line while decreased for those who lived above - 132 per 1000 women compared to 24 per 1000 women. Women with college degrees had the lowest percentages of unintended pregnancies – 24% in 2001 and 26% in 2006, while other education groups' rates centered on 50%.

In sum, national data provides evidence that unintended pregnancy has increased among disadvantaged sub-groups of women within the past decade. Additionally, the public health

concern over growing disparity of unintended rates is also motivated from evidence that suggests it causes negative outcomes. The following discussion will review this evidence and whether the implication that unintended pregnancy is causal is warranted.

2.3 Unintended Pregnancy and Adverse Outcomes

Some of the initial quantitative studies on unintended pregnancy were conducted in Europe among the children of women who were denied abortions in Sweden and the Czech Republic (David, 1992; Forssman & Thuwe, 1966). Both studies followed children from infancy to adulthood, observed that the study groups had poorer educational, psychiatric, and behavioral outcomes in comparison to their controls, and concluded that pregnancy intention caused the outcomes. Unfortunately, both studies did not control for factors by which the two groups differed, e.g. women applying for abortions were much more likely to be of lower socioeconomic status and have received psychiatric assistance (Cameron & Tichenor, 1976). Forssman and Thuwe simply matched children by sex, hospital, and approximate birthday, even though the women applying for abortions were much more likely to be of lower socioeconomic status and have received psychiatric assistance (Cameron & Tichenor, 1976). It is plausible that the outcomes did not result from unintended pregnancy status *per se*, but from selection bias that resulted in a more disadvantaged group of women applying for abortion and having children with more adverse outcomes later on.

The limitations that plagued earlier studies on unintended pregnancy still appear in many contemporary studies, despite the use of national data sets and multivariate statistical techniques. A random control trial is considered the “gold standard” in establishing causation in research designs. However, pregnancy intentions cannot be randomly assigned and research designs must

be able to account for unobserved heterogeneity in order to ensure that the observed effect of unintended pregnancy is not biased. Gipson et al. conducted an extensive review of literature on unintended pregnancy and its assumed effects and summarized studies based on several outcomes, including maternal behaviors during pregnancy, birth outcomes, maternal postpartum behavior, and infant and child health (Gipson et al., 2008). Overall, the review found the evidence from the United States on unintended pregnancy and certain outcomes, for instance maternal death, to be limited or weak. The most rigorous studies suggest that there is a nonexistent relationship between unintended pregnancy and adverse outcomes.

For the United States, evidence from three large rigorous studies suggests that maternal risk behaviors, antenatal and delivery care, birth outcomes, and preventative and curative care are not associated with unintended pregnancy once key variables are controlled for in models (T. J. Joyce, Kaestner, & Korenman, 2000; T. Joyce et al., 2000; T. Joyce, Kaestner, & Korenman, 2002; Kost et al., 1998). Joyce and colleagues observed the effect size and significance of unintended pregnancy on several outcomes between cross-sectional logistic models and fixed-effect models that matched children from unintended pregnancies to children from intended pregnancies from the same mother. The effect size of unintended pregnancy diminished after controlling for several socio-demographic variables in the cross-sectional logistic models and was reduced to non-significance in the fixed-effects models. The fixed-effects model controlled for selection bias to a greater extent and suggests that unintended pregnancy does not necessarily cause adverse outcomes. Similarly, Kost et al. analyzed data from NSFG and the National Maternal and Infant Health Survey (NMIHS), extensively controlled for background socio-economic differences, and found that women with unintended pregnancies were less likely to recognize the early signs of pregnancy and seek out early prenatal care, but were no less likely

than women with intended pregnancies to adhere to a recommended number of prenatal visits, follow clinician advice, and reduce alcohol intake.

The evidence on the relationship between pregnancy intention and other frequently mentioned outcomes, such as infant health, child development, and child abuse, suggest the need for more rigorous investigation. A longitudinal prospective cohort study conducted in San Francisco found that women whose pregnancies were classified as unintended had an increased relative risk of neonatal death (Bustan & Coker, 1994). However, this study had limited controls and participants' health status was not measured; therefore conclusions based on these data should be interpreted cautiously. In contrast, a study analyzing population-based data from Pregnancy Risk Assessment Monitoring System (PRAMS) on pregnancy intention, infant birth weight, and admission into neonatal intensive care units (NICUs) suggests that the effect of pregnancy intention status varies by race and age (Keeton & Hayward, 2007). The authors controlled for a number of background variables associated with infant outcomes, including maternal age, marital status, birth history, receipt of Medicaid, and residential crowding in household. Contrary to the authors' hypothesis that intended pregnancy was protective against very low and low birth weight infants and NICU admission, intended pregnancy was associated with *increased* risk of very low and low birth weight births and NICU admission for white adolescents and Black women of all ages.

In regard to the relationship between pregnancy intention and child development, some evidence suggests there is an effect of pregnancy intention on child development outcomes (Barber & East, 2009; Crissey, 2005; Hummer, Hack, & Raley, 2004), while other studies suggests there is very little or no effect of intention status on child development (Baydar, 1995; T. J. Joyce et al., 2000). Baydar analyzed data on children and their mothers from the NLSY79 to

investigate whether pregnancy intention status was related to child development resources and outcomes such as vocabulary skills and social, and motor development. Bivariate analyses indicated that unwanted and mistimed children were at a disadvantage, but these effects were mostly reduced after controlling for family and environmental characteristics. The only exception was that children from mistimed pregnancies were more likely to have parents who utilized authoritarian parenting styles than children from wanted pregnancies.

In addition to the lack of appropriate control variables, an issue in the literature on pregnancy intention and child development is the potential bias of child development instruments. Barber and East analyzed data from the NLSY using fixed-effects models to estimate the effect of intention status on the Home Observation for Measurement of the Environment (HOME) scale. Unintended births were associated with lower HOME scores. However, the validity of the HOME scale for impoverished urban communities is questionable in that it is not able to make distinctions between nurturing homes and unhealthy ones within disadvantaged populations (Ertem, Forsyth, Avni-Singer, Damour, & Cicchetti, 1997). Ertem et al. point out that the HOME scale does not feature items to assess whether a child's basic needs are being met, e.g. consistent and safe place to sleep, meals provided at regular times, and is limited in capturing the full spectrum of nurture and stimulation. Child development measures that were designed and validated on white middle-class populations could lead to misleading results in population-based investigations, given that unintended pregnancies occur disproportionately among women who are disadvantaged, and could overestimate the effect of unintended pregnancy on child development. It is necessary that investigations of pregnancy status and child development outcomes acknowledge the shortcomings of such assessments and utilize measures that are applicable to heterogeneous populations when possible.

The existing evidence on whether unintended pregnancy causes adverse outcomes in the United States seems to suggest that social, background, and environmental factors are associated with pregnancy intention status and observed outcomes like maternal behaviors and infant health. This raises concern about the current conceptualization and measurement of pregnancy intention. Even though we are aware of the social patterning of unintended pregnancy, traditional socio-demographic variables are still not able to explain why unintended pregnancies, as it is currently defined and measured, occur disproportionately among certain subgroups of women.

2.4 Theoretical Approaches

In this dissertation, I utilize a three frameworks and theories to serve as the foundation for my research questions. First, I base my approach to pregnancy intention status on works that have recognized the importance of context in understanding women's health. Colen's *stratified reproduction* and Geronimus's weathering hypothesis are two frameworks that consider the role of social, political, and environmental context in shaping disadvantaged women's fertility (Colen, 1995; Arline T Geronimus, 1992). Second, I utilize Pierre Bourdieu's concept of *cultural capital* to contextualize the role of early educational context on fertility planning (Bourdieu & Passeron, 1990). Cultural capital is a useful and commonly utilized theory in education scholarship that examines educational advantage and success (Jaeger, 2011; Roksa & Potter, 2011; Roscigno & Ainsworth-Darnell, 1999).

2.5 Frameworks for Women's Health

Key works that have aimed to critically look at women's health topics have utilized theoretical frameworks that analyze the link between political, social, and economic circumstances, sexuality, and fertility. These studies do not explicitly discuss unintended pregnancies; nonetheless, they investigate how social, economic and political forces shape the differential experiences of reproduction. I utilize the same approach in looking at the construction of unintended pregnancies as a problem within public health.

Shelley Colen's *stratified reproduction* considers how differential hierarchies based on race, ethnicity, class, gender and immigration status structure social and physical reproduction (Colen, 1995). Colen originally coined the term in her work on West Indian nannies and their white female employers in New York City where she observed that inequalities based on gender, class, culture, legal status, and race played out in domestic and transnational social fields. Successive scholars have used the framework to examine the relationship between inequities and physical reproduction (McCormack, 2005). For example, Chavez utilized the stratified reproduction framework in her observation of the political and public discourse on Latina fertility and reproduction (Chavez, 2004). National magazines often illustrated Latina reproduction as threatening, e.g. high fertility and population growth, re-conquest, and over-utilization of health and social services, despite data that countered these "truth claims." Stratified reproduction is a flexible framework that I use to consider the relationship between social stratification, inequities, and pregnancy intention status.

Geronimus' weathering hypothesis posits that Black-Americans experience deteriorated health in early adulthood, as a result of cumulative socioeconomic disadvantage (Arlene T Geronimus, Hicken, Keene, & Bound, 2006). As a strategic response, impoverished Black women engage in childbearing during their late teen years in order to increase the likelihood of

having healthy birth outcomes (A T Geronimus, 1992). This strategic response is not necessarily an explicit and individual-based plan of action, but rather a collective reaction to the structural and economic barriers that impose on poor communities. Even more, given an accelerated aging population, early child bearing allows for women to take advantage of healthy and able-bodied support networks of older adults who are less likely to survive into their middle ages.

Geronimus' hypothesis is supported by evidence that demonstrates maternal age at first birth varies between non-Hispanic Black and non-Hispanic white women and, most importantly, non-Hispanic Black infants with teen mothers have a higher survival advantage than infants with older mothers (Arline T Geronimus et al., 2006; Arline T Geronimus, 1992). These two frameworks reorient perspectives on fertility patterns that are often regarded as pathological by considering that social, economic and political forces shape how physical reproduction is differentially experienced and valued; I intend to do the same for unintended pregnancy.

2.6 Social Stratification and Fertility

Proponents of constructing unintended pregnancy as a social problem often claim that unintended pregnancy costs parents their personal and economic goals due to barriers posed by a child that is not anticipated (Brown, 1995a). Yet, this conclusion assumes that these goals are accessible to everyone and do not consider the socioeconomic stratification of such opportunities and how they affect fertility anticipation. In the United States, there is a strong gradient between fertility and education - women with higher education levels tend to have fewer or no children (Castro Martin, 1995; Diamond, Newby, & Varle, 1999; Mathews, 1997). Even more, fertility behaviors and outcomes are stratified along racial, ethnic, and socioeconomic lines.

In recent decades, family structures have diverged between those at the top and bottom of the socioeconomic scale; the trajectory of college graduates has changed very little from that of the mid-century – children born within legal marriages (Lundberg & Pollak, 2007). As Edin and Kefalas have written:

“At the dawn of the twenty-first century, a hallmark of the middle-class American family is the careful planning and painstaking preparation that generally precede childbearing, and it is poor mother’s failure to do the same that causes so much concern and public outrage” (Edin & Kefalas, *Promises* p.142).

Unintended pregnancy and early motherhood are often linked, in that women in their late teens and early 20s are most likely to have unintended births (Finer & Henshaw, 2006). Additionally, unintended pregnancy and early births are stratified by race and class in that they tend to occur among African-American, Latino, and less educated women. Edin and Kefalas’s qualitative work on impoverished women in Philadelphia suggests that childbearing during one’s late teens and early 20s is not as costly as it would be if one were afforded promising opportunities for college and rewarding work (Edin & Kefalas, 2005). In the absence of such opportunities, early motherhood often signals the transition into adulthood. Quantitative research also demonstrates that early childbearing is not costly to the socioeconomic attainment of women (Hotz, McElroy, & Sanders, 2005; Upchurch & McCarthy, 1990) and that the “poor” outcomes of such woman cannot be attributed to early motherhood but rather to preceding social and economic circumstances.

Little research tests the relationship between social disadvantage and the likelihood of having an unintended pregnancy in order to elucidate the mechanisms behind this link. Musick et al. examined the relationship between unintended fertility and predicted education levels using

data from the National Longitudinal Survey of Youth -1979 (NLSY79) (Musick, England, Edgington, & Kangas, 2009). They constructed a predicted education variable by regressing reported education on covariates that indicated educational resources, e.g. mother's education level, household structure, and college expectations. They found significant associations between the predicted education level and pregnancy intention status among non-Hispanic Black and non-Hispanic white women. The authors did not explicitly conceptualize educational advantage on a theoretical basis, so their results did not acknowledge how educational resources impacted the likelihood of unintended birth. Nonetheless, their results suggest that an advantaged and disadvantaged educational experience is related to pregnancy intention status – women with higher educational resources are less likely to have an unintended pregnancy than those with fewer resources.

2.7 Educational Advantage and Fertility

Unsurprisingly, youth from higher socioeconomic background are more likely to have educational resources, and thus higher achievement outcomes and greater opportunities to reproduce their socioeconomic origins. Reproduction theory specifically implicates schooling as a component of these stratification mechanisms (Coleman, 1988). A popular concept used to explain the relationship between class, socioeconomic status, and academic achievement is cultural capital, developed by Pierre Bourdieu in the 1960s and utilized by several scholars to examine the association between class standing and educational resources. Bourdieu theorized culture as a structural phenomenon in which social groups hold symbolic and real resources and engage in intergenerational social transmission of these resources. His central concept of *habitus* refers to the values, dispositions, and expectations that one acquires in the social world. Schools

serve as institutions of social reproduction and differentially acknowledge students' *habitus* when controlled by socially and culturally dominating groups. Students with dominant forms of *habitus* are positively recognized, while the opposite is true for students with marginalized forms of *habitus*, who are usually perceived as deficient (Nash, 1990). Students with dominant forms of *habitus* and cultural capital are more likely to be rewarded in academic settings and reap educational advantages. Many scholars have found associations between various measurements of cultural capital and educational achievement in the U.S. (Jaeger, 2011; Roksa & Potter, 2011; Roscigno & Ainsworth-Darnell, 1999).

As I consider how structural systems facilitate women to adhere to dominant social norms regarding education and fertility expectations, I find Bourdieu's cultural capital to be a useful theoretical tool. Bourdieu's later concept of a unitary capital is also useful. Unitary capital can be presented in three distinct forms: social, cultural, and economic (Bourdieu & Passeron, 1990). School economic resources often play a role in acquiring educational advantages and are often tied to geographic location and the socioeconomic status and racial and ethnic makeup of the student body (Darling-Hammond, 2004). The continuing concentration of wealth and poverty due to racial, ethnic, and class-based segregation and funding policies maintain inequity in school resources by race, ethnicity, and class standing. For this dissertation, both of Bourdieu's theoretical perspectives work in tandem, as they acknowledge the interplay between household capital and school resources and whether it determines female students' educational achievement, potential to acquire higher education, and increase economically beneficial adulthood opportunities.

In the United States, women with higher educational levels are more likely to have had educational advantages that produce opportunities for them to develop their human capital during

youth to early adulthood, a time in which women are most likely to conceive when not taking pro-active measures to avoid pregnancy. Yet, these opportunities require the devotion of significant amounts of time and energy that conflict with child-bearing and –rearing. Thus, women with educational advantage are more likely to have a strong desire to avoid pregnancy and birth during the time in which they are most invested in developing their human capital, and therefore find pregnancy planning and anticipation salient. Often this desire is interpreted as stronger values, motivation, or skill sets in consistency and organization (Edin & Kefalas, 2005; Rainwater, 1960). Yet such a conceptualization is problematic in that it assumes that advantaged individuals possess these characteristics that disadvantaged individuals lack, disregarding constraints that impact fertility behaviors and outcomes.

Qualitative works such as *Going All the Way* note that middle-class young women clearly differentiate between sex and reproduction, are certain to use contraception during each sex act, and are prepared to follow through with abortions in the case of pregnancy (Thompson, 1996). These schemata of reproduction and sex stem from expectations that are often dictated by parental figures and other arbiters of social norms, who not only inculcate the importance of a college education, but also make financial investments to guarantee that these expectations are fulfilled. Additionally, college education may have social and ideational influences, by deepening exposure to dominant cultural and social norms of family planning, childbearing, and motherhood during the socialization process of attending a higher education institution.

Chapter 3

Educational Advantage in Youth and Pregnancy Intention of First Births

3.1 Introduction

Unintended pregnancies constitute nearly half of total pregnancies in the United States. The concept of unintended pregnancy is considered essential to demographers, public health practitioners and scholars, and other groups concerned with promoting women's ability to use contraception. Public health researchers who study unintended pregnancy examine its association with poor maternal, infant, and child outcomes, e.g. low birth weight, smoking during pregnancy, delayed prenatal care, and not breastfeeding (Gipson et al., 2008). Other researchers promote the use of contraceptive methods to reduce its rate, especially among disadvantaged groups (Black, Gupta, Rassi, & Kubba, 2010; Guttmacher Institute, 2008; M.-K. Moos, Bartholomew, & Lohr, 2003). Meanwhile, the conceptualization and standard measures for unintended pregnancy has been subjected to recent critiques, calling into question its rigor as an important indicator of reproductive and maternal health (Ellison, 2003; Luker, 1999; J. Santelli et al., 2003).

According to standard pregnancy intention measures, unintended pregnancies are pregnancies that are reported as occurring too soon, *mistimed*, or occurring when not wanted, *unwanted*. In contrast, *intended* pregnancies are those that occur when wanted. Many surveys ask about respondents' use of contraception in pregnancy intention items. Expert scholars have critiqued these measures and argued against the assumption that pregnancy is a conscious

decision and that other factors, beyond contraceptive behavior *per se*, constitute pregnancy intention, e.g. sexual self-efficacy, perception of pregnancy costs, and social norms (Kendall, et al., 2005; Luker, 1975; Moos, et al., 1997; Stanford, Hobbs, Jameson, DeWitt, & Fischer, 2000; S. P. Williams, et al., 1997). Qualitative research suggests that critical differences in the experience of relationships, sexuality, and fertility among various groups of men and women in the United States produces differences in how women of varying socioeconomic backgrounds value pregnancy planning (Kendall et al., 2005; M. K. Moos et al., 1997; Petersen & Moos, 1997). Thus, labeling pregnancies as “unintended” ignores the complex and interwoven social, economic, and cultural circumstances that impact “pregnancy intention.” Few works empirically examine the processes in which socioeconomic status produces the social patterning of pregnancy intention among demographically defined subgroups.

I aim to investigate whether educational advantage in early life impacts the likelihood of unintended pregnancy in adult life. There is evidence to suggest that early life disadvantage has a cumulative effect on health which contributes to differential health trajectories by race and gender (Katrina M. Walsemann et al., 2008). Walsemann et al. theorized that education is a process by which educational advantage or disadvantage accumulates over time through a chain of events that affects health outcome over the lifespan and contributes to health differentials by race and ethnicity (Katrina Michelle Walsemann & Geronimus, 2005). I extend this idea to study unintended pregnancy and propose that educational disadvantage contributes to pregnancy intention in adulthood. The cumulative advantages that reinforce later educational attainment could potentially impact pregnancy intention through incentivizing fertility behaviors that reduce the likelihood of conceiving a pregnancy reported as “unintended.” However, without clearer understanding of these mechanisms, the standard conceptualization and measurement of

unintended pregnancy may be misguided (M.-K. Moos et al., 2003; Raymond, Trussell, & Polis, 2007). Furthermore, policies and recommendations that circumvent the structural and social influences on fertility-related behaviors and decisions may contribute to ill-informed policy decisions, as well overlooking more important health and reproductive issues of marginalized women (A T Geronimus, 2000).

In challenging the previously outlined assumptions and issues, this study aims to remedy this gap in the literature by addressing whether early life advantage underscores the social patterning of unintended pregnancy in the United States. I empirically test whether early educational advantage impacts pregnancy intention of first births among a cohort of women.

3.2 Background

In the United States, unintended pregnancies make up nearly half of all pregnancies in the United States. Interest in the causes and consequences of unintended pregnancy has grown in the past twenty years, catalyzed by a published report from the Institute of Medicine of the National Academy of Sciences (Brown, 1995b). The extensive report concluded that unintended pregnancy was a serious problem with “appreciable burdens on children, women, men and families,” and “only a comprehensive effort will succeed in reducing unintended pregnancy, as has been the case for other national campaigns, such as those to reduce smoking, limit drunk driving, and increase the use of seat belts” (p. 253). Since then, public health researchers have examined unintended pregnancy as risk factor for poor maternal, infant, and child outcomes, e.g. low birth weight, smoking during pregnancy, delayed prenatal care, not breastfeeding (Gipson et al., 2008). Other researchers use unintended pregnancy to promote the use of highly effective contraceptive methods to reduce its prevalence among disadvantaged groups (Black et al., 2010;

Guttmacher Institute, 2008; M.-K. Moos et al., 2003). This has spurred an interest in unintended pregnancy as a public health and social problem requiring intervention and, as a result, a growing body of literature on the assumed implications of unintended pregnancy and the demographic characteristics of women who have unintended pregnancies (Center for Disease Control and Prevention, 2010; Hummer et al., 2004).

Standard pregnancy intention data are designed to reflect a woman's intention before conception but they are usually collected retrospectively, and consequently exposed to ex-post rationalization, or shift towards positive feelings and response after news of a pregnancy or birth of a child (Rosenzweig & Wolpin, 1993; Westoff & Ryder, 1977). United States pregnancy intention data are primarily derived from population-based surveys - like the National Survey of Family Growth (NSFG) and Pregnancy Risk Assessment Monitoring System (PRAMS) - that track pregnancy intention trends. Survey respondents are to recall whether they wanted a baby just before they became pregnant. If they wanted no children or no more children, then the pregnancy is classified as *unwanted*. If they wanted a baby later, then the pregnancy is classified as *mistimed*. And if they wanted a baby, then is it classified as *wanted*. Unintended pregnancies include *mistimed* and *unwanted* and wanted pregnancies are *intended*. A few surveys include those wanted sooner as *wanted*. Surveys ask pregnancy intention items in various ways but the categories of unintended and intended are generally used. Pregnancy intention items do not use the term "unintended" in their questions nor do they measure the extent to which mistimed pregnancies occur too soon. Examples of these items can be found in Table 3.1.

Unintended pregnancy was first measured systematically in 1941 in an Indianapolis survey and nationally in 1955 and 1960 in the Growth of American Families Studies and limited only to married women (Campbell & Mosher, 2000). The National Survey of Family Growth

continued to measure pregnancy intentions trends and expanded to include women of all marital statuses (J. Santelli et al., 2003).

Based on standard pregnancy intention measures, 37% of all births in the United States are classified as unintended and the rate of unintended pregnancy has increase slightly from 48% to 51% between 2001 and 2008 (Finer & Zolna, 2011; Guttmacher Institute, 2013). Unintended pregnancy rates are highest among women who are African-American, Latino, low-income, and with low education; rates have increased among these groups in recent years - while decreasing among more advantaged women - generating increasing disparity (Finer & Henshaw, 2006). Several organizations and scholars suggest that higher-income, white, college-educated, and married women are comparatively more successful at timing and spacing their pregnancies and, in order to reduce unintended fertility rates, women should use contraception consistently and correctly (Guttmacher Institute, 2013). The reduction of unintended pregnancy has been a national health priority since 1980; currently, Healthy People 2020 – a set of nationally endorsed health goals – proposes to increase the total rate of intended pregnancies from 51% to 56% through promoting the use of highly effective hormonal contraceptive methods and abstinence (Center for Disease Control and Prevention, 2010; Ranjit, Bankole, Darroch, & Singh, 2001; Trussell, 2007). These recommendations are based on the unproven idea that unintended pregnancy contributes to adverse outcomes and contraception is an effective intervention (Gipson et al., 2008; Gomez, 2011; Luker, 1999; Raymond et al., 2007). This calls for critical investigation into the mechanisms behind current pregnancy intention rates in order to create more informed and effective policy recommendations.

In this study, I build on work that calls for further exploration into the social patterning of pregnancy intention, specifically whether early life advantage impacts rates of unintended

pregnancy. Differences in fertility behaviors are well-established (Castro Martin, 1995; Diamond et al., 1999; Mathews, 1997). However, studies that observe pregnancy intention differentials by education often look at it as a fixed individual *attribute*. This study considers education as a cumulative *process* in which community, family, and individual influences the acquisition of advantages (Darling-Hammond, 2004; Dumais, 2002). Community, family, and school resources influence academic success outcomes; for example, college-educated parents carry social and political clout to assist in navigating the school system and a high-socioeconomic household can afford supplemental tutoring and enrichment programs (Andersen & Hansen, 2011; Roksa & Potter, 2011). Those students at a disadvantage may have fewer ways to control their academic trajectory and school success, which could lead to widening gap in adulthood opportunities.

Highly-educated and advantage women are often purported to be more skilled at preventing pregnancy than their lower educated counterparts (Cohen, 2008; Guttmacher Institute, 2008). Yet, this belief overlooks the social processes that support and reinforce educational attainment may also affect a woman's desire to use contraception (Bertrand, Hardee, Magnani, & Angle, 1995; J A Higgins & Hirsch, 2008). Background advantage may influence pregnancy intention through constraining or providing social and economic opportunities. Educational resources within the school and/or home provide ideals for success that are alternatives to motherhood and require delayed childbearing (Brand & Davis, 2011). Advantaged women must adopt a vigilant attitude towards delaying childbearing to obtain social and economic benefits of college education, marriage, and stable and substantial careers (J A Higgins & Hirsch, 2008), thus increasing the likelihood of "wanting" a pregnancy at the time of conception. Meanwhile, less-advantaged women are less likely to encounter the opportunities that incentivize anticipating childbearing and less likely to control anticipating a pregnancy (M. K. Moos et al., 1997).

Qualitative studies suggest that women with few educational and employment opportunities may not believe an unanticipated pregnancy to be a setback, thus reducing the saliency and need for planning a pregnancy (Barrett & Wellings, 2002). Even more, quantitative evidence suggest that a positive orientation towards early motherhood, a corollary of restricted opportunity, is associated with unintended childbearing (Afable-Munsuz, Speizer, Magnus, & Kendall, 2006). These behaviors that reflect underlying educational advantage may contribute to the population variation in pregnancy intention. Thus, population-based surveys that utilize the standard measure of unintended pregnancy may be overlooking an underlying mechanism that could partly explain the social patterning of unintended pregnancy.

Musick et al. analyzed fertility patterns in order to test whether loss of wages or childbearing desires explained the education gradient on fertility intention rates among women in the NLSY79 (Musick et al., 2009). Instead of using reported educational attainment to measure education, they used a synthetic measure: predicted educational attainment. Predicted educational attainment was the product of regressing reported education onto indicators of background resources, e.g. mother's education level, household structure, and college expectations. Less-educated women were more likely to have unintended births, but loss of wages and childbearing desires did not explain this finding. As their primary predictor was based on indicators of educational resources, the authors' findings suggest that early advantage may lead to differential likelihood of unintended births. The authors conclude that further research is needed to consider that external factors, like economic and relationship instability, and environmental disadvantage, could be possible mechanisms explaining the occurrence of unintended pregnancy.

The primary aim of this study is to investigate whether educational advantage impacts the likelihood of reporting an unintended first birth in the United States. To date, there are no published studies that have empirically tested the impact of early life contextual factors, specifically educational advantage, on the likelihood of reporting an unintended pregnancy. My aims and hypotheses are:

Aim 1: Using a multifaceted and cumulative measure of educational advantage, I will examine the pregnancy intention rates among non-Hispanic whites and non-Hispanic Blacks of differing levels of educational advantage¹.

Hypothesis: Women with high educational advantage are more likely to report wanted first births, compared to women with lower levels of educational advantage.

3.3 Data and Methods

3.31 Sample

I use the National Longitudinal Survey of Youth 1979 (NLSY79) to test the research hypotheses. The NLSY79 is a nationally representative sample of 12,686 men and women ages 14 to 22 years at the time of the first survey in 1979. In 1978, the NLSY79 developed a list of housing units in the United States and sent interviewers to a random sample of these homes and conducted screener interviews to collect basic information about each member of the household. They also used a random sample of Department of Defense records to identify those in the military. These two processes provided the names, age, sex, race and address of more than 155,000 people. This information was used to identify all persons ages 14 to 21 as of December 1978. In 1979, the interviewers asked those on the list to participate in the first NLSY79 interview. Any person who completed the first round of interviews is considered a member of the

¹ National Longitudinal Survey of Youth 1979 oversampling of Blacks provide an adequate number of cases for the separate analysis of this group, but sample sizes are too limited to extend my analysis beyond Blacks and whites

NLSY79 cohort. The cohort was interviewed annually through 1994, and the survey has been administered biennially thereafter. The retention rates for NLSY79 respondents remained close to 90% during the first 16 interview rounds (through 1995) and were approximately 85% for rounds 17 and 18. I will be using rounds 1-15 (through 1994).²

The NLSY79 contains a number of features that are conducive to testing my study hypotheses. First, the NLSY is a longitudinal survey, which allows me to test the impact of early youth indicators on later life outcomes, like pregnancy intention status. Second, the NLSY79 contains a supplemental sub-sample of 5,295 youths that over-samples civilian Blacks, and economically disadvantaged non-Black/non-Hispanic youths living in the United States during 1979 and born between January 1, 1957 and December 31, 1964. This sampling was designed to allow researchers to examine disparate life course experiences of women, Blacks, and the economically disadvantaged. Third, the NLSY79 collected detailed information on educational and familial/background experiences of youth, such as school demographics, parents' education, and school expectations. Fourth, the NLSY79 collected fertility data for women, including all pregnancies resulting in live births, contraceptive methods used, birth expectations, age at first sexual intercourse, confidential abortion reports, and cumulative roster of children (Ohio State University. Center for Human Resource, 2007).

Pregnancy intention questions in the NLSY79 were first asked in 1982, so pregnancy intentions regarding births that occurred between 1979 and 1981 were acquired up to three years after the birth. I address this issue in the Analysis section. The NLSY79 staff provides a set of edited fertility variables that revises some of the fertility variables, such as birth dates and ages at first birth, in order to maximize internal consistency over the years. The questions for pregnancy

² The vast majority of respondents have completed their fertility careers by 1994, and 1994 a trivial amount of first births with complete respondent data occur (2-3 per year).

intention status are similar to those of the National Survey of Family Growth (NSFG), in which women are asked a series of questions about pregnancy intention for each pregnancy.

My total sample is approximately 2,979 non-Hispanic Black and white female respondents who reported their first birth³ and had complete data for corresponding pregnancy intention and covariates. There are 358 cases for which there is missing data for pregnancy intention of a first reported birth; this accounts for 8.8% of cases that reported their first birth. Women who were non-Hispanic Black, younger at the time of their first birth, less educated, and with lower educational advantage are more likely to have missing pregnancy intention data. The implications of missing those with the most disadvantage is that estimates between educational advantage and pregnancy intention are conservative and the sample size of the non-Hispanic Black subsample may be inadequate for estimates.⁴

3.32 Variables

Outcome: Pregnancy Intention Status of First Birth

The key outcome for this study is the pregnancy intention status of a reported first birth, in which pregnancy intention is a trichotomous variable indicating *mistimed*, *unwanted*, or *wanted* birth. For each pregnancy reported, the NLSY79 assessed a woman's feelings and

³ I am looking at first births for a few reasons. First, examining first births keeps the analysis straightforward and interpretable, as I do not have to acknowledge that women with multiple births may have differing pregnancy intention statuses. Including multiple births of differing pregnancy intention statuses requires a different theory and framework from what I aim to use (Guzzo & Hayford, 2011). Second, looking at first births is appropriate from a theoretical standpoint, as the first birth signals a major transition for women and is likely to have the most impact compared to subsequent births. Third, demographers have historically examined first births in fertility studies and several contemporary studies have looked at first births when doing quantitative analyses of fertility (Baydar, 1995; C. G. Colen, Geronimus, & Phipps, 2006; A. T. Geronimus, 1992; Arline T. Geronimus & Korenman, 1993)

⁴ An alternative explanation of the association between missing pregnancy intention data and disadvantage is that disadvantaged women did not want to report a desire for a pregnancy because they did not find meaning in the pregnancy intention questions. Socioeconomic differentials in the saliency of pregnancy intention have been noted, but whether this translates into a lower likelihood of answering survey questions has not been confirmed. See Moss et al. for an extended discussion on this issue.

contraception use right before she became pregnant. Female respondents were asked whether: they used contraception before getting pregnancy, stopped contraception before getting pregnant, their contraceptive use indicated a desire for a baby, and they wanted to have a baby then or at any time in the future. The series of questions is used to classify each pregnancy into the conventional categories of wanted (“Yes” to Q.3: stopped contraception because wanted a baby; “Yes” to Q.4: wanted to become pregnant), mistimed (“No, later” to Q.4: wanted to become pregnant later), and unwanted (“No” to Q.4: did not want to become pregnant at all) (Table 3.2).

In order to create the trichotomous variable to indicate the pregnancy intention status of first birth, I developed an algorithm to link pregnancy intention questions to the respondent’s first birth. For each year, I identified women who reported a live birth since their last interview, did not report giving birth in years prior, and completed pregnancy intention data for the birth. For each year from 1982 to 1996, I used variables that indicated whether a female respondent had had any live births since the previous interview, number of children ever born, and if the respondent had previous pregnancies before 1st pregnancy for the years 1982 – 1988.

Since pregnancy intention question first appeared in the NLSY 79 in 1982, women who had given birth between 1979 and 1981 had up to three years gap between giving birth and answering pregnancy intention question. To address this issue I conducted supplemental analyses using a dummy variable to indicate whether the woman gave birth prior to 1982. I ran models with and without this dummy variable and found that patterns of the result did not differ, so models exclude this indicator.

Independent Variables: Educational Advantage

For my key independent variable, I created an index to indicate educational advantage, initially conceptualized by Katrina Walsemann to investigate its association with the development of functional limitations (Katrina M Walsemann, Geronimus, & Gee, 2008). The original index contains thirteen indicators available in the NLSY that are predictive of college attainment (Table 3.3) (Cabrera & La Nasa, 2001; Lucas, 2001) and cover three of the domains – family, community, and individual. Respondent’s current or last high school administrator, depending on enrollment status, provided data on school demographics as well as information on whether a respondent had ever taken remedial English or Math in high school. All other information was obtained by the respondents’ self-reports. The NLSY does not contain direct measures for school resources, so Walsemann relied on school demographic data to approximate school resources.

For purposes of these analyses, I chose to exclude the school demographic variables for the following reasons. First, extant literature and my exploratory analyses suggest that some indicators of educational advantage are more strongly associated with college attainment than others, so I weight each indicator by its independent effect on college attainment (Table 3.4) (Cabrera & La Nasa, 2001). As illustrated in Table 3.4, except for proportion of economically disadvantaged students in the student body, school survey indicators are not strongly predictive of college degree attainment for my sample. Second, about 30% of the total sample has missing data for school survey indicators because they were not in high-school school at the time of the survey (note: a significant proportion of the respondents was older than high-school age in 1979, and therefore had no school survey data). The results in Table 3.4 indicate that school survey variables are not significant indicators in the index (except for percentage of disadvantaged students), suggesting that creating an imputed dataset is not a worthwhile endeavor for the

purpose of these analyses⁵. Comparing results from the original index (13 indicators) and the revised index (8 indicators, excluding school survey) indicates that there is no significant improvement from using the index from the imputed dataset. Using extra variables in the index could be causing extra “noise”; thus I elect to use the simpler method.

In exploratory regression analysis, these indicators explained 32% of the variance in college attainment once I controlled for race/ethnicity and age (results not shown). I follow the approach of Walsemann et al. who sum the indicators into an index to capture cumulative advantages. All indicators are dichotomized, in which “1” reflected advantage and “0” reflected disadvantage, and summed into an index and weighted by their effect on college attainment by age 25 (Table 3.4).

Independent Variables: Socio-Demographic Indicators

I restricted data analyses to non-Hispanic Black and non-Hispanic White respondents because educational and fertility trajectories differ by race, particularly between Black-American and White women (sample sizes are too limited for the Hispanic sub-sample) (Cherlin, 2010; A T Geronimus, 1992; Smock & Greenland, 2010). To code for race and ethnicity, I created a variable based on self-report of racial and ethnic identity to represent non-Hispanic Black and non-Hispanic white.

I control for women’s educational attainment by year of first birth and educational attainment by age 25, as college-educated women are less likely to have unintended pregnancies, according to population-based pregnancy intention data (Finer & Henshaw, 2006). I utilize two

⁵ I did a use multiple-imputation to create a dataset in which the missing school survey data was imputed. The results in Table 4 are from analyses using this dataset and show that school survey variables did not have a significant relationship with educational attainment. Additional analyses suggested that inclusion of imputed school survey data did not improve the predictive nor the explanatory power of the educational advantage index.

separate measures of educational attainment as the two capture different aspects of education: educational attainment by year of first birth is concerned with the association between educational attainment and fertility timing, while educational attainment by age 25 is a more conventional measure of lifetime educational achievement (Krieger & Fee, 1994). I measure the respondents' years of education by first birth two years before the year of their first birth. Measured continuously, education is lagged in order to examine the effects of educational attainment on birth without incorporating the effects of birth on education. The values are lagged by two years from the time at first birth in order to ensure that they precede conception. Educational attainment by age twenty-five is simply measured as number of years of education the respondents reported in the year at which they were twenty-five years old.

In addition, I control for respondents marital status, socioeconomic status during youth, interview year, and whether their first birth occurred before 1982, when NLSY79 began assessing pregnancy intention status. Married women are less likely to report an unintended pregnancy or birth (Besculides & Laraque, 2004; Cubbin et al., 2002), so I controlled for woman's marital status. Marital status is lagged two years before the year of pregnancy in order to examine the effects of marriage on fertility and not vice versa. Respondents' marital status is measured as a nominal variable: "married," "never married", or "other" as in an alternative relationship status, most likely cohabitation. Because the educational advantage index captures much of respondents' background information, I simply controlled for the respondents' family poverty status in 1978 to proxy socioeconomic background.

To observe whether indicators of educational attainment and the index of advantage were correlated, I conducted Pearson's correlation tests to between the three variables. Table 3.5 presents the correlations coefficients between educational advantage index (measured

continuously), educational attainment by first birth, and educational attainment by age 25. The index is more correlated with educational attainment at first birth ($r = .57$) than educational attainment by age 25 ($r = .25$).

3.34 Analysis

Multinomial Logistic Regression

I conducted a series of multinomial logistic regression analyses examining the effect of the index of advantage on pregnancy intention of first birth, controlling for age at first birth (centered at 25-years), race/ethnicity, family poverty status in 1978, and marital status among a sample of women who reported at least one birth. Each model is nested, starting with a basic model (Model 1) that tests the index of advantage on pregnancy intention and models become more complex, adding age at first birth, race, family poverty status in 1978, marital status, years of education by age 25, and years of education by first birth. In a second set of analysis, I stratified the full model by race, in order to observe coefficients separately for non-Hispanic Black and non-Hispanic white women.

I examined the relative risks of a mistimed or unwanted first birth relative to having a wanted birth. Suppressing the individual subscripts, the full model can be written:

$$\text{Log} [P_{j(t)}/(1-P_{j(t)})] = \alpha_{1j} + \beta_{3j}\text{Race} + \alpha_{2j}(\text{age}-25)(t) + \alpha_{3j}(\text{age}-25)^2(t) + \alpha_{4j}(\text{age}-25)^3(t) + \beta_{5j}\text{Poverty} + \beta_{4j}\text{Marital} + \beta_{2j}\text{Years of Education} + \beta_{1j}\text{EA}$$

Where the logit of a birth intention is an additive function of the covariates, j indexes births according to pregnancy intention status, and t indexes age at first birth centered at age 25. The parameters α_1 to α_3 represent the value of the log odds of a birth of pregnancy intention status j at age t when all other covariates are zero. β_{1j} is the coefficient for the main effect of

educational advantage index. β_{2j} and β_{4j} represent the estimated coefficients for the socio-demographic controls.

In supplemental analyses, I test whether educational advantage is distinct from two measures of educational attainment: educational attainment by age 25 and educational attainment by first birth. Previous research demonstrates that the cumulative educational advantage, measured by the educational advantage index, is associated with an individual's health outcomes and distinct from educational attainment (Katrina Michelle Walsemann, 2005; Katrina M. Walsemann et al., 2009; Katrina M. Walsemann, Geronimus, & Gee, 2008). To conduct these analyses, I include the respondent's educational attainment, measured as number of years of schooling (Katrina M. Walsemann et al., 2008).

In all models, I used custom sample weights provided by the National Longitudinal Survey website in order to account for the survey's complex sampling design. The NLS custom weighting program provides a set of customized longitudinal weights that adjust for multiple year's worth of data, unlike non-custom weights that account for a single year's worth of data.

3.4 Results

3.41 Descriptive Statistics

I conducted bivariate statistical analyses to observe the distribution of the indicators used to construct the index of advantage in the total sample. Table 3.6 presents these results. In 1979, 33% of respondents reported expecting to attend college, while 25% were enrolled in college preparatory work. The majority of the sample was not enrolled in remedial Math or English (91% for both). At age 14, 64% of respondents lived in a household of two married parents and

slightly more than three-quarters reported that their household subscribed to a newspaper. More fathers than mother had college degrees (27% vs. 12%).

I conducted ANOVA, t-tests, and chi-square analyses to observe the distribution of variables within the total sample. Column 1 of Table 3.7 provides descriptive statistics of these variables. The average respondent had eight weighted educational advantages (minimum: 0, maximum: 14.3). Approximately, 61% of all reported first births were labeled as wanted, while 33% were mistimed and 6% as unwanted. On average, the sample reached just above 12 years of education before their first birth and 48% were never married, while 43% were married, and 8% had an “other” relationship arrangement (cohabitation) before their first birth. The average age at first birth was approximately twenty-four years. Roughly, 84% of the respondents were non-Hispanic white and 16% are non-Hispanic Black. About 17% of respondents came from households that were below the poverty level in 1978.

To observe differences between those of differing advantage levels, I conducted ANOVA analyses on socio-demographic variables by low, middle, and high advantage level for the total sample. I find that there are significant differences between those of differing advantage levels: Columns 2 - 4 of Table 3.7 stratify the sample by educational advantage labeled “low” (below the 25th percentile), “middle” (between 25th and 75th percentile), and “high” (above the 75th percentile) on the advantage index. On average, low-advantage women had approximately five weighted advantages, middle-advantage women had about seven weighted advantages, and high-advantage women had twelve weighted advantages. Pregnancy intention varied by level of educational advantage: those with higher levels of advantage were more likely to report a wanted birth than those with lower advantage levels. Specifically, of high-advantage women, approximately 68% had births classified as wanted, 26% classified as mistimed, and 5% as

unwanted. In contrast, of low-advantage women, 56% had births classified as wanted, 36% as mistimed, and 8% as unwanted (rates were similar for those with medium levels). Years of education by first birth correlated with level of educational advantage: high-advantage women had 15 years of schooling, middle-advantage had 12 years, and low-advantage women had 11 years. In addition, average age at first birth increased with level of advantage: high-advantage women were 27-years, middle-advantage women were 23-years, and low-advantage women were 21-years old. High-advantage women were more likely to be married before their first birth (51%) than those with middle advantage (45%) and low advantage (33%). High- and middle-advantage women had lowest rates of youth poverty (9% and 14%, respectively) compared to those with low advantage (31%). Even more, high- and middle-advantage women were less racially diverse than low-advantage women, comprised of approximately 28% non-Hispanic Black and 72% non-Hispanic white women.

In addition, I stratified analyses by race and conducted ANOVA, t-tests, and chi-square analyses to observe the distribution of variables within the sub-sample of Black female respondents. Column 1 of Table 3.8 provides the descriptive results of these analyses for the sub-sample of non-Hispanic Black respondents. The average Black respondent had about seven weighted educational advantages. Approximately, 47% of Black respondents first births were classified as mistimed, while 38% were classified as wanted and 15% unwanted. On average, Black respondents reached just below an average of 12 years of education before first birth and four-fifths were never married before their first birth, while 15% were married. The average age at first birth was 21 years old. And nearly half (48%) of Black respondents came from impoverished household.

To observe differences among Black women between those of differing advantage levels, I conducted ANOVA analyses on socio-demographic variables by low, middle, and high advantage level for the non-Hispanic Black sub-sample. I find that there are significant differences between those of differing advantage levels: Columns 2 - 4 of Table 3.8 stratify the non-Hispanic Black sub-sample by “low” (below the 25th percentile), “middle” (between 25th and 50th percentile), and “high” (at or above the 75th percentile) on the advantage index. High-advantage Black women had higher rate of wanted first births (46%), and lower rates of mistimed (42%) and unwanted births (12%) compared to the middle- and low-advantage peers. Middle-advantage Black women were more likely to have first birth classified as mistimed (47%), than wanted (38%) and unwanted (16%). Half of low-advantage Black women’s births were classified as mistimed (50%), while 34% of their births were classified as wanted and 16% as unwanted. High-advantage Black women had the highest average educational attainment by age 25 with just over 12 years of education, compared to just below 12 years for those with middle-advantage, and 11 years for those with low-advantage. Marriage rates were highest for high-advantage Black women: 19% were married two years before their first birth, 73% were never married, and close to 7% had an “other” arrangement, most likely cohabitation. Meanwhile, low-advantage Black women had the highest percentage of never married - 86% reporting to be never married before their birth. On average, high-advantage Black women were about 23-years old when they had their first birth, compared to 22-years old for middle-advantage, and 20-years old for low-advantage women. Lastly, 29% of high-advantage Black women came from impoverished households, compared to 45% of those with middle advantage and 61% of those with low advantage.

To observe the distribution of socio-demographic variables among white respondents, I conducted ANOVA, t-tests, and chi-square analyses to observe the distribution of variables within the sub-sample of white female respondents, including differences between those with low-, middle-, and high-advantage. Table 3.9 describes descriptive statistics for the non-Hispanic white sub-sample: Columns 2 - 4 of Table 3.9 stratify the sample by “low” (below the 25th percentile), “middle” (between 25th and 50th percentile), and “high” (at or above the 75th percentile) on the advantage index. High-advantage white women had the highest rate of wanted first births (72%), and lower rates of mistimed (24%) and unwanted births (4%) compared to the middle- and low-advantage peers. Those with middle-advantage were more likely to have first birth classified as wanted (63%), than mistimed (33%) and unwanted (4%). Lastly, those with low-advantage were still more likely to have a birth classified as wanted (65%), compared to mistimed (31%) and unwanted (5%). High-advantage white women had the highest average educational level with just over 14 years of education, compared to about 12 years for middle advantage and 11 years for lowest advantage. Marriage rates were highest for high advantage white women: 56% were married two years before their first birth, while 37% were never married. Meanwhile, 47% of low-advantage women report being never married before giving birth. On average, high-advantage white women were about 28-years old at their first birth, compared to middle-advantage women who were 23-years old and low-advantage women who were 22-years old. Lastly, only 6% high-advantage white women came from impoverished households, compared to 10% of those with middle advantage and 20% of those with low advantage.

Comparing the descriptive results between non-Hispanic Black and white sub-sample, Black women have higher rates of unintended pregnancy, less years of education, younger age at

first birth, lower marriage rates, and higher rates of poverty, despite stratification by advantage level. This means that high-advantage Black women were disadvantaged compared to their high-advantaged white counterparts. One, non-Hispanic Black women were less likely to have wanted first births than non-Hispanic white women at every advantage level. In fact, high-advantage Black women's rate of unwanted first birth (12%) was more than twice that of low-advantage white women (4%). Meanwhile, rates of unwanted pregnancy remains pretty stable across advantage levels within the non-Hispanic white subsample, yet it is lowest for high-advantage Black women. Years of education by first birth and age 25 by level of advantage mirror between non-Hispanic whites and non-Hispanic blacks of low- and middle-advantage. However, high-advantage white women are more educated by two years than high advantage Black women for both measures of educational attainment. High-advantage Black women had slightly more than 12 years of education by age 25, compared to approximately 15 years for high-advantage white women. In addition, rates of poverty for Black respondents were higher than whites despite level of advantage. Compared to whites, Black respondents had higher rates of being never married before their first birth: nearly three-quarters of high-advantage Black women were never married compared to 37% of high advantage white women. Lastly, high-advantage Black respondents had 29% poverty rate, compared to a rate of 6% for high advantage whites. These results allude to the fundamental role that race plays in these models and that the index of advantage does not fully explain the differentials in socio-demographic and fertility characteristics between Black and white women in this study.

3.42 Multinomial Logistic Models

I conducted a series of nested multinomial logistic models in order to observe the effect of advantage on the pregnancy intention of first birth and the change of this effect with the addition of covariates. Table 3.10 presents the relative risk ratios for mistimed and unwanted birth - from a basic model with just educational advantage to a full model with all covariates (adding race, age at first birth, poverty, then marital status). Overall, the addition of covariates to the model changes the relationship between advantage and pregnancy from a negative one (more advantage, lower likelihood mistimed/unwanted births) into a positive one (more advantage, higher likelihood mistimed/unwanted births). In Model 1, high-advantage women were significantly less likely to have a mistimed and unwanted birth, confirming descriptive results. In Model 2, while Black women have a positive and significant relationship with mistimed and unwanted births, adding the race variable to the model lessens the negative effect of high-advantage on pregnancy intention. In Model 3, adding age at first birth (and age-squared and -cubed) to the model reverses the relationship between advantage and unintended birth from negative to positively significant at the .05 level. In Model 4, adding the indicator for impoverished youth further strengthens the effect of advantage on mistimed birth. In Model 5, adding marital status before first birth strengthens the positive relationship between middle- and high-advantage and mistimed and unwanted births. Models 6 and 7 incorporate the effect of years of education on pregnancy intention, both of which attenuates the effect of advantage to different degrees. Model 6 incorporates the years of education before first birth: the effect of advantage is reduced to non-significance at the .05 level (but “trends” at the .10 level), with the exception of the effect of middle-advantage on mistimed births, which remains significant at the .05 level. Lastly, Model 7 incorporates the effect of years of education by age 25: the effect of

advantage on pregnancy intention is slightly reduced (compared to Model 5) but the effect on mistimed births remains significant.

I conducted multinomial logistic regression analyses to observe whether the index of advantage explains pregnancy intention beyond measures of educational attainment: years of education by first birth and years of education by age 25. Overall, I find that index of advantage does explain pregnancy intention of first birth, but the effects are reduced when years of education before first birth are incorporated into the model. Table 3.11 presents these results from multinomial logistic regression models that focus on the effects of years of education and index of advantage. All models control for covariates. Increasing educational attainment by first birth increases likelihood of mistimed birth; specifically, each additional year increases the likelihood by 13%. Contrary to hypothesis, Model 2 illustrates more advantage is associated with a higher likelihood having a mistimed and unwanted births. In detail, middle-advantage women were 42% and high-advantage women were 69% more likely to have a mistimed birth, compared to women of low-advantage. However, in Model 3, adding educational attainment by first birth reduces the effect of advantage on mistimed and unwanted births. In addition, each year of educational attainment by first birth increases the likelihood of mistimed birth by 10%. In considering educational attainment by age 25, findings from Model 4 illustrates that each year of education by age 25 increases the likelihood of mistimed birth by 5%, but has no significant effect on likelihood of unwanted birth. Lastly, Model 5 illustrates that the advantage explains pregnancy intention beyond years of education attained by age 25. Specifically, middle-advantage and high-advantage are, respectively 40% and 56% more likely to have a mistimed birth, while high-advantage women are 84% more likely to have an unwanted birth.

I stratified analyses by race in which I conducted a series of nested multinomial logistic models in order to observe the effect of advantage on the pregnancy intention of first birth and the change of this effect with the addition of covariates among a sub-sample of non-Hispanic Black women. Table 3.12 presents these results, which start from a basic model with the effect of advantage on pregnancy intention to a full model. In summary, the educational advantage index and educational attainment does not affect pregnancy intention among non-Hispanic Black women once covariates are included in models.⁶ Age, poverty, and marital status are significant predictors of pregnancy intention for the non-Hispanic Black sub-sample.

Furthermore, using the sub-sample of non-Hispanic Black respondents I conducted analyses to observe whether the index of advantage explains pregnancy intention beyond years of education by first birth and years of education by age 25. Table 3.13 presents results from multinomial logistic regression models that focus on the coefficients of educational attainment and educational advantage index for non-Hispanic Black sub-sample. In summary, educational advantage and attainment are not significant predictors of mistimed and unwanted birth.

I also stratified analyses to observe the effect of advantage on the pregnancy intention of first birth and the change of this effect with the addition of covariates among a sub-sample of non-Hispanic white. Table 3.14 presents these results, starting from a basic model to the full model (adding age at first births, poverty, and marital status). The pattern of results is similar to that of the analyses for the full model. Adding age at first birth, background poverty, and marital status strengthened the relationship between the index of advantage and pregnancy intention of first birth. Models 5 and 6 incorporate the effect of years of education on pregnancy intention, both of which attenuate the effect of advantage to different degrees.

⁶ Adding marital status slightly reduces the effect of age on mistimed birth and poverty on mistimed and unwanted birth.

In addition, I conducted analyses to observe whether the index of advantage explains pregnancy intention beyond years of education by first birth and years of education by age 25 among the sub-sample of non-Hispanic white women. Table 3.15 presents these results, which focus on the coefficients for educational attainment and educational advantage index among a non-Hispanic white sub-sample. In Model 1, each year of educational attainment by first birth increases the likelihood of mistimed birth by 15%. In Model 2, educational advantage is significantly related to mistimed births; in detail, white high-advantage women were twice as likely to have a unwanted birth and those with middle-advantage were 57% more likely to have a mistimed birth. In Model 3, educational attainment by first birth reduces the magnitude and significance of the educational advantage coefficient on mistimed birth and strengthens the relationship between high advantage and unwanted birth. In Model 4, educational attainment by age 25 is associated with mistimed birth: each additional year increases the likelihood by 6%. Model 5 had the educational advantage index and educational attainment by age 25: those with middle advantage are 54% more likely to have a mistimed birth and those with high advantage are 82% more likely to have an unwanted birth.

Table 3.16 presents predicted probabilities for *wanted*, *mistimed*, and *unwanted* first births. Overall, low-advantage women consistently have the lowest rates of unintended first birth, compared to their middle- and high-advantage counterparts. Low advantage women have a predicted probability of a wanted first birth of 69%, with all other variables held at the mean, compared to 62% and 61% for middle- and high-advantage women, respectively. In addition, low-advantage women predicted probability for a mistimed birth is 27%, compared to 34% and 33% for middle- and high-advantage women. Lastly, low-advantage women have a predicted probability of 3% compared to 5% and 6% for middle- and high-advantage respondents.

3.5 Discussion

The findings from this study suggest that educational advantage predicts pregnancy intention. Specifically, they show that increasing educational advantage leads to a *greater* likelihood of mistimed and unwanted first birth - contradicting the initial study hypotheses. The primary aims of this paper were to: Examine the pregnancy intention rates among non-Hispanic white and non-Hispanic Black women at low, middle, and high levels of advantage using a multifaceted and cumulative measure of educational advantage. The findings suggest that high-advantaged women are more likely to have their first births classified as *mistimed* or *unwanted*, meaning they were more likely to indicate that they wanted a pregnancy to occur later (and, to a lesser extent, not at all). In addition, I find that while the index predicts pregnancy intention among non-Hispanic white women, it does not for non-Hispanic Black women, suggesting that educational advantage is not a useful predictor of pregnancy intention differentials by race/ethnicity. This study is the first to theorize and test the impact of background advantage on pregnancy intention using a nationally representative sample. These findings underscore the importance of integrating social and structural determinants into the study of pregnancy “intentions.”

These findings counter the study hypotheses, as well as the conventional conceptualization of unintended pregnancy, and suggest the need to critically investigate the validity of standard pregnancy intention measures. Taking a closer look at the unadjusted and adjusted models from this study may help in this objective. Unadjusted descriptive results mirror the social construction of unintended pregnancy – an outcome linked to disadvantage. However, multinomial models that adjust for socio-demographic “risk” factors show the opposite - high-advantage women were more likely to have their first birth classified as *mistimed* or *unwanted*. I

highlight that these interrelated “risk” factors represent a context that signifies lack of resources, stigma, and other factors that lead to insecure or unsupportive conditions for childbearing and childrearing (Kendall et al., 2005; Lifflander, Gaydos, & Hogue, 2007). Thus, it is a reasonable to suppose that such circumstances increase the likelihood of wanting a baby later, regardless of one’s intrinsic desire become a mother. Therefore, in controlling for variables that account for these conditions, the multinomial regression models reduce the “noise” of disadvantage and allows for a nuanced look into what pregnancy intention measures actually capture. So, do women who experience highly advantaged upbringing be more likely to indicate that their first birth occurred too soon? This question suggests we consider the effect of early educational opportunities, or lack thereof, on how women view motherhood. I draw on extant works that examine the relationship between class, opportunity, and fertility behaviors and choices to interpret why high-quality educational background lead to *mistimed* and *unwanted* first births.

I consider that advantaged and disadvantaged women view the motherhood role differently. The educational advantage index serves as a proxy for an environment that either promotes or restricts scholastic success and educational support. Families and school environments construct and maintain ideas of personal success and female adolescents who develop in an environment marked by high-quality education and opportunity may learn social norms about the “right” way to start a family, e.g. delaying childbearing in order to gain a college education. Therefore, young women who receive educational advantages may not view motherhood as a primary source of adult fulfillment, compared to other prestigious occupations to which they have access (K. Edin & Kefalas, 2005). This may lead to mixed feelings about childbearing and entering motherhood when one becomes pregnant, as psychological schemas developed during the formative years may take time or be more difficult to change. Meanwhile,

women with few opportunities for adulthood success welcome motherhood, as they have less reason to consider a pregnancy ill-timed (Afable-Munsuz et al., 2006). These findings suggest that standard pregnancy intention measures capture readiness to enter motherhood, rather than serve as proxies for contraception use and access.

The role of early educational advantage has not been considered in the pregnancy intention literature, so I draw on work from related disciplines that investigate class, education, work, and the value of motherhood. In particular, Edin and Kefalas' work illustrates the dynamic between lack of opportunity and the value of motherhood among impoverished women living in urban Philadelphia. Women with few prospects for economic and social mobility consider an unexpected pregnancy to be an opportunity to gain social status and achievement. Meanwhile, women from highly advantaged backgrounds have access to fulfilling opportunities that childbearing hinders (K. Edin & Kefalas, 2005). Edin and Kefalas' work corroborates the study's findings and supports the interpretation that few educational opportunities early in life leads to little reason to consider motherhood as happening "too soon." Meanwhile, having many opportunities presents more reasons to delay motherhood and increases the propensity for one to consider a pregnancy as occurring "too soon." In addition, aspirations to attend college and obtain a high-status occupation may conflict with dominant social norms of motherhood that dictate "good mothers" prioritize the needs of children before their own. High-advantage women may have to engage in extended psychosocial processes to reconcile their previously established ambitions with anticipated demands of having a baby (Blair-Loy, 2009; Johnston & Swanson, 2006). This does not mean that high-advantage women have a lower desire for children; rather, it takes more work for them to adjust to the mother role. This dynamic between early opportunity and willingness to enter motherhood precedes proximate factors related to family planning

access. Without accounting for the fundamental determinants of family planning, like viewpoints on motherhood, interventions that aim to reduce unintended pregnancy may not be appropriate (Guttmacher Institute, 2013; M.-K. Moos et al., 2003; Raymond et al., 2007).

In doing stratified analyses, I find that educational advantage does not explain why Black women have higher likelihood of births classified as *unintended*, nor is it a helpful predictor of pregnancy intention among Black women. This suggests that this particular concept is not helpful in studying pregnancy intention among Black women in the United States. I compare the descriptive characteristics of non-Hispanic Black and white women in order to explain why this may be. Stratifying the two sub-samples by advantage level does not eliminate the race-based disparities between non-Hispanic Black and white women. High-advantage Black women were more likely to have lived in poverty in their youth, be never married before their first birth, be younger at age of first birth, and have lower educational attainment than their high-advantage white counterparts. The multinomial logistic regression findings suggest that age and marital status are the strongest indicators of pregnancy intention among this sample of Black women. This finding suggests that other unmeasured experiences related to sexuality, fertility, and context unique to Black women may be at play. Geronimus hypothesizes that earlier fertility timing among African-American populations is a strategic response to a more rapid decline in health due to a lifetime of socioeconomic disadvantage and discrimination (Arline T Geronimus et al., 2006; Arline T Geronimus, 1996). Early childbearing protects against poor infant outcomes, however such behaviors contradict dominant cultural ideals of motherhood (A T Geronimus, 2000). Furthermore, the collective experience of Black women's reproduction is marked by restriction and stigma, and entering motherhood the "wrong way" is even more contentious for this group (Brennan, 2001). So while a younger-than-average maternal age may

be beneficial for infant health among poor Black populations, the image of a young, poor, and Black mother is one rife with negative stereotypes (McCormack, 2005). Conventional pregnancy measures may capture how dominant white, middle-class cultural model for reproduction stigmatizes Black women and their childbearing practices.

This study builds on extant literature that challenges the conventional view of unintended pregnancy to suggest that pregnancy intention measures capture how willingness to enter motherhood is determined by personal, social, and economic factors (Luker, 1999). By constructing unintended pregnancy as a public health problem that stems from lack of correct “planning,” policies and programs that aim to decrease its rate are misguided and stigmatizing to disadvantaged sub-groups of women. Some scholars have highlighted that the “pathology perspective” of sexuality problematizes reproductive behaviors that deviate from those of the American, middle-class, white cultural model (Hortensia Amaro, Raj, & Reed, 2001; McCormack, 2005). In this case, to label pregnancies as *unintended* and *intended* suggests that one behavior is more valuable than the other. Additionally, it restructures the perception of pregnancy and childbearing patterns of young and single women as a social problem in need of medical intervention (Carabine, 1992; Nathanson, 1991). Nathanson says that policy rhetoric that labels and medicalizes the fertility behaviors of marginalized women is often supported by research that reinforces cultural ideals of what is appropriate and is presented as “treatment” by groups who have an interest “constructing categories of sexual orthodoxy” (Nathanson, 1991). In this case, the “treatment” for unintended pregnancy is highly-effective contraception, as dictated by organizations with vested interests in maintaining the labeling of pregnancy behaviors (Gutmacher Institute, 2008). Not incorporating the impact of social and structural determinants of pregnancy intention will perpetuate social constructions of *planned* and *unplanned*

pregnancies and “silence collectives bodies” that engage in alternative forms of becoming pregnant (Ellison, 2003). Scholars concerned with reproductive health and control among women should consider how “pregnancy intentions” result from social and structural opportunity.

There are limitations to this study. The primary one is using the standard pregnancy intention measure in the regression analyses while critiquing it. Pregnancy intention measures are subject to recall bias, ex-post rationalization, and other validity issues regarding self-reported data (Petersen & Moos, 1997; Rosenzweig & Wolpin, 1993). However, I try to address this issue in my theoretical claims. My motivation for conducting analyses using the standard pregnancy intention measure is rooted in critiquing the notion that unintended childbearing results from poor contraception use. In using a novel index that measures multiple and cumulative domains of early educational advantage to predict likelihood of pregnancy intention, I claim that pregnancy intention measures are products of preceding structural processes. A second limitation of the study was inadequate sample size in order to investigate pregnancies classified as *unwanted*. While there was adequate power to investigate the effects of educational advantage on *wanted* and *mistimed* births, those that are *unwanted* are a significantly small percentage of total births. A third limitation is that the NLSY79 only follows one cohort over time and limits the study’s ability to generalize beyond individuals born between 1957 and 1964. Future researchers should compare these results to those of later cohorts, like the National Longitudinal Survey of Youth 1997 (NLSY97) and the National Longitudinal Study of Adolescent and Adult Health (Add Health). Growing educational, economic, and social inequality suggest that these dynamics are important to consider the increasing rates of pregnancies labeled *unintended* in years following the 1970s and 1980s (Cubbin et al., 2002; Darling-Hammond, 2007).

Table 3.1 Questions used to assess pregnancy intention in major US surveys

Survey	Questions
National Fertility Survey (NFS)	<ol style="list-style-type: none"> 1) Did you yourself want a child but not until later or did you really want no more children? 2) Did you and your husband intend to have (any/any more) children eventually, or did you intend to have (no/no more) children? 3) Thinking back to the last time you became pregnant, which one of these statements comes closest to what you felt like when you first realized you were pregnant? <ol style="list-style-type: none"> a. Didn't want another child but felt stuck with it b. Glad to learn I was having a baby c. Thought about getting an abortion d. Thrilled about the whole idea e. Didn't care much one way or the other f. Felt it was a disaster g. It would be nice to have a baby h. Were very depressed i. Were very happy j. Felt it was God's will k. Had very mixed feelings
Surveys of Young Women	<ol style="list-style-type: none"> 1) Did you want to become pregnant the (first, second, third, fourth) time?
National Survey of Family Growth (NSFG)	<ol style="list-style-type: none"> 1) Was the reason you (were not/stopped) using any method because you, yourself, wanted to become pregnant? 2) At the time you became pregnant, did you, yourself, actually want to have a(nother) baby at some time? 3) It is sometimes difficult to recall these things, but, as you look back to just before that pregnancy began, would you say you probably wanted a(nother) baby, did you want to become pregnant?
National Natality Survey (NNS)	<ol style="list-style-type: none"> 1) Just before you became pregnant with your new baby, did you want to become pregnant? (1968 and 1969) <ol style="list-style-type: none"> a. Yes. b. No, wanted a baby, but did not want to become pregnant yet c. No, did not want a baby. 2) Thinking back, just before you became pregnant with your new baby, did you want to become pregnant at that time? (after 1972) <ol style="list-style-type: none"> a. I wanted this pregnancy at an earlier time as well as that time b. I wanted to become pregnant at that time c. I did not want to become pregnant at that time but wanted another child sometime in the future d. I did not want to become pregnant at that time or at any other time in the future
National Longitudinal Survey of Youth (NLSY)	<ol style="list-style-type: none"> 1) Before you became pregnant last time, did you want to become pregnant when you did? <ol style="list-style-type: none"> a. Yes b. If no, did you want a(nother) baby but not at that time or did you want none at all? <ol style="list-style-type: none"> i. Didn't matter ii. No, not at that time iii. No, none at all iv. Don't know
Pregnancy Risk Assessment Monitoring System (PRAMS)	<ol style="list-style-type: none"> 1) Thinking back to just before you were pregnant, how did you feel about becoming pregnant? <ol style="list-style-type: none"> a. I wanted to be pregnant sooner b. I wanted to be pregnant then c. I wanted to be pregnant later d. I didn't want to be pregnant then or at any time in the future
National Maternal and Infant Health Survey (NMIHS)	<ol style="list-style-type: none"> 1) Thinking back, just before you became pregnant, did you want to become pregnant at that time? <ol style="list-style-type: none"> c. I wanted this pregnancy at an earlier time, as well as that time f. I wanted to become pregnant at that time g. I did not want to become pregnant at that time, but I wanted another child sometime in the future h. I did not want to become pregnant at that time or any time in the future

Table 3.2 National Longitudinal Survey of Youth 1979 Example Pregnancy Intention Items

<p>Q1 FEMALE - USED ANY CONTRACEPTION BEFORE 1ST/2nd/3rd PREGNANCY?</p>	<p>(BEFORE YOU BECAME PREGNANT THE 1ST TIME/BETWEEN (DATE) AND (DATE) DID YOU EVER USE ANY METHODS TO KEEP FROM GETTING PREGNANT?</p>
<p>Q2 (if "Yes" to Q1) FEMALE - STOPPED CONTRACEPTION BEFORE 1ST/2ND/3RD PREGNANCY?</p>	<p>HAD YOU STOPPED ALL METHODS BEFORE YOU BECAME PREGNANT?</p>
<p>Q3 (if "No" to Q1 or "Yes" to Q2) FEMALE - NOT USING CONTRACEPTION BECAUSE WANTED 1ST/2ND/3RD PREGNANCY</p>	<p>WAS THE REASON YOU (WERE NOT/STOPPED) USING ANY METHODS BECAUSE YOU YOURSELF WANTED TO BECOME PREGNANT?</p>
<p>Q4 (if "No" Q2 and "No" to Q3) FEMALE - WANTED TO BECOME PREGNANT BEFORE 1ST/2ND/3RD PREGNANCY?</p>	<p>JUST BEFORE YOU BECAME PREGNANT THE (FIRST, SECOND, THIRD, ETC.) TIME, DID YOU WANT TO BECOME PREGNANT WHEN YOU DID? (IF NO, PROBE: DID YOU WANT A(NOTHER) BABY BUT NOT AT THAT TIME, OR DID YOU WANT (NONE/NO MORE) AT ALL?)</p>

Table 3.3 Educational Advantage Variables and Corresponding Items

Educational Advantage Variables and Corresponding Survey Items	
Variable	Indicator
Individual Characteristics	
Expected to attend college in 1979	Highest grade completed R expects
Enrolled in college preparatory work	Type of current or last curriculum in grades 9-12
Did not take remedial English	Remedial Math taken at this school
Did not take remedial Math	Remedial English taken at this school
Household Characteristics	
Lived with two-married parents at age 14	With whom did R live at age 14
Mother had a college degree	Highest grade completed by R's mother
Father had a college degree	Highest grade completed by R's father
Family subscribed to newspaper at age 14	At age 14, did any household member receive newspapers regularly
Community Characteristics (from school survey)	
Economically disadvantage students at high school	Percentage of students classified as disadvantaged
White Faculty at high school	Percentage of faculty white, not of Hispanic origin
White students at high school	Percentage of students white, not of Hispanic origin
Black faculty at high school	Percentage of faculty Black, not of Hispanic origin
Black students at high school	Percentage of students Black, not of Hispanic Origin

Table 3.4 Independent Effects of Educational Advantage Indicators on College Degree Attainment by Age 25

Indicator	beta	se	p-value
Individual Characteristics			
Expected to attend college in 1979	3.23	0.150	<.001
Enrolled in college preparatory work	1.90	0.115	<.001
Did not take remedial English	1.60	0.499	<.01
Did not take remedial Math	1.99	0.645	<.05
Household Characteristics			
Lived with two-married parents at age 14	0.87	0.148	<.001
Mother had a college degree	1.29	0.130	<.001
Father had a college degree	1.35	0.111	<.001
Family subscribed to newspaper at age 14	1.26	0.193	<.001
Community Characteristics			
Economically disadvantage students at high school	1.00	0.133	<.001
White Faculty at high school	0.11	0.111	0.317
White students at high school	-0.19	0.166	0.264
Black faculty at high school	0.19	0.095	0.05
Black students at high school	-0.06	0.134	0.679

Table 3.5 Pairwise Correlations of Continuous Education Measures and Educational Advantage Index

	<u>Educational Advantage Index</u>	<u>Educational Attainment First Birth</u>	<u>Educational Attainment by Age 25</u>
<u>Educational Advantage Index</u>	1.00	—	—
<u>Educational Attainment First Birth</u>	0.57	1.00	—
<u>Educational Attainment by Age 25</u>	0.25	0.45	1.00

Note: Correlation coefficients are significant at the .05 level

Table 3.6 Mean and Standard Error of Indicators Included in the Index of Advantage

<u>Indicators</u>	<u>Mean</u>	<u>SE</u>
Individual Characteristics		
Expected to attend college in 1979	0.33	0.004
Enrolled in college prep curriculum	0.25	0.003
Did not take remedial English	0.91	0.002
Did not take remedial Math	0.91	0.002
Household Characteristics		
Lived with two-married parents at age 14	0.64	0.757
Mother had a college degree	0.12	0.003
Father had a college degree	0.27	0.004
Family subscribed to newspaper at age 14	0.76	0.003

a. Variables are dummy coded and may be interpreted as unweighted percentages

b. Although I dichotomize school demographics indicators prior to inclusion in the index, I provide the mean and standard errors of these variables in their original form.

The estimated means of school characteristics can be interpreted as unweighted percentages.

Table 3.7 Levels and Significance of Sample Characteristics (Column 1) and Index of Advantage (Columns 2 and 3) by Socio-demographic variables

	Sample Characteristics <i>n=3062</i>	Below 25th Percentile Educational Advantage <i>n=828</i>	25th-75th Percentile Educational Advantage <i>n=1583</i>	Above 75th Percentile Educational Advantage <i>n=651</i>	
	Level	Level	Level	Level	sig.
Index of Advantage	7.92	4.69	7.41	12.05	***
First Birth Pregnancy Intention Status					
Wanted %	60.90%	56.09%	59.69%	68.27%	***
Mistimed %	33.04%	35.94%	34.59%	25.57%	***
Unwanted %	6.06%	7.97%	5.72%	5.15%	***
Education by first birth (years)	12.34	10.82	11.91	14.73	***
Education at age 25 (years)	12.38	11.10	12.01	14.41	***
Marital Status					***
Never Married %	48.46%	57.94%	47.22%	41.95%	***
Married %	43.62%	33.17%	44.93%	50.81%	***
Other %	7.92%	8.88%	7.85%	7.23%	***
Age at First Birth (years)	23.59	21.31	23.08	26.84	***
Family in Poverty 1978 %	16.87%	31.31%	14.44%	8.79%	***
Race and/or ethnicity					
Non-Hispanic White %	83.38%	71.94%	86.52%	86.83%	***
Non-Hispanic Black %	16.61%	28.06%	13.48%	13.17%	***
<i>First Birth Occurred before 1982</i>	59.22%	54.91%	45.87%	16.53%	***
<i>High Educational Attainment %</i>	39.93%	11.14%	26.45%	84.25%	***
<i>Ideal Family Size 1979</i>	2.82	2.89	2.80	2.77	
<i>Desired Number of Children 1979</i>	2.53	2.39	2.53	2.64	***
<i>Number of Siblings</i>	3.47	4.22	3.49	2.93	***
<i>Expected Number of Children</i>	2.21	1.85	2.18	2.42	***

a. Column 1 refers to descriptive characteristics of the study sample. Column 2 refers to the percentage of respondents with a low score (below 25th percentile) in the Index of Advantage who have a given characteristic. Column 3 refers to percentage of those with middle score with a given characteristic. Column 4 refers to the given characteristic percentage of respondents with a high score (25th percentile or greater) who have a given characteristic

b. ANOVA used to determine significance level of differences between Col 2, Col 3, and col 4

c. Italicized variables are not included in the multinomial logistic regression models

d. Educational level and marital status is measured in the survey two years before year of first birth

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.8 Levels and Significance of non-Hispanic Black Sample Characteristics (Column 1) and Index of Advantage (Columns 2 and 3) by Socio-demographic variables

	Sample Characteristics <i>n</i> = 908	Below 25th Percentile Educational Advantage <i>n</i> =351	25th-75th Percentile Educational Advantage <i>n</i> =438	Above 75th Percentile Educational Advantage <i>n</i> =191	
	Level	Level	Level	Level	sig.
Index of Advantage	7.25	4.47	7.78	11.46	***
First Birth Pregnancy Intention Status					
Wanted %	37.73%	33.76%	37.45%	45.80%	***
Mistimed %	47.10%	49.95%	46.73%	42.21%	***
Unwanted %	15.16%	16.29%	15.81%	12.0%	***
Education by first birth (years)	11.48	10.68	11.55	12.89	***
Education at age 25 (years)	11.86	10.96	11.91	12.35	***
Marital Status					
Never Married %	80.07%	86.44%	77.63%	73.42%	***
Married %	14.88%	10.61%	16.53%	19.90%	**
Other %	5.05%	2.95%	5.83%	6.67%	***
Age at First Birth (years)	20.77	19.58	20.89	22.79	***
Family in Poverty 1978 %	47.72%	60.59%	44.69%	28.75%	***
<i>First Birth Occurred before 1982</i>	61.97%	70.75%	62.39%	44.51%	***
<i>High Educational Attainment %</i>	33.61%	14.59%	35.11%	69.73%	***
<i>Ideal Family Size 1979</i>	3.16	3.15	3.17	3.10	
<i>Desired Number of Children 1979</i>	2.35	2.22	2.39	2.47	*
<i>Number of Siblings</i>	4.89	5.45	4.71	4.24	***
<i>Expected Number of Children</i>	1.84	1.60	1.96	1.98	***

a. Column 1 refers to descriptive characteristics of the study sample. Column 2 refers to the percentage of respondents with a low score (below 25th percentile) in the Index of Advantage who have a given characteristic. Column 3 refers to percentage of those with middle score with a given characteristic. Column 4 refers to the given characteristic percentage of respondents with a high score (25th percentile or greater) who have a given characteristic

b. ANOVA used to determine significance level of differences between Col 2, Col 3, and col 4

c. Italicized variables are not included in the multinomial logistic regression models

d. Educational level and marital status is measured in the survey two years before year of first birth

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3.9 Levels and Significance of non-Hispanic white Sample Characteristics (Column 1) and Index of Advantage (Columns 2 and 3) by Socio-demographics variables

	Sample Characteristics n = 2002	Below 25th Percentile Educational Advantage n=477	25th-75th Percentile Educational Advantage n=1145	Above 75th Percentile Educational Advantage n=460	
	Level	Level	Level	Level	sig.
Index of Advantage	8.05	4.78	7.36	12.15	***
First Birth Pregnancy Intention Status					
Wanted %	65.51%	64.80%	63.16%	71.68%	**
Mistimed %	30.24%	30.47%	32.70%	24.20%	**
Unwanted %	4.24%	4.73%	4.14%	4.1%	**
Education by first birth (years)	12.52	10.87	11.97	15.01	***
Education at age 25 (years)	12.48	11.07	11.98	14.70	***
Marital Status					
Never Married %	42.16%	46.83%	42.48%	37.18%	***
Married %	49.35%	41.97%	49.36%	55.50%	***
Other %	8.49%	11.20%	8.17%	7.32%	***
Age at First Birth (years)	24.15	22.00	23.43	27.45	***
Family in Poverty 1978 %	10.66%	20.11%	9.65%	5.66%	***
<i>First Birth Occurred before 1982</i>	36.55%	48.73%	43.30%	12.28%	***
<i>High Educational Attainment %</i>	37.30%	9.80%	25.10%	86.34%	***
<i>Ideal Family Size 1979</i>	2.74	2.78	2.75	2.72	
<i>Desired Number of Children 1979</i>	2.56	2.45	2.55	2.67	***
<i>Number of Siblings</i>	3.24	3.75	3.30	2.73	***
<i>Expected Number of Children</i>	2.23	1.94	2.21	2.48	***

a. Column 1 refers to descriptive characteristics of the study sample. Column 2 refers to the percentage of respondents with a low score (below 25th percentile) in the Index of Advantage who have a given characteristic. Column 3 refers to percentage of those with middle score with a given characteristic. Column 4 refers to the given characteristic percentage of respondents with a high score (25th percentile or greater) who have a given characteristic

b. ANOVA used to determine significance level of differences between Col 2, Col 3, and col 4

c. Italicized variables are not included in the multinomial logistic regression models

d. Educational level and marital status is measured in the survey two years before year of first birth

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 3.10 Relative Risk Ratios of Pregnancy Intention Status of First Birth and Educational Advantage (Percentiles), n = 3062

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6			Model 7					
	Mistimed		Unwanted																					
	vs Wanted	RRR	SE																					
Index of advantage (below 25th percentile ref.)																								
25th - 75th percentile	0.90	0.104		0.73	0.133	+	1.03	0.123		0.98	0.186		1.30	0.166	*	1.29	0.268		1.35	0.179	*	1.42	0.307	
above 75th percentile	0.61	0.087	***	0.53	0.127	**	0.69	0.101	*	0.69	0.171		1.45	0.239	*	1.44	0.422		1.60	0.279	**	1.62	0.493	
Education at age 25 (years)																								
Education by first birth (years)																								
Race and/or ethnicity (non-Hispanic White = ref.)																								
Non-Hispanic Black				2.60	0.247	***	5.69	0.906	***	1.85	0.190	***	3.73	0.642	***	1.50	0.207	***	3.18	0.392	***	1.54	0.178	***
Age at First Birth																								
Age-squared																								
Age-cubed																								
Family Poverty Status: 1978 (not in poverty ref.)																								
In Poverty																								
Marital Status (never married ref.)																								
Married																								
Other																								

Note: Age in entered on age 25 years
 All models account for sampling design
 RRR = relative risk ratio; SE = standard error
 *p<.05, **p<.01, ***p<.001. +p<.10

Table 3.11 Relative Risk Ratios of Pregnancy Intention Status of First Birth by Educational Advantage and Educational Attainment, Total Sample N = 3062

	Model 1		Model 2		Model 3		Model 4		Model 5						
	Mistimed		Unwanted		Mistimed		Unwanted		Mistimed		Unwanted				
	vs Wanted	RRR	sig.	vs Wanted	RRR	sig.	vs Wanted	RRR	sig.	vs Wanted	RRR	sig.			
Index of advantage (below 25th percentile ref.)															
25th - 75th percentile				1.42	**	1.47	+	1.35	*	1.47	+	1.40	*	1.46	+
above 75th percentile				1.69	**	1.90	*	1.37	+	1.88	+	1.56	*	1.84	*
Educational Attainment by age 25 (years)															
Educational Attainment by first birth (years)	1.13	***		1.03				1.10	**	0.99					

Note: All models control for age at first birth, family poverty level in 1978, and marital status two years before year of first birth

All models account for sampling design

RRR = relative risk ratio; SE = standard error

*p<.05, **p<.01, ***p<.001. +p<.10

Table 3.12 Relative Risk Ratios of Pregnancy Intention Status of First Birth and Educational Advantage (Percentiles), non-Hispanic Black women N=903

	Model 1			Model 2			Model 3			Model 4			Model 5			Model 6								
	Mistimed		Unwanted																					
	vs Wanted			vs Wanted			vs Wanted			vs Wanted			vs Wanted			vs Wanted								
	RRR	SE	sig.	RRR	SE	sig.																		
Index of advantage (below 25th percentile ref.)																								
25th - 75th percentile	0.85	0.143		0.89	0.197		1.00	0.176		1.12	0.261		1.01	0.183		1.20	0.292		1.08	0.200		1.30	0.326	
above 75th percentile	0.64	0.133	*	0.54	0.163	*	0.96	0.210		1.02	0.324		1.02	0.236		1.12	0.370		1.05	0.235		1.23	0.419	
Education at age 25 (years)																								
Education by first birth (years)																								
Age at First Birth				0.90	0.029	**	0.90	0.045	*	0.90	0.030	**	0.90	0.048	*	0.96	0.038		0.93	0.059		0.94	0.041	
Age-squared				1.01	0.003	***	1.02	0.003	***	1.01	0.003	***	1.02	0.003	***	1.01	0.004	+	1.02	0.005	***	1.01	0.004	+
Age-cubed				1.00	0.000		1.00	0.000		1.00	0.000		1.00	0.000		1.00	0.001		1.00	0.001		1.00	0.001	
Family Poverty Status: 1978 (not in poverty: ref.)																								
In Poverty							0.78	0.127		0.85	0.198		0.65	0.110	**	0.65	0.154	+	0.66	0.112	*	0.67	0.162	+
Marital Status: Year of First Birth (never married: ref.)																								
Married													0.32	0.074	***	0.13	0.060	***	0.30	0.072	***	0.11	0.054	***
Other													0.49	0.191	+	0.42	0.209	+	0.46	0.186	+	0.37	0.191	+

Note: Age is centered on age 25 years

All models account for sampling design

RRR = relative risk ratio; SE = standard error

*p<0.05, **p<0.01, ***p<0.001, +p<0.10

Table 3.13 Relative Risk Ratios of Pregnancy Intention Status of First Birth by Educational Advantage, and Educational Attainment, non-Hispanic Black women N=903

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Mistimed	Unwanted								
	vs Wanted		vs Wanted		vs Wanted		vs Wanted		vs Wanted	
	RRR	sig.								
Index of advantage (below 25th percentile ref.)										
25th - 75th percentile			1.08		1.30		1.05		1.23	
above 75th percentile			1.05		1.23		0.96		1.04	
Educational Attainment at age 25 (years)							1.03		1.04	
Educational Attainment by first birth (years)	1.08		1.17	+			1.08		1.17	+

Note All models control for age at first birth, family poverty level in 1978, and marital status two years before year of first birth.

All models account for sampling design

RRR = relative risk ratio; SE = standard error

*p<0.05, **p<0.01, ***p<0.001, +p<0.10

Table 3.16 Predicted Probabilities of Pregnancy Intention as a Function of Educational Advantage

	Wanted			Mistimed			Unwanted		
	Margin	SE	sig.	Margin	SE	sig.	Margin	SE	sig.
Low Educational Advantage	0.69	0.025	***	0.27	0.024	***	0.03	0.007	***
Middle Educational Advantage	0.62	0.017	***	0.34	0.017	***	0.05	0.006	***
High Educational Advantage	0.61	0.030	***	0.33	0.028	***	0.06	0.014	***

Note: All other covariates are held at the mean

Chapter 4

Unintended Pregnancy and Educational Advantage: The experiences of pregnancy anticipation among a diverse group of women

4.1 Introduction

Scholarly and policy interest in the causes and possible prevention of unintended pregnancy has increased within the past twenty years. Spearheaded by the Institute of Medicine report on unintended pregnancy, *The Best Intentions: Unintended Pregnancy and the Well-being of Children and Families* (Brown, 1995a), concern for unintended pregnancy rests on claims that it causes poor maternal, infant, and child health. Even more, the prevalence of unintended pregnancy has grown among disadvantaged populations (Finer & Henshaw, 2006; Finer & Zolna, 2011), which raises the question of whether current understanding of the causes and interventions are sufficient. As a result, stakeholders often claim that if women, especially those who are disadvantaged, had better access to highly effective contraception methods, then the rate of unintended pregnancy would decrease, illustrated by Healthy People 2020 (Brown, 1995; Prevention, 2010; "Unintended Pregnancy Prevention: Home," 2010). Yet, this approach does not consider alternative explanations for the social patterning of unintended pregnancy rates; instead, it relies on unsubstantiated assumptions about women's agency in fertility intentions and choices.

An important step in improving the conceptualization and measures of unintended pregnancy is to utilize qualitative work that investigates how fertility behaviors are based in social and economic context. Qualitative works suggest that working-class, working poor, and women living in poverty do not find pregnancy planning to be salient and their definitions of planning differ from those that public health and biomedicine espouse (Kendall et al., 2005; Lifflander, Gaydos, & Hogue, 2007; Stanford, Hobbs, Jameson, DeWitt, & Fischer, 2000). Middle-class and highly educated women identify pregnancy planning as a salient concept and are more likely to use terms such as “unintended,” “unwanted,” and “mistimed,” similar to health officials, when describing their pregnancies (Barrett & Wellings, 2002). Scholarly work like these provide sound reasoning and evidence for why standard pregnancy assessments to not apply for all groups. In addition, they elucidate some of the ways through which socioeconomic status and other social stratification mechanisms affect pregnancy intention, like contraception access and use (J A Higgins & Hirsch, 2008), relationship with partner and partner dynamics (Gomez, 2011), and values regarding childbearing (Afable-Munsuz et al., 2006; Kendall et al., 2005).

This paper utilizes a feminist theoretical framework to consider the inter-locking effects of social, economic, and ideological influences on women’s approaches to pregnancy and the construction of unintended pregnancies as a problem within public health. Key works that have aimed to critically look at women’s health topics have utilized theoretical frameworks that analyze the link between political, social, and economic circumstances, sexuality, and fertility (Colen, 1995; A T Geronimus, 2000; A. Geronimus, 1996). As education is a well-established factor in fertility outcomes, I consider that educational experiences shape the structural

constraints and opportunities that result in the social stratification of pregnancy intention. In challenging current conceptualization and classification of unintended pregnancy in the United States as based on lack of intention, planning and responsibility, I investigate how “pregnancy planning” is a negotiation between women’s individual priorities and her environmental and structural constraints and opportunities, rather than explicit and individual-based plans of action.

4.2 Background

The vast majority of mainstream public health organizations concerned with women health and fertility subscribe to the idea that the rate of unintended pregnancy signals the need for improved contraceptive access and usage (Finer & Zolna, 2011; Forrest, 1994; Jones, Forrest, Henshaw, Silverman, & Torres, 1988). Increasing access to highly effective contraceptive methods are commonly proposed interventions for preventing unintended pregnancy, as illustrated by Guttmacher Institute: “Whether they end in abortion or unplanned birth, unintended pregnancies come at a cost both to the individuals involved and to the larger society. Reduction of unplanned pregnancy can only be achieved by decreasing risky behavior, promoting the use of effective contraceptive methods and improving the effectiveness with which all methods are used” (Henshaw, 1998). Access to contraceptives is constantly cited as the primary problem in regard to the high occurrence of estimated unintended pregnancies among disadvantaged women (Raymond, Trussell, & Polis, 2007; L. B. Williams, 1991); however access is rarely defined nor is it related to the already poor healthcare access of disadvantaged populations (Bertrand, et al., 1995). Even more, some papers frame women as lacking agency in their pregnancies, as illustrated by Guttmacher Institute: “The findings from both surveys strongly suggest that new strategies are needed to improve women’s contraceptive use and, by

doing so, to better protect them from unintended pregnancy. The following recommendations target two broadly defined audiences – service providers on the one hand, and policymakers, researchers and advocates on the other” (Guttmacher Institute, 2008). Unintended pregnancy is framed as a risky outcome and avoidance of it is a result of a woman’s personal motivation, contraceptive use, and attitudes. And while there is much merit in proposing to increase access to healthcare, choice of contraception, and healthy reproductive outcomes, the idea that unintended pregnancy is solely of a lack of contraceptive is based on faulty assumptions. In fact, there is no definitive evidence that says unintended pregnancy is the result of poor contraception use and access and these claims rest on assumptions about women’s contraceptive skills and ability in managing their fertility.

These resolutions assume (1) that pregnancy intention is individualistic and binary and (2) that contraception-use reflects intent. A few studies have tested the effectiveness of increasing access to highly effective contraceptive methods to decrease unintended pregnancy; unintended pregnancy rates did not differ between control and intervention groups (Raymond et al., 2007; Whaley & Winfield, 2003). Furthermore, these resolutions lack a clear theoretical basis for conflating *mistimed* and *unwanted* to reflect a single concept of *unintended* and presuppose women’s opinions about either outcome. In fact, a substantial proportion of unintended pregnancies are carried to full-term. Approximately 43% of pregnancies labeled as *unintended* result in abortion and 78% of married women, 39% of never-married women, and 40% of formerly married women continued their unintended pregnancies in 2006 (Finer & Zolna, 2011). This evidence suggests that pregnancy intentions are complicated, yet critical exploration into why women continue births, despite the measured “intentions,” are lacking. This dearth suggests

that there is room for exploration about how and why women decide to continue with pregnancies that they report not anticipating in the first place.

Expert scholars suggest revisiting standard pregnancy intention measurements to revisit its complexity in order to better understand its occurrence and rate among certain populations (Luker, 1999; J. Santelli et al., 2003). Santelli argues that the idea of a pregnancy being intended or not “may not be a universally applicable concept” and “a series of close-ended questions designed to categorize pregnancies in a dichotomous way cannot capture the cognitive processes through which women reflect on the desirability of a specific pregnancy. Commonly used questions assume that women always decide about the desirability of becoming pregnant at the time of sexual intercourse. This is not always the case.” In addition, Santelli suggests that ambivalence and contraceptive failure appear to be common because current pregnancy intention assessments fail to capture the complexity of fertility decision making (J. Santelli et al., 2003). Additionally, women included factors beyond contraceptive behaviors when considering their desire for a baby terms, including partner agreement and broader life preparations, such as adequate appropriate employment and housing security. Other qualitative studies have found similar evidence suggesting that the domain of the pre-conception pregnancy intention constructs is comprised of more than just contraceptive behavior *per se*, but other factors related to background and circumstances that constrict contraceptive behavior (Kendall et al., 2005; Luker, 1975; Moos et al., 1997; Stanford et al., 2000). Improving the understanding of pregnancy intention by investigating alternative methods of conceptualization and measurement relies on accepting the possibility that pregnancy intention arise from context and environment (J. Santelli et al., 2003).

We should consider scholarship that expands the discussion on fertility to include work on the cultural, social, and political structures that complicate fertility behaviors. Since the introduction of pregnancy intention assessments, major structural shifts in contraception technology, gender-related policies, and labor markets have changed the context in which fertility, parenthood, and family planning choices and decisions are made (Luker, 1999). For example, Hirsch argues that motivations to use contraception are functions of socioeconomic background, heterosexual gender dynamics, and sexual scripts, pointing out that socially advantaged women's opportunity costs are higher than those of non-advantaged women. In turn, highly-educated/high-SES women perceive sex to be riskier, because an unexpected pregnancy is more costly, compared to low-SES women; in turn, this increases the incentive for them to be "skilled contraceptors." This scholarship critically undermines assumptions made by much of the mainstream literature on pregnancy intention because it introduces the idea that contraception salience differs by socioeconomic class level. This calls for more critical investigation of women's approach to fertility intent and social advocacy groups and policymakers to utilize this nuanced approach to pregnancy intent and fertility to better serve target groups.

Proponents of constructing unintended pregnancy as a social problem often claim that it costs parents their personal and economic goals (Brown, 1995). Yet, this conclusion assumes that these goals are accessible to everyone and ignore that opportunity is socioeconomically stratified. In the United States, there is a strong gradient between fertility and education - women with higher education levels tend to have fewer or no children (Mathews, 1997) (Castro Martin, 1995; Diamond, Newby, & Varle, 1999). Even more, fertility behaviors and outcomes are stratified along racial, ethnic, and socioeconomic lines. In recent decades, family structures have diverged between those at the top and bottom of the socioeconomic scale; the trajectory of

college graduates has changed very little from that of the mid-century – children born within legal marriages (Lundberg, *The America*). As Edin and Kefalas has written:

“At the dawn of the twenty-first century, a hallmark of the middle-class American family is the careful planning and painstaking preparation that generally precede childbearing, and it is poor mother’s failure to do the same that causes so much concern and public outrage” (Edin & Kefalas, *Promises* p.142).

The focus of this paper is to explore the extent to which access to family planning reduces unintended pregnancy and challenge current acceptance that “unintended” pregnancies in the United States are based on lack of intention, planning, and responsibility. Current pregnancy intention policy, program, and, to lesser extent, scholarly research lack consideration for whether contraception-based ideas of pregnancy planning are relevant to various groups of women within the United States. A deep look into the contextual and structural factors that contribute to the social patterning of pregnancy intention is essential. As women are often the targets of such efforts, it is important recognize their conceptualization and assessment of pregnancies through qualitative work that highlights the language they use to tell stories of conception, pregnancy, and childbearing. This study explores the interaction between early life experiences and the factors that affect pregnancy and childbearing in adult life, while highlighting women’s particular ways of conceptualization “pregnancy intention.” This research pays attention to the contextual diversity of pregnancy intentions, with hopes that scholars and policymakers can be much more responsive to its complexities.

4.3 Data and Methods

In August-September 2012, I conducted a pilot qualitative study to explore the interaction between early life experiences and pregnancy experiences. I refined the interview instrument so that conversations explored the following (Appendix 4-A):

- Home and school life as a child and adolescent/teenager
- Fertility aspirations before first pregnancy
- Personal experiences with pregnancies
- Feelings and thoughts about pregnancy
- Vignettes of influences on contraception use
- Influences on pregnancy intentions
- Factors that affect feelings about pregnancy

In early 2012, I contacted the director of a women-focused community agency that works with young women in Atlanta, Georgia who agreed to aid in recruitment and connect me with similar agencies in Atlanta. Additionally, I snowballed personal and professional contacts to augment sample size, and through this I obtained a socioeconomically diverse sample. The pilot sample consisted of women of African descent, e.g. “Black,” “African-American,” “Afro-Latina.” According to their reported educational level, occupational status, and home ownership status, I classified four respondents as low socioeconomic status and two as middle socioeconomic status. Participants’ response differed by socioeconomic status, suggesting the study would have more insight into the research topic with a sample that was diverse in race/ethnicity and educational attainment.

The study aims were to explore the differential experiences of pregnancies by educational attainment and, to a lesser extent, race and ethnicity. I revised my recruitment strategy to purposefully sample from a broader range of socioeconomic, racial, and ethnic groups in order to gain richer content and stronger theoretical claims (Glaser & Strauss, 1967b) and recruiting from multiple sites was the best strategy. The pilot study provided evidence that college-educated respondents described early life experiences and pregnancy narratives that differed from lesser-

educated peers in ways the further complicated pregnancy intention. Extant literature focuses on poor women's behaviors in order to explore why they deviate from more acceptable norms. I wanted to focus on highly educated women who are considered to be more in control of their fertility destinies and to favor the "planned pregnancy model," by the literature, and critically investigate how their behaviors and perspectives are socially and structurally determined.

As previously outlined, my pilot sample was fairly homogenous. For this study, I wanted to explore fertility differentials by educational attainment and race/ethnicity, so I decided to recruit 15-20 participants and that at least half of my sample would have a college degree. I ended up with seventeen respondents, with a fairly racially diverse sample that over-sampled the highly educated. The sample demographics reflect challenges that I faced in recruiting non-college-educated populations, specifically in Atlanta where I had planned to interview three more women of low-education status but my recruiting efforts were cut short by the state of emergency in the city during my stay there (Mullins, 2014). Overall, I was still satisfied with the sample demographics given the research aims.

I utilized personal and professional contacts to recruit additional participants from cities in which I had the most recruiting power - Atlanta, Los Angeles and Ann Arbor, Michigan – to obtain an ethnically and socioeconomically diverse sample. Atlanta is a prime site for recruiting from a socioeconomically diverse African-American population. With a population of 5.5 million people, Atlanta is the capital and most populous city in Georgia. According to the Brookings Institute, long known to be a center of Black wealth, political power, and culture, as well as the hub of the Civil Rights Movement, Atlanta is highly stratified, with the largest socioeconomic disparity of any major city in the nation, measured by the Gini coefficient (Berube, 2014; Bloomberg Visual Data, 2014).

I set out to diversify my sample and recruit female respondents who were non-white and highly educated by utilizing contacts in Los Angeles. Los Angeles is the second most populous city in the United States and is the most diverse of the nation's largest cities. According to the 2005-2009 American Community Survey, the racial/ethnic composition is as follows: White 41.3% (non-Hispanic white 29.4%); Hispanic or Latino 57.5%; Black or African-American 9.8%; Native American 0.5%; Asian 10.7%; Native Hawaiian and other Pacific Islander 0.2%; Other 25.2%. In addition, approximately 59.4% of Los Angeles's residents were born in the United States.

My recruitment strategies included phoning and emailing personal and professional contacts in which I explained the study and distributed a recruitment flyer (Appendix 4-B). I utilized a listserv for parents in Ann Arbor, personal and professional contacts in Los Angeles, and established contacts through the pilot interviews in Atlanta. For all three locales, I utilized snowballing. I collected contact information of potential participants who met the prerequisites. Participants qualified if they were female and had at least one biological child in order to focus on women who brought a biological birth to term. In total, I recruited a total of seventeen participants that varied by race, ethnicity, educational attainment, and location from three locations. Please find sample characteristics in Table 4-1.

I conducted semi-structured one-on-one interviews in which I gave the participants the opportunity to develop topics and raise issues concerning their experiences that they feel are important (Weiss, 1995). I tape-recorded the interviews in order to assure accuracy. Participants had the option to opt out of being tape-recorded; no one refused. I conducted the majority of the interviews at the homes of the interviewee to ensure comfort and privacy. The average length of an interview was 49 minutes and 48 seconds, while the median length was 44 minutes and 8

seconds, with a range from 24 minutes to one hour 55 minutes and 31 seconds. I conducted the interviews in Ann Arbor, Michigan from April to May 2013, in Los Angeles from June-July 2013, and Atlanta during January 2014.

In accordance with Institutional Review Board (IRB) policies regarding consent, I informed the participants about the purpose of the study, their rights as a study participant, and contact information for my academic advisor, the University of Michigan Institutional Review Board, and myself. Additionally, I provided the participants with contact information to seek mental or emotional illness help in the case they are distressed by the content of the interviews. Please find the Statement of Consent to Participate in the Appendix 4-C. I paid participants \$20 for their time at the end of the interview (independent of interview completion).

I obtained approval from the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board (IRB) for the interviews and quantitative research (HUM00062109); I made additional amendments to approve for additional study sites and sampling and to extend the approval period (from 4/23/2013 to 4/23/2014). Please find the IRB Approval letter in the Appendix 4-D.

4.4 Analysis

I analyzed the data using methods from grounded theory. Initially presented by Barney Glaser and Anselm Strauss in *The Discover of Grounded Theory*, grounded theory is a systematic methodology used to develop theory grounded in qualitative data (Glaser & Strauss, 1967). The purpose of grounded theory procedures is to produce a thorough and united set of concepts that provide a theoretical explanation of a social occurrence (Strauss & Corbin, 1994).

Open coding is one of the several techniques that define the grounded theory method and is the initial step of theoretical analysis in which the researchers codes for categories and properties emerge from the data, whether it be through line by line analysis, sentences and paragraphs, or entire documents (Glaser, 1992). The researcher closely scrutinizes the data through this method and the concepts and theoretical codes emerge. In turn the process of using grounded theory to analyze data is more important than the product of the analysis and ensures that the concepts are grounded in the “reality of the data” (Corbin & Strauss, 1990).

Constant comparison is the second characteristic of the grounded theory. A researcher goes through the data constantly comparing incident to incident and/or to concepts looking for patterns to indicate categories. Researchers are interested in patterns of actions and interaction between and among social and observational units and creating theory about a process (Corbin & Strauss, 1990). The constant comparison method helps the researcher guard against bias (Corbin & Strauss, 1990).

Grounded theory methods have been used in several qualitative works that challenge or augment dominating theories in social science disciplines. In their work emphasizing the contribution of grounded theory to critical race theory studies in the field of education, Malagon et al. emphasized that Glaser and Strauss challenged approaches that emphasized the “over reliance on ‘great-man’ theories that dominated sociology departments” and “strengthen the mandate for generating theory, to help provide a defense against doctrinaire approaches to verification (Malagon, Huber, & Velez, 2009).” In fields dominated by race-neutral theories, such as meritocracy and “color-blindness” that make no nuanced contributions to the study of people of color, the researcher can use grounded theory to empirically interpret and analyze the perspectives and experiences of marginalized voices and actors that goes ignored or

unacknowledged. In this case, my study uses grounded theory methods to challenge the dominating theories on preventing pregnancy that reify hegemonic ideals of fertility behaviors and outcomes.

Upon completing interviews I sent recorded audio files to a transcribing company and then conducted open coding of transcripts. From that list of open coding, I developed a coding schema, which I then used to explore patterns and develop hypotheses about early life and pregnancy narratives. After receiving Word document files of the transcribed audio, I printed out the transcripts to ready them for open coding. During open coding, I read the transcripts multiple times and reviewed field notes in asking questions about my data. I “asked sociological questions of my data,” meaning I paid attention to words, phrases, and passages that pointed to patterns, processes, causes of patterns, and consequences of patterns in regard to observing how background factors were related to later life adulthood fertility behaviors, thoughts, and processes. In doing this, I focused on respondents’ narratives and descriptors that pointed to meanings and paid attention to processes, relationships, and strategies. I developed a coding system from comparing and contrasting pieces of information from the interview transcripts. After several revisions of the coding system, I used Nvivo to code all of the interviews and wrote memos for the codes, relationships between codes, as well as other patterns and relationships.

Please find an outline of the coding system illustrating the codes derived from opened coding that were organized and condensed into focused codes in the Appendix 4-E. This outline reflects 31 categories with minor codes that reflect major and minor themes (Glaser & Strauss, 1967a). Following the research rationale, I focused on the following categories/codes: Pregnancy “Approach,” Family Support for Pregnancy, Community Support for Pregnancy, Readiness, Delaying Pregnancy/Childbearing, Planning Definitions, Planning Attitudes, Wanting

Pregnancy, Ambivalence, Success-Oriented Household, School Performance, and Success Drive. All other codes were used to inform the analysis. From these codes and memos, I wrote the results of the data. Participant's names used in the results are pseudonyms to ensure their anonymity and quotations have been minimally edited to ensure ease in reading.

4.5 Results

4.51 Wanting vs. Planning: Distinct Concepts

Certain stakeholders propose to reduce unintended pregnancies through promoting planned pregnancies through contraception use; yet there lacks dialogue and investigation into the reasoning behind conflating *wanting* with *planning*. This study does not assume that these terms are the same and attempts to unpack the assumptions behind them by discussing respondents' definitions of *planning* and *wanting*. Pregnancy intention questions are based on the action verb "to want," however there lacks clear understanding of what it means to "want a baby." While there is little disagreement on the everyday use of "to want," investigation into how respondents cognitively process "wanting a baby" when encountering pregnancy intention questions is scant⁷. Meanwhile, the conventional pregnancy-planning model assumes conscious decision-making through contraception use.

This study suggests that "wanting" and "planning" are distinct, but related, concepts. In general, "to want a baby" was based on one's desire for motherhood, making it a nuanced concept that varied from person-to-person. On the other hand, "planning a pregnancy" centered on a woman's cognitive choice to conceive, as well as ensure a welcoming and supportive

⁷ This approach is partly motivated by cognitive interview techniques, which attempt to assess how target audiences process survey questions. Techniques include leading respondents through a survey instrument, so participants can paraphrase items and discuss thoughts, feelings, and ideas that come to mind. See ((Willis, 2005) and (Desimone & Le Floch, 2004). Moreover, the pilot study suggested that I should assess how women define and consider wanting a pregnancy.

environment for a new pregnancy and identity as a mother. I find that not all women have the opportunity, or desire, to conventionally plan their pregnancy, e.g. utilizing highly effective hormonal contraceptive methods until cognitively deciding that one no longer desires to avoid pregnancy.

Wanting vs. Planning: “Wanting” a Baby

Respondents did not link “wanting” a baby to contraception use; instead, it was linked to the degree they wanted uptake the status/identity/role of mother, pointing out that it is personal, and sometimes irrational. The conventional pregnancy planning model assumes deciding to become pregnant is linear and readily accessible, Rachel readily points out they often are not:

Because decisions about the very important things aren't always entirely rational. When you're young, you think you can just make the world conform and make things make sense, but they don't always. Sometimes you just wanna have a baby. Rachel, 48, JD, married, white

To respondents, wanting a pregnancy meant wanting to be a mother, which represented a significant identity shift and a remarkable increase in responsibility and commitment. Most respondents characterized wanting a pregnancy as giving up the autonomy they enjoyed before entering motherhood, like Stacey:

To want a pregnancy means that you have a desire to be a mother. It means that you want to care for yourself and do what's best for your unborn child and then be there for them 24/7 after that. Not just until they're eighteen but for the rest of your life - it is a commitment - to want a baby is to want a commitment. If you're in fear of the commitment, not sure, if you are kind of on the fence about it, then that means you may want a pregnancy but it may be something you want to think twice about. To want it means that you are pretty much signing away your freedom, in a sense you're signing it away and that's okay. Stacey, 29, Masters, married, Black

For Stacey, motherhood is an all-encompassing identity that requires “24/7” commitment for more than 18 years, which for her represented a significant change from her previous lifestyle

that was career-focused and financial independent. In this sense, she touches on how “wanting” a pregnancy is “signing one’s freedom away” and “that’s okay,” but one “may want to think twice about” it in order to be absolutely sure. Like Stacey, Kendra stresses the responsibility of becoming a mother, but also emphasizes the emotional commitment and demands of motherhood:

So I think that you do need to be – you have to be emotionally ready to deal with that, like you're basically going from being an independent person potentially to having somebody that depends on you 100 percent. Like 100 percent, like my life has completely changed. Kendra, 33, Masters, married, Black

Kendra and Stacey outline that “wanting” a pregnancy is tied deeply to motherhood and that to decide to “want” a pregnancy is difficult when it relates to complex and nuanced issues like identity shifts, love, and commitment. The emotional commitment and responsibility for another person who “depends on you 100 percent” are difficult things to decide to “want.”

Similarly, Vivica discusses that decision to become pregnant as intimate and complicated:

To want a baby, to want, if I want a baby. I think to really want this baby indicates that you really have a desire to bring this life into the world and to do whatever you have to do for this baby. And it's kind of hard to answer a question like that because it's almost like asking, "What does the heart say?" Like deep in somebody's heart you never know what makes them want something. But for some people, I think it's the desire to have somebody that is connected to them because that connection, when you have a kid, that's not like any other connection in the world. Vivica, 33, PhD, not married, Black

Feelings of self-sacrifice, deep commitment, and immense responsibility can arise when considering pregnancy intention, which can further complicate the relationship between pregnancy intent and contraception. Vivica explicitly says that it is difficult to answer a question about wanting a baby because it is “a matter of the heart.” Current standard pregnancy methodologies may unfairly assume that women can arrive at such a decision linearly, clearly,

and rationally, and to assume that such decisions also happen without the influence of context may be, at best, misguided and, at worst, stigmatizing.

Deciding to complicate one's life by taking on a role that is characterized by immense sacrifice and responsibility can be challenging, thus it is no surprise that women expressed feeling ambivalence during reflections. The worry over how motherhood would interfere with personal and professional endeavors and goals were prevalent among advantaged women with high-education levels and who enjoyed a fairly secure and stable lifestyle. Erica was concerned about her independence and relates ambivalence over losing her second pregnancy (already a mother to a young daughter then) to miscarriage:

And so, I went back again [to the doctor], and yeah, [the embryo] just stopped developing. Then a week later, I had a D&C. But in terms of feelings about it, I felt very ambivalent about being pregnant, 'cause I'm working so hard, I want freedom. I like the freedom that I have when I have it, and I'm just not sure I'm ready to give it up again. Erica, 30, Masters, married, white

Erica speaks about feeling ambivalent over losing her second pregnancy to miscarriage because was “working so hard” in her graduate program and she was not sure she was “ready to give up her freedom.” This reinforced the point that such decisions are at the intersection of a woman's assessment of her circumstances and her personal desires for a child. Reproductive health difficulties can also amplify “wanting” a pregnancy, as the possibility of infertility compelled them to decide whether they truly “want” to have a child. Rachel frames her “want” for a baby through her experiences of miscarriage. In addition, she differentiates between wanting a pregnancy and wanting a child and why it is important to consider the two separately:

That's a complicated question for me 'cause it's tied in with what it means to lose a pregnancy. And I've only ever [lost] pregnancies in involuntarily, so I can't speak to induced abortion, and it probably differs at what stage you lose a pregnancy, too. Mine were both very early, but sometimes it seems to me to want a pregnancy, there's wanting a pregnancy and there's wanting the child, and they're not necessarily the same thing, though obviously connected. I really, really

wanted a child at that time when I had my miscarriages, and I wanted a child soon, so you might infer from that that I wanted those pregnancies. In the sense that some women have abortions so that they can take care of the children they have now or the children they're going to have later, I think sometimes you lose a pregnancy for the pregnancy that you're going to have later, and you eventually get the child, but the child is not the pregnancy. Rachel, 48, JD, married, white

Rachel's passage touches on a few issues: differentiating between wanting a pregnancy and wanting a child, coping with involuntarily losing a pregnancy, and sacrificing pregnancies in order to become a mother to a child when one is ready. Wanting a child, and being able to properly care for one, can mean sacrificing a pregnancy if one feels that they are not at "the right stage." These issues are deep and complicated and suggest that if research is to truly understand and properly measure pregnancy intention, then the impact of miscarriage experience should be seriously considered as important precursors to such decisions.

Although June differs from Rachel in age, class, and racial and ethnic background, she, too, links her experience with miscarriage to the decision to keep her third pregnancy. June's first two pregnancies were lost to miscarriage - one caused by a slip-and-fall accident in the second trimester and another to illness in the first trimester. The pregnancies were unexpected - "they just happened" - but she relates the experience to losing them to her decision to keep her third one, which also unexpected:

I think what made me want a child, you know, back when I had [my daughter] is – well like I said, I was pregnant twice before her and then I mean those times it just happened. And then when I had [my daughter], it was like – like I said, I didn't want to have Kendall, but then in the back of my mind I was like I do want it. You know, I guess because I'd been pregnant twice, and when you see a baby you're just like, "I want this baby. It's my heart. It's there. It's just there." You're like there's so much love. So I think that's why I wanted [my daughter]. June, 27, HS Diploma, not married, Black⁸

⁸ In fact, June had the most difficulty in answering the interview question, "What does it mean to want a pregnancy?" and told me it was a hard question to answer, asking me to "be specific." Previous respondents had no issues with this question, so I was unsure about how to re-frame it for her on the spot. In an attempt, I asked her "What would you change, if you had a magic wand, to make you "want" to get pregnant?" June relates wanting to be happy, financially independent, and have a supportive partner as prerequisites for wanting another baby.

The experience of being pregnant twice, once for the duration of a trimester and the second for the duration of five months, likely allowed June to grow attached to her babies and, possibly, a motherhood identity that had previously been nonexistent. Even though she says, “she didn’t want to have her daughter,” because she still lived with her mother and was not financially stable, her previous losses complicated her desires. The nuances about pregnancy loss, “wanting a pregnancy” and “wanting a baby” demonstrates just how embroiled these terms are and the level of care needed to make sense of survey responses.

Reproductive health scares can factor into pregnancy “intentions,” as well. When she faced possible infertility due to uterine fibroid cysts, Stacey felt guilty that she had delighted in delaying childbearing during her younger years. After she graduated college, she was content with not wanting children but after marrying her husband her desire to start a family developed. However, when she faced the possibility of not being able to bear children she suffered depression and blamed the potential loss on taking satisfaction in her childfree lifestyle:

At that point I felt like God was punishing me for saying at first I didn’t want to have kids, to kind of make it manifest and come true. I was thinking, ‘Is this my punishment for ever having those thoughts of not wanting to be a mom?’ That was kind of it for me. We grew up really being into church and I thought God was punishing me for ever saying those things, I should never have had those thoughts that really women should have kids and all those things were going through my mind, I don’t even think I was being rational at that point. Stacey, 29, Masters, married, Black

“Wanting” a pregnancy is complicated considering that dominant ideology links motherhood and womanhood. Like Stacey, a few respondents touched on struggling with these norms and talked about the complicated process of deciding to be a mother or not. I did find that some respondents found talking about ambivalence over being a mother difficult. Some emphasized that they did not want to say that their pregnancy was “unwanted,” but admitted when pregnancies were

unexpected and interfered with other endeavors. Vivica was the only respondent to explicitly say that some women do not want to be pregnant at all and challenges the belief that women should desire motherhood. She relates an anecdote about a close friend aborting two pregnancies, despite being financially capable of supporting them, because she did “feel excited” about them:

I mean we live in a patriarchal society, obviously. And so women are, for the most part, expected to be mothers and nurturers and raise the children. So I think that society expects us to be excited when we're carrying a new life, although I do have a friend who has been pregnant twice and has had two abortions and was never excited when she found out she was pregnant. And so I think people think that's unusual. But I remember having conversations with her, like, "Just because society has fed it to you that you have to be a mother, you're born to be a mother, you're born to procreate," I don't think everybody feels that way. So I think she felt weird that she didn't feel excited. She had to say, "What's wrong with me?" I said, "Nothing. You're just not what society says you were supposed to be."
Vivica, 33, PhD, not married, Black

This echoes another complication of pregnancy intention: some women who struggle with sentiments of not wanting to have children because of ideological pressures. Women like Vivica’s friend may take years and countless experiences to arrive at the conclusion that motherhood is not truly what they want, while some have children and make the best of it. In the end, this is a difficult issue to unpack because ideological influences are difficult to detect in survey measures.

As a measure that theoretically assesses an abstract construct - “pregnancy intention” - it is important that current pregnancy intention assessments adhere to the principles of validity. These results challenge the validity of standard pregnancy intention measurements and call for better precision in defining the relevant domains. Respondents who grappled with defining “wanting a pregnancy” suggest that such pregnancy intention questions capture the desire to be a mother. It is important to understand the thought processes that respondents engage when answering such survey items and not assume what “wanting a pregnancy” means. Critically

revisiting standard pregnancy intention measurements can improve the understanding of pregnancy intention, allowing for better-informed measures, recommendations, and program and policy decisions.

Wanting vs. Planning: Planning a Pregnancy

Conventional approaches to pregnancy intention and planning assume that pregnancies are either planned or unplanned, but respondents complicated and challenged this assumption by pointing considering contextual and personal influences. In general, respondents' thought of "planning" as spending considerable cognitive energy on the possibility of becoming pregnant. Some added that discussing desires and coming to agreement with a willing and supportive partner constituted "planning," as well. A few added supplemental details, like ensuring resources and support are available. Definitions reflected respondent's personal experiences with their pregnancies, thus some were examples of "lessons learned." For example, a respondent emphasized having conversations with one's partner recalling her personal struggle with an unsupportive partner. A few respondents described pregnancy planning as a spectrum, rather than a binary category, in which multiple factors mattered. As Erica puts it: "I feel like such an individual, psychological continuum of really how planned and unplanned things are." Many implied that the conventional definition of pregnancy planning – deliberately not taking birth control in order to conceive – is just one type of fertility approach that is not necessarily wanted by or accessible to all. Rather, fertility approaches are determined by circumstances:

Akilah: Do you think a pregnancy can be planned?

Rachel: I do 'cause that's my experience. I don't think all pregnancies can be planned. And I, again, like my decision to have a child, it wasn't as cut and dried as I thought it would be, and I think for most people it's probably not that cut and dried. Rachel, 48, JD, married, white

In this statement, Rachel challenges the assumption that pregnancy intention and planning is straightforward by saying that not “all pregnancies can be planned.” Even though she was able to conventionally plan her pregnancy, it was “not cut and dry” like she thought, and she says that is probably the case for most people. She suggests that planning is limited to one’s opportunities and constraints and conventional planning is not for everyone.

According to several respondents, giving cognitive thought to the possibility of having a baby in the near future is the fundamental feature of “planning” a pregnancy. Respondents’ definitions of planning were based on thinking about the likelihood of becoming pregnant in the near future. Erica says her pregnancy was “unexpected” and that she was not “planning on it,” so to her, planning is giving thought to the possibility:

In the end, [planning] doesn’t matter when you finally have the kid...I think even just being thoughtful about it, just knowing it’s a possibility, and being thoughtful about what you’re doing with your birth control and not doing. And then, with the extreme, what I’m seeing in my friends more and more is more – a lot of thought, where it’s tracking calendars, and starting to think about problems, starting to visit doctors, starting to get general check-ups, starting to visit specialists. But I think just being thoughtful, having it even cross your mind, “Pregnancy is a possibility, and I am actively choosing to or not to use birth control.”-Erica, 30, Masters, white, married

Erica explicitly challenges conventional definitions of a planned pregnancy by saying that “doesn’t matter” and “just being thoughtful about what you’re doing with your birth control” is enough. She then points out more “extreme” planning methods of her friends who give “a lot of thought, where it’s tracking calendars, and starting to think about problems, visiting doctors, starting to get general check-ups, and starting to visit specialists.” In actuality, her friends adhere to conventional pregnancy planning models, but in calling them “extreme,” she reinforces the idea that planning is a spectrum and most people do not use certain reproductive technology and knowledge to get pregnant.

Like Erica, June also says “being thoughtful” is planning, emphasizing that it involves deep deliberation and talking about it with a partner:

*When you're sitting down and you're like okay, I'm ready to have a child. And you know, talking about it with your partner. That's planning a pregnancy. Or even a person who, you know, is being like inseminated or something. I guess they sit down to their self and say I'm ready to have a child. And you know, they know they want it, and they know they can take care of a child. And that's planning.
June, 27, HS, Black, not married*

When June says “sitting down,” she implies active reflection of whether one wants to have a child, echoing other respondent’s thoughts that one should be sure that they “want” a pregnancy. She employs a few scenarios to make her point - with a partner and artificial insemination – echoing the idea that it is a “spectrum.” These respondents challenge the conventional idea of planning a pregnancy by pointing to a women’s own cognitive process that may lead to decisions and actions that result in becoming pregnancy.

A significant portion of respondents discussed the involvement of a long-term partner when defining “planning,” e.g. discussing desired number of children, timing, methods of contraception, etc. Rita defines “planning” as an “intentional decision” with a partner; as a matter of fact, introduces her definition by saying, “the complete opposite of how I did it the first time.” When I asked her to clarify, she cites the importance of partner consent in pregnancy planning and not resorting to “trickery” to gain a pregnancy, recalling her first pregnancy. Rita and her partner mutually agreed to have unprotected sex to express intimacy and it resulted in an unexpected pregnancy. Rita found her pregnancy to be upsetting for many reasons, exacerbated when her partner’s mother accused her of getting pregnant through deception. Feeling immense pressure from her family to marry her partner, Rita describes a stressful pregnancy plagued by worry over “continuing the cycle” of single motherhood in her family. She defined planning as:

[T]he intentional decision, like – “we decided.” I’m not sneaking and not taking my birth control. You’re not punching holes in the condom. We are two adults, two consenting [adults]. So I think the planning comes in is that there’s finally an agreement, consent among both. There’s no trickery. We’re both deciding this is what we’re working for and we’re actively trying. – Rita, 34, Masters, Black, married

Rita’s discussion spells out some key issues about how partner support affects pregnancy feelings, and that relationships can complicate pregnancy intention. A pregnancy, especially an unexpected one, can exacerbate prevailing relationship issues and insecurities, e.g. fidelity, paternity, resource management, and support, like it did for Rita. Partners and relationships are vital components to planning a pregnancy because they affect multiple domains of the pregnancy experience, e.g. decision to use contraception, family and kin support, and instrumental support during pregnancy. The complexity of these definitions demonstrates that women consider factors beyond contraception use when conceptualizing “planning” a pregnancy.

Indeed, some respondents frame pregnancy planning through contraception use, but complicated this idea through presenting various scenarios. When defining an unplanned pregnancy, Stacey cites birth control failure or engaging in unprotected sex when one does not desire a pregnancy. Echoing other respondents, she also includes lack of discussion with one’s partner about pregnancy desires. She concludes that what a woman decides to do with her pregnancy *after conception* determines whether it is planned or not:

Planned is you’re not using any sort of birth control or preventative methods to not have a child and unplanned means that perhaps you were using some sort of preventative methods and it failed. Or it just means that you had not had that discussion with your partner and the pregnancy was more or less an accident. But again, that circumstance - if a young woman, sixteen, eighteen, twenty-one, twenty five, thirty decides that she wanted to have intercourse with her partner, husband, or boyfriend but is not doing anything to prevent [a pregnancy], it just becomes unplanned. But what she chooses to do with the pregnancy after that is I think what kind of changes that. I think it just depends on what they want to do with it afterwards. But I definitely think there is a difference between a planned and an unplanned pregnancy. Stacey, 29, Masters, Black, Married

Stacey says contraceptive non-use and failure differentiates between a planned and unplanned pregnancy, then introduces partnership – “or it just means you had not had that discussion with your partner and the pregnancy was more or less an accident.” She also challenges the common perception that “unplanned pregnancy” are exclusively linked to young and unmarried women by pointing out that they can occur at any age, whether the a woman has intercourse with “her partner, husband or boyfriend,” as long as she is not doing “anything to prevent a pregnancy.” Furthermore, her definition opposes a key assumption of mainstream policy recommendations for planning – that it happens before conception – when she concludes “it just depends on what they want to do with it afterwards.” Lastly, she does not place value on the actions that lead to an either planned or unplanned pregnancy; rather she simply highlights that there are differences between the two, implying that planning does not matter. This was not the case for all respondents. Fatimah was a mother of two small children and her narrative exemplifies her value of reaching her professional goals before starting a family. When I asked her to describe an unplanned pregnancy, she says:

*Unplanned pregnancies are when you didn't mean for it to happen, and I guess it could happen to anyone. I probably shouldn't be but I'm pretty like judgmental about that because there's like so many forms of birth control that can be used; I mean you can find something that works. So yeah, it's difficult for me to understand why there's so many – of course you know sometimes you know if you're not taking the pill at the same time every day for some people then they may get pregnant, or I've read that for some women who are overweight the pill is not as effective for them, so you know I can understand situations like that.
Fatimah, 34, Masters, married, Black*

Fatimah's discussion of unplanned pregnancies does link the use of contraception to intent. In fact, she admits that, “I'm pretty judgmental about that,” because contraceptive technology is available, and she does not “understand why there's so many [unplanned pregnancies].” She allows for very few contingencies for why should unplanned pregnancies

occur - only citing contraceptive failure and obesity as reasons for why they should occur. This viewpoint reflects her incredible access to various forms of birth control – “I mean you can find something that works.” Other narratives pointed out that the extent that contraception use reflected pregnancy “intent” was based in socioeconomic advantage. The respondents who discussed engaging in conventional pregnancy planning methods - defined by extensive knowledge, technology, time, and money in order to optimize biological conception - wanted to get pregnant according to a timeline. Wendy was on research leave and wanted to use that time to devote to her pregnancy:

I was here, actually, working with my old advisor on research leave and I had just started actually charting my periods, which is part of why I think then it was like, we got pregnant quicker. I was on research leave. My husband was here. It was nice. Yeah. So that’s when I got pregnant. Wendy, 32, PhD, white, married

Wendy “planned” her pregnancy in order to take advantage of her research leave, which afforded her free time, reflecting her desire to avoid work conflicting with her pregnancy. Other highly educated respondents highlighted this form of planning - “really planning/trying” or “*planning* planning” - as a way to avoid being pregnant at a time when competing endeavors would take place. However, not everyone spoke positively about “really trying” to get pregnant. Erica says that within her social circle of young academics and professionals, people were less inclined to admit to resorting to such methods because they implied fertility difficulty, which they attribute to delaying childbearing:

I feel like in my social group, planning a pregnancy is just starting to be – it was a very uncomfortable topic, and no one did it. It was something that no one ever did or thought about. And now, people are slowly coming out, and being revealing, and making themselves vulnerable that they’re planning. I feel like the minority of people that I know plan having kids. But I think maybe the older you get, and you’re in a relationship, that’s when you start being more thoughtful.

Maybe the harder that it gets, or the harder you think it's gonna get, the more you start planning and preparing a little bit. – Erica, 30, MA, married, white

Erica's passage touches on the fact that planning may not be optimal: for some couples because "it is a very uncomfortable topic." She challenges the fundamental assumption of the family planning resolution to pregnancy planning: that a planned pregnancy is good. She goes on to say that pregnancy planning may be a reaction to aging, stability of a relationship, and the perception of failing fecundity: "the older you get, and you're in a relationship, that's when you start being more thoughtful." Inherent in this passage is that pregnancy planning is complicated and, again, a reaction to external factors, rather than a recommended way of doing things.

Stacey relates a balanced view of pregnancy planning, succinctly reiterates themes of "want" and partner support, while reinforcing the perspective that a planned pregnancy is not more favorable than an unplanned one. She reflects on her circumstances, which are supportive and stable, and says that she did not find "planning" to be relevant to her situation:

If you have a planned pregnancy and it happens, that's great, that's wonderful, congratulations, it's wonderful, it's something that's going to change your life but it's because you wanted it to. If it's unplanned it still may be wonderful, my pregnancy was unplanned in the sense that we were not necessarily trying but we also were not using preventative methods to keep it from happening. So in my case I feel like it wasn't a difference whether it was planned or unplanned. We knew we wanted to have children, we were just not actively saying we are going to have intercourse because we want to have a baby right now, tonight, this instant, this is what we're going to do. We just were being happy and in love and being a married couple and that's something that happened out of it. – Stacey, 29, Masters, married, Black

Stacey communicates that her supportive circumstances – happiness, love and security in her partner - superseded the importance of whether her pregnancy was planned or not. In turn, their use of contraception methods and knowledge did not matter: "we were not necessarily trying but we also were not using preventative methods to keep it from happening." These narratives suggest that respondents engage in the pregnancy

approaches that work best for their situations within their control. Those who used a greater degree of contraception knowledge and methods did so to avoid being pregnant while engaged in competing endeavors. These ideas illustrated that “pregnancy planning” is behavioral response to social, cultural, and economic influences are that based in their social place in an attempt to optimize support during pregnancy.

Correspondingly, a few respondents explicitly said that providing supportive circumstances was “planning” a pregnancy: ensuring that one’s environment promoted a healthy and supportive pregnancy and, later on, children. Fatimah, a highly educated mother of two small children, says that, in addition to not using birth control, ensuring a safe and stable environment constitutes planning:

I think it would be planned if you are actively setting things up so that once the baby comes you’re more or less ready and you are not using birth control for the sole purpose of getting pregnant. I’d say childcare, after pediatrician. You know, the bare necessities; clothes and a place for the baby to sleep. Yeah, things like that. Also, in anticipation of maternity leave, you know making sure your employer knows, if there’s any procedures, manuals, or anything you need to leave behind for the person who’s going to be coming in and taking over for you while you’re on leave. Things like that. - Fatimah, 34, Masters, married, Black

Again, Fatimah’s response is evidence of her middle-class privilege and experience, automatically excluding the very impoverished from “planning” a pregnancy when she cites the “bare necessities,” e.g. clothes and shelter, in her definition. In addition, securing maternity leave, pediatric care, and childcare reflect the concerns of middle-class, educated, and employed women who must negotiate their childbearing decisions with their job demands. In a sense, Fatimah’s defines “planning” a pregnancy as being middle-class.

Yolanda conceived her daughter unexpectedly and she reflects on her mother’s opinion on the importance of planning a pregnancy. She says that planning is ensuring that a child does not grow up impoverished:

[M]y mom was telling me, “That’s not fair for the child if the baby’s not planned, and you don’t have everything together for them.” You just want to make sure you can give them the best. You don’t want them to have to struggle for anything, or wonder if the lights are gonna be on, because you don’t have a good job, and stuff like that. You just want to make sure they’re taken care of. – Yolanda, 24, BA, not married, Black

Again, in considering Yolanda’s mother statement, planning has almost nothing to do with contraception, but rather providing a safe and comfortable environment for a child. Like Fatimah’s, this definition excludes women who lack the resources and support and cannot secure employment. These definitions of planning that are based on environment simultaneously point to the importance of contextual circumstances in pregnancy planning, but assume that unplanned pregnancy occurs to those who are poor and middle-class women have planned pregnancies because they are able to provide a safe and comfortable environment for children. In the next section, I further explore how “pregnancy planning” is rooted in early life experiences and challenge the idea that it is rooted primarily in inadequate contraception.

4.52 Fertility Intentions are structured in Early Life

Is there a link between women’s early life educational advantages and her later life fertility intentions? I compare narratives to see how the mechanisms that reinforce educational achievement also prioritize a more conventional, structured, or process-based approach to fertility. As previously alluded to, very educated respondents favored a “plan-based” approach, while the educational characteristics varied among those who employed alternative approaches. I explore why this may be. I propose that college-educated women learn to highly prioritize education and career building during their childhood and adolescent years and, through various mechanisms, *learn* to value fertility timing and gain the propensity to utilize conventional planning methods.

College-educated respondents discussed their formative years as centered on learning, high achievement, and educational success, in which parents instilled values that prioritized obtaining a college education and prestigious occupations. They learned that college education was the primary mechanism to obtain substantial life fulfillment and that motherhood occurred after fulfilling a substantial and stable career, establishing partnership, and other personal endeavors and goals, e.g. traveling, hobbies, etc. Furthermore, respondents' parents reinforced their intensive messaging with various forms of support, including establishing and enforcing high scholastic expectations and providing extensive guidance, finances, and time. Educational support often coincided with restricted social activities and high involvement in productive or scholastic-based extracurricular activities, like sports or music. As a result, female respondents who experienced this type of upbringing often were also highly focused on achieving work and educational milestones before seriously considering motherhood.

In contrast, respondents who did not achieve college degrees did not talk about education-centered upbringing in narratives on their background. Rather, they focused on the functional aspects of their home or their parent's background and personality. To be clear, non-college educated respondents knew and understood that scholarly achievement and obtaining a college degree was beneficial. However, when compared to college-educated respondents, their narratives did not feature themes of education-centered narratives. In fact, these respondents were reticent to talk about their school experiences, all which were characterized by making poor marks and involvement in informal social activities, especially those involving boys, like "hanging out," that did not necessarily aid in scholastic development. Additionally, these respondents also spoke very little about their parents' involvement in their school progress. The

following passages explore the respondents' narratives about their early lives through details about their school experiences and other education-related activities.

Intensive Education-Centered Rearing

Overall, college-educated respondents' families strongly encouraged high educational aspirations in their early years. In fact, the vast majority of the college-educated respondents attained a graduate degree (12 out of 14), signaling their high prioritization of, motivation for, and access to educational and career pursuits and achievement, as graduate education often requires time and effort beyond what is considered necessary for participation in the workforce. When asked to describe their early lives, college-educated respondents discussed their experience with school and education without prompt, specifically, their families' valuing of education and placing high priority on educational success. Parental messages reflected these values and promoted academic success and extracurricular involvement, exemplified by Hannah's reflection when I asked her to describe her early home life:

My parents were very academic-focused, so even from an early age, we knew we were going to go to college. They made that very clear. We had a lot of sort of after-school scholar-like, scholarly activities like tutoring and those sort of things that reinforced the idea that we were going to go to college. [T]hey felt very strongly that a college education was the best way to get ahead in the United States, so I think that's why they emphasized it so much. So, yeah, I did go to college, and I decided to go to grad school. Hannah, 32, PhD, married, Asian-American

Hannah's response outlines key themes across the narratives of college-educated respondents: early establishment of the expectation to go to college, scholarship-centered extracurricular activities, and the understanding that obtaining a formal college-education was the best way to be socially and economically upwardly mobile. Instilled through intensive messaging, education-oriented values like good grades and high schoolwork ethic were stressed

as mechanisms to become an accomplished and productive adult. Like other respondents, Fatimah immediately recalled memories of such messages:

School life, it was – our family growing up everything was very much centered around education, so we were – actually I was homeschooled for one year too. My mother homeschooled my brothers and sisters and I. Some of us were a year; some of us for two years. Right in our garage. My mother is an educator, so everything was centered around education. For the most part school was easy, for the most part. And it was a necessary means to an end. We grew up knowing that if you wanted to accomplish anything in life, you had to be formally educated as well. Fatimah, 34, Masters, married, Black

Stacey's family valued educational achievement for her, her siblings, and cousins and pushed them to achieve scholastic milestones that older relatives had not achieved, reminding them to take advantage of opportunities that earlier generations lacked. In fact, her extended family moved from the City of Los Angeles to a Southern Californian suburb in order to gain access to better-resourced schools. Even more, her parents reinforced these values with their own narratives about the difficulties they encountered from their lack of college education, drawing attention to a generational gap in opportunity and achievement:

[I] was born in Los Angeles but my parents and my aunts and grandparents all moved from Los Angeles when I was four or five. Everybody kind of moved out because they wanted us to have a little bit of a better chance at being successful in school. So education definitely runs in our family or that want to learn more and just continue on education is really important to our family. My mom and my dad both did not receive their college degrees right away. Even though they were big on education, [they] did not really put college education first, so me and my sister were kind of the first ones to really reach that milestone. Stacey, 29, Masters, married, Black

In this way, early school advantage functions structurally because family members utilize resources, like knowledge and money, to uproot their physical locations so that their children have access to better schools. Other respondents talked about the influence of their parents' narratives on education, opportunity, and motherhood to further emphasize the importance of achieving education. This was common for respondents who came from families in which

previous generations did not achieve a college degree for various reasons. Similarly, Erica speaks about her mother's frank warning against unprotected sex at a young age:

I should also say that my mom – she had a baby that she gave up for adoption. She had a baby when she was 17, and she gave him up for adoption. And she views that as – and then she went and got her RN, and we knew that from when we were in fifth grade. She told us that. So, that was always, “This is the consequence of having sex without thinking about it.” So, that was always her lesson. Get your education. Her education is what she feels really set her apart from her mom, allowed her not just to have money – money and confidence – but just happiness. Erica, 30, Masters, married, white

The lesson that sex could lead to unexpected pregnancy, which would then ruin any potential of attaining an education, was inculcated in Erica, as she “That was always her lesson. Get your education.” Her mother's lesson reflects another prominent theme among a few college-educated women - the conflation of school success with sexual abstinence. Extending this idea, Stacey talks about how education-intensive messages were often accompanied by encouragement to wait to get married and have children:

They would tell us that it was important and that if we wanted to choose our career and not have career choose us, in order to have those options that we needed to make education a priority. We both took that and ran with it even though they didn't go to college - they were very open about that. It's not like they hid it from us, we just asked, ‘Why didn't you finish?’ and they said, ‘We got married young.’ They got married in their early twenties and things were just a little different back then. So, they wanted us to, of course, wait before we had kids and get married first and make sure our careers were set and that we reached our goals. Not that you can't achieve your goals when you have a child, but they knew it would probably be a little more difficult and they really wanted us to achieve our goals in school first. So that's pretty much the messages that they would convey to us about school. Stacey, 29, Masters, married, Black

Respondents' whose parents associated academic success with delaying motherhood were already engaged in an early form of family planning as they learned this association from an early age. I noticed that respondents recalled such lessons readily and often said that they would “always” hear these lessons. This suggests that these respondents were heavily inculcated

with these lessons that would no doubt shape their educational attainment and likelihood for future aspirations, but also their viewpoint on motherhood as a secondary pursuit that should wait. In the next section I explore how parents reinforced these messages with various forms of support.

Parental Support in Education-Centered Early Life

Respondents' from education-centered households talked about their parents providing support in order to assure that expectations were met was key differences between the narratives of college and non-college educated respondents. Intensive educational messaging about the importance of college was not enough. College-educated respondents spoke at length about parents who established and enforced high long-term expectations, like attending elite colleges and entering prestigious occupations, from a young age, usually well before the ages of ten to twelve:

[My mother] told me when I was younger – I told her I wanted to be a hairstylist. I mean, again, nothing wrong with that, but my mom was like, "No." She's like, "Oh, you know, hairstylist is good but you – what about being like a neurosurgeon or something?" So then that stuck in my head. Kendra, 33, Masters, married, Black

So I value education. I think it was always expected that I go to college. I think the one thing that kinda frustrates me is it wasn't - it was not only expected that I go to college, but it was expected that I go to a good college. Carrie, 36, Masters, married, white

You know, I think because we were an immigrant family, my parents were, like I said, stricter, so they – I think they didn't understand that it's okay to not go to the best schools. You can still have a really great and fulfilling life without going to these amazing schools. Hannah, 32, PhD, married, Asian-American

These respondents touch on some very high expectations that were established in childhood and adolescence, often to their dismay when parents discouraged certain occupations,

like Kendra and her desire to be a hairstylist. Furthermore, Carrie and Hannah touch on their parents' expectations for them to go to "good colleges" and "amazing schools." In addition to these long-term expectations, respondents talked about frequently occurring short-term expectations. Kendra talked about how her mother instilled high work ethic:

Well, I know one thing that my mom tried to instill on me is make sure that you finish what you started. And so for example gosh I was – I don't know what grade I was but I had this project on the brain and I like wrote everything out and was like, "Okay, I'm done," but it didn't look right. And my mom was like, "You need to fix this." Kendra, 33, Masters, married, Black

As Kendra anecdote suggests, instilling high expectations through reinforcement require a significant attention and energy on the part of the parent or guardian, in order to track progress and judge quality work. Respondents talked about parental support for educational achievement as occurring in a few ways: supervision of homework assignments to assure high quality, provision of transportation to and finances for extracurricular activities, helping their children navigate the school system, and the provision of books, courses, and outings, such as to a museum, that simultaneously encouraged and satiated curiosity and scholastic motivation:

[M]y mom was a stay-at-home-mom. We had to do our homework when we got home from school and – but that was the main thing. So she couldn't help us after maybe middle school, but we always had to do our work after we got home and stuff. Wendy, 32, PhD, married, white

We had a computer. They were always supportive of like Kaplan courses, and like even through my high school they gave like a free course. But definitely, I mean I think within reason of what they knew about they were supportive and they tried whatever they could financially to help us. Marcela, 29, PhD, married, Latina

We were museumgoers, concertgoers. There were always books around. Learning was extremely high priority in my household. I'm really grateful for that. Rachel, 48, JD, married, white

Education-intensive rearing did not solely belong in middle-class households in which parents provided income-based support, e.g. stay-at-home mother, going to concerts and

museums, and taking SAT courses. Native Chicagoan who resided in Atlanta, Rita grew up in poverty with her mother who could not provide income-based support. However, Rita said her mother provided intensive messaging and equipped her with advice for her to navigate the classroom and utilize her teachers as resources in order to do well. Like some other respondents' parents, her mother acknowledges the limitations of poverty, but maintains high expectations and monitors her work:

[B]ecause she knew she couldn't help with the math, the expectation is, "You have teachers. I'm not your teacher. Don't leave that school building without understanding what it is you need to do. Write them notes down. Because you can't use, 'My mama can help me with my homework,' as an excuse." So I learned that very quickly - let me get it while I'm here 'cause when I get home, she can't give it to me. She gonna check on it. She gonna say, "Did you do your homework? Did you do this? Did you have this? Do you have any homework, did your project, this, that?" Rita, 34, Masters, married, Black

Rita's mother taught her to take advantage of her teachers and to be an avid note-taker while still supervising her progress by checking in to see if she completed her work. Although it may have been a hefty burden for young Rita, it was one of the few ways she was able to make the best out of a situation in which her mother was not able to provide support like tutoring services. Kendra provides another example of a mother assisting in navigating the school system, reflecting on how her mother paid visits to her school in order to advocate on her behalf and assure that her curriculum was academically rigorous and supportive:

I was doing [badly] in the math class and so my mom went up to the school to tell them, "You need to move her into the pre-Algebra [class] because that's what she's supposed to be in." And the teacher was like, "Well, she's not even doing well in this class." And my mom said, "Well, she's not doing well because she's bored." [T]hey finally placed me in there and I actually did really well in the class. My mom like saw the math teacher and like, "She got an A in it." But that's what they would go up there and do for me and my sister if it was an issue, one of them would be there. Kendra, 33, Masters, married, Black

In school systems, tracking can determine their long-term educational trajectory, so a parent who monitors course selection and knows how and when to communicate with school personnel is a critical educational asset. In order to serve in this capacity, parents must be savvy of their child's strengths and limitations, familiar with the cumulative impact of early school curriculum on later opportunities and have disposable time in order to have in-person meetings and negotiate with school personnel.

2.22 The Right Kind of Extracurricular Activities

College-educated respondents who experienced education-centered rearing were involved in numerous constructive extracurricular activities, but prevented from socializing with male peers, e.g. boyfriends, which reinforced the importance of scholastic achievement over social and sexual activity. Overwhelmingly, these respondents discussed their parents' encouragement and support for participation in productive and scholastic-based extracurricular activities, e.g. school sports teams, performing arts, and scholarly clubs. Often concurrently, parents were also strict on non-productive social activities, like school dances, and often minimized socialization with male peers. These resume-like narratives detailed activities, their accomplishments, and positions, emphasizing their full-schedules as adolescents:

*I just think my parents put me in places and situations where I could explore my talents. It started in church when they got me involved at a very young age. So in church I was always speaking, oratorical contests, singing in the choir, and then I guess that interest sort of grew because any time I went to school I was always in a school choir. So I think they prepared me in that way. And then once I kind of took to what I loved to do, which was theater, they were very, very supportive.
Vivica, 33, PhD, not married, Black*

I was a really good student, you know, partly because my parents pushed us really hard to do well in school, and also, I knew from early on I enjoyed – I don't know if I enjoyed school, but I enjoyed doing well in school, so I was a good student. But then I also got involved in sports. I was part of the tennis team, I was part of

the swimming or the diving team, and then I was part of some clubs, like community service clubs. You're thinking like high school, right? And then my mom always sort of made sure we were involved in sort of other after-school activities, like Girl Scouts and art class. We were pretty busy. Hannah, 32, PhD married, Asian-American

Notice that both Vivica and Hannah readily recalled their active involvement in several sports teams/clubs, contests, performance arts, after-school activities, and community service clubs. In addition, they point out their parents as being the main implementers in their involvement: “I just think my parents put me in places and situations where I could explore my talents” and “I was a really good student, you know, partly because my parents pushed us really hard to do well in school.” Through this, parents assured that respondent’s free-time as children and adolescents went towards fostering productive development of talents and ability, socialize with like-minded peers, and, later on, served as a boost for college admissions and scholarships. Again, parents played a huge role in the educational trajectory of these respondents that resulted in their high-educational attainment.

Good grades, involvement in extra-curricular activities, and no boys often coincided for women who experienced education-centered rearing. When I ask her to describe her school life, Yolanda tells me that she was in marching band and her school symphony, while maintaining an impressive grade point average. When she talks about her social life, she says that she had minimal interaction with male peers:

I was in a lot of activities. But more so marching band and symphonic. So it kept me pretty busy. I was a section leader. I played clarinet. And I just really hung out with my marching band buddies. And did really good in school, though. I think when I graduated my GPA was – I believe it was a 3.5, 3.5 or 3.7. So I did really good in school. As far as social life, you want to know that, too? Yeah, I really just hung out with the girls. I wasn’t really interested [Laughter] in the guys or dates and stuff like that. I was just band, school, and home. Yolanda, 24, BA, not married, Black

Yolanda's reflection succinctly summarizes themes of education-centered rearing that was characteristic of college-educated respondents: parents setting high expectations, encouraging significant involvement in productive extracurricular activities, and restricting social activities with boys. Yolanda goes on to elaborate this dynamics when recalling a time in which she made a poor mark in elementary school and, consequently, upset her mother:

Well, I remember in sixth grade, I don't know what I was thinking, but I got a D in something. And [my mother] flipped. And that was from that point on – I always knew, even in elementary school, I always knew that you really couldn't come in my household with anything less than a B. But when I got that D, oh, my gosh, she freaked out. And I was just like, "Okay. I'm gonna die if I don't get this together." So, they were really like, "Nothing less than a B. And we really want As." But they pushed us to be our best, be our best, be our best. And then I like that my mom kept us really busy, because my other friends, a couple of them, they started to get boyfriends, especially when we started getting [to be] juniors, seniors in high school. And I would see how [my friends] would react after they would hang out with their boyfriends and be grown, do whatever they had to do. And they they'd come back to school, and they couldn't focus in class, [and would] be crying. Yolanda, 24, BA, not married, Black

Yolanda juxtaposes her intense involvement in extracurricular activities, motivated by her mother who "kept them really busy" with her friends who "started to get boyfriends," and frames her friends' lack of classroom focus as a negative consequence of "hanging out with their boyfriends." This passage reflects a schema that illustrates serious involvement with male peers diametrically opposing school success. Other respondents related this theme of interaction with male peers being considered distractions, in which boyfriends, school dances, and other activities were either strictly forbidden or heavily regulated:

My parents, I think I understand and appreciate them a lot more now, but there was some definitely friction because of cultural things, like they were stricter than I thought they needed to be, and I think it was mainly because they just didn't know, and they were scared, especially my dad. They didn't like us spending the night at other – when we were younger, that was something. They didn't like us spending the night at friends' houses. They didn't want us to have boyfriends when we were in high school, like that was a big no-no. Hannah, 32, PhD married, Asian-American

My parents were very strict. I wasn't allowed to do a lot of things. School dances were kind of the maximum and I would get picked up early. And that was the time before cell phones so I would either have to wait outside or they would come in and find me, which was very embarrassing. [Chuckle] But I mean, again, I think that it was a good, positive experience. Marcela, 29, PhD, married, Latina

Hannah and Marcela's parents were educated immigrants who restricted their daughters' access to unfamiliar American social customs - Hannah says, "there was some friction because of cultural things" – keeping their interaction with males, hence potential sexual activity, to a minimum. Both reflect positively on the experiences, but not all do. Stacey spoke at length about how her father's severe restriction on social activities compelled her to maintain hyper-focus on academics and sports activities and neglect the development of meaningful friendships. In fact, she says it "warped her mind":

My father did not let us go to the mall, just hang out with friends, go to the movies and hang out with friends, even to be dropped off and just to go hang out. Eventually it just kind of warped my mind to where I don't need those people but that's just what I told myself because my parents wouldn't allow me to go out with people. That's also kind of why I was so heavily involved in sports, because I knew that he would tell me, if you don't have practice you need to be at home. Well I made sure I had practice everyday. Monday through Friday I played whatever sport there was to play [so] that I wouldn't have to go home and just sit there because I was probably already done with my homework within an hour or I did it before I even went home or in between games or whatever the case may have you. I knew if I didn't play anything I knew I had to go home so that was like my only out, that was my only form of social interaction was to play sports because they weren't for the hanging out thing. Stacey, 29, Masters, married, Black

Again, restriction of social activities is clearly tied to heavy involvement in extra curricular activities and, in Stacey's case, overrides the importance of socializing with friends on an informal basis. Stacey is highly accomplished and her involvement in activities certainly results in her being able to be a competitive candidate for college admissions. In addition, echoing other similar respondents' narratives, this keeps her chances of getting pregnant

minimal, as there is no unsupervised free time in which sexual activity can occur. Later in the interview, she does admit to the far-reaching effects of her upbringing: it does not bother her that she does not have friends who are not relatives. Thus, while this strictness kept high-achieving young women from engaging in activity that would lead to sex and increase their chances of becoming pregnant, this certainly had effects for their adult lives, possibly affecting their pregnancy intentions.

Not all college-educated respondents were heavily regulated by their parents. Ingrid was the only college-educated respondent whose narrative about her home-life did not feature themes that pointed to her experiencing education-centered upbringing. Her parents were divorced and her mother often worked long hours, making it difficult for them to supervise her activities. Ingrid says that she rebelled at the beginning of her high-school years and engaged in social activities that were conventionally considered unacceptable for teenagers:

I guess for my first couple of years of high school, I kind of rebelled slightly. I started smoking cigarettes, and I was getting B's and stuff like that, but then I graduated high school with a 4.3 and in the top 10 percent of my class, so yes, so school was never a problem for me. I always knew how to answer the question and how to do well. Ingrid, 32, PhD, married, white

Her narrative is the only one that does not support the idea that high-achieving students were socially restricted by their parents. Ingrid did not speak of parents having high involvement in her school-life and providing support for her scholastic success, due to their divorce. However, I'd like to point out that the activities she considers rebellious are pretty tame when she says that she "rebelled slightly" by "smoking cigarettes and getting B's." Kendra also did academically well, despite engaging in sexual activity as an adolescent and teenager. She grew up middle-class and attended good schools in Los Angeles, but considers herself "growing up too fast":

Kendra: Academically, I did well, though. But I'd probably say I grew up too fast. You know, hanging out with my friends and older men and stuff like that so I put myself in a lot of predicaments that I probably didn't have to be in if I would have made different decisions but I mean actually I came out – I came out okay.

Akilah: How so?

Kendra: Just dealing with men that I shouldn't be dealing with. I mean I had – I did have sex fairly early. I was 13. I was 13 when I lost my virginity. And you know I drank alcohol and smoked weed and stuff like that so – but right around the time when I was like 17 - [I] had this epiphany. I just didn't want to live like that anymore. I didn't want to be involved. I just wanted to be a kid, as much a kid as I could be, being that I was 17. So around that time I stopped doing those things and I got into UCLA and from then on I just tried to live a more age appropriate life. Kendra, 33, Masters, married, Black

Kendra does not talk about what led to her “epiphany” that led her to “live an age-appropriate life” but she does mention her mother knowing full well of her activity and constantly warning her against having sex and its effect on her future, e.g. becoming pregnant too soon. Already a well-performing student, perhaps the combination of good schools, supportive mother, and middle-class background made the decision to do well and get into college an easy one. Overall, it is difficult to disentangle the effects of one’s background, but it is clear that parental messaging and support for scholastic achievement had far-reaching effects on the respondents that ultimately lead to their educational attainment. In addition, it established social norms for these respondents to follow, which undoubtedly dictated the factors that would structure their pregnancy intentions in later life, e.g. partners, views on contraception, and delayed childbearing. Next I explore contrasting narratives of respondents who did not achieve college education.

Non-Education-Centered Rearing

Whereas college educated respondents spoke at length of being high-achieving students with high involvement in extracurricular activities and restricted freedom in social activities, non-college educated respondents narratives did not reflect education-centered background. Respondents with non-education-centered narratives were curt about their early years, especially in relation to school, and consequently there was less interview content to analyze compared to that of college-educated respondents. However, their narratives were important in outlining thematic differences between college-educated and non-college-educated respondents. Although she has a Masters degree, Tina's early life narratives did not reflect education-centered themes, or any other themes that most of the college-educated respondents shared. Her responses to questions about home and school life illustrate this dynamic:

Akilah: So you kind of started describing about your home life so could you tell me a little bit more about your home life while growing up as in who raised you primarily?

Tina: My mom did, she was a stay-at-home mom for the whole time I was growing up. Well actually when I was little she was working; she had to. But when she got remarried, so after six, then she stayed home with all of us.

Akilah: Okay and how would you describe your mom?

Tina: I don't know. I mean she took care of us but she was just kind of...well she always wanted things done right, like her way, so that was kind of difficult but strong for sure to get through everything she got through. – Tina, 30, Masters, married, white

Contrasting with education-centered rearing, Tina does not touch on themes related to education or school and when she describes her mother, she mentions her occupation as stay-at-home mother and her parenting personality – “she always wanted things done right.” During the interview I allowed room for Tina to expound on her responses, but she keeps her answers fairly short and non-descript. This is even more apparent when I ask her to talk about school-life:

Akilah: Okay and I want to hear from you about certain aspects of your life while growing up. So talk to me about school life as a child and adolescent and teen.

Tina: School?

Akilah: Mm-hmm.

Tina: I don't know. It was school. I did my work.

Akilah: How did you do in school?

Tina: I did pretty good, A's and B's I think...yeah, A's and B's. - Tina, 30, Masters, married, white

Again, Tina's responses are noticeably shorter than respondents who experienced education-centered rearing, and says, "I don't know" and "It was school, I did my work," suggesting that scholastic success was not a serious endeavor or that she rather not remember. In my field notes, I note how uncomfortable it was to continue asking her questions about her early life because she was so strikingly curt. Even those respondents who did not get along with their parents, but still experienced education-centered rearing, were apt to talk about their experiences in school and home. As previously outlined, education-centered upbringing did not correspond with social class. Cheryl grew up in a middle-class home with two college-educated parents – her mother had a Master's degree – and she says her family was "full of brainiacs." But, her narrative did not feature themes to indicate an education-centered upbringing. Like other non-college respondents who were not apt to speak about their experiences at younger ages, Cheryl's account of school life is short, and she primarily talks about being a mediocre student and being "rebellious":

Cheryl: I was rebellious. I was an okay student when – I was a good student when I wanted to be. What else?

Akilah: How were you rebellious? How so?

Cheryl: I smoked pot and drank and I was always home by curfew. I don't know how that happened, but I never broke curfew, but I did smoke and drink.

Akilah: How did you do –

Cheryl: And cavort.

Akilah: What do you mean by cavort?

Cheryl: Socialize, flirt, hang out with my friends.

Akilah: You said you did well in school when you wanted to.

Cheryl: When I wanted to.

Akilah: Could you go into a little bit of detail, like, for example?

Cheryl: For example, we had an accounting class and although I did well in accounting and actually surprisingly liked the subject, I hated the teacher so I found myself skipping his class a lot. Cheryl, 45, HS diploma, divorced, white

Echoing Tina's style, Cheryl's answers are short and, in fact, I have to probe frequently in order to get her to elaborate on certain aspects of her early life. Unlike respondents who were brought up to treat school seriously, Cheryl says "I was a good student when I wanted to be" and skipped class because "she hated the teacher." Later in the interview, she describes her educational trajectory after high school: expulsion from a local state university, attending a community college, dropping out of community college, and entering the workforce full-time. Cheryl's educational trajectory, at least gaining admission into a four-year university, is more advanced than other non-college educated respondents, mostly due to her privilege of having two middle-class parents who provided monetary support: "I mean, they definitely supported me financially. I knew that they would pay for college." Like Cheryl, June's narrative is a short summary of her performance in school, however she grew up in a low-income, but fairly stable, home with her two parents as a young child. She describes her father as a "functional addict," meaning he was a drug-addict but able to work full-time. However, June's father's addiction

eventually grew to be toxic, depleting the household finances, and her parents divorced when she was a teen. She relates:

I was making bad grades, and I wasn't really into school. I was just doing other things I probably shouldn't have been doing, or I know I shouldn't have been doing, and skipping. But I completed it, so yeah. My mom and dad was going through a divorce when I was like in tenth grade, so I was back and forth between mom's house, dad's house. Just going back and forth, and doing whatever I wanted to do. June, 27, HS diploma, not married, Black

June relates her disengagement from school to the impact her parents divorce had on the stability of her home life as a teenager, especially during her critical high school years. This highlights the impact of one's household structure and financial stability on their school achievement. Most college-respondents who experienced an education-centered upbringing came from two-parent households that they described as fairly stable and "normal," which afforded the provision of support for educational and scholastic achievement. For June's parents, maintaining consistent supervision and support for their teenaged daughter's educational achievement must have been a challenge.

Another characteristic of non-education-centered rearing was the lack of established high expectations and intensive parental support for educational achievement. When I asked June how her parents assessed her school performance, she says, "They didn't like it, but they just kept pushing me to finish [high school], and I did." June's narrative about her parents' encouragement for her to finish high school is starkly different from those of respondents from education-centered households whose parents expected them to attend, not just any college, but an elite one. When I asked them if and how their parents helped them with school, their answers were considerably short:

Yeah, like homework. Besides homework - the basic stuff like getting us ready for the next day. June, 27, HS diploma, not married, Black

Alana: I used to always have my tutorial in school, after school every day.

Akilah: What would go on in tutorial?

Alana: Like helping me with my math and my language arts really. They help me with that.

Akilah: Anything else?

Alana: Uh-uh [No]. Alana, 28, HS diploma, not married, Black

These responses reflect basic assistance, starkly different from those of the respondents who spoke at length about the various ways in which their parents helped them achieve in school and in extracurricular activities. June's experience could be a reflection of the limitations her parents experienced given their divorce and, most likely, preceding strife, but reasons for Alana's upbringing are unclear as she tells me that she grew up fairly comfortably, in which they were afforded a pool and other recreational items. Cheryl also says that her parents bought her items, as well, like a word processor, but laughs because she realized it was their attempt to be educationally supportive, but that it did not work. When asked if her parents did anything to help her in school, she reacts:

I'm sure they thought they were. [Laughter] They would help me with homework and projects. They bought me a fancy typewriter; because of course we didn't have computers back then. Cheryl, 45, HS diploma, divorced, white

Cheryl laughs at her parents' attempts to help her, giving me the impression that she did not view school seriously and probably saw their efforts as futile. I did not probe as to why she did not view school in the way that reflected her family of high educational attainment, because I simply recognize the patterns between her narrative and her educational attainment. These narratives point to the importance of recognizing that consistent and varied types of support from parents were key in education-centered upbringing. Parents may have expressed that college was

an important goal or provided a singular form of support, e.g. financial, verbal, for educational achievement but these results suggest that a triangulated approach of expectations, support, and restriction social activities, resulted in highly educated respondents who then encompassed very different expectations for motherhood.

In contrast to the resume-like recollection of college-educated respondents, non-college educated respondents spoke very little about being involved in extracurricular activities, but participated in formal social activities. Alana speaks concisely about school performance and highlights that she did not participate in structured extracurricular activities:

Akilah: How'd you do in school?

Alana: Good. Pretty good. I wasn't really in activities. I wasn't on a dance team or anything like that, but I'd go to the games and stuff. Yeah, I did pretty good.

Akilah: And so when you were in school, what was the highest level of English and math you attended?

Alana: Just basic. I didn't have advanced classes in English or Math up to 12th grade. Alana, 28, HS diploma, not married, Black

Alana's responses one extracurricular activities reflects a social world that is the complete opposite of those who experienced an educationally-intensive rearing: she was not "really in [extracurricular] activities" but would "go to games and stuff." She was allowed a freedom that most of the respondents did not get to experience and she describes her adolescence as revolving around social and recreational activities rather than centered on scholastic achievement. Even more, Alana's curriculum lacks rigor, saying she attended "just basic" courses; her Math and English courses – two highly critical subjects in educational progress - were not "advanced" during high school.

To summarize, college-educated respondents overwhelmingly described backgrounds with common features, in which parents and guardians played key role in early education

experiences by structured and shape scholastic expectations for respondents: educationally intensive messaging, high expectations, and numerous forms of educational support. As a result, respondents were compelled to take schooling very seriously and at least making sure to do well in school in order to acquire admission into four-year college, which meant substantial adult achievement. In contrast, non-college educated respondents were curt in their descriptions and talked more about the social aspects of early lives. Some in participated in activities that are conventionally considered inappropriate for young adults, like recreational drug-use, sexual activity, and skipping school.

College-educated women came from education-intensive homes in which they experienced educational opportunities and their narratives reflected an adherence to specific ways of thinking about relationships, work, and motherhood that differed from those who did not have such educational opportunities. College-educated respondents grew up with a schema that valued high achievement, high personal and professional aspirations, limited unstructured social activities, and minimal interaction with male peers. Over time, respondents adhered to strategies characterized by setting and achieving short- and long-term and high-status goals and aspirations and executing plans to achieve them. In addition, they were socialized to view male peers and intimate relationships with them as distractions from educational endeavors, thus employed strategies to limit intimate relationships with them. As a result, it is likely that such strategies primed college-educated respondents to have certain approaches to having children that reflected their high-status education-oriented goals. These narratives reveal how early life impacts later life fertility trajectories through events that select for certain approaches to pregnancy and childbearing.

4.53 Context Determines Intention

The following section examines how pregnancy “intentions” are nuanced, complex, and contextual as they emerge from the interplay of social, economic, and personal influences, some of which are shaped by early home and school experiences. Echoing the previous discussions, respondents defined “wanting” a baby as deeply personal and emotional, symbolizing transition into motherhood. However, wanting a pregnancy did not determine “intentions” alone. Respondents determined whether their circumstances supported pregnancy and childrearing, which reinforced, mitigated, or complicated their “want” for a pregnancy. To conceptualize this interaction, it may be useful to think of a barometer of “readiness” that simultaneously assesses the personal “want” for a baby with external social and economic conditions. I claim that early educational advantages, spurred by education-centered rearing, underlie these two dimensions that interplay to produce various approaches to becoming pregnant.

Because they appear at the intersection of the personal and contextual, pregnancy “intentions” are not clear-cut. Echoing the previous discussion on “want,” pregnancy aspirations are individually based and deeply tied to personal and emotional desire for motherhood. Yet, such aspirations do not develop in mental vacuums, but are shaped by external factors. I argue that social norms regarding fertility timing are established early and determine personal aspirations for “readiness.” Those respondents who experienced education-centered rearing were socialized to view motherhood as a secondary goal/identity that juxtaposed with “more important” educational and professional endeavors. In fact, participants described avoiding motherhood until being completely “ready,” e.g. attaining a degree, acquiring a fulfilling and stable occupation, marrying a suitable partner, etc. As a corollary, these respondents were likely

to admit that they were unsure about having children before they became mothers. To illustrate, Vivica discusses her early life influencing how she wanted to start a family - her barometer:

I think I grew up in the fairy tale generation. I mean, I guess most women do. You hear those fairy tales, and so you have this ideal picture in your mind of how you want your family to turn out. And then also, having grown up in a really good family, I felt like, okay, so I'm going to finish school because education's important. Then I'm going to meet somebody. We're going to fall in love. Then we're going to get married. And then we're going to have about two kids so that – in my mind that's how it should have gone. It didn't go that way. But I had a desire for it to go that way. Vivica, 33, PhD, not married, Black

Meanwhile, respondents who did not experience education-centered rearing and did not receive access to educational and professional endeavors did not receive strong cues to consider motherhood as an ancillary identity. In fact, these respondents were said they always desired motherhood. Thus, experience with early educational advantages through education-centered rearing structured women's pregnancy intentions early on by shaping their criteria by which they measured their "readiness" to get pregnancy, pointing to complex and contextual nature of pregnancy intention.

Early experience with educational advantage contributes to pregnancy intention through a second mechanism: access to the contextual factors that signal "readiness" and the incentive to achieve them through delayed childbearing. The milestones that featured as criteria on "readiness" barometer determined the degree to which women undertook behaviors to refrain from motherhood. For example, extensive childbearing delay and access to contraception are necessary to achieve a graduate degree before entering motherhood. Women who experienced early educational advantages were launched into trajectories that helped them achieve their criteria of readiness for motherhood, e.g. refraining from intimate relationships, abortion, and utilization effective contraception knowledge and methods. For example, Stacey relates her feeling of readiness:

I was still in love with my husband and I was finally at a point where we were generally well at our jobs, meaning we were stable financially, we had a house, a nice place to bring him into the world, and our relationship was stable and we were just happy we were surrounded by loving people. It made me comfortable; it made me really comfortable to say I think the time is right. – Stacey, 29, Masters, married, Black

As previously discussed, Stacey developed in a middle-class education-centered household that encouraged her to pursue her educational and professional goals and delay childbearing. As a result, she was able to meet the criteria that determined her “readiness,” and essentially rewarded with maintaining middle-class socioeconomic status. Women who did not experience education-centered rearing in their formative years delayed childbearing, too. Yet, their “readiness” barometers were considerably less detailed: lack of early advantages translated into fewer compelling reasons to delay childbearing. One respondent desired a husband before children, one wanted to have by a certain age, and two never explicitly outlined aspirations – one said she simply “started wanting them.” In addition, lack of advantage translated into lack of opportunities for socioeconomic mobility. In the next section, I further explore respondents’ barometers for “readiness,” specifically how they are established by early life and reinforced during young adulthood. Underlying this exploration is the argument that pregnancy “intentions” are multidimensional and complex results that begin in early life and are structured and maintained throughout adulthood.

4.54 Waiting Until Ready

As previously discussed, readiness to have a baby is deeply rooted in structural, social and contextual factors that are not captured in standard pregnancy intention measures. Readiness was often framed by situational factors that determined stability, comfort, resources, and security, e.g. families, partnership, and finances. Such situational factors were framed as issues

of “timing”: whether it was a “good,” “bad, or “okay” time to be pregnant. Respondents suggest that pregnancy timing was much less about arriving at the “right time,” and more about weighing personal, social, and professional priorities against desire for motherhood. Advantaged respondents likely described their pregnancy as occurring at “good time,” specifically because delay childbearing maximized the “benefits” of their early life advantage. Kendra was academically successful as an adolescent and as an adult lived a comfortable middle-class life with her six month-old infant daughter and husband in a home they owned. When reflecting on timing and her reasons for delaying pregnancy, Kendra says:

I mean as a teenager, it's like, you know, my mindset was my mindset then. But I wouldn't have been emotionally ready to have a child and financially either but like I feel like I've lived my life, you know, so I lived my life long enough as a single person. You know, I got to travel a few places, a few countries, you know, like I was enjoying my college education. I was in college and was – lived it up to its fullest. And I feel like I was ready [to have a baby when I did]. So I say that from that perspective. It's like this was an ideal time for me to have a child right now. And not to say if I would have – I guess if I would have gotten pregnant in college or even a little bit before then, I think I would have adjusted but it wouldn't have been as ideal but it still would have been okay. Kendra, 33, Masters, married, Black

Kendra says that if she had become pregnant as a teenager she “wouldn’t have been emotionally ready to have a child, and financially either,” highlighting that by delaying childbearing, she had the opportunity to “enjoy her life long enough as a single person.” Because of her decision to delay childbearing, she felt “ready to have a baby when she did.” She considers the timing of her first pregnancy “ideal” because of her accomplishments, including “enjoying her college education,” being a “single person,” and living “life up to the fullest,” to where she felt “ready” when she finally had her baby. Although she would have “adjusted,” getting pregnant at a younger age “wouldn’t have been as ideal but it would have been okay.” For other women who do not experience early advantage, there is never a “good” time, due to the

lack of opportunity to secure a supportive environment, e.g. not achieving financial stability, having supportive partner, etc. This reconciliation between personal desires, ideals for family, and contextual circumstances through the opportunity to delay further complicates the conceptualization pregnancy “intention.”

Respondents who experienced education-centered rearing likely perceived motherhood to be secondary to more important accomplishments. College-educated respondents explicitly talked about preventing pregnancy as they pursued the educational goals established in early adolescence. Rachel grew up in an education-centered home where both parents had college degrees. She recalls wanting to attend college when she was a teenager:

I had the sense of being at school - of waiting till I could get out and go somewhere and do something interesting, and I did find that when I went off to college. It was there waiting for me. There was no question about it. Rachel, 48, JD, married, white

Rachel’s college aspirations undoubtedly stemmed from her upbringing and belonging to an educated family; her statement almost reads as a higher calling: “it was there waiting for me.” Like Rachel, Rita describes being future-oriented when discussing her aspirations to attend college. She grew up in poverty in Chicago public housing and learned that achieving a college degree was her primary way to escape poverty:

I saw very early that the one person with a nice house, the one person with a nice car, the one person with nice shoes is the person who finished her degree. And if I’m gonna have these things, yeah, I’m gonna have to get it in. Rita, 34, Masters, married, Black

Rita directly associated middle-class lifestyle with obtaining a college degree and recognizes the incredible amount of work it would take to achieve this goal when she says, “I’m going to have to get it in.” Erica grew up in a small rural community in central California where she “struggled the whole time just to get out” and her focus was “was getting out, getting more

education.” She highlights that her family encouraged and supported her numerous intellectual and creative passions, including traveling, volunteer work, education, and dance:

[I] got straight As at [UC] Berkeley, and I just worked so hard – so dedicated to school. I always worked, too. Always in high school, I worked. In college, I worked. I worked overnights at a domestic violence shelter for a while. I was a tutor. I was just a typical, total over-achiever. And then, I worked for a couple of years also, after graduating school, and in a domestic violence field. And I decided it was more social work, and I wanted a more upstream handle on things, so that’s why I applied to Public Health School and did the MA in Latin American studies. I like analyzing things. I almost got my PhD in Brazilian literature, and I realized I didn’t really care about literature, but I like analyzing whatever’s in front of me, whether it’s numbers, words, whatever. So, I had so many interests, and so I decided to do public health. But I always was pushed in my family. Erica, 30, Masters, married, white

A self-described “typical, total over-achiever,” Erica maintained multiple talents, areas of knowledge, and interests. She says that her perspective during this time was that, “having a kid, that’s easy. Or, at least mechanically, it’s easy. So, I’m gonna do all the hard stuff [now].” She later elaborates on this idea when discussing her early aspirations for children:

I think definitely before I had my daughter, it was totally unplanned, unexpected. I think I just was like a lot of my friends continue to be, was this very vague “I want a kid, but I’m so focused on school, and life, and I don’t have time. It’ll happen later.” It’s some vague thing that would happen in the future. And so, I think I was always just career – I guess I’m the same as any other really well-educated urban-dwelling woman now. All my friends – I was trained that I could have whatever I wanted if I worked hard enough. Erica, 30, Masters, married, white

Being “so focused on school, and life,” she did not seriously desire to be a mother at that time and figured that “it’ll happen later.” Erica goes on to say that “I was trained that I could have whatever I wanted I worked hard enough.” The “training” Erica identifies is the intensive education-centered rearing that socialized her high aspirations. Similarly, Rita points out her lifestyle during young adulthood conflicted with that of motherhood because she was too busy capitalizing on the few, but important, educational advantages she received while growing up.

During this time, she also maintained an active social life. She describes her daily schedule in stream-of-conscious style:

Being the vivacious 20, 21, and 22-year-old that I was being, I was out there. My circle was like I had to work from like 6:00 to 3:30, so it was like go to work, go to school, go to a party, leave the party, sleep in my car for 15 minutes, go to work, go to school, go to a party, sleep maybe for two hours this time, go to work, sleep at work, go to school, go to a party, don't go to work, no, I better go to work, go to work late, go to school, go to a party. Children, I had no desire. – Rita, 34, Masters, married, Black

Rita drives home her point: “Children, I had no desire.” She echoes the relationship between delaying childbearing and investing in the opportunities that early educational made available to her. Stacey, like Erica and Rita, experienced education-centered rearing and focused on her available opportunities. After completing her Master’s degree, she enjoyed being single and financially independent - “having my own apartment, working, making my own money, and going shopping all day long if I wanted to.” Stacey’s lifestyle inspired her aunt to call her “selfish,” causing her to wonder if she would be willing to exchange it for motherhood:

She was like, “I think it’s good that you’re waiting to have kids.” She didn’t say I don’t know if you wouldn’t make a good mother, she just said I don’t know if you’d be willing to put aside what you want to do with your life in order to give that to a child. So I kind of let that get in my head a little bit too and I was like, “Yeah, I do kind of feel that way.” Stacey, 29, Masters, married, Black

Stacey’s aunt praised her for waiting to have children from her aunt - “I think it’s good that you’re waiting to have kids” - but also doubted her willingness to take on motherhood. This reflection speaks to reinforced social norms for these respondents, in which perceptions of being educated and career-focused potentially deflated desires for motherhood.

College-educated respondents limited intimate relationships and dating; this differed from non-college educated respondents who spoke about having sexual relationships with men starting in high school. Rachel focused on not getting pregnant for most of her young adult life

and even though she was sexually active during her teen years, she says that she and her boyfriend consistently practice pregnancy prevention. She says that they were careful because they both had long-term goals that they wanted to achieve and being sexually active and avoiding pregnancy required consistent action, cognizance, and his cooperation:

A lot of my early life was concentrating on not getting pregnant. I had a boyfriend when I was 16, and we were so responsible. Oh, my gosh. I look back and I think, "Where did you learn that?" We were really careful, birth control. Oh, my gosh. We had a great time, but there was no question in our minds, there was not [going to] be baby then because we had things we wanted to do. And that kind of persisted for a long time. Rachel, 48, JD, married, white

Both Rachel and her high-school boyfriend desired to “be really careful” because “there was not going to be a baby because we had things we wanted to do.” Other college-educated respondents discussed dating as a distraction and that they refrained from dating and boyfriends. Both Marcela and Stacey dated minimally. Marcela says that pursuing her graduate degree coincided with not having a serious relationship:

So I think I always kind of had that mentality of I'm going to finish school first and then I can start a family once I'm established myself as an individual. And I never really considered having children while I was studying. And I think it just coincided with not having a partner. And it could have also just been that I wasn't open to being in a serious relationship until towards the end. It's kind of hard to know what led to what. Marcela, 29, PhD, married, Latina

Echoing her education-centered rearing, Marcela sees working on school and “establishing herself as an individually,” as coinciding with not having a partner when she says, “It’s kind of hard to know what led to what.” These ideas derive from messages established in early life that treated male peers as distractions from achieving educational success.

Lastly, one respondent talked about aborting her first pregnancy in order to delay having a child until she was “ready.” When I ask her to tell me about her pregnancies, she says that her first one was a mistake, so she aborted the first one:

Well, the first [pregnancy] was a mistake, so it was a long time ago. I was like – I had just gotten out of college, I had just graduated from college, and so that was a choice that I made to abort, which was the right choice. Ingrid, 32, PhD, married, white

Ingrid gave the impression that she did not want to dwell on the topic of her abortion: she calls it a “mistake” that was “it was a long time ago - I had just gotten out of college.” Quite simply, being a new college graduate signified not being ready to have a baby and an abortion was the “right choice,” as it would have interfered with her plans. Again, to understand the complication of pregnancy intention and planning is to understand how pregnancy fits in with life plans, which are structured and reinforced by social and personal norms and expectations.

In contrast, respondents who did not experience an educationally intensive upbringing spoke about delaying childbearing in ways that did not reflect pursuing professional and educational endeavors. When Tina describe her aspirations for children, she says that she wanted to have children by a certain age:

Yeah, so initially I wanted to get married at 24, have my first kid at 26 and have like 3 or 4 or 5. No. So I had her when I was 27. My husband and I had been married for, I don't know, a long time. How old is she? 2, almost 3, 9, 6 year we'd been married before we had her and he was still in school. He's the same age as me but he was still behind because he came over from Denmark and so he was put like 2 years behind and his program was 1 year, so anyway, then he wanted to wait until he got his PhD and I said no. So we had her and then we just had him and I don't know if we plan on having any more right now because 2 is kind of a lot right now for me. Tina, 30, Masters, married, white

Tina does not provide any specific reasons behind her timeline and she says that there were no outside influences: “No, just me.” While Tina did not provide much information, June says she did not want to have children, as she believed a child would restrict her autonomy:

I don't think I did [want children]. I don't think I really did. I never really thought about having children, because I was more like want[ing] to be out just going, going, and going. And I always thought a child would hold me down, which it did, because like now it's like everything is slow, and you've got to find somebody to watch her when you want to do something. So I never really thought about having

any kids, you know, growing up. Basically when I got like a teenager – a lot of people was having babies when I was in high school. I'm like what are you thinking about? Why are you having kids now? You know. I wasn't thinking about it then. Not at all. But when I did get pregnant, it was just like okay, I'm pregnant, and it is what it is. I'm going to have a baby now. June, 27, HS Diploma, not married, Black

June's desire for children is vague - "I don't think I did want children, I never really thought about having children because I was more like wanting to be out, just going, going and going." Even when describing her high-school peers and not understanding their motivations for having children, she gives no specific reason for her lack of desire, except that she simply "wasn't thinking about it then." June became pregnant three times - two of which ended in miscarriage – and she describes each one as "it just happened." Lacking clear and specific motivations to delay childbearing might have contributed to her eventual acceptance of her third pregnancy. Cheryl was also vague in her desires for pregnancy. Earlier I detailed Cheryl's narrative on her early life, suggesting that she did not view school as a serious venture, and her attempt to earn a college degree despite having no interest to do so:

Cheryl: I did go to [State School] and unfortunately I didn't do well at [State University], but I also don't think [my parents and I] had the relationship then where I would call them and say, "Like, oh my God." You know back then I was all about being independent and sowing my wild oats and...

Akilah: Did you end up finishing?

Cheryl: I did not. I was actually kicked out of [State School]. I went to [a community college] and got my associate's degree. Cheryl, 45, some college, divorced, white

In turn, Cheryl was relatively vague about her desires for motherhood, saying that she "left it up to God to see what would happen" until she met her husband:

I really never knew what size family I wanted to have. I knew I wanted to have a family. And I was kind of just ready to leave it up to God and see what happened. I definitely did not want children for a long time until I met my then husband, and

we had been married for a couple of years. Cheryl, 45, some college, divorced, white

The only criteria for starting a family that Cheryl desired to meet was having a husband and says after a couple of years of marriage, she describes deciding to get pregnant as, “Okay, I think maybe it’s time to try this.” Alana did not experience education-entered rearing and, unlike Cheryl who attended college for a few years, did not go beyond high school education. When I asked her to describe her fertility aspirations before she became a mother, she says that she was not thinking about having children until she got older:

Growing up, really wasn’t thinking about kids at all, just playing and just being a kid myself. But I had my nieces – both my nieces with me a lot, so a lot of people thought them were my girls. But yeah, wasn’t thinking about kids. Just had them with me playing around a lot. And then as I got older, I guess I started wanting them, and I had my two boys that I have now. Alana, 28, HS Diploma, not married, Black

It seems as if being around younger relatives, caring for them, and being mistaken for a mother made Alana solidify her desires for motherhood at a much earlier age. In conjunction with the lack of equally fulfilling alternative roles, it is reasonable that she desired children upon entering adulthood:

Akilah: About how old were you when you say you started wanting them?

Alana: I would say when I was like 20, 21, that’s when I started wanting them. And I started having them. Had my first son around that same age. Alana, 28, HS Diploma, not married, Black

To reiterate, I use these narratives to explore the impact of early life experiences with educational advantages on motivations behind delayed childbearing. Intensive messages about adulthood success and delaying motherhood directly impacted how and why college-educated respondents delayed childbearing and their reasons for doing so were remarkably similar. Meanwhile, respondents who did not receive education-centered rearing delayed childbearing for

various reasons. In the next section, I explore pregnancy narratives to explore specifically how respondents approached becoming pregnant.

4.55 Pregnancy “Intentions”

In order to investigate the relationship between context and fertility intentions, I asked participants to describe what was happening in their lives when they became pregnant for each pregnancy. Respondents’ fertility narratives detailed information on their personal and professional goals, work and employment, partnership dynamics, and family relationships, as well as descriptions of when and how they discovered their pregnancies. In keeping with the spirit of grounded theory, I used the constant comparison method and focused on phrases and words that respondents used to describe their pregnancies and compared them to each other in order to recognize patterns in narratives that pointed to larger processes. I then related them to contextual influences. For example, a respondent who said, “we were hoping to get pregnant” and another who said, “we were trying to get pregnant” were grouped together as having similar fertility approaches and analyzed for other similarities in life circumstances, e.g. marital status, school experiences, etc. Relatedly, that same group was compared to other respondents who said, “it was totally unexpected” and “I wasn’t planning on it,” to investigate differences in life circumstances. In analyzing pregnancy experiences and perspectives using this method, I realized there were distinct fertility approaches that related to life circumstances and reflected their position with larger socio-structural systems.

From using this method, one group of respondents emerged as distinct from the rest of the sample: they adhered to conventional pregnancy planning methods and ideology, including undertaking specific activities to conceive, and they were of a specific socio-economic

background. To reflect this, I grouped fertility narratives into two categories – 1.)

Deliberate/Cognizant: women who completely adhere to pregnancy planning criteria; and 2.)

Non-Deliberate/Unexpected: women who did not completely adhere to such criteria. In

contrasting these two narratives, I investigated the structural and contextual influences on the experiences they relay in their narratives using the information that they provided. The groupings are not meant to place value or judge either approach as superior or inferior. I treat the groupings objectively in order to explore the contextual influences.

The *Deliberate/Cognizant* category had narratives from respondents who conveyed a strong and actionable desire to have children in the immediate future, usually with their husband (e.g. “we were very deliberate and planned,” “trying to get pregnant,” and “hoping to get pregnant”). These narratives closely resembled conventional pregnancy planning criteria. This subset contained respondents that were strikingly similar to each other in marital status, educational attainment, and occupation.

The *Non-Deliberate/Unexpected* category of narratives did not strictly adhere to conventional pregnancy planning criteria and, instead reflect a broad array of narratives. In fact, this category reflects a spectrum of “intent” in which narratives ranged from “open to the idea of a pregnancy” to being surprised at the discovery of their pregnancy. Respondents who said they were “open” welcomed the idea of becoming pregnant, but did not take any “deliberate” action beyond stopping birth control. Commonly used phrases included, “we’ll see what happens,” “was okay to be off birth control,” and “I wasn’t tracking my ovulation.” On the other end, women described their pregnancies as being fairly unexpected. Respondents used phrases such as, “It was totally unexpected,” “I wasn’t planning on it,” “I was so shocked,” and “I ain’t going

to get pregnant.” All respondents in this category communicated that their pregnancies were unexpected, and upsetting for some.

My method of organizing interview content derives from grounded theory’s constant comparison. The details of the narratives within each category vary, but I do find that fertility approaches map onto life circumstances, which includes relationship dynamics with partner, family resources, financial situation, and work and career stage. I detail these circumstances within each approach. As Rachel says:

I think the things that determine the way our whole lives go, determine the way we feel about pregnancy, whether we have enough of the necessities in life, I think that's just the most important thing I think, to have a place to live. Do you have enough to eat? Do you have clothes to wear? Do you have medical care? That has to influence how you feel about being pregnant and being able to bring up a child. I'm not saying that that determines who should and should not have children, but it influences how we feel ourselves. It shouldn't influence how other people feel about our children. It often does. Rachel, 48, JD, married, white

Fertility Approach: Deliberate/Cognizant Planning

In this section, I explore the key characteristics of the narratives categorized as *Cognizant/Deliberate*: respondents who explicitly acknowledge they wanted a baby and took deliberate action to conceive by a certain point in time. They were remarkably similar in socioeconomic class: majority white (one Black), middle- to upper- class women who were college-educated (most having graduate degrees) and married at the time of their first pregnancy. All described their background as education-centered and delayed childbearing until they were ready. In their pregnancy narratives, they explicitly communicated that they wanted to have children in the immediate future and employed behaviors to increase their chances of conception.

As previously mentioned, Ingrid discusses aborting her first pregnancy and then goes on to talk about her second pregnancy that resulted in the birth of her first child years later:

[My husband and I] had decided that we would start the process, and I had been on birth control for a long time, ten years or so of continuous birth control, so when we told the doctor about this, they were like, "Oh, well, you might want to just go off the Pill and don't worry about it for a year, basically. Let everything resettle and it'll – give yourself some time," and so we were like, yeah, that's a good idea, so if it happens in a year -- when they said that, we're like, yeah, that'll happen in a year, and we got pregnant immediately, like the first time, so it was a surprise, but not really. We were planning on it; we just weren't planning for it to happen so quickly. Ingrid, 32, PhD, married, white

Ingrid says that she and husband decided to “start the process” after being on birth control for over ten years and consulted a medical doctor for a health evaluation and to address concerns about getting pregnant. The process she describes truly exemplifies conventional “planning” and, equally important, reflects her middle-class and education-related advantages, e.g. health insurance, access to long-term contraception, a husband, etc. Ingrid displays her trust in biomedical expertise, exemplified by her “surprise” when her physician’s forecast fell short.⁹ Like Ingrid, Carrie details a similar process of collectively deciding with husbands to get pregnant and consulting with medical doctors, easily recalling the timing of these:

[W]e were very deliberate and planned. I went to the doctor and had a physical I would say at least, I think it was probably like 3 to 6 months before we had figured - like I was on the pill, so it was like at least 3 to 6 months before I had planned to get off the pill. So I talked to her about process, and recommendations, and things like that. I was actually running, and I was training for a marathon that was happening the end of May. [A] certain process to take care of your health that goes along with training for a marathon [lends] itself nicely for preparing for pregnancy. And I started pre-natal vitamins. Like I just really made sure that I was in good health. And in some ways the marathon was sort of like the next day. Like “Okay I’m going off the pill.” So it was this exciting thing that I was doing for myself before I was gonna kinda start this new chapter of my life. Carrie, 36, Masters, married, white

Carrie begins her narrative with “we were very deliberate and planned,” and details the elaborate process of getting pregnant, including deciding to get pregnant with her husband

⁹ Most respondents who had been long-time users of birth control and sought counsel from medical physicians were said doctors underestimated the amount of time it took to conceive, suggesting that not only were these particular respondents were highly sensitive to timing, but they placed high value on biomedical expertise in conceiving. This points medicalization of pregnancy and childbearing.

months before stopping the pill, consulting her doctor, and training for a marathon, which conferred health benefits. In addition, Carrie was well aware of her actions and excited about “starting a new chapter in her life.” Ingrid and Carrie’s narratives demonstrate that the following conventional pregnancy planning by undergoing a process to get pregnant reflected social and structural advantage. Both were highly-educated – Ingrid had completed her doctorate degree and Carrie had a Masters and working on her doctorate – and the “planning process” was a response to their desire to be mothers in addition to maintain their high-demand professional occupations.

As previously discussed, highly educated respondents delayed childbearing in order to achieve their educational and professional milestones and, consequently, many waited until they were in late-20s to early-30s to start thinking about having children. These respondents talked about the relationship between aging and wanting a child, illustrating their worry over impending infertility. Throughout Rachel’s young adult years she enjoyed a high-paying and rewarding career with a husband who shared her goals. They were both unsure about having children for a long time but eventually decided that they did when Rachel was in her mid-30s:

I could tell [having a baby] was something I really, really wanted. We felt we were ready for a child. After trying for even the short time that that was, you have to try I think the standard until you reach 35 is you have to try for a year unassisted before you can talk about infertility. And I certainly didn't [want to] get to get that point. I really didn't want to ever have to think about fertility treatments. Rachel, 48, JD, married, white

Rachel emphasizes her strong desire to have a baby and says she and her husband “felt they were ready for a child.” Yet, after trying to conceive for a “short time,” she grappled with the possibility of infertility due to her age. Although “she didn’t want to ever have to think about fertility treatments,” she knew that it was a possibility. While she did not use assisted fertility treatments, Rachel took well over a year to conceive and experienced a miscarriage before her

first birth. Echoing early discussions, those with the most advantage are also incentivized to delay their childbearing and use “extreme planning methods” when ready to have a baby.

Rachel’s narrative illustrates how those who experience early educational advantage and delay childbearing are more likely to have “planned” pregnancies because they are more sensitive to the possibility of infertility. Other respondents did not necessarily deal with infertility difficulties like Rachel, but they communicate their sensitivity to age and infertility by emphasizing that they did not want to “wait too long” to start a family. Ingrid mentions her age as her primary signal to start a family:

Well, I guess age had a lot to do with it, so I was 29, and I knew that if we were going to have children and we were going to have more than one child, then we needed to get started. I didn't want to be having children past 35 if possible, and also, I recognized that we did have a lot of flexibility in our lives at this point in that, being in grad school, you don't necessarily have to clock in and clock out. [My school] has a very generous package for healthcare, so healthcare through the medical school is fantastic. I knew she would be completely covered. It would be no out-of-pocket cost to me. I knew I'd get leave. I knew that I'd get a lot of these things that aren't necessarily given when you change jobs, so that had a lot to do with it. And the fact that I just – at some point in my life, it was just like, we're ready, I was ready, and let's get started. – Ingrid, 32, PhD, married, white

Ingrid starts her narrative by mentioning her age as a signaling factor and not wanting to have children past the age of 35. She then talks about the contextual circumstances that signaled her readiness, linking her age to the financial security and time-flexibility that she and husband believed would provide support: “we did have a lot of flexibility,” and “I knew I’d get leave.” As a post-doctoral research, Ingrid also anticipated a job transition within the next 1-2 years, which reinforced the idea that her current situation signaled readiness: “I knew that I’d get a lot of these things that aren’t necessarily given when you change jobs.”

Rachel and her husband were financially secure and could afford to take time off to consider having children, undoubtedly a payoff from delaying pregnancy. After being unsure of

wanting children for a long time, Rachel says that she and her husband were ready for a child. They often talked about having children and this eventually culminated into the decision to get pregnant. She relates:

Well, we just started talking about it more and more. And then it actually culminated - we decided we'd have ourselves a little retreat 'cause we were both working really hard. We were both in jobs that were around the clock. It was crazy. We were young. What did we know? It was dumb to do that, but it was fun and we did it, and we decided to have a retreat, and we went away to – I think we – I can't even remember where we went. I can't remember if it was in the UP [Upper Peninsula, Michigan] or Canada. And we took big, big pieces of paper and colored pencils and we made these charts about how it would work and what would lead to what and what were the advantages and what were the disadvantages. It was fun. But at the end, we really couldn't decide, and it was only a little bit after that, that we looked back and we just said, "We keep talking about this. We must wanna do it." Rachel, 48, JD, married, white

Rachel was able to engage in something that was quite rare among the respondents narratives: indulgently taking off time to travel with her husband in order to schematically plan her pregnancy, detailing a decision tree complete with the advantages and disadvantages with her husband. And despite the amount of resources and access that such an endeavor allowed, she says, “we really couldn’t decide,” again pointing out that “intentions” arrive at the intersection of the personal and the contextual. Rachel has an incredible amount of advantage, which allows her to engage with an amazing amount of pregnancy planning. While this sort of planning would no doubt receive praise from mainstream public health organization, it is tied to a highly distinct milieu of social class and privilege.

Tina was deliberate in her decision to have children but did not consider her contextual circumstances and whether it was an optimal time for her to have children, and as a result expressed negative perspective towards her pregnancy narrative. Her decision to get pregnant solely reflected her personal goals and fertility timeline, unlike other respondents in this category who considered their age, partner’s input, and the role of resources and time-flexibility in the

decision to get pregnant. She made a decision to have her first child by age twenty-five and was influenced by the generous health insurance package that would cover her prenatal and perinatal expenses, which she made a point to stress. What makes her narrative distinct from other narratives in the categories is that she does not frame her decision to get pregnant as a collective decision-making process. Like other respondents, she describes her long-term birth control usage, and practicing fertility awareness using a smart-phone-based application track her ovulation:

Tina: Okay, so with her I planned it to a T. I'm a very good planner and so I knew exactly what I was doing and when and when to do it, so like two weeks later I was pregnant and so that was very good.

Akilah: And so what were some of the steps you took in terms of planning?

Interviewee: I just tracked it. They have this really good tracker that worked for me on the phone and I just put in all my information about when I had my period, when it ended, and then it just tracked it. I did that for a like a year and then after that it was pretty much spot on. – Tina, 30, Masters, married, white

Compared to other respondents, Tina consistently uses “I” in framing her pregnancy experience and intentions (“I knew exactly what I was doing”). Tina was cognizant and deliberate in her own desire to have children, but not of her husband. In fact, Tina says her second pregnancy which she describes as occurring “at a bad time.” She says:

With [my second child], I tried the whole planning again, yeah, it didn't work this time for some reason and we were actually...well it did work but we thought it didn't work so we were actually a month ahead of what we thought we were going to be. So that came at a bad time because he was writing his dissertation. [H]is dissertation was due now a month after he was born rather than it being before he was born. So that caused a lot of stress for him and me and everybody. Tina, 30, Masters, married, white

Tina’s narrative suggests that a conventionally planned pregnancy without consideration for one’s contextual factors does not lend for a supportive pregnancy. At face value, Tina’s narrative illustrates a conventionally planned pregnancy: she utilized effective contraceptive

methods, stopped using them when she deciding to get pregnant, and was fully covered by a generous health insurance package. She even employed technology to aid her. Yet, her narrative about her second pregnancy illustrates negative consequences of not considering contextual constraints, such as her husband's obligations to finish his doctoral degree, which hindered his ability to support her and the pregnancy. She describes:

[S]o it's the end of your pregnancy, you're feeling like you're going to explode, you have her to chase after [my first child], which is crazy, and then now I have no help from [my husband] because he is too busy writing his stuff and working all hours, pretty much like 24 hours a day, so it was very...I was on my own this time rather than last [my last pregnancy which] was around Christmas time and everyone was here. Tina, 30, Masters, married, white

A strongly individual-based approach to pregnancy may not be an important component of reproductive health and maternal health. Other respondents in this category made a deliberate decision to stop contraception and get pregnant, however their readiness resulted from the consideration of resources and constraints, as well as their partners desires through discussions. This suggests that fertility approaches stem from life circumstances and are constricted by environmental and contextual opportunities.

Fertility Approach Spectrum: Open to Pregnancy – non-Deliberate

Not all respondent narratives fit the criteria of the distinct *Deliberate/Cognizant* category and these the narratives reflected a spectrum of approach to getting pregnant: on one end respondents talked about not taking explicit action to achieve a pregnancy, but being open to the possibility of conceiving, while on the other end, respondents discussed their pregnancies as surprises, which often came with anxiety, fear, and disappointment. The range of narratives reflects the heterogeneous nature of the study sample characteristics, but also the myriad of ways in which contextual and structural factors interact with personal desires to produce and influence

fertility approaches. The narratives of respondents who said they were receptive, or “open,” to the idea of getting pregnant because their lifestyle complemented their desires for children were categorized as “Open to Pregnancy.” For example, they completed their educational goals (all were college educated), were employed in established careers or finishing graduate degrees and transitioning into promising employment. One respondent described her job transition as “a nice little window” for getting pregnant. Married or engaged to their partners, they consulted with their partners on family size, birth control, timing, and spacing of children. Meanwhile, narratives closer on the other side of the spectrum shared a central theme of not being remotely welcoming to the possibility of getting pregnant with lifestyles that they considered discordant with having a baby. Unlike respondents in the previous two categories, all but one respondent did not have detailed narratives for how they got pregnant. Furthermore, these narratives were distinct in that respondents described these pregnancies as happening almost spontaneously, as in – “it just happened.”

Having a supportive partner featured as a fundamental characteristic for those who were “open” to a pregnancy; in fact, they said, “we were open to pregnancy.” Stable partnership with a husband or fiancée signaled for readiness because respondents made the decision to be “open” together. Wendy explains that both she and her husband were unsure about having children, but together they decided to stop their birth control:

Okay. I wasn't sure I wanted children. My husband and I both weren't sure, but we sort of figured we would just go off birth control and kind of see what happens. We weren't sure how many children we wanted, if we should have any at all. So it was very surprising, not really, kind of planned-ish. - Wendy, 32, PhD, married, white

Wendy describes her pregnancy as “surprising” and “not really, kind of planned-ish” because she and her husband did not take the deliberate steps to get pregnant. They were both

ambiguous over deciding to have children, but their partnership mitigated this ambiguity and together they decided to stop birth control. Similarly, Kendra says she and her husband were not “actively trying” to get pregnant but “decided” to start a family when she neared the end of her birth control prescription and consulted with her husband on whether to continue or not:

So I wouldn't say that we were actively trying. So I'll rephrase that because I did stop taking birth control but it wasn't like, "I'm ovulating, let's, you know [have sex]." But I wasn't on birth control so it was like – and we had a discussion about having children before I had stopped taking birth control because it was like, okay, well I was nearing the end of my birth control pack so I asked my husband, I was like, "Well, what do you want to do?" I was like, "I can go get another refill or I could just not and then we'll see what happens." And he was like, "Oh, okay, well, yeah, don't refill it." I was like, "All right." -Kendra, 33, Masters, married, Black

Echoing similar respondents who distinguished their approach from “more extreme” methods, Kendra pointed out that she did not track her ovulation or plan intimate nights. Instead, she and her husband discussed their family planning before stopping birth control. These respondents considered their partners’ desires, priorities, and support as well because partner support was extremely important. Respondents spoke at length about the importance of a stable partnership:

I mean [being pregnant] is an important time and it's beautiful and it's incredible, but it can be very challenging and very isolating. And I think that if you don't have a partner it can be very problematic for a woman or even a man; like if somebody was to be a single father and have decided from the get-go that that was what the situation would be. I mean I think it definitely takes a village to raise a child, but I think at least having one other adult with you to help you find balance or keep your sanity or that kind of thing. Marcela, 29, PhD, married, Latina

You don't want to be just dating a guy and get pregnant. Because you don't know how he'll feel about the baby. You know, you having a child. [Pause] You would definitely want to be you know, in a stable relationship and it's a mutual agreement. June, 27, HS diploma, not married, Black

The pregnancy experience can be “very challenging and very isolating,” as Marcela outlines, and stable partnership support can be critical. Partners provided various forms of support and benefits. All respondents had employed husbands, or husbands who earned stipends and health benefits, who provided financial support. Furthermore, partners contributed emotional, social, and instrumental support. Some even had families who provided additional resources and benefits. Thus, the presence of a partner can mitigate or enhance pregnancy intentions through symbolizing pregnancy support. In addition, partners exert strong influences on women’s fertility behaviors and decisions; some respondents pointed out that they reduce their contraception vigilance due to their partners. In fact, Erica notes that “you get comfortable in a relationship” and that “men pressure women”:

You get comfortable in a relationship. Who knows? Men pressure women to – my sister got pregnant twice in a row, and she had abortions. So I think it happens commonly. The variable would be [the] individual relationships. Erica, 30, Masters, married, white

Becoming less vigilant with birth control when one does not desire a pregnancy was a theme for a few respondents who had unexpected pregnancies within stable and fairly supportive circumstances. Hannah, Erica, and Vivica’s narratives could not be categorized as “open to pregnancy” because they explicitly described their pregnancies as “unexpected,” upsetting upon discovery, and not in line with their personal and professional goals. Yet, they differed from other, less-advantaged respondents who said their pregnancies were unexpected: they occupied a higher socio-economic status due to their educational background. Their reasons for being upset at their unexpected pregnancies were rooted in the desire to adhere to a timeline that mirrored having received educational advantage. Their narratives illustrate ambivalence, due to the desire to accomplish goals before starting a family and struggled to reconcile these desires with reality.

High-achieving Erica, who juggled multiple interests and aspirations before becoming a mother, says she felt like a “teen” because she was still wearing her “backpack and tennis shoes.” She means that, as a doctoral student, she had not achieved the stability that symbolized being an adult, because still depended on her parents for financial and emotional stability:

Akilah: And you also said that in some ways, you felt like a teen, personally.

Erica: Yeah.

Akilah: How so? I know you said with the backpack and tennis shoes. What did that represent to you?

Erica: Just emotionally, I still felt like I relied on my parents for emotional support. I still had that feeling of “I’m free. I can travel wherever I want.” Figuring out who I was. Erica, 30, Masters, married, white

Even though Erica was 25-years old and had achieved a high level of education, she assessed her pregnancy as “definitely unplanned” and herself as a “teen,” suggesting that she fell short of her barometer of “readiness.” She engages in the conventional construction of motherhood that dictates teenagers should not become mothers because they are immature and have not fully realized their social and economic potential. As a graduate student who was “figuring out who she was” she had not realized the possibility of becoming pregnant:

Well, I wasn’t planning on it. I was living in DC for the summer, and I was a little too relaxed about forgetting to take my birth control. And so, I was pregnant. I actually didn’t even know for a long time. My first prenatal appointment, I was 14 weeks pregnant, and I was in El Salvador for a month, pregnant, and thought I had a parasite. It wasn’t even on my radar. It wasn’t even, “Oh, this is a possibility.” It was like, “I guess I’m a little sick. Keep pushing through.” That was the first year of PhD program, too, and I was like, it didn’t even occur to me that I could even be pregnant. Erica, 30, Masters, married, white

Erica acknowledges the importance of having a partner when deciding to have a baby, in that she recognizes that having a partner tempered the ambivalence she felt towards her pregnant.

She considers herself lucky in that she had long-term relationship with a partner of eight years who desired to have children with her:

I was in a good relationship. I was engaged. I was really excited – I think my husband was super excited. Yeah, it was overwhelming. But in the end, looking back, it was really nice. I remember another PhD student saying, “This is such a special time. Just enjoy it.” And looking back, it really was. You get to take naps. Erica, 30, Masters, married, white

Hannah was a post-doctoral fellow at a major research university when I interviewed her and expressed ambivalence over the timing of her pregnancy. Like others who were open to getting pregnant, she and her husband decided to stop refilling her birth control prescription. Along with a supportive husband, the flexible time that her post-doctoral traineeship provided would allow her to experience a pregnancy with few work obligations. She figured that it would be a good time to have children and okay to get “lazy” about taking her birth control:

Oh, I was not planning to get pregnant when I did. This post-doc is two years, and I thought that I would – it would be a nice time to have a kid, but we were not thinking – we weren't planning, like I wasn't tracking my ovulation, I wasn't doing anything like that. I just thought that maybe it'd be a good time to have a kid...So I got – I was – I guess I got pregnant in early May of 2012, and then had no idea I was pregnant. I had been off birth control for seven months at that point, eight – no, seven or eight months at that point – and then we just kind of – we weren't really trying, but we were – I guess since I got off birth control – I got off birth control not because I wanted to get pregnant, but because, honestly, I was too lazy to fill the prescription. – Hannah, 32, PhD, married, Asian-American

Hannah’s narrative illustrates the internal dialogues in which some women engage when deciding about birth control at certain points in their lives. Her narrative is actually similar to other respondents who were open to getting pregnant: she made the decision to stop birth control with her husband of two years because it seemed like “a good enough time.” However, while other respondents got pregnant within one-two months of stopping birth control, Hannah considered her pregnancy to be fairly unexpected because it occurred eight months after she stopped birth control. The unexpected nature of the pregnancy was upsetting because, with her

desire to be competitive candidate on the academic job market, her due date coincided with the period in which she would be interviewing for job positions:

Because I think the reason I was crying so much was because I knew that he was going to be born in February, which is like prime job-hunting time, and I felt like, gosh, if only I had – we could've held off for three months, or if this could've happened three months later so that I could have been interviewing when I was pregnant, then I could have had the baby sort of after all the negotiations and stuff were done. So I think that – I think that would have made me feel like I was a little bit more in control of what's going to happen actually when the baby comes. Hannah, 32, PhD, married, Asian-American

Hannah's distress over a few months is not indicative of a personal preoccupation with time. Rather, she was reacting to the possibility that her pregnancy would clash her desire to be competitive in a market that has an inflexible timeline. She admits that having a supportive partner mitigated her negative feelings and helped her accepting news of her pregnancy. Similarly, Vivica describes her lifestyle as busy when she became pregnant, but not discordant with having a baby. She was a part-time teacher, full-time student, and engaged to her partner; the two of them used *coitus interruptus* as their primary birth control method, having experienced severe side effects with hormonal methods. She describes being shocked by the discovery her pregnancy:

I think I was almost 27 when I had her. And at the time that I got pregnant it was totally unexpected. And I was in denial at first because I hadn't gone according to my plan. I wasn't married yet. I had a boyfriend, and we had just gotten engaged and we were together. We were planning our wedding, but I wasn't married yet. So I wasn't supposed to be pregnant at that time. But I never thought about abortion or anything of that nature because I had almost done everything. I was almost done with my master's. I had a fiancé and I had a full-time job. So I figured, "Okay, this can be fixed. This is not the end of the world." – Vivica, 33, PhD, not married, Black

Erica, Hannah, and Vivica's narratives illustrate that early advantage can structure one's perspective on when and how they would have children, but that contextual circumstances can complicate pregnancy "intentions." On one hand, these respondents felt that they were not ready

because they had not achieved their goals before having children, e.g. not secured a tenured professorship, not finishing a doctoral program, and not finishing school and being married. Yet, these goals are also symbolic of having experienced high levels of early educational advantage. Not having achieved these ideals were distressing to them, but they received social support in the form of partnership, family, and community. This mitigated their feelings about their pregnancies and they eventually learned to adapt to their situation. In the next section I further explore how social responses reinforce “the right ways” of engaging in motherhood and stigmatize those who do not do things the “right way”

4.6 Discussion: Social and Policy Response to “Intentions”

This study reconsiders the social construction and conventional conceptualization of pregnancy intention by examining women’s ideas and narratives about the pregnancy experience, finding that pregnancy approaches are nuanced reflections of multiple personal and contextual domains. Study respondents explicitly said contraception use does not fully reflect intent and, to the extent that it can be measured, contextual circumstances contribute to pregnancy intent. This study provides insight into how pregnancy intentions, or approaches, develop early in life and are reinforced through the various mechanisms that structure educational attainment. In fact, we learn that a woman’s social location, e.g. socioeconomic class, matters in shaping her pregnancy approaches and experiences. The increasing rate of unintended pregnancy in the United States does not signal the need for improved contraceptive access and usage, as many health advocacy organizations purport, but rather the complicated nature of entering motherhood.

Current pregnancy intention policies reflect Cohen’s idea of “stratified reproduction,” in which maternal behaviors that reflect white middle-class values are prized, while behaviors that

reflect disadvantage status are despised (Agigian, 2007; McCormack, 2005). Public health recommendations and programs do not explicitly demonize unintended pregnancy (as they have for teen pregnancy). Instead, using questionable evidence, they emphasize the link between unintended pregnancy, disadvantage, and poor health, thereby privileging well-timed pregnancies and the use of reproductive technology (Ellison, 2003). Nathanson argues that the power of labeling is not politically neutral, as categories imply that there are rules; the “possibility of deviance” is inherent in labeling (Nathanson, 1991). I extend this idea to reflect on the study findings and claim that labeling births and pregnancies as *unintended* perpetuates the stigmatization of marginalized women’s reproductive behaviors. Findings from this study reveal that it is not the planning of pregnancies that matter, but whether pregnancies occur within conditions that reflect advantage and privilege (Ellison, 2003).

The value of the conventional “planned pregnancy” model lies in its representation of the middle-class cultural model – professional identity, marriage, knowledge, and access to resources. This is made evident in the narratives of respondents, like Hannah and Vivica, who received social support and reinforcement for their unexpected pregnancies despite having not engaged in conventional “planning” behavior. Having garnered stable employment, promising career prospects, and committed partners or husbands, family and community members often reminded them that their pregnancies were welcomed and supported. These contextual cues signal “readiness” because they symbolize the conventionally accepted way to start a family. However, this was not the case for respondents who had unexpected pregnancies and did not attain a college degree, promising employment, a stable partnership, or financial independence. This set of respondents discussed reactions of disappointment from family members and chastisement from community members e.g. work supervisors, strangers. My findings trace the

ways in which valued maternity behaviors – planning, marrying, and acquiring stable employment – are highly structured and based on social class and advantage. Meanwhile, disadvantage reproduces and stigmatizes the fertility of women who often cannot adhere to socially acceptable ways of approaching maternity.

One primary flaw in the social construction of unintended pregnancy is the conflation of *wanting* and *planning* and a more nuanced understanding of how “wanting” and “planning” are distinct would improve this construction immensely. *Wanting* is complex and nuanced, based on motherhood, while *planning* is practical and centers on a woman’s cognitive choice to conceive and bring a baby to term. To conflate these two concepts and equate *wanting* a pregnancy to *planning* one is deeply flawed because it assumes that women can arrive at the decision to enter motherhood in a linear, clear, and rational fashion. Having a baby complicates one’s lifestyle and can interfere with personal and professional endeavors and exacerbate underlying negative circumstances, like an unstable relationship. Furthermore, I find that reproductive health issues and experiencing miscarriage - both of which pose potential fertility loss - affect desires for motherhood. Recall June who did not want her third pregnancy (due to being financially unstable), but decided to keep it because her experience with two miscarriages augmented her desire to be a mother. These findings contribute to the recent literature on pregnancy ambivalence, by explicating specific factors that contribute to complicated feelings about pregnancy and motherhood (Guttmacher Institute, 2008; Jenny A Higgins, Popkin, & Santelli, 2012; M.-K. Moos et al., 2003). Critically revisiting standard pregnancy intention measures to incorporate desires for motherhood can improve the understanding of pregnancy intention and allow for better-informed scholarship and policy recommendations.

Further, respondents expanded the conventional definition of planning - demonstrating the significant disconnect between the policy recommendations on planning and the various ways in which women construct planning - casting doubt on whether all women can conventionally plan a pregnancy. Most respondents challenged the conventional idea of planning a pregnancy and emphasized the cognitive processes behind decisions that lead to becoming pregnant in their definitions. To add, most of these definitions introduced partnership as a vital component in the pregnancy experience. Policies and programs that recognize and incorporate women's cognitive processes and partnership situation would be effective in helping them achieve their reproductive desires.

Some respondents framed pregnancy planning through contraception use, but the extent to which contraception use reflected intent was based on socioeconomic resources and need to conventionally plan a pregnancy. These respondents used extensive knowledge, technology, time, and money in order to optimize biological conception so they could adhere to career-related timelines. Other educated respondents highlighted this form of planning - "really planning/trying" or "*planning* planning" - as a way to distinguish these "extreme" forms, which sometimes signaled that a couple was experiencing fertility difficulties. These findings suggest that "pregnancy planning" is more of a response to social, cultural, and economic pressures in order to optimize pregnancy support, rather than an ideal behavior for all.

Next, I explored how fertility intentions were structured in early life for respondents. While my sample size was fairly small for a qualitative study, it was diverse enough for me to recognize patterns and compare/contrast themes in respondents' narratives. A primary theme was the stark difference in early life between college-educated and non-college-educated respondents. College-educated respondents discussed their formative years as centered on

learning, high achievement, and educational success, in which parents instilled values that prioritized obtaining a college education and prestigious occupation. In contrast, respondents who did not achieve college degrees did not talk about education-centered upbringing. Rather, they focused on the functional aspects of their home or their parents' backgrounds and personalities. During their childhood and adolescence, college-educated women learn to prioritize education and career building before motherhood and, through various mechanisms in later life, *learn* to value fertility timing and conventional planning methods. These findings suggest pregnancy approaches reflect lessons and behaviors developed early in life.

Pregnancy “intentions” are not straightforward and stem from the intersection of personal aspirations and contextual conditions. Pregnancy aspirations are individually based and deeply tied to personal and emotional desire for motherhood, yet, they do not develop in mental vacuums or devoid of outside influences. I claim that social norms regarding fertility timing are established early and determine personal aspirations for “readiness.” Those respondents who experienced education-centered rearing were socialized to view motherhood as a secondary identity that contrasted with “more important” educational and professional endeavors. Meanwhile, respondents who did not experience education-centered rearing or access to educational and professional endeavors (e.g. gaining college degree) did not receive strong cues to consider motherhood as an ancillary identity. Furthermore, early experience with educational advantage contributes to pregnancy intention through a second mechanism: access to the conditions that signal “readiness” and the incentive to achieve them through delayed childbearing and conventionally planning. Those who experienced early educational advantages were launched into trajectories that helped them achieve their criteria of motherhood readiness, e.g. refraining from intimate relationships, abortion, and utilization effective contraception

knowledge and methods. Women who did not experience education-centered rearing in their formative years delayed childbearing to some extent, as well. However, their “readiness” barometers were considerably less detailed, with the lack of early advantages translating into fewer compelling reasons to delay childbearing and pay attention to fertility timing.

I explored how readiness is framed by situational factors that determine stability, comfort, resources, and security (e.g. families, partnership, and finances). Such situational factors were considered signals of “timing”: whether it was a “good,” “bad, or “okay” time to be pregnant. Respondents suggest that pregnancy timing is less about arriving at the “right time,” and more about weighing personal, social, and professional priorities against the desire for motherhood. Advantaged respondents typically described their pregnancies as occurring at a “good time,” specifically because delayed childbearing maximized the “benefits” of their early life advantage and increased the likelihood of being “ready.” I explored the reasons why respondents delayed childbearing, finding that college-educated respondents who experienced education-centered rearing had similar reasons for delay: to achieve education and professional goals established in early life.

In order to investigate the relationship between context and fertility intentions, I asked participants to describe their circumstances each time they became pregnant. One group of respondents emerged as distinct from the rest: they adhered to conventional pregnancy planning methods and ideology, including undertaking specific activities to conceive, and they were of a specific socio-economic background. To reflect this, I grouped fertility narratives into two categories – 1.) *Deliberate/Cognizant*: women who completely adhere to pregnancy planning criteria; and 2.) *Non-Deliberate/Unexpected*: women who did not completely adhere to such criteria. Overall, I found that those who were in the *Deliberate/Cognizant* group were markedly

more advantaged and similar in socioeconomic class. In their pregnancy narratives, they explicitly communicated that they wanted to have children in the immediate future and employed behaviors to increase their chances of conception. The majority of narratives did not fit into the *Deliberate/Cognizant* category and reflected a spectrum of pregnancy approaches. On one end, respondents talked about not taking explicit action to achieve a pregnancy, but being “open” to the possibility of conceiving. On the other end, respondents discussed their pregnancies as surprises, which often came with anxiety, fear, and disappointment. In summary, these narratives demonstrate that pregnancy approaches are varied because they stem from the interplay of social, economic, and personal factors. However, higher value is placed on pregnancies that occur within socially approved circumstances: long-term committed (preferably married) relationship, financial independence and stability, and other trappings of being educated and middle-class.

4.7 Limitations and Caveats

I highlight limitations that are relevant to the content and interpretation of the study findings. I realize that an underlying limitation of this study was the research design - using one-on-one interviews to gather content - which I learned during the research process. The design may have been biased towards educated women who were accustomed to articulating answers about their personal lives during an interview process. During interviews with respondents who were not college-educated, I would become increasingly aware of how my social place as a formal researcher may have created an unspoken power imbalance. Although I encouraged participants to be honest and emphasized that there were no wrong answers, I suspect that a few participants exhibited social desirability and may have chosen to not divulge certain information to me, which was well within their rights. In addition, I found that educated participants had a

better time with articulating answers to certain items from the instrument. The best example of this is the question: “What does it mean to want a pregnancy?” I realize that this question requires respondents to engage in abstract reasoning and other cognitive processes that some respondents may not have accustomed to doing. College-educated participants were more comfortable with this question and others like it. I claim that this is due to opportunity, rather than intelligence, as attending college provides skills in reasoning beyond what is learned in most high schools. I think focus groups would be a more appropriate method for gathering content from non-college educated participants because it would provide them with a “safe space” in which they could relate, corroborate, and validate their experiences and thoughts through conversation with similarly situated peers.

Relatedly, some constructs that derive from the study findings may reflect cultural and social models belonging to college-educated women. Recall the primary study finding that *wanting* a pregnancy represents wanting motherhood. Motherhood was seen as a sacrifice and a significant change in lifestyle (in addition to providing the unique mother-child love bond). This is likely due to the majority of the sample being highly educated women who adhere to the hegemonic model of “intensive mothering” and find motherhood to be an all-encompassing role that requires significant amount of time and energy. This reflects the chasm between cultural expectations of the “good mother” and the requirements in achieving education and professional endeavors. I suspect that a sample of non-college-educated women would provide a slightly different construction of “wanting a pregnancy:” one that centers on financial security, achieving social status as a mother, and wanting to provide love and support.

Lastly, having a sample that stemmed from multiple locations and racial/ethnic backgrounds provided rich data but raised several lines of research that I could not fully explore.

While one or two narratives raised interesting issues, it was tougher to develop them into solid themes that contributed to the overall research aim. For example, the issue of stigma and stereotypes associated with Black motherhood was raised among one or two narratives in Atlanta. These findings certainly informed my interpretation of findings but I could not fully detail them in the results. Another interesting, but smaller, issue was the nuanced differences in narratives between upwardly mobile respondents and those who came from middle-class origins. For example, those who were *Deliberate* in their pregnancy approach exclusively came from middle-class families, while college-educated respondents with working-class/poor backgrounds had more fluid approaches. Lastly, the material on partnerships was enough to constitute another paper or project, yet much of it could not be incorporated due to its sheer size. However, the material provides basis for further investigation into how partners shape pregnancy approaches. Subsequent works and projects could focus on demographically defined subgroups for unique themes regarding pregnancy approaches.

Tables

Table 4.1 Demographic Characteristics of Study Sample, n=17

Location/Characteristics	Atlanta, GA	Los Angeles, CA	Ann Arbor, MI
Sample Size	5	7	5
Age Range	24-34 years	29-36 years	40-48 years
Race/Ethnicity	5 Black	3 white; 2 Black; 1 Asian-American; 1 Latina	4 white; 1 Black
Educational Attainment	2 HS diploma; 1 Bachelors; 1 Masters; 1 PhD	4 Masters; 3 PhD	1 HS diploma; 1 Bachelors; 2 Masters; 1 JD
Own/Rent	1 owned; 2 rented; 2 lived w/parents	1 owned; 6 rented	3 owned; 2 rented
Marital Status	1 married; 4 not married	7 married	4 married; 1 divorced
Chief Wage Owner	3 mother; 1 equal (husband/self); 1 self	3 Husband; 2 Self; 2 equal (husband/self)	3 Husband; 2 Self
Number Children Range	1-2	1	1-2

Chapter 5

Conclusion: A New Approach to Pregnancy Intention

5.1 From Intentions to Approaches: Re-thinking Unintended Pregnancy

This dissertation examines early educational advantage and unintended pregnancy to find that pregnancy *approaches* (rather than intentions¹⁰) are complex responses to social and structural forces that shape reproductive trajectories. This study contributes to the literature by providing a nuanced investigation into how pregnancy approaches are linked to educational and social opportunities provided early in life. I utilize a triangulation mixed-methods design to obtain complementary quantitative and qualitative data on this topic (Creswell, 2013). Both studies are equally significant and their results converge to inform a central theme: to challenge the social construction of unintended pregnancy as an adverse outcome extending from lack of family planning knowledge and utilization among marginalized subgroups of women. The quantitative paper tests the relationship between early educational advantage and pregnancy intention of first births and finds that women with high educational advantage during youth were more likely to indicate that their first birth was wanted later. The qualitative paper examines narratives from a diverse sample of women to understand the link between early life and pregnancy approaches. Standard pregnancy intention measures are likely capturing, “not fertility, but motherhood” and “the willingness to enter a new social role” (Luker, 1999; M. R. Sable et al., 1997). The conventional conceptualization of *unintended pregnancy* dismisses the

¹⁰ I use the term pregnancy *approaches*, rather than *intentions*, towards the end of this dissertation to reflect my dissatisfaction with the assumption that pregnancies occur from conscious and cognitive decision making, which the term intentions assume

diversity of pregnancy approaches that women assume when reconciling personal desires for motherhood with social and economic circumstances, opportunities, and restrictions. Findings from this project encourage public health scholarship and practice to incorporate the influence of these factors in policies and programs in order to encourage the right for women and couples to make supported and well-informed reproductive decisions on their own terms regardless of socioeconomic position.

This dissertation project originated from my desire to study barriers to reproductive health resources for marginalized women in the United States and concludes with the insight that the stigmatization of marginalized women's reproductive behaviors is a significant barrier. Public health researchers and practitioners have traditionally conceptualized women's health through a medical model/disease-cure perspective that focuses on "risky" proximate factors, rather than structural and social forces (Hortensia Amaro et al., 2001). To illustrate, when I first began this project I found a substantial literature dedicated to promoting highly effective contraceptive methods to decrease the incidence of abortion and unintended pregnancies (Dailard, 1999; Frost, 2001; Guttmacher Institute, 2008; Guttmacher Institute, 2013). The narrative of unintended pregnancies reduces women's reproductive health to family planning, rather than taking a broader approach that *seriously* considers the experiences and reproductive concerns of marginalized women. For example, the Guttmacher Institute released a review, entitled "Abortion and Women of Color: The Bigger Picture" in 2008, which discussed the abortion rates among Black women: "the truth is that behind every abortion is an unintended pregnancy (Cohen, 2008)." The report provides evidence and figures for contraception use, or lack thereof, but pays little attention to evidence that challenges the narrow focus on promoting family planning and preventing abortion. Qualitative studies on pregnancy experiences among

disadvantaged women have long documented the various pre-conception factors that go beyond family planning access: family and peer groups (Tatum, Rueda, Bain, Clyde, & Carino, 2012), attitudes towards abortion and contraception (Kendall et al., 2005), physical pleasure during sexual experiences (J A Higgins & Hirsch, 2008), relationship stability/partner agreement (Barrett & Wellings, 2002; Lifflander et al., 2007), and gender and class dynamics within heterosexual couplings (J A Higgins & Browne, 2008). My dissertation draws on this evidence and considers the influence of educational background on the social patterning of unintended pregnancy in order to challenge the utility of pregnancy “intention” as a concept in public health scholarship, intervention, and policy.

The first paper is comprised of a critical literature review and theoretical overview and motivated by the research questions: *What is the state of the literature on unintended pregnancy? What extant literature informs the link between early advantage and pregnancy intention?* The literature review covers two main bodies of work: 1) conventional studies and reports that support the conventional conceptualization of unintended pregnancy as an adverse outcome linked to disadvantage and lack of family planning and; 2) rigorous quantitative studies, reviews, and commentaries that challenge this construction. I utilize Arline Geronimus’s “weathering hypothesis” and Shellee Colen’s “stratified reproduction” to consider that the conventional conceptualization of unintended pregnancy stigmatizes the reproductive behaviors of marginalized women, while concurrently dismissing the dynamic interaction between social and economic environment and reproductive patterns (Colen, 1995; A T Geronimus, 2000). These flexible frameworks support investigating pregnancy approaches as responses to cultural and social forces and my findings contribute to other works that critically examine women’s health from this perspective (H Amaro, 1988; McCormack, 2005; Walrath, 2002).

This project theorizes that education is a process and structural determinant of pregnancy intention, rather than a socioeconomic “risk” factor or an individual-level marker of socioeconomic status. Contemporary patterns in fertility and reproduction suggest education to be a significant determinant (Cherlin, 2010; McLoyd, Cauce, Takeuchi, & Leon, 2000; Smock & Greenland, 2010): marriage is increasingly a luxury among middle- to upper-class groups and fertility rates are steadily declining among college-educated women. The mechanisms that drive a one’s eventual educational attainment may also influence her likelihood to have a planned or well-timed pregnancy. I use Bourdieu’s cultural capital to support the assumption that educational advantages during adolescence accumulate to impact adulthood outcomes. For example, a woman who attends college may be more likely to desire contraception to delay childbearing, find an ideal long-term partner, and establish financial and social stability before entering motherhood. The social construction of unintended pregnancy does not incorporate evidence that suggests social and cognitive processes towards contraception differ by educational attainment and class (J A Higgins & Hirsch, 2008). Rather than considering class as a “risk factor” for sexual behavior, Higgins’s work considers the sexual “doing” of class and finds that socially advantaged women are more likely to view an unexpected pregnancy as costly, therefore use highly-effective contraception consistently (J A Higgins & Browne, 2008). In another study, she finds that socially disadvantaged women exclusively derive pleasure from embracing an unexpected pregnancy as an opportunity to foster relationships and escape current circumstances (Jenny A Higgins, Hirsch, & Trussell, 2008). In summary, critical literature on women’s health and educational opportunity establish the validity in investigating education as a structural determinant.

My second paper is based on a quantitative study that tests the research question: *Does educational advantage impact the likelihood of a mistimed, unwanted, and wanted birth?* To my surprise, the study findings show high educational advantage leads to greater likelihood of having a birth classified as *mistimed* for white, but not Black, women. I interpret these findings using Kristin Luker's commentary on the validity of pregnancy intention measures, in which she suggests that the National Survey of Family Growth (NSFG) pregnancy intention measures capture the willingness to enter motherhood/parenthood (Luker, 1999). The shift from measuring excess fertility - the original aim - to assessing willingness to enter motherhood stems from recent structural and demographic shifts: decrease in fertility rates, proliferation of highly effective contraceptive technology, and the movement to increase women's access to education and the labor market. Advantaged white women may vacillate in their desire to enter motherhood, reflecting a psychosocial conflict between motherhood and education-based identities. However, this interpretation is limited to the standard pregnancy intention measure ("Did you want to have a baby?") and its corollary categories - *intended, unintended, mistimed, unwanted*; the qualitative paper allows for interpretation beyond these parameters.

The third paper is based on a qualitative study that links educational background with pregnancy experiences using a diverse sample of women. In this study, women's narratives and conceptualizations directly oppose the social construction of unintended pregnancy. This study also highlights that pregnancy approaches are complex and wrought with complicated decisions due to the emotional, often irrational, nature of sex and procreation. Participants describe wanting a pregnancy as "wanting to be a mother," validating Luker's proposal, and possibly shedding light on pregnancy ambivalence, a concept that is meant to blur the lines between unintended and intended, but remains fairly undeveloped in the literature (Bachrach &

Newcomer, 1999; Jenny A Higgins et al., 2012). Incorporating willingness to enter motherhood into the concept of pregnancy ambivalence could drive more theoretically sound and valid measures. The desire for motherhood is likely too complex of a concept to be captured with survey instruments but without fully understanding this limitation, policies and programs that aim to decrease unintended pregnancies through family planning will continue to miss the target by not addressing the contingencies on which willingness to enter motherhood are based.

Relatedly, the qualitative study shows that early life experiences shape motherhood expectations, suggesting that even revised measurements that attempt to expand the choices of feelings about pregnancy timing are not valid if they do not contextualize responses (Kost & Lindberg, 2015; M. Sable & Libbus, 2000; J. S. Santelli, Lindberg, Orr, Finer, & Speizer, 2009). Women who described experiencing education-intensive rearing considered motherhood to be an ancillary goal: the “easy” or last milestone after acquiring a college degree, marriage partner, and fulfilling career. These plans outlined socially approved circumstances for having children and those respondents who achieved them gained support and approval from family and community members. Meanwhile, women whose narratives did not reflect education-intensive rearing did not talk about milestone-based plans for entering motherhood and those who were unmarried, financially unstable or poor, and Black anticipated disapproval of their pregnancies. These narratives demonstrate that, while pregnancy approaches stem from social, economic, and personal circumstances, higher value is placed on those that occur within socially sanctioned conditions: long-term committed (preferably married) relationship, financial independence and stability, and other trappings of the educated and middle-class.

5.2 Pregnancy Approaches and the Construction of Motherhood

Findings from all three papers merge to submit that standard pregnancy intention measures in contemporary surveys capture the willingness to enter motherhood, in which respondents assess their “readiness” through the quality of their conditions at the time of conception. Luker argues that deciding on whether or not to enter motherhood is a fairly new phenomenon (Luker, 1999). I further claim that this decision is comprised of one evaluating their desire to experience the challenges of pregnancy, childbearing, and childrearing. More often than not, women are able to assess whether their contextual circumstances are conducive to a positive pregnancy experience and what factors pose serious concerns. For example, participants who became pregnant “the wrong way” (unmarried, unemployed, moneyless) knew that they were in for lectures, “fussing,” and general chastisement upon disclosing news of their pregnancies.¹¹ For marginalized women, poverty, stigma, lack of food security, and generally poor conditions conspire to pose unique challenges in childbearing and childrearing that are out of the current scope of family planning organizations (Hicks-Bartlett, 2000). The validity of attributing unintended pregnancy rates to lack of family planning is even more questionable given the evidence on poor women’s high value of children and motherhood (Afaible-Munsuz et al., 2006; K. Edin & Kefalas, 2005; Kendall et al., 2005; Lifflander et al., 2007). Using this interpretation, I propose a shift in perspective from preventing pregnancies labeled as *unintended* among marginalized women to investigating and ameliorating the conditions that women find to be unsupportive for childbearing.

I claim that investigating the tangible and obvious contingencies that challenge poor women’s willingness to enter motherhood could be a tool in exploring the broader, and less tangible, challenges that other groups of women face, in hopes of gaining nuanced and better-

¹¹ Families often ended up supporting these pregnancies and ensuing children.

informed constructions, investigations, and policies on pregnancy approaches. The current conventional narrative either considers marginalized women as unable or unwilling to adhere to effective family planning, but Ellison says, “the dense interplay of agency and social forces revealed in these studies [of unintentional pregnancies and abortions] underscores that women are neither free agents nor passive victims” (Ellison, 2003). Yes, women are subjected to structural forces but they also exhibit active agency in their reproductive choices. To illustrate, the set of Black participants from Atlanta often emphasized that their children was *solely their responsibility*, regardless if one was married, because they repeatedly experienced or witnessed unstable male partnership. I claim that this is a coping response to the perception that male partnerships are unreliable due to the broader economic and social positioning of Black males in contemporary United States (Anderson & Shapiro, 1996; Brunn & Kao, 2008; Cose, 2003). Adopting an omniscient-level of responsibility for offspring is just one example in which Black women work within the confines of their social and economic conditions. Current recommendations for increased contraception use, while dismissing how women maintain positive orientations towards motherhood, despite structural restrictions, miss the opportunity to meaningfully optimize reproductive health.

While the attention on unintended pregnancy is fairly new, it mirrors historical campaigns that used medical intervention to target the reproductive and sexual behaviors of marginalized women. In particular, I highlight the findings on Black women to further claim that promoting contraception and family planning to address pregnancy intention differentials is severely disengaged from the lived reproductive experiences of women in the United States. Recalling results from the quantitative study, high-advantaged Black and white women exhibited similar number of advantages, but the bivariate and regression results suggest that educational

advantage is not useful in explaining why Black women have higher rates of births classified as *unintended*: stratified by advantage level, Black women remained at a disadvantage (according to covariates) and a greater rate of births classified as *unintended*. Racism in the United States is pervasive, so finding that educational advantage does not eliminate statistical differences between Black and white women is not surprising. In fact, it draws further attention to disingenuousness of programs based on the social construction of unintended pregnancy. My interpretation of these results considers the historical and contemporary impact of racism and sexism on the reproductive experiences of Black women in the United States.

Systematic racism and sexism have intersected in ways that have denied full reproductive control for Black women, beginning with slave masters' draconian control over slave women's procreation and succeeded by formal and informal practices that severely diminished Black women's human and reproductive rights (Roberts, 1997). Roberts argues that while white women have historically fought against obligatory motherhood, Black women have fought for the right to procreate on their own terms. Punitive public policies, denigrating images of Black motherhood, e.g. the welfare queen, forced sterilization, family caps for welfare recipients, and the distribution of Norplant and Depo-Provera to poor women and teenagers are just a few examples of these reproductive restrictions (Brennan, 2001). The belief that young, poor, Black women should not have children is pervasive (K. J. Edin, 1995; McCormack, 2005). In fact, blaming Black people's problems on the reproductive decisions of Black women is a common trope (Brennan, 2001; Harris-Perry, 2011; Roberts, 1997), even among some conservative segments within the Black community (Cosby, 2004).

The social construction of unintended pregnancy seems to be a subsidiary of the modern reproductive rights movement that still struggles to fully include the collective reproductive

experience of Black women (Smith, 2005). Roberts argues that the reproductive rights movement has become synonymous with abortion rights - a narrow focus that adheres to the reproductive desires of white, middle-class women and ignores those of Black women. I draw on the works of reproductive justice activists to purport that through ignoring the pervasive effects of systematic racism on Black women's reproductive experiences, e.g. mass incarceration, poor public education, and welfare reform, family planning programs and policies maintain white supremacy by continuing to adhere to a hegemonic white cultural model (Gilliam, Neustadt, & Gordon, 2009; Smith, 2005). Furthermore, promoting a planned pregnancy model undermines the fundamental principle of the reproductive rights movement: "the right to exist on equal terms with all other women and men and create (or not create) others like ourselves." Public health policies and programs should incorporate the collective voices of all women to expand reproductive liberty and health equity.

5.3 Implications for Public Health Scholarship and Practice

What does the need or desire to plan a pregnancy reflect? What does a more inclusive approach to family planning look like? I find that the planned pregnancy model is a *reaction*, rather than an *ideal behavior*, to greater forces that restrict the reproductive choices of white, middle- to upper-class, college-educated women who enter traditionally male-dominated institutions and spaces. While advantaged in many ways, this group is not exempt from the pervasive dynamic that broadly restricts the reproductive control and choice of all women: the devaluation of motherhood due to the work/home dichotomy (Blair-Loy, 2009). The work/home dichotomy reflects the outdated, white, middle-class cultural model that dictated women devote their time and energy to domestic, home-based work, while men were devoted to work and

production outside of the home (Blair-Loy, 2009). Now, most women in the United States work outside of the home (McDaniel, DiPrete, Buchmann, & Shwed, 2011; Nieuwenhuis, Need, & Van Der Kolk, 2012). However, the ideology that dictates gendered spaces, e.g. home/feminine, work/masculine, still operates to simultaneously devalue domestic obligations, prize success in the workplace, and still demand women to be dedicated mothers. This maintains an inflexible climate in which such women must “balance” family and work responsibilities (Hochschild, 2003; Johnston & Swanson, 2006; Staff & Mortimer, 2012). Thus, I claim the “planned pregnancy” model stems from this dynamic in which women who have access to high-status (read: traditionally masculine) positions and spaces have the incentive to plan a pregnancy, lest they are subjected greater “motherhood penalties” or denigrated as a “bad” mother (Johnston & Swanson, 2006).

Meanwhile, ideologies of meritocracy and individualism that operate in United States exacerbate these restrictions even further. Lack of federally mandated paid maternity leave, affordable childcare, and comprehensive social benefits makes “planning” before entering motherhood even more vital for those who can, while exponentially more difficult for others who cannot (Blalock, Tiller, & Monroe, 2004; London Ellen K Scott, Kathryn Edin, and Vicki Hunter, 2004). The lack of broader, government-mandated social benefits means women must take on a bootstrap approach to motherhood: making sure one is financially independent, securing a financially stable partner, and assuring family members, friends, and community members will provide support and resources. As economic and social inequities grow, women may find entering motherhood more difficult. Policies that provide broad level support for women, couples, and children, e.g. childcare, food, healthcare, housing, could mitigate some of these issues.

The profound and weighty experience of having children is rooted in powerful forces: systematic racism, sexism, poverty; cultural and social capital; structural opportunity; quality and availability of sexual partners; and personal, family, and community resources. Nathanson says: “Categories imply the existence of rules by which individuals may be labeled as worthy or unworthy of inclusion. Thus, the possibility of deviance – rule breaking – is inherent in the process of categorization.” Deepening our understanding of pregnancy approaches, instead of labeling them, is a starting point to more sophisticated lines of research in the field of family planning and women’s health. Next steps should include additional research to identify social and cultural models for environmental support of reproductive *control* and *choice* for women in the United States. Items that incorporate contextual circumstances with pregnancy intention survey items, women’s perspectives on motherhood, and available resources and support for a pregnancy could be included in upcoming rounds of the National Survey of Family Growth. A similar paradigm shift occurred in the field of HIV/AIDS among men who have sex with men, in which the perspective on “risk” has shifted from individual-level behaviors, like condom-use, to social and environmental factors, like homophobia/heterosexism. The same can be done for family planning among women in the United States.

Appendix 4-A

Dissertation Interview Guide 2013

Thank you again for agreeing to participate in this interview. Your feedback is invaluable to the research being conducted and I recognize the time you have sacrificed in order to be interviewed. I want to assure you that there is no right or wrong answer to the questions in this interview; your frank and honest feedback is the most valuable asset of this project. Again, you may stop the interview at any time and you have the right to refuse to answer any question. If a question is unclear then please do not hesitate to let me know. Any questions?

Early Background

I want to start by asking you some general questions to learn more about you and how life was for you while growing up.

1. So start by telling me about yourself

Probe:

- a. If you had to give someone a quick overview of your life with highlights and milestones, what would you tell them?

2. Now, I want to hear from you about certain aspects of your life while growing up.

- a. Talk to me about school life as a child and adolescent/teen.

Probes:

- i. How did you do in school? What activities were you involved in?
 - ii. Could you describe the schools you attended?
 1. Highest level of English and Math course? Prep? Honors?
 2. How big was the school?
 3. Could you describe your classmates?
 4. What did your classmates do after high school?
- b. **Talk to me about your home life while growing up.**

C.

Probes:

- i. Who raised you? Describe them in your own words? How did you get along?
- ii. How far did your parents go in school?
- iii. What do you think made them stop or continue?
- iv. How did this compare to your friends or people in your neighborhood?
- v. Did you parents/guardians do anything to help or prepare you for school?
 1. Have computer, test prep, subscriptions, summer programs, study groups.
- vi. What's the achievement profile of your family? Meaning, overall in your family, how far have they gone in school? What type of work do most of them do?

Fertility Aspirations

Now I want to hear your thoughts and perspectives on aspirations and desires for family size, pregnancy timing, and children. I want to ensure you that there are no right or wrong answers and that you have the right to refuse to answer any question.

1. Tell me about your aspirations for family size and pregnancy timing before your first pregnancy.

Probes:

- a. Did you have an ideal family size before your first pregnancy?
- b. When did you want to have children?
- c. If it changed from X to Y, what has changed that?
- d. Were there any outside influences on your aspirations? Family? Friends?

Now I want to hear a little about your personal experiences with pregnancy, particular the things that were going on in your life when you found out you were pregnant and your thoughts and feelings about your pregnancies.

Pregnancy and Birth

2. Tell me about each of your pregnancies, starting with the first one.

Probes:

- a. What was going on in your life?
 - b. When did you find out about your pregnancy?
 - c. Were you trying to get pregnant?
 - d. How did things change after finding out you were pregnant?
3. In your own words, how did you feel about your pregnancy?
 - a. What do you think influenced how you felt about your pregnancy?
 - i. Particular people? Life circumstances?

- b. What did your partner think of your pregnancy?
 - 1. Did this affect how you considered or felt about the pregnancy?
- 4. Did your thoughts about the pregnancy change? How?
- 5. Were there any health issue surrounding your pregnancy and/or the birth?

Now I want to hear about some of your thoughts on what influences how women feel about pregnancies.

- 6. Tell me about some of the things that may affect how a woman feels about her pregnancy when discovering a pregnancy.
 - Probes:
 - a. Some may say that there is a right time to have a pregnancy. Do you think that this is so?
 - b. What does it mean to want a pregnancy?
 - c. What makes a pregnancy planned or not planned?
 - d. What are unplanned pregnancies and who has them?
 - i. Who do you think have planned pregnancies?

We are approaching the latter third of the interview. I will now read you three vignettes about couples and their situations with pregnancy and would like to hear your thoughts on them.

Vignettes

Vignette #1:

Jan is a 22 – year old white female with no children who is in her last year of college. She is in a serious relationship with her boyfriend of two years, Steve, who is also 22-years old and in his last year of college. Jan and Steve are sexually active. Jan and Steve are using condoms every so often and no hormonal method. Jan realizes that she has missed her period and finds out through her doctor that she is pregnant.

I will ask you a series of questions about Jan and Steve:

- 1. Tell me your thoughts on Jan and Steve's situation.
- 2. Do you think that this is a typical situation for couples who are deciding about children?
- 3. Some would consider their pregnancy to be unplanned because Jan became pregnant while on the pill...do you agree or disagree?
- 4. What do you think are the most important factors to consider?
- 5. What impact does this pregnancy have on Jan and Steve?

Now, I will read the same vignette but with a few changes and I want you to answer the same questions.

- *Jan and Steve want to marry and have children soon after graduating college.*
-

Vignette #2:

Carla is a 33-year old female with no previous children. She is married to her husband, Gordon, of 5 years. They are middle-income and both work full-time. Carla and Gordon that they want at least one child some day but Gordon feels ambivalent about having children because he feels they are not in the “right place” at the moment. Carla is on the pill but often skips days. Carla has missed her period and goes to see her doctor after a few weeks. Her doctor lets her know that she is pregnant.

I will ask you a series of questions about Carla and Gordon:

1. Tell me your thoughts on Carla and Gordon’s situation.
2. Do you think that this is a typical situation for couples who are deciding about children?
3. Some would consider their pregnancy to be unplanned because Carla became pregnant while on the pill...do you agree or disagree?
4. What do you think are the most important factors to consider?
5. What impact do you think this pregnancy have on Carla and Gordon?

Now, I will read the same vignette but with a few changes and I want you to answer the same questions.

- *Carla is on the brink of a promotion and is worried a pregnancy could jeopardize this opportunity.*
- *Carla 45-years old with no previous children.*

Vignette #3

Darlene is a 25-year old mother of two small children. She has a serious boyfriend, Michael, with whom she has been living for six months. She works part-time as a temporary secretary for an agency and Michael works as a part-time coach and waiter. Darlene and Michael often use condoms or the pulling out method. Michael has expressed desire to have a child. Darlene has missed her period and takes a pregnancy test after a few weeks to discover that she is pregnant.

I will ask you a series of questions about Darlene and Michael:

1. Tell me your thoughts on Darlene and Michael situation.
2. Do you think that this is a typical situation for couples who are deciding about children?

3. Some would consider their pregnancy to be unplanned because Darlene became pregnant while on the pill...do you agree or disagree?
4. What do you think are the most important factors to consider?
5. What impact do you think this pregnancy have on Darlene and Michael?

Now, I will read the same vignette but with a few changes and I want you to answer the same questions.

- *Darlene and Michael are not serious and but Darlene desires another child.*

Demographic Questions

Please confirm your name

1. Please confirm your date of birth
2. How do you identify ethnically? Racially?
3. Where were you born?
4. Where do you currently live?
5. Are you married?
6. What is your occupation?
7. What's the highest level of education you've received?
8. Is there a car in your home? If so, how many? Was it bought new or used?
9. Do you rent or own the place where you are living?
10. Are you or somebody else the chief wage owner in your home?
11. What is (your, his, her) occupation? Position?
12. About how far did (you, him, her) go in school?

Appendix 4-B Recruitment Flyer

study on women's experiences with relationships, pregnancy,

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Appendix 4-C

Consent to Participate in a Research Study Pregnancy and Birth Experiences – Interviews

Is it okay with you if I tape record our conversation today? If that is not okay with you, I will use a pen and paper to take notes. [Is it okay for me to turn on the tape recorder now?]

First I want to give you some background on the project:

Statement of Research

I am a student at the University of Michigan's School of Public Health. I am currently studying women's experiences and perspectives on pregnancy and birth. As part of this project, I am interested about your thoughts, perspectives, and experiences about pregnancy and childbirth. I want to know what factors affect these experiences and perspectives.

Statement of privacy protection:

I will use the material from our conversation today to write my dissertation project and to get my degree from the University of Michigan; I hope that I will also be able to publish this material in a journal or book so that other people can learn about your experiences. In anything I write, I will not use your real name. I will also leave out or change any details that would allow people to identify you in order to ensure that your responses are anonymous and that your privacy is protected.

Statement of research activities:

Today I am going to ask you some questions about your decisions and experiences regarding planning for children, pregnancy, contraception, and your family background. You're free to stop the interview at any time. You do not have to answer all of these questions. If you feel uncomfortable answering any question let me know. Also, If here is anything that you would like to talk about that is not included in my questions, please let me know. The interview will last anywhere from 45 minutes to 2 hours, depending on what you want to talk about. You will be given 20 dollars for your participation.

The researcher has taken steps to minimize the risks of this study. Even so, you may still experience some risks related to your participation due to the sensitive nature of some questions, even when the researchers are careful to avoid them. These risks may include the following feelings of discomfort or psychological distress.

Here are some resources if you do feel or experience this:

Los Angeles County Department of Mental Health
1-800-854-7771

[DIDI HIRSCH COMMUNITY MENTAL HEALTH CENTER](#)
(310) 390-6612
4760 SEPULVEDA BLVD. CULVER CITY, CA 90203

[EXODUS RECOVERY INC](#)
(323) 789-6492
8401 SOUTH VERMONT AVE. LOS ANGELES, CA 90044

There is the possibility that I will contact you for an additional interview in the future (within 1 year). Is this okay?

If you have questions about this research, including questions about scheduling or your compensation for participating, you may contact **Akilah Wise at amwise@umich.edu /Phone: (734) 763-4552 or Arline Geronimus who is the faculty advisor arline@isr.umich.edu/Phone: (734) 763- 2460**

If you have questions about your rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher(s), please contact the University of Michigan Health Sciences and

Behavioral Sciences Institutional Review Board, 540 E Liberty St., Ste 202, Ann Arbor, MI 48104-2210, (734) 936-0933 or TOLL FREE 866.936.0933 irbhsbs@umich.edu.

Statement of consent:

Do you have any questions about the project or the interview process?

Now that you understand the research project and process, do you agree to participate?

Appendix 4-D

IRB Approval Letter



Health Sciences and Behavioral Sciences Institutional Review Board • 540 East Liberty Street, Suite 202, Ann Arbor, MI 48104-2210 • phone (734) 936-0933 • fax (734) 998-9171 • irhsbs@umich.edu

To: Ms. Akilah Wise

From:

Richard Redman

UDY DOCUMENTS:
You must use any date-stamped versions of recruitment materials and informed consent documents

Appendix 4-E

Open Coding to Focused Coding Scheme

1) Marriage

- i) Unnecessary
 - (a) “you don’t have to be married to have kids”
 - (b) Marriage unnecessary
- ii) Family Pressure
- iii) Better with marriage
- iv) Unsure about marriage

2) Partnership

- a) Unsupportive Partner
 - i) Unsupportive Partner
 - ii) Partner not emotionally supportive
 - iii) Non supportive partner
 - iv) Hesitant partner
- b) Supportive Partner
 - i) Importance of
 - ii) Supportive partner
- c) Relationship with partner
 - i) Casual relationship
 - ii) Stable relationship
 - iii) Relationship influence fertility
 - iv) Power dynamics
 - v) Sexism
- d) Partner as Parent
 - i) Readiness for Partner
 - ii) Partner as father
- e) Family Building with Partner
 - i) Planning is talking with partner
 - ii) Negotiating pregnancy w/ partner
 - (1) Not negotiating pregnancy with partner
 - iii) Shared decision

3) Pregnancy “Approach”

- a) Cognizant desire/Deliberate
 - i) “we were very deliberate and planned”
 - ii) “we were ready”
 - iii) trying to get pregnant
 - iv) hoping to get pregnant

- b) Open to Pregnancy
 - i) we'll see what happens
 - ii) not trying, not preventing
 - iii) "I wasn't tracking my ovulation"
 - iv) stopping the pill
- 4) Family Support for Pregnancy**
 - a) Supportive parents
 - b) Family support is important
 - c) Family encouraging children
 - d) Family as primary pregnancy support
- 5) Community Support for Pregnancy**
 - a) Community support
 - b) Supportive friends
- 6) Work and Pregnancy**
 - a) Work situation
 - i) Stable work before pregnancy
 - ii) Job transition
 - iii) Entry level work before pregnancy
 - b) Work and Fertility Choices
 - i) Lack of pregnancy support at work
 - ii) Work influencing fertility choices
 - iii) Is the timing good for work?
- 7) Affording Pregnancy**
 - a) Insurance support
 - i) Exercising choice in provider
 - b) Financially stable situation
 - i) Pregnant on welfare
- 8) Readiness**
 - a) Emotional readiness
 - b) Anxiety over readiness
- 9) Wrong time**
 - a) Planning during bad time
 - b) Later
 - i) Wanting pregnancy later
 - ii) Reasons for baby later
- 10) Delaying Pregnancy/Childbearing**
 - a) Waiting to have kids
 - b) "we need to have some things lined up"
 - i) timing affect perception of pregnancy?
 - ii) Negotiating timing with future
 - iii) is the timing good for work?

- c) Finish school first
- d) Aspirations for ideal family
- e) Age influencing timing
 - i) “Its time to decide”

11) Right Time

- a) Right time
- b) Times when its better
- c) Supportive time for pregnancy
- d) Nice time to have a kid
- e) Perfect timing

12) Pregnant Sooner

13) No “Right Time”

- a) “never a right time”
- b) God determines right time

14) Unplanned definitions

- a) Surprise pregnancy
 - i) “not according to plan”

15) Planning definitions

- a) Planning definitions
 - i) Charted periods
- b) Planning is talking with partner
- c) Planning is cognition
- d) Planning is more of a spectrum

16) Influencers of pregnancy reactions

- a) Upsetting pregnancy discovery
- b) Happy pregnancy discovery
- c) Sharing pregnancy news

17) Upsetting Pregnancy

- a) Regret from becoming pregnant
- b) Pregnancy disappointing self
- c) Pregnancy disappointing family
- d) Sad over pregnancy
- e) “I should’ve known better”
- f) stigmatized pregnancy
- g) stigma of Black pregnancy
- h) pregnant on welfare

18) Planning Attitudes

- a) Planning doesn’t matter
 - i) “I don’t think all pregnancies can be planned”
 - ii) hard to plan for children
 - iii) can’t plan a pregnancy

- b) Planning matters
 - i) Planning matters for children
 - ii) Planning is ensuring good environment
 - iii) Extreme planning
- c) Planning is stressful
- d) Planning bc of fertility difficulty

19) Wanting Pregnancy

- a) Definitions
 - i) Planning and wanting differ
 - ii) Wanting pregnancy defined
- b) Wanting pregnancy
 - i) Inspired to want a baby
 - ii) Prioritizing having children
 - iii) Wanted children
- c) Expectations
 - i) Expectation to want pregnancy
 - ii) Women should have kids

20) Ambivalence

- a) Unsure about wanting children
- b) Unsure about fertility future
- c) Unsure about pregnancy
- d) Causes for ambivalence
- e) Rationalizing/quelling fertility desires

21) Contraception

- a) Contraceptive use reflect ambivalence
 - i) Unprotected sex is intimate
- b) Judgmental about contraception

22) Fertility Challenges

- a) Trouble conceiving
- b) Infertility scare
- c) Restricted by bleeding
- d) Fear of miscarriage

23) Pregnancy Experience

- a) Pregnancy is special
- b) Pregnancy is validating body
 - i) Fear of birth
- c) Pregnancy is preparation
 - i) Preparing for body
 - ii) Pregnancy is preparation
- d) Rough pregnancy
 - i) Stressful pregnancy

- ii) Rough pregnancy
- e) Smooth pregnancy
 - i) Smooth pregnancy
 - ii) Enjoyed pregnancy

24) Abortion

- a) Considering abortion
 - i) Threatening abortion
- b) Abortion to avoid shame
 - i) Abortion to avoid shame
 - ii) Abortion to avoid mistake

25) Family Class Background

- a) Working class family
 - i) Working class family
 - ii) Non-professional parents
 - iii) High school educated parents
 - iv) First generation college family
- b) Professional/Educated Family
 - i) Occupationally successful family
 - ii) College educated parents
- c) Varied family background
 - i) Broad range family education

26) Household Dynamics

- a) Strict upbringing
 - i) Strict upbringing
 - ii) Strict household
 - iii) Religion in household
- b) Active Family
- c) Fun oriented home
- d) Stable early household
- e) Unstable early household
 - i) Stress in early household
 - ii) Tough childhood

27) Family Dynamics

28) Success Oriented Household

- a) Education
 - i) Family support to finish school
 - ii) Parents emphasized education
 - iii) Educationally supportive parents
- b) Involvement
 - i) Involved parents
 - ii) Parents supported talent

- iii) Parent as advocate
- iv) Parent instilled high expectations
- v) Parental guidance
- vi) Parent disciplined
- c) Not Success oriented
 - i) Basic parental school
 - ii) Little parental involvement

29) School Performance

- a) Good Student
 - i) Advanced student
 - ii) Good student
 - iii) School savvy
- b) Bad student
 - i) Bad student
 - ii) College dropout
 - iii) Didn't finish college
- c) Okay Student
- d) Extracurricular
 - i) Basic extracurricular
 - ii) High involvement extracurricular
- e) Social
 - i) School bullying
 - ii) Rebel
 - iii) Party girl
 - iv) Youth Peers

30) School Description

31) Success Drive

- a) Education/Learning
 - i) Driven by education
 - ii) Aspirations to be somebody
 - iii) Not wanting to fail
 - iv) Prioritizing learning
 - v) Strong drive to excel
- b) Driven to see the world
- c) Worked early in life

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