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Pathways to Parenthood in Social and Family Context: Decade in Review, 2020

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Abstract

Objective: This article reviews research from the past decade on patterns, trends, and differentials in the pathway to parenthood.

Background: Whether, and under what circumstances, people become parents has implications for individual identity, family relationships, the well-being of adults and children, and population growth and age structure. Understanding the factors that influence pathways to parenthood is central to the study of families and can inform policies aimed at changing childbearing behaviors.

Method: This review summarizes recent trends in fertility as well as research on the predictors and correlates of childbearing, with a focus on the United States and on research most relevant to family scholars. We document fertility differentials and prevailing explanations for variation across sub-groups and discuss alternative pathways to parenthood, such as adoption. The article suggests avenues for future research, outlines emerging theoretical developments, and concludes with a discussion of fertility policy.

Results: U.S. fertility has declined in recent years; whether fertility rates will increase is unclear. Elements of the broader social context such as the Great Recession and increasing economic inequality have impacted pathways to parenthood, and there is growing divergence in behaviors across social class. Scholars of childbearing have developed theories to better understand how childbearing is shaped by life course processes and social context.

Conclusion: Future research on the pathways to parenthood should continue to study group differentials, refine measurement and theories, and better integrate men and couples. Childbearing research is relevant for social policy, but ideological factors impact the application of research to policy.

Keywords

birth; fathers; fertility; mothers; reproductive health

Whether people have children, and the context in which they do so, varies across social, economic, and contextual characteristics. Childbearing decisions are closely tied to other life

course processes, like education, employment, and relationship formation, and the families in which children are raised have important implications for the well-being of individuals, children, and families. Moreover, although being a parent can be a source of identity and meaning, it also demands substantial time, money, and emotional investment. At the societal level, the birth rate influences population structure and labor force composition, drives demand for investment in child-focused institutions, and undergirds the development of child-related safety nets and public policies. Thus, understanding pathways into parenthood is important for understanding and supporting individual, family, and social processes.

This article reviews research on childbearing from the past decade. (We focus on research from 2007 onward because the previous *Decade in Review* article by Smock and Greenland (2010) covered the period up to 2007.) We begin with a descriptive overview of recent aggregate trends, situating these trends in longer-term shifts. The next section discusses variation across socioeconomic status and race-ethnicity, followed by a review of research on the Great Recession's influence on childbearing. We then discuss alternative pathways to parenthood, focusing on adoption and assisted reproductive technologies, before moving on to emerging theoretical developments and a discussion of pertinent social policies. Throughout the article, we note potential directions for future research. We primarily focus on the United States, although we reference other industrialized countries when relevant, and on women's pathways to parenthood, as research on men is less common for reasons we discuss below. Note that we follow demographic convention and use the term "fertility" to refer to actual childbearing rather than the ability to become pregnant.

Levels, Trends, and Patterns in Childbearing

In 2018, there were nearly 3.8 million births in the U.S. From 2007 to 2018, both the annual number of births and the general fertility rate (GFR; the number of births per 1,000 women aged 15–44) fell (Hamilton, Martin, Osterman, & Rossen, 2019). The total fertility rate (TFR) – the hypothetical number of children a woman would have over her lifetime given current age-specific fertility rates – also fell to 1.728, the lowest level seen since the 1970s and below the 2.1 level necessary to replace the population. Below-replacement fertility is prevalent among industrialized countries, with especially low birth rates found in East Asia and Southern and Eastern Europe, but compared to peer nations, the U.S. has historically had relatively high birth rates (Rindfuss, Choe, & Brauner-Otto, 2016). Although U.S. birth rates have generally been below replacement since the 1970s, the TFR has usually been only slightly below 2 and even briefly reached 2.1 in 2006 and 2007 before the current decline (Hamilton & Kirmeyer, 2017). Even as birth rates are falling, the number of children that Americans believe is ideal is growing. In 2007, 52% reported that the ideal family size is two children, with 34% reporting the ideal family size is three or more children (Saad, 2018). By 2018, 41% reported the ideal family size is three or more, only slightly lower than those reporting that the ideal is two children (47%) (*ibid*).

Despite overall falling birth rates, birth rates to women age 30 and over have risen; the decline has been concentrated among younger women (Hamilton et al., 2018). For instance, teen birth rates fell 58% since 2007 (*ibid*), though U.S. teen fertility is still higher than in peer nations (Sedgh, Finer, Bankole, Eilers, & Singh, 2015). The mean age at first birth

reached 26.8 years in 2017, an increase of 1.8 years since 2007 and 5.2 years since 1970 (Mathews & Hamilton, 2002; Martin et al., 2018). As individuals delay childbearing, many births will occur later in the life course, reflected in rising birth rates at older ages. Cross-sectional measures, such as the GFR and TFR, do not account for a pattern of “delay and recuperation” and thus underestimate completed childbearing at the end of the reproductive years. In 2018, women aged 40–44 had given birth to an average of 2.04 children, up from a low of 1.86 in 2006 (U. S. Census Bureau, 2017, 2019). Along with the rise in completed family size, the percentage of women with no children has also declined from 20% of women aged 40–44 in 2006 to 15% in 2018 (*ibid.*).

Delayed parenthood is part of the increasingly delayed transition to adulthood more generally (Settersten & Ray, 2010), but different adult roles are being delayed at different paces. Most relevant for fertility, recent cohorts are delaying marriage more than first births, resulting in a decoupling of marriage and childbearing. The median age at first birth has been lower than the median age at first marriage since the mid-1990s (Eickmeyer, Payne, Brown, & Manning, 2017), and about four in ten births occur to unmarried women, a proportion that has plateaued since the 2010 peak (Curtin, Ventura, & Martinez, 2014; Martin et al., 2018). (We discuss variation in these trends across sub-groups later.) The U.S. is on par with other industrialized countries in the proportion of births that are nonmarital, around 40% overall, though there is a wide range across other industrialized countries (Organisation for Economic Co-Operation and Development, 2016). More than half of births in parts of Northern and Eastern European are nonmarital; at the other extreme, five OECD countries (Korea, Japan, Turkey, Israel, and Greece) still have levels less than 10%. Rising levels of cohabitation – and births to cohabiting women – have played a major role in the rise of nonmarital childbearing throughout the industrialized world (Perelli-Harris et al., 2012); in the U.S., births to cohabiting women now comprise the majority of nonmarital births (Lichter, Sassler, & Turner, 2014; Wu, 2017).

As in other industrialized countries, unintended pregnancy and birth rates in the U.S. declined over the past decade (Bearak, Popinchalk, Alkema, & Sedgh, 2018). (Unintended pregnancies and births are those that occur earlier than desired (“mistimed”) or among those who want no (more) children (“unwanted”). Kost and Zolna (2019) note that these pregnancies and births would be more appropriately labeled as “undesired” rather than “unintended,” since the questions that measure them ask about what women wanted, not what they intended; the latter generally entails actions or plans. We follow the convention of most current research and policy literature and use the term “unintended.”). However, the U.S. decline was smaller than in other countries, and the U.S. has a higher absolute proportion of all births that are characterized as unintended. In 2011, 45% of pregnancies were unintended, down from 51% in 2008; this was the first decline in decades (Finer & Zolna, 2016). Roughly 60% of unintended pregnancies are carried to term (*ibid.*), and so about a third of all births are unintended (National Center for Health Statistics, 2017). By the end of the childbearing years, nearly half of all U.S. mothers have had at least one unintended birth (Guzzo, 2017a). Unintended fertility varies across socioeconomic and demographic characteristics; for instance, sexual minority women report a larger proportion of their births as unintended than heterosexual women (Everett, McCabe, & Hughes, 2017;

Hartnett, Lindley, & Walsemann, 2017). We discuss other differentials in unintended fertility, as well as potential explanations for these differentials, below.

Along with declines in unintended fertility, abortion rates have also fallen. Between 2008 and 2014, U.S. abortion rates fell by about 25%, with declines largest among teens (46%) (Jones & Jerman, 2017). The decrease in abortions is attributable both to less demand (fewer unintended pregnancies) and less supply as a result of the growing number of state-level restrictions limiting access to abortion (Foster, 2017; Jones, Ingerick, & Jerman, 2018). Such restrictions include requirements about physician admitting privileges, mandatory counseling, waiting periods, facility standards, and gestational limits. As of this writing (June 2019), six states have restricted abortions after six weeks, although it is unclear whether and when these laws will go into effect because they are being challenged in the courts. Conversely, a few states have passed laws affirming the right to abortion. We direct readers to the Guttmacher Institute (<https://www.guttmacher.org/united-states/abortion>) for up-to-date information on abortion laws and legal challenges. Abortion remains a common experience – an estimated one in four women will have an abortion at some point in her life – and the majority of women who have an abortion are already mothers (Jones & Jerman, 2017; Jerman, Jones, & Onda, 2016). Yet abortion remains highly stigmatized (Norris et al., 2011). Perhaps as a result, women underreport abortions in surveys, by a magnitude of about 50% when compared to reports from abortion providers (Lindberg & Scott, 2018; Tierney, 2019). As such, virtually no survey data allows for analyses of individual- and life-course predictors of abortion, an area ripe for future research and alternative approaches to data collection.

Socioeconomic Differences in Childbearing

In this section, we describe differences across socioeconomic status (SES) in fertility behaviors and summarize proposed explanations. We note social class differentials that have grown over the long term (and a few that have shrunk) but focus largely on the past decade. Following most research, we use education as our primary measure of SES. (For teens, we focus on parental education and other elements of family SES.) The largest differences in family behaviors are between women with and without a four-year college degree (Cherlin, 2014; Lundberg, Pollak, & Stearns, 2016). We label women with a four-year degree as “more educated” or “more advantaged” and women without a four-year degree as “less educated” or “disadvantaged” but also discuss other levels of education and other measures of SES where appropriate.

Socioeconomic differences exist across multiple measures of childbearing behavior. For instance, although the mean age at first birth is rising overall, it is higher for women with a college or postgraduate degree (ages 28 and 30, respectively) than for women with a high school degree or less (ages 25 and 24, respectively), and the educational age gap has grown over the past decade (Livingston, 2015a). Not only do less educated women experience earlier fertility, but the majority of their early births occur outside of marriage (Edin & Tach, 2012; Smith, Strohschein, & Crosnoe, 2018). Conversely, few births to college-educated women are nonmarital, and educational differences in the percentage of births to unmarried women have widened over the past decade (Wu, 2017). As with nonmarital births overall,

the majority of nonmarital births among less educated women occurred to cohabiting women (Gibson-Davis & Rackin, 2014), though many do not start cohabiting until after conception (Lichter, Sassler, & Turner, 2014; Lichter, Michelmores, Turner, & Sassler, 2016; Rackin & Gibson-Davis, 2012).

Births to disadvantaged women are also more likely to be unintended than births to advantaged women (Finer & Zolna, 2016), another gap that has widened substantially over the long term (Hayford & Guzzo, 2016). In 2011, over half of less educated women aged 40–44 had had at least one unintended birth compared to just over a third of college-educated women (Guzzo, 2017a). Further, having one unintended birth increases the risk of having another such birth (Guzzo & Hayford, 2011; Rajan et al., 2017), and despite some evidence of narrowing disparities in recent years (Finer & Zolna, 2016), unintended childbearing remains concentrated among the disadvantaged (Wildsmith, Guzzo, & Hayford, 2010). More research is needed to examine if socioeconomic gradients in unintended fertility are continuing to widen and, if so, why. Unintended fertility is linked to poorer individual, couple, and child well-being, including intimate partner violence (Yakubovich et al., 2018), union instability (Guzzo & Hayford, 2012a, 2014), and perceived and actual employment and financial outcomes (Kavanaugh, Kost, Frohwirth, Maddow-Zimet, & Gor, 2017). However, some of these negative associations are attributable to selection into unintended fertility, rather than causal impacts of the births (Lindberg, Maddow-Zimet, Kost, & Lincoln, 2015; Su, 2012). More work is needed to better disentangle selection and causal processes in the link between unintended fertility and well-being, perhaps using statistical techniques that are better able to reduce selection issues (such as propensity score matching and inverse probability of treatment weights) as well as longitudinal data, which may provide insights as to whether any effects of unintended fertility persist over the long term.

Many of the relationships in which early, nonmarital, and unintended births occur are unstable, especially if parents never marry (Edin & Tach, 2012; Gibson-Davis, Ananat, & Gassman-Pines, 2016; Rackin & Gibson-Davis, 2012; Musick & Michelmores, 2015). Dissolution, in turn, often means repartnering and thus increases the odds of experiencing multiple-partner, or multipartnered, fertility (MPF). Decisions about having a child with a new partner are influenced by whether both partners have children, the number and age of those children, and where those children live (Hohmann-Marriott, 2015; Holland & Thomson, 2011; Vanassche, Corijn, Matthijs, & Swicegood, 2015). MPF, of course, is not always deliberate, as unintended fertility with new partners is also common (Guzzo, 2017b). Estimates of MPF range widely due to difficulties and variation in measurement approaches (Guzzo, 2014; Guzzo & Dorius, 2016), but new efforts to better identify MPF in survey data, such as using a direct question (as in the latest Survey of Income and Program Participation, or SIPP), and the calls for a new nationally representative family survey that explicitly examines complex family behaviors (Manning, 2015) could provide key insights. Similarly, qualitative research has much to add here, with its ability to identify and focus on fertility and family behaviors that may appear only rarely in survey data (Burton & Hardaway, 2012; Reczek, 2014). Still, the one commonality that has emerged from existing research is that MPF is much more common among less advantaged individuals (Fomby & Osborne, 2017; Monte, 2019; Stykes & Guzzo, 2019; Thomson, Lappegård, Carlson, Evans, & Gray, 2014).

Women with less education have more children, on average, than more-educated women, but differences are small. In 2018, completed family size among those aged 40–44 was highest among women without a high school degree, at 2.7 children (U.S. Census Bureau, 2019). Among those with at least a high school degree, completed family size was lower and within a fairly narrow range – 2.1 among those with only a high school degree, 1.9 among those with a four-year college degree, and 1.8 among those with a post-graduate degree (*ibid.*). Unlike differences in timing, marital status, and intendedness, differences in completed family size and childlessness have narrowed over time, as disadvantaged women are increasingly likely to be childless and to have fewer children whereas advantaged women have become more likely to become mothers and to have more children (Hayford, 2013; Livingston, 2015b). Future research should explore how shifts in the timing and context of births across social class have worked in different ways to produce increasingly similar completed family sizes; one avenue of research that has been relatively unexplored is how higher-parity fertility behaviors, such as birth spacing and the age at which childbearing is completed, may vary by education.

Explanations for Socioeconomic Differences in Fertility Behaviors

In sum, in the U.S. less advantaged women start childbearing earlier, on average, than more advantaged women, and their births are often unintended and nonmarital. These socioeconomic differences in the context of childbearing have been growing since the 1970s (Hayford & Guzzo, 2016; Hayford, Stykes, & Guzzo, 2014). Disadvantaged women are more likely to be mothers and have more children, on average, than more advantaged women, but these differences are smaller and have been shrinking (Hayford, 2013; Livingston, 2018). Explanations for socioeconomic differences have focused both on understanding why disadvantaged women have early and unintended births and on understanding why advantaged women postpone, and more often forego, childbearing.

Differences in desires and values about childbearing do not appear to drive socioeconomic differentials in behavior. Early in the life course, desired family size is similar for women across levels of SES (Morgan & Rackin, 2010; Musick, England, Edgington, & Kangas, 2009). Motherhood is an important – and central – component of women’s identity in the contemporary U.S. (McQuillan, Greil, Shreffler, & Tichenor, 2008), and this importance does not vary by education (Tichenor, McQuillan, Greil, Bedrous, & Clark, 2017). Higher levels of childlessness and smaller families among more educated women, then, usually result from a series of postponements of parenthood and revisions of earlier fertility expectations (Gemmill, 2019; Hayford, 2009; Rybinski & Morgan, 2019). Based on comparisons between early fertility goals and completed childbearing, college-educated women are more likely than other groups to “underachieve” their earlier fertility goals (Morgan & Rackin, 2010).

At the start of the reproductive years, there are strong norms against early childbearing (Mollborn, 2009, 2010, 2017; Mollborn & Sennott, 2015; Sennott & Mollborn, 2011). Women from disadvantaged backgrounds are well aware of these norms, and they express a preference for being stably partnered, if not married, while raising children (Bute & Jensen, 2010; James-Hawkins & Sennott, 2015; Jensen & Bute, 2010; Mollborn, 2017; Rackin &

Gibson-Davis, 2017). Few young adult women, of any background, explicitly want a child in the near future (Weitzman, Barber, Kusunoki, & England, 2017). But there are intervening factors that affect the salience of norms and the ability to adhere to them, particularly for disadvantaged individuals. For instance, socioeconomic differentials in contraceptive use (including method choice and consistency of use) are an important proximate cause of disparities in early and unintended fertility. Relative to their more advantaged peers, less advantaged women have lower levels of contraceptive knowledge; greater discomfort with, and distrust of, contraception and family planning providers; and less access to high-quality family planning services (Bell, Edin, Wood, & Mondé, 2018; Frost, Lindberg, & Finer, 2012). Psychosocial factors also contribute to socioeconomic differences in contraceptive use. Efficacy, according to England (2016), refers to the belief that one can have an effect on one's future, combined with a sufficient level of self-regulation (the ability to make oneself do something that is onerous in the short term but serves a long-term goal). Efficacy can facilitate effective contraception in the face of partners who exert pressures not to contracept (especially with condoms), the need to adhere to contraceptive regimens (like taking the pill every day), and drug/alcohol use that may impair decision-making (England et al., 2016). Advantaged young adults seem to have high levels of efficacy, perhaps due to greater resources and stability during childhood or the parenting styles typical of the middle and upper classes (Edin, England, Shafer, & Reed, 2007; England, 2016; England, Caudillo, Littlejohn, Bass, & Reed, 2016a; Reed, England, Littlejohn, Bass, & Caudillo, 2014). In contrast, a substantial minority of less advantaged young women feel a sense of fatalism when trying to control fertility via contraception (Borrero et al., 2015; Jones, Frohwirth, & Blades, 2016).

Less advantaged women may also experience a disconnect between societal norms and their own perceptions of how childbearing would fit into their lives. For instance, when they anticipate early parenthood, they are less likely to attend college (Raley, Kim, & Daniels, 2012). Even among those who do not want a child, differences in the perceived consequences of childbearing predict reproductive behavior over the short and long term (Guzzo, Hayford, & Lang, 2019; Hayford, Guzzo, Kusunoki, & Barber, 2016). Less advantaged women more often report ambivalence about childbearing (Higgins, Popkin, & Santelli, 2012), increasing the risk of pregnancy (Miller, Barber, & Gatny, 2013), and some women respond positively to an unintended birth (Aiken, Dillaway, & Mevs-Korff, 2015; Hartnett, 2012). There may also be benefits to early childbearing that are particularly salient for disadvantaged women, as an unintended birth can provide meaning and purpose (Askelson, Losch, Thomas, & Reynolds, 2015; Edin & Kefalas, 2005; Kavanaugh et al., 2017).

These findings have led to suggestions for other ways to measure women's desires, intentions, and plans for childbearing at both the individual and aggregate levels (e.g., Finer, Lindberg, & Desai, 2018; Kost & Zolna, 2019). It is not clear whether current approaches over- or understate the clarity of intentions; a recent mixed-methods study shows that ambivalence may be overestimated with certain survey measurement approaches (Gómez, Arteaga, Villaseñor, Arcara, & Freihart, 2019). Understanding fertility intentions is important for policies and programs as well as scholarly research (Aiken, Borrero, Callegari, & Dehlendorf, 2016; Finer, Lindberg, & Desai, 2018). For instance, public health

efforts based on reducing unintended fertility assume women hold clear and consistent goals about when and under what circumstances they would like to have children. Women who hold such goals would benefit from increased provision and affordability of long-acting reversible contraceptives (LARCs) such as intrauterine devices (IUDs) and implants, but women who are less clear about their fertility goals are less likely to want to adopt such long-term methods (Higgins, 2017). Thus, one-size-fits-all approaches based on a planning paradigm will not meet the needs of all women (Aiken et al., 2016). Future research should continue to explore new ways of conceptualizing and measuring childbearing intentions and desires (a point we return to in the section on theoretical advances).

More advantaged women, conversely, may indeed have strong and consistent goals about the appropriate timing and context for childbearing because of their ability to more confidently predict their future trajectories as well as the greater opportunities they have to find identity and meaning outside of motherhood. In the workplace, virtually all parents experience work-family conflict, role incompatibility, and opportunity costs, prompting many women to leave the workforce (Herr & Wolfram, 2012; Stone, 2008, MS6794, 2020). Mothers who stay in or return to the workforce are paid less, and tend to have more limited career trajectories, than childless women (Budig & Hodges, 2010; England, Bearak, Budig, & Hodges, 2016; Kahn, Garcia-Mangano, & Bianchi, 2014). But more advantaged women may be better able to offset work-family conflict; it can be reduced by outsourcing many childrearing and household tasks (which is costly) and by those in a career stage that provides sufficient power and status to negotiate more favorable working conditions. Women in professional jobs – the types of jobs well-educated women tend to have – often report postponing fertility (Shreffler, 2017), likely because they are on a career trajectory in which they can, in fact, anticipate better pay and more security in the future. Thus, more educated women may be better able to enact preferences about combining work and childbearing. Similarly, the majority of Americans believe it is preferable to raise children within marriage (Pew Research Center, 2010), but educational differences in marriage formation and stability mean college-educated individuals have a better chance of achieving their preferences by waiting to have children. For some women, delays lead to finding identity in rewarding careers and personal lives, and they choose to remain childless (or childfree or childless-by-choice, the preferred terms for many) (Blackstone & Stewart, 2012; Kelly, 2009); see MS6759 (2020) for an in-depth discussion of childlessness and well-being.

Race-Ethnic and Nativity Differentials in Childbearing

In 2014, Sweeney and Raley published a comprehensive review of race-ethnic fertility differentials in the U.S. We briefly summarize current differentials and recent additions to the research literature. Overall, there are small, and narrowing, differences between Asian, non-Hispanic Black, and non-Hispanic White women in the TFR (1.60, 1.82, and 1.67, respectively, in 2017), completed fertility (1.72, 2.15, and 1.96, respectively, in 2016), and childlessness (12%, 16%, and 16%, respectively, in 2018) (Martin et al., 2018; U.S. Census Bureau, 2017). (For brevity, we refer to “non-Hispanic Whites” and “non-Hispanic Blacks” as “Whites” and “Blacks” hereafter.) Hispanic women as a group have higher overall fertility (completed fertility of 2.48 in 2016) than non-Hispanic women, but this categorization obscures differences between native-born (2.15) and foreign-born Hispanics (2.67) (authors’

calculations using 2016 Current Population Survey data). Estimating fertility among foreign-born Hispanics is difficult because immigration typically occurs during the prime childbearing years and may disrupt the timing of births; thus, estimates based on experiences in the U.S. may provide a distorted picture of life course processes (Parrado, 2011; Parrado & Flippen, 2012). Black and Hispanic women are more likely to experience teen, unintended, and nonmarital fertility than White and Asian women (though rates of teen and unintended pregnancy have fallen across all groups). Among those with nonmarital births, White and Hispanic women have significantly more of their births within cohabiting unions than other race-ethnic groups (Lichter, 2012).

Fertility differences across race-ethnicity can be partially explained by socioeconomic differentials (e.g., Guzzo, Nash, Manning, Longmore, & Giordano, 2015; Su & Addo, 2018). Still, disparities remain, and a growing body of work has sought to better understand the psychosocial factors that underlie differentials as well as identify the ways that reproduction continues to be stratified across race (Colen, 1986). For instance, after accounting for socioeconomic differences, Black women actually have less positive attitudes toward early and unintended childbearing than White women, though they perceive more positive consequences if such pregnancies occur (Barber, Yarger, & Gatny, 2015; Hayford & Guzzo, 2013). And although Black women are just as likely as White women to form and express preferences about the number and timing of childbearing (Barber, Guzzo, Kusunoki, Hayford, & Miller, 2019), they feel less confident about being able to control their own reproductive experiences (Barber, Yarger, & Gatny, 2015; Kusunoki, Barber, Ela, & Bucek, 2016). There are also some unique concerns about contraception that could affect fertility among Black women. Black women report more worries about the side effects of hormonal contraceptives than White women (Guzzo & Hayford, 2012b), yet condom use is difficult to maintain in long-term relationships because it signifies distrust or lack of commitment, at least among disadvantaged Black men and women (Bell, Edin, Wood, & Mondé, 2018).

As with Black-White differences, differences in fertility between White and Hispanic women cannot be fully explained by socioeconomic or attitudinal factors (Guzzo et al., 2015; Hayford & Guzzo, 2013). Foreign-born Hispanic women have somewhat more pronatalist views than either White or native-born Hispanic women (Hartnett & Parrado, 2012), with childbearing differences declining across generations (Parrado & Morgan, 2008). Some research suggests that Hispanic women are also more ambivalent about avoiding a pregnancy than other race-ethnic groups (Aiken & Potter, 2013; Aiken, Dillaway, & Mevs-Korff, 2015; Hartnett, 2012), but positive feelings in response to an unintended pregnancy exist alongside complex – and often negative – feelings about partnerships and the meaning of motherhood, especially for foreign-born women (Aiken & Trussell, 2017). Moreover, although one might expect that higher fertility and more ambivalence about unintended fertility stem from higher Catholicism among Hispanics compared to other groups, this does not seem to be the case (Westoff & Marshall, 2010).

Explicitly examining the ways that reproduction is stratified by race has also illuminated key ways that minority women's sexual, contraceptive, and childbearing experiences differ from White women. For instance, compared to White women, Black women experience more barriers to accessing contraception (Barber et al., In press A), and Black and Hispanic

women are more likely to use injectable hormonal methods but less likely to use the Pill (Littlejohn, 2012). Black women are more likely to undergo surgical sterilization than White and Hispanic women, but Hispanic women are more likely to report sterilization regret (Shreffler McQuillan, Greil, & Johnson, 2015). At the same time, Black and Hispanic women with fertility issues are less likely to receive infertility services than White women, even when accounting for income, education, and insurance (Greil et al., 2011). Perhaps the strongest evidence of stratified reproduction, however, is the vast race-ethnic disparities in maternal morbidity and mortality: Black mothers die at a rate three to four times the rate of White mothers, with elevated rates among other non-White groups (Center for Disease Control, 2018). (Overall levels of maternal mortality and morbidity are substantially higher in the U.S. than in other wealthy countries (Gunja, Tikkanen, Seervai, & Collins, 2018).) The high levels of maternal morbidity and mortality among Black women in the U.S. – and awareness of the disparities – could have implications for Black women’s childbearing decisions and their experiences of pregnancy and motherhood, an understudied area that merits attention.

More research is needed to understand differences in fertility behaviors and outcomes across – and within – race-ethnic groups and immigrant generations, including consideration of variation by country of origin among Hispanics (Ayala, 2017), fertility across and within Asian, American Indian and Alaskan Native, and other groups, and childbearing among interracial couples (Choi & Goldberg, 2018). Research on race-ethnic disparities in childbearing would also benefit from a more explicitly intersectional approach that considers how race-ethnic inequality interacts with other dimensions of social inequality, including socioeconomic status, nativity, gender, and sexual orientation. The limited work that is explicitly intersectional has revealed some interesting distinctions. For example, Dow (2015, 2016, 2018) highlights the way Black middle- and upper-class women articulate an ideology of “integrated mothering” that is distinct from hegemonic mothering ideologies shared by White mothers and reactive to stereotypes of low-income mothers. Dehlendorf and colleagues (2010) report that providers were more likely to recommend IUDs to both poor women of color and advantaged White women than poor White women. Thus, an important area for future research is to not only continue to investigate race-ethnic differences in reproductive behavior but explicitly consider differences within and across other marginalized identities.

The Great Recession and Fertility

Attention to macroeconomic determinants of childbearing behavior have long been important in fertility research, but they have taken on new prominence since the Great Recession (Sobokta, Skirbekk, & Philipov, 2011). In general, fertility falls during a poor economy, and births did indeed decline during the Great Recession (Cherlin, Cumberworth, Morgan, & Wimer, 2013), an association seen across different economic and fertility indicators as well as different levels of aggregation (Cherlin, Ribar, & Yasutake, 2016; Comolli, 2017; Schneider, 2015, 2017; Schneider & Gemmill, 2016). Both intended and unintended pregnancy rates declined during the Recession (Percheski & Kimbro, 2017; Su, 2019); recall that abortion also fell during this period (Jones & Jerman, 2017). Although there were modest declines in sexual frequency over the past few years (Twenge, Sherman,

& Wells, 2017), improved contraceptive behavior was the main mechanism behind lower pregnancy rates (Lindberg, Santelli, & Desai, 2018; Schneider, 2017; Schneider & Gemmill, 2016).

The effects of the Great Recession were not evenly distributed. Economic conditions affected younger women's fertility most strongly (Cherlin, Cumberworth, Morgan, & Wimer, 2013); young women can postpone childbearing, but older women have less flexibility to do so, which may explain why birth rates fell for all but the oldest age groups. The fertility rate of less advantaged women fell much more steeply (though remained higher) than their more advantaged counterparts (Cherlin, Cumberworth, Morgan, & Wimer, 2013; Schneider & Hastings, 2015). There were also race-ethnic differences – the fertility decline was smallest among Whites, modest among Blacks, and quite large among Hispanics (Livingston, 2011). Cherlin and colleagues (2013) suggest that the decline among Hispanics was largely due to compositional changes, with fewer recent immigrants arriving during or after the Great Recession.

Macroeconomic theories present fertility as procyclical, with decreases during economic downturns followed by increases as the economy recovers. The expected increase since the end of the Recession has not taken place, perhaps because the economic recovery has been decidedly uneven and concentrated among the most well-off (Kochhar, 2018), with ongoing shifts in the labor market, specifically the loss of manufacturing and goods-producing businesses, continuing to depress fertility rates (Seltzer, In press). Not surprisingly, many young men and women continue to feel as if they are in a precarious financial position, which affects their fertility plans and behaviors. For instance, the strains that individuals and couples experience in establishing financial security weaken expectations to have a child in the near future (Brauner-Otto & Geist, 2018; Geist & Brauner-Otto, 2017; Hanappi & Buber-Ennsner, 2018). Young adults feel priced out of buying a home (Xu, Johnson, Bartholomae, O'Neill, & Gutter, 2015), and housing factors (ownership, costs, space) have been linked to childbearing decisions (see Zavisca & Gerber, 2016 for a short review). Student loan debts loom large among young adults, with higher levels of debt associated with delayed childbearing (Min & Taylor, 2018; Nau, Dwyer, & Hodson, 2016). The nature of employment has changed, making income less stable and predictable; income volatility has also been linked to lower birth rates (Mansour, 2018).

In an era of increasing economic inequality and precariousness – accompanied by decreasing social support for public goods (such as education) and weakening social safety nets – both parents and parents-to-be seem to face increasing pressures about what children will need for future economic stability, if not mobility (Calarco, 2018; Kohut, 2014). Even more advantaged groups seem to be concerned about their children's future prospects, as inequality in parental spending on children increased during the Great Recession (Lunn & Kornrich, 2018; Schneider, Hastings, & LaBriola, 2018). As a result of this pressure, young adults may delay or limit childbearing as they try to establish a sense of economic security and amass sufficient resources. As the economy continues to improve, it is unclear whether fertility will rebound. Unlike other countries, the U.S. provides little social support for families, with the burdens of childbearing and childrearing almost entirely borne by individuals (Collins, 2019). This individualization of the costs of parenting, combined with

other indicators of the burdens among young adults (like the cost of housing and the student loan debt crisis), suggests that Americans of childbearing age may be unable to achieve their fertility desires and intentions. Much more research is needed to study the short-term and long-term impact of the Great Recession and recovery on fertility behaviors and to more broadly consider how both aggregate and individual experiences of economic uncertainty influence fertility. Lower and delayed fertility in response to uncertainty may also portend broader economic problems. In a study of past recessions, Buckles, Hungerman, and Lugauer (2018) note that fertility falls early and quickly during the downturns that precede recessions, suggesting that continued low birth rates may be indicative of an impending economic crisis.

Alternative Pathways to Parenthood

Adoption and medical treatments for infertility can provide alternative pathways to parenthood for those unable to have children through heterosexual sex, including different-gender couples who have difficulties conceiving or carrying a pregnancy to term, same-gender couples, and unpartnered people seeking to become parents. These experiences are much less common experiences than conception through heterosexual sex but are important for understanding the process of becoming a parent and social meanings of family. Data compiled from state public health offices, child welfare systems, and vital statistics suggest there were about 76,000 adoptions of unrelated children in 2014, compared to nearly four million births (Hamilton, Martin, Osterman, Curtin & Mathews, 2015; Jones & Placek, 2017). In 2015, less than 2% of all births resulted from assisted reproductive technologies (ART), i.e., treatments that involve handling eggs or embryos outside a woman's body, such as in-vitro fertilization (IVF) (Sunderam et al., 2018). Other medical treatments (e.g., drugs to stimulate ovulation, intrauterine insemination, interventions to prevent miscarriage) are more common, but still, less than half of women age 25–44 who ever experienced difficulty conceiving or carrying a child to term ever used any medical services related to fertility (Chandra, Copen, & Stephen, 2014). Thus, unlike our discussion above, we pay limited attention to population levels and differences here and do not attempt a comprehensive review of research on adoption or treatments for infertility. Instead, we review research that seeks to understand the meanings people attach to the process of becoming a parent and how these meanings are shaped by institutional structures and broader systems of stratification. As such, we highlight work on adoption and ART. For those interested in the broader range of medical treatments for infertility, we recommend the thorough review by Johnson and colleagues (2018).

Adoption

Adoption of unrelated children occurs through private domestic adoptions, through public agencies (which deal with the adoption of foster children), or through international adoption. Adoption of related children – for example, legal adoption of stepchildren or grandchildren – is also common in the U.S.; we focus here on unrelated adoption. The majority of unrelated adoptions occur domestically through public agencies (Jones & Placek, 2017); international adoptions have declined substantially over the past decade (after peaking in 2005) due to increased regulation of intercountry adoptions (Shuman & Flango, 2013). Estimates of the

total number of adoptions suggest unrelated adoptions overall have declined steadily since the early 1970s (Riley & Van Vleet, 2011).

As Raleigh (2016a) discusses, private domestic adoption, adoption from foster care, and international adoption constitute three distinct “marketplaces” for children. These processes are governed by different regulations, and people seeking to adopt sort themselves into these systems based on preferences as well as constraints imposed by the system. For different-gender couples, adoption is usually a second choice after attempts to conceive and give birth are unsuccessful (Malm & Welti, 2010; Park & Hill, 2014; Slauson-Blevins & Park, 2016). Most prospective adoptive parents prefer infants over older children, and parents have strong preferences to adopt a same-race child (Baccara, Collard-Wexler, Felli, & Yariv, 2014; Ishizawa & Kubo, 2014). Further, studies of both adoptive parents and adoption agencies find that some White parents are more open to adopting multiracial children or children from Asia, Latin America, or Africa than to adopting African-American children (Raleigh, 2016b; Sweeney, 2013). It is generally faster, easier to fulfill preferences about children’s age or race, and more feasible to have a closed adoption through private adoption (domestic or international) than through adoption from a public agency. However, private adoption is substantially more expensive than adoption from foster care, often precluding less advantaged individuals from fulfilling their preferences. Access to adoption is also stratified along other dimensions, such as the sexual orientation or marital status of prospective parents. For instance, unmarried individuals, LGBTQ and non-binary individuals, and same-gender couples may face discrimination and legal obstacles (Goldberg, Downing, & Moyer, 2012; Goldberg, Moyer, Kinkler, & Richardson, 2012), though some research also suggests that gay couples are sometimes preferred by birth mothers (Goldberg, 2012). Given these barriers, same-gender couples and single parents seem to prefer biological parenthood when possible (Blake et al., 2017; Goldberg & Scheib, 2015).

Assisted Reproductive Technologies

The use of ART remains rare, though it has increased over time (Wright, Chang, Jeng, & Macaluso, 2008). In part, low levels of utilization reflect barriers to accessing services. Medical facilities providing ART are unevenly distributed geographically and entail multiple visits, requiring flexible schedules and large time commitments (Ethics Committee of the ASRM, 2015). A single cycle of IVF has an average cost between \$8,000 and \$15,000 (Smith et al., 2011), with additional costs when using donor eggs, donor sperm, or gestational surrogates. As of 2018, no state Medicaid plans cover infertility treatments (Walls, Gifford, Ranji, Salganicoff, & Gomez, 2016), nor do many private insurance plans, and only 15 states had laws that required private insurance companies to either *cover* treatments or *offer* coverage for treatments (National Conference of State Legislatures, 2018). The Affordable Care Act (ACA) does not include infertility care as an essential health benefit and so has not expanded access to treatments (Ethics Committee of the ASRM, 2015), though state mandates have increased utilization of infertility treatment, primarily among those with private health insurance (Bitler & Schmidt, 2012). Like adoption, access to ART is mediated by both formal and informal processes that welcome some people more than others. Although most fertility clinics accept single women and same-gender couples (and in some states are required by law to do so), clinics vary widely in

the language used on their websites and marketing materials and in the way staff interact with potential clients (Johnson 2011, 2012). Even an implicit presentation of fertility treatments as aimed toward married different-gender couples can serve as a signal to single women, LGBTQ and non-binary individuals, and same-gender couples that they are not welcome.

ART separates the processes of fertilization and gestation and can involve multiple people via donor eggs, donor sperm, and/or a gestational surrogate. A growing literature examines how medical interventions in the pathway to parenthood shape the development of parenting identities and relationships between partners. For example, among mothers who conceived using donor sperm, the ways that women think about their connection to their child and their relationship to the sperm donor varies depending on gestational parenthood and on the gender of their partner (Hertz & Nelson, 2018; Nelson & Hertz, 2017). In a study of gay fathers raising children born through gestational surrogacy, fathers were more likely to develop and maintain relationships with surrogates than with egg donors (Blake et al., 2016). Although few sperm donors have relationships with recipients of their sperm, sperm donors think of themselves as fathers and imagine their donated sperm as “children” (Almeling, 2011). In contrast, egg donors – despite their more intensive donation process and their typically more frequent contact with the people receiving their eggs – do not think of themselves as mothers (*ibid.*). The formation of these parenting identities is influenced by the institutional practices of clinics and donation services as well as by social understandings of gender and parenthood (Johnson, 2013).

ART using frozen eggs can also disrupt temporal processes of parenthood. To date, egg-freezing is rare – there were fewer than 50,000 egg-freezing cycles begun in 2015 (Sunderam et al., 2018). Services are expensive and seldom covered by insurance, and the chances of a viable embryo from a frozen egg are low. Still, “social” egg-freezing is increasingly marketed to well-educated women without fertility problems as a way of stopping the biological clock (Barbey, 2017; Campo-Engelstein et al., 2018). Some single women turn to egg-freezing to separate pressures to have a child by a certain age from the search for a romantic partner (Brown & Patrick, 2018). Egg-freezing services, and the way they are marketed and presented in the popular press, illustrate and reinforce social definitions of parenthood that privilege biological relatedness but dictate the expected context of becoming a parent – within a stable romantic partnership, after reaching a certain career stage – and emphasize intensive motherhood (Myers, 2017).

Like adoption, ART and egg-freezing are expensive, with the clientele largely comprised of more advantaged individuals. Research on these processes has typically focused on advantaged people, with a few notable exceptions (Bell, 2009, 2010, 2014). Further attention to the ways that less advantaged men and women deal with infertility, and the barriers to accessing services, is needed. Additionally, the legal and social landscape LGBTQ and non-binary individuals face has changed dramatically over the past decade, which means that the pathway to parenthood (and reproductive rights and behaviors more broadly) among these groups has also changed (see MS6668 (2020) for an extensive review). There is also growing recognition of the ways that LGBTQ and gender identity intersect with other marginalized identities. Thus, much more work is needed to investigate fertility and related

experiences among marginalized groups. Qualitative research is well-suited for identifying and engaging deeply with the issues these groups face, but targeted surveys, such as the National Survey of Adoptive Parents or the National Survey of Fertility Barriers, can also provide valuable information about the distribution of experiences in the population.

Emerging Areas of Study

Over the last decade, there have been new developments both in theoretical approaches to understanding pathways to parenthood and in the topics studied by family scholars of fertility. We briefly summarize some of the most influential developments.

Theories of Childbearing

Economic theories (including rational choice approaches to decision-making about childbearing) and social-psychological theories (such as the Theory of Planned Behavior and the Traits-Desires-Intentions-Behavior framework) continue to be important influences in research on childbearing. (Brehm & Schneider (2019) provide a clear overview of existing theories, highlighting both strengths and areas for future development.) These theories are primarily focused on individual decision-making. Although they can incorporate elements of social context – for example, applications of economic theories have highlighted the importance of local economic conditions, as in the research cited above on the Great Recession, and the Theory of Planned Behavior includes normative context as an influence on individual intentions – their primary unit of analysis is the individual. Over the past decade, scholars of childbearing have worked to more explicitly address the ways that social context shapes childbearing. Researchers have expanded the ways of measuring and modeling social context within the framework of existing individual-level theories (see Testa, Sobotka, & Morgan (2011) for an overview of promising approaches.) Theories that center social influences on childbearing, such as norms-based approaches (e.g., Compernelle, 2017; Mollborn, 2009, 2010, 2017) and social network analysis (Balbo & Barban, 2014; Bernardi & Klärner, 2014; Lois & Becker, 2014), have also come into wider use.

In 2011, Jennifer Johnson-Hanks, Christine A. Bachrach, S. Philip Morgan, and Hans-Peter Kohler published *Understanding Family Change and Variation*, in which they presented a new conceptual framework they called the “theory of conjunctural action” (TCA). The starting point of TCA is that key demographic processes, or “vital events”, are the product of social action and situated in a social structure. Social structure, in turn (broadly defined as “the recurrent patterning of daily life” (Johnson-Hanks et al. 2011: 2)), is made up of both schematic elements (e.g., ideas, values, beliefs, and patterns of thinking) and material elements (e.g., objects, behaviors, and institutional structures like laws and regulations) that interact and mutually reinforce each other. According to TCA, events are the results of *conjunctures*, or short-term situations that demand a decision or action, such as an unintended pregnancy, a job offer, or a fight with a spouse. People draw on salient aspects of social structure, both schemas and material elements, to interpret a conjuncture – the nature of the situation, the decision required, and the possible actions – and to choose among possible paths and resolutions. TCA was developed as a way of understanding family

behavior broadly, but many of the initial applications were to fertility intentions and behavior, and it has been used to study religious influences on fertility (Marshall & Shepherd, 2018; Pearce & Davis, 2016), work-family conflict and fertility intentions (Hanappi, Ryser, & Bernardi, 2016), and contraceptive technology (Gomez, Mann, & Torres 2018), among other topics. Overall, TCA provides a structured way to integrate beliefs, values, and identity into the study of childbearing and thus could be a point of contact between more demographically-oriented fertility research and the sociology of reproduction (see Almeling (2015) for a thorough review).

Virtually all theories of childbearing in wealthy countries consider fertility intentions as central. Where contraception is widely available, childbearing is assumed to be the product of deliberate decision-making, and theories seek to understand what drives these decisions. But there are high levels of inconsistency between reported intentions and reproductive behavior – both unintended births and unfulfilled intentions are common (Morgan & Rackin, 2010). Increasingly over the past decade, researchers have considered whether some of this inconsistency is attributable to problems with the way that fertility intentions are conceptualized and measured, especially on surveys, as noted in the above discussion on ambivalence. This approach has spurred new theoretical frameworks for understanding how intentions are formed and enacted. Bachrach and Morgan (2013) extended the TCA specifically to fertility, proposing a cognitive-social model of fertility intentions that posits that both consciously formed intentions and more diffuse mental orientations toward childbearing and reproduction that may shape sexual and contraceptive behavior. They argue that explicit intentions as measured by social surveys exist alongside emotional associations, mental models, and cultural schemas that also shape reproductive behaviors. Similarly, Ní Bhrolcháin and Beaujouan's (2019) constructive model of fertility intentions posits that many people, especially those who are not yet at a life course stage where they see childbearing as appropriate, do not have consciously formulated plans for childbearing. When these people are asked survey questions about intentions, they construct responses to these questions that may not reflect the full dimensions of their orientation toward future parenthood. Sennott and Yeatman (2018) propose a model of childbearing ambivalence as a life course stage, describing how uncertain or mixed intentions stem from particular combinations of roles and life course transitions.

Another important theoretical development has been the increased recognition of childbearing as a life course process. Much of the research literature analyzes births as isolated events or focuses on the transition to parenthood, yet the conditions and context in which any one contraceptive decision, conception, or birth occurs are almost certainly linked to prior and subsequent reproductive experiences. For instance, having one unintended birth increases the risk of another unintended birth (Guzzo & Hayford, 2011; Rajan et al., 2018), and a “pregnancy scare” often leads to less effective contraceptive use (Gatny, Kusunoki, & Barber, 2018). Cross-sectional snapshots of fertility desires and intentions also miss their dynamic nature, as views on childbearing shift over the life course, by relationship status, and across parity (Bhrolcháin & Beaujouan, 2011, 2019; Gemmill, 2019; Jones, 2017; Shreffler, Greil, Mitchell, & McQuillan, 2015). Thus, we would recommend that future research conceptualize and analyze “reproductive careers,” or sequences of births and related reproductive events (Johnson, Greil, McQuillan, & Shreffler, 2018) to the extent

possible, given the need for full birth histories, and when appropriate for the research question. The application of emerging analytical techniques, such as sequence analysis, to childbearing behaviors may further stimulate theoretical developments.

Men and Couples

Along with new theoretical developments, researchers have expanded their focus to study the role of men and the couple context. Although the importance of men in childbearing decisions has long been recognized, data limitations have precluded widespread analysis. Vital statistics and population registers can provide some information on basic male fertility behaviors, but survey data and qualitative approaches are more suitable for understanding processes. Unfortunately, Joyner and colleagues (2012) found that many surveys undercount men's early and nonmarital fertility, both because men underreport births and because survey sample designs underrepresent certain groups of men (for example, by excluding institutionalized or military populations). Other surveys ask only limited information about men's childbearing, though newer surveys, like the latest SIPP, are making strides in this realm. Analyses of the 2014 SIPP data show that surveyed men (or their proxies) do a fairly good job of fully reporting fertility information, but the fact that nearly a quarter of surveyed men aged 40–50 were childless, a higher proportion than for similarly aged women in 2014 (Monte & Knop, 2019), suggests that household-based surveys continue to exclude many fathers. Still, existing research provides some insights into gender similarities and differences. For instance, socioeconomic disadvantage is predictive of nonmarital, early, unintended, and multipartnered fertility among men, as it is for women (Carlson, Van Orman, & Pilkauskas, 2013; Guzzo, 2014; Lindberg & Kost, 2014). Similarly, qualitative research finds that disadvantaged men, like disadvantaged women, have complex and often ambivalent feelings about childbearing (Augustine, Nelson, & Edin, 2009), though disadvantaged men feel less in control of, and responsible for, the reproductive process than women (Daugherty, 2016; Weber, 2012). And unlike women, more educated men are more likely to have children than their less educated peers (Lappegård & Ronsøen, 2013; Trimachi & Van Bavel, 2017), probably because they have high rates of union formation but face less role incompatibility and fewer opportunity costs. Changes in how gender shapes expectations about work and family roles may alter this link, as egalitarian men are more likely to delay fertility and be childless (Bernhardt, Goldscheider, & Turunen, 2016). Including men in fertility research – both to understand men's desires, intentions, and behaviors in their own right and to understand, with an explicitly comparative lens, whether and how men's reproductive decision-making and behaviors differs from women's – will be an important area of study in the future.

Increased attention to men is paralleled by an emerging body of work analyzing couple-level data, including the development of new theories and methods to analyze dyadic data (Brehm & Schneider, 2019). In general, the predictive power of prospective fertility intentions increases when incorporating both partners' desires and intentions, as disagreement lowers the odds of having another child (Shreffler, Tiemeyer, McQuillan, Greil, & Spierling, 2018; Testa, 2012; Testa, Cavalli, & Rosina, 2011). Many factors go into couples' decisions about contraception, such as their shared level of intimacy and sexual frequency (Wildsmith, Manlove, & Steward-Streng, 2015), and about childbearing, especially how they feel about

their unions' future (Sassler, Miller, & Fevinger, 2009) and whether they have children from prior unions (Hohmann-Marriott, 2015). Gender does not seem to influence the "weight" of preferences, but couples consider the male partner's economic characteristics and the female partner's ability to combine work and family when making fertility decisions (Kaufman & Bernhardt, 2012; Shreffler, Piretti, & Drago, 2010; Stein, Willen, & Pavetic, 2014). Because couple-level data is uncommon, many studies approximate couple-level data by using female respondents' reports of their partners' characteristics and intentions (e.g., Bertotti, 2013; Guzzo, 2017b; Kotila & Kamp Dush, 2012), though these reports are not always accurate (Stykes, 2018). As researchers increasingly seek to conduct couple-level data collection and analyze couple-level data, new theoretical and analytical approaches will be needed that explicitly incorporate the dyadic nature of fertility decision-making and behaviors (e.g., Bauer & Kneip, 2014; Brehm & Schneider, 2019; Miller, Severy, & Pasta, 2004; Preciado, Miller, Hicks, & Gipson, 2016).

Couple-level research is usually focused on those in stable partnerships, often married couples, but relationship context is important for reproductive decisions across all levels of commitment. Among adolescent and young adults, contraceptive use tends to be lower in poor-quality relationships, as measured by indicators like conflict and distrust (Manlove et al., 2011; Manning, Flanigan, Giordano, & Longmore, 2009; Wildsmith, Manlove, & Steward-Streng, 2015). Contraceptive use also varies over the course of a relationship: it is high in the early stages (especially condom use) but becomes less consistent over time, especially among disadvantaged couples (Edin & Kefalas, 2005; Kusunoki & Upchurch, 2011; Bell, Edin, Wood, & Mondé, 2018; Kusunoki & Barber, 2019). Changes in contraceptive use are partly attributable to changes in fertility desires. Some women become more likely to want a child as relationship duration increases and relationships become more serious (Barber et al., In press B), and some young women (and their partners) seem to become more comfortable with the idea of having a child, even if they do not explicitly want to get pregnant (Edin et al., 2007; Gomez, Arteaga, Ingraham, Arcara, & Villaseñor, 2018; Higgins, 2017). Women's perceptions of their partners' desires are also strongly predictive of pregnancy (Miller, Barber, & Schulz, 2017). Women may also be unable to exert their own preferences in instances of reproductive coercion, where partners exert extensive pressure about sex, contraceptive use, and pregnancy (see review by Grace & Anderson (2018)). Thus, theoretical approaches that explicitly recognize the ways that reproductive decisions and behaviors are nested within relationships and broader social contexts are likely to yield important insights into the fertility behaviors of men, women, and couples.

Policy and the Future of Fertility

It is conventional to end reviews such as this with a discussion of future trends in childbearing. But forecasting future fertility trends is difficult, even in the short term. Macroeconomic events, such as the Great Recession, are not always predictable, and people often respond in unexpected ways. We therefore refrain from making formal predictions about how fertility behaviors will change. Instead, we briefly consider how policy can influence future fertility patterns, beginning with concerns over low fertility. When birth rates are low, populations age more rapidly. Sustained low fertility also reduces the number of workers in the labor market over the long term, affecting the dependency ratio (the

number of children and the elderly relative to the working-age population) and hindering long-term economic growth (Bloom, Canning, Fink & Finlay, 2010). Further, the specter of declining population size can raise worries within a nation about declining military power and standing on a global scale, though such concerns are likely overblown (Coleman & Basten, 2015; Teitelbaum, 2015). In some countries (like the U.S., the U.K., and France), immigration may partially offset low fertility and attenuate the accompanying issues, but other countries (such as Italy, Japan, and Germany) have immigration levels far below what would be needed to even partially compensate for low fertility rates (Billari & Dalla-Zuanna, 2011; United Nations, 2000). Immigration as a solution to low fertility is often politically unpopular (Ceobanu & Koropecj-Cox, 2013) due to racist and nativist fears. More broadly, at least some part of the concern over low fertility can be attributed to racist and nativist worries about higher fertility among immigrant and minority groups compared to native-born Whites.

In response to concerns about low fertility, governments in some countries have implemented a range of pronatalist policies and programs, most of which have been only modestly successful at best (Luci-Greulich & Thévenon, 2013). Sociological and demographic research suggests that gendered social institutions and social norms, and the role incompatibility generated by these systems, are a central determinant of childbearing (Billingsley & Ferrarini, 2014; Goldscheider, Bernhardt, & Lappegård, 2015; McDonald 2000). Very low birth rates in Southern and Eastern Europe and East Asia, for example, are linked to strong norms against maternal employment, along with heavy maternal responsibilities (Brinton & Lee, 2016; Nagase & Brinton, 2017). Conversely, in Europe, easing work-family conflict with increased availability of childcare is associated with higher completed fertility (Baizan, Arpino, & Delclòs, 2016). Policies and programs also need to include men, with growing evidence that men's use of family friendly policies (particularly leave) is associated with higher fertility (Duvander, Lappegård, & Andersson, 2010).

In the U.S., birth rates have generally been relatively high, and so there are few efforts to directly influence fertility levels. Rather, interventions have been aimed at changing the contexts in which women give birth. For instance, recent declines in teen fertility can largely be attributed to improvements in contraceptive use (Lindberg, Santelli, & Desai, 2018), including increased use of LARCs made possible through Medicaid expansion and improved insurance coverage of contraceptives under the ACA (Schneider & Gemmill, 2016). The potential for LARCs to reduce teen and unintended fertility has sparked more intensive efforts (often funded by private donors) to supply highly effective contraception to young women, especially low-income young women (Ricketts, Klingler, & Schwalberg, 2014; Welti & Manlove, 2018). At the same time, efforts to increase LARC use must consider the potential for coercion of low-income women and women of color in reproductive health settings (Gomez, Fuentes, & Allina, 2014) and acknowledge that reducing unintended pregnancy among poor women is unlikely to reduce poverty (Higgins, 2014). Alongside efforts to increase LARC access in the U.S., initiatives at the federal and state level are working in the opposite direction. These initiatives seek to reduce family planning and teen pregnancy prevention funding, weaken reproductive health coverage provided through the ACA, and shift away from comprehensive sex education to abstinence-only-until-marriage (AOUM) programs (Brindis et al., 2017; Charo, 2017; Sobel, Rosenzweig, Salganicoff, &

Long, 2018). These proposed policy changes all have the potential impact (and in some cases the intended goal) of curbing reproductive autonomy, as do the growing number of abortion restrictions discussed above. These interventions are not driven by scientific evidence demonstrating that they will improve reproductive outcomes; in fact, they often run counter to such evidence, as in the case of AOUM (Santelli et al., 2017). A final challenge for fertility scholars, then, is to find ways to make their research useful and influential for supporting individuals, couples, and families – and the policies that affect them.

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