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Permalink

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Publication Date

DOI

Copyright Information

Peer reviewed

Parenthood, Earnings, and the Relevance of Family Formation Sequences

Abstract

Prior research sheds little light on how shifts in family formation trajectories have implications for recent cohorts' earnings gains and losses with childbearing. Using longitudinal data from a contemporary cohort, we examine how the pay premium or penalty for parents varies by their relationship status at childbirth and subsequent changes in the status. Fixed effects models show that children born to unpartnered women are associated with substantial pay penalties for the mothers. Conversely, women giving birth within cohabiting or marital unions experience small or no motherhood penalties. For residential fathers, only children born after marriage are linked to pay increases. Men having children while cohabiting or unpartnered receive no fatherhood premiums even if they later transition into marriage. Married mothers' earnings outcomes also depend on their sequence of marriage and childbearing. Whereas women bearing children before marriage encounter a substantial motherhood penalty, those doing so after marriage face none. The variation in parenthood penalties or premiums by childbearing context cannot be entirely elucidated by the differences in the age of entering parenthood, ethnoracial composition, education, or pre-parenthood earnings growth rate among people having children in various contexts. We suggest that the family formation sequence is related to individuals' expectations and the support they receive for their parental roles, which shape parenthood earnings outcomes.

Social scientists have long found the transition to parenthood relevant to economic wellbeing (Deming 2022; Glauber 2018; Gough and Noonan 2013; Yu and Hara 2021). Prior studies show that U.S. women experience a 4-5% reduction of hourly pay with each child's arrival, referring to this reduction as the motherhood penalty (Budig and England 2001; Gangl and Ziefle 2009; Glauber 2007). Conversely, men's earnings tend to increase after they become fathers, indicating a fatherhood pay premium (Glauber 2008; Hodges and Budig 2010; Killewald 2013). Because the motherhood penalty and fatherhood premium widen the gender pay gap within couples and over the life course (Musick, Gonalons-Pons and Schwartz 2022), they have been considered as key to our understanding of gender inequality (Angelov, Johansson and Lindahl 2016; England 2005).

The critical implications of mothers' pay disadvantage and fathers' pay advantage have inspired researchers to look beyond the gender difference and focus on the uneven distribution of parenthood gains and losses within each gender group (England et al. 2016; Fuller and Cooke 2018; Fuller and Hirsh 2019; Glauber 2018; Taniguchi 1999; Yu and Kuo 2017). Of the many factors that potentially differentiate women's or men's experiences of parenthood and earnings, marital status has received considerable attention (Deming 2022; Gough and Noonan 2013). Marriage and the associated expectations are thought to increase women's time and energy spent on household work (Pepin, Sayer and Casper 2018) and make motherhood more detrimental to married than single women's earnings (Budig and England 2001), although the empirical findings are not always consistent (Glauber 2007; Pal and Waldfogel 2016). For fathers, being married is argued to strengthen their identity as the provider for their family; married fathers are thus more likely to change work behavior and undergo earnings increases than unmarried ones (Killewald

2013).

By distinguishing parents based on their current marital status, prior research implicitly assumes that marriage, or the lack thereof, shapes the meaning and expectations of parenthood similarly irrespective of the process through which individuals become married or unmarried parents (Budig and England 2001; Glauber 2007; Killewald 2013; Pal and Waldfogel 2016). In recent decades, the trajectories of family formation have become increasingly diverse, with the traditional sequence of marrying, moving in together, and then having children in steady decline (Gibson-Davis 2011; Smock and Schwartz 2020). Young adults today may cohabit, have children, and then marry, or they could have children without living with a partner and marry later to a new partner (Furstenberg 2010). As the alternatives to the traditional sequence of marriage and family become more popular, there is also rising heterogeneity in how individuals consider marriage and parenthood (Edin, Kefalas and Reed 2004; Edin and Kefalas 2005; Hayford, Guzzo and Smock 2014). Married parents who become parents in the context of marriage and married parents who enter marriage after childbearing may hold different views about how intertwined marriage and parenthood should be. In turn, marriage may not uniformly solidify the identity or roles of parents as proposed by previous research.

To understand how the trajectories of family formation are related to the economic implications of parenthood, this study examines variations in motherhood pay penalties and fatherhood pay premiums by the relationship context in which each child was born. While most U.S. research uses data from people born in the 1950s-1960s or earlier to study the wage gains or losses tied to parenthood (Budig and England 2001; England et al. 2016; Gangl and Ziefle 2009; Glauber 2007, 2008; Hodges and Budig 2010; Killewald 2013; Yu and Hara 2021), we employ data from the National Longitudinal Survey of Youth 1997 (NLSY97), which contains a sample of

individuals who generally form families after the 2000s. Our focus on a contemporary cohort of mothers and fathers makes it especially important to consider the relationship contexts in which they undergo childbirths, as the proportion of births occurring outside marriage has been considerable in recent years (Smock and Schwartz 2020).

Because the impact of marriage on parents' behavior and experiences may depend on the sequence in which individuals undergo marriage and parenthood, we also investigate how the motherhood penalty and fatherhood premium change as unmarried parents marry or enter other types of romantic unions. In the final part of the analysis, we explore alternative explanations to our proposition that the initial circumstances and expectations surrounding childbearing contribute to differing parenthood gains or losses. By shifting the focus from current marital status to the sequence of marriage and childbearing, this study not only enhances the understanding of the uneven distribution of earning outcomes associated with parenthood, but also sheds light on how the changing marriage and family behavior has implications for income disparities within and between gender groups.

Motherhood Penalties and Fatherhood Premiums

The existence of motherhood pay penalty is well documented. Many longitudinal studies show that women experience a wage decrease with each childbirth, even after considering changes in their work experience, job features, and various individual characteristics (Budig and England 2001; England et al. 2016; Gough and Noonan 2013; Yu and Kuo 2017). One explanation for mothers' earnings disadvantage is that employers consider mothers to be less competent and committed than nonmothers, as they assume that mothers prioritize their family over work roles. Several experimental studies using fictitious job application materials indeed find mother

applicants to receive fewer callbacks than others, providing support for the argument of discrimination (Correll, Benard and Paik 2007; Ishizuka 2021).

At the same time, researchers acknowledge that discrimination may not be the only reason for mothers' pay disadvantage. With the unequal household division of labor, a child's arrival tends to amplify women's work-family conflict and job strain disproportionately. The conflict and strain may alter women's work behavior and hamper their job performance, thereby affecting earnings. Research shows that women are likely to reduce labor force participation and experience job turnovers with the transition to motherhood, resulting in wage losses (England et al. 2016; Gangl and Ziefle 2009). Also supporting that the difficulty managing work-family conflict plays a role, Yu and Kuo (2017) show a smaller motherhood pay penalty for women in occupations allowing more autonomy and schedule flexibility, which alleviate work-family conflict and the related stress (Kelly et al. 2014). At a more macrolevel, prior research also finds that the motherhood penalty is relatively small in Scandinavian countries, where the policies offer more generous support for working mothers, whereas U.S. women, who receive few institutional resources to mitigate work-family conflict, experience comparatively large declines in labor force participation and hourly income after becoming mothers (Cukrowska-Torzewska and Matysiak 2020; Kleven et al. 2019).

In contrast to women, men experience pay premiums as they become fathers (Glauber 2008; Hodges and Budig 2010; Icardi, Hägglund and Fernández-Salgado 2022; Killewald 2013; Yu and Hara 2021). One explanation is employer favoritism. A lab experiment shows that job applicants signaling their status as fathers are rated as more capable and responsible and recommended for higher wages than other male applicants (Correll et al. 2007). Studies using survey data also indicate a larger fatherhood premium in settings where employers' bias are more

likely to manifest (Fuller and Cooke 2018; Yu and Hara 2021).

Just like the case of motherhood penalty, employers' preferences may not be the only reason behind fathers' pay advantage. Relying on identity theory, Killewald (2013) argues that the identity of father is tied to the norm of being a good provider for the family; men for whom the father identity is salient are likely to be committed to the provider role and exert extra work effort upon entering fatherhood, which increases their pay. Because being a father tends to have low salience to men whose children are not biological or do not live with them, Killewald finds that only residential and biological fathers receive a fatherhood premium.

Research on the Moderating Roles of Marriage

The notion that the motherhood penalty and fatherhood premium are partly explained by behavioral responses to socially prescribed gender and family roles serves as the foundation for expecting the penalty and premium to vary by marital status. For men, marriage implies greater permanence of the father-child relationship. U.S. fathers rarely reside with their children when they are not in a union with the other parent (Kielty 2006). Even cohabiting fathers may feel uncertain about their long-term chance of living with their children, given the high instability of cohabiting unions (Smock 2000). Because nonresidential parents tend to have low involvement in their children's lives (Stewart 1999; Stewart 2010), the implication of marriage for coresidence and future involvement is thought to amplify the salience of the father identity for men (Killewald 2013). Married fathers also differ from unpartnered or cohabiting fathers in that they rely on their partners more for housework and childcare (Cooksey and Fondell 1996; Davis, Greenstein and Gerteisen Marks 2007). Having few other family responsibilities makes being a good provider especially central to married fathers' identity. Thus, married fathers may increase their work effort

more than unmarried ones, leading to their greater pay premium (Killewald 2013).

For women, the greater inequality in household division of labor between married women and men, compared to cohabiting couples, suggests that married mothers face a higher level of work-family conflict than cohabiting mothers (Davis et al. 2007). Time-use research shows that despite the presence of a partner, married mothers spend more time on housework and less time on leisure activities than even single mothers (Pepin et al. 2018). The greater family burden faced by married women could hamper their job performance and pay. Indeed, Budig and England's (2001) landmark study of motherhood penalty finds that married mothers experience a greater wage reduction per child than unmarried mothers.

Although the argument that marriage further facilitates men's and women's behavioral changes upon transitioning to parenthood seems plausible, not all empirical findings replicate Budig and England's (2001) concerning married mothers' pay disadvantage. Using different model specifications, Glauber (2007) finds that being married rarely amplifies the motherhood penalty; only when women have more than two children does marital status make a difference. More recently, Pal and Waldfogel (2016) show that the pay penalty for married mothers used to be greater than or similar to unmarried mothers', but it has been smaller since the 1990s. Neither of these studies provides a rationale for why marriage would curtail or hardly affect the motherhood penalty. One potential explanation is that marriage could also bring resources to mitigate work-family conflict for mothers. Even if married mothers on average spend more time on housework than unmarried mothers (Pepin et al. 2018), the former may be more able to count on the father's childcare, which could still help reduce parental stress and offset some of the extra family burden. Besides, married fathers' childcare time has increased over time, especially when their spouses are employed (Bianchi 2011; Raley, Bianchi and Wang 2012). This trend could explain Pal and

Waldfogel's (2016) finding that married mothers have gained earnings advantage over unmarried mothers in recent decades.[1] Furthermore, married mothers may receive more support from their social circles because of the greater social approval for married than unmarried mothers (Cairney et al. 2003), which in turn lowers the wage cost of motherhood. The support from women's partner and social circles could be especially relevant to the motherhood penalty in a context like the United States, where few government policies help alleviate working mothers' childcare burden (Collins 2019; Gornick and Meyers 2003).

Regardless of how and why marriage moderates the earnings gap between parents and nonparents, no studies we are aware of have distinguished among currently married (or unmarried) parents who arrive at their family status through different paths (Budig and England 2001; Deming 2022; Glauber 2007; Killewald 2013). As we discuss below, the extent to which marriage has implications for parental roles may depend on whether individuals consider marriage and parenthood as linked or largely separate life events. Because changes in family formation trajectories in recent years have made the category of married mothers more heterogeneous, dividing parents by current marital status alone may not be the best to understand the uneven distributions of parenthood penalties and premiums.

Changes in Family Trajectories and Implications for Parenthood Penalties and Premiums

The timing and sequence in which U.S. adults experience marriage and parenthood have become increasingly diverse. With both the age of first marriage and rate of cohabitation steadily

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[1] Pal and Waldfogel's (2016) cross-sectional analysis, however, cannot rule out the possibility that the different extents of motherhood penalty by marital status are explained by the differing selection mechanisms. For example, among unmarried women, those who are more career-oriented may be less likely to enter motherhood, making the pay difference between mothers and nonmothers rather large. Conversely, factors irrelevant to pay, such as the ability to conceive, may determine which married women become mothers, leading to a comparatively small wage gap by motherhood status.

rising (Smock 2000; Smock and Schwartz 2020), the traditional sequence of family formation, in which the couple first marry, move in together, and then have children, has been losing its dominance. By 2016, about 40 percent of U.S. births were from unmarried mothers (Wildsmith, Manlove and Cook 2018). Among nonmarital births, the parental relationship contexts in which they were born are also far from uniform. Evidence from the early 2000s indicates that about half of such births occurred in cohabiting unions, with the rest from parents not in any romantic unions (Manlove et al. 2010).

Although a large proportion of children are born outside marriage, their parents may nevertheless become married at some point. Research shows that the majority of cohabiting parents expect to marry, even though economic disadvantages often hamper their actual transition to marriage (Lichter, Qian and Mellott 2006; Waller and Mclanahan 2005). A sizable proportion of unmarried mothers also end their relationship with their children's fathers and form new unions, including marital ones, within five years of childbirth (Bzostek, McLanahan and Carlson 2012). The category of married or unmarried parents can therefore include people who took various pathways to arrive at that status.

The growing heterogeneity in family formation trajectories reflects the changing nature of marriage. Today, marriage is no longer a precondition for children to be legally recognized and cared for (Cherlin 2004; Thornton, Axinn and Xie 2008). Increasingly, marriage and parenthood have been decoupled, with many married people delaying childbearing while many singles, both cohabiting and unpartnered ones, having children (Gibson-Davis 2011; Hayford et al. 2014). These shifts, however, do not necessarily mean that singles' desires and aspirations surrounding marriage have changed drastically. Studies of low-income single mothers or cohabiting couples in the U.S. show that such people still hold high regards and, in some ways, traditional gender expectations

for marriage (Edin et al. 2004; Gibson-Davis, Edin and McLanahan 2005; Smock, Manning and Porter 2005). According to Edin and Kefalas (2005), many women now view marriage as a luxury that they hope to have if all conditions are right, whereas parenthood is a natural and integral part of the life course that they can experience without preconditions. Thus, a person can have a child and then transition to marriage for reasons unrelated to their parental roles. Of course, a good number of people still wait until after marriage to enter parenthood (Hayford et al. 2014). Compared to those bearing children in other relationship contexts, such people may be more likely to still believe that marriage helps fulfil parental roles and that the decision to become a parent should depend on meeting certain conditions, including being married.

As the views surrounding childbearing likely differ for people having children in different relationship contexts, their parenthood experiences may also differ. For men, even when the father identity is salient, the role expectations and enactment linked to the identity may depend on how they perceive fatherhood. When childbearing is considered as a natural product of courtship and an inevitable part of the life course, taking actions to actively achieve the father role may seem less necessary. By contrast, those who view the fatherhood transition as an event for which they need to set the stage and undergo transformations (e.g., entering marriage) in preparation may be more likely to expect and enact changes upon their child's arrival. Fathers of children born in the context of marriage can therefore be expected to enhance their work effort more and receive greater pay premiums than those whose children were born in alternative contexts.

The context of childbearing may also be relevant to post-childbirth changes in women's earnings for several reasons. First, because mothers who marry before childbirth may be more likely than other mothers to consider childbearing as a decision conditional on having met certain criteria, they may also be more likely to ensure their other circumstances are ready for the work-

family conflict motherhood brings. Such women could, for example, try to live close to family and friends who can help or wait until they have supportive supervisors or flexible work arrangements to have a child. Second, the relationship context of childbirth may shape the resources available for mothers. Although all married fathers may invest more time in childrearing than unmarried—especially nonresidential—fathers (Hofferth and Anderson 2003), those who marry before childbearing are more likely to participate in the planning of the childbirth. Because fathers' involvement with their child is greater when they consider the child's birth as intended (Lindberg, Kost and Maddow-Zimet 2017), mothers of children born in marriage, rather than in other relationship contexts, may receive greater childcare support from the father, which can reduce their work-family conflict. Third, the social approval and its associated support for married mothers may be especially high for those becoming mothers after marriage, as childbearing in the context of marriage is likely seen as a more responsible decision. For all these reasons, mothers of children born within marriage may be more able to manage the work-family conflict brought by motherhood than those bearing children in other contexts.

The parenthood experiences may yet differ between those having children in cohabitation and outside any union. Although men who cohabit at childbearing are likely to plan and prepare for post-childbirth changes more than those unpartnered, the former's conceptual separation between marriage and childbearing could lead them to discount the provider role, which is tied to the gender division of labor within marriage. Thus, these fathers may not enhance their labor market effort much, making them just as unlikely to receive pay premiums as unpartnered fathers. Men with children born in cohabitation, however, are more likely to see their child's birth as intended and hence more engaged in childrearing than those becoming fathers while unpartnered (Hohmann-Marriott 2011; Lindberg et al. 2017). Consequently, mothers of children born in

cohabitation likely receive more childcare support from the father than those bearing children outside any union. We can therefore expect a lower motherhood penalty for the former.

In considering how the motherhood penalty and fatherhood premium vary by the relationship context of childbearing, we deviate from prior researchers' argument that marriage mainly reinforces the identity of parents and facilitates traditional role expectations for mothers and fathers. Instead, we propose to distinguish marriage occurring before from after childbirth, arguing that the sequence of marriage and childbearing signals how father fulfil and how mothers cope with their parental responsibilities. Because some circumstances related to unpartnered parents' earnings outcomes, such as the father's likely low involvement in the initial family planning and the parents' readiness for parenthood, do not change with a later transition to cohabitation or marriage, we expect that such a transition will not entirely negate the relative pay disadvantage of these parents compared to those becoming parents within marital or cohabiting unions. That is to say, married mothers who marry before childbearing will experience a much smaller pay penalty than married mothers who give birth before marriage, especially if the latter are unpartnered at childbirth.

Because the sequence of family formation is likely related to individuals' age of marriage, race and ethnicity, and educational attainment, we also investigate whether the variations in motherhood penalty and fatherhood premium by the relationship context of childbearing apply to all age, ethnoracial, and educational groups. Research shows that the motherhood penalty is smaller for women who are Black, more educated, or giving birth later (Deming 2022; Gough and Noonan 2013), while the fatherhood premium is greater for White and more educated men (Glauber 2008; Hodges and Budig 2010). It is therefore possible that rather than the context of childbearing, the characteristics potentially associated with various family formation sequences

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account for the variations of motherhood penalty and fatherhood premium. Finally, because people, especially women, with more promising earnings prospects may select to postpone parenthood in favor of career development (Van Bavel 2010), which makes them more likely to first marry and then have children, we also examine whether the selection by pre-parenthood earnings trajectories explains the variations in motherhood penalties and fatherhood premiums by childbearing context.

Data

The data for this study come from Rounds 1-19 of the NLSY97, which follows a representative sample of 8,984 individuals born in 1980-1984 since 1997. Previous studies using longitudinal data to examine the motherhood penalty and fatherhood premium in the United States generally rely on data from individuals born much earlier (in the 1960s or 1950s), with few exceptions (e.g., Yu and Kuo 2017). To our knowledge, this study is the first to use longitudinal models to investigate men's earnings shifts with fatherhood for a recent cohort. Using data from a contemporary cohort helps shed light on how the changing family formation patterns bear relevance to the income implications of parenthood.

The NLSY97 has been conducting interviews annually from 1997 to 2011 and biannually afterwards. The last round of data in this study was collected in 2019-2020, by which most respondents were all in their mid-to-late 30s and had children. The NLSY97 collects detailed information about the respondents' romantic union histories and children at each interview. We can therefore identify respondents' children who lived with them at each interview, as well as the relationship context in which a child was born.

We pooled all rounds of the data together to create a person-year sample. All observations

before respondents turned 16 years old were eliminated because most people had no routine jobs before that age. To examine earnings, we selected only person-years in which respondents reported having a job and their hourly pay was not missing. We further excluded a small percentage of observations where respondents did not provide valid information about their children (5%) or their work histories (1%). After deleting observations missing other key variables (1%), the final sample contains 48,848 person-years from 4,167 women and 48,500 person-years from 4,293 men.

Variables and Measurement

Similar to prior research, we used log hourly compensation as the dependent variable in our analysis (Budig and England 2001; Glauber 2007; Hodges and Budig 2010; Killewald 2013). The NLSY97 calculated hourly compensation by dividing respondents' total job income, including overtime pay and other compensations (e.g., tips), by the hours spent at the job. Because one reason for changes in women's and men's earnings with parenthood may be that parenthood alters their likelihood to earn beyond their regular wages (e.g., overtime pay), using the total compensation is preferable to the routine wage. We adjusted the hourly compensation to constant dollars of 2019 and took the natural log to reduce the skewness of the distribution.

For the main predictors related to parenthood status, we first constructed a variable for the number of children living with respondents at the time of interview. We focus on coresident children because being a father likely has little salience for men who do not live with their (minor) children (Killewald 2013).[2] Unless otherwise specified, all our remarks about children and childbirth in the result discussion refer to coresident children and their birth. To study the relevance of the relationship context of childbearing, we further created three time-varying

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[2] Although prior research also separates biological from other children (Killewald 2013), nearly all coresident children in our sample are biological, making a further restriction unnecessary.

variables indicating the numbers of children born within marriage, within a cohabiting union, and in an unpartnered state (i.e., not in a marital or cohabiting union), respectively.[3]

We estimated the parenthood penalty or premium for each residential child by the relationship context at the child's birth, rather than just by the context in which the first child was born, because individuals can learn from experiences and change. For example, a woman having her first child while unpartnered may experience a considerable pay penalty and, in turn, decide to wait until forming a marital union and being more prepared to have a second child, which leads to a lower penalty for the second child. We also specified the models this way to be consistent with previous research on the motherhood penalty that tends to estimate the time-varying, per-child cost on earnings (Budig and England 2001; England et al. 2016; Yu and Kuo 2017). In an additional analysis, we examined how the parenthood earnings consequences vary by the relationship context of the first coresident child's birth (a time-constant variable) instead, the results provided similar support for our arguments.

Because respondents could have biological children who do not live with them, we also created the number of such children at the survey time. In addition, we controlled for a series of time-varying indicators for respondents' human capital, including respondents' educational level completed (less than high school, some college, college or above, and unreported), whether they were enrolled in school (yes, no, unreported), their total years of work experience since age 14, and their number of major employment breaks. A major break was measured as a jobless episode that lasted 12 weeks or more since respondents started their first full-time jobs. We also included

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[3] Individuals who marry and then conceive may believe more in preconditions for parenthood and more likely enact or cope with changes after childbirth than those who marry after pregnancy but before childbirth. In an earlier analysis we tried alternative approaches that characterize each child of respondents based on the respondents' relationship context 8 and 12 months prior to the birth, respectively, instead of at childbirth. The overall results did not change substantively, although they were generally more pronounced with the alternative measures.

respondents' partnering status at the survey time in four categories: (1) never married and not cohabiting, (2) cohabiting, (3) married, and (4) divorced, separated, or other status. All models controlled for geographic locations, given their relevance to wages. Using census definitions, we created an indicator for living in urban, rural, or unknown areas and another for the region in which they resided (Northeast, Midwest, South, West, or unknown).

Because parenthood can affect earnings by encouraging women and men to take different kinds of jobs after their child's arrival, in some of the models we also included a set of job characteristics to show how much of the parenthood penalty or premium remains after accounting for these potential mediators. We measured respondents' number of years at their current job and included both job tenure and job tenure squared to capture the potentially diminishing return after staying at a job for too long (a sign of inability to obtain other jobs). We also included a dummy for missing job tenure for the very small number of respondents who failed to provide the information. We created a binary indicator for being self-employed and another for working full time, as both statuses may yield different earnings returns. Further, we used occupation fixed effects, following Yu and Hara (2021), to account for all stable occupation-level features that potentially shape earnings, including the occupation's time demand, level of gender segregation, and skill requirements (Budig and England 2001; Cha and Weeden 2014; Yu and Kuo 2022). The NLSY97 provides 3-digit codes for respondents' occupations at the interview. We used the same classification for the occupation fixed effects.

We introduced several other variables to analyze whether the variation in parenthood penalties or premiums by childbearing context can be explained by factors potentially related to the family formation sequence. First, to know whether the relationship context still matters after differentiating parents by their age of entering parenthood, we constructed an indicator of the age

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range during which respondents first began to live with their child: (1) age 22 or younger, (2) 23-27 years old, or (3) age 28 or older, if they ever had one.[4] Second, we separated the respondents into 4 ethnoracial groups—non-Hispanic Whites, non-Hispanic Blacks, Hispanics, and others—to investigate whether the differences by childbearing context simply reflect ethnoracial differences in both family formation patterns and parenthood outcomes. Third, we created an indicator for respondents' eventual educational attainment, which is the highest educational level completed by their last interview, in two categories: (1) high school or below and (2) some college and above. We used this variable to assess whether the differences in parenthood premiums or penalties by childbearing context merely reflect uneven earnings consequences of having children between people with high and low education. We used the last educational attainment with the assumption that those intending to obtain higher education and those not would have made different decisions about childbearing even before they entered college.

Finally, to test whether respondents' earnings trajectories prior to parenthood have led them to select different sequences of family formation, we created the total years of work experience before their first transition into residential parenthood. This variable is time-varying prior to the transition and time-constant afterwards. We further constructed a time-constant variable for the relationship context at the first coresident child's birth (married, cohabiting, or unpartnered). The interaction between the relationship context of the first childbearing and pre-parenthood work experience captures the potentially different pre-parenthood earnings trajectories among those with differing family formation sequences. We can therefore show whether accounting for these earnings trajectories alters the results.

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[4] Because the survey does not contain more precise data, we used the first known age of living with a child, which is not necessarily when the first coresidential child was born and could be slightly later than respondents' actual age to do so (if they were not interviewed in the starting year), to construct the variable. However, the potential measurement error should be limited, given that we measured the age range rather than the specific years of age.

Analytic Strategy

Similar to the majority of the research on the motherhood penalty and fatherhood premium (e.g., Budig and England 2001; Gangl and Ziefle 2009; Killewald 2013; Yu and Hara 2021), we used fixed-effects models for the statistical analysis. The models can be expressed as:

$$\ln\left(pay ¿ ¿ it\right) = \gamma_0 + \gamma_1 children_{marit} + \gamma_2 children_{cohit} + \gamma_3 children_{unpit} + \Sigma\, a_j X_{jit} + \mu_i + \varepsilon_{it}, ¿$$

where the outcome is the log hourly compensation of person i ($i = 1, 2, 3, \ldots, n$) at year t; γ_0 is the intercept; γ_1 is the coefficient for each coresident child born within marriage, γ_2 is the coefficient for each coresident child born within cohabitation; γ_3 is the coefficient for each coresident child born while unpartnered; X_{jit} denotes j time-varying variables that may also shape earnings (e.g., education, work experience, current partnering status); μ_i represents fixed effects for i individuals in the data set; and ε_{it} is the error term. Equivalent to including a dummy variable for each person, μ_i captures all time-constant characteristics of the individuals, even when the characteristics are unobservable. In some of the models, we also included occupation fixed effects. Such models can be illustrated by adding O_o, which denotes the o occupations in the sample, to the right-hand side of the equation; doing so is equivalent to including a dummy variable for each occupation in the model.

For the part of the analysis investigating how parenthood's earnings implications differ between those marrying (or cohabiting) before and after childbearing, we interacted the number of children born in various relationship contexts (i.e., $children_{marit}$, $children_{cohit}$, $children_{unpit}$) with current partnering status. These interactions can reveal how the penalty or premium associated with children born within marriage changes when the parents are no longer married, as well as how unpartnered parents' pay advantage or disadvantage changes when they transition to marriage or cohabitation. Because parents of children born within marriage cannot transition to the never-

married state, and few of them in our sample entered cohabitation later, we simply interacted the number of children born within marriage with a dummy variable indicating whether respondents were married or not at the survey time.

In the final part of the analysis, we further interacted the number of children born in each relationship context with respondents' age of first entering residential parenthood, race-ethnicity, or eventual educational attainment to test whether the patterns are consistent across various groups. Because age of first entering residential parenthood, race-ethnicity, and eventual educational attainment are all time-constant variables, we cannot test whether they explain the variation in parenthood penalties and premiums by childbearing context by simply adding them to the fixed-effects models, which automatically eliminate any time-constant individual characteristics. We instead interacted these variables with the numbers of children born in various relationship contexts to test whether a given parenthood pay advantage or disadvantage only applies to individuals of certain characteristics. Doing so can inform us how likely the overall pattern revealed in the study reflects compositional differences among people having children within marriage, within cohabitation, and while unpartnered. We also fitted models with controls for pre-parenthood earnings growth rates to examine whether these rates account for the parenthood penalties and premiums by childbearing context.

To adjust for both the initial sampling design and attrition, we applied the NLSY97 longitudinal weights to all models and estimated robust standard errors. Separate models were fitted for women and men, given that parenthood likely affects the two groups' earnings in different ways. Table S1 in the online supplement presents the descriptive statistics by gender.

Descriptive Results

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We begin with descriptive information about the NLSY97 respondents' family formation trajectories. Figure 1 shows respondents' partnering status at various stages of their first coresident child's life, with the partnering status characterized as "censored" if the child was younger than the specified age at the last observed round. Only men and women who had ever had a coresident child are included in the figure. The majority of residential fathers were not married around their first child's conception (8 months before birth). The pattern is similar for women. Over one-third of women were unpartnered, and slightly above one-fifth were cohabiting, when they became pregnant with their first child. By the child's birth, however, near 10% more women entered cohabiting or marital unions, reducing the proportion of unpartnered mothers at childbirth. There is an analogous but more pronounced shift among residential fathers, resulting in slightly over half of them married at their first coresident child's birth. Still, the pathway of marrying and then having a child is far from dominant in this contemporary cohort. Many entered parenthood without making marriage a precondition.

A substantial proportion of respondents entered marriage or cohabitation after their first coresident child's birth but before their second one's. Table S2 in the online supplement presents the relationship contexts at the first two coresident children's births if respondents have two or more children. Table S3 shows the childbearing contexts for the first three children among those with three or more. The tables indicate that women most commonly bear all two or three children in the same relationship context—that is, constantly married, cohabiting, or unpartnered— followed by the childbearing patterns that indicate the parents' increasing romantic involvement with later-born children, such as giving first birth in cohabitation or outside a union and second one in marriage. Likewise, the childbearing patterns for residential fathers suggest a tendency to move into a more committed union type from first to later children's births, if they are not in

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marriage or cohabitation throughout.[5] For both groups, it is rather unusual to have the first child in marriage or cohabitation and a later child in a less committed relationship context.

Table 1 further presents respondents' time spent in various partnering states during residential parenthood; we divide the sample of residential parents by their relationship context at first childbirth. Among women and men who were married at their first coresident child's birth, some experienced divorce or separation and others entered cohabiting unions after divorce, but the majority of them have stayed married. The fact that NLSY97 respondents were still in their mid-to-late 30s at the last round may partly contribute to this low divorce rate. By contrast, those entering residential parenthood outside marriage have undergone more changes in relationship status since then. A sizable proportion of women who were cohabiting or unpartnered at their first child's birth later entered marriage. Compared to women bearing their first child outside a union, women doing so in cohabitation spent more time since the childbirth in marriage, suggesting cohabiting mothers are more likely to transition to marriage than unpartnered mothers. Many men who were cohabiting or unpartnered at their first coresident child's birth also became married or changed to another relationship status. Overall, the table shows that the current marital status often does not coincide with the status when members of this contemporary cohort entered parenthood.

Results from Fixed Effects Models

Table 2 presents results from fixed effects models predicting log hourly compensation for women and men (full models in Table S4 in the online supplement). Models 1 and 5 are the baseline models, including the numbers of coresident and non-coresident children, human capital measures, and geographic location. Having a coresident child is associated with a pay decrease of

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[5] Men are far more likely to have all their coresident children born in marriage than women because they mostly reside with their children when they are married to the children's mothers.

approximately 1.2% for women and a pay increase of approximately 4.5% for men. Conversely, having a non-coresident biological child is negatively associated with earnings for both groups. It is possible this association reflects the disruption of academic or career pursuit caused by unintended birth, which is more likely the case for non-coresident children, or other underlying time-varying problems (e.g., major illness) that make individuals unable to live with their biological children or earn more. For women, the existence of children living elsewhere could also result from losing child custody, which is a traumatic event that may harm their work productivity. Regardless of the reason, our results corroborate the previous argument that researchers need to consider the earnings implications of coresident and noncoresident children separately.

Although the average penalty for residential mothers is small in magnitude, especially compared to those estimated from older birth cohorts (e.g., Avellar and Smock 2003; Budig and England 2001), Model 2 shows that this average masks the uneven experience women have. Whereas women with children born within marriage and cohabitation face no or little pay penalty, those unpartnered at childbirth undergo a 4.5% pay decrease for every child. Model 3 adds current partnering status, but the pattern related to the relationship context of childbearing changes only slightly. Model 4 further includes a series of job characteristics. The extensive set of job traits (including occupation fixed effects) largely explains the pay disadvantage tied to having children in cohabitation in Model 3. Nevertheless, the included job traits barely affect the penalty for women giving birth while unpartnered. Overall, these models indicate that for the contemporary cohort, the motherhood penalty mostly applies to women giving birth outside any romantic union.

The models for men similarly show that the fatherhood pay premium varies by the relationship context of childbearing. After separating coresident children according to the context in which they were born, only those born within marriage are linked to higher earnings for the

fathers (Model 6). Adding current partnering status and job characteristics lowers the premium

for such fathers somewhat, but it remains true that fathers with children born within marriage are

the only group that experience a pay premium. In fact, fathers living with children born outside a

union even face a pay penalty (Models 7 and 8).

Tables 3 and 4 present fixed effects models that consider how the pay penalty and premium

change when parents transition into different partnering states. We show models with and without

job characteristics (which could mediate the parenthood effects). Models 1 and 2 in Table 3

indicate that mothers of children born within marriage encounter no pay penalties even if they stop

being married. Model 3 shows the penalty for each child born in cohabitation becomes greater with

the transition to marriage, but the earnings gain associated with marriage ultimately offsets this

penalty $(0.073+0.004+[-0.049] = 0.028 > 0, p < 0.05)$. At the same time, however, women bearing

children in cohabitation do not earn more when transitioning to marriage rather than staying

cohabiting, indicating no marriage premium for such mothers.[6] The interaction effect between

having children born in cohabitation and being currently married also becomes small and

nonsignificant after accounting for job characteristics (Model 4). Models 5 and 6 indicate that

children born to unpartnered women are always associated with earnings losses for the mothers,

but the per-child penalty changes as the mothers transition to different union statuses. Controlling

for job characteristics does not alter the results substantively.

To illustrate how family formation trajectories are associated with pay, Figure 2 presents

the percentage differences in earnings for various groups of women and men relative to their

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[6] Based on Model 3, the combined earnings effect for women giving birth in cohabitation continue to cohabit is
0.038+0.004+[-0.017]= 0.025, which is statistically equivalent to that for such women to transition to marriage later
on (0.028). The substantive result is the same if using coefficients from Model 4.

never-married childless counterparts (= 0), calculated from the results in Model 5.[7] For simplicity,

we assume all groups of parents in the figure have just one child. We also include the predicted

values for married and cohabiting individuals without children for comparisons. The figure shows

that women who were unpartnered at childbirth experience a pay increase when transitioning to

marriage instead of staying unpartnered. Nevertheless, the gap between married mothers who gave

birth within marriage and without a partner is considerable (7.37%), indicating not all married

mothers fare equally. Moreover, the motherhood penalty for married mothers who were

unpartnered at childbirth, which is the difference between this group and married childless women,

is actually greater than the penalty for never-partnered mothers (i.e., the gap between the

"unpartnered parent throughout" group and never-married childless women, the reference group).[8]

The especially large motherhood penalty for the former suggests the disadvantage of women

giving birth outside a union cannot be entirely explained by their lack of partner in childrearing.

Rather, compared to women who marry and then have children, women who bear children while

unpartnered are more vulnerable to the job strain caused by maternal obligations probably because

they had different perceptions about parenthood and receive less support from others even after

they become married.

Of course, it is possible that marriage does not benefit mothers who were unpartnered at

childbirth as much because their marital partners may not be their child's father. The NLSY97 data

do not allow us to tell whether respondents live with each coresident child's other biological

parent, but we conducted an additional analysis that separates unpartnered mothers who enter

marriage while their children are 3 years or younger from those who do so at a later time (Table S5

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[7] We used Model 5 to calculate the predicted values to include the influences of family formation trajectories on job sorting. The overall pattern, however, did not change when using coefficients from Model 6 instead.
[8] All the differences referred to here and later are statistically significant at the 0.05 alpha level.

in the online supplement).[9] Our rationale is that the marital partner is likely to be the child's other parent if the child born outside a union is still very young. We found no statistical difference in earnings outcomes between unpartnered mothers transitioning to marriage at different times. Although some of the coefficients become statistically nonsignificant due to small cell size, the signs and magnitudes of the results for unpartnered mothers transitioning to marriage with a very young child are similar to those for all unpartnered mothers shown in Table 3. Thus, the motherhood penalty remains sizable for women giving birth outside any union even after they likely marry their child's biological father.

Table 4 shows that the fatherhood premium associated with children born in marriage hardly changes even with the dissolution of the marital union, just like the result for their female counterparts (Models 1 and 2). In contrast, fathers with children born in cohabitation receive no pay premiums regardless of whether they later transition to marriage (Models 3 and 4). For unpartnered fathers, the interaction results are also nonsignificant. To contrast with women's results, we nevertheless use the coefficients from Model 5 to illustrate the predicted earnings differences in Figure 2. As the figure indicates, men who marry and then become fathers earn more than married nonfathers with similar characteristics, but this fatherhood premium does not extend to married fathers who were unpartnered at their child's birth. That is to say, married fathers who marry before childbearing fare better than married fathers who have children before marriage. Thus, the results for men similarly demonstrate the importance of distinguishing the sequence of marriage and childbearing.

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[9] We conduct a similar analysis for cohabiting parents transitioning to marriage at different points of time (Table S6 in the online supplement), as whether the marriage is with the child's other biological parent is also relevant for cohabiting parents' transitions. The overall pattern holds regardless of when the marriage transition occurs.

Exploring Alternative Explanations

Table 5 present models in which the numbers of children born in different contexts are interacted with various time-constant individual characteristics to test whether the variation in parenthood penalties or premiums only applies to certain types of people. Because previous tables show that the overall patterns are similar with or without job characteristics, and because including mediators may mask the behavioral differences across groups (which lead to their differing job locations), the models do not include job characteristics. Starting from the models considering the age of entering residential parenthood, women giving birth outside a union experience a motherhood penalty regardless of when they first become mothers. This finding suggests that the penalty for unpartnered mothers cannot be explained by such mothers' tendency to be younger. In fact, the relative pay disadvantage of unpartnered mothers to nonmothers is greater if the former became mothers at an older age. Similarly, the age of becoming fathers cannot explain why there is no premium for residential fathers whose children were born outside of marriage, as this lack of premium applies to those entering fatherhood at all ages. The model for women indicates that having a child within marriage is associated with a pay premium for those becoming mothers at an advanced age ($\geq$ 28) but a penalty for those doing so at a rather young age ($\leq$ 22). Likewise, the pay premium associated with having a child within marriage is greater for men entering fatherhood later in life. Perhaps for the very young parents, even if they consider meeting certain criteria as necessary for childbearing, they simply do not have sufficient time to ready themselves for the work-family conflict or provider responsibilities brought by childbearing, making their earnings trajectories differ from those following the same family formation sequence but at an older age.

Turning to the next set of models, the results indicate that having a child after marriage is associated with a pay premium for men of all ethnoracial groups, whereas being unpartnered at

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childbirth is linked to a penalty for women across ethnoracial identities. The generally similar patterns suggest that ethnoracial compositions of those having children in different relationship contexts cannot explain why their earnings trajectories diverge. Nevertheless, there are some ethnoracial differences concerning having children in cohabitation, perhaps reflecting how cohabitation is differently considered across ethnoracial groups. White mothers experience a pay penalty for each child born in cohabitation, while Hispanic mothers do not.[10] Among men with children born in cohabitation, Blacks earn significantly less than Whites, but it does not affect our argument that only men who marry before childbirth undergo a fatherhood premium. When including the interactions with the final educational level, the model results indicate that among parents who marry before childbearing, the high-achieving ones fare better. Men with at least some college education receive a relatively large fatherhood pay premium, but even those with less education experience a premium so long as their children were born in marriage. By contrast, women with college or more education undergo no penalty for each child born in marriage, but those with high school or less education encounter a pay disadvantage. It is possible that similar to very young mothers, women with low educational levels simply have insufficient means to take measures that could alter their post-childbearing earnings growth, regardless of how they perceive marriage and parenthood. Such mothers are also likely to have partners and social networks that are resource-poor, making the support they can draw from the partner or others around them limited. Nonetheless, the pay penalty for mothers giving birth while unpartnered does not depend on the mothers' eventual educational attainment. Even the highly educated among these mothers tend to be disadvantaged in earnings.

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[10] Although only the interaction with Hispanics is statistically significant, the effect (i.e., main + interaction effects) on log hourly earnings is no different from 0 for all minority groups. In this sense, White women are exceptional in that they face a motherhood penalty when having a child in cohabitation, but this penalty is still smaller than their penalty if having a child without a partner.

Finally, the last two columns in Table 5 show that pre-parenthood earnings trajectories do not fully explain the variation in parenthood earnings outcomes by childbearing context. Women who marry before first childbirth tend to have steeper earnings growth before entering parenthood. Nonetheless, even after accounting for the different earnings growth rates, children born to unpartnered women are still the only ones associated with pay penalties for the mothers. Likewise, controlling for earnings growth does not alter the fact that only children born in marriage bring fatherhood premiums. The finding that men who marry before childbearing do not have higher pre-parenthood earnings growth rate than those becoming fathers in cohabitation further suggests that earnings-based selectivity into different family formation sequences cannot account for the variation in fatherhood premiums by childbearing context. More likely, the two groups' differing views on what constitutes a good father—focusing on providing for the family versus involvement with the child—explains why only the former experience a fatherhood premium.

Conclusions

Despite the extensive research on the motherhood pay penalty and fatherhood pay premium, we hardly know how the changing family formation trajectories in recent cohorts have implications for the penalty and premium. Being one of the few that examine the parenthood earnings outcomes using longitudinal data from a contemporary cohort, our study shows that for the current generation, the parenthood-related pay advantage or disadvantage is only relevant to those who bear children in specific relationship contexts. Among women, having a child while unpartnered is associated with an earnings reduction after the childbirth, and this association exists for women who enter motherhood at various ages, belong to differing ethnoracial groups, and have divergent levels of educational attainment. The pay penalty for unpartnered mothers persists even

if they later transition to marriage. This penalty also remains after accounting for the selectivity by pre-parenthood earnings trajectories. By contrast, mothers of children born within the marriage or cohabitation face virtually no earnings disadvantage, even if they later become unpartnered.

Among men, those having children after marriage tend to experience an earnings boost after the child's arrival. Fathers living with children born in cohabitation or outside a union, however, are not similarly advantaged in pay. Even when unpartnered or cohabiting fathers transition into marriage, their earnings are still just on par with the levels before becoming fathers.

The findings just summarized are consistent with our proposition that for the current generation of parents, the relationship context of childbearing could signal how they view parenthood and its preconditions; how much commitment the father has to the child; and how much support they can draw from the child's other parent and people around them. Because having a child after marriage suggests the beliefs in prerequisites for parenthood and somewhat traditional father roles, men who do so are especially likely to enact changes to fulfil their provider role as they step into fatherhood, resulting in a fatherhood premium. Likewise, women of the same family formation trajectory could be readier and receive better support for the challenges motherhood imposes on their work. The changing gender norms and increased child involvement of married fathers are also likely to disproportionately benefit women who become mothers after marriage. Even women giving birth in cohabitation are relatively protected from the motherhood penalty because their partners are likely to perceive the childbirth as intended and put effort into the father-child relationship. By contrast, women becoming mothers while unpartnered are the least able to shield themselves from the job strain caused by childrearing, thus vulnerable to pay penalties.

By showing that married parents who arrived at the status via different paths fare differently in the labor market, our study suggests that neither identity theory nor the gender

division of labor alone is sufficient to explain who would experience a greater (or any) parenthood penalty or premium. The extents of women's pay disadvantage and men's pay advantage after childbirth could also be a function of how they perceive and envision parenthood, their ability to make changes corresponding to their expectations about parental roles, and the commitment and support they can receive from others. In an era of high heterogeneity in family trajectories, our study highlights the needs to understand the circumstances and considerations surrounding childbearing among those with different trajectories and to study how these circumstances and considerations manifest in parenthood experiences to shape worker outcomes.

Our result that rather than current partnering status, the relationship context of childbearing is relevant to the parent's earnings trajectories further suggests that employer discrimination may not be the only reason for the motherhood penalty and fatherhood premium. Although employers may know whether a worker is a married parent or not, it is unlikely they would know or keep track of the worker's sequence of marriage and childbearing. Thus, the parenthood premium or penalty tied to the sequence of marriage and childbearing more likely reflects how individuals' behavioral patterns drive earnings. Of course, this does not mean that parenthood-based discrimination does not exist. Rather, the explanation for the motherhood penalty and fatherhood premium is complex; the difficulty for parents to manage the demands at home and the workplace, individuals' own ideation about parenthood and behavioral responses to changes in their family roles, and employers' views concerning mothers and fathers may all play a part in shaping the economic consequences of having a child.

Because individuals are unlikely to plan out the entire family formation sequence based on short-term earnings projections, our findings also help address a common critique in the literature on parenthood and earnings—that is, the motherhood penalty and fatherhood premium may reflect

men's and women's decision to enter parenthood as they foresee earnings increases and decreases, respectively, in the near future (Killewald 2013; Mari 2019). Although individuals may decide to have a child when they anticipate earnings changes, this anticipation is unlikely to explain their decision to marry before or after they choose to become parents. The earnings projections hence cannot account for the motherhood penalty and fatherhood premium associated with the relationship context of childbearing.

As our analysis distinguishes children born in cohabitation from marriage or an unpartnered state, we also enhance the understanding about cohabitation and parenthood outcomes. Interestingly, we find that having a child in cohabitation is similar to having a child within marriage for women as far as the economic implication is concerned, whereas it is akin to childbearing while unpartnered for men. We suggest that cohabiting fathers' behavior might be the key to explaining both results. Men who cohabit at their child's birth could be similarly involved in the family planning and committed to their child as men who are married at that time, which helps alleviate the mother's childcare burden. At the same time, cohabiting fathers' conceptional separation of marriage from childbearing could make them less likely to consider the provider role, which is tied to gendered practices within marriage, as an essential part of being a good father. As a result, they could be similar to unpartnered fathers in their tendency not to enhance work effort considerably upon their child's arrival.

One limitation of this study is that the NLSY97 provides insufficient information about respondents' partner and the partner's relation with their coresident children. We therefore do not know how much the variation in parenthood earnings outcomes by family formation sequence has to do with the likelihood to form a union with the child's other parent. Our additional analysis, however, has shown that even when unpartnered mothers' marriage transitions are likely to be

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with their child's biological father (i.e., when they had a childbirth recently), they still encounter a sizable motherhood penalty, unlike mothers who marry prior to childbearing. Likewise, married fathers who experienced childbearing before marriage receive no fatherhood premium even if they spouse is likely their child's biological mother. Moreover, the presence of the other parent alone cannot explain the absence of penalty when mothers who gave birth within marriage are no longer married, neither can it elucidate why cohabiting fathers, who likely live with their coresident children's mother, receive no pay premiums. In comparison, our proposed explanation is more consistent with all these results.

We also must acknowledge that we lack direct, time-varying measures of individuals' views and expectations about parenthood or the support they receive from the other parent and their social circles. This limitation prohibits us from offering definitive reasons why the parenthood penalty or premium differs by childbearing context. The objective of our study, however, is not to demonstrate the mechanisms behind the variation in parenthood consequences by childbearing context. Rather, we contribute to the literature by showing that the heterogeneity in earnings outcomes among parents with the same current relationship status; our findings of how the motherhood penalty and fatherhood premium are conditional on the sequence of family formation are novel and important in their own right. Our analysis that explores alternative explanations also indicates that the relevance of the family formation sequence is not merely an artifact from the tendency for those who bear children within marriage to be older, more educated, from relatively privileged ethnoracial groups, or having a higher earnings potential prior to parenthood. The childbearing context is therefore crucial for our understanding of the uneven earnings trajectories among parents. Future endeavors to systematically follow how individuals envision, prepare, and gain support for parenthood will nevertheless help illuminate the mechanisms behind the differing

parenthood earnings outcomes by childbearing context.

At a more general level, this study demonstrates the importance of updating our knowledge about parenthood and economic wellbeing with contemporary data. As the family and career trajectories of the current generation continue to evolve, the wage implications of childbearing may also be changing. For the contemporary cohort examined in this study, for example, the average motherhood penalty per child is rather small, with only a certain subgroup of mothers facing a substantial pay disadvantage. With the fatherhood premium also observed just among men who marry and then become parents—a type of men who may be declining in number—it is possible that for the coming generations the concepts of motherhood penalty and fatherhood premium will be more important for our understanding of earnings disparities *within* than between gender groups. Future research should therefore pay more attention to how changes surrounding family and work contribute to increases in the heterogeneity in motherhood and fatherhood earnings experiences for newer generations.

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Table 1: Partnering status just before first coresident child's birth and afterwards

Status during residential parenthood	Women			Men		
	Status at first child's birth			Status at first child's birth		
	Married	Cohabiting	Unpartnered	Married	Cohabiting	Unpartnered
Never married, not cohabiting	0.00	18.08	52.63	0.00	8.18	15.60
Cohabiting	3.71	41.61	18.31	2.27	53.50	38.44
Married	86.45	34.27	23.10	94.74	35.71	41.33
Divorced/separated/widowed/other	9.83	6.05	5.96	3.09	2.61	4.63
Total	100.00	100.00	100.00	100.00	100.00	100.00

Note: All values are in percentage. The NLSY97 longitudinal weights were applied in calculating the values. The table includes 19,935 person-years for women and 10,537 person-years for men.

Table 2: Fixed-effects models predicting log hourly earnings

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Number of coresident children	-0.012**				0.045***			
	(0.004)				(0.005)			
No. of children born in marriage		-0.001	-0.009	0.001		0.069***	0.046***	0.042***
		(0.006)	(0.006)	(0.006)		(0.006)	(0.006)	(0.006)
No. of children born while cohabiting		-0.015	-0.019*	-0.010		0.004	-0.013	-0.015
		(0.008)	(0.008)	(0.008)		(0.009)	(0.009)	(0.009)
No. of children born while unpartnered		-0.045***	-0.043***	-0.043***		-0.011	-0.030*	-0.028*
		(0.007)	(0.007)	(0.007)		(0.013)	(0.014)	(0.013)
No. of children living elsewhere	-0.047***	-0.053***	-0.052***	-0.041***	-0.025***	-0.034***	-0.033***	-0.029***
	(0.012)	(0.012)	(0.012)	(0.011)	(0.007)	(0.007)	(0.007)	(0.006)
Human capital + location	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Partnering status	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Job characteristics (without occupation)	No	No	Yes	Yes	No	No	Yes	Yes
Occupation fixed effects	No	No	No	Yes	No	No	No	Yes
N	48,848	48,848	48,848	48,848	48,500	48,500	48,500	48,500

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models. The human capital variables included in the models are education, school enrollment, years of work experience, and number of employment breaks. The location variables include region and urban versus rural residence. Job characteristics include job tenure and tenure squared, full-time versus part-time status, self-employment status, and occupation fixed effects. All coefficients are available in the online supplement (Table S4).
† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 3: Fixed effects models predicting women's hourly earnings by parenthood and post-parenthood partnering status

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Partnering status (*ref.* never-married, not cohabiting):						
Cohabiting	0.038***	0.025***	0.038***	0.027**	0.041***	0.028***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)
Married	0.064***	0.044***	0.073***	0.055***	0.075***	0.052***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Divorced/separated/widowed/other	0.032*	0.015	0.036*	0.021	0.041**	0.028
	(0.016)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
No. of children born in marriage	-0.009	0.000	-0.010	0.002	-0.009	0.001
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
# children in marriage × married	0.002	0.007				
	(0.012)	(0.011)				
No. of children born while cohabiting	-0.019*	-0.010	0.004	0.003	-0.018*	-0.010
	(0.008)	(0.008)	(0.013)	(0.012)	(0.008)	(0.008)
# children while cohabiting× cohabiting			-0.017	-0.007		
			(0.014)	(0.013)		
# children while cohabiting× married			-0.049**	-0.026		
			(0.017)	(0.016)		
# children while cohabiting× divorced, etc.			-0.025	0.002		
			(0.024)	(0.022)		
No. of children born while unpartnered	-0.043***	-0.043***	-0.043***	-0.041***	-0.030***	-0.032***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)
# children while unpartnered × cohabiting					-0.010	-0.008
					(0.012)	(0.011)
# children while unpartnered × married					-0.050***	-0.041***
					(0.009)	(0.009)
# children while unpartnered× divorced, etc.					-0.025	-0.029
					(0.017)	(0.016)
No. of children living elsewhere	-0.052***	-0.041***	-0.052***	-0.041***	-0.052***	-0.041***
	(0.012)	(0.011)	(0.012)	(0.011)	(0.012)	(0.011)
Human capital+ location	Yes	Yes	Yes	Yes	Yes	Yes
Job characteristics	No	Yes	No	Yes	No	Yes
N	48,848	48,848	48,848	48,848	48,848	48,848

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models. The human capital variables included in the models are education, school enrollment, years of work experience, and number of employment breaks. The location variables include region and urban versus rural residence. Job characteristics include job tenure and tenure squared, full-time versus part-time status, self-employment status, and occupation fixed effects.
* $p < .05$ ** $p < .01$ *** $p < .001$

Table 4: Fixed effects models predicting men's hourly earnings by parenthood and post-parenthood partnering status

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Partnering status (*ref.* never-married, not cohabiting):						
Cohabiting	0.070***	0.050***	0.068***	0.051***	0.068***	0.047***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Married	0.135***	0.102***	0.138***	0.109***	0.137***	0.103***
	(0.010)	(0.009)	(0.010)	(0.010)	(0.010)	(0.009)
Divorced/separated/widowed/other	0.082***	0.062**	0.085***	0.068***	0.074***	0.057**
	(0.023)	(0.021)	(0.022)	(0.021)	(0.022)	(0.020)
No. of children born in marriage	0.048***	0.043***	0.047***	0.042***	0.046***	0.042***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
# children in marriage × married	-0.026	-0.020				
	(0.022)	(0.020)				
No. of children born while cohabiting	-0.013	-0.015	0.000	-0.002	-0.013	-0.015
	(0.009)	(0.009)	(0.033)	(0.033)	(0.009)	(0.009)
# children while cohabiting× cohabiting			-0.009	-0.006		
			(0.034)	(0.033)		
# children while cohabiting× married			-0.020	-0.017		
			(0.035)	(0.035)		
# children while cohabiting× divorced, etc.			-0.102	-0.088		
			(0.055)	(0.055)		
No. of children born while unpartnered	-0.031*	-0.029*	-0.030*	-0.026*	-0.050*	-0.051*
	(0.014)	(0.013)	(0.013)	(0.013)	(0.021)	(0.021)
# children while unpartnered × cohabiting					0.033	0.039
					(0.028)	(0.027)
# children while unpartnered × married					0.015	0.019
					(0.031)	(0.030)
# children while unpartnered× divorced, etc.					0.031	0.015
					(0.047)	(0.047)
No. of children living elsewhere	-0.033***	-0.029***	-0.033***	-0.029***	-0.032***	-0.029***
	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
Human capital+ location	Yes	Yes	Yes	Yes	Yes	Yes
Job characteristics	No	Yes	No	Yes	No	Yes
N	48,461	48,461	48,461	48,461	48,461	48,461

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models. The human capital variables included in the models are education, school enrollment, years of work experience, and number of employment breaks. The location variables include region and urban versus rural residence. Job characteristics include job tenure and tenure squared, full-time versus part-time status, self-employment status, and occupation fixed effects. All these variables are defined the same way as in Models 4 and 8 in Table 2.
* $p < .05$ ** $p < .01$ *** $p < .001$

Table 5: Fixed effects models predicting log hourly earnings with various interaction terms

	Age entering parenthood		Race-ethnicity		Education		Work experience	
	Women	Men	Women	Men	Women	Men	Women	Men
No. of children born in marriage	-0.023**	0.013***	-0.008	0.048***	-0.057***	0.022*	-0.004	0.056***
	(0.008)	(0.000)	(0.007)	(0.007)	(0.013)	(0.01)	(0.006)	(0.007)
× parenthood entry age 23-27	-0.006	0.032*						
	(0.012)	(0.013)						
× Parenthood entry age 28+	0.060***	0.056***						
	(0.012)	(0.013)						
× Black			-0.019	0.000				
			(0.016)	(0.020)				
× Hispanic			-0.009	-0.016				
			(0.011)	(0.012)				
× Other race/ethnicity			0.041	0.014				
			(0.033)	(0.022)				
× Some college and more					0.058***	0.033**		
					(0.014)	(0.011)		
No. of children born while cohabiting	-0.001	-0.016	-0.033**	0.004	-0.006	-0.023*	0.008	-0.005
	(0.010)	(0.014)	(0.011)	(0.014)	(0.012)	(0.011)	(0.009)	(0.010)
× parenthood entry age 23-27	-0.056**	0.004						
	(0.018)	(0.019)						
× Parenthood entry age 28+	-0.023	0.015						
	(0.022)	(0.022)						
× Black			0.018	-0.054**				
			(0.016)	(0.018)				
× Hispanic			0.045**	-0.013				
			(0.018)	(0.018)				
× Other race/ethnicity			0.060	-0.039				
			(0.054)	(0.064)				
× Some college and more					-0.020	0.024		
					(0.015)	(0.017)		
No. of children born while unpartnered	-0.029***	-0.009	-0.052***	-0.039	-0.032**	-0.024	-0.021**	-0.010
	(0.008)	(0.030)	(0.014)	(0.027)	(0.011)	(0.016)	(0.008)	(0.015)
× parenthood entry age 22-27	-0.046**	-0.018						
	(0.015)	(0.033)						
× Parenthood entry age 28+	-0.089***	-0.061						
	(0.024)	(0.036)						
× Black			0.015	0.017				

			(0.015)	(0.031)				
			0.002	0.004				
			(0.018)	(0.033)				
× Hispanic			0.024	0.119				
			(0.046)	(0.064)				
× Other race/ethnicity			0.063	-0.036				
			(0.059)	(0.051)				
× Some college and more					-0.020	-0.011		
					(0.013)	(0.026)		
Pre-parenthood work experience							0.008***	0.006***
							(0.001)	(0.002)
× married at 1st child's birth							0.015***	0.012***
							(0.002)	(0.002)
× cohabiting at 1st child's birth							0.000	0.012***
							(0.003)	(0.002)
× unpartnered at 1st child's birth							0.000	0.003
							(0.003)	(0.003)
× unknown at 1st child's birth							0.051	--
							(0.036)	
N	48,848	48,500	48,848	48,500	48,848	48,500	48,848	48,500

Note: All models also include variables shown in Models 3 and 7 in Table 2 (education, school enrollment, years of work experience, number of employment breaks, region, urban versus rural residence, and number of children living elsewhere), but the coefficients are omitted to conserve space.
* $p < .05$ ** $p < .01$ *** $p < .001$

Figure 1: Distribution of partnering status at various time points of first coresident child's life

Women

Men
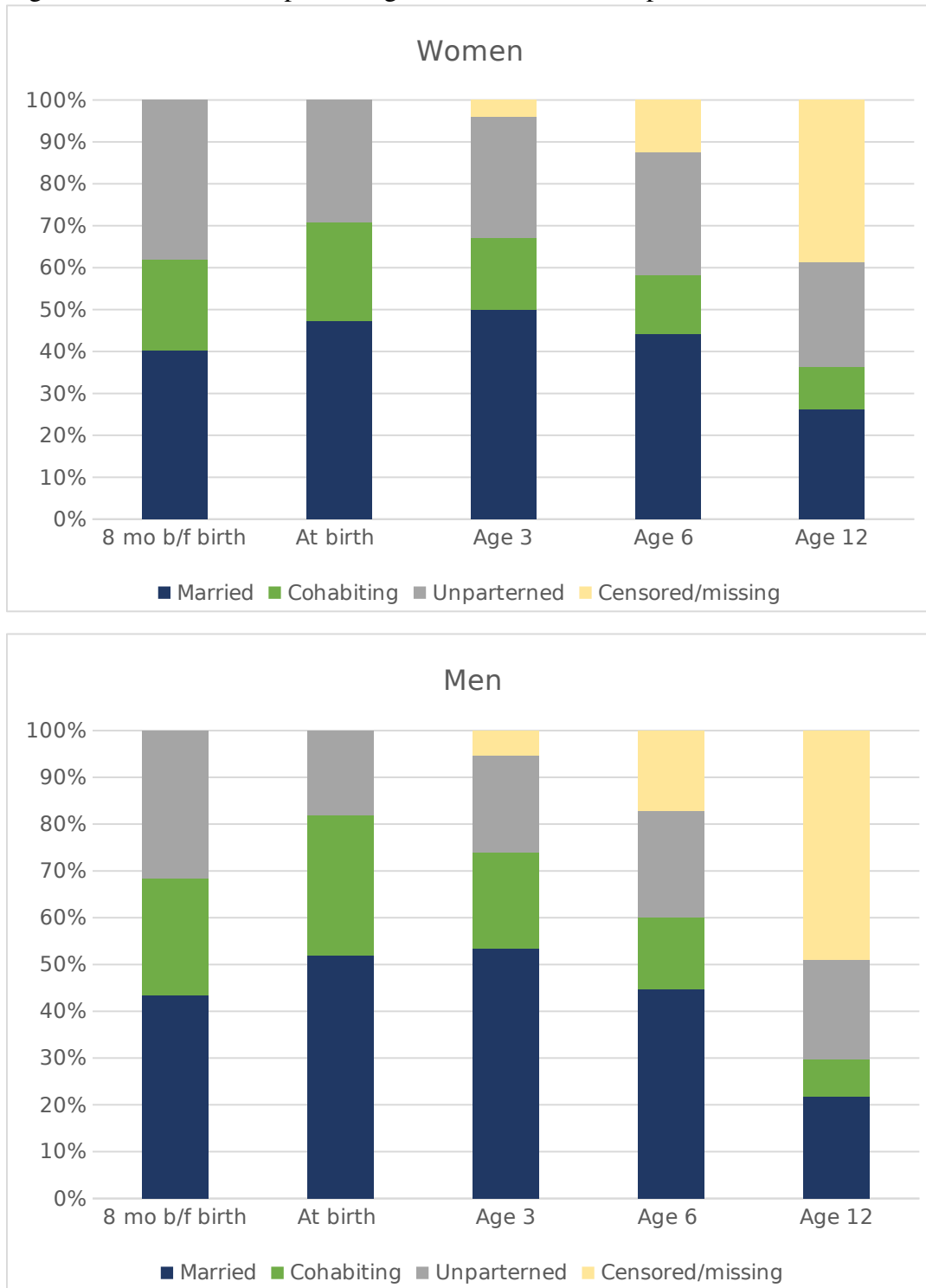
Note: Only respondents who have ever been observed to have a coresident child are included in the figure (3,704 women and 2,402 men). The category "censored/missing" mostly consists of respondents whose first coresident child had not reached the specific age at the last observation time, with just a few cases (<0.4%) whose marital status at that time was unreported. The NLSY97 longitudinal weights were applied in calculating the values.

Figure 2: Predicted Pay Penalties and Premiums by Family Trajectories
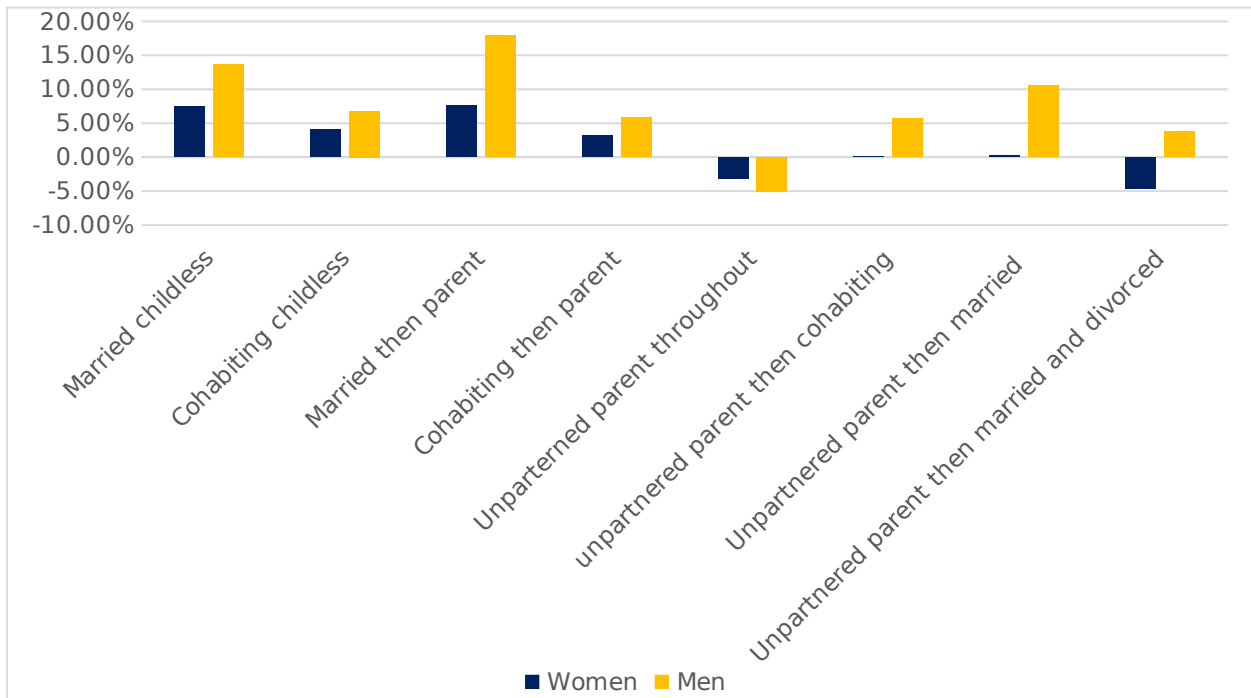
Note: The pay penalties and premiums are calculated from Model 5 in Table 3 for women and Model 5 in Table 4 for men. The "married then parent" and "cohabiting then parent" scenarios assume that the parents stay married and cohabiting, respectively.

Online Supplement

Table S1: Descriptive statistics of respondents at their last interview in the sample

|	Women		Men	
	Mean/percentage	S.D.	Mean/percentage	S.D.
Log hourly compensation	7.57	0.70	7.72	0.78
Number of children born in marriage	0.74	1.06	0.56	0.99
Number of children born while cohabiting	0.29	0.67	0.20	0.55
Number of children born while unpartnered	0.30	0.72	0.07	0.32
Number of children living elsewhere	0.16	0.58	0.34	0.87
Education:				
Less than high school	8.49		10.44	
High school	18.22		29.00	
Some college	36.23		34.62	
College and above	36.75		25.48	
Unreported	0.31		0.45	
Currently enrolled in school:				
No	88.38		90.64	
Yes	11.36		9.01	
Missing	0.25		0.35	
Work experience (in years)	13.35	6.19	13.58	6.41
Number of major employment breaks	2.52	2.32	2.36	2.30
Residential area:				
Rural	20.97		21.40	
Urban	77.87		77.63	
Unknown	1.15		0.97	
Region:				
Northeast	15.70		17.61	
Midwest	22.98		23.80	
South	38.89		35.34	
West	21.36		22.43	
Unknown	1.06		0.79	
Partnering status:				
Never married, not cohabiting	27.88		36.33	
Cohabiting	15.66		16.07	
Married	46.62		41.05	
Divorced/separated/other	9.85		6.55	
Job tenure (in years)	4.25	4.51	4.70	4.82
Job tenure missing	0.80		0.78	
Self-employed	8.19		9.73	
Full time employment	68.53		82.33	
Age entering residential parenthood:*				
<=22	31.60		13.63	
23-27	21.24		22.54	
28+	47.15		63.83	
Race-ethnicity:				
Non-Hispanic White	67.29		66.44	
Non-Hispanic Black	15.30		15.26	
Hispanic	12.29		13.31	
Other	5.12		4.99	
N	4167		4293	

Note: Other than the total number of observations (N), all numbers are in percentage except for those followed by standard deviations (S.D.), which are mean values. The NLSY97 longitudinal weights are applied.
*The last observed age is used here for those never entered residential parenthood.

Table S2: Patterns of first two coresident children's contexts of birth

	Women	Men
MM	44.37	57.28
UU	14.02	1.64
CC	12.23	14.62
CM	8.32	12.01
UC	7.90	6.19
UM	7.69	4.72
CU	3.26	1.45
MU	1.13	1.23
MC	1.08	0.86
Total	100.00	100.00

Note: The values are in percentage. Only respondents with two or more coresident children are included in the analysis. The NLSY97 longitudinal weights were applied in calculating the values. "M," "C," and "U" denote the child was born in marriage, in cohabitation, and while unpartnered, respectively. The first letter in the first column is the context of the first child's birth, and the second letter is the second child's. "CM," for example, means that the first child was born in cohabitation, while the second was in marriage.

Table S3: Patterns of first three coresident children's contexts of birth

	Women	Men
MMM	28.76	55.11
UUU	13.58	0.35
UMM	9.83	8.23
CCC	7.06	9.26
UCC	6.22	4.67
CMM	6.15	10.45
UUC	4.62	0.33
UCM	4.08	2.67
UCU	3.62	1.67
CCM	3.20	2.45
UUM	2.90	0.71
CCU	1.63	0.73
CMC	1.47	0.49
CUC	1.29	0.42
UMU	1.10	0.53
CUU	0.91	0.00
CUM	0.89	0.40
MMU	0.58	0.00
MMC	0.54	0.00
MUM	0.40	0.51
UMC	0.35	0.00
MCM	0.26	0.30
CMU	0.25	0.40
MCC	0.15	0.35
MUU	0.13	0.00
MCU	0.05	0.00
MUC	0.00	0.00
Total	100.00	100.00

Note: The values are in percentage. Only respondents with three or more children are included here. The NLSY97 longitudinal weights were applied in calculating the values. "M," "C," and "U" denote the child was born in marriage, in cohabitation, and while unpartnered, respectively. The first letter in the first column indicates the context of the first child's birth, followed by the second and third children's, in that order. "UMM," for example, means that respondents' first child was born while they were unpartnered, while the second and third were born in marriage.

Table S4: Fixed effects models predicting log hourly earnings

	Women				Men			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Number of coresident children	-0.012**				0.045***			
	(0.004)				(0.005)			
No. of children born in marriage		-0.001	-0.009	0.001		0.069***	0.046***	0.042***
		(0.006)	(0.006)	(0.006)		(0.006)	(0.006)	(0.006)
No. of children born while cohabiting		-0.015	-0.019*	-0.010		0.004	-0.013	-0.015
		(0.008)	(0.008)	(0.008)		(0.009)	(0.009)	(0.009)
No. of children born while unpartnered		-0.045***	-0.043***	-0.043***		-0.011	-0.030*	-0.028*
		(0.007)	(0.007)	(0.007)		(0.013)	(0.014)	(0.013)
No. of children living elsewhere	-0.047***	-0.053***	-0.052***	-0.041***	-0.025***	-0.034***	-0.033***	-0.029***
	(0.012)	(0.012)	(0.012)	(0.011)	(0.007)	(0.007)	(0.007)	(0.006)
Education (*ref.* less than high school):								
High school	0.049***	0.052***	0.049***	0.037***	0.081***	0.086***	0.087***	0.062***
	(0.012)	(0.012)	(0.012)	(0.011)	(0.012)	(0.012)	(0.012)	(0.011)
Some college	0.126***	0.129***	0.124***	0.087***	0.177***	0.179***	0.173***	0.119***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.011)	(0.011)	(0.011)	(0.011)
College or more	0.406***	0.405***	0.394***	0.296***	0.434***	0.426***	0.408***	0.282***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.018)	(0.017)	(0.018)	(0.018)
Unreported	0.216***	0.218***	0.205***	0.146**	0.344***	0.344***	0.336***	0.202***
	(0.053)	(0.053)	(0.053)	(0.052)	(0.066)	(0.066)	(0.066)	(0.061)
Enrolled in school (*ref.* no)								
Yes	-0.112***	-0.112***	-0.105***	-0.070***	-0.161***	-0.161***	-0.153***	-0.095***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)
Unknown	-0.029	-0.026	-0.021	0.000	-0.246**	-0.244**	-0.250**	-0.200*
	(0.057)	(0.057)	(0.058)	(0.055)	(0.086)	(0.086)	(0.086)	(0.085)
Partnering status (*ref.* never married, not cohabiting):								
Cohabiting			0.038***	0.025***			0.070***	0.049***
			(0.008)	(0.008)			(0.009)	(0.009)
Married			0.064***	0.043***			0.137***	0.103***
			(0.009)	(0.008)			(0.010)	(0.009)
Divorced/separated/other			0.033*	0.019			0.075***	0.057**
			(0.014)	(0.013)			(0.021)	(0.020)
Residence (*ref.* rural):								
Urban	0.010	0.010	0.009	0.009	0.031***	0.032***	0.027**	0.018*
	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.008)
Unknown	0.016	0.016	0.020	-0.003	-0.036	-0.036	-0.034	-0.040
	(0.074)	(0.073)	(0.074)	(0.074)	(0.133)	(0.133)	(0.132)	(0.127)
Region (*ref.* Northeast):								
Midwest	-0.043	-0.041	-0.042	-0.043	-0.040	-0.041	-0.041	-0.039
	(0.026)	(0.026)	(0.026)	(0.026)	(0.033)	(0.033)	(0.033)	(0.032)
South	-0.021	-0.02	-0.024	-0.032	-0.006	-0.007	-0.012	-0.027
	(0.021)	(0.021)	(0.021)	(0.021)	(0.027)	(0.027)	(0.027)	(0.026)
West	-0.013	-0.012	-0.012	-0.009	0.102**	0.102**	0.101**	0.094**
	(0.028)	(0.028)	(0.028)	(0.028)	(0.033)	(0.033)	(0.033)	(0.032)
Unknown	-0.061	-0.060	-0.070	-0.054	-0.035	-0.035	-0.045	-0.067

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(0.094)	(0.094)	(0.094)	(0.092)	(0.143)	(0.143)	(0.143)	(0.137)
Work experience	0.039***	0.039***	0.038***	0.027***	0.041***	0.041***	0.038***	0.029***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
No. of employment breaks	-0.010***	-0.008**	-0.009***	-0.010***	-0.009***	-0.006*	-0.007**	-0.010***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Job tenure				0.033***				0.031***
				(0.002)				(0.002)
Job tenure squared				-0.002***				-0.002***
				(0.000)				(0.000)
Missing job tenure				-0.023				-0.030
				(0.021)				(0.026)
Self-employed				-0.065*				0.151***
				(0.031)				(0.023)
Working full time				0.020**				0.020*
				(0.006)				(0.008)
Occupation fixed effects				Yes				Yes
Constant	6.921***	6.922***	6.917***	6.966***	6.951***	6.951***	6.951***	7.004***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.025)	(0.025)	(0.025)	(0.025)
N	48,848	48,848	48,848	48,809	48,500	48,500	48,500	48,500

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models.

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

Table S5: Fixed effects models predicting shifts in log hourly earnings with changes in unpartnered parents' family status

	Women		Men	
	Model 1	Model 2	Model 3	Model 4
No. of children born in marriage	0.001	0.001	0.042***	0.042***
	(0.006)	(0.006)	(0.006)	(0.006)
No. of children born while cohabiting	-0.010	-0.010	-0.015	-0.015
	(0.008)	(0.008)	(0.009)	(0.009)
No. of children born while unpartnered:	-0.027***		-0.014	
	(0.007)		(0.026)	
× never married, no child ≤ age 3	-0.016*		-0.082*	
	(0.007)		(0.033)	
× cohabiting, no child ≤ age 3	-0.027		-0.007	
	(0.016)		(0.033)	
× cohabiting, youngest child ≤ age 3	-0.003		0.006	
	(0.012)		(0.035)	
× married, no child ≤ age 3	-0.041***		-0.041	
	(0.011)		(0.04)	
× married, youngest child ≤ age 3	-0.049***		0.012	
	(0.011)		(0.034)	
× divorced, no child ≤ age 3	-0.022		-0.032	
	(0.026)		(0.057)	
× divorced, youngest child ≤ age 3	-0.045*		-0.012	
	(0.019)		(0.07)	
No. of older children (>3) born to unpartnered parents		-0.035***		-0.048*
		(0.007)		(0.023)
× cohabiting		-0.001		0.028
		(0.012)		(0.032)
× married		-0.038***		0.015
		(0.009)		(0.033)
× divorced/separated		-0.030		0.003
		(0.016)		(0.05)
No. of young children (≤3) born to unpartnered parents		-0.018		-0.061*
		(0.011)		(0.03)
× cohabiting		-0.040		0.070
		(0.023)		(0.041)
× married		-0.038		0.042
		(0.028)		(0.047)
× divorced/separated		0.019		0.094
		(0.053)		(0.125)
N	48,848	48,848	48,500	48,500

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models. In Models 2 and 4, we specifically calculated the number of children who were born while respondents were unpartnered and of a certain age range. All models also include variables shown in Models 3 and 7 in Table 2 (education, school enrollment, years of work experience, number of employment breaks, region, urban versus rural residence, and number of children living elsewhere), but the coefficients are omitted to conserve space.
* $p < .05$ ** $p < .01$ *** $p < .001$

Table S6: Fixed effects models predicting shifts in log hourly earnings with changes in cohabiting parents' family status

	Women		Men	
	Model 1	Model 2	Model 3	Model 4
No. of children born in marriage	0.000	0.001	0.041***	0.043***
	(0.006)	(0.006)	(0.006)	(0.006)
No. of children born while unpartnered	-0.044***	-0.043***	-0.028*	-0.027*
	(0.007)	(0.007)	(0.013)	(0.013)
No. of children born while cohabiting:	0.012		-0.015	
	(0.014)		(0.032)	
× never married, no child ≤ age 3	-0.029		0.016	
	(0.015)		(0.051)	
× cohabiting, no child ≤ age 3	-0.036*		-0.033	
	(0.016)		(0.035)	
× cohabiting, youngest child ≤ age 3	-0.016		0.011	
	(0.015)		(0.033)	
× married, no child ≤ age 3	-0.042*		-0.037	
	(0.018)		(0.037)	
× married, youngest child ≤ age 3	-0.032		0.019	
	(0.023)		(0.036)	
× divorced, no child ≤ age 3	-0.016		-0.068	
	(0.025)		(0.061)	
× divorced, youngest child ≤ age 3	0.003		-0.085	
	(0.035)		(0.07)	
No. of older children (>3) born to cohabiting parents		-0.008		0.000
		(0.013)		(0.035)
× cohabiting		0.000		-0.017
		(0.013)		(0.036)
× married		-0.019		-0.024
		(0.017)		(0.037)
× divorced/separated		0.010		-0.092
		(0.023)		(0.058)
No. of young children (≤3) born to cohabiting parents		0.046*		-0.022
		(0.022)		(0.061)
× cohabiting		-0.050		0.028
		(0.026)		(0.062)
× married		-0.036		0.023
		(0.03)		(0.065)
× divorced/separated		0.031		-0.039
		(0.086)		(0.126)
N	48,848	48,848	48,500	48,500

Note: Values in parentheses are robust standard errors. The NLSY97 longitudinal weights were applied to estimate the models. In Models 2 and 4, we specifically calculated the number of children who were born while respondents were cohabiting and of a certain age range (≤3 or >3). All models also include variables shown in Models 3 and 7 in Table 2 (education, school enrollment, years of work experience, number of employment breaks, region, urban versus rural residence, and number of children living elsewhere), but the coefficients are omitted to conserve space.
* $p < .05$ ** $p < .01$ *** $p < .001$